Consolidated Financial Statements of

Kinaxis Inc.

Years ended December 31, 2019 and 2018

(In thousands of USD)

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INDEPENDENT AUDITORS' REPORT

To the Shareholders of Kinaxis Inc.

Opinion

We have audited the consolidated financial statements of Kinaxis Inc. (the Entity), which comprise:

- the consolidated statements of financial position as at December 31, 2019 and December 31, 2018
- the consolidated statements of comprehensive income for the years then ended
- the consolidated statements of changes in shareholders' equity for the years then ended
- the consolidated statements of cash flows for the years then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

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

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "***Auditors' Responsibilities for the Audit of the Financial Statements***" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

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

- the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions.
- the information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled "Annual Report".

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

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at the date of this auditors' report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

The information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled "Annual Report" is expected to be made available to us after the date of this auditors' report. If, based on the work we will perform on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact to those charged with governance.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

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

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

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

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

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

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

The engagement partner on the audit resulting in this auditors' report is Anuj Madan.

Ottawa, Canada

February 25, 2020

Kinaxis Inc.

Consolidated Statements of Financial Position

As at December 31
(Expressed in thousands of USD)

		2019		2018
Assets				
Current assets:				
Cash and cash equivalents	$	182,284	$	126,144
Short-term investments		30,319		55,404
Trade and other receivables (note 4)		81,336		64,330
Prepaid expenses		6,534		5,815
		300,473		251,693
Non-current assets:				
Property and equipment (note 5)		25,704		22,785
Right-of-use assets (note 6)		8,671		8,873
Contract acquisition costs (note 7)		15,497		13,902
Unbilled receivables		249		457
Deferred tax assets (note 16)		149		49
	$	350,743	$	297,759
Liabilities and Shareholders' Equity				
Current liabilities:				
Trade payables and accrued liabilities (note 8)	$	20,770	$	21,623
Deferred revenue (note 9)		83,673		78,496
Lease obligations (note 10)		2,288		2,572
		106,731		102,691
Non-current liabilities:				
Lease obligations (note 10)		6,818		6,311
Deferred tax liabilities (note 16)		7,092		4,075
		13,910		10,386
Shareholders' equity:				
Share capital (note 11)		140,961		124,951
Contributed surplus		30,392		24,284
Accumulated other comprehensive loss		(348)		(319)
Retained earnings		59,097		35,766
		230,102		184,682
Contingencies (note 23)				
	$	350,743	$	297,759

See accompanying notes to consolidated financial statements.

On behalf of the Board of Directors:

(signed) John (Ian) Giffen Director   *(signed) John Sicard* Director

Kinaxis Inc.

Consolidated Statements of Comprehensive Income

For the years ended December 31
(Expressed in thousands of USD, except share and per share data)

	2019	2018
Revenue (note 13)	$ 191,549	$ 150,727
Cost of revenue	53,850	47,032
Gross profit	137,699	103,695
Operating expenses:		
Selling and marketing	44,270	35,055
Research and development	34,125	27,626
General and administrative	26,852	20,167
	105,247	82,848
	32,452	20,847
Other income (expense):		
Foreign exchange loss	(226)	(181)
Net finance income	3,037	1,810
	2,811	1,629
Profit before income taxes	35,263	22,476
Income tax expense (recovery) (note 16):		
Current	9,015	8,930
Deferred	2,917	(862)
	11,932	8,068
Profit	23,331	14,408
Other comprehensive loss:		
Items that are or may be reclassified subsequently to profit or loss:		
Foreign currency translation differences - foreign operations	(29)	(35)
Total comprehensive income	$ 23,302	$ 14,373
Basic earnings per share	$ 0.89	$ 0.56
Weighted average number of basic Common Shares (note 12)	26,180,034	25,820,518
Diluted earnings per share	$ 0.87	$ 0.54
Weighted average number of diluted Common Shares (note 12)	26,967,805	26,824,435

See accompanying notes to consolidated financial statements.

Kinaxis Inc.

Consolidated Statements of Changes in Shareholders' Equity

For the years ended December 31
(Expressed in thousands of USD)

	Share capital	Contributed surplus	Accumulated other comprehensive loss	Retained earnings (deficit)	Total equity
Balance, December 31, 2017	$ 108,253	$ 19,294	$ (284)	$ (2,475)	$ 124,788
Adjustment on initial application of IFRS 15	–	–	–	23,833	23,833
Balance, January 1, 2018	108,253	19,294	(284)	21,358	148,621
Profit	–	–	–	14,408	14,408
Other comprehensive loss	–	–	(35)	–	(35)
Total comprehensive income (loss)	–	–	(35)	14,408	14,373
Share options exercised	14,012	(3,892)	–	–	10,120
Restricted share units vested	1,834	(1,834)	–	–	–
Deferred share units exercised	852	(852)	–	–	–
Share based payments (note 11)	–	11,568	–	–	11,568
Total shareholder transactions	16,698	4,990	–	–	21,688
Balance, December 31, 2018	$ 124,951	$ 24,284	$ (319)	$ 35,766	$ 184,682
Profit	–	–	–	23,331	23,331
Other comprehensive loss	–	–	(29)	–	(29)
Total comprehensive income (loss)	–	–	(29)	23,331	23,302
Share options exercised	12,042	(3,291)	–	–	8,751
Restricted share units vested	3,968	(3,968)	–	–	–
Share based payments (note 11)	–	13,367	–	–	13,367
Total shareholder transactions	16,010	6,108	–	–	22,118
Balance, December 31, 2019	$ 140,961	$ 30,392	$ (348)	$ 59,097	$ 230,102

See accompanying notes to consolidated financial statements.

Kinaxis Inc.

Consolidated Statements of Cash Flows

For the years ended December 31
(Expressed in thousands of USD)

	2019	2018
Cash flows from operating activities:		
Profit	$ 23,331	$ 14,408
Items not affecting cash:		
Depreciation of property and equipment and right-of-use assets (note 15)	11,908	9,272
Share-based payments (note 11)	13,367	11,568
Investment tax credits recoverable	–	911
Net finance income	(3,037)	(1,810)
Income tax expense (note 16)	11,932	8,068
Change in operating assets and liabilities (note 17)	(9,161)	(13,215)
Interest received	3,653	2,413
Interest paid	(531)	(773)
Income taxes paid	(14,863)	(2,927)
	36,599	27,915
Cash flows used in investing activities:		
Purchase of property and equipment (note 5)	(11,719)	(12,310)
Purchase of short-term investments	(60,108)	(112,684)
Redemption of short-term investments	85,108	112,588
	13,281	(12,406)
Cash flows from financing activities:		
Payment of lease obligations (note 10)	(2,674)	(2,160)
Common shares issued on exercise of stock options	8,751	10,120
	6,077	7,960
Increase in cash and cash equivalents	55,957	23,469
Cash and cash equivalents, beginning of year	126,144	103,392
Effects of exchange rates on cash and cash equivalents	183	(717)
Cash and cash equivalents, end of year	$ 182,284	$ 126,144

See accompanying notes to consolidated financial statements.

1. Corporate information:

Kinaxis Inc. (“Kinaxis” or the "Company") is incorporated under the Canada Business Corporations Act and domiciled in Ontario, Canada. The address of the Company’s registered office is 700 Silver Seven Road, Ottawa, Ontario. The consolidated financial statements of the Company as at and for the years ended December 31, 2019 and 2018 comprise the Company and its subsidiaries.

Kinaxis is a leading provider of cloud-based subscription software that enables its customers to improve and accelerate analysis and decision-making across their supply chain operations. Kinaxis is a global enterprise with offices in Chicago, United States; Tokyo, Japan; Hong Kong, China; Amsterdam, The Netherlands; Seoul, South Korea; London, United Kingdom; Singapore; and Ottawa, Canada.

2. Basis of preparation:

(a) Statement of compliance:

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”), and include the accounts of Kinaxis Inc. and its eight wholly-owned subsidiaries, Kinaxis Corp., Kinaxis US Corp., Kinaxis Asia Limited, Kinaxis Japan K.K., Kinaxis Korea Limited, Kinaxis Europe B.V., Kinaxis UK Limited and Kinaxis Singapore Pte. Ltd.

The consolidated financial statements were authorized for issue by the Board of Directors on February 25, 2020.

(b) Measurement basis:

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments measured at fair value. Historical cost is generally based on the fair value of the consideration given in exchange for assets.

(c) Presentation currency:

These consolidated financial statements are presented in United States dollars (“USD”) which is the functional currency of the Company and its subsidiaries unless otherwise stated. Tabular amounts are presented in thousands of USD.

(d) Foreign currency:

Foreign currency transactions

The financial statements of the Company and its wholly-owned subsidiaries (excluding Kinaxis Japan K.K., Kinaxis Korea Limited, Kinaxis Europe B.V., and Kinaxis UK Limited), are measured using USD as the functional currency. Transactions in currencies other than USD are translated at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated to the functional currency at the rates prevailing at that date. Exchange differences on monetary items are

2. Basis of preparation (continued):

(d) Foreign currency (continued):

recognized in profit or loss in the period in which they arise. Non-monetary items carried at fair value that are denominated in foreign currencies are translated to the functional currency at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the rates at the date of the transaction.

Foreign operations

The consolidated financial statements also include the accounts of its wholly-owned subsidiaries Kinaxis Japan K.K., Kinaxis Korea Limited, Kinaxis Europe B.V., and Kinaxis UK Limited translated into U.S. dollars. The financial statements of Kinaxis Japan K.K. are measured using the Japanese Yen as its functional currency; the financial statements of Kinaxis Korea Limited are measured using the Korean Won as its functional currency; the financial statements of Kinaxis Europe B.V. are measured using the European Euro as its functional currency; and the financial statements of Kinaxis UK Limited are measured using the British Pound as its functional currency. Assets and liabilities have been translated into USD using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in shareholders' equity.

(e) Use of estimates and judgments:

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

Estimates and judgments included, but are not limited to, the allocation of consideration for a multiple element revenue arrangement, recognition of deferred tax assets, valuation of trade and other receivables and valuation of share-based payments. Estimates and assumptions are reviewed periodically and the effects of revisions are recorded in the consolidated financial statements in the period in which the estimates are revised and in any future periods affected.

Allocation of consideration to multiple elements of a revenue arrangement

Contracts with customers often include promises to deliver multiple products and services. Determining whether such bundled products and services are considered i) distinct performance obligations that should be separately recognized, or ii) non-distinct and therefore should be combined with another good or service and recognized as a combined unit of accounting may require significant judgment. In general, the Company's professional services are capable of

2. Basis of preparation (continued):

(e) Use of estimates and judgments (continued):

being distinct as they could be performed by third party service providers and do not involve significant customization of the licensed software.

The determination of the standalone selling prices ("SSP") for distinct performance obligations can also require judgment and estimates. The Company uses a single amount to estimate SSP for bundled items such as subscription licenses and maintenance and support in subscription arrangements that are not sold separately. The Company uses a range of amounts to estimate SSP when it sells each of the products and services separately and needs to determine whether there is a discount that needs to be allocated based on the relative SSP of the various products and services. In general, SSP for maintenance and support bundled in on-premise and hybrid subscription arrangements is established as a percentage of the subscription license fee as supported by third party evidence and internal analysis of similar vendor contracts. SSP for hosting and professional services is established based on observable prices for the same or similar services when sold separately, or estimated using a cost plus margin approach.

Income taxes

The recognition of deferred tax assets requires the Company to assess future taxable income available to utilize deferred tax assets related to deductible or taxable temporary differences. The Company considers the nature and carry-forward period of deferred tax assets, the Company's 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 operating results of the Company and lower future taxable income.

Trade and other receivables

The recognition of trade and other receivables and loss allowances requires the Company to assess credit risk and collectability. The Company considers historical trends and any available information indicating a customer could be experiencing liquidity or going concern problems and the status of any contractual or legal disputes with customers in performing this assessment.

Fair value of share-based payments

The Company uses 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. The assumptions and estimates used are further outlined in Note 11.

3. Significant accounting policies:

(a) Basis of consolidation:

Subsidiaries are entities controlled by the Company. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. The accounting policies of subsidiaries have been changed when necessary to align them with the policies adopted by the Company. All intercompany transactions, balances, revenues and expenses between the Company and its subsidiaries have been eliminated.

(b) Revenue recognition:

Revenue is recognized upon transfer of control of products or services to customers at an amount that reflects the consideration the Company expects to receive in exchange for the products or services. The Company's contracts often include multiple products and services, which are generally capable of being distinct and accounted for as separate performance obligations.

The Company's hosted software-as-a-service ("SaaS") application, which allows customers to use hosted software over the contract period without taking possession of the software, is provided on a subscription basis, and recognized ratably over the contract period, commencing on the date an executed contract exists and the customer has the right-to-use and access to the platform.

On-premise, fixed term subscription licenses and hybrid software subscriptions (where the customer has the option to take the hosted software on-premise) provide the customer with a right-to-use the software as it exists when made available to the customer. Revenue from distinct on-premise subscription licenses is recognized upfront at the point in time when the software is made available to the customer and the right to use the software has commenced. On-premise subscription licenses and hybrid subscriptions are bundled with software maintenance and support services and/or hosting for a term. The license component and maintenance and support/hosting components are each allocated revenue using their relative estimated SSP. Revenue allocated to the bundled maintenance and support and hosting is recognized ratably over the term of the maintenance and support services.

Professional services are provided for implementation and configuration of software licenses and SaaS, as well as ongoing technical services and training. Professional services are typically billed on a time and material basis and revenue is recognized over time as the services are performed. For professional services contracts billed on a fixed price basis, revenue is recognized over time based on the proportion of services performed.

Maintenance and support services provided to customers on legacy perpetual software licenses is recognized ratably over the term of the maintenance and support services.

The Company recognizes an asset for the incremental costs of obtaining a contract with a customer if it expects the costs to be recoverable, and has determined that certain sales incentive programs meet the requirements to be capitalized. Capitalized contract acquisition costs are

3. Significant accounting policies (continued):

(b) Revenue recognition (continued):

amortized consistent with the pattern of transfer to the customer for the goods and services to which the asset relates. The amortization period includes specifically identifiable contract renewals where there is no substantive renewal commission. The expected customer renewal period is estimated based on the historical life of our customers, which the Company has determined to be six years. The Company applies the practical expedient available under IFRS 15 and does not capitalize incremental costs of obtaining contracts if the amortization period is one year or less.

The timing of revenue recognition often differs from contract payment schedules, resulting in revenue that has been earned but not billed. These amounts are included in unbilled receivables. Amounts billed in accordance with customer contracts, but not yet earned, are recorded and presented as part of deferred revenue.

The Company has 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.

(c) Financial instruments:

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument.

Trade receivables without a significant financing component are initially measured at the transaction price. All other financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss ("FVTPL")) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial assets

All financial assets are recognized and de-recognized on trade date.

The Company determines the classification of its financial assets on the basis of both the business model for managing the financial assets and the contractual cash flow characteristics of the financial asset. Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial assets.

A financial asset is measured at amortized cost if it is held within a business model whose objective is to hold assets to collect contractual cash flows, and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

3. Significant accounting policies (continued):

(c) Financial instruments (continued):

The Company's financial assets are classified as follows:

Financial asset	Classification under IFRS 9
Cash and cash equivalents	Amortized cost
Short-term investments	Amortized cost
Trade and other receivables	Amortized cost
Unbilled receivables	Amortized cost

Amortized cost

Subsequent to initial recognition, financial assets at amortized cost are measured using the effective interest method, less any impairment. Interest income is recognized by applying the effective interest rate except for short-term receivables where the interest revenue would be immaterial. Interest income, foreign exchange gains and losses, impairment, and any gain or loss on de-recognition are recognized in profit or loss.

Impairment of financial assets

The Company measures a loss allowance based on the lifetime expected credit losses. Lifetime expected credit losses are estimated based on factors such as the Company's past experience of collecting payments, the number of delayed payments in the portfolio past the average credit period, observable changes in national or local economic conditions that correlate with default on receivables, financial difficulty of the borrower, and it becoming probable that the borrower will enter bankruptcy or financial re-organization.

Financial assets are written off when there is no reasonable expectation of recovery.

Financial liabilities

The Company determines the classification of its financial liabilities at initial recognition. The Company's financial liabilities are classified as follows:

Financial liability	Classification under IFRS 9
Trade payables and accrued liabilities	Amortized cost

Amortized cost

Financial liabilities at amortized cost are measured using the effective interest rate method.

De-recognition of financial liabilities

The Company de-recognizes financial liabilities when the Company's obligations are discharged, cancelled or they expire.

3. Significant accounting policies (continued):

(d) Cash and cash equivalents:

Cash and cash equivalents include cash investments in interest-bearing accounts and term deposits which can readily be redeemed for cash without penalty or are issued for terms of three months or less from the date of acquisition.

(e) Short-term investments:

Short-term investments consist of term deposits and guaranteed income certificates held with Schedule 1 Canadian banks for maturity terms of three to six months from the date of acquisition. Investments are measured at amortized cost. The carrying amount of investments approximates fair market value due to the short-term maturity of these instruments.

(f) Property and equipment:

Property and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. Property and equipment under finance leases are stated at the present value of minimum future lease payments. Cost includes expenditures that are directly attributable to the acquisition of the asset. The assets are depreciated over their estimated useful lives using the straight-line method as this most closely reflects the expected pattern of consumption of the future economic benefits. Depreciation methods, useful lives and residual values are reviewed at each financial year end and adjusted prospectively if appropriate.

Property and equipment	Rate
Computer equipment	5 years
Computer software	3 to 5 years
Office furniture and equipment	3 to 5 years
Leasehold improvements	Shorter of useful life or remaining term of lease

At the end of each reporting period, the Company reviews the carrying amounts of its property and equipment to determine whether there is any indication of impairment. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the “cash-generating unit, or CGU”). If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell.

3. Significant accounting policies (continued):

(g) Leases:

At inception of a contract, the Company assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company has elected to apply the practical expedient to account for each lease component and any non-lease components as a single lease component.

The Company recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. The assets are depreciated to the earlier of the end of the useful life of the right-of-use asset or the lease term using the straight-line method as this most closely reflects the expected pattern of consumption of the future economic benefits. The lease term includes periods covered by an option to extend if the Company is reasonably certain to exercise that option. Lease terms range from 2 to 6 years for offices and data centres. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate. Variable lease payments that do not depend on an index or rate are not included in the measurement of the lease liability.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Company has elected to apply the practical expedient not to recognize 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. The lease payments associated with these leases are recognized as an expense on a straight-line basis over the lease term.

3. Significant accounting policies (continued):

(h) Employee benefits:

The Company offers a defined contribution plan to its employees which is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

(i) Provisions:

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as finance cost.

A provision for onerous contracts is recognized when the expected benefits to be derived by the Company from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract. Before a provision is established, the Company recognizes any impairment loss on the assets associated with that contract.

(j) Research and development expense:

Research and development costs are expensed as incurred unless the criteria for capitalization are met. No research or development costs have been capitalized to date.

(k) Income taxes:

Current and deferred income taxes are recognized as an expense or recovery in profit or loss, except when they relate to items that are recognized outside profit or loss (whether in other comprehensive income or directly in equity), in which case the tax is also recognized outside of profit or loss.

Current income tax

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 the Company operates and generates taxable income.

Deferred income tax

Deferred income tax assets and liabilities are recorded for the temporary differences between transactions that have been included in the consolidated financial statements or income tax

3. Significant accounting policies (continued):

(k) Income taxes (continued):

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.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date. Deferred income tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of the enactment or substantive enactment. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Company intends to settle its current tax assets and liabilities on a net basis.

Investment tax credits

Investment tax credits relating to scientific research and experimental development expenditures are recorded in the fiscal period the qualifying expenditures are incurred based on management's interpretation of applicable legislation in the Income Tax Act of Canada. Credits are recorded provided there is reasonable assurance that the tax credit will be realized. Credits claimed are subject to review by the Canada Revenue Agency.

Credits claimed in connection with research and development activities are accounted for using the cost reduction method. Under this method, assistance and credits relating to the acquisition of equipment is deducted from the cost of the related assets, and those relating to current expenditures, which are primarily salaries and related benefits, are included in the determination of profit or loss as a reduction of the research and development expenses.

(l) Share-based payments:

The Company uses the fair value based method to measure share-based compensation for all share-based awards made to employees and directors. The grant date fair value of equity-settled share-based payment awards granted to employees is generally recognized as an expense, with a corresponding increase in equity, over the vesting period of the awards. The grant date fair value is determined using the Black-Scholes model for option grants. The market value of the Company's shares on the date of the grant is used to determine the fair value of share units issued. Each tranche of an award is considered a separate award with its own vesting period and grant date fair value. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognized is based on the number of awards that meet the related service and non-market performance conditions at the vesting date. For share-based

3. Significant accounting policies (continued):

(l) Share-based payments (continued):

payment awards with non-vesting (i.e. performance) conditions, the grant date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

Where the terms of an equity-settled transaction award are modified, the minimum expense recognized is the expense as if the terms had not been modified and if the original terms of the award are met. An additional expense is recognized for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification.

(m) Earnings per share:

Basic earnings per share are calculated by dividing profit or loss by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share are calculated similar to basic earnings per share except the weighted average number of common shares outstanding is adjusted for the effects of all dilutive potential common shares, which are comprised of additional shares from the assumed exercise or conversion of share options. Options that have a dilutive impact are assumed to have been exercised or converted on the later of the beginning of the period or the date granted.

(Expressed in thousands of USD, except share and per share amounts)

4. Trade and other receivables:

The following table presents trade and other receivables for the Company:

	2019	2018
Trade accounts receivable	$ 65,406	$ 56,618
Unbilled receivables	13,880	6,408
Taxes receivable	382	566
Other	1,690	738
	81,358	64,330
Loss allowance	(22)	–
	$ 81,336	$ 64,330

Trade and other receivables of $2,768 were written off in 2019 (2018 – $561).

The Company had a dispute with an Asian-based customer that was the subject of confidential, binding arbitration proceedings. The parties have agreed to resolve their dispute amicably, with no admission by either party and with no payment by either party to the other. The arbitration has been discontinued. The trade and other receivables from this customer of $2,532 were written off to general and administrative expenses in 2019.

The following table presents changes in unbilled receivables:

	2019	2018
Balance, beginning of year	$ 6,865	$ 11,280
Amounts transferred to trade accounts receivable from the balance at the beginning of year	(5,614)	(9,690)
Amounts written off	(794)	–
Revenue in excess of billings, net of amounts transferred to trade accounts receivable	13,672	5,275
Balance, end of year	$ 14,129	$ 6,865
Current	$ 13,880	$ 6,408
Non-current	249	457

(Expressed in thousands of USD, except share and per share amounts)

5. Property and equipment:

The following table presents property and equipment for the Company:

Cost	Computer equipment	Computer software	Office furniture and equipment	Leasehold improvements	Total property and equipment
Balance, December 31, 2017	$ 23,827	$ 919	$ 335	$ 3,569	$ 28,650
Additions	9,713	1,179	158	1,260	12,310
Effects of movement in exchange rates	(172)	–	–	(10)	(182)
Balance, December 31, 2018	$ 33,368	$ 2,098	$ 493	$ 4,819	$ 40,778
Additions	9,672	1,063	447	537	11,719
Dispositions	(329)	(219)	(92)	–	(640)
Effects of movement in exchange rates	(64)	–	–	5	(59)
Balance, December 31, 2019	$ 42,647	$ 2,942	$ 848	$ 5,361	$ 51,798

Accumulated depreciation	Computer equipment	Computer software	Office furniture and equipment	Leasehold improvements	Total property and equipment
Balance, December 31, 2017	$ 8,108	$ 664	$ 123	$ 2,405	$ 11,300
Depreciation	5,694	395	101	538	6,728
Effects of movement in exchange rates	(35)	–	–	–	(35)
Balance, December 31, 2018	$ 13,767	$ 1,059	$ 224	$ 2,943	$ 17,993
Depreciation	7,231	650	130	755	8,766
Dispositions	(329)	(219)	(92)	–	(640)
Effects of movement in exchange rates	(28)	–	–	3	(25)
Balance, December 31, 2019	$ 20,641	$ 1,490	$ 262	$ 3,701	$ 26,094

Carrying value	Computer equipment	Computer software	Office furniture and equipment	Leasehold improvements	Total property and equipment
December 31, 2018	$ 19,601	$ 1,039	$ 269	$ 1,876	$ 22,785
December 31, 2019	$ 22,006	$ 1,452	$ 586	$ 1,660	$ 25,704

There were no proceeds associated with asset dispositions in 2019 (2018 – no asset dispositions).

(Expressed in thousands of USD, except share and per share amounts)

6. Right-of-use assets:

The following table presents right-of-use assets for the Company:

	Offices	Data centres	Total right-of-use assets
Balance, January 1, 2018	$ 3,927	$ 3,307	$ 7,234
Additions	–	4,245	4,245
Depreciation	(959)	(1,585)	(2,544)
Effects of movement in exchange rates	(14)	(48)	(62)
Balance, December 31, 2018	$ 2,954	$ 5,919	$ 8,873
Additions	203	2,746	2,949
Depreciation	(1,154)	(1,988)	(3,142)
Effects of movement in exchange rates	(16)	7	(9)
Balance, December 31, 2019	$ 1,987	$ 6,684	$ 8,671

7. Contract acquisition costs:

The following table presents changes in contract acquisition costs:

	2019	2018
Balance, beginning of year	$ 13,902	$ 11,514
Additions	5,951	6,088
Amortization	(4,356)	(3,700)
Balance, end of year	$ 15,497	$ 13,902

Amortization of contract acquisition costs is recorded in selling and marketing expense.

8. Trade payables and accrued liabilities:

The following table presents trade payables and accrued liabilities for the Company:

	2019	2018
Trade accounts payable	$ 4,285	$ 1,406
Accrued liabilities	13,360	9,141
Taxes payable	3,125	11,076
	$ 20,770	$ 21,623

(Expressed in thousands of USD, except share and per share amounts)

9. Deferred revenue:

The following table presents changes in deferred revenue:

	2019	2018
Balance, beginning of year	$ 78,496	$ 63,639
Amounts invoiced and revenue deferred	82,949	73,192
Recognition of deferred revenue included in the balance at the beginning of year	(77,772)	(58,335)
Balance, end of year	$ 83,673	$ 78,496

10. Lease obligations:

The Company's leases are for office space and data centers. These leases contain no renewal option or a renewal option for one or two years. The Company has included renewal options in the measurement of lease obligations when it is reasonably certain to exercise the renewal option.

The following table presents lease obligations for the Company:

	2019	2018
Current	$ 2,288	$ 2,572
Non-current	6,818	6,311
Total lease obligations	$ 9,106	$ 8,883

The following table presents the contractual undiscounted cash flows for lease obligations as at December 31, 2019:

Less than one year	$ 2,729
One to five years	7,301
More than five years	158
Total undiscounted lease obligations	$ 10,188

Interest expense on lease obligations for 2019 was $531 (2018 –$501). The expense relating to variable lease payments not included in the measurement of lease obligations was $730 (2018 – $739). This consists of variable lease payments for operating costs, property taxes, and insurance. Expenses relating to short-term leases were $556 (2018 – $256) and expenses relating to leases of low value assets were not material. Total cash outflow for leases was $4,491 (2018 – $3,656), including $2,674 of principal payments on lease obligations (2018 –$2,160).

(Expressed in thousands of USD, except share and per share amounts)

10. Lease obligations (continued):

Ottawa is expected to commence in late 2021 and the minimum payments required under this commitment are $43,103 over a fifteen year period. The office lease in Tokyo will commence in April 2020 and the minimum payments required under this commitment are $1,987 over a three year period. The expanded data centre lease in Tokyo, Japan and Osaka, Japan will commence in April 2020 and the minimum payments required under this commitment are $1,187 over a three year period.

11. Share capital:

Authorized

The Company is authorized to issue an unlimited number of Common Shares.

Issued

	Common shares	
	Shares	Amount
Shares outstanding at December 31, 2017	25,507,922	$ 108,253
Shares issued from exercised options	511,862	14,012
Shares issued from vested restricted share units	37,565	1,834
Shares issued from exercised deferred share units	20,832	852
Shares outstanding at December 31, 2018	26,078,181	$ 124,951
Shares issued from exercised options	261,929	12,042
Shares issued from vested restricted share units	62,894	3,968
Shares outstanding at December 31, 2019	26,403,004	$ 140,961

(Expressed in thousands of USD, except share and per share amounts)

11. Share capital (continued):

Stock option plans

The following table presents the status of the stock option plans:

	2019		2018	
	Shares	Weighted average exercise price	Shares	Weighted average exercise price
Options outstanding, beginning of year	2,089,873	$ 38.32	2,232,735	$ 31.92
Granted	468,044	57.81	522,000	63.65
Exercised	(261,929)	33.41	(511,862)	19.77
Forfeited	(67,250)	54.98	(153,000)	53.96
Options outstanding, end of year	2,228,738	44.24	2,089,873	$ 38.32
Options exercisable, end of year	1,041,110	30.43	851,622	$ 22.16

The following table presents information about stock options outstanding at December 31, 2019:

	Options outstanding			Options exercisable	
Range of exercise prices	Number outstanding	Weighted average remaining contractual life	Weighted average exercise price	Number exercisable	Weighted average exercise price
$1 to $4	235,599	1.65	$ 1.74	235,599	$ 1.74
$9 to $20	150,500	4.20	10.68	150,500	10.68
$29 to $36	454,650	5.98	34.29	323,400	34.24
$46 to $50	154,381	5.99	47.68	88,481	47.51
$52 to $56	326,496	3.25	54.42	111,996	54.75
$58 to $59	572,862	4.86	58.51	55,884	58.02
$62 to $67	249,750	3.31	64.70	57,000	64.76
$72 to $76	84,500	3.78	73.10	18,250	72.74
	2,228,738	4.33	$ 44.24	1,041,110	$ 30.43

The Company has outstanding stock options issued under its 2010 and 2012 stock option plans. No further options may be granted under the 2010 and 2012 stock option plans. In June 2017, the Company adopted a new Canadian Resident Plan and a new Non-Canadian Resident Plan. Stock options granted under the new plans will have an exercise price equal to or greater than the stock’s TSX price at the date of grant as determined by the Board of Directors and the maximum term of these options will be five years. Options are granted periodically and typically vest over four years.

At December 31, 2019, there were 1,119,156 stock options available for grant under the Plans.

(Expressed in thousands of USD, except share and per share amounts)

11. Share capital (continued):

In 2019, the Company granted 468,044 (2018 – 522,000) options and recorded share-based compensation expense of $8,271 (2018 – $8,232) related to the vesting of options granted in 2019 and previous years. The per share weighted-average fair value of stock options granted in 2019 was $18.51 (2018 – $17.34) on the date of grant using the Black Scholes option-pricing model with the following weighted-average assumptions: exercise price is equal to the price of the underlying share, expected dividend yield of 0%, risk-free interest rate of 2.45% (2018 – 2.65%), an expected life of 3 to 5 years (2018 – 2 to 5 years), estimated volatility of 38% (2018 – 38%). The forfeiture rate was estimated at 15% (2018 – 10%). The forfeiture rate is estimated based upon an analysis of actual forfeitures.

Share Unit Plan

At December 31, 2019, there were 268,895 share units available for grant under the Share Unit Plan.

In 2019, the Company granted 70,982 (2018 – 58,200) restricted share units (“RSU”) and none were forfeited (2018 – 13,098). There were 60,722 (2018 – 52,634) RSUs outstanding at December 31, 2019. Each RSU entitles the participant to receive one Common Share. The RSUs vest over time in three equal annual tranches. The weighted-average grant date fair value of the RSUs granted in 2019 was $63.13 (2018 – $66.16) per unit using the fair value of a Common Share at time of grant. The Company recorded share-based compensation expense of $4,196 (2018 – $2,436) related to the RSUs.

In 2019, the Company granted 14,256 (2018 – 13,800) deferred share units (“DSU”). There were 45,086 (2018 – 30,830) DSUs outstanding at December 31, 2019. Each DSU entitles the participant to receive one Common Share. The DSUs vest immediately as the participants are entitled to the shares upon termination of their service. The fair value of the DSUs granted in 2019 was $63.13 (2018 – $65.23) per unit using the fair value of a Common Share at time of grant. The Company recorded share-based compensation of $900 (2018 – $900) related to the DSUs.

The following table presents the share-based payments expense by function:

	2019	2018
Cost of revenue	$ 900	$ 844
Selling and marketing	5,484	4,644
Research and development	1,574	1,053
General and administrative	5,409	5,027
	$ 13,367	$ 11,568

(Expressed in thousands of USD, except share and per share amounts)

12. Earnings per share:

The following table summarizes the calculation of the weighted average number of basic and diluted common shares:

	2019	2018
Issued Common Shares, beginning of year	26,078,181	25,507,922
Effect of shares issued from exercise of options	98,234	300,799
Effect of shares issued from vesting of restricted share units	3,619	2,161
Effect of shares issued from vesting of deferred share units	–	9,636
Weighted average number of basic Common Shares	26,180,034	25,820,518
Effect of share options on issue	644,062	890,135
Effect of share units on issue	143,709	113,782
Weighted average number of diluted Common Shares	26,967,805	26,824,435

For 2019, 1,233,608 (2018 – 352,000) options were excluded from the weighted average number of diluted common shares as their effect would have been anti-dilutive.

13. Revenue:

The following table presents revenue of the Company:

	2019	2018
SaaS	$ 118,860	$ 97,157
Professional services	33,549	31,854
Subscription term licenses	26,218	9,935
Maintenance and support	12,922	11,781
	$ 191,549	$ 150,727

The following table presents revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at December 31, 2019:

	2020	2021	2022 and thereafter	Total
SaaS	$ 122,090	$ 91,778	$ 96,729	$ 310,597
Maintenance and support	11,145	8,272	4,887	24,304
Subscription term licenses	4,533	–	–	4,533
	$ 137,768	$ 100,050	$ 101,616	$ 339,434

(Expressed in thousands of USD, except share and per share amounts)

14. Personnel expenses:

The following table presents personnel expenses of the Company:

	2019	2018
Salaries including bonuses	$ 71,823	$ 59,538
Benefits	11,274	9,355
Commissions	6,190	5,329
Share-based payments	13,367	11,568
	$ 102,654	$ 85,790

15. Depreciation:

The following table presents total depreciation expense by function:

	2019	2018
Cost of revenue	$ 8,384	$ 6,299
Selling and marketing	4	4
Research and development	1,365	1,282
General and administrative	2,155	1,687
	$ 11,908	$ 9,272

16. Income tax expense:

The income tax amounts recognized in profit and loss are as follows:

	2019	2018
Current tax expense		
Current income tax	$ 9,015	$ 8,930
Deferred tax (recovery) expense		
Origination and reversal of temporary differences	2,917	(862)
	$ 11,932	$ 8,068

The current tax expense and deferred tax expense for 2019 include a recovery of $1,272 and an expense of $1,392, respectively, arising from a prior period.

(Expressed in thousands of USD, except share and per share amounts)

16. Income tax expense (continued):

A reconciliation of the income tax expense to the expected amount using the Company's Canadian tax rate is as follows:

	2019	2018
Canadian tax rate	26.50%	26.50%
Expected Canadian income tax expense	$ 9,345	$ 5,956
Increase (reduction) in income taxes resulting from:		
Difference between current and future tax rates and other	308	13
Foreign tax rate differences	133	60
Permanent difference of share-based payments	2,146	2,045
Foreign exchange differences	–	(6)
	$ 11,932	$ 8,068

The following tables present tax effects of temporary differences and carry-forwards, as well as movements in the deferred tax balances:

	Balance at December 31, 2018	Recognized in profit and loss	Balance at December 31, 2019
Deferred tax assets (liabilities):			
Tax effect of investment tax credits	$ (395)	$ (36)	$ (431)
Share issuance costs	96	(96)	–
Property and equipment	(2,197)	(1,344)	(3,541)
Contract acquisition costs	(3,360)	(306)	(3,666)
Stock based compensation	1,070	259	1,329
Net operating loss carryforwards	658	(658)	–
Other	102	(736)	(634)
	$ (4,026)	$ (2,917)	$ (6,943)

	Balance at January 1, 2018	Recognized in profit and loss	Balance at December 31, 2018
Deferred tax assets (liabilities):			
Tax effect of investment tax credits	$ (1,202)	$ 807	$ (395)
Share issuance costs	336	(240)	96
Property and equipment	(1,448)	(749)	(2,197)
Contract acquisition costs	(3,051)	(309)	(3,360)
Stock based compensation	–	1,070	1,070
Net operating loss carryforwards	–	658	658
Other	477	(375)	102
	$ (4,888)	$ 862	$ (4,026)

(Expressed in thousands of USD, except share and per share amounts)

16. Income tax expense (continued):

The company does not have foreign net operating loss carryforwards as at December 31, 2019 (2018 – $2,520).

Deferred tax liabilities have not been recognized for temporary differences associated with investments in subsidiaries as the Company is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future. The aggregate amount of these temporary differences at December 31, 2019 was $14,913 (2018 – $10,714).

17. Statement of cash flow:

The following table presents changes in operating assets and liabilities:

	2019	2018
Trade and other receivables	$ (16,776)	$ (23,302)
Prepaid expenses	(716)	(1,633)
Contract acquisition costs	(1,566)	(2,429)
Trade payables and accrued liabilities	4,726	(1,118)
Deferred revenue	5,171	15,267
	$ (9,161)	$ (13,215)

18. Credit facility:

The Company has a CAD$20.0 million revolving demand credit facility which bears interest at bank prime per annum and has not been drawn as at December 31, 2019.

In addition to providing a general security agreement representing a first charge over the Company's assets, the Company must meet certain financial covenants as specified in the facility agreement. The Company was in compliance with these financial covenants as at December 31, 2019 and continues to be at the time of approval of these consolidated financial statements. In the event that the Company's aggregate borrowings under the revolving facility exceed CAD$5 million, a borrowing limit applies that is based principally on the Company's accounts receivable.

19. Financial instruments:

The carrying amounts of investments, trade and other receivables, unbilled receivables, and trade payables and accrued liabilities approximate fair market value due to the short-term maturity of these instruments.

(Expressed in thousands of USD, except share and per share amounts)

19. Financial instruments (continued):

Financial risk management:

(a) 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. The Company's credit risk is primarily attributable to its trade and other receivables.

(a) Credit risk (continued):

The following table presents maximum exposure to credit risk for trade receivables by geographic region:

	2019	2018
United States	$ 45,950	$ 36,684
Europe	15,889	16,397
Asia	2,057	2,827
Canada	1,510	710
	$ 65,406	$ 56,618

The following table presents aging of trade receivables:

	2019	2018
Current	$ 41,209	$ 40,321
Past due:		
0 – 30 days	17,854	13,269
31 – 60 days	2,453	746
Greater than 60 days	3,890	2,282
	$ 65,406	$ 56,618

The nature of the Company's subscription based business results in payments being received in advance of the majority of the services being delivered; as a result, the Company's credit risk exposure is low. At December 31, 2019, one customer individually accounted for greater than 10% of total trade receivables (December 31, 2018 – no customer). For 2019, no customer individually accounted for greater than 10% of revenue (2018 – no customer).

The Company measures a loss allowance based on the lifetime expected credit losses. Lifetime expected credit losses are estimated based on factors such as the Company's past experience of collecting payments, the number of delayed payments in the portfolio past the average credit period, observable changes in national or local economic conditions that correlate with default on receivables, financial difficulty of the borrower, and it becoming probable that the borrower will

19. Financial instruments (continued):

(a) Credit risk (continued):

enter bankruptcy or financial re-organization. Financial assets are written off when there is no reasonable expectation of recovery. During the year ended December 31, 2019, the Company wrote off $2,768 of trade receivables that were deemed not collectible (2018 – $561 written off). As at December 31, 2019, the Company has recorded a loss allowance of $22 (2018 – no allowance).

The Company invests its 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. The Company manages its credit risk on investments by dealing only with major Canadian banks and investing only in instruments that management believes have high credit ratings. Given these high credit ratings, the Company does not expect any counterparties to these investments to fail to meet their obligations.

The Company's exposure to credit risk is limited to the carrying amount of financial assets.

(b) Liquidity risk:

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due.

The Company's approach to managing liquidity risk is to ensure, as far as possible, that it will always have sufficient liquidity to meet liabilities when due. The Company also manages liquidity risk by continuously monitoring actual and budgeted expenses. Furthermore, the Board of Directors reviews and approves the Company's operating and capital budgets, as well as any material transactions out of the ordinary course of business, including acquisitions or other major investments or divestitures.

At December 31, 2019, the Company had cash and cash equivalents and short-term investments totaling $212,603 (2018 – $181,548). Further, the Company has a credit facility as disclosed in Note 18. The Company's trade payables and accrued liabilities are due within 3 months or less.

(c) Market risk:

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

Currency risk

A portion of the Company's revenues and operating costs are realized in currencies other than its functional currency, such as the Canadian dollar, Japanese Yen, Euro, Great British Pound, and Korean Won. As a result, the Company is exposed to currency risk on these transactions. Additional earnings volatility arises from the translation of monetary assets and liabilities denominated in foreign currencies at the rate of exchange on each date of the Consolidated

19. Financial instruments (continued):

(c) Market risk (continued):

Statements of Financial Position; the impact of which is reported as a foreign exchange gain or loss. The Company is also subject to currency risk on its income tax expense due to foreign exchange impacts resulting from translating financial results to local currency for Canadian tax reporting purposes.

The Company's objective in managing its currency risk is to minimize its exposure to currencies other than its functional currency. The Company does so by matching foreign denominated assets with foreign denominated liabilities.

The Company is mainly exposed to fluctuations between the U.S. dollar and the Canadian dollar. For the year ending December 31, 2019, if the Canadian dollar had strengthened 5% against the U.S. dollar, with all other variables held constant, pre-tax income for the year would have been $3,250 lower (2018 – $2,953 lower). Conversely, if the Canadian dollar had weakened 5% against the U.S. dollar with all other variables held constant, there would be an equal, and opposite impact, on pre-tax income.

The summary quantitative data about the Company's exposure to currency risk is as follows:

December 31, 2019 In thousands of local currency	USD	CAD	EUR	JPY	GBP	KRW
Trade receivables	55,994	212	4,852	171,150	1,651	68,969
Unbilled receivables	11,830	4	414	171,829	1	–
Other receivables	623	115	10	104,172	5	1,269
Trade payables	(775)	(1,093)	(135)	(200,587)	(491)	(2,139)
Accrued liabilities	(5,091)	(7,634)	(593)	(69,950)	(776)	(46,992)
	62,581	(8,396)	4,548	176,614	390	21,107

December 31, 2018 In thousands of local currency	USD	CAD	EUR	JPY	GBP	KRW
Trade receivables	51,590	57	3,556	68,887	–	331,472
Unbilled receivables	3,798	113	–	328,685	–	–
Other receivables	317	214	20	24,796	12	–
Trade payables	(173)	(1,083)	(41)	(36,125)	(4)	(53,684)
Accrued liabilities	(4,046)	(5,080)	(198)	(37,127)	(600)	(9,479)
	51,486	(5,779)	3,337	349,116	(592)	268,309

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. The Company believes that interest rate risk is low as the majority of investments are made in fixed rate instruments. As of December 31, 2019, the Company has not drawn on the revolving demand facility.

(Expressed in thousands of USD, except share and per share amounts)

20. Segmented information:

The Company's Chief Executive Officer ("CEO") has been identified as the chief operating decision maker. The CEO evaluates the performance of the Company and allocates resources based on the information provided by the Company's internal management system at a consolidated level. The Company has determined that it has only one operating segment.

Geographic information

The following table presents external revenue on a geographic basis:

	2019	2018
United States	$ 125,591	$ 103,060
Europe	41,275	33,226
Asia	19,584	12,373
Canada	5,099	2,068
	$ 191,549	$ 150,727

The following table presents total property and equipment on a geographic basis:

	2019	2018
Canada	$ 14,020	$ 12,547
United States	5,851	3,422
Asia	3,450	4,616
Europe	2,383	2,200
	$ 25,704	$ 22,785

The following table presents total right-of-use assets on a geographic basis:

	2019	2018
Canada	$ 2,984	$ 4,214
United States	2,743	608
Asia	2,097	2,966
Europe	847	1,085
	$ 8,671	$ 8,873

(Expressed in thousands of USD, except share and per share amounts)

21. Related party transactions:

Details of the Company's subsidiaries at December 31, 2019 and 2018 are as follows:

Name of subsidiary	Principal activity	Place of incorporation and operation	Proportion of ownership interest and voting power held	
			2019	2018
Kinaxis Asia Limited	Sales	Hong Kong	100%	100%
Kinaxis Corp.	Sales	State of Delaware, USA	100%	100%
Kinaxis US Corp.	Holding	State of Delaware, USA	100%	–
Kinaxis Europe B.V.	Sales	The Netherlands	100%	100%
Kinaxis Japan K.K.	Sales	Japan	100%	100%
Kinaxis Korea Limited	Sales	South Korea	100%	100%
Kinaxis UK Limited	Sales	United Kingdom	100%	100%
Kinaxis Singapore Pte. Ltd.	Sales	Singapore	100%	–

Balances and transactions between the Company and its subsidiaries, which are related parties of the Company, have been eliminated on consolidation and are not disclosed in this note.

During the year, the Company did not enter into any transactions with related parties other than key management personnel, as described below.

Compensation of key management personnel

The Company defines key management personnel as being the Board of Directors, the CEO and his direct reports. The remuneration of key management personnel during the year were as follows:

	2019	2018
Salary and other short-term benefits	$ 5,135	$ 4,063
Share-based payments	10,061	8,002
	$ 15,196	$ 12,065

22. Capital management:

The Company's capital is composed of its shareholders' equity. The Company's objective in managing its capital is to ensure financial stability and sufficient liquidity to increase shareholder value through organic growth and investment in sales, marketing and product development. The Company's senior management 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 its growth strategy. The Board of Directors is responsible for overseeing this process. In order to maintain or adjust its capital structure, the Company could issue new shares, repurchase shares, approve special dividends or issue debt.

22. Capital management (continued):

The Company has access to a revolving demand facility bears interest at bank prime per annum which has not been drawn as at December 31, 2019. The terms of the facility require the Company to meet certain financial covenants which are monitored by senior management to ensure compliance.

23. Contingencies:

a) In the normal course of business, the Company and its subsidiaries enter into lease agreements for facilities or equipment. It is common in such commercial lease transactions for the Company or its subsidiaries as the lessee to agree to indemnify the lessor and other related third parties for liabilities that may arise from the use of the leased assets. The maximum amount potentially payable under the foregoing indemnities cannot be reasonably estimated. The Company has liability insurance that relates to the indemnifications described above.

b) The Company includes standard intellectual property indemnification clauses in its software license and service agreements. Pursuant to these clauses, and subject to certain limitations, the Company holds harmless and agrees to defend the indemnified party, generally the Company's business partners and customers, in connection with certain patent, copyright or trade secret infringement claims by third parties with respect to the Company's products. The term of the indemnification clauses is generally for the subscription term and applicable statutory period after execution of the software license and service agreement. In the event an infringement claim against the Company or an indemnified party is successful, the Company, at its sole option, agrees to do one of the following: (i) procure for the indemnified party the right to continue use of the software; (ii) provide a modification to the software so that its use becomes non-infringing; (iii) replace the software with software which is substantially similar in functionality and performance; or (iv) refund the residual value of the software license fees paid by the indemnified party for the infringing software. The Company believes the estimated fair value of these intellectual property indemnification clauses is minimal.

Historically, the Company has not made any significant payments related to the above-noted guarantees and indemnities and accordingly, no liabilities have been accrued in the consolidated financial statements.

24. Subsequent event:

On January 31, 2020, the Company acquired 100% of the outstanding shares of Prana Consulting, Inc. and all of its subsidiaries ("Prana") in exchange for cash and contingent consideration. Prana provides consulting services for implementation of the Company's software.

The cash consideration is based on a purchase price of $3,650, adjusted for Prana's working capital surplus or deficit at the date of acquisition and subject to post-closing working capital adjustments.

The contingent consideration arrangement consists of additional payments to the selling shareholder for attainment of specific revenue and team retention metrics in the year following the acquisition. The potential undiscounted amount of all future payments that the Company could be required to make

24. Subsequent event (continued):

under this arrangement is between $150 and $1,000. The Company estimates that the fair value of contingent consideration at the date of acquisition is $800.

The financial effects of this transaction have not been recognized at December 31, 2019. At the time the financial statements were authorized for issue, the Company has not yet completed the initial accounting for the acquisition of Prana. In particular, the fair value assessment of the assets acquired and liabilities assumed is incomplete. It is not yet possible to provide detailed information about each class of net assets and any contingent liabilities of the acquired entity.

The provisionally determined goodwill arising from the acquisition is $4,450. The goodwill is attributable mainly to the skills and technical talent of Prana's work force and the synergies expected to be achieved from integrating Prana into the Company's existing professional services business. The goodwill is expected to be deductible for tax purposes.