Annual | 2019

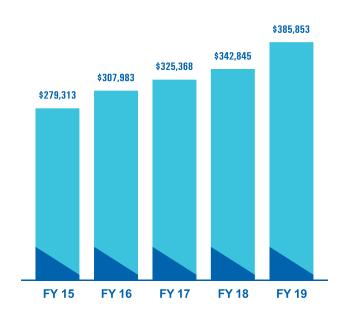




"We remain focused on running the business consistent with our value-for-money philosophy that we believe provides shareholder value in the long-term"

TOTAL REVENUE (in \$000)

CASH & SHORT-TERM INVESTMENTS (in \$000)

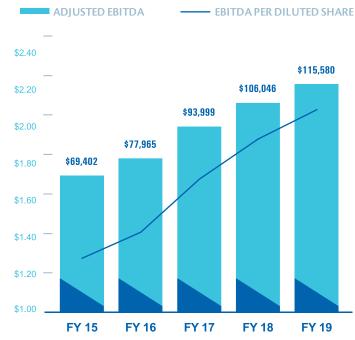




DIVIDEND PER SHARE

\$0.40 \$0.34 \$0.22 \$0.22 FY 15 FY 16 FY 17 FY 18 FY 19

ADJUSTED EBITDA (in \$000s)



Chairman's Message

Enghouse achieved record results in fiscal 2019, growing revenue by 12.5% to \$385.9 million while maintaining adjusted EBITDA margins at the top end of our range at 30%. We also expanded our global footprint in France, the Netherlands and Japan and broadened our product suite through acquisitions. Tactical investments were made to improve organic growth over time by expanding our direct sales force and enhancing customer success for mutual benefit. We have focused on enhancing our local presence and tailoring our go-to-market approach to meet regional and geopolitical needs, which has been integral to supporting customers and driving cross-selling efforts as well as generating new sales.

The results underscored a year of significant growth, operational success and strategic progress, deploying a record \$101.2 million in capital to complete six acquisitions. These complementary acquisitions, in addition to absorbing their operational and administrative capacities, introduced solutions for the growing video collaboration market, an IPTV solution and E-ticketing and automated fare collection solutions for public transportation operators.

Integrating six global businesses with a diversity of products and markets was made possible by our prior years' investment in accounting and reporting systems as well as additional corporate resources. As such, acquisitions were quickly integrated into our two operating segments, while restructuring was mostly completed in the fiscal year.

Despite deploying over \$100 million in cash on acquisitions, funding both acquisition-related restructuring initiatives and legacy working capital obligations as well as paying almost \$22 million in dividends, we closed the fiscal year with \$150.3 million in cash and cash equivalents. With these resources, we remain committed to growing the business organically and acquiring businesses that will be accretive to earnings.

Going forward, we remain steadfast in running a profitable business, consistent with our value-for-money philosophy that we believe increases shareholder value over the long-term. We would like to take this opportunity to thank our customers, shareholders as well as our operations and administrative teams for their continued loyalty.

Stephen J. Sadler

Chairman of the Board and

Chief Executive Officer

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The following Management Discussion and Analysis ("MD&A") has been prepared as of December 12, 2019 and all information contained herein is current as of that date unless otherwise indicated. For a complete understanding of our business environment, risks, trends and uncertainties and the effect of critical accounting policies and estimates on our results, this MD&A should be read in conjunction with Enghouse Systems Limited's ("Enghouse Systems") and its subsidiaries (together "Enghouse", "we" "us" "our" or "the Company") fiscal 2019 audited consolidated financial statements and the notes thereto. This MD&A covers the consolidated results of operations, financial condition and cash flows of Enghouse Systems and its subsidiaries, all wholly owned, for the year ended October 31, 2019.

Unless otherwise noted, the results reported herein have been prepared in accordance with International Financial Reporting Standards ("IFRS") and are presented in Canadian dollars, stated in thousands, except per share amounts and as otherwise indicated.

This document is intended to assist the reader in better understanding operations and key financial results as of the date of this report. The consolidated financial statements and the MD&A have been reviewed by the Company's Audit Committee and approved by its Board of Directors.

Non-IFRS measures and forward-looking statements

The Company uses non-IFRS measures to assess its operating performance. Securities regulations require that companies caution readers that earnings and other measures adjusted to a basis other than IFRS do not have standardized meanings and are unlikely to be comparable to similar measures used by other companies. Accordingly, they should not be considered in isolation. The Company uses Adjusted EBITDA as a measure of operating performance. Therefore, Adjusted EBITDA may not be comparable to similar measures presented by other issuers. Adjusted EBITDA is calculated based on results from operating activities adjusted for depreciation of property and equipment, and special charges for acquisition related restructuring costs. Management uses Adjusted EBITDA to evaluate operating performance as it excludes amortization of software and intangibles (which is an accounting allocation of the cost of software and intangible assets arising on acquisition), any impact of finance and tax related activities, asset depreciation, foreign exchange gains and losses, other income and restructuring costs primarily related to acquisitions.

Certain statements made or incorporated by reference in this MD&A are forward-looking and relate to, among other things, anticipated financial performance, business prospects, strategies, regulatory developments, new services, market forces, commitments and technological developments. By its nature, such forward-looking information is subject to various risks and uncertainties, including those discussed in this MD&A or in documents incorporated by reference in this MD&A, such as Enghouse Systems' Annual Information Form, which could cause the Company's actual results and experience to differ materially from the anticipated results or other expectations expressed herein. Readers are cautioned not to place undue reliance on this forward-looking information, and the Company shall have no obligation to update publicly or revise any forward-looking information, whether as a result of new information, future events or otherwise, except in accordance with applicable securities laws. This report should be viewed in conjunction with the Company's other publicly available filings, copies of which are filed electronically on SEDAR at www.sedar.com.

Corporate overview

Enghouse is a Canadian publicly traded company (TSX:ENGH) that develops enterprise software solutions for a number of vertical markets. The Company is organized around two business segments: the Interactive Management Group ("IMG") and the Asset Management Group ("AMG").

IMG specializes in customer interaction software and services that are designed to enhance customer service, increase efficiency and manage customer communications across the enterprise. Core

technologies include contact center, attendant console, interactive voice response, dialers, video collaboration, agent performance optimization and analytics that support any telephony environment, and may be deployed on-premise or in the cloud. Its customers are varied and include insurance companies, telecoms and banks as well as technology, health care and hospitality companies.

AMG provides a portfolio of products primarily to telecom service providers. Its products include Operations Support Systems (OSS), Business Support Systems (BSS), Mobile Value Added Services (VAS) solutions, video and IPTV services as well as data conversion services. AMG also provides fleet routing, dispatch, scheduling, transit e-ticketing and automated fare collection, communications and emergency control center solutions for the transportation, government, first responders, distribution and security sectors.

The Company continues to focus on building a consistently profitable enterprise software company with a diversified product suite and global market presence. The Company emphasizes the importance of recurring revenue streams to increase shareholder value and the predictability of its operating results. The objective is to achieve this through a combination of organic growth and acquisitions. While the Company continues to develop and enhance its existing product portfolio, it is also important to augment and expedite this strategy with new and complementary technology, products and services obtained through acquisition. This dual-faceted approach will enable the Company to provide a broader spectrum of products and services to its customer base more quickly than through organic means alone.



Key events

On January 25, 2019, the Company completed a two-for-one share split. Comparative information has been updated retrospectively. Subsequent to the split, the Company also increased its dividend, as it has done for each of the past eleven years, to \$0.11 per common share.

We remain committed to acquisitions, completing six acquisitions in fiscal 2019 for an aggregate purchase price of \$101.2 million net of cash received. These complementary acquisitions have expanded the revenue base of both IMG and AMG while also extending our international footprint. New local offices in France, the Netherlands and Japan allow us to provide localized support, sales and expertise for our newly acquired solutions and existing suite of products. Meanwhile, new products such as Vidyo provide opportunities to integrate with existing solutions and cross-sell across established geographic markets. Vidyo will now be cross-sold by both IMG and AMG in their local jurisdictions.

Details of our acquisitions during fiscal 2019 are as follows:

Acquisition*	Acquisition Date	Segment	Headquarters	Business
Telexis Solutions B.V and Telexis Solutions B.V ("Telexis")	November 8, 2018	AMG	The Hague (Netherlands)	E-ticketing and automated fare collection solutions for public transportation agencies/operators.
Capana Sweden AB ("Capana")	November 9, 2018	AMG	Gothenburg (Sweden)	End-to-end, integrated software platform for wholesale billing and partner settlements for telecoms.
ProOpti AB ("ProOpti")	February 14, 2019	IMG	Stockholm (Sweden)	Expense management and technology optimization solutions for telecoms.
Vidyo, Inc. ("Vidyo")	May 14, 2019	IMG	Hackensack (United States)	Enterprise-class video software solutions supporting visual communications across diverse end-points, networks of varying bandwidth and geographically dispersed locations.
Espial Group Inc. ("Espial")	May 24, 2019	AMG	Ottawa (Canada)	Client, server and cloud software solutions and system integration services that help service providers launch next generation video offerings.
Eptica S.A. ("Eptica")	October 22, 2019	IMG	Boulogne (France)	Customer engagement software solutions powered by artificial intelligence that make the customer experience a key link in their value chain.

^{*}all acquisitions were completed by acquiring 100% of the issued and outstanding shares. Results are included in operations from the date of acquisition.

Quarterly results of operations

The following table sets forth certain unaudited information for each of the eight most recent quarters (the last of which ended October 31, 2019). Our operating results may fluctuate quarterly, mainly as a result of the timing of certain large software license and hardware sales. Our quarterly results may also be influenced by foreign exchange, timing of new acquisitions, and changes in staffing and infrastructure. See "Risks and Uncertainties" for more details.

For the three months ending	Total revenue	Net income	Basic EPS	Diluted EPS	Cash and short-term investments	Total assets
	\$	\$	\$	\$	\$	\$
October 31, 2019	109,331	24,687 ¹	0.45	0.45	150,269	590,600
July 31, 2019	101,274	14,661	0.27	0.27	141,334	575,084
April 30, 2019	89,203	16,537	0.30	0.30	205,519	540,351
January 31, 2019	86,045	14,964	0.27	0.27	190,537	526,442
Year ended Oct. 31, 2019	385,853	70,849	1.30	1.29	150,269	590,600
October 31, 2018	85,822	19,552 ¹	0.36	0.36	193,937	495,200
July 31, 2018	86,743	16,062	0.30	0.29	178,439	491,269
April 30, 2018	85,205	15,318	0.28	0.28	155,319	487,970
January 31, 2018	85,075	6,813 ²	0.13	0.12	144,967	471,684
Year ended Oct. 31, 2018	342,845	57,745 ²	1.06	1.06	193,937	495,200
Year ended Oct. 31, 2017	325,368	50,842	0.95	0.94	130,345	461,837

^{1.} Includes credit adjustment to tax provision of \$3.0 million in fiscal 2019 and \$2.4 million in fiscal 2018 on the recognition of deferred tax assets related to non-capital losses.

^{2.} Includes accrual adjustment of U.S. \$6.2 million relating to The United States Tax Cuts and Jobs Act as described in the Income Tax Expense section of the MD&A.

Results of operations

The following table provides details regarding operating results for the three and twelve months ended October 31, 2019.

(in thousands of Canadian dollars except per share amounts)

For the periods ended		Three mon	ths			Twelve months			
October 31	2019 \$	2018 \$	Varian \$	ce %	2019 \$	2018 \$	Variand \$	ce %	
Revenue	109,331	85,822	23,509	27.4	385,853	342,845	43,008	12.5	
Direct costs	32,382	24,893	7,489	30.1	118,803	103,422	15,381	14.9	
Revenue, net of direct costs	76,949	60,929	16,020	26.3	267,050	239,423	27,627	11.5	
As a % of revenue	70.4%	71.0%			69.2%	69.8%			
Operating expenses Special charges	43,731 677	33,528 57	10,203 620	30.4 1,088	153,873 1,203	135,788 390	18,085 813	13.3 208.5	
Results from operating activities	32,541	27,344	5,197	19.0	111,974	103,245	8,729	8.5	
As a % of revenue	29.8%	31.9%			29.0%	30.1%			
Amortization of acquired software and customer relationships	(9,244)	(6,386)	(2,858)	(44.8)	(31,697)	(28,149)	(3,548)	(12.6)	
Foreign exchange (losses) gains	(367)	1,064	(1,431)	(134.5)	66	599	(533)	(89.0)	
Finance income	331	198	133	67.2	1,805	476	1,329	279.2	
Finance expenses	(10)	(79)	69	87.3	(76)	(213)	137	64.3	
Other income	1,765	136	1,629	1,198	2,176	2,076	100	4.8	
Income before income taxes Provision for income taxes	25,016 329	22,277 2,725	2,739 (2,396)	12.3 (87.9)	84,248 13,399	78,034 20,289	6,214 (6,890)	8.0 (34.0)	
Net Income	24,687	19,552	5,135	26.3	70,849	57,745	13,104	22.7	
Basic earnings per share Diluted earnings per share	0.45 0.45	0.36 0.36	0.09 0.09	25.0 25.0	1.30 1.29	1.06 1.06	0.24 0.23	22.6 21.7	
Operating cash flows excluding changes in working capital Operating cash flows	33,854 21,729	29,522 24,034	4,332 (2,305)	14.7 (9.6)	118,516 81,375	108,276 98,255	10,240 (16,880)	9.5 (17.2)	

Revenue

The following table provides details regarding revenue for the three and twelve months ended October 31, 2019.

	T	Three months			Twelve months		
For the periods ended October 31	2019	2018	Variance	2019	2018	Variance	
	\$	\$	\$	\$	\$	\$	
Software licenses Hosted and maintenance services Professional services Hardware	26,765	20,260	6,505	89,093	85,682	3,411	
	60,931	48,459	12,472	219,630	191,080	28,550	
	16,962	15,294	1,668	60,889	58,266	2,623	
	4,673	1,809	2,864	16,241	7,817	8,424	
Revenue	109,331	85,822	23,509	385,853	342,845	43,008	
Interactive Management Group Asset Management Group	60,036	45,788	14,248	204,899	189,286	15,613	
	49,295	40,034	9,261	180,954	153,559	27,395	
Revenue	109,331	85,822	23,509	385,853	342,845	43,008	

Revenue for the three months ended October 31, 2019 totaled \$109.3 million, an increase of \$23.5 million or 27.4% from the same period in the prior year. The variance is explained by:

- An increase of \$12.5 million in hosted and maintenance revenue, attributable to new acquisitions and incremental maintenance on new license sales, net of churn on existing customers. Hosted and maintenance services represent an important strategic source of revenue given its predictable and recurring nature and represented 55.7% of total revenues for the period (2018–56.5%).
- An increase of \$6.5 million in software license revenue predominately from acquisitions and increased term-based license sales that are recognized up-front under IFRS 15. IFRS 15 introduced more volatility to revenue as the new standard requires up-front recognition of revenue on certain term license arrangements that were previously recognized over time under IAS 18. This increased license revenue by \$0.9 million (\$5.1 million for the year). On adoption of IFRS 15 the 2018 comparative amounts were not adjusted. Instead, the modified retrospective approach was applied and the 2018 increases were applied to retained earnings and are comparatively lower. Consequently, \$2.2 million of revenue was booked to retained earnings that otherwise would have been recognized as revenue during fiscal 2019.
- An increase of \$2.9 million in hardware revenue attributable to additional hardware revenue from Vidyo and Telexis, which were acquired during the fiscal year. Hardware is sold to customers as an added service to complement our software offerings and is generally not a core product offering.
- An offsetting decrease of \$1.7 million (\$4.3 million for the year) due to foreign exchange as the Canadian dollar strengthened against all major foreign currencies excluding the U.S. dollar, as calculated by applying the change in the average exchange rates from 2018 to 2019 to our foreign currency denominated revenue.

Revenue for the twelve months ended October 31, 2019 was \$385.9 million, an increase of \$43.0 million or 12.5% compared to \$342.8 million for 2018. The variance is attributable to the same reasons discussed above.

Interactive Management Group

IMG Revenue for the three months ended October 31, 2019 was \$60.0 million, an increase of \$14.2 million or 31.1% from same period in the prior year. The variance is explained by:

- An increase of \$9.1 million in hosted and maintenance revenue primarily attributable to new acquisitions as well as incremental maintenance on new sales.
- An increase of \$3.0 million in software license revenue attributable to organic growth and acquisitions.
- An increase of \$2.1 million in hardware revenue primarily attributable to Vidyo, which was acquired during the fiscal year.

Revenue for the twelve months ended October 31, 2019 was \$204.9 million, an increase of \$15.6 million or 8.2% compared to the same period in prior year. The increase is primarily the result of acquisitions and incremental hosted and maintenance revenue.

Asset Management Group

AMG revenue for the three months ended October 31, 2019 was \$49.3 million, an increase of \$9.3 million or 23.1% from same period in the prior year. The variance is explained by:

- An increase of \$5.0 million in hosted and maintenance revenue primarily attributable to new acquisitions as well as incremental maintenance on new sales.
- An increase of \$3.5 million in software license revenue attributable to acquisitions.
- An increase of \$0.8 million in hardware revenue primarily attributable to Telexis, which was acquired during the fiscal year.

Revenue for the twelve months ended October 31, 2019 was \$181.0 million, an increase of \$27.4 million or 17.8% compared to the same period in prior year. In addition to the reasons discussed above, the inclusion of a full year's activity for XConnect GmbH, Simatech A/S and Mobilethink A/S, which were acquired in fiscal 2018, further increased revenues for the year.

Direct costs

The following table provides details regarding direct costs for the three months and twelve months ended October 31, 2019.

	Т	Three months			Twelve months		
For the periods ended October 31	2019 \$	2018 \$	Variance \$	2019 \$	2018 \$	Variance \$	
Software licenses	1,403	1,396	7	5,461	6,863	(1,402)	
Services	27,156	22,431	4,725	101,281	91,766	9,515	
Hardware	3,823	1,066	2,757	12,061	4,793	7,268	
Direct Costs	32,382	24,893	7,489	118,803	103,422	15,381	
As a % of revenue							
Software licenses	5.2%	6.9%		6.1%	8.0%		
Services	34.9%	35.2%		36.1%	36.8%		
Hardware	81.8%	58.9%		74.3%	61.3%		
Total	29.6%	29.0%		30.8%	30.2%		
Interactive Management Group	15,681	11,597	4,084	53,559	49,087	4,472	
Asset Management Group	16,701	13,296	3,405	65,244	54,335	10,909	
Direct Costs	32,382	24,893	7,489	118,803	103,422	15,381	
As a % of revenue							
Interactive Management Group	26.1%	25.3%		26.1%	25.9%		
Asset Management Group	33.9%	33.2%		36.1%	35.4%		

Direct costs for the three months ended October 31, 2019 were \$32.4 million or 29.6% of revenue compared to \$24.9 million or 29.0% of revenue in the prior fiscal year. The relative increase in direct costs reflects the integration of newly acquired product lines, particularly Vidyo and Telexis. For these businesses, hardware is sold at lower margins than traditionally achieved on our existing products. With the exception of hardware, which diluted the overall margin, margins have improved on both software licenses and services.

For the fiscal year ended October 31, 2019, direct costs totaled \$118.8 million or of 30.8% revenue compared to \$103.4 million or 30.2% of revenue in the same period in the prior year for the same reasons discussed for the guarter.

Interactive Management Group

IMG direct costs for the three months ended October 31, 2019 were \$15.7 million or 26.1% of segment revenue compared to \$11.6 million or 25.3% of revenue in the same period in prior year. The decline in margins in IMG is attributable to lower margins on Vidyo hardware. The lower hardware margins combined with increased volume of hardware sales decreased the overall margins despite improved margins on services and stable software margins compared to the same period in the prior year.

For the year ended October 31, 2019 license margins improved while direct costs as a percentage of revenue increased to 26.1% from 25.9% for the same reasons as discussed for the quarter, while license margins improved compared to the same period in the prior year.

Asset Management Group

AMG direct costs were \$16.7 million or 33.9% of segment revenue for the three months ended October 31, 2019 compared to \$13.3 million or 33.2% of revenue in the same period in the prior year. The increase is a result of a higher volume of relatively lower-margin hardware sales, primarily from Telexis, partially offset by improved margins on software licenses.

For the year ended October 31, 2019 direct costs as a percentage of revenue increased to 36.1% from 35.4% for the same reasons discussed for the quarter.

Overall, the lower overall margins in AMG compared to IMG reflect higher relative contributions from lower margin hardware, professional services and hosted services revenue in the AMG product mix.

Revenue, net of direct costs

Revenue, net of direct costs for the three months ended October 31, 2019 increased by \$16.0 million to \$76.9 million or 70.4% of revenue compared to \$60.9 million or 71.0% in the same period in the prior year. The increase in revenue, net of direct costs is attributable to incremental sales and services revenue. For the same reasons, revenue, net of direct costs for the year ended October 31, 2019, increased by \$27.6 million to \$267.1 million or 69.2% of revenue compared to \$239.4 million or 69.8% in the prior fiscal year.

Operating expenses

The following table provides details regarding operating expenses for the three and twelve months ended October 31, 2019.

	T	nree months		Tv	Twelve months		
For the periods ended October 31	2019 \$	2018 \$	Variance \$	2019 \$	2018 \$	Variance \$	
Selling, general and administrative	25,635	21,777	3,858	92,421	86,209	6,212	
Research and development	17,292	11,209	6,083	59,049	47,168	11,881	
Depreciation	804	542	262	2,403	2,411	(8)	
Special charges	677	57	620	1,203	390	813	
Operating expenses	44,408	33,585	10,823	155,076	136,178	18,898	
As a % of revenue							
Selling, general and administrative	23.4%	25.4%		24.0%	25.1%		
Research and development	15.8%	13.1%		15.3%	13.8%		
Depreciation	0.7%	0.6%		0.6%	0.7%		
Special charges	0.6%	0.1%		0.3%	0.1%		
Operating expenses	40.6%	39.1%		40.2%	39.7%		

Operating expenses for the three months ended October 31, 2019 totaled \$44.4 million, an increase of \$10.8 million or 32.2% from the same period in the prior year. The variance is explained by:

- An increase of \$6.1 million in research and development expense from new acquisitions.
 Research and development expense is equivalent to 15.8% of revenue compared to 13.1% in the
 same period in prior year. The higher rate of spending is largely a result of new development
 initiatives for Vidyo products and enhancements to Espial's IPTV solution. Research and
 development expenses are net of government grants and investment tax credits.
- An increase of \$3.9 million in selling, general and administrative expense as a result of incremental costs from acquisitions. This was mitigated by administrative cost synergies and operating cost efficiencies that reduced selling, general and administrative expense from 25.4% of revenue in 2018 to 23.4% in 2019.

On a consolidated basis, we had 1,680 employees as at October 31, 2019 compared to 1,446 at October 31, 2018, which includes additional headcount from acquisitions, net of attrition.

Operating expenses for the twelve months ended October 31, 2019 totaled \$155.1 million, an increase of \$18.9 million or 13.9% from the same period in the prior year. Operating expenses for the year represented 40.2% of revenue compared to 39.7% in the prior year. The variance is attributable to the factors discussed above and includes restructuring costs related to acquisitions.

Foreign exchange

The majority of our revenue is from sales denominated in foreign currencies. We do not hedge foreign currency exposure as most of our major international operations fund operating expenses with local operating cash flow surpluses that provide a natural hedge. While foreign exchange might have a significant impact on both revenue and expenses, the net impact to results from operating activities is lessened. This will also affect the relative cost of foreign currency denominated acquisitions stated in Canadian dollars.

During the three months ended October 31, 2019, the Canadian dollar strengthened against all major currencies other than the U.S. dollar, compared to the same period in prior year. As result, in the fourth

quarter, there was a negative impact to revenue of \$1.7 million reported in Canadian dollars and a positive impact to operating costs of \$1.4 million. For the fiscal year, foreign exchange negatively impacted revenue by \$4.3 million while operating costs were positively impacted by \$3.0 million compared to the same period in the prior year.

For the three months ended October 31, 2019, we recognized foreign exchange losses of \$0.4 million related to foreign currency denominated monetary assets and liabilities in the current year compared to gains of \$1.1 million in the same period in the prior year. The loss was a result of the strengthening of the Canadian dollar against international currencies, other than the U.S. dollar, on Canadian dollar denominated monetary assets and liabilities on functional currency books denominated in foreign currencies.

For the twelve months ended October 31, 2019, we recognized foreign exchange gains of \$0.1 million compared to gains of \$0.6 million in the prior year. The gain was the result of a weakening of the Canadian dollar against the U.S. dollar and pound sterling, which rallied in the final month of the year.

Translation gains or losses incurred upon consolidation of our foreign operations' statements of financial position into Canadian dollars are included in our Accumulated other comprehensive income (loss) account on the Consolidated Statements of Financial Position.

Amortization of software and customer relationships

Amortization expense for acquired software and customer relationships for the three and twelve months ended October 31, 2019 increased by \$2.9 million to \$9.2 million and by \$3.5 million to \$31.7 million respectively, compared to the same periods in the prior year. Both variances are attributable to incremental charges from the current year's acquisitions as well as the full year amortization on fiscal 2018 acquisitions, which added \$0.5 million incrementally in the fiscal year.

Finance income

Finance income for the three and twelve months ended October 31, 2019 increased by \$0.1 million and \$1.3 million respectively, compared to the same periods in the prior year. Both variances are attributable to larger average net invested cash balances and higher yields from an improved cash management process.

Other income

Other income for the three and twelve months ended October 31, 2019 increased by \$1.6 million and \$0.1 million respectively, compared to the same periods in the prior year. Increases are attributable to both realized gains as well as unrealized gains on our investments in equity positions carried at fair value with significant unrealized gains recognized in the fourth quarter in accordance with IFRS 9, which was applied on a modified retrospective basis.

Income tax expense

Income tax expense for the three months ended October 31, 2019 decreased by \$2.4 million to \$0.3 million and \$6.9 million to \$13.4 million respectively, compared to the same periods in prior year. For the three and twelve months ended October 31, 2019, our effective tax rate was 1.3% and 12.2% respectively, compared to 15.9% and 26.0% for the same periods in the prior year. The decrease in both periods is attributable to adjustments booked to our tax provision reflecting the recognition of deferred tax assets related to non-capital losses of \$3.0 million compared to \$2.4 million recorded in the fourth quarter of the prior year as well as adjustments for prior periods.

For three and twelve months ended October 31, 2019, we paid \$7.2 million and \$21.4 million respectively in tax instalments compared to \$5.2 million and \$16.3 million in the same periods in the prior year.

Net income

Net income for the three and twelve months ended October 31, 2019 increased by \$5.1 million and \$13.1 million to \$24.7 million and \$70.8 respectively, compared to the same periods in the prior year. The increase in profitability reflects improved revenue, operating cost synergies and contributions from acquisitions during the fiscal year.

For three and twelve months ended October 31, 2019, diluted earnings per share was \$0.45 and \$1.29 respectively compared to \$0.36 and \$1.06 in the same periods in the prior year.

Cash flows from operating activities

For three and twelve months ended October 31, 2019, cash flows from operating activities were \$21.7 million and \$81.4 million respectively compared to \$24.0 million and \$98.3 million in the same periods in the prior year. These decreases in operating cash flow reflect a significant increase in non-cash working capital as a result of:

- The addition of negative working capital from the six companies acquired during the year as of the date of acquisition. Vidyo and Espial had significant delinquent payables as well as severance and restructuring liabilities initiated by the incumbent management on their books at the date of acquisition that was factored into the purchase price. Although the net purchase price is reflected on our statement of cash flows under investing activities, the ultimate settlement of these liabilities reduced operating cash flows by approximately \$30 million.
- An increase in taxes paid for the three and twelve months ended October 31, 2019 of \$2.0 million and \$5.1 million respectively.

Although operating cash flows decreased as a result of the factors discussed above, operating cash flows excluding changes in non-cash working capital items for the three and twelve months ended October 31, 2019 increased by \$4.3 million and \$10.2 million to \$33.9 million and \$118.5 million, respectively, compared to the same periods in prior year.

Adjusted EBITDA

The table below reconciles Adjusted EBITDA to the most directly comparable IFRS measure, Results from operating activities for the three and twelve months ended October 31, 2019.

(in thousands of Canadian dollars except per share amounts)

	Three months			T۱	Twelve months		
For the periods ended October 31	2019 \$	2018 \$	Variance \$	2019 \$	2018 \$	Variance \$	
Total revenue	109,331	85,822	23,509	385,853	342,845	43,008	
Results from operating activities	32,541	27,344	5,197	111,974	103,245	8,729	
Depreciation Special charges	804 677	542 57	262 620	2,403 1,203	2,411 390	(8) 813	
Adjusted EBITDA	34,022	27,943	6,079	115,580	106,046	9,534	
Adjusted EBITDA margin	31.1%	32.6%		30.0%	30.9%		
Adjusted EBITDA per diluted share	0.62	0.51	0.11	2.10	1.94	0.16	

Adjusted EBITDA for the three and twelve months ended October 31, 2019 increased by \$6.1 million and \$9.5 million respectively, compared to the same periods in the prior year. Both increases in adjusted EBITDA reflect higher contributions from acquisitions as well as increased profitability in organic operations. As discussed previously, hardware revenue increased by \$2.9 million for the quarter and \$8.4 million for the year due to the recent acquisitions of Telexis and Vidyo. Although hardware revenue contributed positively to EBITDA, the lower margin on hardware sales compared to license and service revenue and ultimately dampened the adjusted EBITDA margins. Adjusted EBITDA margins softened marginally from the prior year as a result of the volume and scale of acquisitions in the current fiscal year.

Special charges, primarily reflecting acquisition related restructuring charges, have been excluded from adjusted EBITDA along with depreciation. We incurred \$0.7 million in acquisition related restructuring charges in the fourth quarter related to Vidyo, Espial and Eptica and \$1.2 million in special charges related to acquisitions throughout the fiscal year.

Liquidity and capital resources

We closed the year with cash and short-term investments of \$150.3 million, compared to the October 31, 2018 balance of \$193.9 million as a result of record cash spent of \$101.2 million on our six new acquisitions, which was partially offset by continued strong collection efforts and increased revenues. This is also net of payment of \$21.9 million for dividends, which increased 19% from \$18.4 million in the prior year.

For the year ended October 31, 2019, cash decreased by a total of \$42.8 million compared to an increase of \$66.9 million in the same period in the prior year. The decrease is the result of \$102.8 million of cash spent on investing activities, primarily on acquisitions, compared to \$15.9 million in the prior year. Additionally, cash spent on financing activities was \$21.2 million compared to \$13.4 million in the same period in the prior year primarily related to increased dividend payments, with the balance being attributable to cash generated from operating activities.

During the year, we paid off our existing debt that was assumed from an acquiree in a previous acquisition. In the acquisition of Eptica we also assumed a nominal amount of debt. Although we do not typically hold debt, we plan to hold this debt to maturity, making our scheduled quarterly capital repayments until March 31, 2024 as it is non-interest bearing.

For the year ended October 31, 2019 working capital was \$85.4 million at October 31, 2019 compared to \$146.5 million at the end of fiscal 2018, with the decrease being attributable to incremental payables and deferred revenue resulting from acquisitions along with reduced cash balances after spending over \$100 million on acquisitions in the fiscal year. Management is confident that the Company has the funds necessary to meet our existing and future financial operating commitments and dividend strategy. Future acquisition growth may be funded through a combination of cash, debt and equity consideration, which could cause dilution to existing shareholders.

The Company had 54,737,424 Common Shares issued and outstanding as at December 12, 2019. During the year, 157,400 stock options were exercised contributing \$2.1 million in cash compared to 593,600 stock options and \$6.2 million in cash to the Company in the same period in prior year. The Company granted 500,000 options in the fiscal year compared to 390,000 in the prior fiscal year. Additionally, on January 25, 2019, the Company completed a share split whereby each issued and outstanding common share has been effectively doubled. All references to capital stock, options and per share data have been adjusted retrospectively to reflect the Company's two-for-one share split for the periods ended October 31, 2019 and 2018.

Enghouse Systems renewed its bid in the second quarter of 2019 for a further year commencing April 30, 2019 and expiring April 30, 2020, whereby it may repurchase up to a maximum of 3,936,892 common shares of the Company. The Company did not repurchase any shares of its common stock in the current or prior fiscal years under its Normal Course Issuer Bid.

Dividend policy

The Company has paid regular quarterly dividends since May 31, 2007 and has increased its quarterly dividend in each of the past eleven years from \$0.013 per common share in 2007 to \$0.11 per common share presently.

The following table provides details regarding dividends declared for the last three fiscal years.

(in thousands of Canadian dollars except per share amounts)

Declaration date	Record date	Payment date	Common shares outstanding	Dividend per share	Total dividend
September 12, 2019	November 15, 2019	November 29, 2019	54,737,424	0.11	6,021
June 6, 2019	August 16, 2019	August 30, 2019	54,693,524	0.11	6,016
March 7, 2019	May 17, 2019	May 31, 2019	54,648,024	0.11	6,012
December 13, 2018	February 14, 2019	February 28, 2019	54,638,024	0.09	4,917
					\$ 22,966
September 6, 2018	November 16, 2018	November 30, 2018	54,580,024	0.09	4,912
June 7, 2018	August 17, 2018	August 31, 2018	54,431,424	0.09	4,899
March 8, 2018	May 17, 2018	May 31, 2018	54,221,224	0.09	4,880
December 14, 2017	February 14, 2018	February 28, 2018	54,056,824	0.08	4,323
					\$ 19,014
September 7, 2017	November 16, 2017	November 30, 2017	53,986,424	0.08	4,319
June 8, 2017	August 17, 2017	August 31, 2017	53,921,424	0.08	4,314
March 9, 2017	May 17, 2017	May 31, 2017	53,904,924	0.08	4,312
December 15, 2016	February 14, 2017	February 28, 2017	53,872,924	0.07	3,771
					\$ 16,716

The decision on whether to declare a dividend is subject to the Board of Director's discretion. In determining whether to declare and the amount of the dividend, the Board of Directors takes into account the Company's financial condition, results of operations, capital requirements and such other factors as the Board of Directors deems relevant at the time.

Commitments and contractual obligations

We have no significant commercial commitments or obligations other than for the leases of the facilities we currently occupy, the latest of which expires in fiscal 2027, operating leases for automobiles, office and computer equipment. We also have pre-existing debt assumed on the acquisition of Eptica, the amounts being related to loans from government agencies in France. The following table summarizes our future contractual obligations.

	Less than 1 year \$	Between 1 and 5 years \$	More than 5 years \$	Total \$
Lease obligations	7,450	17,511	2,861	27,822
Long-term loan (non-interest bearing)	249	874	-	1,123

We have certain obligations related to a defined benefit pension plan that was assumed as part of a previous acquisition. Further information regarding the plan commitments are included within our consolidated financial statements.

Outlook

In fiscal 2019 we began capitalizing on our investment in finance and accounting systems and related costs made in prior years to increase our acquisition capacity and more efficiently integrate acquisitions. As a result, we completed six deals, deploying a record \$101.2 million in capital in the fiscal year. This expanded our global footprint in a number of regions including a larger presence in France, the Netherlands and Japan. Combined with a renewed focus on direct sales channels, this allows us to better leverage local sales and services resources, which is integral to cross-selling our existing product suite as well as new product offerings in our regional markets. The acquisitions also introduced solutions that address the growing video collaboration market and extend our product suite to include an IPTV solution for cable operators and E-ticketing and automated fare collection solutions for public transportation agencies and operators.

The acquisitions were integrated quickly into our two operating segments, with restructuring initiatives mostly completed during the fiscal year. Despite deploying over \$100 million in cash on acquisitions, funding acquisition-related restructuring initiatives that adversely impacted operating cash flows and paying almost \$22 million in dividends, we closed the fiscal year with \$150.3 million in cash and cash equivalents at October 31, 2019. Armed with these resources, we remain committed to acquiring businesses that will be accretive to earnings and provide a return on investment within five to six years.

We also continue to implement our go-to-market strategy, utilizing more proactive demand generation marketing initiatives and aligning our operating structure to generate sales and provide services through our direct regional sales channels. In the fiscal year, we grew revenue by 12.5% to \$385.9 million and increased adjusted EBITDA by 9.0% to \$115.6 million while preserving our strong balance sheet. As expected with the addition of significant acquired operations that can take time to reach expected profitability, adjusted EBITDA margins trailed marginally below those of last year but remained strong at 30.0% for the fiscal year.

Going forward, we continue to seek accretive acquisitions to grow our revenue and further expand both our product suite and geographic reach, while maintaining our commitment to profitable growth in accordance with our disciplined business model. We remain focused on running the business consistent with our value-for-money philosophy that we believe provides shareholder value in the long-term.

Off-Statement of financial position arrangements

We have not entered into off-statement of financial position financing arrangements. Except for operating leases and other low probability and/or immeasurable contingencies (not accrued in accordance with IFRS), all commitments are reflected on our Consolidated Statements of Financial Position.

Transactions with related parties

We have not entered into any transactions with related parties during the period, other than transactions between wholly owned subsidiaries and us in the normal course of business, which are eliminated on consolidation.

Basis of preparation and significant accounting policies

The consolidated financial statements of the Company and its subsidiaries have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Our significant accounting policies are described in Note 3 of the consolidated financial statements as at October 31, 2019, which is available on SEDAR (www.sedar.com). The policies applied in these consolidated financial statements are based on IFRS issued and outstanding as of December 12, 2019, the date the Board of Directors approved the consolidated financial statements.

New standards and interpretations adopted

IFRS 9, Financial Instruments ("IFRS 9")

IFRS 9 addresses the classification, measurement and recognition of financial assets and financial liabilities. IFRS 9 replaces the parts of IAS 39, *Financial Instruments: Recognition and Measurement* ("IAS 39") that relate to the classification and measurement of financial instruments. IFRS 9 requires financial assets to be classified into three measurement categories:

- Financial assets measured at fair value through profit or loss
- Financial assets measured at amortized cost
- Fair value through other comprehensive income for certain financial assets that are debt instruments

The determination is made at initial recognition. The classification depends on the entity's business model for managing its financial instruments and the contractual cash flow characteristics of the instrument. For financial liabilities, the standard retains most of the IAS 39 requirements.

Under IFRS 9, gains and losses on re-measurement of financial assets measured at fair value will be recognized in profit or loss, except those for an investment in an equity instrument, which is not held-for-trading. IFRS 9 allows, on initial recognition, an irrevocable election to present all fair value changes from the investment in other comprehensive income ("FVOCI"). The election is available on an individual share-by-share basis. Unlike IAS 39, amounts presented in OCI will not be reclassified to profit or loss at a later date. IFRS 9 also includes a new general hedge accounting standard, which will align hedge accounting more closely with risk management. The Company does not have any designated hedges in place.

Further changes to the classification and measurement rules introduced a new impairment model, which includes a new expected credit loss ("ECL") model that involves a three-stage approach whereby financial assets move through the three stages as their credit quality changes. The stage dictates how an entity measures impairment losses and applies the effective interest rate method. A simplified approach is permitted for financial assets that do not have a significant financing component (i.e. trade receivables). On initial recognition, entities will record a day-one loss equal to the 12-month ECL (or lifetime ECL for trade receivables), unless the assets are considered credit impaired. IFRS 9 requires a forward-looking ECL impairment model as opposed to an incurred credit loss model under IAS 39. As the Company's financial assets include significant trade receivables, the Company has used the simplified approach for measuring the loss allowance at an amount equal to lifetime ECL recorded on day-one. No transition adjustment on adoption of IFRS 9 was booked for this by the Company.

A summary of the Company's classification and measurement of financial assets under IAS 39 and IFRS 9 is as follows:

Financial assets	Under IAS 39	Under IFRS 9
Cash and cash equivalents	Fair value through profit or loss	Fair value through profit or loss
Short-term investments	Available-for-sale	Fair value through profit or loss
Accounts receivable	Amortized cost	Amortized cost

The Company adopted IFRS 9 on November 1, 2018 on a modified retrospective basis in accordance with the transitional provisions of IFRS 9. As such, comparative figures have not been restated. The adoption of IFRS 9 had a nominal impact on the Company's disclosures. Upon adoption, all investments in equity instruments have been measured at fair value through profit or loss ("FVPL"). These investments are recorded at fair value and changes in the fair value are recognized in other income in the Consolidated Statements of Operations and Comprehensive Income.

The Company recorded a transition adjustment on November 1, 2018 to reduce opening retained earnings and increase accumulated other comprehensive income by \$0.8 million on adoption of IFRS 9 to reflect the impact of recording short-term investments (equities) at FVPL.

IFRS 15, Revenue from Contracts with Customers ("IFRS 15")

The Company adopted IFRS 15, with an initial adoption date of November 1, 2018. The Company utilized the cumulative effect method to adopt the new standard. Accordingly, the results for reporting periods commencing on November 1, 2018 are presented under the new standard while the comparative information has not been restated and continues to be reported under the previous standard.

IFRS 15 contains a single model for revenue recognition that applies to contracts with customers. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue should be recognized. The new standard also provides guidance on whether revenue should be recognized over time or at a point in time as well as requirements for more informative disclosures. The Company has adopted IFRS 15, effective November 1, 2018, using the cumulative effect method. Under the cumulative effect method, the Company has recognized the cumulative effect of initially applying IFRS 15 as an adjustment to the opening balance of retained earnings as at November 1, 2018. Therefore, the comparative information has not been restated and continues to be reported under IAS 18, *Revenue* ("IAS 18"). The details of the primary changes on adoption of IFRS 15 are set out below:

- Term-based licenses Under previous accounting policies, license revenue on certain term-based licenses was recognized ratably over the contract term. Under IFRS 15, the Company has deemed the licenses to be generally distinct from other performance obligations. Revenue allocated to the distinct license is recognized at the time the license is delivered to the customer, other than for those term-based licenses provided on a variable usage basis. Term license revenue provided on a fixed-fee basis, subject to monthly or annual minimum fees, is recognized at the time that both the right to use the software has commenced and the software has been made available to the customer. Term license revenue provided on a variable usage basis, such as the number of transactions, subscribers or other variable measure, is recognized over time based on a customer's utilization in a given period.
- Capitalization of costs to acquire contracts Under previous accounting policies, the Company generally expensed incremental commission costs as they were earned by employees. Under IFRS 15, the Company capitalizes and amortizes commission costs that relate to contracts of more than one year on a systematic basis, consistent with the pattern of transfer of the goods or services over which the commission costs relate. For commissions allocated to term-based license arrangements and post-contract customer support, the amortization period is expected to be over the term of the contract. For perpetual licenses these costs are expensed at the time that both the right to use the software has commenced and the software has been made available to the customer for download at the commencement of the term. Capitalized costs to obtain a contract are included in other non-current assets on the Consolidated Statements of Financial Position. The Company did not record any transition adjustment for capitalized costs to acquire contracts as they were not significant.

On adoption of IFRS 15, the Company recorded an adjustment to increase unbilled accounts receivable on November 1, 2018 by \$2.2 million with a corresponding adjustment to increase opening accumulated retained earnings by \$1.6 million (net of a credit to the deferred income tax liability of \$0.6 million). The transition adjustment related to term-based software license revenue that would have been recognized at a point in time under IFRS 15, which were previously recognized over time under IAS 18.

Had the Company presented the results for the year ended October 31, 2019 under IAS 18, the software license revenue and net income would have decreased by \$5.1 million and \$4.0 million, respectively, while the deferred income tax liability would have decreased by \$1.7 million, unbilled receivables would have decreased by \$7.3 million and retained earnings decreased by \$1.6 million.

As part of its adoption of IFRS 15, the Company has reclassified certain amounts previously reported under IAS 18 as software license revenue to hosted and maintenance revenue. As a result, software license revenue decreased by \$14.7 million for the year ended October 31, 2018 and the hosted and maintenance services revenue has increased by an equivalent amount during the same periods. This re-classification had no impact on the prior period net income and retained earnings.

The adoption of IFRS 15 had no impact to cash from or used in operating, financing, or investing activities on the Company's Consolidated Statements of Cash Flows.

New standards and interpretations issued but not yet applied

IFRS 16, Leases ("IFRS 16")

IFRS 16 is a new standard effective for fiscal years beginning on or after January 1, 2019. The standard replaces current guidance under IAS 17, *Leases* ("IAS 17") and no longer distinguishes between a finance lease and an operating lease for lessees. Instead, for virtually all lease contracts the lessee recognizes a lease liability reflecting future lease payments and a "right-of-use" asset. Lessor accounting remains somewhat similar as under IAS 17. The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning on November 1, 2019.

The Company will apply IFRS 16 using the modified retrospective approach and as a result the comparative information will not be restated and will continue to be reported under IAS 17 and IFRIC 4, *Determining Whether an Arrangement Contains a Lease* ("IFRIC 4"). The Company has substantially completed the process of reviewing contracts from all business segments to assess whether they fall within the scope of IFRS 16, in whole or in part and to quantify lease and non-lease components. The Company is in the process of reviewing and finalizing documentation and the quantification of adjustments.

Based on the review completed to date, it is expected that there will be no impact on revenue but there will be a material increase to both assets and liabilities upon adoption of the new standard. The Company will recognize a lease liability and right-of-use asset at the date of adoption. The lease liability will be measured at the present value of the future lease payments at the date of adoption. A valuation approach to discount the population of leases has been developed and the Company is in the final stages of assessing the methodology, the deemed commencement date for the calculation of the right-of-use assets and the incremental borrowing rates to be applied.

In general, the right-of-use asset will be depreciated using the straight-line method from the date of adoption to the end of the lease term. Interest on the lease liability will be calculated using the effective interest method with rent payments reducing the liability. As a result of these changes, there will be an increase in interest expense and depreciation, as well as a reduction in selling, general and administrative on the Consolidated Statements of Operations and Comprehensive Income due to the decrease in rent expense. The overall impact to net income is not expected to be significant. Additionally, an increase in cash flow from operating activities is also expected as the lease payments will be recorded as financing outflows in the Consolidated Statements of Cash Flows. The Company is currently in the process of upgrading its existing systems, processes and internal controls to account for IFRS 16.

Critical accounting estimates and judgments

The preparation of our consolidated financial statements in accordance with IFRS requires management to make judgments, estimates and assumptions that affect the reported amounts of revenue, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the date of the financial statements. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on a regular basis. Significant areas requiring us to make estimates, assumptions and judgments include those related to revenue recognition, intangible assets, the carrying value of goodwill, and income taxes. We base our estimates on historical experience as well as on various other assumptions that are believed to be reasonable under the circumstances at the time.

Under different assumptions or conditions, the actual results would differ, potentially materially, from those previously estimated. Many of the conditions impacting these assumptions and estimates are beyond our control. Revisions to the accounting estimates are recognized in the period in which the estimates are revised and will be recorded with corresponding impact on net income.

Revenue recognition

Separation of customer contract obligations and deliverables

Management applies judgment when assessing whether certain deliverables in a customer arrangement should be included or excluded from a unit of account to which contract accounting is applied. The judgment is typically related to the sale and inclusion of services and licenses in a customer arrangement and involves an assessment that principally addresses whether the deliverable has stand-alone value to the customer that is not dependent upon other components of the arrangement.

Professional services revenue

Management exercises judgment in determining whether a contract's outcome can be reliably estimated. Management also makes estimates and assumptions in the calculation of future contract costs and related profitability, which are used to determine the value of the amounts recoverable on contracts and the timing of revenue recognition. Management updates these estimates throughout the life of the contract. Judgment is also required to assess the probability of collection of the related receivables.

Acquired assets and liabilities including intangible assets and goodwill

We account for business combinations using the acquisition method, under which it allocates the excess of the purchase price of business acquisitions over the fair value of identifiable net assets acquired to goodwill. One of the most significant estimates relates to the determination of the fair value of the assets and liabilities acquired. For any intangible asset identified, depending on the type of intangible asset and the complexity of determining its fair value, purchase price allocations are derived from a valuation analysis prepared by management. Fair values are determined using appropriate valuation techniques, which are generally based on a forecast of the total expected future net cash flows and are closely linked to the assumptions made by management regarding the future performance of the assets concerned and the discount rate applied.

Any goodwill or intangible assets with indefinite useful lives acquired in business combinations are not amortized to income over their useful lives but are assessed annually for any potential impairment in value.

All other intangible assets are amortized to operations over their estimated useful lives. Our intangible assets relate to acquired technology, patents and customer relationships. We also reviewed the carrying value of amortizable intangible assets for impairment whenever events and circumstances indicate that the carrying value of an asset may not be recoverable from the estimated future cash flows expected from its use and eventual disposition. In assessing the recoverability of these intangible assets, we must make assumptions regarding estimated future cash flows, market conditions and other factors to determine the fair value of the assets. If these estimates or related assumptions change in the future, we may be required to record impairment charges for these assets.

Goodwill impairment

The goodwill recorded in the consolidated financial statements relates to two significant groups of CGUs: AMG and IMG. Our assumptions used in testing goodwill for impairment are affected by current market conditions, which may affect expected revenue and costs. We also have significant competition in markets in which we operate, which may impact our revenues and operating costs. The recoverable amount of the groups of CGUs was based on an assessment of value in use using a discounted cash flow approach. The approach uses cash flow projections based on financial budgets approved by management covering a one-year period. Cash flows for the years thereafter are extrapolated using estimated annual growth rates. We use a pre-tax discount rate, which has been estimated based on the industry's weighted average cost of capital. The risk premiums expected by market participants related to uncertainties about the industry and assumptions relating to future cash flows may differ or change quickly, depending on economic conditions and other events. Future changes in assumptions could negatively impact future assessments of the recoverable amount for the groups of CGUs and we would be required to recognize an impairment loss.

Income taxes

Management uses significant judgment to determine the provision for income taxes, current and deferred income tax assets and liabilities and the recoverability of income tax assets recorded. We operate in multiple tax jurisdictions and to the extent that there are profits in these jurisdictions, the profits are subject to tax at varying tax rates and regulations under the legislation of these jurisdictions. Our effective tax rate may be affected by changes to or application of tax laws in any particular jurisdiction, changes in the geographical mix of revenue and expense, level of relative profitability in each jurisdiction, utilization of non-capital losses and income tax loss carry-forwards and management's assessment of its ability to realize deferred income tax assets. Accordingly, management must estimate the tax provision of the Company on a quarterly basis, which involves determining taxable income, temporary differences between tax and accounting carrying values and income tax loss carry-forwards. Favourable or unfavourable adjustments to tax provisions may result when tax positions are resolved or settled at amounts that differ from those estimates.

We have deferred income tax assets that are subject to periodic recoverability assessments. Realization of our deferred income tax assets is largely dependent upon its achievement of projected future taxable income and the continued applicability of ongoing tax planning strategies. Our judgments regarding future profitability may change due to future market conditions, changes in tax legislation and other factors that could adversely affect the ongoing value of the deferred income tax assets. These changes, if any, may require the material adjustment of these deferred income tax asset balances through an adjustment to the carrying value thereon in the future. This adjustment would reduce the deferred income tax asset to the amount that is considered to be more likely than not to be realized and would be recorded in the period such a determination was to be made.

Risks and uncertainties

We continue to operate in an ever changing and competitive business and economic environment that exposes the Company to a number of risks and uncertainties. The following section describes some, but not all, of the risks and uncertainties that may adversely impact our business, financial condition or results of operations. Additional risks and uncertainties not described below or not presently known to us may also impact our business and operations and cause the price of the common shares to decline.

If any of these risks actually occur, our business, financial condition or results of operations could be seriously harmed and the trading price of the Company's common shares could be materially affected. The reader should understand that the sole purpose of discussing these risks and uncertainties is to alert the reader to factors that could cause actual results to differ materially from past results or from those described in forward-looking statements and not to describe facts, trends and circumstances that could have a favorable impact on our results or financial position.

We may have difficulties identifying, successfully completing or integrating acquisitions, or maintaining or growing our acquired businesses.

We remain committed to our dual faceted growth strategy, pursuing accretive acquisitions and scaling our organic operations to be consistently profitable. In the current fiscal year, we completed the acquisitions of Telexis, Capana, ProOpti, Vidyo, Espial and Eptica. We paid \$101.2 million in aggregate for these acquisitions, net of cash acquired, and \$1.1 million for settlement in the fiscal year of hold-backs on prior acquisitions. While we have both the experience and financial resources required to execute this strategy, we do not have control over the market conditions prevailing or likely to prevail in the future, which may impact the ability to execute this strategy. There can be no assurance that we will be able to identify suitable acquisition candidates available for sale at reasonable valuations, consummate any acquisition or successfully integrate any acquired business into our operations. We have and will likely continue to have competition for acquisition candidates from other parties including those that have greater resources or are willing to pay higher valuation multiples. Acquisitions may involve a number of other risks including: diversion of management's attention; disruption to our ongoing business; failure to retain key acquired personnel; difficulties in integrating acquired operations, technologies, products or personnel; unanticipated expenses, events or circumstances; assumption of disclosed and undisclosed liabilities; and inappropriate valuation of the acquired in-process research and development, or the entire acquired business.

If we fail to attract and retain key personnel, it could adversely affect our ability to develop and effectively manage our business.

Our success depends on the continued efforts and abilities of our key technical, sales and management personnel. The loss of the services of any of these persons could have a material adverse effect on our business, results of operations and financial condition. We do not carry key man insurance.

Success is also highly dependent on our continuing ability to identify, hire, train, motivate and retain highly qualified management, finance, technical, sales and marketing personnel. Any such new hire may require a significant transition period prior to making a meaningful contribution to the Company. Competition for qualified employees is particularly intense in the technology industry, and we have in the past experienced difficulty recruiting qualified employees. Our failure to attract and to retain the necessary qualified personnel could seriously harm our operating results and financial condition.

Our success is dependent on our ability to manage growth from managerial, financial, and human resources perspectives.

The growth of our operations places a strain on managerial, financial and human resources. Our ability to manage future growth will depend in large part upon a number of factors, including the ability to: build

and train sales and marketing staff to create an expanding presence in the evolving marketplace for our products; attract and retain qualified technical personnel in order to continue to develop reliable and scalable products and services that respond to evolving customer needs; develop customer support capacity as sales increase, so that we can provide customer support without diverting resources from product development efforts; and expand our internal management and financial controls significantly, so that we can maintain control over our operations and provide support to other functional areas within the Company as the number of personnel and size of the Company increases. Our inability to achieve any of these objectives could harm our business and operating results.

We may not remain competitive. Increased competition could seriously harm our business.

We experience intense competition from other software companies. Competitors may announce new products, services or enhancements including cloud-based offerings that better meet the needs of customers or changing industry standards. Increased competition may cause price reductions, reduced gross margins and loss of market share, any of which could have a material adverse effect on the business, results of operations and financial condition of the Company. Many of our competitors and potential competitors have significantly greater technical, marketing, service or financial resources. Other competitive factors include price, performance, product features, market timing, brand recognition, product quality, product availability, breadth of product line, design expertise, customer service and post contract support. A very important selection factor from a customer perspective is a large installed customer base that has widely and productively implemented our software products, which not only increases the potential for repeat business, but also provides reference accounts to promote our products and solutions with new customers. While management believes that we have a significant installed customer base in IMG and AMG, many of our competitors have a larger installed base of users, longer operating histories or greater name recognition. In addition, if one or more of our competitors were to merge or partner with other competitors, the change in the competitive landscape could adversely affect our ability to compete effectively.

Our success depends on our ability to continue to innovate and create new products and enhancements to our existing products.

To keep pace with technological developments, satisfy increasingly sophisticated customer requirements and achieve market acceptance, we must enhance and improve existing products and continue to introduce new products and services. If we are unable to successfully develop new products, integrate acquired products or enhance and improve existing products or if we fail to position and/or price our products to meet market demand, our business and operating results will be adversely affected. Accelerated product introductions and short product life cycles require high levels of expenditures for research and development that could adversely affect our results of operations. Further, the introduction of new products could require long development and testing periods and may not be introduced in a timely manner or may not achieve the broad market acceptance necessary to generate significant revenue.

No assurance can be provided that our software products will remain compatible with evolving computer hardware and software platforms and operating environments. In addition, competitive or technological developments and new regulatory requirements may require us to make substantial, unanticipated investments in new products and technologies. If we are required to expend substantial resources to respond to specific technological or product changes, our operating results could be adversely affected. Our continuing ability to address these risks will depend, to a large extent, on our ability to retain a technically competent research and development staff and to adapt to rapid technological advances in the industry.

We are dependent on certain technologies used in our products that are licensed on a non-exclusive basis from third parties. This could disrupt our ability to ship products.

We license certain technologies used in our products from third parties, generally on a non-exclusive basis. The termination of any of these licenses, or the failure of the licensors to adequately maintain or update their products, could delay our ability to ship our products while we seek to implement alternative technology offered by other sources and may require significant unplanned investments. In addition, alternative technology may not be available on commercially reasonable terms. In the future, it may be necessary or desirable to obtain other third party technology licenses relating to one or more of our products or relating to current or future technologies. There is a risk that we will not be able to obtain licensing rights to the needed technology on commercially reasonable terms, if at all.

Our success and ability to compete depends upon our ability to secure and protect patents, trademarks, and other proprietary rights.

A number of competitors and other third parties have been issued patents and may have filed patent applications or obtain additional patents and proprietary rights for technologies similar to those in our products. Some of these patents may grant very broad protection to the owners of the patents. We cannot determine with certainty whether any existing third party patents or the issuance of any third party patents would require us to alter our technology, obtain licenses or cease certain activities. We may become subject to claims by third parties alleging our technology infringes their property rights due to the growth of software products in our target markets, the overlap in functionality of these products and the prevalence of software products. We provide our customers with a qualified indemnity against the infringement of third party intellectual property rights. From time to time, various owners of patents and copyrighted works send us or our customers letters alleging that our products infringe or might infringe upon the owner's intellectual property rights. Accordingly, where appropriate, we forward any such allegation or licensing request to outside legal counsel for review. We generally attempt to resolve any such matter by informing the owner of our position concerning non-infringement or invalidity. Even though we attempt to resolve these matters without litigation, it is always possible that the owner of a patent or copyrighted work will bring an action against the Company.

We rely on a combination of copyright and trade secret laws and contractual provisions to establish and protect our rights in our software and proprietary technology. We generally enter into non-disclosure agreements with employees and customers and historically have restricted access to our software products' source code. We regard our source code as proprietary information, and attempt to protect the source code versions of our products as trade secrets and as unpublished copyrighted works. In a few cases, we have provided copies of source code for certain products to third party escrow agents to be released on certain predefined terms. Despite our precautions, it may be possible for unauthorized parties to copy or otherwise reverse engineer portions of our products or otherwise obtain and use information that we regard as proprietary.

Existing copyright and trade secret laws offer only limited protection, and the laws of certain countries in which our products may be used in the future do not protect our products and intellectual property rights to the same extent as the laws of Canada and the United States. Certain provisions of the license and strategic alliance agreements that may be entered into in the future by us, including provisions protecting against unauthorized use, transfer and disclosure, may be unenforceable under the laws of certain jurisdictions, and we are required to negotiate limits on these provisions from time to time.

Litigation may be necessary to determine the scope, enforceability and validity of third party proprietary rights or to establish our proprietary rights. Some competitors have substantially greater resources and may be able to sustain the costs of complex intellectual property litigation to a greater degree and for a longer period of time than we could. Regardless of their merit, any such claims could: be time

consuming; be expensive to defend; divert management's attention and focus away from the business; cause product shipment delays or stoppages; subject us to significant liabilities; and require us to enter into costly royalty or licensing agreements or to modify or stop using the infringing technology, any of which may adversely affect our revenue, financial condition and results of operations. There can be no assurance that the steps taken by us to protect our proprietary rights will be adequate to deter misappropriation of our technology or independent development by others of technologies that are substantially equivalent or superior to our technology.

We may be subject to product liability claims from customers if the occurrence of errors or failures is significant given the business-critical nature of our products.

As a result of their complexity, software products may contain undetected errors or failures when entering the market. Despite conducting testing and quality assurance, defects and errors may be found in new software products after commencement of commercial shipments or the offering of a network service using these software products. In these circumstances, we may be unable to successfully correct the errors in a timely manner or at all. The occurrence of errors and failures in our software products could result in negative publicity and a loss of, or delay in, market acceptance of those software products. Such publicity could reduce revenue from new licenses and lead to increased customer attrition. Alleviating these errors and failures could require significant expenditure of capital and other resources by us. The consequences of these errors and failures could have a material adverse effect on our business, results of operations, and financial condition. Because many of our customers use our software products for business-critical applications, any errors, defects, or other performance problems could result in financial or other damage to our customers. Our customers or other third parties could seek to recover damages from us in the event of actual or alleged failures of our software solutions.

Although we maintain product liability insurance in certain limited circumstances and our license agreements with customers typically contain provisions designed to limit our exposure to potential product liability claims, it is possible that this insurance and these limitation of liability provisions may not effectively protect us against these claims and the liability and associated costs. While we have not experienced any product liability claims to date, the sale and support of our products may entail the risk of those claims, which are likely to be substantial in light of the use of our products in critical applications. Accordingly, any such claim could have a material adverse effect upon our business, results of operations, and financial condition. In addition, defending this kind of claim, regardless of its merits, or otherwise satisfying affected customers, could entail substantial expense and require the devotion of significant time and attention by key management personnel.

From time to time, we may be subject to litigation or dispute resolution that could result in significant costs to us and damage our reputation.

In addition to being subject to litigation in the ordinary course of business, we may become subject to class actions, securities litigation or other actions, including anti-trust and anti-competitive actions. Any litigation may be time consuming, expensive and distracting from the conduct of our day-to-day business. The adverse resolution of any specific lawsuit could have a material adverse effect on our financial condition and liquidity. In addition, the resolution of those matters may require us to issue additional common shares, which could potentially result in dilution. Expenses incurred in connection with these matters (which include fees of lawyers and other professional advisors and potential obligations to indemnify officers and directors who may be parties to such actions) could adversely affect our cash position.

Our success is dependent on certain strategic relationships with third parties to execute on our operations and strategy and to uphold our reputation.

We currently have strategic relationships with resellers, original equipment manufacturers (OEMs), system integrators and enterprise application providers. We depend on these relationships to: distribute

our products; generate sales leads; build brand and market awareness; and implement and support our solutions. We believe that our success depends, in part, on our ability to develop and maintain strategic relationships with resellers, OEMs, system integrators, and enterprise application providers. We generally do not have long-term or exclusive agreements with these strategic partners. If we lose a strategic partner in a key market, or if a current or future strategic partner fails to adequately provide customer service to our customers, our reputation will suffer and sales of our product and services could be substantially diminished.

System or network failures or information security breaches in connection with our services and products could reduce our sales, impair our reputation, increase costs or result in liability claims, and seriously harm our business.

Some of our businesses provide hosting services in respect of certain of our software products. These hosting services, which generally take place through third party data centers, depend upon the uninterrupted operation of data centers and the ability to protect computer equipment and information stored in these data centers against damage that may be caused by natural disaster, fire, power loss, telecommunications or internet failure, unauthorized intrusion, computer viruses and other similar damaging events. If any of the data centers we use were to become inoperable for an extended period, we might be unable to provide our customers with contracted services. Although we take what we believe to be reasonable precautions against such occurrences, and we maintain business interruption insurance in certain limited circumstances, no assurance can be given that damaging events such as these will not result in a prolonged interruption of our services, which could result in customer dissatisfaction, loss of revenue and damage to our business.

We receive confidential information and recognize the importance of cyber security. Despite security measures, information technology and infrastructure may be vulnerable to unforeseen break-ins, theft, hacks, viruses, phishing, malware, denial of service attacks, and other improper activity that could jeopardize the security of information for which we are responsible. Although we generally do not store third party financial data, cyber attacks could compromise our networks and stored information could be accessed, lost, stolen or used maliciously. Any such breach could expose the Company to litigation, loss of customers or otherwise harm our reputation and business. To minimize this risk, we have employees whose role is to monitor information technology, adhere to industry standards for cyber security, use encryption technology and have remediation plans that can be engaged should the need arise.

Our existing customers might cancel their hosted or maintenance services contracts with us, fail to renew contracts on their renewal dates, and/or fail to purchase additional services and products. We may be unable to attract new customers.

We continue to realize a significant amount (\$219.6 million in fiscal 2019 compared to \$191.1 million in fiscal 2018) of our revenue from hosted and maintenance services provided in connection with the products we license as part of our core business strategy. We expect that a substantial portion of our revenue will continue to be derived from renewals of these hosted and maintenance arrangements with our customers as well as from professional services engagements for these customers. The continued expansion of this revenue stream as a result of incremental license and hosted sales and through the acquisition of companies with existing hosted and maintenance customer bases is a key tenet to our revenue growth strategy, as is further developing our current hosted service offerings.

However, there can be no assurances that the rate of customer attrition, which would result in lower revenue, will be offset by a combination of new hosted and maintenance services revenue associated with incremental license and hosted sales, acquisitions and contract price increases. Although we believe we have strong customer retention rates, attrition in our customer base does occur when existing customers elect not to renew their hosted or maintenance arrangements or cease purchasing

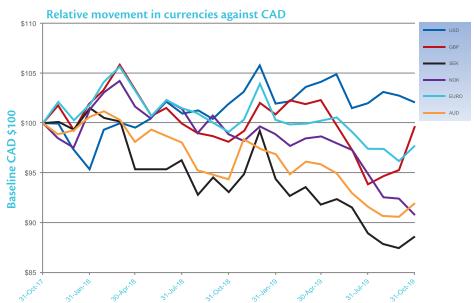
professional services. Customer attrition occurs for a variety of reasons, including a customer's decision to replace our software product with that of a competing vendor, to purchase maintenance or consulting services from a third-party service provider or to forego maintenance services altogether. It can also occur when a customer is acquired or ceases operations. Any factors that adversely affect the ability of our software products to compete with those available from others, such as availability of competitors' products offering more advanced product architecture, superior functionality or performance or lower prices could lead to increased rates of customer attrition.

The significance of our international operations increases our exposure to international business risks that could cause our operating results to suffer.

We intend to maintain and expand our international operations, which may include entry into new international markets. The possible expansion of our international operations will require management attention and financial resources to establish additional foreign operations, hire additional personnel, and recruit additional international resellers. Incremental revenue may not be adequate to cover the expenses of international expansion. Our possible expansion into new international markets may take longer than anticipated and could directly impact how quickly we increase product sales into these markets. International markets may take additional time and resources to penetrate successfully. Any disruption in the ability of our personnel to travel could impact our ability to expand international operations and to service our international customers, which could, in turn, have a material adverse effect on our business, results of operations and financial condition. Other risks we may encounter in conducting international business activities generally could include the following: economic and political instability; unexpected changes in foreign regulatory requirements and laws; tariffs and other trade barriers; timing, cost, and potential difficulty of adapting our product to the local language standards; longer sales cycles and accounts receivable cash collections cycles; potentially adverse tax consequences; fluctuations in foreign currencies; and restrictions on the repatriation of funds.

Changes in the value of the Canadian dollar, as compared to the currencies of other countries where we transact business, could harm our operating results and financial condition.

We actively pursue a strategy of growth by acquisition, which exposes us to revenue denominated in numerous foreign currencies. Our organizational structure has changed to include a larger presence in Scandinavia and Europe along with our existing offices in Phoenix, Arizona, Reading, UK and our corporate headquarters in Canada. We now have operations in a number of countries around the world that has exposed us to foreign currency risk on global basis.



In fiscal 2019, compared to the prior year the Canadian dollar strengthened against most major currencies while weakening against the U.S. dollar. The U.S. dollar was reported using an average foreign exchange rate of \$1.32 in fiscal 2019 versus \$1.29 in fiscal 2018, representing a 3.7% increase while the Swedish krona, which averaged \$0.14 in fiscal 2019, was down approximately 5.1% from the prior year. The pound sterling averaged \$1.64 in the current year compared to \$1.73 in the prior fiscal year, a 9.0% decrease, with a number of large fluctuations during the year attributable to Brexit. The euro weakened 6.5% over the year, averaging \$1.46 in fiscal 2019.

Overall, 16% of our revenue was generated by operations in the U.K. compared to 19% in the prior fiscal year, while revenue generated by European operations increased to 19% from 18% in the prior fiscal year. Revenue generated by our Scandinavian operations decreased to 22% from 24% in the prior year. Revenue generated by our U.S. based operations was 34% compared to 30% in the prior fiscal year as a result of the addition of Vidyo as well as improved results in our IMG Americas operations. Approximately 5% of our revenue was generated by operations in the Asia-Pacific region compared to 6% in fiscal 2018, with the balance being generated by Canadian operations. Further changes in foreign exchange rates between Canada and other countries could have a material effect, either favourable or adverse, on both our revenue and expenses going forward. However, these currencies act as a natural hedge as we have both revenue and expenses denominated in these currencies. There can be no assurances that we will prove successful in our efforts to manage this risk, which may adversely impact our operating results.

We may have exposure to greater than anticipated tax liabilities or expenses.

We conduct our business operations in various foreign jurisdictions and through legal entities primarily in Canada, the United States, Sweden, Norway, Denmark, Germany, Ireland, Australia, New Zealand, Spain, Belgium, France, the Netherlands, Italy and the United Kingdom. Accordingly, we are subject to income taxes as well as non-income based taxes in Canada, as well as these and other foreign jurisdictions and our tax structure is subject to review by numerous taxation authorities. The tax laws of these jurisdictions have detailed and varied tax rules, which are subject to change.

Significant judgment is required in determining our worldwide provision for income taxes, deferred tax assets and other tax liabilities. Although we strive to ensure that our tax estimates and filing positions are reasonable, no assurance can be provided that the final determination of any tax audits or litigation will not be different from what is reflected in our historical income tax provisions and accruals, and any such differences may materially affect our operating results for the affected period or periods. We also have exposure to additional non-income tax liabilities such as payroll, sales, use, value-added, non-resident withholding, repatriation, net worth, property, harmonized and goods and services taxes in Canada, the United States, Sweden, Norway, Denmark, Germany, Ireland, Australia, New Zealand, Spain, Belgium, France, the Netherlands, Italy, the United Kingdom and other foreign jurisdictions.

International taxation authorities in these regions could challenge the validity of our tax filings or introduce new tax legislation. If any of these taxation authorities are successful in challenging our tax filings or introduce new tax legislation, our income tax expense may be adversely affected and it could also be subject to interest and penalty charges. Any such increase in our income tax expense and related interest and penalties could have a significant impact on future net earnings and future cash flows.

Changes in privacy and contact center laws and regulations may adversely impact our ability to compete and operate in our current markets and cause our operating results to suffer.

Our customers can use our products to collect, use, process and store information regarding their customers and individuals. Federal, provincial, and foreign government bodies and agencies may adopt or change laws and regulations regarding the collection, use, processing, storage and disclosure of such information obtained from consumers and individuals. In the European Union, some of our operations are subject to the European Union's General Data Protection Regulation ("GDPR") which took effect May 25, 2018. The GDPR introduces a number of new obligations for subject companies including, for example, expanded disclosures about how personal data is to be used, new mechanisms for obtaining consent from data subjects, new controls for data subjects with respect to their personal data, limitations on retention of personal data and mandatory data breach notifications. Additionally, the GDPR places companies under new obligations relating to data transfers and the security of the personal data they possess. Given the breadth of the GDPR, there can be no assurance that the measures we have taken for the purposes of compliance will be successful in preventing breach of the GDPR. In addition to government regulatory activity, privacy advocacy groups and the technology industry and other industries may consider various new, additional or different self-regulatory standards that may place additional burdens directly on our customers and target customers, and indirectly on us. Our products are expected to be capable of use by our customers in compliance with such laws and regulations. The functional and operational requirements and costs of compliance with such laws and regulations may adversely impact our business, and failure to enable our products to comply with such laws and regulations could lead to significant fines and penalties imposed by regulators, as well as claims by our customers or third parties. Additionally, all of these domestic and international legislative and regulatory initiatives could adversely affect our customers' ability or desire to collect, use, process and store certain information, which could reduce demand for our products.

Our results of operating activities may vary significantly from quarter to quarter and therefore may be difficult to predict or may fail to meet investment community expectations.

Our revenue is difficult to forecast and may fluctuate significantly from quarter to quarter. In addition, our operating results may not follow any past trends. The factors affecting revenue and results, many of which are outside of our control, include: foreign exchange fluctuations; competitive conditions; market acceptance of our products; the ability to hire, train and retain sufficient sales and professional services staff; the ability to complete our service obligations related to product sales in a timely manner; varying size, timing and contractual terms of orders for products, which may delay the recognition of revenue; the ability to maintain existing relationships and to create new relationships to assist with sales and marketing efforts; the discretionary nature of customers' purchase and budget cycles and changes in their budgets for, and timing of, software and related purchases; the length and variability of the sales cycles for our products; strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy; general weakening of the economy resulting in a decrease in the overall demand for computer software and services or otherwise affecting customers' capital investment levels in enterprise software; changes in our pricing policies and the pricing policies of our competitors; timing of product development and new product initiatives; and changes in the mix of revenue attributable to substantially lower-margin service revenue as opposed to higher-margin product license revenue or to cloud-based product offerings.

While we have consistently managed our businesses by scaling our costs to prevailing revenue levels to ensure that we operate profitably and generate positive cash flows to increase our cash reserves and fund our acquisition strategy internally, no assurance can be provided that we will be able to sustain this profitability on a quarterly or annual basis.

We, on at least an annual basis, review the value of acquired intangibles and goodwill to determine

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whether any impairment exists. We also periodically review opportunities to organize operations more efficiently, and may record restructuring charges in connection with any such reorganization. Our acquisition strategy provides management with a regular opportunity with each new acquisition to revisit and re-organize our operations to leverage the strength and synergies introduced by new organizations. Any write-down of intangible assets or goodwill or restructuring charges in the future could affect our results of operations materially and adversely and as a result our share price may decline.

The price of our common shares has in the past been volatile and may also be volatile in the future.

The market price of our common shares ("Common Shares") may be volatile and could be subject to wide fluctuations due to a number of factors, including: actual or anticipated fluctuations in results of operations; changes in estimates of future results of operations; announcements of technological innovations or new product introductions by us or our competitors; general industry changes in the enterprise software markets: or other events or factors. In addition, the financial markets have experienced significant price and value fluctuations that have particularly affected the market prices of equity securities of many technology companies and that sometimes have been unrelated to the operating performance of these companies. Broad market fluctuations, as well as economic conditions generally and in the software industry specifically, may adversely affect the market price of our Common Shares.

There can be no assurance that an active trading market for the Common Shares will be sustained in the future. If an active public market is not sustained, the liquidity of an investment in the Common Shares may be limited and the Company's share price may decline.

Controls and procedures

In compliance with the Canadian Securities Administrators' National Instrument 52-109 ("NI 52-109"), the Company has filed with applicable Canadian securities regulatory authorities, certificates signed by its Chief Executive Officer ("CEO") and Vice President Finance in capacity as Chief Financial Officer ("CFO") that, among other things, report on the design and effectiveness of disclosure controls and procedures and the design of internal controls over financial reporting.

Disclosure controls and procedures

Disclosure controls and procedures have been designed under the supervision of the CEO and CFO, with the participation of other management, to provide reasonable assurance that all relevant information required to be disclosed by us is recorded, processed, summarized and reported on a timely basis to senior management, as appropriate, to allow timely decisions regarding required public disclosure. Pursuant to NI 52-109, as of October 31, 2019, an evaluation of the effectiveness of our disclosure controls and procedures was carried out under the supervision of the CEO and CFO. Based on this evaluation, the CEO and the CFO concluded that the design and operation of these disclosure controls and procedures were effective. This evaluation considered our disclosure policy, a sub-certification process and the functioning of our Disclosure Committee.

Internal controls over financial reporting

The Company's CEO and CFO are responsible for designing internal controls over financial reporting or causing them to be designed under their supervision to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of financial statements in accordance with IFRS.

As at October 31, 2019, an evaluation was carried out of the effectiveness of the design and operation of internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting. Based on that evaluation, the Company's CEO and CFO have concluded that, as at October 31, 2019, the design and operation of controls over financial reporting was effective. These evaluations were conducted in accordance with the standards established in Internal Control -Integrated Framework, issued by the Committee of Sponsoring Organizations of the Treadway Commission, and the requirements of NI 52-109. The control framework used by the CEO and the CFO to design the Company's internal control over financial reporting is the "Internal Control - Integrated Framework (2013)" published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

There were no changes to the Company's internal control over financial reporting during the year ended October 31, 2019 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Additional information

Additional information relating to the Company including our most recently completed Annual Information Form ("AIF") is available on SEDAR at www.sedar.com and on our website at www.enahouse.com.



Management's responsibility for financial reporting

Management is responsible for the preparation of the Company's consolidated financial statements and all other information in Management's Discussion and Analysis as well as the Annual Report. The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"), which involve management's best estimates and judgments based on available information.

Management maintains appropriate systems of internal accounting and administrative controls, which are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS.

The Board of Directors of Enghouse Systems Limited (the "Board") is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board carries out this responsibility principally through its Audit Committee (the "Committee").

The Committee is appointed by the Board and all of its members are independent directors. The Committee meets periodically with management and the external auditors to discuss internal controls over financial reporting, auditing matters and financial reporting issues, to satisfy itself that management's responsibilities are properly discharged and to recommend approval of the consolidated financial statements to the Board.

The consolidated financial statements have been audited on behalf of shareholders by Ernst & Young LLP, the external auditors, in accordance with Canadian generally accepted auditing standards. The external auditors have full and free access to management and the Committee.

Stephen J. Sadler Chairman of the Board and Chief Executive Officer

Markham, Ontario December 12, 2019 Douglas C. Bryson Vice President Finance and Corporate Secretary

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of Enghouse Systems Limited

Opinion

We have audited the consolidated financial statements of Enghouse Systems Limited and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as at October 31, 2019 and 2018, and the consolidated statements of operations and comprehensive income, consolidated statements of changes in shareholders' equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at October 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards ("IFRS").

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other information

Management is responsible for the other information. The other information comprises:

- Management's Discussion and Analysis; and
- The information, other than the consolidated financial statements and our auditor's report thereon, in the Annual Report

Our opinion on the consolidated financial statements does not cover the other information and we express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

We obtained Management's Discussion & Analysis prior to the date of this auditor's report. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact in this auditor's report. We have nothing to report in this regard.

The Annual Report is expected to be made available to us after the date of the auditor's report. If based on the work we will perform on this other information, we conclude there is a material misstatement of other information, we are required to report that fact to those charged with governance.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

INDEPENDENT AUDITOR'S REPORT

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit
 procedures that are appropriate in the circumstances, but not for the purpose of expressing an
 opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

INDEPENDENT AUDITOR'S REPORT

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

The engagement partner on the audit resulting in this independent auditor's report is Martin Lundie.

Toronto, Canada December 12, 2019 Chartered Professional Accountants Licensed Public Accountants

Ernst & young LLP

Consolidated Statements of Financial Position

(in thousands of Canadian dollars)

	Notes	As at October 31, 2019	As at October 31, 2018
Assets			
Current assets:			
Cash and cash equivalents	17	\$ 144,764	\$ 187,551
Short-term investments Accounts receivable	17	5,505	6,386 62,085
Prepaid expenses and other assets	17	84,982 11,147	8,951
Tropara expenses and earler access		246,398	264,973
Non-current assets:		210,000	201,010
Property and equipment	5	6,280	5,279
Intangible assets	6	121,885	59,895
Goodwill	6	203,298	155,419
Deferred income tax assets	10	12,739	9,634
Total assets		\$ 590,600	\$ 495,200
Liabilities			
Current liabilities:			
Accounts payable and accrued liabilities		\$ 62,813	\$ 44,271
Income taxes payable		6,953	4,904
Dividends payable	8	6,021	4,912
Provisions	7	6,536	268
Deferred revenue		78,405 249	64,020 122
Current portion of long-term loans		160,977	118,497
Non-current liabilities:		100,977	110,491
Non-current portion of income taxes payable	10	4,434	7,466
Deferred income tax liabilities	10	16,197	13,115
Deferred revenue		3,665	2,169
Net employee defined benefit obligation	21	2,380	2,354
Long-term loans		874	1,475
Total liabilities		188,527	145,076
Shareholders' Equity			
Share capital	8	81,576	78,997
Contributed surplus	0	6,677	4,866
Retained earnings		309,198	260,506
Accumulated other comprehensive income	8	4,622	5,755
Total shareholders' equity		402,073	350,124
Total liabilities and shareholders' equity		\$ 590,600	\$ 495,200

Commitments and contingencies (Note 13)

The accompanying notes form an integral part of these consolidated financial statements.

On Behalf of the Board of Directors:

Stephen J. Sadler

Director

Eric A. Demirian

Director

Consolidated Statements of Operations and Comprehensive Income

(in thousands of Canadian dollars, except per share amounts)

		Year ended		
	Notes	October 31, 2019	October 31 201	
Revenue				
Software licenses		\$ 89,093	\$ 85,68	
Hosted and maintenance services		219,630	191,08	
Professional services		60,889	58,26	
Hardware		16,241	7,81	
		385,853	342,84	
Direct costs		E 461	6.96	
Software licenses Services		5,461 101,281	6,86 91,76	
Hardware		12,061	4,79	
		118,803	103,42	
Revenue, net of direct costs		267,050	239,42	
Operating expenses				
Selling, general and administrative	19	92,421	86,20	
Research and development		59,049	47,16	
Depreciation	5	2,403	2,41	
Special charges	19	1,203	39	
		155,076	136,17	
Results from operating activities		111,974	103,24	
Amortization of acquired software and customer relationships	6	(31,697)	(28,149	
Foreign exchange gains		66	59	
Finance income		1,805	47	
Finance expenses		(76)	(213	
Other income		2,176	2,07	
Income before income taxes		84,248	78,03	
Provision for income taxes				
Current income tax expense	10	21,558	24,39	
Deferred income tax recovery	10	(8,159)	(4,106	
		13,399	20,28	
Net income for the year		\$ 70,849	\$ 57,74	
Items that are or may be reclassified subsequently to profit or loss:				
Cumulative translation adjustment		(1,795)	(2,019	
Unrealized loss on investments in equity securities designated at FVOCI		_	(822	
Deferred income tax (expense) recovery		(119)	10	
Other comprehensive loss		(1,914)	(2,732	
Comprehensive income		\$ 68,935	\$ 55,01	
Earnings per share				
Basic	11	\$ 1.30	\$ 1.0	
Diluted	11	\$ 1.29	\$ 1.0	

The accompanying notes form an integral part of these consolidated financial statements.

Consolidated Statements of Changes in Shareholders' Equity

(in thousands of Canadian dollars)

				Accumulated		
	Share capital	Share capital	Contributed	other comprehensive	Retained	
	#*	\$	surplus \$	(loss) income \$	earnings \$	Total \$
As at November 1, 2018 as previously presented	54,580,024	78,997	4,866	5,755	260,506	350,124
IFRS 9 transition adjustment (Note 4)	_	_	_	781	(781)	_
IFRS 15 transition adjustment (Note 4)	-	-	-	-	1,590	1,590
Adjusted balance as at November 1, 2018	54,580,024	78,997	4,866	6,536	261,315	351,714
Net income for the year	-	-		_	70,849	70,849
Cumulative translation adjustment	_	_	_	(1,795)	_	(1,795)
Deferred income tax expense	-	-	-	(119)	_	(119)
Comprehensive income for the year	-	_	_	(1,914)	70,849	68,935
Employee share options:						
Value of services recognized (Note 9)	_	_	2,268	_	_	2,268
Proceeds on issuing shares	157,400	2,579	(457)	-	_	2,122
Dividends declared (Note 8)	-	-	-	-	(22,966)	(22,966)
As at October 31, 2019	54,737,424	81,576	6,677	4,622	309,198	402,073
As at November 1, 2017	53,986,424	71,422	4,715	8,487	221,775	306,399
Net income for the year		_	-	_	57,745	57,745
Cumulative translation adjustment	-	-	-	(2,019)	-	(2,019)
Unrealized loss on investments in equity						
securities designated at FVOCI	-	-	-	(822)	-	(822)
Deferred income tax recovery	-	-	-	109	-	109
Comprehensive income for the year	-	-	-	(2,732)	57,745	55,013
Employee share options:						
Value of services recognized (Note 9)	-	-	1,545	-	-	1,545
Proceeds on issuing shares	593,600	7,575	(1,394)	-	-	6,181
Dividends declared (Note 8)	-	-	-	-	(19,014)	(19,014)
As at October 31, 2018	54,580,024	78,997	4,866	5,755	260,506	350,124

^{*} On January 25, 2019, the Company completed a share split whereby each issued and outstanding common share has been doubled. All references to capital stock, options and per share data have been adjusted retrospectively to reflect the Company's two-for-one share split for the years ended October 31, 2019 and 2018.

The accompanying notes form an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

(in thousands of Canadian dollars)

	Notes	Year o October 31, 2019	ended October 31, 2018
Cash flows from operating activities		Ф. 70.040	Φ 57.745
Net income for the year		\$ 70,849	\$ 57,745
Adjustments for:			
Depreciation	5	2,403	2,411
Amortization of acquired software and customer relationships	6	31,697	28,149
Stock-based compensation expense	9	2,268	1,545
Provision for income taxes	10	13,399	20,289
Finance expenses and other income		(2,100)	(1,863)
		118,516	108,276
Changes in non-cash operating working capital	18	(15,732)	6,313
Income taxes paid		(21,409)	(16,334)
Net cash flows from operating activities		81,375	98,255
Cash flows from investing activities			
Purchase of property and equipment	5	(2,155)	(2,244)
Acquisitions, net of cash acquired of \$36,708 (2018–\$1,235)	12	(101,219)	(9,675)
Purchase consideration for prior year acquisitions	12	(1,105)	(7,137)
Sale of short-term investments		1,709	3,197
Net cash flows used in investing activities		(102,770)	(15,859)
Cash flows from financing activities			
Issuance of share capital		2,122	6,181
Repayment of loans		(1,452)	(1,172)
Payment of cash dividend		(21,857)	(18,422)
Net cash flows used in financing activities		(21,187)	(13,413)
Effect of currency translation adjustments on cash and cash equivalents		(205)	(2,040)
Net (decrease) increase in cash and cash equivalents during the year		(42,787)	66,943
Cash and cash equivalents - beginning of year		187,551	120,608
Cash and cash equivalents - end of year		\$ 144,764	\$ 187,551

The accompanying notes form an integral part of these consolidated financial statements.

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

1 Description of the business and reporting entity

Enghouse Systems Limited ("Enghouse Systems") and its wholly owned subsidiaries (together the "Company" or "Enghouse") develop enterprise software solutions for a number of vertical markets. The Company is organized around two business segments: the Interactive Management Group ("IMG") and the Asset Management Group ("AMG").

IMG specializes in customer interaction software and services that are designed to enhance customer service, increase efficiency and manage customer communications across the enterprise. Core technologies include contact center, attendant console, interactive voice response, dialers, video collaboration, agent performance optimization and analytics that support any telephony environment, and may be deployed on-premise or in the cloud. Its customers are varied and include insurance companies, telecoms and banks as well as technology, health care and hospitality companies.

AMG provides a portfolio of products primarily to telecom service providers. Its products include Operations Support Systems, Business Support Systems, Mobile Value Added Services solutions, video and IPTV services as well as data conversion services. The Asset Management Group also provides fleet routing, dispatch, scheduling, transit e-ticketing and automated fare collection, communications and emergency control center solutions for the transportation, government, first responders, distribution and security sectors.

Enghouse Systems is incorporated and domiciled in Canada. The address of its registered office is 80 Tiverton Court, Suite 800, Markham, Ontario, L3R 0G4. The Company has offices around the world including the United States, the United Kingdom, Sweden, Norway, Denmark, the Netherlands, France, Belgium, Brazil, Germany, Ireland, Australia, New Zealand, Israel, Lebanon, Romania, Italy, Spain, Japan, Portugal, Colombia and Croatia.

2 Basis of preparation and adoption of International Financial Reporting Standards

The consolidated financial statements of the Company and its subsidiaries have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The significant accounting policies described below are consistently applied to all the periods presented.

The preparation of consolidated financial statements requires the use of certain critical accounting estimates. It also requires management to exercise judgment in applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in Note 3.

The presentation of certain amounts of the previous year has been changed to conform to the Consolidated Statements of Operations and Comprehensive Income presentation adopted for the current year. Specifically, the Company has reclassified certain amounts previously reported under IAS 18, Revenue ("IAS 18") as software license revenue to hosted and maintenance revenue. There was no impact to net income or retained earnings. Additionally, on January 25, 2019, the Company completed a share split whereby each issued and outstanding common share has been doubled. All references to capital stock, options and per share data have been adjusted retrospectively to reflect the Company's two-for-one share split for the periods ended October 31, 2019 and 2018.

These consolidated financial statements were approved by the Board of Directors for issue on December 12, 2019.

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

Summary of significant accounting policies, judgments and estimation uncertainties

Summary of significant accounting policies

Basis of measurement

The consolidated financial statements are prepared on a going concern basis, using historical cost, except for investments in equity securities designated at fair value through profit or loss, certain assets and liabilities initially recognized in connection with business combinations, and derivative financial instruments, which are measured at fair value. All financial information is presented in Canadian dollars rounded to the nearest thousands, except as otherwise noted.

Basis of consolidation

These consolidated financial statements include the accounts of the Company. All intercompany transactions, balances and unrealized profits and losses from intercompany transactions have been eliminated upon consolidation. The Company does not have any special purpose entities to be consolidated. Accounting policies of subsidiaries have been changed, where necessary, to ensure consistency with the policies adopted by the Company.

Subsidiaries are all entities (including structured entities) over which Enghouse Systems has control. The Company controls an entity when the Company is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealized gains on transactions between Enghouse companies are eliminated. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Company.

Business combinations

The Company applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Company. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date.

The Company expenses acquisition-related expenses as incurred.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measurement are recognized in profit or loss.

Any contingent consideration to be transferred by the group is recognized at fair value as at the acquisition date. Subsequent changes to the fair value of the contingent consideration are recognized in the Consolidated Statements of Operations and Comprehensive Income. A portion of the consideration on acquisitions is subject to hold-back and adjustment in accordance with the terms of the purchase agreements. The Company accrues hold-backs as part of the consideration payable on acquisition. Adjustments to the hold-backs will be recorded through goodwill.

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

Goodwill is initially measured as the excess of the aggregate of the consideration transferred and the fair value of non-controlling interest over the net identifiable assets acquired and liabilities assumed. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized in profit or loss.

Intercompany transactions, balances, income and expenses on transactions between group companies are eliminated. Profits and losses resulting from intercompany transactions that are recognized in assets are also eliminated.

Foreign currency translation

(i) Functional and presentation currency

The Company's subsidiaries generally operate in their local currency environment. Accordingly, items included in the financial statements of each legal entity consolidated within the Enghouse group are measured using the currency of the primary economic environment in which the legal entity operates (the "functional currency"). The consolidated financial statements are presented in Canadian dollars, which is also Enghouse Systems' functional currency.

When the Company disposes of its entire interest in a foreign operation, or loses control over a foreign operation, the foreign currency gains or losses accumulated in other comprehensive income (loss) related to the foreign operation are recognized in profit or loss. If the Company disposes of part of an interest in a foreign operation that remains a subsidiary, a proportionate amount of foreign currency gains or losses accumulated in other comprehensive income (loss) related to the subsidiary is reallocated between controlling and non-controlling interests.

(ii) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Generally, foreign exchange gains and losses resulting from the settlement of foreign currency transactions and from the translation at period-end exchange rates of monetary assets and liabilities denominated in currencies other than an operation's functional currency are recognized in the Consolidated Statements of Operations and Comprehensive Income and disclosed separately below the results from operating activities.

(iii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Canadian dollars at exchange rates at the reporting date. The income and expenses of foreign operations are translated to Canadian dollars using average exchange rates for the month during which the transactions occurred. Foreign currency differences are recognized in other comprehensive income (loss) in the cumulative translation account.

Cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits held with banks, and other short-term highly liquid investments with original maturities of three months or less. Cash and cash equivalents are not subject to risks of change in fair value.

Short-term investments

Short-term investments include equity securities, which are investments in publicly available securities that are carried at fair market value, as well as fixed-income securities with original maturities of one year or less that do not qualify for measurement at either amortized cost or fair value through other comprehensive income ("FVOCI").

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

Financial instruments

Financial assets and liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument. Financial assets are derecognized when the rights to receive cash flows from the assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership. Financial assets and liabilities are offset and the net amount is reported in the Consolidated Statements of Financial Position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

Financial assets at fair value through profit or loss

The Company classifies the following financial assets at fair value through profit or loss (FVPL): debt investments that do not qualify for measurement at either amortized cost or FVOCI, equity investments held for trading and equity investments for which the Company has not elected to recognize gains and losses through OCI. The equities held by the Company are those of publicly traded companies whose fair values are determined by the closing quoted market values for each investment at the Consolidated Statements of Financial Position date. The fair value of the Company's equity portfolio is subject to fluctuations in equity markets and is denominated in Canadian dollars as at October 31, 2019.

Interest on cash and cash equivalents, calculated using the effective interest method, is recognized in the Consolidated Statements of Operations and Comprehensive Income as part of Finance income.

Dividends on equity investments that are held for trading are recognized in the Consolidated Statements of Operations and Comprehensive Income as part of Finance income when the Company's right to receive payment is established.

Trade receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. These are classified in current assets, except for the portion expected to be realized or paid beyond twelve months of the Consolidated Statements of Financial Position date, which is classified as non-current. Trade receivables are recognized initially at the amount of consideration that is unconditional, unless they contain significant financing components, when they are recognized at fair value. The Company holds trade receivables with the objective of collecting the contractual cash flows and therefore measures them subsequently at amortized cost using the effective interest method.

Due to the short-term nature of the current receivables, their carrying amount is considered to be the same as their fair value.

Cash and cash equivalents

Term deposits are presented as cash equivalents if they have a maturity of three months or less form the date of acquisition and are repayable within 24 hours' notice with no loss of interest.

Trade and other payables

Trade payables are unsecured and are usually paid within 45 days of recognition. The carrying amounts of trade and other payables are considered to be the same as their fair values, due to their short-term nature.

Accounts payable includes accrued liabilities, provisions, dividends and other payables. Trade and other payables are initially recognized at the amount required to be paid, less, when material, a discount to reduce trade and other payables to fair value. Subsequently, trade and other payables are measured at amortized cost using the effective interest rate method. Financial liabilities are classified as current liabilities if payment is due within twelve months. Otherwise, they are presented as non-current liabilities.

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

The Company is not party to any derivative financial instruments.

Impairment of financial assets

At each reporting date, the Company assesses whether there is objective evidence that a financial asset is impaired. Objective evidence that financial assets are impaired can include default or delinquency by a debtor, restructuring of an amount due to the Company on terms that the Company would not otherwise consider, or indications that a debtor or issuer will enter bankruptcy.

The Company applies the IFRS 9 simplified approach to measuring expected credit losses, which uses a lifetime expected loss allowance for all trade receivables and contract assets. To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due.

The expected loss rates are based on the payment profiles of sales over prior periods and the corresponding historical credit losses experienced during this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

Impairment losses on financial assets measured at amortized cost are calculated as the difference between the carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognized in profit or loss and recorded as an expected credit loss against receivables. When a subsequent event cause the impairment loss to decrease, the decrease is reversed through profit or loss.

Property and equipment

Property and equipment are recorded at acquisition cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditures that are directly attributable to the acquisition of an asset. Subsequent costs are included in the asset's carrying amount or are recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost can be measured reliably. Repairs and maintenance costs are charged to the Consolidated Statements of Operations and Comprehensive Income during the period in which they are incurred.

The major categories of property and equipment are depreciated as follows:

Buildings	39 years straight-line
Land	Not amortized
Furniture and fixtures	5 years straight-line
Computer hardware	3 years straight-line
Leasehold improvements	Shorter of useful life or initial lease term

The Company allocates the amount initially recognized in respect of an item of property and equipment to its significant parts (if any) and separately depreciates each part. Residual values, method of depreciation and useful lives of the assets are reviewed annually and adjusted if appropriate. The cost and accumulated depreciation of replaced assets are derecognized when replaced. Gains and losses on disposal of property and equipment are determined by comparing the proceeds with the carrying amount of the assets and are included as part of other income (expense) in the Consolidated Statements of Operations and Comprehensive Income.

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

Acquired software and customer relationships

The Company uses the income approach to value its acquired software and customer relationship intangible assets. This approach is a valuation technique that calculates the fair value of an intangible asset based on the cash flows that an asset could be expected to generate over its remaining useful life. The Company's intangible assets include patented technology, customer relationships, and acquired software with finite useful lives. These assets are capitalized and are amortized to operations over their estimated useful lives from the date that they are acquired and available for use, since this most closely reflects the expected usage and consumption patterns related to the future economic benefits embodied in the assets. The Company considers the length of time over which it expects to earn or recover the cost of the assets. The estimated useful lives for the current and comparative periods are as follows:

Acquired software	4 to 6 years straight-line
Customer relationships	4 to 8 years straight-line
Patents	Remaining legal life
Capitalized software	5 years straight-line

Amortization methods, estimates of useful lives and residual values are reviewed at least annually and are adjusted as appropriate.

Capitalized software

The Company capitalizes software development costs for computer software developed or obtained for internal use. The Company capitalizes costs for software to be used internally during the development stage. This occurs when the preliminary project stage is complete, management authorizes and commits to funding the projects, and it is feasible that the projects will be completed and the software will perform the intended function. Capitalization of costs related to the software project is ceased when it enters the post-implementation and operation stage. If different determinations are made with respect to the state of development of a software project, then the amount capitalized and the amounts charged to expense for that project could differ materially.

Costs capitalized during the development stage consist of payroll and related costs for employees who are directly associated with, and who devote time to, a project to develop or implement software for internal use. The Company capitalizes the direct costs of materials and services, which generally include outside contractors. The Company does not capitalize any general and administrative costs, or costs incurred during the development stage related to training. Costs related to upgrades and enhancements to internal-use software, if those upgrades and enhancements result in additional functionality, are capitalized.

The Company amortizes capitalized software with respect to development projects for internal-use software when the software is ready for use. The capitalized software development costs are generally amortized using the straight-line method over a five-year period. In determining and re-assessing the estimated useful life over which the cost incurred for the software should be amortized, the Company considers the effects of obsolescence, technology, competition and other economic factors. If different determinations are made with respect to the estimated useful life of the software, the amount of amortization charged in a particular period could differ materially.

Goodwill

Goodwill represents the excess of the purchase price of business acquisitions over the fair values of identifiable net assets acquired in such acquisitions and is allocated as at the date of the business combination. Goodwill acquired through a business combination is allocated to each cash-generating

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

unit ("CGU") or group of CGUs that are expected to benefit from the related business combination. A group of CGUs represents the lowest level within the entity at which the goodwill is monitored for internal management purposes, which is not higher than an operating segment. The Company has two groups of CGUs: IMG and AMG, for which goodwill is monitored. After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

Impairment of non-financial assets

The unamortized portions of property and equipment, acquired software and customer relationships are reviewed when events or circumstances indicate that the carrying amounts may not be recoverable. Intangible assets with an indefinite useful life or intangible assets not yet available for use are subject to an annual impairment test. Goodwill is not subject to amortization but is assessed for impairment on at least an annual basis and, additionally, whenever events and changes in circumstances suggest that the carrying amount may not be recoverable. The recoverable amount is estimated annually on October 31 of each year.

For the purpose of measuring recoverable amounts, assets are grouped at the lowest levels for which there are separately identifiable cash inflows. The recoverable amount is the higher of an asset's, or groups of CGUs' fair value less costs to sell and value in use (being the present value of the expected future cash flows of the relevant asset or groups of CGUs). An impairment loss is measured as the amount by which the asset's, or groups of CGUs' carrying amount exceeds its recoverable amount. Impairment losses are recognized in the Consolidated Statements of Operations and Comprehensive Income.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

No such impairment losses have been recognized during the period.

Employee benefits

(i) Post-employment benefit obligations

Employees of companies included in these consolidated financial statements have entitlements under Company pension plans, which include both defined contribution and defined benefit pension plans. These plans take different forms depending on the legal, financial and tax regime of each country. The cost of defined contribution pension plans is charged to expense as the contributions become payable and cease when an employee leaves the Company.

The Company's obligations and expenses related to defined benefit pension plans are determined using actuarial valuations and are dependent on a number of assumptions. The defined benefit obligations and benefit cost levels will change because of future changes in actuarial methods and assumptions, membership data, plan provisions, legislative rules, and future experience gains or losses, which may not have been anticipated at this time. Emerging experience, differing from assumptions, will result in gains or losses that will be disclosed in future accounting valuations.

(ii) Stock-based compensation plans

The Company grants stock options to certain employees. Stock options are granted at a price equal to or above the market value of the shares at the date of the grant. When the stock options are exercised,

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the Company issues new common shares. The consideration received on the exercise of stock options is credited to share capital at the time of exercise. The Company's stock option compensation plan is described in Note 9.

Stock options generally vest over four years in a tiered manner and expire after seven years. Each tranche in an award is considered a separate award with its own vesting period and grant date fair value. Fair value of each tranche is measured at the date of grant using the Black-Scholes option pricing model. Compensation expense is recognized over the tranche's vesting period on a straight-line basis based on the number of awards expected to vest, with a corresponding credit to contributed surplus. The number of awards expected to vest is reviewed at least annually, with any impact being recognized immediately.

(iii) Termination benefits

The Company recognizes termination benefits when it is demonstrably committed to either terminating the employment of current employees in accordance with a detailed formal plan without possibility for withdrawal or providing benefits as a result of an offer made to encourage voluntary termination. Benefits falling due more than twelve months after the end of the reporting period are discounted to their present value.

(iv) Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognized for the amount expected to be paid under the Company's incentive compensation plan if the Company has a legal or constructive obligation to pay this amount at the time bonuses are paid as a result of past service provided by the employee, and the obligation can be reliably estimated.

Provisions

Provisions, including those for onerous contracts, legal claims and restructuring, are recognized when the Company has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. Provisions are measured based on management's best estimate of the expenditure required to settle the obligation at the end of the reporting period, and are discounted to present value where the effect is material.

The Company performs evaluations to identify onerous contracts and legal claims and, where applicable, records provisions for such items. A provision for onerous contracts is recognized when the unavoidable costs of meeting the obligations under a contract exceed the economic benefits expected to be received from the contract. A provision for restructuring is recognized when the Company has approved a detailed and formal restructuring plan, and the restructuring either has commenced or been publicly announced. Restructuring provisions include such items as lease termination penalties, employee termination payments and over-market and excess capacity lease obligations acquired in business combinations. Provisions are not recognized for future operating losses.

A contingent liability is disclosed unless the possibility of an outflow of resources embodying economic benefits is remote.

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Income taxes

Income tax expense comprises current income tax expense and deferred income tax expense. Current income tax and deferred income tax expense are recognized in the Consolidated Statements of Operations and Comprehensive Income, except to the extent that they relate to items recognized directly in other comprehensive income (loss) or equity, in which case the income tax is also recognized directly in other comprehensive income (loss) or equity.

Current income tax is the expected tax payable on the taxable income for the year, using tax rates enacted, or substantively enacted, at the end of the reporting periods, and any adjustment to the tax payable in respect of previous years.

In general, deferred income tax is the amount of income taxes expected to be paid or recoverable in future periods in respect of temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements, carry-forward of unused tax losses and carry-forwards of unused tax credits. Deferred income tax is determined on a non-discounted basis using tax rates and laws that have been enacted or substantively enacted at the Consolidated Statements of Financial Position date and are expected to apply when the deferred income tax asset or liability is settled. Deferred income tax assets, including unutilized tax losses, are recognized to the extent that it is probable that the assets can be recovered.

Deferred income tax is provided on temporary differences arising on investments in subsidiaries, except where the timing of the reversal of the temporary difference is controlled by the Company and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred income tax assets are recognized to the extent it is probable that taxable profits will be available against which the deductible temporary differences and unused tax losses and tax credits can be utilized. The carrying value of deferred income tax assets is reviewed at each Consolidated Statements of Financial Position date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the deferred income tax asset to be recovered.

Deferred income tax is recognized, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognized if they arise from the initial recognition of goodwill; deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be recognized simultaneously. Deferred income tax assets and liabilities are presented as non-current.

Dividends

Dividends on common shares are recognized in the Company's consolidated financial statements in the period in which the dividends are declared and approved by the Company's Board of Directors.

Leases

Leases in which a significant portion of the risks and rewards of ownership is retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the Consolidated Statements of Operations and Comprehensive Income on a straight-line basis over the period of the lease.

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Leases of property and equipment, where the Company has substantially all the risks and rewards of ownership, are classified as finance leases. Finance leases are capitalized at the lease's commencement at the lower of the fair value of the leased property and the present value of the minimum lease payments.

Each lease payment is allocated between the liability and finance charges. The corresponding rental obligations, net of finance charges, are included in accounts payable and accrued liabilities. The interest element of the finance cost is charged to the Consolidated Statements of Operations and Comprehensive Income over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The property and equipment acquired under finance leases are depreciated over the shorter of the useful life of the asset and the lease term.

Share capital

Common shares are classified as equity. Incremental costs attributable to the issuance of shares are recognized as a deduction from equity.

Revenue recognition

On November 1, 2018, the Company adopted IFRS 15. Revenue represents the amount the Company expects to receive for products and services in its contracts with customers, net of discounts and sales taxes. The Company accounts for customer contracts when it secures written approval in the form of a signed contract, the parties are committed to the contract with the rights of the parties, including payment terms, specifically identified, the contract has commercial substance and the consideration is probable of collection. The timing of revenue recognition often differs from contract payment schedules and milestones, resulting in revenue that has been earned but not billed. These amounts are included as accounts receivable. Amounts billed in accordance with customer contracts, but in advance of revenue being recognized, are classified as deferred revenue.

(i) Arrangements with multi-performance obligations

The Company typically contracts with customers to deliver more than one of the goods and services noted below as part of a single arrangement. The Company exercises significant judgment to evaluate these arrangements to determine whether the goods or services are considered distinct performance obligations that should be accounted for separately from some or all of the other goods or services in the arrangement. A good or service is distinct if the customer can benefit from it on its own or together with other readily available resources and the Company's promise to transfer the good or service is separately identifiable from other promises in the contract. Goods and services that are not distinct are combined with other goods and services until they are distinct as a bundle and can be accounted for as a single performance obligation. Where a contract consists of more than one performance obligation, revenue is allocated to each based on their estimated relative standalone selling price ("SSP").

(ii) Standalone selling price

The SSP reflects the price Enghouse charges for a specific good or service if it was sold separately to similar customers in similar circumstances. This is typically determined using observable data and is based on a narrow range of prices or rates established from historical analysis. This range is subject to periodic review and assessment when material changes in facts and circumstances warrant it.

(iii) Allocation of transaction price

In bundled arrangements where there is more than one distinct performance obligation, the transaction price is allocated to each performance obligation based on its relative SSP. However, the SSP may not be directly observable in all bundled transactions. In bundled transactions with license and customer maintenance, the Company allocates the transaction price between license and maintenance using the

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residual approach as it has determined the SSP for certain goods and services, such as licenses, in these arrangements is highly variable.

(iv) Nature of goods and services

Revenue consists primarily of fees for licenses of the Company's software, subscriptions, hosted and maintenance services, professional services and hardware revenue.

License revenue

The Company sells on-premise software licenses on both a perpetual and specified-term basis. Perpetual licenses provide customers the right to use the software for an indefinite period of time in exchange for a one-time license fee, generally paid at contract inception. Term licenses provide the customer with the right to use software for a specified period in exchange for a fee, which may be paid at contract inception or paid in installments over the period of the contract. Revenue from the licensing of software on a perpetual basis is recognized at the time that both the right to use the software has commenced and the software has been made available to the customer for download at the commencement of the term. Term license revenue provided on a fixed-fee basis, subject to monthly or annual minimum fees, is recognized at the time that both the right to use the software has commenced and the software has been made available to the customer. Term license revenue provided on a variable usage basis, such as the number of transactions, subscribers or other variable measure, is recognized over time based on a customer's utilization in a given period. The Company also sells third-party software as an added service to customers. This revenue is generally recognized on delivery to the customer on the same terms and basis as the Company provides its own proprietary software to customers.

Hardware revenue

Hardware is sold to customers as an added service to complement the Company's software offering. This revenue is generally recognized on delivery to the customer when the Company has transferred control of the hardware to the buyer under the terms of an enforceable contract.

Hosted and maintenance services revenue

In the Company's hosted/SaaS arrangements, the end user generally does not take possession of the software and the software application resides on the Company's hardware or that of a third party with the customer obtaining the right to access the software. Hosted solutions and services are provided on a usage basis, which can vary depending on the number of users or subscribers, and is recognized based on a customer's utilization of the services over the term of the arrangement.

Maintenance revenue consists primarily of technical support and the provision of unspecified upgrades and updates made on a when-and-if-available basis. This support is related to the Company's perpetual and term-based on-premise license arrangements. Maintenance is not critical to the customer's ability to derive benefit from its right to use the Company's software and is considered a distinct performance obligation when sold together with licenses in a bundled transaction.

The amount of the selling price associated with hosted and maintenance services revenue agreements is deferred and recognized as revenue over the period during which the services are performed. This deferred revenue is included on the Consolidated Statements of Financial Position as a current liability to the extent the services are to be delivered in the next twelve months. Set-up fees on hosted services revenue are deferred and recognized on a straight-line basis over the estimated life of the customer relationship period.

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Professional services revenue

Professional services revenue includes installation, implementation, configuration, consulting and training services provided as a bundle along with software licenses or on a standalone basis. Payment for professional services is either on a fixed-fee or time and materials basis. As the Company's professional services do not significantly alter the functionality of the license and its customers can benefit from its professional services on their own or together with other readily available resources, professional services are considered as distinct within the context of the contract. Professional services revenue is recognized as delivered, typically on an input-based measure of progress such as total labour hours incurred versus total expected labour hours.

(v) Performance obligations

A summary of the Company's typical performance obligations and when the obligations are satisfied is as follows:

Performance obligation	When performance obligation is satisfied
Software license revenue Perpetual licenses Term licenses – fixed-fee basis Term licenses – variable/usage basis	When software is made available for download (point in time) When software is made available for download (point in time) Based on customer utilization (over time)
Hosted and maintenance services revenue	Ratable over course of the service term (over time)
Professional service revenue	As the services are delivered (over time)
Hardware revenue	As control of the hardware transferred (point in time)

Direct costs

Direct costs include third-party costs related to the delivery of software, hardware and professional, hosted and maintenance services as well as commissions payable to sales staff.

Research and development costs

The Company qualifies for certain investment tax credits related to the research and development of its computer software. Expenditures related to research are expensed as incurred and are reduced by related investment tax credits, which are recognized when reasonable assurance of realization exists. Expenditures during the development phase are capitalized if certain criteria, including technical feasibility and intent and ability to develop and use or sell the technology, are met; otherwise, they are expensed as incurred. No costs have been deferred on the Consolidated Statements of Financial Position as at October 31, 2019 or 2018.

Special charges

Special charges include costs for certain acquisition-related restructuring initiatives undertaken as well as acquisition-related transaction costs and similar charges.

Finance income and finance expenses

Finance income comprises interest income, gains on the disposal of short-term investments and dividend income. Interest income is recognized as it is accrued through profit or loss, using the effective interest method.

Finance expenses comprise interest expense on borrowings and impairment losses recognized on financial assets other than trade receivables.

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Earnings per share

Basic earnings per share are computed by dividing the net income (loss) for the period by the weighted average number of common shares outstanding during the period.

Diluted earnings per share are calculated by adjusting the weighted average number of common shares outstanding for stock options issued by the Company. The number of shares included with respect to stock options is computed using the Treasury Stock method. This method assumes that proceeds, which could be obtained upon the exercise of in-the-money stock options, would be used to purchase common shares at the average market price during the year.

Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker ("CODM"). The CODM is the person or persons who are responsible for allocating resources and assessing performance of the operating segments. The CODM has been identified as the Chief Executive Officer.

Critical accounting estimates and judgments

The preparation of the Company's consolidated financial statements in accordance with IFRS requires management to make judgments, estimates and assumptions that affect the reported amounts of revenue, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the date of the consolidated financial statements. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on a regular basis. Significant areas requiring the Company to make estimates, assumptions and judgments include those related to revenue recognition, intangible assets, the carrying value of goodwill, and income taxes. The Company bases its estimates on historical experience as well as on various other assumptions that are believed to be reasonable under the circumstances at the time.

Under different assumptions or conditions, the actual results would differ, potentially materially, from those previously estimated. Many of the conditions impacting these assumptions and estimates are beyond the Company's control. Revisions to the accounting estimates are recognized in the period in which the estimates are revised and will be recorded with corresponding impact on net income.

Revenue recognition

Separation of customer contract obligations and deliverables

Management applies judgment when assessing whether certain deliverables in a customer arrangement should be included or excluded from a unit of account to which contract accounting is applied. The judgment is typically related to the sale and inclusion of services and licenses in a customer arrangement and involves an assessment that principally addresses whether the deliverable has stand-alone value to the customer that is not dependent upon other components of the arrangement.

Professional services revenue

Management exercises judgment in determining whether a contract's outcome can be reliably estimated. Management also makes estimates and assumptions in the calculation of future contract costs and related profitability, which are used to determine the value of the amounts recoverable on contracts and the timing of revenue recognition. Management updates these estimates throughout the life of the contract. Judgment is also required to assess the probability of collection of the related receivables.

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Acquired assets and liabilities including intangible assets and goodwill

The Company accounts for business combinations using the acquisition method, under which it allocates the excess of the purchase price of business acquisitions over the fair value of identifiable net assets acquired to goodwill. One of the most significant estimates relates to the determination of the fair value of the assets and liabilities acquired. For any intangible asset identified, depending on the type of intangible asset and the complexity of determining its fair value, purchase price allocations are derived from a valuation analysis prepared by management. Fair values are determined using appropriate valuation techniques, which are generally based on a forecast of the total expected future net cash flows and are closely linked to the assumptions made by management regarding the future performance of the assets concerned and the discount rate applied.

Any goodwill or intangible assets with indefinite useful lives acquired in business combinations are not amortized to income over their useful lives but are assessed annually for any potential impairment in value.

All other intangible assets are amortized to operations over their estimated useful lives. The Company's intangible assets relate to acquired technology, patents and customer relationships. Enghouse also reviews the carrying value of amortizable intangible assets for impairment whenever events and circumstances indicate that the carrying value of an asset may not be recoverable from the estimated future cash flows expected from its use and eventual disposition. In assessing the recoverability of these intangible assets, the Company must make assumptions regarding estimated future cash flows, market conditions and other factors to determine the fair value of the assets. If these estimates or related assumptions change in the future, the Company may be required to record impairment charges for these assets.

Goodwill impairment

The goodwill recorded in the consolidated financial statements relates to two significant groups of CGUs: the IMG and AMG. The Company's assumptions used in testing goodwill for impairment are affected by current market conditions, which may affect expected revenue and costs. The Company also has significant competition in markets in which it operates, which may affect its revenues and operating costs. The recoverable amount of the groups of CGUs was based on an assessment of value in use using a discounted cash flow approach. The approach uses cash flow projections based on financial budgets approved by management covering a one-year period. Cash flows for the years thereafter are extrapolated using estimated annual growth rates. The Company uses a pre-tax discount rate, which has been estimated based on the industry's weighted average cost of capital. The risk premiums expected by market participants related to uncertainties about the industry and assumptions relating to future cash flows may differ or change quickly, depending on economic conditions and other events. Future changes in assumptions could negatively affect future assessments of the recoverable amount for the groups of CGUs, and the Company would be required to recognize an impairment loss.

As at October 31, 2019 and 2018, the Company's estimate of the recoverable amounts for each of the Asset Management CGU and Interactive Management CGU exceeded their respective carrying values by a significant margin, and as such, the Company determined that the groups of CGUs with goodwill had not been impaired. Based on its sensitivity analysis, management believes that any reasonable possible change in key assumptions used to calculate the recoverable amounts would have no impact on the results of the impairment test.

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Income taxes

Management uses significant judgment to determine the provision for income taxes, current and deferred income tax assets and liabilities and the recoverability of income tax assets recorded. The Company operates in multiple tax jurisdictions and to the extent that there are profits in these jurisdictions, the profits are subject to tax at varying tax rates and regulations under the legislation of these jurisdictions. The Company's effective tax rate may be affected by changes to or application of tax laws in any particular jurisdiction, changes in the geographical mix of revenue and expense, level of relative profitability in each jurisdiction, utilization of non-capital losses and income tax loss carry-forwards and management's assessment of its ability to realize deferred income tax assets. Accordingly, management must estimate the tax provision of the Company on a quarterly basis, which involves determining taxable income, temporary differences between tax and accounting carrying values and income tax loss carry-forwards. Favourable or unfavourable adjustments to tax provisions may result when tax positions are resolved or settled at amounts that differ from those estimates.

The Company has deferred income tax assets that are subject to periodic recoverability assessments. Realization of the Company's deferred income tax assets is largely dependent upon its achievement of projected future taxable income and the continued applicability of ongoing tax planning strategies. The Company's judgments regarding future profitability may change due to future market conditions, changes in tax legislation and other factors that could adversely affect the ongoing value of the deferred income tax assets. These changes, if any, may require the material adjustment of these deferred income tax asset balances through an adjustment to the carrying value thereon in the future. This adjustment would reduce the deferred income tax asset to the amount that is considered to be more likely than not to be realized and would be recorded in the period such a determination was to be made.

4 New standards and interpretations

New standards and interpretations adopted

IFRS 9, Financial Instruments ("IFRS 9")

IFRS 9 addresses the classification, measurement and recognition of financial assets and financial liabilities. IFRS 9 replaces the parts of IAS 39, *Financial Instruments: Recognition and Measurement* ("IAS 39") that relate to the classification and measurement of financial instruments. IFRS 9 requires financial assets to be classified into three measurement categories:

- Financial assets measured at fair value through profit or loss
- Financial assets measured at amortized cost
- Fair value through other comprehensive income for certain financial assets that are debt instruments

The determination of classification is made at initial recognition. The classification depends on the entity's business model for managing its financial instruments and the contractual cash flow characteristics of the instrument. For financial liabilities, the standard retains most of the IAS 39 requirements.

Under IFRS 9, gains and losses on re-measurement of financial assets measured at fair value will be recognized in profit or loss, except those for an investment in an equity instrument, which is not held-for-trading. IFRS 9 allows, on initial recognition, an irrevocable election to present all fair value changes from the investment in FVOCI. The election is available on an individual share-by-share basis. Unlike IAS 39, amounts presented in OCI will not be reclassified to profit or loss at a later date. IFRS 9 also includes a new general hedge accounting standard, which will align hedge accounting more closely with risk management. The Company does not have any designated hedges in place.

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Further changes to the classification and measurement rules introduced a new impairment model, which includes a new expected credit loss ("ECL") model that involves a three-stage approach whereby financial assets move through the three stages as their credit quality changes. The stage dictates how an entity measures impairment losses and applies the effective interest rate method. A simplified approach is permitted for financial assets that do not have a significant financing component (i.e. trade receivables). On initial recognition, entities will record a day-one loss equal to the 12-month ECL (or lifetime ECL for trade receivables), unless the assets are considered credit impaired. IFRS 9 requires a forward-looking ECL impairment model as opposed to an incurred credit loss model under IAS 39. As the Company's financial assets include significant trade receivables, the Company has used the simplified approach for measuring the loss allowance at an amount equal to lifetime ECL recorded on day-one. No transition adjustment on adoption of IFRS 9 was booked for this by the Company.

A summary of the Company's classification and measurement of financial assets under IAS 39 and IFRS 9 is as follows:

Financial assets	Under IAS 39	Under IFRS 9
Cash and cash equivalents	Fair value through profit or loss	Fair value through profit or loss
Short-term investments	Available-for-sale	Fair value through profit or loss
Accounts receivable	Amortized cost	Amortized cost

The Company adopted IFRS 9 on November 1, 2018 on a modified retrospective basis in accordance with the transitional provisions of IFRS 9. As such, comparative figures have not been restated. The adoption of IFRS 9 had a nominal impact on the Company's disclosures. Upon adoption, all investments in equity instruments have been measured at fair value through profit or loss ("FVPL"). These investments are recorded at fair value and changes in the fair value are recognized in other income in the Consolidated Statements of Operations and Comprehensive Income.

The Company recorded a transition adjustment on November 1, 2018 to reduce opening retained earnings and increase accumulated other comprehensive income by \$0.8 million on adoption of IFRS 9 to reflect the impact of recording short-term investments (equities) at FVPL.

IFRS 15, Revenue from Contracts with Customers ("IFRS 15")

The Company adopted IFRS 15, with an initial adoption date of November 1, 2018. The Company utilized the cumulative effect method to adopt the new standard. Accordingly, the results for reporting periods commencing on November 1, 2018 are presented under the new standard while the comparative information has not been restated and continues to be reported under the previous standard.

IFRS 15 contains a single model for revenue recognition that applies to contracts with customers. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue should be recognized. The new standard also provides guidance on whether revenue should be recognized over time or at a point in time as well as requirements for more informative disclosures. The Company has adopted IFRS 15, effective November 1, 2018, using the cumulative effect method. Under the cumulative effect method, the Company has recognized the cumulative effect of initially applying IFRS 15 as an adjustment to the opening balance of retained earnings as at November 1, 2018. Therefore, the comparative information has not been restated and continues to be reported under IAS 18, *Revenue* ("IAS 18"). The details of the primary changes on adoption of IFRS 15 are set out below:

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- Term-based licenses Under previous accounting policies, license revenue on certain term-based licenses was recognized ratably over the contract term. Under IFRS 15, the Company has deemed the licenses to be generally distinct from other performance obligations. Revenue allocated to the distinct license is recognized at the time the license is delivered to the customer, other than for those term-based licenses provided on a variable usage basis. Term license revenue provided on a fixed-fee basis, subject to monthly or annual minimum fees, is recognized at the time that both the right to use the software has commenced and the software has been made available to the customer. Term license revenue provided on a variable usage basis, such as the number of transactions, subscribers or other variable measure, is recognized over time based on a customer's utilization in a given period.
- Capitalization of costs to acquire contracts Under previous accounting policies, the Company generally expensed incremental commission costs as they were earned by employees. Under IFRS 15, the Company capitalizes and amortizes commission costs that relate to contracts of more than one year on a systematic basis, consistent with the pattern of transfer of the goods or services over which the commission costs relate. For commissions allocated to term-based license arrangements and post-contract customer support, the amortization period is expected to be over the term of the contract. For perpetual licenses these costs are expensed at the time that both the right to use the software has commenced and the software has been made available to the customer for download at the commencement of the term. Capitalized costs to obtain a contract are included in other non-current assets on the Consolidated Statements of Financial Position. The Company did not record any transition adjustment for capitalized costs to acquire contracts as they were not significant.

On adoption of IFRS 15, the Company recorded an adjustment to increase unbilled accounts receivable on November 1, 2018 by \$2.2 million with a corresponding adjustment to increase opening accumulated retained earnings by \$1.6 million (net of a credit to the deferred income tax liability of \$0.6 million). The transition adjustment related to term-based software license revenue that would have been recognized at a point in time under IFRS 15, which were previously recognized over time under IAS 18.

Had the Company presented the results for the year ended October 31, 2019 under IAS 18, the software license revenue and net income would have decreased by \$5.1 million and \$4.0 million, respectively, while the deferred income tax liability would have decreased by \$1.7 million, unbilled receivables would have decreased by \$7.3 million and retained earnings decreased by \$1.6 million.

As part of its adoption of IFRS 15, the Company has reclassified certain amounts previously reported under IAS 18 as software license revenue to hosted and maintenance revenue. As a result, software license revenue decreased by \$14.7 million for the year ended October 31, 2018 and the hosted and maintenance services revenue has increased by an equivalent amount during the same periods. This re-classification had no impact on the prior period net income and retained earnings.

The adoption of IFRS 15 had no impact to cash from or used in operating, financing, or investing activities on the Company's Consolidated Statements of Cash Flows.

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New standards and interpretations issued but not yet applied

IFRS 16, Leases ("IFRS 16")

IFRS 16 is a new standard effective for fiscal years beginning on or after January 1, 2019. The standard replaces current guidance under IAS 17, Leases ("IAS 17") and no longer distinguishes between a finance lease and an operating lease for lessees. Instead, for virtually all lease contracts the lessee recognizes a lease liability reflecting future lease payments and a "right-of-use" asset. Lessor accounting remains somewhat similar as under IAS 17. The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning on November 1, 2019.

The Company will apply IFRS 16 using the modified retrospective approach and as a result the comparative information will not be restated and will continue to be reported under IAS 17 and IFRIC 4, Determining Whether an Arrangement Contains a Lease ("IFRIC 4"). The Company has substantially completed the process of reviewing contracts from all business segments to assess whether they fall within the scope of IFRS 16, in whole or in part and to quantify lease and non-lease components. The Company is in the process of reviewing and finalizing documentation and the quantification of adjustments.

Based on the review completed to date, it is expected that there will be no impact on revenue but there will be a material increase to both assets and liabilities upon adoption of the new standard. The Company will recognize a lease liability and right-of-use asset at the date of adoption. The lease liability will be measured at the present value of the future lease payments at the date of adoption. A valuation approach to discount the population of leases has been developed and the Company is in the final stages of assessing the methodology, the deemed commencement date for the calculation of the right-of-use assets and the incremental borrowing rates to be applied.

In general, the right-of-use asset will be depreciated using the straight-line method from the date of adoption to the end of the lease term. Interest on the lease liability will be calculated using the effective interest method with rent payments reducing the liability. As a result of these changes, there will be an increase in interest expense and depreciation, as well as a reduction in selling, general and administrative on the Consolidated Statements of Operations and Comprehensive Income due to the decrease in rent expense. The overall impact to net income is not expected to be significant. Additionally, an increase in cash flow from operating activities is also expected as the lease payments will be recorded as financing outflows in the Consolidated Statements of Cash Flows. The Company is currently in the process of upgrading its existing systems, processes and internal controls to account for IFRS 16.

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5 Property and equipment

	Property \$	Furniture and Fixtures \$	Computer Hardware \$	Leasehold Improvements \$	Total \$
At October 31, 2017					
Cost	1,044	1,534	19,878	2,516	24,972
Accumulated depreciation	(162)	(1,005)	(16,955)	(1,528)	(19,650)
Net book value	882	529	2,923	988	5,322
Year ended October 31, 2018					
Opening net book value	882	529	2,923	988	5,322
Additions	-	181	1,994	69	2,244
Acquisitions (Note 12)	_	-	205	_	205
Depreciation	(16)	(182)	(1,961)	(252)	(2,411)
Exchange difference	5	(8)	3	(81)	(81)
Closing net book value	871	520	3,164	724	5,279
At October 31, 2018*					
Cost	986	1,456	15,653	1,761	19,856
Accumulated depreciation	(115)	(936)	(12,489)	(1,037)	(14,577)
Net book value	871	520	3,164	724	5,279
Year ended October 31, 2019					
Opening net book value	871	520	3,164	724	5,279
Additions	-	629	686	840	2,155
Acquisitions (Note 12)	_	-	1,597	_	1,597
Depreciation	(22)	(340)	(1,655)	(386)	(2,403)
Exchange difference	1	(74)	(266)	(9)	(348)
Closing net book value	850	735	3,526	1,169	6,280
At October 31, 2019					
Cost	986	2,085	16,339	2,601	22,011
Accumulated depreciation	(136)	(1,350)	(12,813)	(1,432)	(15,731)
Net book value	850	735	3,526	1,169	6,280

^{*}During fiscal 2018, certain fully depreciated property and equipment assets valued at approximately \$7 million and no longer being utilized were removed from cost and accumulated depreciation.

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6 Intangible assets and goodwill

	Acquired software \$	Capitalized software \$	Customer relationships \$	Total intangibles \$	Goodwill \$
At October 31, 2017					
Cost	150,608	3,592	100,211	254,411	150,687
Accumulated amortization	(115,614)	(667)	(58,416)	(174,697)	-
Net book value	34,994	2,925	41,795	79,714	150,687
Year ended October 31, 2018					
Opening net book value	34,994	2,925	41,795	79,714	150,687
Acquisitions (Note 12)	4,785	-	3,765	8,550	4,513
Purchase price adjustments	-	-	-	-	(705)
Amortization	(14,884)	(712)	(12,553)	(28,149)	-
Exchange difference	(104)	(16)	(100)	(220)	924
Closing net book value	24,791	2,197	32,907	59,895	155,419
At October 31, 2018					
Cost	155,393	3,592	103,976	262,961	155,419
Accumulated amortization	(130,602)	(1,395)	(71,069)	(203,066)	-
Net book value	24,791	2,197	32,907	59,895	155,419
Year ended October 31, 2019					
Opening net book value	24,791	2,197	32,907	59,895	155,419
Acquisitions(Note 12)	58,097	-	36,683	94,780	49,597
Amortization	(16,631)	(717)	(14,349)	(31,697)	_
Exchange difference	(440)	3	(656)	(1,093)	(1,718)
Closing net book value	65,817	1,483	54,585	121,885	203,298
At October 31, 2019					
Cost	213,490	3,592	140,659	357,741	203,298
Accumulated amortization	(147,673)	(2,109)	(86,074)	(235,856)	-
Net book value	65,817	1,483	54,585	121,885	203,298

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7 Provisions

Provisions include accruals for onerous contracts, legal claims, restructuring and special charges, and are measured based on management's best estimate of the expenditure required to settle the obligation at the end of the reporting period.

	Tota
At November 1, 2017	\$ 1,52 ⁻
Additional provisions expensed	473
Unused amounts reversed	(543
Utilized during the year	(1,179
Effect of movements in foreign exchange	(4
At October 31, 2018	\$ 268
At November 1, 2018	\$ 268
Additional provisions expensed	1,500
Pre-existing provisions assumed from acquisitions	9,544
Reversed	(302
Utilized during the year	(4,467
Effect of movements in foreign exchange	(13
At October 31, 2019	\$ 6,530

8 Share capital and other components of shareholders' equity

Capital stock

The authorized share capital of the Company consists of an unlimited number of common shares with no par value, an unlimited amount of Class A, redeemable, retractable, non-voting, non-cumulative, preference shares and an unlimited number of Class B, redeemable, retractable, non-voting, preference shares. There were 54,737,424 common shares outstanding as at October 31, 2019 (2018–54,580,024). There were no Class A and no Class B preference shares issued and outstanding as at either October 31, 2019 or October 31, 2018.

Dividends

During the year ended October 31, 2019, the Company declared dividends of \$22,966 (\$0.42 per common share), of which \$6,021 was paid on November 29, 2019 and was reflected as a liability in the Consolidated Statements of Financial Position at October 31, 2019 (\$4,912 October 31, 2018). For the year ended October 31, 2018, dividends declared were \$19,014 (\$0.35 per common share).

Common share repurchase plan

On April 26, 2019, the Company renewed its common share repurchase plan, whereby it may repurchase up to a maximum of 3,936,892 common shares of the Company, expiring on April 30, 2020. The Company did not repurchase any common shares in either fiscal 2019 or fiscal 2018.

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Accumulated other comprehensive income

Accumulated other comprehensive income comprises the following separate components of equity:

	Translation of foreign operations \$	Unrealized gains/losses \$	Total \$
At November 1, 2017	8,555	(68)	8,487
Cumulative translation adjustment Unrealized losses on investments in equity securities designated at FVOCI, net of income tax	(2,019)	-	(2,019)
recovery of \$109	-	(822)	(822)
At October 31, 2018	6,536	(781)	5,755
Adjustment on transition to IFRS 9	-	781	781
At November 1, 2018	6,536	-	6,536
Cumulative translation adjustment	(1,795)	_	(1,795)
Deferred income tax expense	-	(119)	(119)
At October 31, 2019	4,741	(119)	4,622

9 Stock-based compensation

The Company has granted options to purchase common shares to certain directors, officers and employees of the Company, pursuant to the terms of the Company's stock option plan (the "Plan"). The Plan provides that a total of 3,925,900 (2018–2,183,300) common shares are reserved for options and that the shares reserved for options, which could become exercisable in any one year, will not exceed more than 10% of the issued and outstanding common shares of the Company at the time such options may be exercisable. These options vest at various times over four years and expire seven years after the grant date. The exercise price of each option equals the market price of the Company's stock on the date the options are granted.

A summary of the status of the Company's Plan as at October 31, 2019 and October 31, 2018, and changes during the years ended on those dates, is presented as follows:

	20		20	
	Number of options	Weighted average exercise price in \$	Number of options	Weighted average exercise price in \$
Outstanding at beginning of period	1,440,900	25.13	1,840,500	19.52
Granted	500,000	38.35	390,000	30.82
Exercised	(157,400)	16.53	(593,600)	10.41
Forfeited	(39,000)	28.87	(196,000)	28.34
Outstanding at end of period	1,744,500	29.89	1,440,900	25.13
Options exercisable at end of period	607,500	22.85	531,900	18.05

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A summary of stock options outstanding as at October 31, 2019 is set out below:

	Outstand	ding Stock Optic	Exercisable Sto	ck Options	
Exercise Price	Number Outstanding as at October 31, 2019	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price in \$	Number Exercisable as at October 31, 2019	Weighted Average Exercise Price in \$
\$ 8.00 to \$12.00	92,500	0.41	10.06	92,500	10.06
\$12.01 to \$18.00	74,000	1.35	17.23	74,000	17.23
\$18.01 to \$25.00	240,000	2.36	24.24	240,000	24.24
\$25.01 to \$40.00	1,338,000	5.35	32.97	201,000	29.15
	1,744,500	4.43	29.89	607,500	22.85

The Company uses the fair value method for recording compensation expense related to equity instruments awarded to employees, officers and directors in accordance with IFRS 2, Share Based Payments. For the purposes of expensing stock options, each tranche in an award is considered a separate award with its own vesting period and grant date fair value. Compensation expense is recognized over the tranche's vesting period by increasing contributed surplus based on the number of awards expected to vest. During fiscal 2019, the Company recorded a non-cash charge of \$2,268 (2018–\$1,545).

For options granted in the year, the fair value of each stock option on the date of the grant was estimated using the Black-Scholes option pricing model as set out below. Estimated volatility is calculated on a daily basis using historical closing prices, as adjusted for certain events that management deemed to be non-recurring and non-indicative of future events over a period, noted below, which reflects the expected life of the options.

	Options Granted FY 2019	Options Granted FY 2018
Risk-free interest rate	1.79%	1.84%
Estimated volatility	26%	28%
Dividend yield	\$ 0.44	\$ 0.32
Expected life (in years)	5.0	3.5
Weighted average fair value	\$ 8.23	\$ 6.20
Weighted average share price at grant date	\$ 38.35	\$ 30.82

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

10 Income taxes

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

	2019	2018
Current income taxes:		
Current tax on profits for the year	\$ 21,962	\$ 17,448
U.S. repatriation tax	-	8,035
Foreign withholding taxes	1,210	1,006
Adjustments upon filing of tax returns	(1,614)	(2,094)
	\$ 21,558	\$ 24,395
Deferred income taxes:		
Origination and reversal of timing differences	(4,242)	\$ (1,059)
Change in tax rates	(33)	1,327
Recognition of previously unrecognized tax assets	(3,884)	(4,374)
	(8,159)	(4,106)
Total income tax provision	\$ 13,399	\$ 20,289

(B) The Company operates in several tax jurisdictions. The provision for income taxes differs from the expense that would be obtained by applying the combined federal and provincial statutory rate in Canada as a result of the following:

	\$	2019 %	\$	2018 %
Expected income tax amount at statutory rate	22,326	26.5	20,679	26.5
Foreign earnings subject to different income tax rates	(3,335)	(4.0)	(2,075)	(2.7)
Change in tax rates	(33)	-	1,327	1.7
Non-deductible expenses	898	1.1	672	0.9
Tax-exempt income	(662)	(8.0)	(150)	(0.2)
Foreign withholding taxes	1,210	1.4	1,006	1.3
U.S. repatriation tax	-	-	8,035	10.3
Resolution of tax positions	(3,099)	(3.7)	(4,831)	(6.2)
Changes in recognized assets	(3,884)	(4.6)	(4,374)	(5.6)
Effective income tax amount and rate	13,399	15.9	20,289	26.0

During the year, tax rate changes have been substantively enacted as follows:

New Rate (%)	Prior Rate (%)	Effective Date
22.0% 33.0%	23.0% 37.0%	January 2019 January 2019 January 2020
	22.0%	22.0% 23.0% 33.0% 37.0%

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

(C) The Company has recognized deferred income tax assets and liabilities as at October 31, 2019 and 2018 of the following:

	2019 \$	2018 \$
Deferred income tax assets:		
Adjustment to short-term investments	-	119
Provisions and reserves	3,325	2,755
Income tax loss carry-forwards	6,817	5,604
SRED expenditures	329	243
Property and equipment	2,268	913
	12,739	9,634
Deferred income tax liabilities:		
Property and equipment	343	667
Deferred revenue reserves	3,576	3,713
Acquired software	5,963	3,291
Other intangibles	6,315	5,444
	16,197	13,115
Deferred income tax liabilities, net	(3,458)	(3,481)

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

(D) The movement in deferred income tax assets and liabilities during the year is as follows:

	Balance November 1, 2018	Recognized in profit or loss	Recognized in other comprehensive income	Acquired in business combinations	Other	Balance October 31, 2019
Short-term investments	119	-	(119)	-	-	-
Provisions and reserves Income tax loss carry-	2,755	570	-	-	-	3,325
forwards	5,604	892	_	321	-	6,817
SRED expenditures	243	86	_	-	-	329
Property and equipment	913	1,355	_	-	-	2,268
Other	-	(225)	-	-	225	-
Assets	9,634	2,678	(119)	321	225	12,739

	Balance November 1, 2018	Recognized in profit or loss	Recognized in other comprehensive income	Acquired in business combinations	Other	Balance October 31, 2019
Property and equipment	667	(324)	_	-		343
Acquired software	3,291	(2,284)	-	4,956	-	5,963
Intangible assets	5,444	(2,413)	-	3,284	-	6,315
Deferred revenue reserves	3,713	(460)	-	323	-	3,576
Liabilities	13,115	(5,481)	-	8,563	-	16,197

	Balance November 1, 2017	Recognized in profit or loss	Recognized in other comprehensive income	Acquired in business combinations	Other	Balance October 31, 2018
Short-term investments Unrealized foreign	10	-	109	-	-	119
exchange	14	(14)	-	_	-	-
Provisions and reserves Income tax loss carry-	6,169	(3,414)	-	-	-	2,755
forwards	6,704	(1,906)	_	806	-	5,604
SRED expenditures	234	9	-	-	-	243
Property and equipment	1,214	(301)	-	-	-	913
Other	-	(490)	-	-	490	-
Assets	14,345	(6,116)	109	806	490	9,634

	Balance November 1, 2017	Recognized in profit or loss	Recognized in other comprehensive income	Acquired in business combinations	Other	Balance October 31, 2018
Property and equipment	591	76	-	-	_	667
Acquired software	7,742	(5,304)	-	853	-	3,291
Intangible assets	9,213	(4,804)	-	1,035	-	5,444
Deferred revenue reserves	3,903	(190)	-	-	-	3,713
Liabilities	21,449	(10,222)	-	1,888	-	13,115

The Company and its subsidiaries have non-capital losses available for carry-forward for income tax purposes, which may be subject to restriction on their availability to shelter income as follows:

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

Jurisdiction	Non-capital Iosses available 2019	n-capital losses ble 2018	Expiry terms
United States	\$ 106,000	\$ 65,000	Expire in periods commencing in 2020 - 2038
United Kingdom	14,000	1,000	No expiry
Belgium	9,000	9,000	No expiry
Denmark	5,000	7,000	No expiry
Canada	8,000	1,000	Expire in periods commencing in 2027 - 2039
Other	30,000	5,000	No expiry
	\$ 172,000	\$ 88,000	

The Company has not recognized a deferred income tax asset in respect of approximately \$118 million of non-capital losses. Of this amount, \$82 million in losses was incurred by companies resident in the U.S., which are subject to IRC 382 limitations. These limit the use of losses that are available and provide that these losses can only be applied on a straight-line basis over the applicable expiry period. Based on the attributes and the Company's profitability in the U.S., it is uncertain whether there will be sufficient future taxable income with which to offset these losses during this period. The remaining \$36 million in losses are related to losses incurred by other non-U.S. foreign subsidiaries that have been acquired during the year or the previous years. Due to a lack of financial history and historical losses in these entities, management believes that it is not appropriate to fully recognize tax assets for losses acquired with these businesses, which could potentially reverse. The Company has not recognized approximately \$20 million of deductible temporary differences as it is uncertain whether future taxable income in the tax jurisdictions in which the temporary differences arise will be available from which to realize the benefits. The current year's tax provision includes a credit of \$3.0 million booked for the recognition of deferred tax assets related primarily to non-capital losses for tax purposes, compared to a credit of \$2.4 million recorded in fiscal 2018 for the same reason.

(E) As a result of U.S. tax reform that was enacted on December 22, 2017, there were a significant amount of one-time charges that adversely affected the Company's tax provision in the 2018 fiscal year. These changes included the revaluation of deferred tax assets and liabilities on the reduction of the federal income tax rate from 35% to 21% effective January 1, 2018 and the implementation of a one-time deemed repatriation of earnings and profits of specified foreign corporations effective December 31, 2017. This repatriation tax charge recorded in 2018 resulted in an estimated U.S. \$6.2 million tax liability payable over 8 years. The Company has recorded the remaining estimated balance of U.S. \$0.5 million as income taxes payable and U.S. \$3.4 million as the non-current portion of income taxes payable on the Consolidated Statements of Financial Position at October 31, 2019.

11 Earnings per share

Basic earnings per share is calculated by dividing the net income attributable to owners of the parent by the weighted average number of common shares issued and outstanding during the period.

	2019	2018
Net income attributable to owners of the parent	\$ 70,849	\$ 57,745
Weighted average number of common shares in issue	54,652	54,238
Basic earnings per share	\$ 1.30	\$ 1.06

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

Diluted earnings per share is calculated by adjusting the weighted average number of common shares issued and outstanding to assumed conversions of all potential dilutive common shares. The Company only has stock options as a potential dilutive to common shares. For stock options, a calculation is done to determine the number of shares that could have been acquired at fair value (determined as the average market share price of the Company's outstanding shares for the period) based on the monetary value of the subscription rights attached to the stock options. The number of shares calculated above is compared to the number of shares that would have been issued assuming the exercise of the stock options.

	2019	2018
Net income attributable to owners of the parent	\$ 70,849	\$ 57,745
Weighted average number of common shares in issue Adjustments for: Stock options	54,652 311	54,238 390
Weighted average number of common shares for diluted EPS	54,963	54,628
Diluted earnings per share	\$ 1.29	\$ 1.06

In the current year, 500,000 options to purchase common shares were excluded from the computation of diluted earnings per share because the options' exercise prices were above the average market price of common shares during the fiscal year. In the prior fiscal year, no options were excluded in the computation of diluted earnings.

Acquisitions

Acquisitions have been recorded under the acquisition method of accounting and results have been included in the Consolidated Statements of Operations and Comprehensive Income from their respective acquisition dates. Accordingly, the allocation of the purchase price to assets and liabilities is based on the fair value, with the excess of the purchase price over the fair value of the assets acquired being allocated to goodwill.

2019 acquisitions

Asset Management Group

The Company acquired 100% of the issued and outstanding common shares of Telexis Solutions B.V. and Telexis B.V. ("Telexis") on November 8, 2018. Headquartered near The Hague, Netherlands, Telexis Solutions is an innovative technology provider offering public transport agencies/operators end-to-end e-ticketing solutions. Its product suite includes automated fare collection, sales and services, value-added services, inspection and corresponding back-office solutions.

On November 9, 2018, Enghouse acquired 100% of the issued and outstanding common shares of Capana Sweden AB ("Capana"). Headquartered in Gothenburg, Sweden, Capana provides an end-to-end, integrated software platform for wholesale billing and partner settlements. Its revenue management solutions are used by communication service providers and companies active within the Internet of Things industry.

On May 24, 2019, the Company acquired 100% of the issued and outstanding common shares of Espial Group Inc. ("Espial"). Headquartered in Ottawa, Canada, Espial solutions are used by over 100 video service providers and device manufacturers across the U.S., Canada, Europe and Asia. Espial's solution portfolio includes client, server and cloud software products along with system integration services to help service providers launch next generation video offerings.

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The acquisitions were completed for an aggregate purchase price of \$86.3 million, with \$0.5 million subject to hold-back and adjustment, and \$4.9 million held in escrow that is subject to adjustment. During fiscal 2019, the Company revalued contingent consideration, resulting in an increase of \$0.8 million booked to Other income in the Consolidated Statements of Operations and Comprehensive Income.

Interactive Management Group

On February 14, 2019, Enghouse acquired 100% of the issued and outstanding common shares of ProOpti AB ("ProOpti"), headquartered in Stockholm, Sweden. ProOpti is a leading Nordic software provider in the Telecom Expense Management and Technology Optimization Management sectors. Its solutions include the complete management of telecom expenses, mobile UC charges for voice, data and services, and IT enterprise asset management, usage and contact optimization.

On May 14, 2019, the Company acquired 100% of the issued and outstanding common shares of Vidyo, Inc. ("Vidyo"). Headquartered in Hackensack, New Jersey, Vidyo is a provider of enterprise-class video software solutions that support visual communications across diverse end-points, networks of varying bandwidth and geographically dispersed locations.

On October 22, 2019, the Company acquired 100% of the issued and outstanding common shares of Eptica S.A. ("Eptica"). Headquartered in Boulogne, France, Eptica is a leading provider of customer engagement software powered by artificial intelligence to enable businesses to make the customer experience a key link in their value chain. Eptica serves over 200 customers, including leading brands in sectors such as banking, insurance, retail, tourism and the government.

The acquisitions were completed for an aggregate purchase price of \$56.1 million, with \$3.2 million subject to hold-back and adjustment, and \$0.5 million held in escrow that is subject to adjustment.

2018 acquisitions

Asset Management Group

The Company completed three acquisitions in the fiscal year, acquiring 100% of the issued and outstanding common shares or assets for an aggregate purchase price of \$11.6 million. During fiscal 2019, \$1.1 million was paid to the sellers in respect of hold-backs. The purchase price allocation has been finalized.

Purchase price allocations

	AMG Preliminary 2019	IMG Preliminary 2019	AMG Final 2018
Cash and cash equivalents	\$ 31,951	\$ 4,757	\$ 1,235
Short-term investments	-	219	-
Accounts receivable, net	7,689	13,166	2,182
Prepaid expenses and other assets	2,489	3,846	578
Property and equipment	1,295	302	205
Deferred income tax assets	2,509	5,680	153
Acquired software	26,362	31,735	4,785
Customer relationships	12,296	24,387	3,765
Goodwill	23,724	25,873	4,506
Total assets acquired	\$ 108,315	\$ 109,965	\$ 17,409
Less: Current liabilities assumed	\$ 15,437	\$ 43,982	\$ 3,931
Less: Deferred income tax liabilities	6,591	9,840	1,888
Total liabilities assumed	\$ 22,028	\$ 53,822	\$ 5,819
Net assets acquired for consideration	\$ 86,287	\$ 56,143	\$ 11,590

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

The gross contractual amounts of acquired receivables in 2019 for AMG and IMG were \$23.3 million (2018–\$2.6 million). However, acquired receivables are generally represented as collectible by the sellers and therefore are expected to be fully collectible from customers or the sellers. The Company does not believe the impact of 2019 business acquisitions is material to either consolidated revenue or consolidated net income.

The goodwill recognized in connection with 2019 acquisitions for AMG and IMG is primarily attributable to the anticipated improvement in the operations of the companies acquired and synergies with existing operations as a result of implementation of the Company's business strategies and methodologies. Goodwill also includes other intangibles such as assembled workforce that do not qualify for separate recognition under IFRS. None of the total goodwill of \$49.6 million and \$4.5 million recorded in 2019 and 2018, respectively, is deductible for tax purposes.

The purchase price allocations are preliminary for Vidyo, Espial and Eptica as they are subject to working capital and deferred income tax adjustments.

13 Commitments and operating leases

Operating leases

The Company leases premises and certain equipment and automobiles under operating leases. The operating rental expense for the year ended October 31, 2019 was \$9.4 million (2018–\$9.3 million). The annual minimum future lease commitments are as follows:

	Oct	ober 31, 2019	Oc	tober 31, 2018
Less than 1 year	\$	7,450	\$	5,352
Between 1 and 5 years		17,511		9,146
More than 5 years		2,861		537
	\$	27,822	\$	15,035

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

14 Segment information

The Company has two operating segments, the Interactive Management Group and the Asset Management Group, based on the nature of the operations and markets that each of these segments serves. A description of both IMG and AMG is provided in Note 1. The accounting policies followed by these segments are the same as those described in the summary of significant accounting policies.

The Company evaluates segment performance based on revenue and income before income taxes.

Year ended October 31, 2019		IMG		AMG		Total
Revenue Operating expenses excluding special charges Depreciation	\$	204,899 (138,171) (1,619)	\$	180,954 (119,843) (784)	\$	385,853 (258,014) (2,403)
Segment profit	\$	65,109	\$	60,327	\$	125,436
Special charges Corporate expenses		(592)		(611)		(1,203) (12,259)
Results from operating activities					\$	111,974
Amortization of acquired software and customer relationships Foreign exchange gain Finance income Finance expenses Other income						(31,697) 66 1,805 (76) 2,176
Income before income taxes					\$	84,248
Goodwill Other assets Cash and cash equivalents Short-term investments	\$	119,232 125,305	\$	84,066 111,728	\$	203,298 237,033 144,764 5,505
Total assets	\$	244,537	\$	195,794	\$	590,600
Capital expenditures	\$	1,836	\$	319	\$	2,155
		1,000			· ·	_,
Year ended October 31, 2018	Ť	IMG	·	AMG	Ť	Total
	\$		\$		\$	
Year ended October 31, 2018 Revenue Operating expenses excluding special charges		IMG 189,286 (126,753)		AMG 153,559 (98,398)		Total 342,845 (225,151)
Year ended October 31, 2018 Revenue Operating expenses excluding special charges Depreciation	\$	IMG 189,286 (126,753) (1,751)	\$	AMG 153,559 (98,398) (660)	\$	Total 342,845 (225,151) (2,411)
Year ended October 31, 2018 Revenue Operating expenses excluding special charges Depreciation Segment profit Special charges	\$	IMG 189,286 (126,753) (1,751)	\$	AMG 153,559 (98,398) (660) 54,501	\$	Total 342,845 (225,151) (2,411) 115,283 (390)
Year ended October 31, 2018 Revenue Operating expenses excluding special charges Depreciation Segment profit Special charges Corporate expenses	\$	IMG 189,286 (126,753) (1,751)	\$	AMG 153,559 (98,398) (660) 54,501	\$	Total 342,845 (225,151) (2,411) 115,283 (390) (11,648)
Year ended October 31, 2018 Revenue Operating expenses excluding special charges Depreciation Segment profit Special charges Corporate expenses Results from operating activities Amortization of acquired software and customer relationships Foreign exchange gain Finance income Finance expenses	\$	IMG 189,286 (126,753) (1,751)	\$	AMG 153,559 (98,398) (660) 54,501	\$	Total 342,845 (225,151) (2,411) 115,283 (390) (11,648) 103,245 (28,149) 599 476 (213)
Year ended October 31, 2018 Revenue Operating expenses excluding special charges Depreciation Segment profit Special charges Corporate expenses Results from operating activities Amortization of acquired software and customer relationships Foreign exchange gain Finance income Finance expenses Other income	\$	IMG 189,286 (126,753) (1,751)	\$	AMG 153,559 (98,398) (660) 54,501	\$	Total 342,845 (225,151) (2,411) 115,283 (390) (11,648) 103,245 (28,149) 599 476 (213) 2,076
Year ended October 31, 2018 Revenue Operating expenses excluding special charges Depreciation Segment profit Special charges Corporate expenses Results from operating activities Amortization of acquired software and customer relationships Foreign exchange gain Finance income Finance expenses Other income Income before income taxes Goodwill Other assets Cash and cash equivalents	\$	IMG 189,286 (126,753) (1,751) 60,782	\$ \$	AMG 153,559 (98,398) (660) 54,501 (390)	\$ \$ \$	Total 342,845 (225,151) (2,411) 115,283 (390) (11,648) 103,245 (28,149) 599 476 (213) 2,076 78,034 155,419 145,844 187,551

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Revenue from customers is attributable to individual countries based on the reporting entity that records the transaction and is distributed geographically as follows:

Jurisdiction	2019 %	2018 %
United States	34	30
United Kingdom	16	19
Europe	19	18
Scandinavia	22	24
Canada	4	3
Other	5	6
	100	100

Non-current assets by geographic region are attributed to countries based on reporting entity and are distributed geographically as follows:

Jurisdiction	2019 \$	2018 \$
United States	121,194	82,493
United Kingdom	33,599	35,236
Europe	66,750	40,440
Scandinavia	43,445	42,507
Canada	63,693	16,904
Other	2,782	3,013
Subtotal	331,463	220,593
Deferred tax assets	12,739	9,634
Total non-current assets	344,202	230,227

15 Litigation and contingencies

General

The Company provides its customers with a qualified indemnity against the infringement of third-party intellectual property rights. From time to time, various owners of patents and copyrighted works send the Company or its customers letters alleging that the Company's products do or might infringe upon the owner's intellectual property rights, and/or suggesting that the Company or its customers should negotiate a license agreement with the owner. The Company's policy is to never knowingly infringe upon any third party's intellectual property rights. Accordingly, where appropriate, the Company forwards any such allegation or licensing request to its outside legal counsel for review. The Company generally attempts to resolve any such matter by informing the owner of the Company's position concerning non-infringement or invalidity. Even though the Company attempts to resolve these matters without litigation, it is always possible that the owner of a patent or copyrighted work will sue the Company.

In response to correspondence from and, in a few instances, litigation instigated by, third-party patent holders, a few of the Company's customers have attempted to tender to the Company the defense of its products under contractual indemnity provisions. With respect to this litigation, and any other litigation the Company becomes involved with, under a contractual indemnity or any other legal theory, the Company has and will continue to consider all its options for resolution and vigorously assert all appropriate defenses. There are no material claims outstanding against the Company at October 31, 2019.

16 Capital disclosures

The Company's objectives in managing capital are to ensure sufficient liquidity to pursue its strategy of organic growth combined with strategic acquisitions and to deploy capital to provide an appropriate

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

return on investment to its shareholders. The capital structure of the Company consists of shareholders' equity, comprising retained earnings, share capital and accumulated other comprehensive income or loss amounts relating to equity securities held for trading and cumulative translation adjustments. The Company does not have any significant long-term debt. The Company manages its capital structure and adjusts it in light of economic conditions and the risk characteristics of the underlying assets. The Company's primary uses of capital are to finance non-cash working capital requirements, capital expenditures and acquisitions, which are currently funded from its internally generated cash flows.

The Company is not subject to any externally imposed capital requirements and does not presently utilize any quantitative measures to monitor its capital. There has been no change with respect to the overall capital risk management strategy during the years ended October 31, 2019 and October 31, 2018.

17 Financial instruments

Fair value of financial instruments

The Company has determined that the fair value of its cash, cash equivalents, short-term investments, accounts receivable and financial liabilities approximate their respective carrying amounts as at the Consolidated Statements of Financial Position dates due to their short-term nature.

Fair value hierarchy

The table below analyzes financial instruments carried at fair value, by valuation method. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are inputs other than quoted prices included in Level 1 that are observable for the asset or liability either directly (i.e. prices) or indirectly (i.e. derived from prices). Level 3 inputs are inputs for the asset or liability that are not based on observable market data (i.e. unobservable inputs).

In the table below, the Company has segregated all financial assets and liabilities that are measured at fair value into the most appropriate level within the fair value hierarchy based on the inputs used to determine the fair value at the measurement date. The Company has no financial assets that are measured using Level 2 or 3 inputs.

Financial assets and financial liabilities that are measured at fair value as at October 31, 2019 and October 31, 2018 in the consolidated financial statements are summarized below. The Company has no significant financial liabilities measured at fair value initially other than those recognized in connection with business combinations. There were no transfers of fair value measurements between Level 1 and Level 2 of the fair value hierarchy in 2019 and 2018.

	Oct	ober 31, 20	19	Oc	tober 31, 20	018
Assets	Level 1 \$	Level 2 \$	Total \$	Level 1 \$	Level 2 \$	Total \$
Cash and cash equivalents Short-term investments	144,764 5,505	-	144,764 5,505	187,551 6,386	-	187,551 6,386
Total	150,269	-	150,269	193,937	-	193,937

Risk management

The Company, through its financial assets and liabilities, is exposed to risks of varying degrees of significance that could impact its ability to achieve its strategic growth objectives. The main objective of the Company's risk management process is to ensure that risks are properly identified and addressed. The Company has exposure to credit risk, market risk and liquidity risk.

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The Company manages its short-term investment portfolio to maximize returns, maintain liquidity and diversify its credit risk exposure to safeguard its principal. To achieve this objective, the Company has established an investment committee consisting of the Company's Chief Executive Officer, Vice President, Finance, and Chairman of the Audit Committee. The Company has also adopted a formal investment policy to govern the management of the Company's investment portfolio, which specifies eligible investments, investment limits, minimum allowable credit ratings of investments and the permissible concentration of credit risk. The Company does not enter into any hedge transactions in its investment portfolio and is not party to any derivative financial instruments.

Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Company's accounts receivable. The amounts reported in the Consolidated Statements of Financial Position are net of loss allowance for bad debts, estimated by the Company's management based on prior experience and their assessment of the current economic environment. The Company reviews its trade receivable accounts regularly and reduces amounts to their expected realizable values by adjusting the loss allowance as soon as the account is determined not to be fully collectible. The Company believes that its credit risk with respect to accounts receivable is limited for a number of reasons including dealing primarily with large companies and governmental agencies, diversifying its customer base across varying industries and geographic locations, regular management review, negotiating progress payments as contracts are executed and past experience with bad debt expense. The Company historically has not experienced any significant losses related to individual customers or groups of customers in any particular industry or geographic area. No individual customer's trade receivable poses a significant credit risk to the Company.

The Company's accounts receivables had a carrying value of \$85.0 million as at October 31, 2019 (2018–\$62.1 million), representing the maximum exposure to credit risk of those financial assets, net of the loss allowance of \$5.7 million. The Company's expected credit loss for accounts receivable increased from \$5.1 million at October 31, 2018 as a result of increased scale from acquisitions partially offset by continued strong collections. The definition of items that are past due is determined by reference to payment terms agreed to with individual customers, which are normally within 30 to 60 days. Approximately 8.1% or \$6.9 million of trade receivables at October 31, 2019 was outstanding more than 90 days, compared to \$4.5 million (6.7%) past due as at October 31, 2018.

With respect to its investment portfolio, the Company limits its exposure to credit risks from counterparties to financial instruments by dealing only with major financial institutions and large multi-national corporations with high credit ratings, investing only in high-grade investment products and limiting exposure to any one financial institution, commercial issuer or investment type and limiting the term of maturity. Management does not expect any counterparties to fail to meet their obligations. The carrying amount of financial assets represents the maximum credit exposure to the Company.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, and interest rates will affect the Company's income or the value of its financial instruments.

Foreign exchange risk

Foreign currency risk is related to the portion of the Company's business transactions denominated in currencies other than Canadian dollars, a large portion of which relates to fluctuations in the value of the Canadian dollar relative to that of the U.S. dollar. However, a significant proportion of revenue is also generated by the Company's U.K. and European operations, which diversifies the risk.

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If all the foreign currencies in which the Company transacts were to fluctuate by 1% from existing rates against the Canadian dollar, results from operating activities would be increased or decreased by approximately \$0.9 million in the Consolidated Statements of Operations and Comprehensive Income.

For the Company's foreign currency transactions, fluctuations in the respective exchange rates relative to the Canadian dollar will create volatility in the Company's cash flows and the reported amounts for revenue and selling, general and administrative expenses on a period-to-period basis.

Additional earnings volatility arises from the translation of monetary assets and liabilities denominated in currencies other than the functional currency of the subsidiary in which they are recorded. Changes in the rates of exchange at each Consolidated Statements of Financial Position date of these monetary assets and liabilities are reported as a foreign exchange gain or loss. For the year ended October 31, 2019, the Company reported foreign exchange gains of \$0.1 million compared to gains of \$0.6 million in fiscal 2018.

Translation gains or losses incurred upon consolidation of the Company's foreign operation's financial positions into Canadian dollars are included in the Company's accumulated other comprehensive income (loss) account on the Consolidated Statements of Financial Position. During fiscal 2019, the exchange rate for U.S. dollars to Canadian dollars averaged \$1.32 (2018–\$1.29), while the pound sterling averaged \$1.64 (2018–\$1.73), the euro averaged \$1.46 (2018–\$1.53) and the Swedish krona averaged \$0.14 (2018–\$0.15). If exchange rates were to fluctuate by 1%, the translation gain or loss on the Company's net assets could be valued at plus or minus \$3.2 million due to the fluctuation and would be recorded in other comprehensive income.

Interest rate risk

Interest rate risk arises because of the fluctuation in interest rates. The Company is subject to interest rate risk on its cash and short-term investments. If interest rates were to fluctuate proportionally by 1% of existing rates, interest income would be increased or decreased by approximately \$0.8 million per year. The Company is not materially exposed to interest rate risk on debt as the Company has nominal long-term debt which does not bear interest.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's approach is to ensure that it has sufficient liquidity to meet its obligations, mainly accounts payable, accrued liabilities, accrued provisions and deferred revenue, when due. The Company does not have any significant short-term borrowing or debt facilities and settles its financial obligations out of cash. The ability to do so relies on the Company's ability to generate cash from operations and collect accounts receivable in a timely manner and by maintaining sufficient cash on hand. As at October 31, 2019, the Company's current liabilities, all of which fall due for payment within twelve months of the Consolidated Statements of Financial Position date, were \$161.0 million (2018–\$118.5 million). At October 31, 2019, the Company had a working capital surplus of \$85.4 million (2018–\$146.5 million), which includes cash balances of \$150.3 million (2018–\$193.9 million).

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

18 Changes in non-cash operating working capital

	2019 \$	2018 \$
(Increase) decrease in accounts receivable, net	(519)	11,984
Decrease in prepaid expenses and other assets	3,870	81
Decrease in accounts payable and accrued liabilities	(6,527)	(3,414)
Decrease in provisions	(2,827)	(1,253)
Decrease in income taxes payable	(1,829)	(3,272)
(Decrease) increase in deferred revenue	(7,900)	2,187
	(15,732)	6,313

19 Additional IFRS information

Expense by nature	2019 \$	2018 \$
Third-party license, maintenance and services	23,771	19,349
Hardware	12,061	4,793
Staff costs	198,276	178,133
Supplies	4,479	3,978
Other administrative expenses	4,413	4,047
Travel and marketing	11,684	10,695
Communications	2,723	3,014
Occupancy	9,542	9,549
Professional services	3,324	3,241
Restructuring	1,203	390
Depreciation of property and equipment	2,403	2,411
	273,879	239,600

Staff costs	2019 \$	2018 \$
Salaries and wages	144,123	131,345
Employee benefits	28,427	26,627
Stock-based compensation	2,268	1,545
Termination benefits	729	956
Bonuses	6,329	5,640
Commissions	4,015	3,574
Contractors	12,385	8,446
	198,276	178,133

Included in employee benefits is the Company's share of costs related to defined contribution pension plans of \$4.6 million (2018–\$5.1 million).

October 31, 2019 and 2018 (in thousands of Canadian dollars, except as indicated)

20 Related parties

Related party transactions

The Company has not entered into any related party transactions other than key management compensation discussed below.

Key management personnel compensation

The key management personnel of the Company are the members of the Company's executive management team and control approximately 14.0% (2018–14.3%) of the outstanding shares of Enghouse Systems.

	2019 \$	2018 \$
Salaries, bonus and employee benefits Stock options expense	6,510 1.027	6,329 873
	7,537	7,202

21 Defined benefit pension obligation

The Company assumed certain defined benefit pension obligations with respect to several employees in Belgium, Germany, and the Netherlands resulting from the Company's Tollgrade acquisition. There are no plan assets and therefore the net defined benefit obligation per the Consolidated Statements of Financial Position represents the complete benefit obligation for all three countries. At October 31, 2019, the majority of the defined benefit obligation relates to Germany, which is carried at fair value of \$2.1 million (2018–\$1.8 million). Sensitivity as a result of the pension plan's significant actuarial assumptions and variables is not significant.

Corporate Directory

Board of Directors

Stephen J. Sadler

Chief Executive Officer and Chairman of the Board Enghouse Systems Limited

Eric Demirian (1)

President
Parklea Capital Inc.

Reid Drury (1),(3)

Partner

Polar Capital Corporation

John Gibson (2)(3)

President and Chief Executive Officer E.E.S. Financial Services Limited

Paul Stoyan (2)(3)

Chairman

Gardiner Roberts LLP

Pierre Lassonde (2)

Chairman

Franco-Nevada Corporation

Jane Mowat (1)

Independent Consultant

- (1) Member of Audit Committee
- (2) Member of Compensation Committee
- (3) Member of Corporate Governance Committee

Executive Officers

Stephen J. Sadler

Chief Executive Officer and Chairman of the Board

Vincent Mifsud

President

Douglas C. Bryson

Vice President Finance and Corporate Secretary

Sam Anidjar

Vice President Corporate Development

Geoff Bartle

Vice President Corporate Information Systems

Lynette Corbett

Chief Administrative & Human Resources Officer

Todd M. May

Vice President and General Counsel

Corporate Information

Independent Auditors

Ernst & Young LLP

Chartered Professional Accountants EY Tower 100 Adelaide St. West, P.O. Box 1 Toronto, Ontario M5H 0B3 Canada

Transfer Agent

TSX Trust Company

100 Adelaide St. West, Suite 301 Toronto, Ontario M5H 4H1 Canada

Stock Information

Shares of Enghouse Systems Limited are traded on the Toronto Stock Exchange under the symbol **ENGH**

Investor Inquiries

Inquiries should be directed to:

Investor Relations
Enghouse Systems Limited
80 Tiverton Court, Suite 800
Markham, Ontario, L3R 0G4, Canada
email: investor@enghouse.com

Annual Meeting of Shareholders

The Annual Meeting of Shareholders will be held on **Thursday, March 5, 2020 at 4:30 p.m.** at the TMX Broadcast Centre 130 King Street West Toronto, Ontario, M5X 1J2, Canada

Corporate Head Office

Enghouse Systems Limited

80 Tiverton Court, Suite 800 Markham, Ontario, L3R 0G4, Canada



