KINAXIS INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE SIX MONTHS ENDED JUNE 30, 2018

DATED: August 2, 2018

*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 June 30, 2018. This MD&A has been prepared with an effective date of August 2, 2018.*

*This MD&A for the three and six months ended June 30, 2018 and 2017 should be read in conjunction with our condensed consolidated interim financial statements and the related notes thereto as at and for the three and six months ended June 30, 2018. The financial information presented in this MD&A is derived from our interim 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.

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 condensed consolidated interim financial statements and the related notes thereto as at and for the three and six months ended June 30, 2018. 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 and 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.

This MD&A also includes forward-looking statements in relation to a contract dispute and arbitration proceeding with an Asian-based customer. These forward-looking statements are based on our assessment and analysis of the merits of the parties' positions. This assessment and analysis may evolve as the relevant proceedings are at a very early stage. 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 adversely 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.
- 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.
- Security breaches could delay or interrupt service to our customers, harm our reputation or subject us to significant liability and adversely affect our business and financial results.
- 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.
- Privacy and security concerns, including evolving government regulation in the area of consumer data privacy, could adversely affect our business and operating results.
- We have incurred operating losses in the past and may incur operating losses in the future.
- 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.
- Our inability to assess and adapt to rapid technological developments could impair our ability to remain competitive.
- 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.
- We are subject to fluctuations in currency exchange rates.
- If we fail to protect our intellectual property and proprietary rights adequately, our business could be adversely affected.
- 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.
- 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.
- As we increase our emphasis on our partnership program, we may encounter new risks, such as dependence on partners for a material portion of our revenue and potential channel conflict.
- 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, or delays 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.
- The use of open source software in our products may expose us to additional risks and harm our intellectual property.
- Mergers or other strategic transactions involving our competitors or customers could weaken our competitive position, which could harm our results of operations.
- We may not receive significant revenue as a result of our current research and development efforts.
- 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.
- Current and future accounting pronouncements and other financial reporting standards might negatively impact our financial results.
- We are subject to taxation in various jurisdictions and the taxing authorities may disagree with our tax positions.
- If we fail to develop widespread brand awareness cost-effectively, our business may suffer.
- Our strategy includes pursuing acquisitions and our potential inability to successfully integrate newly-acquired companies or businesses may adversely affect our financial results.
- The market price for our common shares may be volatile.
- We may issue additional common shares in the future which may dilute our shareholders' investments.
- We may need to raise additional funds to pursue our growth strategy or continue our operations, and we may be unable to raise capital when needed or on acceptable terms.

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 25% and 24% respectively for the three years ended December 31, 2017 (based on IFRS standards in effect during the period). Our subscription revenue growth is driven both by contracts with new customers and expansion of our solution and service engagements within our existing customer base. Under IFRS 15 and 16, for the three and six months ended June 30, 2018, our Adjusted EBITDA was 29% and 31% of revenue and ending cash balances grew to $174.6 million. Prior to applying IFRS 15 and 16 (see "Adoption of New Accounting Standards" below) our Adjusted EBITDA for the three and six months ended June 30, 2018 was 27% and 26% of revenue.

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

We sell our product using a subscription-based model, with the product being delivered from the cloud in the vast majority of cases, from data centers that we operate. Revenue from these customers is included as "subscription services revenue". Certain customers, including some long term customers who converted to the subscription model several years ago, have licensed our subscription product on an on-premise basis. Under IFRS 15, for on-premise customers the deemed software component for the applicable subscription term is now recognized as "subscription term license revenue" with the remaining maintenance and support component recognized ratably over the term and included in "subscription services revenue". 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 licensed manufacturing, distribution and inventory sites. Average annual contract value fluctuates from period to period depending on the number and size of new customer arrangements and the extent to which we are successful in expanding adoption of our products by existing customers.

For the six months ended June 30, 2018, our ten largest customers accounted for 37% of our total revenues with no one customer accounting for greater than 10% 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 the increasing need for solutions, we expect competition in the industry from new entrants and larger incumbent vendors to 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. Recently, approximately 65% of subscription service revenue growth has been derived from new customers. Our net subscription service revenue retention is greater than 100%, reflecting our longer term contract structure and renewal history.

We continue to invest in our partnerships both from a sales and product implementation perspective. We work with major consulting organizations as Strategic Partners, such as Accenture and Deloitte Consulting LLP, which are able to positively influence the decision making process at major target customers. These partners, and our Service Partners, such as Barkawi Management Consultants, mSE Solutions, Cognizant and others, help customers realize end-to-end supply chain optimization by implementing our industry-leading concurrent planning solution for our customers. Finally, in Asia we work with certain organizations as Reseller Partners, as that is frequently the most effective way to engage accounts in those markets.

We are headquartered in Ottawa, Ontario. We have subsidiaries located in the United States, the Netherlands, the United Kingdom and Hong Kong and subsidiaries and offices in Seoul, South Korea and Tokyo, Japan. We continue to expand our operations internationally. For the six months ended June 30, 2018, 83% of our revenues were derived from North American based customer contracts and our remaining revenues were derived principally from Asian and European based contracts. The location of the customer's contracting entity is used as the basis for segmenting revenue by geography; however, this is not always representative of the location of the sales engagement nor the customer's RapidResponse user base.

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 (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 which are paid annually in advance. In certain circumstances, customers will prepay subscription fees for the term of the agreement. 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 services revenue plus maintenance and support revenue (see "Significant Factors Affecting Results of Operations – Revenue"). While the underlying contracts for on-premise subscription agreements are typically structured in the same manner as for our cloud-delivered customers, including contracted, recurring annual payments, under IFRS 15 for on-premise customers we are required to separately report revenue as two components: the deemed software component and the maintenance and support component. The deemed software component for the entire term of these on-premise subscriptions is recognized as revenue upon contract term commencement (as a subscription term license), and therefore not recorded as recurring revenue. See "Adoption of New Accounting Standards" below for further discussion of this change in accounting standards.

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 late in a quarter will typically have limited contribution to 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 primarily comprised of fees for provision of RapidResponse as software as a service ("**SaaS**") in our hosted, cloud environment and, to a lesser degree, fees for use of the subscription on-premise for a fixed term. Upon adoption of IFRS 15 on January 1, 2018, revenue for the implied software component for on-premise subscriptions is recognized upon term commencement as subscription term license revenue. Prior to adopting IFRS 15, this revenue was recognized over the term of the subscription agreement as subscription services revenue.

Subscription services revenue includes hosting services when the product is provided from the cloud under a SaaS arrangement, and maintenance and support for the solution, for both SaaS and on-premise subscriptions for the term of the contract.

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 and 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 center 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, contract acquisition costs including commissions earned by sales personnel and partner referral fees 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 ("**R&D**") 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 (Korean Won), Japan (Japanese Yen), the Netherlands (Euro) and the United Kingdom (British Pound). 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.

Adoption of IFRS 15

Effective January 1, 2018, we adopted IFRS 15: Revenue from Contracts with Customers. The adoption of this standard has not impacted the revenue recognized from our cloud-based SaaS arrangements. However, revenue recognized from software subscriptions delivered on-premise on a fixed term basis are accounted for differently. Prior to adoption of IFRS 15 subscription revenue from on-premise arrangements was deferred and recognized over the term of the arrangement, consistent with our cloud-based SaaS arrangements. Under IFRS 15, the implied software component for on-premise arrangements is recognized up-front upon commencement of the term and the implied maintenance and support component is recognized ratably over the term. Subscription revenue from SaaS arrangements and the maintenance and support revenue from on-premise arrangements are recognized as "subscription services" revenue. The implied software component for on-premise arrangements is recognized as "subscription term

license" revenue. There has been no impact on the recognition of professional services revenue or maintenance support revenue from legacy perpetual licenses.

In addition to the impact on revenue recognition, the adoption of IFRS 15 impacts the recognition of customer acquisition costs. Prior to adopting IFRS 15, customer acquisition costs including commissions paid to employees and third party referral fees were expensed upon commencement of the related contract revenue. Under IFRS 15, these costs are capitalized and amortized over the expected life of the customer.

We have adopted IFRS 15 using the cumulative effect method with the effect of adopting this standard recognized in retained earnings on January 1, 2018. Accordingly, we have not restated the 2017 comparative information and have presented the 2018 results prior to giving effect to IFRS 15 for comparative purposes and will form the basis of our discussion and analysis. The total impact net of related income tax recorded in retained earnings on January 1, 2018 was an increase of $23.8 million. The acceleration of revenue recognition for on-premise arrangements noted above resulted in recording a $20.9 million increase in retained earnings for revenue that would otherwise have been recorded in the future but will now not be reported as revenue on any of our statements of comprehensive income. The deferral of customer acquisition costs increased retained earnings by $11.5 million for costs previously expensed that have been deferred and will be re-expensed in the future as selling and marketing expenses over the estimated life of the customer.

Results of Operations

The following table sets forth a summary of our results of operations for the three and six months ended June 30, 2018 and 2017:

	Three months ended June 30,			Six months ended June 30,		
		Pre-IFRS 15/16			Pre-IFRS 15/16	
	2018	2018	2017	2018	2018	2017
	(In thousands of U.S. dollars, except earnings per share)					
Statement of Operations						
Revenue	$ 38,994	$ 39,987	$ 32,866	$ 75,843	$ 75,857	$ 65,408
Cost of revenue	12,493	12,493	9,985	22,628	22,683	20,362
Gross profit	26,501	27,494	22,881	53,215	53,174	45,046
Operating expenses	20,398	21,017	16,496	39,770	42,002	33,660
	6,103	6,477	6,385	13,445	11,172	11,386
Foreign exchange loss	(222)	(371)	(12)	(26)	(349)	(23)
Net finance income	193	446	310	338	807	477
Profit before income taxes	6,074	6,552	6,683	13,757	11,630	11,840
Income tax expense	1,809	2,127	1,043	4,939	3,995	2,974
Profit	$ 4,265	$ 4,425	$ 5,640	$ 8,818	$ 7,635	$ 8,866
Adjusted profit[(1)]	$ 6,792	$ 6,952	$ 8,037	$ 14,503	$ 13,320	$ 13,979
Adjusted EBITDA[(1)]	$ 11,194	$ 10,724	$ 9,600	$ 23,680	$ 19,882	$ 18,105
Basic earnings per share	$ 0.17	$ 0.17	$ 0.22	$ 0.34	$ 0.30	$ 0.35
Diluted earnings per share	$ 0.16	$ 0.17	$ 0.21	$ 0.33	$ 0.29	$ 0.34
Adjusted diluted earnings per share[(1)]	$ 0.25	$ 0.26	$ 0.30	$ 0.54	$ 0.50	$ 0.53

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.

	As at June 30, 2018	As at June 30, 2018 (Pre-IFRS 15/16)	As at December 31, 2017
	(In thousands of U.S. dollars)		
Total assets	$ 271,755	$ 237,977	$ 212,693
Total non-current liabilities	23,888	5,058	9,689

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 performance. 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 June 30,			Six months ended June 30,		
		Pre-IFRS 15/16			Pre-IFRS 15/16	
	2018	2018	2017	2018	2018	2017
	(In thousands of U.S. dollars)					
Profit	$ 4,265	$ 4,425	$ 5,640	$ 8,818	$ 7,635	$ 8,866
Share-based compensation	2,527	2,527	2,397	5,685	5,685	5,113
Adjusted profit	$ 6,792	$ 6,952	$ 8,037	$ 14,503	$ 13,320	$ 13,979
Income tax expense	1,809	2,127	1,043	4,939	3,995	2,974
Depreciation	2,564	1,720	818	4,550	3,025	1,606
Foreign exchange loss	222	371	12	26	349	23
Net finance income	(193)	(446)	(310)	(338)	(807)	(477)
	4,402	3,772	1,563	9,177	6,562	4,126
Adjusted EBITDA	$ 11,194	$ 10,724	$ 9,600	$ 23,680	$ 19,882	$ 18,105
Adjusted EBITDA as a percentage of revenue	29%	27%	29%	31%	26%	28%

Revenue

	Three months ended June 30, 2018	Three months ended June 30, 2017	2017 to 2018 %	Pre-IFRS 15/16 Three months ended June 30, 2018	Pre-IFRS 15/16 Three months ended June 30, 2017	Pre-IFRS 15/16 2017 to 2018 %
	(In thousands of U.S. dollars)					
Revenue						
Subscription services	$ 26,542	$ 24,202	10%	$ 30,078	$ 24,202	24%
Subscription term licenses	2,543	–	–	–	–	–
	29,085	24,202	20%	30,078	24,202	24%
Professional services	9,640	8,395	15%	9,640	8,395	15%
Maintenance and support	269	269	0%	269	269	0%
Total revenue	38,994	32,866	19%	39,987	32,866	22%

	Six months ended June 30, 2018	Six months ended June 30, 2017	2017 to 2018 %	Pre-IFRS 15/16 Six months ended June 30, 2018	Pre-IFRS 15/16 Six months ended June 30, 2017	Pre-IFRS 15/16 2017 to 2018 %
	(In thousands of U.S. dollars)					
Revenue						
Subscription services	$ 52,531	$ 48,056	9%	$ 59,582	$ 48,056	24%
Subscription term licenses	7,037	–	–	–	–	–
	59,568	48,056	24%	59,582	48,056	24%
Professional services	15,750	16,836	(6%)	15,750	16,836	(6%)
Maintenance and support	525	516	2%	525	516	2%
Total revenue	75,843	65,408	16%	75,857	65,408	16%

Prior to applying IFRS 15, total revenue for the three months ended June 30, 2018 was $40.0 million, an increase of $7.1 million compared to the same period in 2017. This increase was due to a 24% increase in subscription revenue and a 15% increase in professional services revenue. Prior to applying IFRS 15, total revenue for the six months ended June 30, 2018 was $75.9 million, an increase of $10.5 million compared to the same period in 2017. This increase was due to a 24% increase in subscription revenue net of a decrease in professional services revenue.

Under IFRS 15, total revenue for the three months ended June 30, 2018 was $39.0 million, $1.0 million lower than total revenue prior to applying IFRS 15. This was due to earlier recognition of subscription revenue in the current and prior periods for the software license component of on-premise and hybrid subscriptions under IFRS 15. Under IFRS 15, total revenue for the six months ended June 30, 2018 was $75.8 million, comparable to total revenue prior to applying IFRS 15. This was due to the subscription term licenses revenue recorded under IFRS 15 during the six month period being offset by the lower subscription services revenue. The adoption of IFRS 15 had a nominal net impact on total revenue for the six months ended June 30, 2018.

Subscription revenue

Prior to applying IFRS 15, subscription revenue for the three months ended June 30, 2018 was $30.1 million, an increase of $5.9 million compared to the same period in 2017. Prior to applying IFRS 15, subscription revenue for the six months ended June 30, 2018 was $59.6 million, an increase of $11.5 million compared to the same period in 2017. These increases were due to contracts secured with new customers, as well as expansion of existing customer subscriptions.

Under IFRS 15, subscription services revenue and subscription term licenses revenue for the three months ended June 30, 2018 was $26.5 million and $2.5 million respectively, for total subscription revenue of $29.1 million. This was $1.0 million lower than total subscription revenue prior to applying IFRS 15 due to earlier recognition of

subscription revenue in the current and prior periods for the software license component of on-premise and hybrid subscriptions under IFRS 15. Under IFRS 15, subscription services revenue and subscription term licenses revenue for the six months ended June 30, 2018 was $52.5 million and $7.0 million respectively, for total subscription revenue of $59.6 million. This is comparable to total subscription revenue prior to applying IFRS 15 due to the subscription term licenses revenue recorded under IFRS 15 during the six month period being offset by the lower subscription services revenue.

We expect subscription term license revenue to vary quarter to quarter based upon timing of new engagements, expansions and renewals for on-premise, subscription arrangements.

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 engagements. Professional services revenue for the three months ended June 30, 2018 was $9.6 million, an increase of $1.2 million compared to the same period in 2017 due to an increase in deployments for new name accounts. Professional services revenue for the six months ended June 30, 2018 was $15.8 million, a decrease of $1.0 million compared to the same period in 2017. Professional services revenue decreased for the six month period due to an increase in our partners assuming deployment activity and the related professional services revenue.

Maintenance and support revenue

Maintenance and support revenue was consistent at $0.3 million for the three months ended June 30, 2018 and 2017. Maintenance and support revenue was $0.5 million for the six months ended June 30, 2018 and 2017. We expect maintenance and support revenue to continue to account for less than 1% of total revenue.

Cost of Revenue

				Pre-IFRS 15/16		
	Three months ended June 30,		2017 to 2018	Three months ended June 30,		2017 to 2018
	2018	2017	%	2018	2017	%
	(In thousands of U.S. dollars)					
Cost of revenue	$ 12,493	$ 9,985	25%	$ 12,493	$ 9,985	25%
Gross profit	26,501	22,881	16%	27,494	22,881	20%
Gross profit percentage	68%	70%		69%	70%	

				Pre-IFRS 15/16		
	Six months ended June 30,		2017 to 2018	Six months ended June 30,		2017 to 2018
	2018	2017	%	2018	2017	%
	(In thousands of U.S. dollars)					
Cost of revenue	$ 22,628	$ 20,362	11%	$ 22,683	$ 20,362	11%
Gross profit	53,215	45,046	18%	53,174	45,046	18%
Gross profit percentage	70%	69%		70%	69%	

Cost of revenue for the three months ended June 30, 2018 was $12.5 million, an increase of $2.5 million compared to the same period in 2017. Cost of revenue for the six months ended June 30, 2018 was $22.6 million, an increase of $2.2 million compared to the same period in 2017. Cost of revenue increased due to an increase in headcount and related compensation costs and higher depreciation costs associated with the expansion of data center capacity,

including new data centers in Europe and Japan, to support new and ongoing customer engagements as well as global expansion. The adoption of IFRS 15 did not have an impact on cost of revenue. The adoption of IFRS 16 had a nominal impact on cost of revenue.

Prior to applying IFRS 15 and 16, gross profit for the three and six months ended June 30, 2018 was $27.5 million and $53.2 million respectively, compared to $22.9 million and $45.0 million for the same periods in 2017. Gross profit as a percentage of revenue decreased from 70% to 69% for the three months ended June 30, 2018, and increased from 69% to 70% for the six months ended June 30, 2018.

Under IFRS 15 and 16, gross profit for the three months ended June 30, 2018 was $26.5 million, compared to $27.5 million prior to applying IFRS 15 and 16. The lower gross profit under IFRS 15 and 16 was due to lower subscription services revenue. Under IFRS 15 and 16, gross profit for the six months ended June 30, 2018 was $53.2 million, comparable to gross profit prior to applying IFRS 15. The adoption of IFRS 15 and 16 had a nominal net impact on gross profit for the six months ended June 30, 2018.

Selling and Marketing Expenses

				Pre-IFRS 15/16		
	Three months ended June 30,		**2017 to 2018**	**Three months ended June 30,**		**2017 to 2018**
	2018	**2017**	**%**	**2018**	**2017**	**%**
	(In thousands of U.S. dollars)					
Selling and marketing	$ 8,897	$ 7,367	21%	$ 9,554	$ 7,367	30%
As a percentage of revenue	23%	22%		24%	22%	

				Pre-IFRS 15/16		
	Six months ended June 30,		**2017 to 2018**	**Six months ended June 30,**		**2017 to 2018**
	2018	**2017**	**%**	**2018**	**2017**	**%**
	(In thousands of U.S. dollars)					
Selling and marketing	$ 16,283	$ 14,298	14%	$ 18,513	$ 14,298	29%
As a percentage of revenue	21%	22%		24%	22%	

Prior to applying IFRS 15 and 16, selling and marketing expenses for the three months ended June 30, 2018 were $9.6 million, an increase of $2.2 million compared to the same period in 2017. Selling and marketing expenses for the six months ended June 30, 2018 were $18.5 million, an increase of $4.2 million compared to the same period in 2017. Selling and marketing expenses increased due to an increase in headcount and related compensation costs, customer acquisition costs and an increase in travel costs.

Under IFRS 15 and 16, selling and marketing expenses for the three months ended June 30, 2018 were $8.9 million, $0.7 million lower than selling and marketing expenses prior to application of IFRS 15 and 16. For the six months ended June 30, 2018, selling and marketing expenses were $16.3 million, $2.2 million lower than selling and marketing expenses prior to application of IFRS 15 and 16. Selling and marketing expenses are lower under IFRS 15 due to the capitalization of customer acquisition costs. The adoption of IFRS 16 had a nominal impact on selling and marketing expenses.

As a percentage of revenue, selling and marketing expenses were 23% and 21% for the three and six months ended June 30, 2018 respectively, compared to 22% for the same periods in 2017.

Research and Development Expenses

	Three months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Three months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
Research and development	$ 7,357	$ 5,874	25%	$ 7,379	$ 5,874	26%
As a percentage of revenue	19%	18%		18%	18%	

	Six months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Six months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
Research and development	$ 14,106	$ 12,097	17%	$ 14,157	$ 12,097	17%
As a percentage of revenue	19%	18%		19%	18%	

Research and development expenses for the three months ended June 30, 2018 were $7.4 million, an increase of $1.5 million compared to the same period in 2017. Research and development expenses for the six months ended June 30, 2018 were $14.1 million, an increase of $2.0 million compared to the same period in 2017. The increase in research and development expenses was due to an increase in headcount and related compensation costs and an increase in information technology costs. The investment in headcount supports ongoing programs to develop the RapidResponse product and solution offering and our knowledge solutions for new and existing customers. As a percentage of revenue, research and development expenses were 19% for the three and six months ended June 30, 2018, compared to 18% for the same periods in 2017.

The adoption of IFRS 15 did not have an impact on research and development expenses. The adoption of IFRS 16 had a nominal impact on research and development expenses.

General and Administrative Expenses

	Three months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Three months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
General and administrative	$ 4,144	$ 3,255	27%	$ 4,084	$ 3,255	25%
As a percentage of revenue	11%	10%		10%	10%	

	Six months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Six months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
General and administrative	$ 9,381	$ 7,265	29%	$ 9,332	$ 7,265	28%
As a percentage of revenue	12%	11%		12%	11%	

General and administrative expenses for the three months ended June 30, 2018 were $4.1 million, an increase of $0.8 million compared to the same period in 2017. General and administrative expenses were $9.4 million for the six months ended June 30, 2018, an increase of $2.1 million compared to the same period in 2017. The increase in general and administrative expenses was due to an increase in headcount and related compensation costs and legal and consulting fees. As a percentage of revenue, general and administrative expenses were 11% and 12% for the three and six months ended June 30, 2018 respectively, compared to 10% and 11% for the same periods in 2017.

The adoption of IFRS 15 and 16 had a nominal impact on general and administrative expenses.

Other Income and Expense

	Three months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Three months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
Other income (expense):						
Foreign exchange gain (loss)	$ (222)	$ (12)	–[1]	$ (371)	$ (12)	–[1]
Net finance income	193	310	(38%)	446	310	44%
Total other income (expense)	(29)	298	–[1]	75	298	(75%)

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

	Six months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Six months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
Other income (expense):						
Foreign exchange gain (loss)	$ (26)	$ (23)	13%	$ (349)	$ (23)	–[1]
Net finance income	338	477	(29%)	807	477	69%
Total other income (expense)	312	454	(31%)	458	454	1%

Prior to applying IFRS 15 and 16, net other income for the three months ended June 30, 2018 was $0.1 million compared to $0.3 million for the same period in 2017. The decrease in other income was due to higher foreign exchange losses caused by USD exchange rate changes during the three month period, which had an impact on foreign denominated cash and working capital balances. For the six months ended June 30, 2018 and 2017, total other income was $0.5 million. An increase in foreign exchange losses was offset by an increase in interest earned on higher balances of cash and cash equivalents.

Under IFRS 15 and 16, net other expense for the three months ended June 30, 2018 was comparable to net other income prior to applying IFRS 15 and 16. Net other income for the six months ended June 30, 2018, was $0.3 million, $0.1 million lower than net other income prior to applying IFRS 15 and 16. This was due to finance expenses

associated with operating lease obligations under IFRS 16 and advance payment on certain arrangements under IFRS 15, offset by a lower foreign exchange loss due to CAD denominated lease obligations under IFRS 16.

Income Taxes

	Three months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Three months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
Income tax expense	$ 1,809	$ 1,043	73%	$ 2,127	$ 1,043	104%
As a percentage of profit before income taxes	30%	16%		32%	16%	

	Six months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Six months ended June 30,		Pre-IFRS 15/16 2017 to 2018
	2018	2017	%	2018	2017	%
			(In thousands of U.S. dollars)			
Income tax expense	$ 4,939	$ 2,974	66%	$ 3,995	$ 2,974	34%
As a percentage of profit before income taxes	36%	25%		34%	25%	

Prior to applying IFRS 15 and 16, income tax expense for the three months ended June 30, 2018 was $2.1 million, compared to $1.0 million for the same period in 2017. Income tax expense for the six months ended June 30, 2018 was $4.0 million, compared to $3.0 million for the same period in 2017. For the three and six months ended June 30 2018, income tax expense as a percentage of profit before income taxes increased from 16% to 32% and from 25% to 34%. The increase in income tax expense amount, and as a percentage, was due to one-time credit adjustments recorded for changes in estimates included in the 2017 tax provisions as well as foreign exchange losses incurred in 2017 upon converting results to Canadian dollars for Canadian tax purposes

Under IFRS 15 and 16, income tax expense for the three months ended June 30, 2018 was $1.8 million, $0.3 million lower than income tax expense prior to applying IFRS 15 and 16. Income tax expense for the six months ended June 30, 2018 was $4.9 million, $0.9 million higher than income tax expense prior to applying IFRS 15 and 16. The change in income tax expense was due to the impact on profit before incomes taxes and the income tax effect of the IFRS 15 and 16 adjustments for the three and six months ending June 30, 2018. Income tax expense as a percentage of profit before income taxes increased due to a higher estimated tax rate applied as a result of non-deductible stock compensation as a percentage of estimated annual income being higher after applying IFRS 15 and 16.

The percentage of profit before income taxes is generally higher than statutory income tax rates in Canada due primarily to share-based payments expense incurred not considered deductible for income tax purposes in Canada.

Profit

	Three months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Three months ended June 30,		2017 to 2018
	2018	2017	%	2018	2017	%
	(In thousands of U.S. dollars)					
Profit	$ 4,265	$ 5,640	(24%)	$ 4,425	$ 5,640	(22%)
Adjusted profit[(1)]	6,792	8,037	(15%)	6,952	8,037	(14%)
Adjusted EBITDA[(1)]	11,194	9,600	17%	10,724	9,600	12%
Basic earnings per share	$ 0.17	$ 0.22		$ 0.17	$ 0.22	
Diluted earnings per share	$ 0.16	$ 0.21		$ 0.17	$ 0.21	
Adjusted diluted earnings per share[(1)]	$ 0.25	$ 0.30		$ 0.26	$ 0.30	

	Six months ended June 30,		2017 to 2018	Pre-IFRS 15/16 Six months ended June 30,		2017 to 2018
	2018	2017	%	2018	2017	%
	(In thousands of U.S. dollars)					
Profit	$ 8,818	$ 8,866	(1%)	$ 7,635	$ 8,866	(14%)
Adjusted profit[(1)]	14,503	13,979	4%	13,320	13,979	(5%)
Adjusted EBITDA[(1)]	23,680	18,105	31%	19,882	18,105	10%
Basic earnings per share	$ 0.34	$ 0.35		$ 0.30	$ 0.35	
Diluted earnings per share	$ 0.33	$ 0.34		$ 0.29	$ 0.34	
Adjusted diluted earnings per share[(1)]	$ 0.54	$ 0.53		$ 0.50	$ 0.53	

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.

Prior to applying IFRS 15 and 16, profit for the three months ended June 30, 2018 was $4.4 million or $0.17 per basic and diluted share, compared to $5.6 million or $0.22 per basic share and $0.21 per diluted share for the same period in 2017. Profit for the six months ended June 30, 2018 was $7.6 million or $0.30 per basic share and $0.29 per diluted share, compared to $8.9 million or $0.35 per basic share and $0.34 per diluted share for the same period in 2017. The decrease in profit for the three and six month periods was due to an increase in operating expenses and income tax expense net of an increase in revenue and gross profit.

Prior to applying IFRS 15, Adjusted EBITDA for the three and six months ended June 30, 2018 was $10.7 million and $19.9 million respectively, compared to $9.6 million and $18.1 million for the same periods in 2017. The increase in Adjusted EBITDA was due to an increase in revenue and gross profit.

Under IFRS 15 and 16, profit for the three months ended June 30, 2018 was $4.3 million or $0.17 per basic share and $0.16 per diluted share. This is comparable to the profit prior to applying IFRS 15 and 16 due to a nominal net impact of IFRS 15 and 16 during the period. Profit for the six months ended June 30, 2018 was $8.8 million or $0.34 per basic share and $0.33 per diluted share, compared to $7.6 million or $0.30 per basic share and $0.29 per diluted share prior to applying IFRS 15 and 16. The higher profit was due to lower selling and marketing expenses under IFRS 15.

Under IFRS 15 and 16, Adjusted EBITDA for the three months ended June 30, 2018 was $11.2 million, $0.5 million higher than Adjusted EBITDA prior to applying IFRS 15 and 16. Adjusted EBITDA for the six months ended

June 30, 2018 was $23.7 million, $3.8 million higher than Adjusted EBITDA prior to applying IFRS 15 and 16. The higher Adjusted EBITDA for the three and six month periods was due to higher revenue and gross profit.

Key Balance Sheet Items

	As at June 30, 2018	As at June 30, 2018 (Pre-IFRS 15/16)	As at December 31, 2017
	(In thousands of U.S. dollars)		
Total assets	$ 271,755	$ 237,977	$ 212,693
Total liabilities	101,535	92,832	87,905

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 June 30, 2018	As at June 30, 2018 (Pre-IFRS 15/16)	As at December 31, 2017
	(In thousands of U.S. dollars)		
Trade accounts receivables	$ 28,414	$ 28,414	$ 27,645
Unbilled receivables	8,792	2,404	1,507
Other receivables	2,927	2,927	2,631
Total trade and other receivables	40,133	33,745	31,783

Prior to applying IFRS 15, trade and other receivables were $33.7 million, an increase of $2.0 million compared to December 31, 2017. The change in trade and other receivables was due to variances in the 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 and overdue amounts do not reflect any credit issues. There is no allowance for doubtful accounts as at June 30, 2018.

Under IFRS 15, trade and other receivables were $40.1 million at June 30, 2018, an increase of $6.4 million compared to the balance at June 30, 2018 prior to applying IFRS 15. The adoption of IFRS 15 as of January 1, 2018 increased the unbilled receivables balance due to the acceleration of revenue recognized for the implied software component of on-premise and hybrid subscription arrangements in advance of payments received under the contracts.

During the second quarter of 2017, an Asian-based customer did not make certain scheduled payments under its contract. We have since terminated the contract with this customer, ceased providing services to this customer, and, as per the dispute resolution procedures in our contract, we have initiated confidential, binding arbitration proceedings for payment of all amounts due under the contract and damages. The customer has denied our claims, alleges breach by Kinaxis, and has asserted its own counterclaims. We believe the customer's positions and assertions are without merit. We did not recognize subscription revenue in the second quarter of 2017 or subsequent quarters beyond payments received from this customer. As at June 30, 2018, trade and other receivables from this customer totaled $2.5 million. We believe that the receivables are collectible and that we will be successful in asserting our claims.

Right-of-use assets & Lease obligations

	As at June 30, 2018	As at June 30, 2018 (Pre-IFRS 15/16)	As at December 31, 2017
	(In thousands of U.S. dollars)		
Right-of-use assets	$ 13,342	$ –	$ –
Lease obligations:			
Current	3,076	–	–
Non-current	10,144	–	–
	13,220	–	–

Upon adoption of IFRS 16 as of January 1, 2018, operating leases require recognition as a liability and a right-of-use asset. Payments for operating leases with a term of less than one year and leases considered low value are expensed as incurred. At June 30, 2018, the balance of right-of-use assets was $13.3 million, net of accumulated depreciation and the balance of the related lease obligations was $13.2 million, net of deemed finance costs. The assets and liabilities increased due to additional data center leases entered into during the year to date.

Contract acquisition costs

	As at June 30, 2018	As at June 30, 2018 (Pre-IFRS 15/16)	As at December 31, 2017
	(In thousands of U.S. dollars)		
Contract acquisition costs	$ 13,722	$ –	$ –

Upon adoption of IFRS 15 as of January 1, 2018, contract acquisition costs are capitalized and amortized over the expected life of the customer upon commencement of the related revenue. Contract acquisition costs primarily include sales commissions paid to employees and third party referral fees. Contract acquisition costs were $13.7 million at June 30, 2018 net of accumulated amortization. The balance increased due to additional contract acquisition costs incurred during the year to date.

Deferred revenue

	As at June 30, 2018	As at June 30, 2018 (Pre-IFRS 15/16)	As at December 31, 2017
	(In thousands of U.S. dollars)		
Current	$ 58,635	$ 72,738	$ 67,040
Non-current	3,983	3,775	7,745
	62,618	76,513	74,785

Prior to applying IFRS 15, deferred revenue at June 30, 2018 was $76.5 million, an increase of $1.7 million compared to deferred revenue at December 31, 2017. We generally bill our customers annually in advance for subscriptions resulting in initially recording the amount billed as deferred revenue which is subsequently drawn down to revenue over the term. The change in deferred revenue was due to variances in the timing of billings for new and existing customer contracts. Deferred revenue relating to subscription term periods beyond one year totaled $3.8 million at June 30, 2018 compared to $7.7 million at December 31, 2017.

Under IFRS 15, deferred revenue was $62.6 million at June 30, 2018, a decrease of $13.9 million compared to the balance at June 30, 2018 prior to applying IFRS 15. The adoption of IFRS 15 as of January 1, 2018 decreased the deferred revenue balance due to the acceleration of revenue recognized for the implied software component of on-

premise and hybrid subscription arrangements, the payments for which had been received and revenue deferred over the contract term prior to the adoption of IFRS 15.

Summary of Quarterly Results

The following table summarizes selected results for the eight most recent completed quarters to June 30, 2018.

	Three months ended							
			Prior to IFRS 15/16					
	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017	December 31, 2016	September 30, 2016
Revenue:								
Subscription services	$ 26,542	$ 25,989	$ 26,961	$ 25,796	$ 24,202	$ 23,854	$ 22,660	$ 20,753
Subscription term licenses	2,543	4,494	–	–	–	–	–	–
Professional services	9,640	6,110	7,202	7,431	8,395	8,441	7,355	8,918
Maintenance and support	269	256	260	259	269	247	249	250
	38,994	36,849	34,423	33,486	32,866	32,542	30,264	29,921
Cost of revenue	12,493	10,135	9,737	9,681	9,985	10,377	9,493	9,466
Gross profit	26,501	26,714	24,686	23,805	22,881	22,165	20,771	20,455
Operating expenses	20,398	19,372	16,964	16,202	16,496	17,164	17,031	16,386
	6,103	7,342	7,722	7,603	6,385	5,001	3,740	4,069
Foreign exchange (loss) gain	(222)	196	(31)	(30)	(12)	(11)	(223)	(53)
Net finance income	193	145	378	276	310	167	78	96
Profit before income taxes	6,074	7,683	8,069	7,849	6,683	5,157	3,595	4,112
Income tax expense	1,809	3,130	2,584	1,817	1,043	1,931	1,884	1,687
Profit	$ 4,265	$ 4,553	$ 5,485	$ 6,032	$ 5,640	$ 3,226	$ 1,711	$ 2,425
Share-based compensation	2,527	3,158	2,334	2,299	2,397	2,716	1,950	2,060
Adjusted profit[(1)]	$ 6,792	$ 7,711	$ 7,819	$ 8,331	$ 8,037	$ 5,942	$ 3,661	$ 4,485
Income tax expense	1,809	3,130	2,584	1,817	1,043	1,931	1,884	1,687
Depreciation	2,564	1,986	1,101	911	818	788	748	683
Foreign exchange (gain) loss	222	(196)	31	30	12	11	223	53
Net finance (income) expense	(193)	(145)	(378)	(276)	(310)	(167)	(78)	(96)
	4,402	4,775	3,338	2,482	1,563	2,563	2,777	2,327
Adjusted EBITDA[(1)]	$ 11,194	$ 12,486	$ 11,157	$ 10,813	$ 9,600	$ 8,505	$ 6,438	$ 6,812
Basic earnings per share	$ 0.17	$ 0.18	$ 0.22	$ 0.24	$ 0.22	$ 0.13	$ 0.07	$ 0.10
Diluted earnings per share	$ 0.16	$ 0.17	$ 0.21	$ 0.23	$ 0.21	$ 0.12	$ 0.07	$ 0.09
Adjusted diluted earnings per share[(1)]	$ 0.25	$ 0.29	$ 0.30	$ 0.31	$ 0.30	$ 0.23	$ 0.14	$ 0.17

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.

Total subscription services revenue has increased steadily over the last eight quarters due to the acquisition of new customers and expansion within existing customers. Professional services revenue has generally decreased since mid-2017 due to a significant increase in our partners assuming deployment activity and the related professional services revenue with an increase occurring this quarter due to new customer deployment activity. Maintenance and support revenue has remained consistent over the quarters reflecting support contracts with legacy customers with perpetual licenses that continue to be renewed. 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 72% of revenue. Operating expenses have increased as we invest in sales, marketing, and product development. 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 generally positive impact on operating expenses and quarterly profit in 2016 to 2018.

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.

	As at June 30, 2018	As at December 31, 2017
	(In thousands of U.S. dollars)	
Cash and cash equivalents	$ 174,577	$ 158,398

Cash and cash equivalents increased $16.2 million to $174.6 million at June 30, 2018 from $158.4 million at December 31, 2017.

In addition to the cash balances, we have a Cdn. $20.0 million revolving demand facility available to meet ongoing working capital requirements. No amounts have been withdrawn against this facility. Our principal cash requirements are for working capital and capital expenditures. Excluding deferred revenue, working capital at June 30, 2018 was $201.6 million. Given the ongoing cash generated from operations and our existing cash and credit facilities, we believe there is sufficient liquidity to meet our current contractual obligations of $30.1 million and our longer-term growth.

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

	Three months ended June 30,		Six months ended June 30,	
	2018	2017	2018	2017
	(In thousands of U.S. dollars)			
Cash inflow (outflow) by activity				
Operating activities	$ 9,251	$ 7,519	$ 19,797	$ 17,778
Investing activities	(4,529)	(1,327)	(9,350)	(1,644)
Financing activities	3,827	1,952	5,857	5,922
Effects of exchange rates	(603)	292	(125)	459
Net cash inflows	7,946	8,436	16,179	22,515

Cash provided by operating activities

Cash generated by operating activities for the three months ended June 30, 2018 was $9.3 million compared to $7.5 million for the same period in 2017 due to higher profit before depreciation and taxes. Cash generated by operating activities for the six months ended June 30, 2018 was $19.8 million compared to $17.8 million for the same period in 2017. The increase was due to higher profit before depreciation and taxes and a decrease in investment tax credits recoverable.

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. Cash used in investing activities was $4.5 million for the three months ended June 30, 2018 compared to $1.3 million for the same period in 2017, and $9.4 million for the six months ended June 30, 2018 compared to $1.6 million for the same period in 2017. The increase was due to investment in computer equipment for our new data centers in Europe and Japan. 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 $3.8 million for the three months ended June 30, 2018 compared to $2.0 million for the same period in 2017. The increase in cash provided by financing activities was due to an increase in proceeds from stock options exercised during the three months ended June 30, 2018 compared to the same period in 2017. Cash provided by financing activities was $5.9 million for the six months ended June 30, 2018 and 2017. An increase in proceeds from stock options exercised during the six months ended June 30, 2018 compared to the same period in 2017 was offset by payments of lease obligations during the six months ended June 30, 2018, which are recorded as financing outflows with the adoption of IFRS 16 as of January 1, 2018. Prior to adoption of IFRS 16, all lease payments constituted a portion of operating cash flows.

Contractual Obligations

Our operating lease commitments are primarily for office premises and secure data center facilities with expiry dates that range from August 2018 to May 2023. The largest lease commitment relates 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 June 30, 2018, 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)		
Commitments					
Operating lease agreements..................	$ 3,575	$ 8,695	$ 1,890	$ –	$ 14,160
Financial Obligations					
Trade payables and accrued liabilities..	15,936	–	–	–	15,936
Total Contractual Obligations	$ 19,511	$ 8,695	$ 1,890	$ –	$ 30,096

The following table summarizes our contractual obligations as at December 31, 2017, 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)		
Commitments					
Operating lease agreements..................	$ 2,908	$ 6,824	$ 2,115	$ –	$ 11,847
Financial Obligations					
Trade payables and accrued liabilities..	11,176	–	–	–	11,176
Total Contractual Obligations	$ 14,084	$ 6,824	$ 2,115	$ –	$ 23,023

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements, other than operating leases with terms of twelve months or less or of low dollar value (which have been included in the disclosed obligations 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 and six months ended June 30, 2018 and 2017 between the Company and a related party outside the normal course of business.

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. The carrying amounts of our financial instruments approximate fair market value due to the short-term maturity of these instruments.

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.

We invest our excess cash in short-term investments with the objective of maintaining safety of principal and providing adequate liquidity to meet all current payment obligations and future planned capital expenditures with the secondary objective of maximizing the overall yield of the investment. We manage our credit risk on investments by dealing only with major Canadian banks and investing only in instruments that we believe have high credit ratings. Given these high credit ratings, we do not expect any counterparties to these investments to fail to meet their obligations.

Currency risk

A portion of our revenues and operating costs are realized in currencies other than our functional currency, such as the Canadian dollar, Japanese Yen, Euro, British Pound, and Korean Won. 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

See our 2017 Annual MD&A and our 2017 annual consolidated financial statements and the related notes thereto for a discussion of the accounting policies and estimates that are critical to the understanding of our business operations and the results of our operations.

Adoption of New Accounting Standards

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

Effective January 1, 2018, we adopted IFRS 15 using the cumulative effect method, with the effect of adopting this standard recognized on January 1, 2018, the date of initial application. Accordingly, the information presented for 2017 has not been restated. It remains as previously reported under IAS 18, IAS 11 and related interpretations.

Adoption of IFRS 15 has not impacted the accounting for our SaaS, professional services or legacy maintenance and support arrangements for our perpetual software licenses. However, adoption has impacted the accounting for our on-premise and hybrid subscription license arrangements, our accounting for contract acquisition costs as well as requiring expanded disclosure on revenue, performance obligations and contract balances.

Prior to adopting IFRS 15, subscription fees for licenses and coterminous maintenance and support and hosting services were combined and recognized ratably over the term of the subscription contract. Under IFRS 15, the fees for on-premise and hybrid subscriptions are separately allocated to each distinct performance obligation. Revenue attributable to the distinct software license component is recognized upfront upon term commencement and revenue allocated to maintenance and support and hosting components is recognized ratably over the term. This results in earlier recognition of revenue for these subscription arrangements.

Prior to adopting IFRS 15, contract acquisition costs, including commissions paid to employees and referral fees to third parties, were expensed upon commencement of the related contract revenue. Under IFRS 15, contract acquisition costs are capitalized and amortized over the expected customer renewal period which we have determined to be six years. We applied the practical expedient to not capitalize contract acquisition costs if the amortization period is one year or less.

Effective January 1, 2018, revenue from SaaS arrangements, maintenance and support from on-premise and hybrid arrangements and hosting services from hybrid arrangements are reported as subscription services revenue. Revenue recognized for the software license component from on-premise arrangements is separately reported as subscription term license revenue. Professional services and revenue from legacy maintenance and support on perpetual licenses arrangements continue to be reported separately.

We elected to apply the practical expedient to not adjust the total consideration over the contract term for the effect of a financing component if the period between the transfer of services to the customer and the customer's payment for these services is expected to be one year or less.

In our adoption of IFRS 15, we elected to apply the requirements of the new standard only to contracts that are incomplete at the date of initial application. We also elected to apply the contract modification practical expedient and reflect the aggregate effect of all contract modifications prior to the transition date.

IFRS 16: Leases ("IFRS 16")

Effective January 1, 2018, we early adopted 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.

We have adopted IFRS 16 using the modified retrospective approach and accordingly the information presented for 2017 has not been restated. We have elected to apply the practical expedient not to recognise right-of-use assets

and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. We have also elected to apply the practical expedient to account for each lease component and any non-lease components as a single lease component.

On initial application, we have elected to record right-of-use assets based on the corresponding lease liability. Right-of-use assets and lease obligations of $10.8 million were recorded as of January 1, 2018, with no net impact on retained earnings.

IFRS 9: Financial Instruments ("IFRS 9")

Effective January 1, 2018, we adopted IFRS 9, which sets out requirements for recognition and measurement, impairment, derecognition and general hedge accounting. 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.

Trade and other receivables that were classified as loans and receivables under IAS 39 are classified as financial assets measured at amortized cost. There is no change to the initial measurement of our financial assets. Impairment of financial assets is based on an expected credit loss ("ECL") model under IFRS 9, rather than the incurred loss model under IAS 39. ECLs are a probability-weighted estimate of credit losses. We calculated ECLs based on actual credit loss experience over the past five years. As a percentage of revenue, our actual credit loss experience has not been material.

The adoption of IFRS 9 has not had an effect on our accounting policies related to financial liabilities.

There was no material impact of transition to IFRS 9 on the opening balances.

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 of our disclosure controls and procedures at the end of the quarter and based on the evaluation have concluded that the disclosure controls and procedures are effectively designed.

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. We have made changes and additions to our internal controls over financial reporting as a result of the adoption of IFRS 15, IFRS 16 and IFRS 9. Controls were designed and implemented to ensure risks associated with the adoption of these new standards were addressed and ensure that the inputs, processes and outputs are complete and accurate including the controls over the adjustments required at transition. As at June 30, 2018, management assessed the design of our ICFR. Management concluded that our ICFR is appropriately designed, and there are no material weaknesses that have been identified by management. Other than the changes to address adoption of IFRS 15, 16 and 9 noted above, there were no significant changes to our ICFR for the three and six months ended June 30, 2018.

Outstanding Share Information

As of June 30, 2018, 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 six months ended June 30, 2018 and as of August 2, 2018 are summarized as follows:

Class of Security	Number outstanding at December 31, 2017	Net issued	Number outstanding at June 30, 2018	Net issued	Number outstanding at August 1, 2018
Common shares	25,507,922	425,339	25,933,261	4,500	25,937,761
Stock options	2,232,735	(168,673)	2,064,062	(32,000)	2,032,062
Restricted Share Units	45,097	39,902	84,999	–	84,999
Deferred Share Units	37,862	4,884	42,746	–	42,746

Our outstanding common shares increased by 425,339 shares during the first six months of 2018 due to the exercise of 416,423 options and 8,916 deferred share units.

Our outstanding stock options decreased by 168,673 options during the first six months of 2018 due to the grant of 298,000 options less 416,423 options exercised and 50,250 options forfeited. Each option is exercisable for one common share.

Our outstanding restricted share units increased by 39,902 during the first six months of 2018 due to the grant of 53,000 restricted share units less 13,098 units forfeited. Our outstanding deferred share units increased by 4,884 during the first six months of 2018 due to the grant of 13,800 deferred share units less 8,916 units exercised. 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.