



**KINAXIS INC.**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
FOR THE YEAR ENDED DECEMBER 31, 2016**

**DATED: February 28, 2017**

Unless the context requires otherwise, all references in this management's discussion and analysis (the "MD&A") to "Kinaxis", "we", "us", "our" and the "Company" refer to Kinaxis Inc. and its subsidiaries as constituted on December 31, 2016. This MD&A has been prepared with an effective date of February 28, 2017.

This MD&A for the years ended December 31, 2016 and 2015 should be read in conjunction with our annual consolidated financial statements and the related notes thereto as at and for the year ended December 31, 2016. The financial information presented in this MD&A is derived from our consolidated financial statements prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). This MD&A contains forward-looking statements that involve risks, uncertainties and assumptions, including statements regarding anticipated developments in future financial periods and our future plans and objectives. There can be no assurance that such information will prove to be accurate, and readers are cautioned not to place undue reliance on such forward-looking statements. See "Forward-Looking Statements".

This MD&A includes trade-marks, such as "Kinaxis", and "RapidResponse", which are protected under applicable intellectual property laws and are the property of Kinaxis. Solely for convenience, our trade-marks and trade names referred to in this MD&A may appear without the © or ™ symbol, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights to these trade-marks and trade names. All other trade-marks used in this MD&A are the property of their respective owners.

All references to \$ or dollar amounts in this MD&A are to U.S. currency unless otherwise indicated.

Additional information relating to Kinaxis Inc., including the Company's most recently completed Annual Information Form, can be found on SEDAR at [www.sedar.com](http://www.sedar.com).

## Non-IFRS Measures

This MD&A makes reference to certain non-IFRS measures such as "Adjusted profit", "Adjusted EBITDA" and "Adjusted diluted earnings per share". These non-IFRS measures are not recognized, defined or standardized measures under IFRS. Our definition of Adjusted profit, Adjusted EBITDA and Adjusted diluted earnings per share will likely differ from that used by other companies and therefore comparability may be limited.

Adjusted profit, Adjusted EBITDA and Adjusted diluted earnings per share should not be considered a substitute for or in isolation from measures prepared in accordance with IFRS. These non-IFRS measures should be read in conjunction with our annual consolidated financial statements and the related notes thereto as at and for the year ended December 31, 2016. Readers should not place undue reliance on non-IFRS measures and should instead view them in conjunction with the most comparable IFRS financial measures. See the reconciliations to these IFRS measures in the "Reconciliation of Non-IFRS Measures" section of this MD&A.

## Forward-Looking Statements

This MD&A contains forward-looking statements that relate to our current expectations and views of future events. In some cases, these forward-looking statements can be identified by words or phrases such as "may", "will", "expect", "anticipate", "aim", "estimate", "intend", "plan", "seek", "believe", "potential", "continue", "is/are likely to" or the negative of these terms, or other similar expressions intended to identify forward-looking statements. Forward-looking statements are intended to assist readers in understanding management's expectations as of the date of this MD&A and may not be suitable for other purposes. We have based these forward-looking statements on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements include, among other things, statements relating to:

- our expectations regarding our revenue, expenses and operations;
- our anticipated cash needs;
- our ability to protect, maintain and enforce our intellectual property rights;
- third-party claims of infringement or violation of, or other conflicts with, intellectual property rights by us;
- our plans for and timing of expansion of our solutions and services;
- our future growth plans;

- the acceptance by our customers and the marketplace of new technologies and solutions;
- our ability to attract new customers and develop and maintain existing customers;
- our ability to attract and retain personnel;
- our expectations with respect to advancement in our technologies;
- our competitive position and our expectations regarding competition;
- regulatory developments and the regulatory environments in which we operate; and
- anticipated trends and challenges in our business and the markets in which we operate.

Forward-looking statements are based on certain assumptions and analysis made by us in light of our experience and perception of historical trends, current conditions and expected future developments and other factors we believe are appropriate. Expected future developments include growth in our target market, an increase in our subscription revenue and decrease in maintenance & support revenue based on trends in customer behaviour, increasing sales and marketing expenses, research and development expenses and general and administrative expenses based on our business plans and our continued ability to realize on the benefits of tax credits in the near term. Although we believe that the assumptions underlying the forward-looking statements are reasonable, they may prove to be incorrect.

Whether actual results, performance or achievements will conform to our expectations and predictions is subject to a number of known and unknown risks and uncertainties, including those set forth below under the heading "Risks and Uncertainties". These risks and uncertainties could cause our actual results, performance, achievements and experience to differ materially from the future expectations expressed or implied by the forward-looking statements. In light of these risks and uncertainties, readers should not place undue reliance on forward-looking statements.

The forward-looking statements made in this MD&A relate only to events or information as of the date on which the statements are made in this MD&A and are expressly qualified in their entirety by this cautionary statement. Except as required by law, we do not assume any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events.

Readers should read this MD&A with the understanding that our actual future results may be materially different from what we expect.

### **Risks and Uncertainties**

We are exposed to risks and uncertainties in our business, including the risk factors set forth below:

- If we are unable to attract new customers or sell additional products to our existing customers, our revenue growth and profitability will be affected.
- We derive a significant portion of our revenue from a relatively small number of customers, and our growth depends on our ability to retain existing customers and add new customers.
- We encounter long sales cycles, particularly with our larger customers, which could have an adverse effect on the amount, timing and predictability of our revenue.
- We rely significantly on recurring revenue, and if recurring revenue declines or contracts are not renewed our future results of operations could be harmed.
- Downturns or upturns in new sales will not be immediately reflected in operating results and may be difficult to discern.
- Our quarterly results of operations may fluctuate. As a result, we may fail to meet or exceed the expectations of investors or securities analysts which could cause our share price to decline.
- We are subject to risks associated with fluctuations in currency exchange rates.

- If we are unable to develop new products and services, sell our solutions into new markets or further penetrate our existing markets, our revenue will not grow as expected.
- If we do not maintain the compatibility of our solutions with third-party applications that our customers use in their business processes, demand for our solutions could decline.
- If we fail to adapt to rapid technological change our ability to remain competitive could be impaired.
- We enter into service level agreements with all of our customers. If we fail to meet these contractual commitments, we could be obligated to provide credits or refunds for prepaid amounts related to unused subscription services or face contract terminations, which could adversely affect our revenues.
- Downturns in general economic and market conditions and reductions in IT spending may reduce demand for our solutions, which could negatively affect our revenue, results of operations and cash flows.
- Our ability to retain customers and attract new customers could be adversely affected by an actual or perceived breach of security relating to customer information.
- If we fail to protect our intellectual property and proprietary rights adequately, our business could be adversely affected.
- Our solutions are complex and customers may experience difficulty in implementing or upgrading our products successfully or otherwise achieving the benefits attributable to our products.
- The markets in which we participate are highly competitive, and our failure to compete successfully would make it difficult for us to add and retain customers and would reduce or impede the growth of our business.
- If we fail to retain our key employees, our business would be harmed and we might not be able to implement our business plan successfully.
- Our growth is dependent upon the continued development of our direct sales force.
- If we experience significant fluctuations in our rate of anticipated growth and fail to balance our expenses with our revenue forecasts, our results could be harmed.
- Interruptions, delays or security breaches in the services provided by third-party data centers and/or internet service providers could impair the delivery of our solutions and our business could suffer.
- We may experience service failures or interruptions due to defects in the software, infrastructure, third-party components or processes that comprise our existing or new solutions, any of which could adversely affect our business.
- An assertion by a third party that we are infringing its intellectual property could subject us to costly and time consuming litigation or expensive licenses which could harm our business.
- Mergers or other strategic transactions involving our competitors or customers could weaken our competitive position, which could harm our results of operations.
- We are subject to taxation in various jurisdictions and the taxing authorities may disagree with our tax positions.
- Because our long-term success depends, in part, on our ability to continue to expand the sales of our solutions to customers located outside of North America, our business will be susceptible to risks associated with international operations.

A comprehensive discussion of risks, including risks not specifically listed above, can be found in our most recently filed Annual Information Form. Additional risks and uncertainties not presently known to us or that we currently consider immaterial also may impair our business and operations and cause the price of our shares to decline. If any of the noted risks actually occur, our business may be harmed and our financial condition and results of operations may suffer significantly.

## Overview

We are a leading provider of cloud-based subscription software that enables our customers to improve and accelerate analysis and decision-making across their supply chain operations. Our RapidResponse product provides supply chain planning and analytics capabilities that create the foundation for managing multiple, interconnected supply chain management processes, including demand planning, supply planning, inventory management, order fulfillment and capacity planning. Our professional services team supports deployment of RapidResponse in new customers and assists existing customers in fully leveraging the benefits of the product.

Our target market is large global enterprises that have significant unresolved supply chain challenges. We believe this market is growing as a result of a number of factors, including increased complexity and globalization of supply chains, outsourcing, a diversity of data sources and systems, and competitive pressures on our customers.

We have established a consistent financial track record of strong revenue growth, solid earnings performance and cash generation. Our subscription and total annual revenues have grown at a compound annual growth rate (CAGR) of 27% and 24% respectively for the three years ended December 31, 2016. This growth is driven both by contracts with new customers and expansion of our solution and service engagements within our existing customer base. For the three months and year ended December 31, 2016 our Adjusted EBITDA was 21% and 25% of revenue respectively and ending cash balances stand at \$127.9 million.

Our customers are generally large national or multinational enterprises with complex supply chain requirements. We target multiple industry verticals including high technology and electronics manufacturing, aerospace and defense, industrial products, life sciences and pharmaceuticals, consumer packaged goods, financial services and the automotive sector.

We sell our product using a subscription-based model. Our agreements with customers are typically two to five years in length. Our subscription fee generally depends on the size of our customer, the number of applications deployed, the number of users and the number of manufacturing, distribution and inventory sites our product is required to model. Average annual contract value fluctuates from period to period depending on the size of new customers and the extent to which we are successful in expanding adoption of our products by existing customers.

For the year ended December 31, 2016, our ten largest customers accounted for approximately 47% of our total revenues with one customer accounting for 12.3% of total revenues.

Increasing revenues through new customer wins is one of our highest organizational priorities. Our sales cycle can be lengthy, as we generally target very large organizations with significant internal processes for adoption of new systems. We currently pursue a revenue growth model that includes both direct sales through our internal sales force, as well as indirect sales through channels including resellers and other partners.

Due to the growth in the market and increasing need for solutions, competition in the industry from new entrants and larger incumbent vendors will increase. In addition to this increased competitive pressure, changes in the global economy may have an impact on the timing and ability of these enterprises to make buying decisions which may have an impact on our performance.

We continue to drive growth in our business through new customer acquisition and expansion of existing customers through our land and expand strategy. Over the last several years, approximately 65% of subscription growth has been derived from new customers. Our net revenue retention is greater than 100%, reflecting our longer term contract structure and renewal history. We continue to invest in developing our partner capabilities and in our technology. In July 2016, we released version 2016.2 of RapidResponse, reflecting our ongoing investment in our product's scale and capabilities, and our commitment to supporting the needs of our expanding customer base. In October 2015, we announced an engagement with Accenture where Accenture will provide product development and product training services and together we will develop differentiated supply chain solutions designed to meet enterprise end-customer supply chain solutions. In May 2016, we announced an alliance with Deloitte Consulting LLP in the U.S. to develop supply chain solutions designed to improve the end-to-end supply chain for large enterprises.

We are headquartered in Ottawa, Ontario. We have subsidiaries located in the United States, the Netherlands, South Korea and Hong Kong and a subsidiary and office in Tokyo, Japan. We continue to expand our operations internationally. In the year ended December 31, 2016, 89% of our revenues were derived from North American

based customer contracts and our remaining revenues were derived principally from Asian and European based contracts.

## Key Performance Indicators

The key performance indicators that we use to manage our business and evaluate our financial results and operating performance are: total revenue, total new customers, incremental subscription revenue and bookings, net revenue retention, secured subscription backlog, operating expenses, Adjusted profit (as discussed below), Adjusted EBITDA (as discussed below), Adjusted diluted earnings per share (as discussed below), and cash flow from operations. Some of these measures are non-IFRS measures. See “Non-IFRS Measures” above. Management reconciles non-IFRS measures to IFRS measures where a comparable IFRS measure exists. See “Reconciliation of Non-IFRS Measures” below. We evaluate our performance by comparing our actual results to budgets, forecasts and prior period results.

### *Net revenue retention*

Our subscription customers generally enter into two to five year agreements, paid annually in advance, for use of our solution. In certain circumstances, customers will prepay subscription fees for the term of the agreement for various reasons. Subscription agreements are generally subject to price increases upon renewal reflecting both inflationary increases and the additional value provided by our solutions. In addition to the expected increase in subscription revenue from price increases over time, existing customers may subscribe for additional applications, users or sites during the terms of their agreements.

Our subscription model results in a high proportion of recurring revenue, which we define as subscription revenue plus maintenance & support revenue (see “Significant Factors Affecting Results of Operations – Revenue”). We believe the power of the subscription model is only fully realized when a vendor has high retention rates. High customer retention rates generate a long customer lifetime and a very high lifetime value of the customer. Our net revenue retention rates remain over 100%, which includes sales of additional applications, users and sites to existing customers.

The recurring nature of our revenue provides high visibility into future performance, and upfront payments result in cash flow generation in advance of revenue recognition. Typically, approximately 80% of our annual subscription revenue is recognized from customers that are in place at the beginning of the year (excluding the effect of renewals) and this continues to be our target model going forward. However, this also means that agreements with new customers or agreements with existing customers purchasing additional applications, users or sites in a quarter may not contribute significantly to revenue in the current quarter. For example, a new customer who enters into an agreement on the last day of a quarter will typically have no impact on the revenue recognized in that quarter.

## Significant Factors Affecting Results of Operations

Our results of operations are influenced by a variety of factors, including:

### *Revenue*

Our revenue consists of subscription fees, professional service fees and maintenance and support fees. Subscription revenue is comprised of fixed term fees for licensed on-premise use of RapidResponse or fees for provision as software as a service (“SaaS”) in a hosted/cloud environment.

Subscription revenue includes maintenance and support for the solution for the term of the contract as well as hosting services when provided under a SaaS arrangement.

Professional services revenue is comprised of fees charged to assist organizations to implement and integrate our solution and train their staff to use and deploy our solution. Professional service engagements are contracted on a time and materials basis including billable travel expenses and are billed and recognized as revenue as the service is delivered. In certain circumstances, we enter into arrangements for professional services on a fixed price basis; in these cases, revenue is recognized by reference to the stage of completion of the contract.

Maintenance & support revenue relates to fees for maintenance and support for certain legacy customers who licensed our software on a perpetual basis prior to our conversion to a SaaS model in 2005. Over time, this revenue stream is expected to decline as more customers eventually convert to our more comprehensive, subscription based service or customers choose to let their support contracts lapse.

#### *Cost of revenue*

Cost of revenue consists of personnel, travel and other overhead costs related to implementation teams supporting initial deployments, training services and subsequent stand-alone engagements for additional services. Cost of revenue also includes personnel and overhead costs associated with our customer support team, the cost of our data centre facilities where we physically host our on-demand solution, and network connectivity costs for the provisioning of hosting services under SaaS arrangements.

#### *Sales and marketing expenses*

Sales and marketing expenses consist primarily of personnel and related costs for our sales and marketing teams, including salaries and benefits, commissions earned by sales personnel, partner programs support and training, and trade show and promotional marketing costs.

We plan to continue to invest in sales and marketing by expanding our domestic and international selling and marketing activities, building brand awareness, developing partners, and sponsoring additional marketing events. We expect that in the future, sales and marketing expenses will continue to increase.

#### *Research and development expenses*

Research and development expenses consist primarily of personnel and related costs for the teams responsible for the ongoing research, development and product management of RapidResponse. These expenses are recorded net of any applicable scientific research and experimental development investment tax credits ("**investment tax credits**") earned for expenses incurred in Canada against eligible projects. We only record non-refundable tax credits to the extent there is reasonable assurance we will be able to use the investment tax credits to reduce current or future tax liabilities. As the Company has an established history of profits, we do expect to realize the benefit of these tax credits in the near term. Further, we anticipate that spending on R&D will also be higher in absolute dollars as we expand our research and development and product management teams.

#### *General and administrative expenses*

General and administrative expenses consist primarily of personnel and related costs associated with administrative functions of the business including finance, human resources and internal information system support, as well as legal, accounting and other professional fees. We expect that, in the future, general and administrative expenses will increase in absolute dollars as we invest in our infrastructure and we incur additional employee-related costs and professional fees related to the growth of our business and international expansion.

#### *Foreign exchange*

Our presentation and functional currency is U.S. dollars with the exception of our subsidiaries in, South Korea (South Korean Won), Japan (Japanese Yen) and the Netherlands (Euro). We derive most of our revenue in U.S. dollars. Our head office and a significant portion of our employees are located in Ottawa, Canada, and as such approximately a third of our expenses are incurred in Canadian dollars.

**Results of Operations**

The following table sets forth a summary of our results of operations for the three and nine months ended December 31, 2016 and 2015:

	<b>Three months ended December 31</b>		<b>Years ended December 31</b>		
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
	(In thousands of U.S. dollars, except earnings (loss) per share)				
<b>Statement of Operations</b>					
Revenue.....	\$ 30,264	\$ 24,191	\$ 115,951	\$ 91,271	\$ 70,054
Cost of revenue.....	9,493	6,789	35,777	25,743	20,745
Gross profit.....	20,771	17,402	80,174	65,528	49,309
Operating expenses.....	17,031	11,984	62,280	41,721	37,039
	3,740	5,418	17,894	23,807	12,270
Loss due to change in fair value of redeemable preferred shares .....	-	-	-	-	(6,760)
Foreign exchange loss .....	(223)	(18)	(198)	(1,041)	(599)
Net finance income (expense) .....	78	32	307	128	(490)
Profit before income taxes.....	3,595	5,432	18,003	22,894	4,421
Income tax expense .....	1,884	4,146	7,258	10,216	4,642
Profit (Loss).....	\$ 1,711	\$ 1,286	\$ 10,745	\$ 12,678	\$ (221)
Adjusted profit <sup>(1)</sup> .....	\$ 3,661	\$ 2,515	\$ 18,885	\$ 17,130	\$ 9,197
Adjusted EBITDA <sup>(1)</sup> .....	\$ 6,438	\$ 7,146	\$ 28,528	\$ 29,985	\$ 16,079
Basic earnings (loss) per share .....	\$ 0.07	\$ 0.05	\$ 0.44	\$ 0.53	\$ (0.01)
Diluted earnings (loss) per share .....	\$ 0.07	\$ 0.05	\$ 0.41	\$ 0.50	\$ (0.01)
Adjusted diluted earnings per share <sup>(1)</sup> .....	\$ 0.14	\$ 0.10	\$ 0.73	\$ 0.67	\$ 0.41

	<b>As at</b>		
	<b>December 31, 2016</b>	<b>December 31, 2015</b>	<b>December 31, 2014</b>
	(In thousands of U.S. dollars)		
Total assets .....	\$ 168,292	\$ 128,096	\$ 91,209
Deferred revenue .....	68,656	54,633	37,518
Other non-current liabilities.....	1,430	1,065	109

Note:

- (1) Adjusted profit, Adjusted EBITDA and Adjusted diluted earnings per share are non-IFRS measures. See "Non-IFRS Measures". For a reconciliation of these measures to the closest IFRS measure, where a comparable IFRS measure exists, see "Reconciliation of Non-IFRS Measures" below.



## Reconciliation of Non-IFRS Measures

### *Adjusted profit and Adjusted diluted earnings per share*

Adjusted profit represents profit adjusted to exclude our equity compensation plans. Adjusted diluted earnings per share represents diluted earnings per share using Adjusted profit. We use Adjusted profit and Adjusted diluted earnings per share to measure our performance as these measures better align with our results and improve comparability against our peers.

### *Adjusted EBITDA*

Adjusted EBITDA represents profit adjusted to exclude our equity compensation plans, income tax expense, depreciation, foreign exchange loss (gain) and net financing (income) expense. We use Adjusted EBITDA to provide readers with a supplemental measure of our operating performance and thus highlight trends in our core business that may not otherwise be apparent when relying solely on IFRS financial measures.

We believe that securities analysts, investors and other interested parties frequently use non-IFRS measures in the evaluation of issuers. Management also uses non-IFRS measures in order to facilitate operating performance comparisons from period to period, prepare annual operating budgets and assess our ability to meet our capital expenditure and working capital requirements.

We have reconciled Adjusted profit and Adjusted EBITDA to the most comparable IFRS financial measure as follows:

	Three months ended December 31,		Years ended December 31		
	2016	2015	2016	2015	2014
	(In thousands of U.S. dollars)				
Profit (Loss) .....	\$ 1,711	\$ 1,286	\$ 10,745	\$ 12,678	\$ (221)
Loss due to change in fair value of redeemable preferred shares .....	–	–	–	–	6,760
Share-based compensation .....	1,950	1,229	8,140	4,452	2,658
	<u>1,950</u>	<u>1,229</u>	<u>8,140</u>	<u>4,452</u>	<u>9,418</u>
Adjusted profit .....	\$ 3,661	\$ 2,515	\$ 18,885	\$ 17,130	\$ 9,197
Income tax expense .....	1,884	4,146	7,258	10,216	4,642
Depreciation .....	748	499	2,494	1,726	1,151
Foreign exchange loss .....	223	18	198	1,041	599
Net finance (income) expense .....	(78)	(32)	(307)	(128)	490
	<u>2,777</u>	<u>4,631</u>	<u>9,643</u>	<u>12,855</u>	<u>6,882</u>
Adjusted EBITDA .....	\$ 6,438	\$ 7,146	\$ 28,528	\$ 29,985	\$ 16,079
Adjusted EBITDA as a percentage of revenue .....	21%	30%	25%	33%	23%

### Revenue

The following table displays the breakdown of our revenue according to revenue type:

	Three months ended December 31,		2015 to 2016	Years ended December 31,		2015 to 2016
	2016	2015	%	2016	2015	%
(In thousands of U.S. dollars, except percentages)						
Revenue						
Subscription.....	\$ 22,660	\$ 16,963	34%	\$ 81,838	\$ 65,199	26%
Professional services .....	7,355	6,977	5%	33,115	25,002	32%
Maintenance & Support .....	249	251	(1%)	998	1,070	(7%)
Total revenue .....	30,264	24,191	25%	115,951	91,271	27%

Total revenue for the fourth quarter of 2016 was \$30.3 million or an increase of 25% compared to the same period in 2015. For fiscal 2016, total revenue was \$116.0 million compared to \$91.3 million for the same period in 2015, representing an increase of 27%.

#### Subscription Revenue

Subscription revenue for the three months ended December 31, 2016 was \$22.7 million, up from \$17.0 million for the same period in 2015, for an increase of 34% or \$5.7 million. For fiscal 2016, subscription revenue was \$81.8 million or 26% higher than the same period in 2015. The increase was driven by contracts secured with new customers in the last twelve months, as well as expansion of existing customer subscriptions.

#### Professional services revenue

Professional services revenue varies quarter to quarter due to the size, timing and scheduling of customer engagements and the level of partner engagement. Professional services revenue for the fourth quarter of 2016 increased \$0.4 million or 5% to \$7.4 million from \$7.0 million for the same period in 2015. For the year ended December 31 2016, professional services revenue was \$33.1 million compared to \$25.0 million for the same period in 2015, representing an increase of 32%. Professional services revenue growth was driven primarily by deployment projects for new customers acquired in fiscal 2015 and 2016 as well as supporting the expansion of existing customer configurations.

#### Maintenance & support revenue

Maintenance & support revenue for the three months ended December 31, 2016 was \$0.2 million, down from \$0.3 million for the same period in 2015. For fiscal 2016, maintenance & support revenue was \$1.0 million compared to \$1.1 million for the same period in 2015, representing a decrease of 7%. We expect to see a decrease over time in support revenue from contracts with legacy customers with perpetual licenses as customers convert to subscription contracts or choose to let their support contracts lapse.

### Cost of Revenue

	Three months ended December 31,		2015 to 2016	Years ended December 31		2015 to 2016
	2016	2015	%	2016	2015	%
(In thousands of U.S. dollars, except percentages)						
Cost of revenue.....	\$ 9,493	\$ 6,789	40%	\$ 35,777	\$ 25,743	39%
Gross profit.....	20,771	17,402	19%	80,174	65,528	22%
As a percentage of revenue .....	69%	72%		69%	72%	

Cost of revenue for the fourth quarter of 2016 increased \$2.7 million, or 40%, to \$9.5 million from \$6.8 million for the same period in 2015. For fiscal 2016, cost of revenue increased 39% to \$35.8 million from \$25.7 million for the same period in 2015. The increase in costs was due to an increase in headcount related compensation costs which was driven by our customer growth. An increase in professional services activities also drove an increase in costs associated with the use of third party providers to support these engagements as well as an increase in travel costs and billable expenses compared to the same periods in 2015. Higher depreciation and operating costs associated with the expansion of data center capacity to support new and ongoing customer engagements were also incurred for the fourth quarter and fiscal 2016 compared to the same periods in 2015. Cost of revenue also reflects costs associated with the commencement of the Korea datacenters and operations.

Gross profit for the three months and year ended December 31, 2016 was \$20.8 million and \$80.2 million respectively compared to \$17.4 million and \$65.5 million for the same periods in 2015. Gross profit as a percentage of revenue for both the three months and the year ended December 31, 2016 decreased to 69% from 72% for the same periods of 2015. The percentage decrease was due to the increase in cost of revenue during the period from investments in additional headcount, the use of third party providers and the expansion of datacenter capability compared to the same periods in 2015.

### *Selling and Marketing Expenses*

	Three months ended December 31,		2015 to 2016	Years ended December 31		2015 to 2016
	2016	2015	%	2016	2015	%
(In thousands of U.S. dollars, except percentages)						
Selling and marketing .....	\$ 8,503	\$ 6,175	38%	\$ 30,350	\$ 18,264	66%
As a percentage of revenue .....	28%	26%		26%	20%	

Selling and marketing expenses for the fourth quarter of 2016 increased \$2.3 million, or 38%, to \$8.5 million from \$6.2 million for the fourth quarter of 2015. For the year ended December 31, 2016 selling and marketing expenses increased \$12.1 million or 66%, to \$30.4 million from \$18.3 million for the same period in 2015. A significant component of selling and marketing expenses is variable compensation related to the closure of new customer arrangements and expansion of existing customer accounts. Our policy is to fully expense sales costs related to this business growth upon commencement of the related revenue. The increase in selling and marketing costs, for the current quarter and year-to-date, are primarily due to increased sales compensation and commission expenses relating to contracts secured with new customers closed in the second half of 2016. Selling and marketing expenses also increased due to our strategic partner investments as well as higher headcount-related compensation to support our investment in our knowledge services and customer success organizations. Higher marketing program costs were also incurred in the fourth quarter of 2016 compared to the same period in 2015 due to the continued success and growing attendance at our annual user conference. As a percentage of revenue, selling and marketing expenses increased by 2% to 28% in the fourth quarter of 2016 and increased by 6% to 26% for the year ended December 31, 2016, reflecting the higher growth in costs in the period. Selling and marketing expenses will vary from quarter to quarter due to the timing of marketing programs and events and the timing of closing customer contracts and related variable compensation.

**Research and Development Expenses**

	<b>Three months ended December 31,</b>		<b>2015 to 2016</b>	<b>Years ended December 31</b>		<b>2015 to 2016</b>
	<b>2016</b>	<b>2015</b>	<b>%</b>	<b>2016</b>	<b>2015</b>	<b>%</b>
(In thousands of U.S. dollars, except percentages)						
Research and development - gross.....	\$ 5,866	\$ 4,280	37%	\$ 22,116	\$ 16,786	32%
Less: Investment tax credits.....	(371)	(585)	(37%)	(1,464)	(1,589)	(8%)
Research and development .....	5,495	3,695	49%	20,652	15,197	36%
As a percentage of revenue .....						
Gross.....	19%	18%		19%	18%	
Net .....	18%	15%		18%	17%	

Gross research and development expenses for the fourth quarter of 2016 increased \$1.6 million to \$5.9 million or 37%, and for the year ended December 31, 2016 increased \$5.3 million to \$22.1 million, or 32%, compared to the same periods in 2015. The increase in research and development expenses was due to an increase in headcount and related compensation costs. The investment in headcount was made to support ongoing programs to develop the RapidResponse product and solution offering for new and existing customers. For the fourth quarter of 2016, investment tax credits earned on research and development activity in Canada decreased \$0.2 million, or 37%, to \$0.4 million from \$0.6 million for the same period in 2015. For the year ended December 31, 2016, investment tax credits earned decreased \$0.1 million, or 8%, to \$1.5 million from \$1.6 million for the fourth quarter of 2015. The investment tax credits earned reflect the foreign exchange impact of credits denominated in Canadian dollars and a decrease in the tax credit rate. As a percentage of revenues, gross research and development expenses were 19% for both the fourth quarter and the year to date of 2016 compared to 18% for the same periods in 2015, reflecting the lower growth in revenue in the current period. Net research and development as a percentage of revenue for both the fourth quarter and fiscal 2016 were 18% compared to 15% and 17% for the same periods in 2015. This was due to higher product development expenses compared to the same period in the previous year.

**General and Administrative Expenses**

	<b>Three months ended December 31,</b>		<b>2015 to 2016</b>	<b>Years ended December 31</b>		<b>2015 to 2016</b>
	<b>2016</b>	<b>2015</b>	<b>%</b>	<b>2016</b>	<b>2015</b>	<b>%</b>
(In thousands of U.S. dollars, except percentages)						
General and administrative .....	\$ 3,033	\$ 2,114	43%	\$ 11,278	\$ 8,260	37%
As a percentage of revenue .....	10%	9%		10%	9%	

For the fourth quarter of 2016, general and administrative expenses increased \$0.9 million, or 43%, to \$3.0 million from \$2.1 million for the same period in 2015. For the year ended December 31, 2016, general and administrative expenses increased \$3.0 million, or 37%, to \$11.3 million from \$8.3 million for the same period in 2015. The increase was primarily due to an increase in share-based payments. As a percentage of revenue, general and administrative expenses were 10% for both the fourth quarter and the year to date of 2016 compared to 9% for the same periods in 2015, reflecting the growth in share-based payments.

### Other Income and Expense

The following table provides a breakdown of other income and expense by type:

	Three months ended December 31,		2015 to	Years ended December 31		2015 to
	2016	2015	2016	2016	2015	2016
			%			%
(In thousands of U.S. dollars, except percentages)						
Other income (expense)						
Foreign exchange loss .....	\$ (223)	\$ (18)	— <sup>(1)</sup>	\$ (198)	\$ (1,041)	(81%)
Finance income .....	78	32	144%	307	128	140%
Total other income (expense).....	(145)	14	— <sup>(1)</sup>	109	(913)	— <sup>(1)</sup>

Note:

- (1) The percentage change has been excluded as it is not meaningful.

For the three months ended December 31, 2016, total other expense was \$0.1 million compared to a nominal amount for the fourth quarter of 2015. This is due to foreign exchange losses incurred in 2016 from the revaluation of Canadian dollar denominated assets against a strengthening U.S. dollar. This was partially offset by interest income earned on an increased cash position during the year. For the year ended December 31, 2016 total other income was \$0.1 million compared to a total other expense of \$0.9 million for the same period in 2015. The decrease is due to foreign exchange losses incurred in fiscal year 2015 due to the revaluation of Canadian dollar denominated assets against a weakening U.S. dollar net of an increase in interest income due to the increased cash position.

### Income Taxes

	Three months ended December 31,		2015 to	Years ended December 31		2015 to
	2016	2015	2016	2016	2015	2016
			%			%
(In thousands of U.S. dollars, except percentages)						
Income tax expense						
Current .....	\$ 1,573	\$ 3,143	(50%)	\$ 7,088	\$ 3,487	103%
Deferred .....	311	1,003	(69%)	170	6,729	(97%)
Total income tax expense .....	1,884	4,146	(55%)	7,258	10,216	(29%)

For the three months and year ended December 31, 2016, income tax expense of \$1.9 million and \$7.3 million was recognized compared to \$4.1 million and \$10.2 million for the same periods in 2015. The decrease in income tax expense for fiscal 2016 compared to 2015 was due to lower profit before income taxes as well as the inclusion in 2015 of taxable foreign exchange gains that were included in Canadian taxable income realized upon the revaluation of U.S. dollar denominated monetary assets to the Canadian dollar. As a percentage of profit before income taxes, income tax expense for the year ended December 31, 2016 was 41% compared to 45% for the year ended December 31, 2015. The decrease was due to the taxable foreign exchange gains in 2015. The percentage of profit before income taxes is higher than the statutory income tax rates in Canada due primarily to share-based payments expense incurred which is not deductible for income tax purposes in Canada.

**Profit**

	Three months ended December 31,		2015 to 2016	Years ended December 31		2015 to 2016
	2016	2015	%	2016	2015	%
(In thousands of U.S. dollars, except percentages)						
Profit .....	\$ 1,711	\$ 1,286	33%	\$ 10,745	\$ 12,678	(15%)
Adjusted profit <sup>(1)</sup> .....	3,661	2,515	46%	18,885	17,130	10%
Adjusted EBITDA <sup>(1)</sup> .....	6,438	7,146	(10%)	28,528	29,985	(5%)
Basic earnings per share .....	0.07	0.05		0.44	0.53	
Diluted earnings per share .....	0.07	0.05		0.41	0.50	
Adjusted diluted earnings per share <sup>(1)</sup> .....	0.14	0.10		0.73	0.67	

Note:

- (1) Adjusted profit, Adjusted EBITDA and Adjusted diluted earnings per share are non-IFRS measures. See “*Non-IFRS Measures*”. For a reconciliation of these measures to the closest IFRS measure, where a comparable IFRS measure exists, see “*Reconciliation of Non-IFRS Measures*” above.

Profit for the three months ended December 31, 2016 increased \$0.4 million to \$1.7 million or \$0.07 per basic and diluted share, from \$1.3 million or \$0.05 per basic and diluted share for the same period in 2015. For the year ended December 31, 2016, profit decreased \$2.0 million to \$10.7 million or \$0.44 per basic share and \$0.41 per diluted share from \$12.7 million or \$0.53 per basic and \$0.50 per diluted share in the same period in 2015. The decrease in profit was driven primarily by our increased sales and marketing costs, our investment in research and development and an increase in share-based payments. For the three months and year ended December 31, 2016, Adjusted EBITDA decreased \$0.7 million and \$1.5 million to \$6.4 million and \$28.5 million respectively from \$7.1 million and \$30.0 million for the same periods in 2015 due to a decrease in profit driven by an increase in sales and marketing and product development costs.

**Key Balance Sheet Items**

	As at December 31, 2016	As at December 31, 2015
(In thousands of U.S. dollars)		
Total assets .....	\$ 168,292	\$ 128,096
Total liabilities .....	80,581	62,492

An analysis of the key balance sheet items driving the change in total assets and liabilities is as follows:

**Trade and other receivables**

	As at December 31, 2016	As at December 31, 2015
(In thousands of U.S. dollars)		
Trade and other receivables .....	\$ 23,820	\$ 15,833

Trade and other receivables were \$23.8 million at December 31, 2016, an increase of \$8.0 million compared to \$15.8 million at December 31, 2015. The change in trade and other receivables was due to contracts secured with new customers and expansion of existing customer subscriptions. The change is also due to timing of billings and collections on receivables, which can have a significant impact on the balance at any point in time due to the timing of the annual subscription billing cycle for each customer and when new customer contracts are secured. The aging of trade receivables is generally current. We recorded an allowance for doubtful account of \$0.2 million as at December 31, 2016.

*Investment tax credits*

	<b>As at December 31, 2016</b>	<b>As at December 31, 2015</b>
	(In thousands of U.S. dollars)	
Investment tax credits receivable .....	\$ 1,583	\$ 1,532
Investment tax credits recoverable .....	755	2,083

Investment tax credits receivable of \$1.6 million at December 31, 2016 were \$0.1 million higher compared to \$1.5 million at December 31, 2015. The increase is due to foreign exchange gains on the refundable investment tax credits denominated in Canadian dollars revalued against a weakening U.S. dollar. The investment tax credits receivable relate to refundable tax credits filed for the 2013 tax year and the 2014 tax period prior to our initial public offering that remain outstanding. Investment tax credits recoverable are the non-refundable portion of investment tax credits earned. The balance decreased \$1.3 million to \$0.8 million at December 31, 2016 from \$2.1 million at December 31, 2015 due to utilization of investment tax credits against current income taxes payable. This decrease was partially offset by estimated non-refundable credits earned in fiscal 2016.

*Deferred revenue*

	<b>As at December 31, 2016</b>	<b>As at December 31, 2015</b>
	(In thousands of U.S. dollars)	
Current .....	\$ 55,458	\$ 40,442
Non-current .....	13,198	14,191
	<u>68,656</u>	<u>54,633</u>

Deferred revenue at December 31, 2016 was \$68.7 million, an increase of \$14.1 million compared to \$54.6 million at December 31, 2015. We generally bill our customers annually in advance for subscriptions resulting in the amount billed being initially recorded as deferred revenue and drawn down to revenue over the term. Deferred revenue increased due to contracts secured with new customers and expansion of existing customer subscriptions. Deferred revenue also varies depending upon the timing of billings for existing and new customer contracts. Deferred revenue relating to subscription term periods beyond one year totaled \$13.2 million at December 31, 2016 compared to \$14.2 million at December 31, 2015.

## Summary of Quarterly Results

The following table summarizes selected results for the eight most recent completed quarters to December 31, 2016.

	December 31, 2016	September 30, 2016	June 30, 2016	Three months ended		September 30, 2015	June 30, 2015	March 31, 2015
				March 31, 2016	December 31, 2015			
Revenue:								
Subscription.....	\$ 22,660	\$ 20,753	\$ 19,935	\$ 18,490	\$ 16,963	\$ 16,544	\$ 16,284	\$ 15,408
Professional services.....	7,355	8,918	8,538	8,304	6,977	6,870	7,137	4,018
Maintenance & support .....	249	250	261	238	251	251	283	285
	<u>30,264</u>	<u>29,921</u>	<u>28,734</u>	<u>27,032</u>	<u>24,191</u>	<u>23,665</u>	<u>23,704</u>	<u>19,711</u>
Cost of revenue .....	9,493	9,466	8,713	8,105	6,789	6,862	6,287	5,805
Gross profit .....	<u>20,771</u>	<u>20,455</u>	<u>20,021</u>	<u>18,927</u>	<u>17,402</u>	<u>16,803</u>	<u>17,417</u>	<u>13,906</u>
Operating expenses .....	17,031	16,386	15,142	13,721	11,984	10,402	9,677	9,658
	<u>3,740</u>	<u>4,069</u>	<u>4,879</u>	<u>5,206</u>	<u>5,418</u>	<u>6,401</u>	<u>7,740</u>	<u>4,248</u>
Foreign exchange gain (loss).....	(223)	(53)	(188)	266	(18)	(497)	(47)	(479)
Net finance income (expense) .....	78	96	59	74	32	30	42	24
Profit before income taxes.....	<u>3,595</u>	<u>4,112</u>	<u>4,750</u>	<u>5,546</u>	<u>5,432</u>	<u>5,934</u>	<u>7,735</u>	<u>3,793</u>
Income tax expense .....	1,884	1,687	1,510	2,177	4,146	2,128	2,537	1,405
Profit .....	<u>\$ 1,711</u>	<u>\$ 2,425</u>	<u>\$ 3,240</u>	<u>\$ 3,369</u>	<u>\$ 1,286</u>	<u>\$ 3,806</u>	<u>\$ 5,198</u>	<u>\$ 2,388</u>
Share-based compensation .....	1,950	2,060	1,850	2,280	1,229	1,176	1,083	964
Adjusted profit <sup>(1)</sup> .....	<u>\$ 3,661</u>	<u>\$ 4,485</u>	<u>\$ 5,090</u>	<u>\$ 5,649</u>	<u>\$ 2,515</u>	<u>\$ 4,982</u>	<u>\$ 6,281</u>	<u>\$ 3,352</u>
Income tax expense .....	1,884	1,687	1,510	2,177	4,146	2,128	2,537	1,405
Depreciation.....	748	683	543	520	499	461	412	354
Foreign exchange (gain) loss.....	223	53	188	(266)	18	497	47	479
Net finance (income) expense .....	(78)	(96)	(59)	(74)	(32)	(30)	(42)	(24)
	<u>2,777</u>	<u>2,327</u>	<u>2,182</u>	<u>2,357</u>	<u>4,631</u>	<u>3,056</u>	<u>2,954</u>	<u>2,214</u>
Adjusted EBITDA <sup>(1)</sup> .....	<u>\$ 6,438</u>	<u>\$ 6,812</u>	<u>\$ 7,272</u>	<u>\$ 8,006</u>	<u>\$ 7,146</u>	<u>\$ 8,038</u>	<u>\$ 9,235</u>	<u>\$ 5,566</u>
Basic earnings per share.....	\$ 0.07	\$ 0.13	\$ 0.14	\$ 0.05	\$ 0.16	\$ 0.22	\$ 0.10	\$ 0.02
Diluted earnings per share.....	\$ 0.07	\$ 0.13	\$ 0.13	\$ 0.05	\$ 0.15	\$ 0.20	\$ 0.10	\$ 0.02
Adjusted diluted earnings per share <sup>(1)</sup> .....	\$ 0.14	\$ 0.20	\$ 0.22	\$ 0.10	\$ 0.20	\$ 0.25	\$ 0.13	\$ 0.06

Note:

- (1) Adjusted profit, Adjusted EBITDA and Adjusted diluted earnings per share are non-IFRS measures. See "Non-IFRS Measures". For a reconciliation of these measures to the closest IFRS measure, where a comparable IFRS measure exists, see "Reconciliation of Non-IFRS Measures" above.

Subscription revenue has increased steadily over the last eight quarters due to acquisition of new customers and expansion of existing customers. Professional services revenue varies quarter to quarter due to the size, timing and scheduling of customer engagements. Maintenance & support revenue has declined over the quarters due to support contracts with legacy customers with perpetual licenses that have lapsed and the migration of customers to a subscription model. Cost of revenue has increased as we continue to invest in the capacity to support the growth in our business with gross margin ranging from 68% to 73% of revenue. Operating expenses have increased as we invest in sales, marketing, and product development. In addition to increased investment, our quarterly operating expenses are impacted by timing of sales commissions and marketing events. As a significant component of our operating expenses are denominated in Canadian dollars, fluctuations in the foreign exchange rate with the U.S. dollar have had a positive impact on operating expenses and quarterly profit since fiscal 2015.



## Liquidity and Capital Resources

Our primary source of cash flow is sales of subscriptions for our software and sales of services. Our approach to managing liquidity is to ensure, to the extent possible, that we always have sufficient liquidity to meet our liabilities as they come due. We do so by continuously monitoring cash flow and actual operating expenses compared to budget.

	<b>As at December 31, 2016</b>	<b>As at December 31, 2015</b>
	(In thousands of U.S. dollars)	
Cash and cash equivalents.....	\$ 127,910	\$ 99,390

Cash and cash equivalents increased \$28.5 million to \$127.9 million at December 31, 2016, from \$99.4 million at December 31, 2015.

In addition to the cash balances, we have a Cdn. \$20.0 million revolving demand facility available to be drawn to meet ongoing working capital requirements. Our principal cash requirements are for working capital and capital expenditures. Excluding deferred revenue, working capital at December 31, 2016 was \$146.9 million. Given the ongoing cash generated from operations and our existing cash and credit facilities, we believe there is sufficient liquidity to meet our planned growth and current financial obligations of \$19.0 million.

The following table provides a summary of cash inflows and outflows by activity:

	<b>Three months ended December 31,</b>		<b>Years ended December 31</b>	
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>
	(In thousands of U.S. dollars)		(In thousands of U.S. dollars)	
<b>Cash Inflow (Outflows) by activity</b>				
Operating activities.....	\$ 17,089	\$ 8,522	\$ 31,126	\$ 45,248
Investing activities.....	(669)	(573)	(5,794)	(4,334)
Financing activities.....	300	868	3,267	1,858
Effects of exchange rates .....	(471)	(53)	(79)	(107)
Net cash inflows (outflows).....	16,249	8,764	28,520	42,665

### *Cash provided by operating activities*

Cash provided by operating activities for the three months ended December 31, 2016 was \$17.1 million, up from \$8.5 million generated for the same period in 2015. The increase was due to a decrease in accounts receivable coupled with an increase in deferred revenue. These were partially offset by an increase in share-based payments, depreciation and income tax expense. For fiscal 2016, cash generated by operating activities was \$31.1 million compared to \$45.2 million for the same period in 2015. The decrease in cash provided by operating activities of \$13.8 million was due primarily to the receipt of a prepayment of an approximately \$20.0 million multi-year subscription arrangement in the first quarter of 2015, lower profit and higher income taxes paid for the year ended December 31, 2016 compared to the same period in 2015. This was partially offset by an increase in depreciation and share-based payments.

### *Cash used in investing activities*

Cash used in investing activities is driven by purchases of property and equipment primarily related to computer equipment for use in our hosting facilities and to support research and development requirements and leasehold improvements. Cash used in the purchase of property and equipment for the three months ended December 31, 2016 was \$0.7 million, an increase of \$0.1 million from \$0.6 million in 2015. For the year ended December 31, 2016, cash used in the purchase of property and equipment was \$5.8 million, an increase of \$1.5 million from \$4.3 million in 2015. Purchases will fluctuate from period over period due to timing but we expect to continue to invest in

additional property and equipment to support the growth in our customer base and to take advantage of new and advanced technology.

*Cash provided by financing activities*

Cash provided by financing activities was \$0.3 million and \$3.3 million for the three months and year ended December 31, 2016, respectively, compared to \$0.9 million and \$1.9 million for the same periods in 2015. These amounts represent proceeds received upon exercise of stock options.

**Revolving Credit Facility and Term Loan**

We have a Cdn. \$20.0 million revolving demand credit facility (the “**Revolving Facility**”). As of December 31, 2016, and as of the date of this MD&A, no amounts had been drawn against the Revolving Facility.

The interest rate on the Revolving Facility is RBC U.S. prime plus 0.50% per annum for U.S. dollar denominated amounts and RBC U.S. base rate plus 0.50% per annum for Canadian dollar denominated amounts. In the event our aggregate borrowings under the Revolving Facility exceed Cdn. \$2.5 million a borrowing limit applies that is based principally on our accounts receivable.

**Contractual Obligations**

Our operating lease commitments are primarily for office premises and secure data center facilities with expiry dates that range from March 2017 to May 2023. The majority of the lease commitments relate to our head office in Ottawa, Canada, the lease of which expires in May 2023. Given the ongoing cash generated from operations and our existing cash and credit facilities, we believe there is sufficient liquidity to meet our contractual obligations.

The following table summarizes our contractual obligations as at December 31, 2016, including commitments relating to leasing contracts:

	Less than 1 year	1 to 3 years	4 to 5 years	More than 5 years	Total amount
	(In thousands of U.S. dollars)				
<b>Commitments</b>					
Operating lease agreements .....	\$ 1,902	\$ 3,637	\$ 2,424	\$ 501	\$ 8,464
<b>Financial Obligations</b>					
Trade payables and accrued liabilities .....	10,496		–	–	10,496
<b>Total Contractual Obligations</b>	<u>\$ 12,398</u>	<u>\$ 3,637</u>	<u>\$ 2,424</u>	<u>\$ 501</u>	<u>\$ 18,960</u>

The following table summarizes our contractual obligations as at December 31, 2015, including commitments relating to leasing contracts:

	Less than 1 year	1 to 3 years	4 to 5 years	More than 5 years	Total amount
	(In thousands of U.S. dollars)				
<b>Commitments</b>					
Operating lease agreements .....	\$ 1,462	\$ 3,157	\$ 1,940	\$ 1,374	\$ 7,933
<b>Financial Obligations</b>					
Trade payables and accrued liabilities .....	6,794		–	–	6,794
<b>Total Contractual Obligations</b>	<u>\$ 8,256</u>	<u>\$ 3,157</u>	<u>\$ 1,940</u>	<u>\$ 1,374</u>	<u>\$ 14,727</u>

**Off-Balance Sheet Arrangements**

We have no off-balance sheet arrangements, other than operating leases (which have been disclosed under “*Liquidity and Capital Resources - Contractual Obligations*”), that have, or are likely to have, a current or future material effect on our consolidated financial position, financial performance, liquidity, capital expenditures or capital resources.

**Transactions with Related Parties**

We did not have any transactions during the three months and years ended December 31, 2016 and 2015 that would be considered to be between the Company and a related party.

**Financial Instruments and Other Instruments**

We recognize financial assets and liabilities when we become party to the contractual provisions of the instrument. On initial recognition, financial assets and liabilities are measured at fair value plus transaction costs directly attributable to the financial assets and liabilities, except for financial assets or liabilities at fair value through profit and loss, whereby the transactions costs are expensed as incurred.

*Credit risk*

Credit risk is the risk of an unexpected loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations. Our credit risk is primarily attributable to trade and other receivables.

The nature of our subscription based business results in payments being received in advance of the majority of the services being delivered; as a result, our credit risk exposure is low. As the majority of our revenues are earned over a period of time, the potential impact on our operating results is low as any uncollectible amounts would affect trade and other receivables and deferred revenue.

*Currency risk*

A portion of our revenues and operating costs are realized in currencies other than our functional currency, such as the Canadian dollar, Euros, the Hong Kong dollar, South Korean Won and Japanese Yen. As a result, we are exposed to currency risk on these transactions. Also, additional earnings volatility arises from the translation of monetary assets and liabilities, investment tax credits recoverable and deferred tax assets and liabilities denominated in foreign currencies at the rate of exchange on each date of our consolidated statements of financial position; the impact of which is reported as a foreign exchange gain or loss or as income tax expense for deferred tax assets and liabilities.

Our objective in managing our currency risk is to minimize exposure to currencies other than our functional currency. We do not engage in hedging activities. We manage currency risk by matching foreign denominated assets with foreign denominated liabilities.

*Interest rate risk*

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market interest rates. We believe that interest rate risk is low for our financial assets as the majority of investments are made in fixed rate instruments. We do have interest rate risk related to our credit facilities. The rates on our Revolving Facility are variable to bank prime rate.

*Capital management*

Our capital is composed of shareholders' equity which includes our common shares. Our objective in managing our capital is financial stability and sufficient liquidity to increase shareholder value through organic growth and investment in sales, marketing and product development. Our senior management team is responsible for managing the capital through regular review of financial information to ensure sufficient resources are available to meet operating requirements and investments to support our growth strategy. The Board of Directors is responsible for overseeing this process. In order to maintain or adjust our capital structure, we could issue new shares, repurchase shares, approve special dividends or issue debt.

**Critical Accounting Policies and Estimates***Revenue*

We derive revenue from subscriptions for our product comprised of our hosted SaaS application and fixed term subscription licenses of our software products ("**On-premise licenses**"). In addition, we derive revenue from the provision of professional services including implementation services, technical services and training and, to a lesser

degree, from maintenance and support services provided to customers with legacy perpetual licenses to our software products. Professional services do not include significant customization to, or development of, the software.

We commence revenue recognition when all of the following conditions are met:

- it is probable that the economic benefits of the transaction will flow to the entity;
- the amount of revenue can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

We provide our SaaS, On-premise licenses and professional services on a stand-alone basis or as part of a multiple element arrangement. Stand-alone sales occur through renewals of the SaaS or On-premise license and stand-alone purchases of the same or similar professional services on an ongoing basis by customers. When sold in a multiple element arrangement, the SaaS or On-premise license and the professional services elements are considered separate units of accounting as they have stand-alone value to the customer. The total consideration for the arrangement is allocated to the separate units of accounting based on their relative fair value and the revenue is recognized for each unit when the requirements for revenue recognition have been met. We determine the fair value of each unit of accounting based on the selling price when they are sold separately. When the fair value cannot be determined based on when it was sold, we determine a value that most reasonably reflects the selling price that might be achieved in a stand-alone transaction. Inputs considered in making this determination include the specific parameters and model used in determining the contract price, contracted renewal rates, the history of pricing, renewals and stand-alone sales activity of similar customers.

Subscription revenue related to the provision of SaaS or On-premise term licenses is recognized ratably over the contract term as the service or access to the software is delivered. The contract term begins when the service is made available or the license is delivered to the customer.

We enter into arrangements for professional services primarily on a time and materials basis. Revenue for professional services entered into on a time and material basis is recognized as the services are performed. In certain circumstances, the Company enters into arrangements for professional services on a fixed price basis. Revenue for fixed price arrangements is recognized by reference to the stage of completion of the contract, taking into consideration the cost incurred to date in relation to the total expected cost to complete the deliverable. If the estimated cost to complete a contract results in a loss on the contract, the loss is recognized immediately in profit or loss.

Maintenance and support services provided to customers with legacy perpetual licenses are sold as a single element arrangement with one unit of accounting. Revenue for these arrangements is recognized ratably over the term of the maintenance contract.

Judgment is applied in determining the components of a multiple element revenue arrangement. In allocating the consideration received among the multiple elements of a revenue arrangement, we must make estimates as to the fair value of each individual element. The selling price of the element on a stand-alone basis is used to determine the fair value. Where stand-alone sales do not exist, various inputs are used to determine the fair value. Changes to these inputs may result in different estimates of fair value for an element and impact the allocation of consideration and timing of revenue recognition.

#### *Income taxes*

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from, or paid to, the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted, by the reporting date, in the countries where we operate and generate taxable income.

Deferred income tax assets and liabilities are recorded for the temporary differences between transactions that have been included in the financial statements or income tax returns. Deferred income taxes are provided for using the liability method. Under the liability method, deferred income taxes are recognized for all significant temporary differences between the tax and financial statement bases of assets and liabilities and for certain carry-forward items. Deferred income tax assets are recognized only to the extent that, in the opinion of management, it is probable that the deferred income tax assets will be realized.

The recognition of deferred tax assets requires that we assess future taxable income available to utilize deferred tax assets related to deductible or taxable temporary differences. We consider the nature and carry-forward period of deferred tax assets, our recent earnings history and forecast of future earnings in performing this assessment. The actual deferred tax assets realized may differ from the amount recorded due to factors having a negative impact on our operating results and lower future taxable income.

#### *Investment tax credits recoverable*

The recognition of investment tax credits recoverable requires that we assess future tax payable available to utilize the investment tax credits. We consider the carry-forward period of the investment tax credits, our recent earnings history and forecast of future earnings in performing this assessment. We determine the value of effort expended towards research and development projects that qualify for investment tax credits and calculate the estimated recoverable to be recognized. The allocation of direct salaries to qualifying projects is derived from time records and assessment by management. The actual investment tax credits claimed and realized may differ from the estimate based on the final tax returns and review by tax authorities.

#### *Fair value of share-based payments*

We use the Black-Scholes valuation model to determine the fair value of equity settled stock options. Estimates are required for inputs to this model including the fair value of the underlying shares, the expected life of the option, volatility, expected dividend yield and the risk-free interest rate. Variation in actual results for any of these inputs will result in a different value of the stock option realized from the original estimate.

### **Adoption of New Accounting Standards**

#### Amendments to IAS 16 and IAS 38

In May 2014, the International Accounting Standards Board issued amendments to IAS 16 Property, Plant and Equipment and IAS 38 Intangible Assets. These amendments prohibit entities from using a revenue-based depreciation method for items of property, plant and equipment. They also introduce a rebuttable presumption that revenue is not an appropriate basis for amortization of an intangible asset. The amendments explain that an expected future reduction in selling prices could be indicative of a reduction of the future economic benefits embodied in an asset. These amendments became effective for annual periods beginning on or after January 1, 2016. The adoption of these amendments did not have a material impact on the consolidated financial statements.

#### Other Amendments to IFRS standards

The following new or amended standards had no material impact on the Company's consolidated financial statements.

- IFRS 14 Regulatory Deferral Accounts
- Accounting for Acquisitions of Interests in Joint Operations (Amendments to IFRS 11)
- Agriculture: Bearer Plants (Amendments to IAS 16 and IAS 41)
- Equity Method in Separate Financial Statements (Amendments to IAS 27)
- Investments entities: Applying the Consolidation Exception (Amendment to IFRS 10, IFRS 12 and IAS 28)

#### *Changes to standards and interpretations*

#### IFRS 15: Revenue from Contracts with Customers ("IFRS 15")

In May 2014, the IASB issued IFRS 15, which provides a single, principles-based five-step model for revenue recognition to be applied to all customer contracts, and requires enhanced disclosures. The standard also provides guidance relating to recognition of customer acquisition costs. In April 2016, the IASB issued Clarifications to IFRS 15 in relation to the identification of performance obligations, principal versus agent considerations, as well as

licensing application guidance. This standard will be effective January 1, 2018 and allows early adoption. We do not intend to adopt this standard early. We are currently evaluating the impact of adopting this standard and accordingly cannot yet reasonably estimate its effect on the consolidated financial statements.

#### Amendments to IFRS 2: Share-based Payments ("IFRS 2")

In June 2016, the IASB issued amendments to IFRS 2. The amendments, which were developed through the IFRS Interpretations Committee, provide requirements for accounting for the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments. They also provide guidance on the accounting for share-based payment transactions with a net settlement feature for withholding tax obligations; and a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. These amendments are to be applied prospectively for annual periods beginning on or after January 1, 2018. Early adoption is allowed and specific transitional provisions apply. We do not intend to adopt these amendments early. We are currently evaluating the impact of adopting these amendments and accordingly cannot yet reasonably estimate their effect on the consolidated financial statements.

#### Amendments to IAS 12 Income Taxes ("IAS 12")

In January 2016, the IASB issued amendments to IAS 12. The amendments clarify the accounting for deferred tax assets for unrealised losses on debt instruments measured at fair value. These amendments are to be applied retrospectively for annual periods beginning on or after January 1, 2017. Early adoption is allowed. We do not intend to adopt these amendments early. We are currently evaluating the impact of adopting these amendments and accordingly cannot yet reasonably estimate their effect on the consolidated financial statements.

#### Amendments to IAS 7 Statement of Cash Flows ("IAS 7")

In January 2016, the IASB issued amendments to IAS 7. These amendments require entities to provide disclosures that help users of the financial statements to better understand changes in liabilities that arise from financing activities, including both changes arising from cash flow and non-cash changes. These amendments are to be applied prospectively for annual periods beginning on or after January 1, 2017. Early adoption is allowed. We do not intend to adopt these amendments early. We are currently evaluating the impact of adopting these amendments and accordingly cannot yet reasonably estimate their effect on the consolidated financial statements.

#### IFRS 16: Leases ("IFRS 16")

In January 2016, the IASB issued IFRS 16, which specifies how to recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset have a low value. Consistent with its predecessor, IAS 17, the new lease standard continues to require lessors to classify leases as operating or finance. IFRS 16 is to be applied retrospectively for annual periods beginning on or after January 1, 2019. Earlier application is permitted if IFRS 15 has also been applied. We do not intend to adopt this standard early. We are currently evaluating the impact of adopting this standard and accordingly cannot yet reasonably estimate its effect on the consolidated financial statements.

#### IFRS 9: Financial Instruments ("IFRS 9")

In July 2014, the IASB issued the final version of IFRS 9, bringing together the classification and measurement, impairment and hedge accounting phases of the project to replace IAS 39, Financial Instruments: Recognition and Measurement. This standard simplifies the classification of a financial asset as either at amortized cost or at fair value as opposed to the multiple classifications, which were permitted under IAS 39. This standard also requires the use of a single impairment method as opposed to the multiple methods in IAS 39. The approach in IFRS 9 is based on how an entity manages its financial instruments in the context of its business model and the contractual cash flow characteristics of the financial assets. The standard also adds guidance on the classification and measurement of financial liabilities. IFRS 9 is to be applied retrospectively for annual periods beginning on or after January 1, 2018. Early application is permitted. We do not intend to adopt this standard early. We are currently evaluating the impact of adopting this standard and accordingly cannot yet reasonably estimate its effect on the consolidated financial statements.

## Controls and Procedures

### *Disclosure Controls and Procedures*

The Company's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") are responsible for establishing and maintaining our disclosure controls and procedures. We maintain a set of disclosure controls and procedures designed to provide reasonable assurance that information required to be publicly disclosed is recorded, processed, summarized and reported on a timely basis. Our CEO and CFO have evaluated the design and effectiveness of the Company's disclosure controls and procedures at the financial year end and based on the evaluation, our CEO and CFO have concluded that the disclosure controls and procedures are effective.

### *Internal Controls over Financial Reporting*

Our internal controls over financial reporting ("ICFR") are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Our management is responsible for establishing and maintaining adequate ICFR. Management, including our CEO and CFO, does not expect that our ICFR will prevent or detect all errors and all fraud or will be effective under all future conditions. A control system is subject to inherent limitations and even those systems determined to be effective can provide only reasonable, but not absolute, assurance that the control objectives will be met with respect to financial statement preparation and presentation.

National Instrument 52-109 of the Canadian Securities Administrators requires our CEO and CFO to certify that they are responsible for establishing and maintaining ICFR and that those internal controls have been designed and are effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS. Our CEO and CFO are also responsible for disclosing any changes to our internal controls during the most recent period that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Our management under the supervision of our CEO and CFO has evaluated the design of our ICFR based on the Internal Control – Integrated Framework issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission. As at December 31, 2016, management assessed the effectiveness of the Company's ICFR and concluded that such ICFR is effective and that there are no material weaknesses in the Company's ICFR that have been identified by management. Effective January 1, 2016, we changed our accounting system, and in order to accommodate the new system, certain of our internal controls and processes were updated. The changes did not have a material effect on, and are not reasonably likely to materially affect, our internal control over financial reporting.

## Outstanding Share Information

As of December 31, 2016, our authorized capital consists of an unlimited number of common shares with no stated par value. Changes in the number of common shares, options, restricted share units and deferred share units outstanding for the year ended December 31, 2016 and as of February 28, 2017 are summarized as follows:

Class of Security	Number outstanding at December 31, 2015	Net issued	Number outstanding at December 31, 2016	Net issued	Number outstanding at February 28, 2017
	Common shares	24,420,004	520,110	24,940,114	109,650
Stock Options	2,571,206	(111,334)	2,459,872	(245,150)	2,214,722
Restricted Share Units	89,999	(19,271)	70,728	(16,197)	54,531
Deferred Share Units	9,000	12,668	21,668	-	21,668

Our outstanding common shares increased by 520,110 shares in 2016 due to 435,334 options exercised, the vesting of 77,859 restricted share units and 6,917 deferred share units.

Our outstanding stock options decreased by 111,334 options in 2016 due to the grant of 336,000 options less 435,334 options exercised and 12,000 options forfeited. Each option is exercisable for one common share.



Our outstanding restricted share units decreased by 19,271 in 2016 due to the grant of 58,588 restricted share units and the vesting of 77,859 such restricted share units which were settled by the issuance of common shares. Our outstanding deferred share units increased by 12,668 during fiscal 2016 due to the grant of 19,585 deferred share units less 6,917 deferred share units vested. Upon vesting, each restricted share unit and deferred share unit can be paid out or settled in cash, an equivalent number of common shares, or a combination thereof, as elected by the Compensation Committee of the Board of Directors.