2020

ANNUAL REPORT

THANK YOU!

We hope you and your families remain healthy – nothing matters more. Kinaxis is a global company and some of us are battling the very worst of this horrible pandemic under extremely difficult conditions. We are thinking about you.

We extend our sympathies to families that have been deeply affected. We remain forever and especially grateful to front line workers everywhere, particularly those in supply chains that keep our necessities flowing. We are also forever amazed by and thankful for the resiliency of our colleagues, customers, partners, shareholders and all Kinaxis stakeholders as we have worked through this global event together.

Wherever you are in the world, we encourage you to get vaccinated as soon as possible, so we can all see each other face to face once again – something we dearly miss.

A leader in supply chain planning

Everyday volatility and uncertainty demand quick action. Kinaxis® (TSX:KXS) delivers cloud-based software-as-a-service (SaaS) solutions that enable the agility to make fast, confident decisions across integrated business planning and the digital supply chain. People can plan better, live better and change the world. Trusted by innovative brands, we combine human intelligence with AI and concurrent planning to help companies plan for any future, monitor risks and opportunities, and respond at the pace of change. Powered by an extensible cloud-based platform, Kinaxis delivers industry-proven applications so everyone can know sooner, act faster and remove waste.

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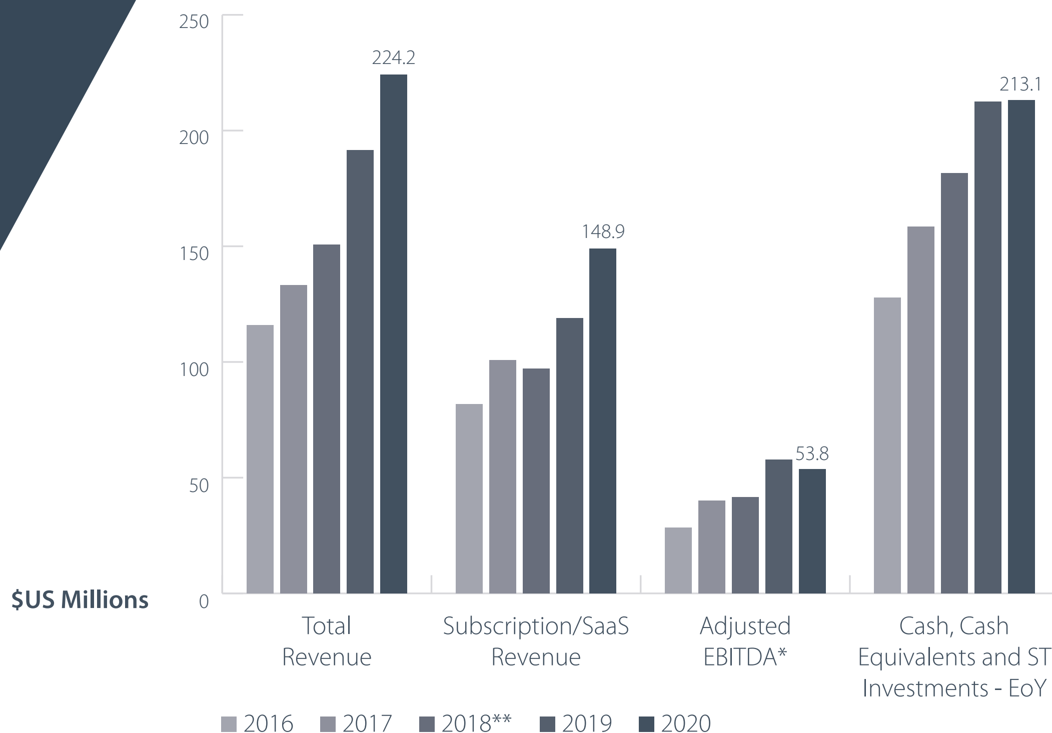
Financial Highlights

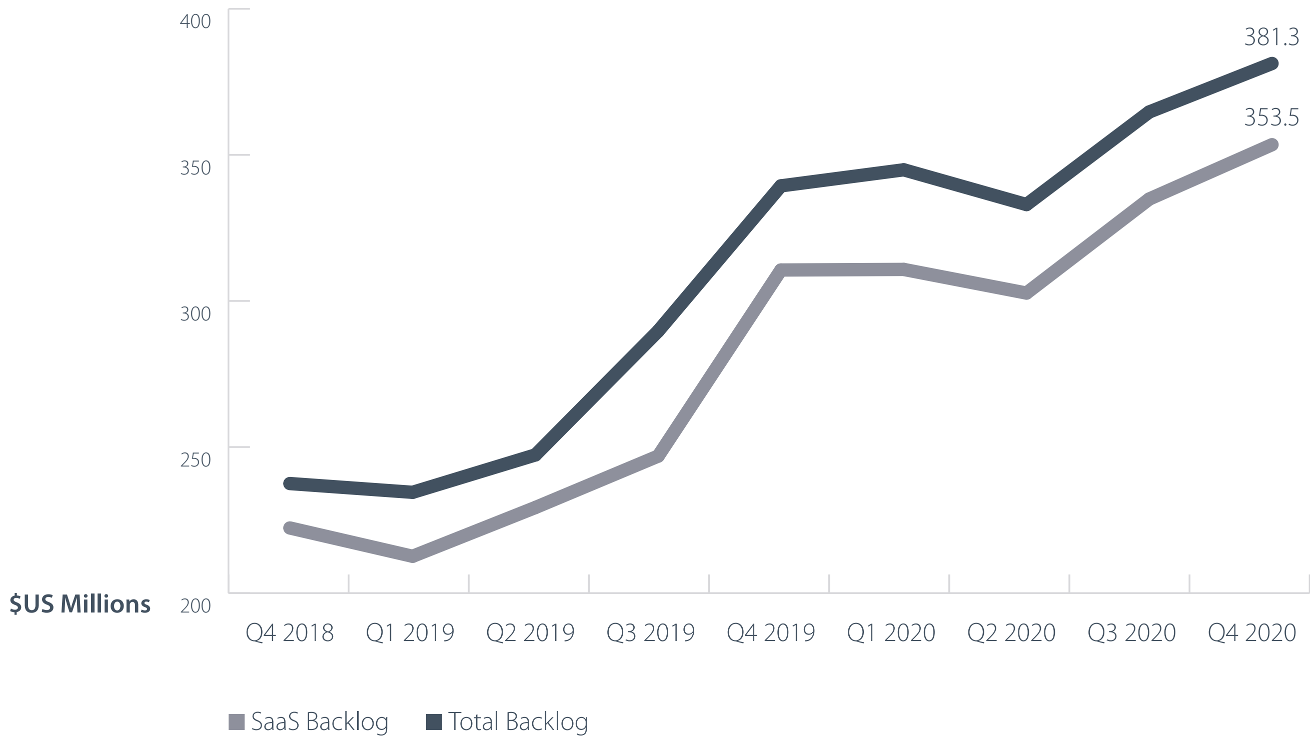
Kinaxis customers sign multi-year subscription agreements for our RapidResponse® supply chain planning platform. The business model provides a predictable, recurring revenue base that has grown rapidly over time as we have added new customers across seven vertical markets and expanded deployments with our existing customers. Unlike many SaaS companies, our operations continue to generate significant cash.



*Adjusted EBITDA is a non IFRS measure. For reconciliation of Adjusted EBITDA to profit, please see "Management's Discussion & Analysis"
**Results for 2018 and after reflect change to IFRS 15 standard

Backlog

Our backlog represents revenue that we expect to recognize in the future related to firm performance obligations that are unsatisfied (or partially unsatisfied) at December 31, 2020 for our signed multi-year contracts.



Letter to Shareholders

It has been an unprecedented year for business and for humanity as a whole. First and foremost, the Kinaxis management team has been focused on the health and wellbeing of every employee and their families as they manage the impacts of life under COVID-19. I continue to be amazed by the dedication and commitment of our team. While we are effectively operating all of our operations under a work-from-home protocol, employees continue to meet all challenges with remarkable grace and dedication. They are supporting each other and our customers while we continue to progress towards our long-term objectives. In this letter, I will share some key highlights from 2020 and touch on key initiatives required to sustain performance for the long term.

Financial performance, FY 2020

Despite COVID, we met or exceeded our financial expectations during 2020. Software-as-a-service (SaaS) revenue for the year – the key driver of our business – was $148.9 million, representing 25%

growth over 2019 – an acceleration from 22% growth the previous year, and at the high end of our expectations for 2020. Total revenue for the year was $224.2 million and adjusted EBITDA was 24% of revenue, both ahead of our initial forecast. Our ending cash and short-term investment balance was $213.1 million, up slightly from December 2019, even after reflecting $62 million used for two acquisitions during the year – Prana Consulting and Rubikloud. I am very pleased that this strong performance translated to the creation of significant shareholder value throughout 2020.

A COVID-19 "pause"

Kinaxis and our markets were not immune to the adverse side effects of the pandemic. The impact was most pronounced in the second and third quarters of the year, when many manufacturers would pause investment initiatives to brace for and absorb the full-force impact COVID would inflict on their supply chains. We experienced lower bookings of incremental subscription business during this volatile period, and due to the nature of the subscription business model and traditionally long sales cycles, these slowdowns will inevitably temper our initial growth expectations in 2021. We expect, however, to grow SaaS revenue 17-20% during the year – a strong outlook nevertheless.

A return to stronger growth

Assuming we continue to return to a more normal business environment, we fully expect to quickly return to stronger growth in 2022 and beyond. We saw a rebound in our incremental subscription bookings during the fourth quarter of 2020 and, in fact, won a record number of new customers for a single quarter during the period. Throughout 2020, we were honored to continue to add major customers to the Kinaxis family across all our markets. They included Mars, Fujifilm, Technicolor, Coty, L3Harris Technologies, Morphosys and many more. Through our acquisition of Rubikloud, a disruptive, emerging provider of AI solutions for supply chain analytics and decision-making, we entered our seventh vertical market, Retail, and gained major customers like Rexall and Superdrug. You can read more about how Rubikloud increases sales and margins for customers later in this report.

Our secured total backlog continued to grow, closing 2020 at $381.3 million, up 12.3% from 2019. The sales pipeline also continues to grow, ending the year more than 40% higher than at the end of 2019. COVID has had short-term adverse impacts on our markets, but it has also raised awareness of the criticality of supply chain planning, a benefit that is reflected in this elevated pipeline. Our sales cycles remain long, at 12 to 18 months, but some of this large pipeline will convert into new business in 2021, so we expect our incremental subscription bookings to grow substantially in the year, which will in turn support higher SaaS revenue growth again in 2022. We continue to believe that 23-25% SaaS revenue growth is sustainable over the mid-term, including for 2022.

Pillars of our strategy

I'd like to briefly touch on some further elements of our strategy that are key to supporting our growth ahead.

Product dominance

Our customers tell us that the key reason we win their business is our entirely unique real-time, concurrent planning value proposition delivering agility and resiliency, and the unmatched platform that delivers it: RapidResponse. Through increased investment, our pace of product innovation has accelerated and we remain fully focused on product dominance in our field. We are releasing new revenue-generating product capabilities later this year, including our AI-enabled Command & Control Center, which we announced at our virtual Kinexions conference in October 2020 to a record registered audience of more than 3,000 supply chain innovators from over 500 companies spanning 70-plus countries. We are also seeing momentum around our RapidStart Program – a RapidResponse offering that takes full advantage of our knowledge of industry best practices to set customers on the path to supply chain transformation in as little as 12 weeks. Companies are increasingly focused on the need for a rapid return on investment to de-risk major purchase decisions, so we believe that RapidStart can accelerate new customer adoption. We will also continue to remain open to exciting product-enriching acquisitions.

Additionally, in February we were positioned furthest on the Completeness of Vision axis in the Leaders quadrant of the 2021 Gartner Magic Quadrant for Supply Chain Planning Solutions and were also recognized for our ability to execute. This is the seventh consecutive time Kinaxis has been named a Leader in a Gartner Magic Quadrant related to supply chain planning.*

Enable platform adoption

One aspect of our recent product innovation has been to make our RapidResponse platform dramatically more open to development and integration by third parties. This openness has created a new class of partners for us – solution extension partners – who extend our value with software functionality they have developed to work with RapidResponse. For example, PlanetTogether has created production scheduling capabilities, 4flow has created a transportation load optimizer and OCYO has created a recycling planning solution, all of which will work seamlessly with our platform. These capabilities will help expand our delivered value for customers while creating entirely new joint revenue opportunities. I encourage you to read more about these partners later in this report.

Grow market share through strategic alliances

We continue to rapidly expand our other groups of partners across all categories, including systems integrators and referral partners. Together, they use their deep domain expertise to help us sell our platform and work with customers to digitally transform their supply chains. All told, we work with more than 40 partners.

**Gartner, Magic Quadrant for Supply Chain Planning System of Record – 2018, 2016, 2014*
Gartner, Magic Quadrant for Sales and Operations Planning Systems of Differentiation – 2019, 2017, 2015
Gartner, Magic Quadrant for Supply Chain Planning Solutions, A. Salley, T. Payne, P. Orup Lund, Feb. 22, 2021

Drive customer excellence

We continue to invest significantly to expand our data centers and ensure an ongoing premium level of service delivery to our customers. We are also continuing to grow the programs and points of engagement with our existing customers – including up to the most senior executive level – to ensure we are consistently exceeding their expectations.

Amplify global culture

All of these developments would be impossible without our amazing team and the "People Matter Here" culture we support and nurture every day. While Kinaxis grew aggressively in 2020, expanding the global team by roughly 50% including our acquisitions, we continued to keep our team engaged. Our latest employee engagement survey resulted in a very strong 90% score. Given circumstances, we will be increasingly turning our attention to mental health awareness and launching programs towards strengthening our diversity, equity and inclusion. You can read about our approach to these issues, improving our environmental sustainability – as well as our customers' – and other important topics in our first Environmental, Social and Governance performance report published in September 2020.

I would like to say a personal thank you to one team member in particular, Richard Monkman, who will be retiring August 1st after more than 15 years as our CFO. Richard has been an invaluable partner to me and the full Kinaxis family. He has helped Kinaxis grow, been a diligent corporate steward, taken us public and dedicated himself to making sure the investment community understands our performance and future opportunities. Truly, the company wouldn't be in the excellent position it is in today without his very significant contributions. I am equally grateful that Richard is handing the torch to the very capable hands of Blaine Fitzgerald, who we recruited in March 2020 to become Richard's successor.

After a year like no other in recent history, I am pleased to say that Kinaxis has quite simply never been more relevant. There has never been more attention on the value of supply chain planning and never before has the value of our unique differentiator – concurrent planning – been more obvious. As always, it is an honor and privilege to lead this exceptional company and to work with inspiring and gifted people each and every day. Thank you for your trust and continued support of Kinaxis.

Sincerely,

John Sicard

President and Chief Executive Officer

Kinaxis Inc.

Rubikloud Case Study: Improving Promotion Forecasting With AI and ML

In July 2020, Kinaxis completed its acquisition of Rubikloud, a disruptive, emerging provider of Artificial Intelligence (AI) and Machine Learning (ML) solutions that automate supply chain prescriptive analytics and decision-making, primarily for the consumer packaged goods (CPG) and retail industries. Globally recognized retailers and CPG manufacturers in the health and beauty, household and grocery segments use Rubikloud's demand forecasting and automation to manage and optimize trade promotions, pricing and product assortment to drive demand and dramatically improve financial results.

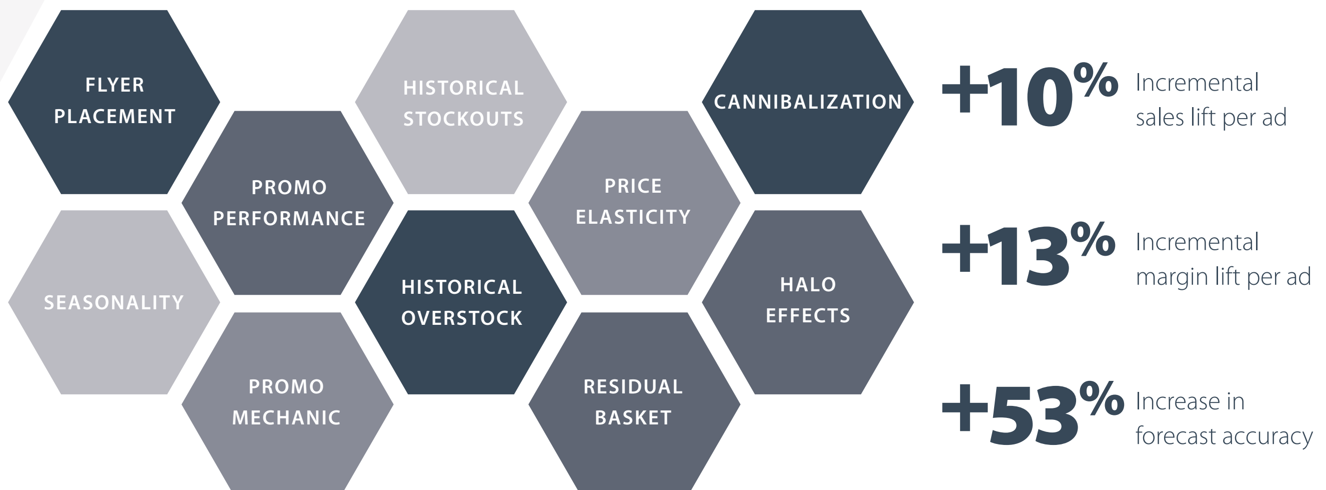
The problem: A national drug store needed to understand the cross-product effects of promotion performance.

Forecasting for promotions is challenging because it is difficult to predict and evaluate cross-product effects on total cart value. For example, could a promotion for one product result in increased revenue for that item while simultaneously decreasing sales for other products? For one of Rubikloud's drugstore customers, this issue was most prevalent in store flyer blocks that were not increasing sales or trips, and negatively impacted margin. This loss was compounded by the print and distribution costs associated with these poorly performing flyer blocks.

The solution: Apply advanced ML algorithms to past promotion activity to better plan future promotional campaigns.

Rubikloud's retail-centric ML models considered and weighed a variety of factors, including the specific promotion mechanic (e.g., sale discount versus buy-one-get-one-free), flyer placement, price elasticity and others, to calculate the forecast impact, which revealed specific residual basket insights. This insight directly impacted the placement of promotions to feature higher performing offers to the front cover, resulting in a 10% incremental sales lift per ad and 13% incremental margin lift per ad. This improvement also resulted in the customer reducing total flyer pages while still increasing the performance of each promoted product.

AI-based insights reveal opportunities for increased sales and margin



Accelerating Customer Value With Kinaxis Solution Extension Partners

In October 2020, Kinaxis announced the first members of its brand new Solution Extension Partners group, a partner category enabled through a recent, major transformation of RapidResponse into an open platform for third-party development. Through seamless integration of their intellectual property into the platform, these partners increase the value customers can gain from RapidResponse by developing domain-specific applications that leverage the power of concurrent planning, or by delivering digital inputs that assist in the real-time planning process. Kinaxis is thrilled to welcome PlanetTogether, OCYO Consulting and 4flow as part of our initial cohort of Solution Extension Partners.

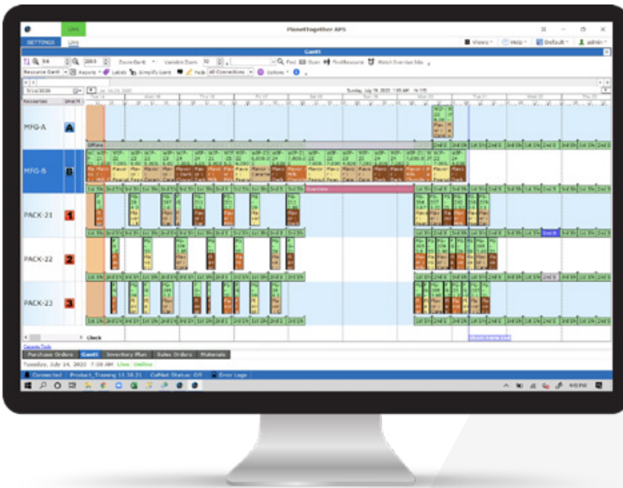
Break down barriers with connected scheduling

With Kinaxis RapidResponse Production Scheduling by PlanetTogether, Kinaxis can now help customers effortlessly optimize factory resources, boost manufacturing efficiency and meet customer expectations faster than ever before.

This Kinaxis solution extension combines the detailed production scheduling capabilities of PlanetTogether with the power of RapidResponse's concurrent planning platform – for complete visibility of how disruptions will impact the supply chain anytime, anywhere. Through seamless integration, customers can drive instant visibility and transparency between planners and schedulers to unleash the full potential of manufacturing plants and quickly develop what-if scenario plans to include changes in production sequence as part of end-to-end planning. The joint solution allows companies to respond with agility to demand changes, operate efficiently and ship on time.

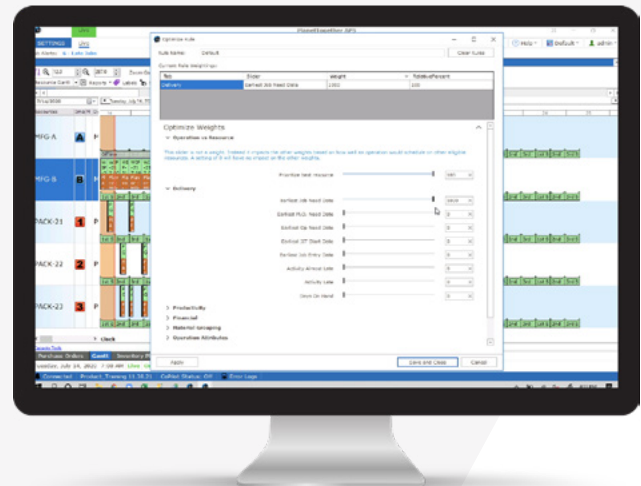
Benefits

1. **Improve delivery performance.** Create realistic production schedules as part of scenario planning and execution that optimize capacity and material usage to meet customer demand.
2. **Increase visibility and transparency and avoid disruptions.** Integrate fast, collaborative plant schedule development with corporate planning objectives.
3. **Maximize business performance.** Use clear metrics to drive scheduling and decision-making that's aligned with financial goals.
4. **Reduce risk and improve standardization.** Synchronize across plants and departments by capturing company knowledge and systematizing best practices into one planning and scheduling platform.



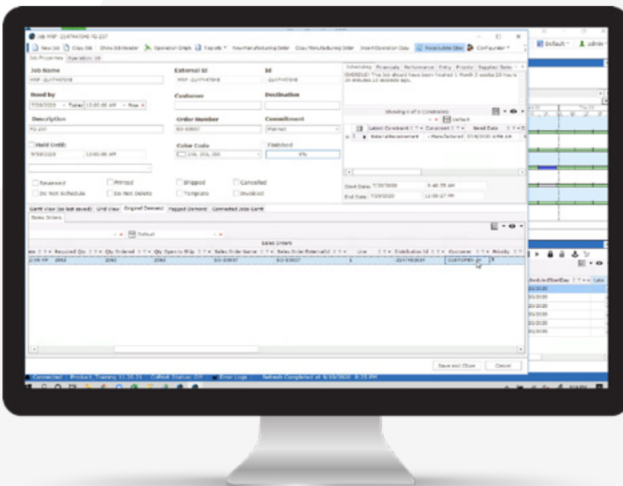
Scheduling optimization

Dramatically improve on-time delivery, shop floor productivity, inventory turns and scheduler productivity.



Seamless integration with RapidResponse

See the impact of moving production from one plant to another or spreading the load across multiple plants, all within the RapidResponse platform.



Automated workflows

Effortlessly pull forward production orders to maximize capacity usage and synchronize production plans and schedules across the supply chain.

Sustainable solutions for the green supply chain

With Kinaxis Recycling End-to-End Planning by OCYO, Kinaxis can now help companies plan and monitor recycling flows of incoming and outgoing products, internally and across a partner network, to improve supply chain efficiency, sustainability and compliance.

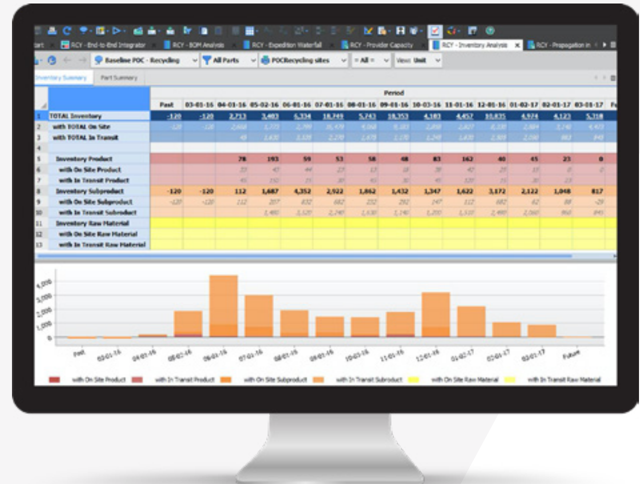
Leveraging the power of concurrent planning, Kinaxis Recycling End-to-End Planning is the first supply chain planning solution to incorporate an end-to-end reverse logistics process that facilitates both re-manufacturing and recycling across multiple business partners. This empowers companies to maximize the recapture of recyclable materials to meet corporate sustainability goals, recover costs and remain compliant with government recycling requirements.

Benefits

1. **Identify opportunities.** Forecast incoming and outgoing products for recycling, re-manufacturing and refurbishing.
2. **Maximize recapture.** Model dismantling processes and various recycling flows downstream.
3. **Create the best recycling plan.** Plan the end-to-end flows across your recycling network while considering capacities, constraints and transportation.
4. **Trace and monitor.** Get full traceability and monitoring of products across the supply chain.
5. **Reduce risk and maintain compliance with regulations.** Use control tower functionality for insights and reporting.
6. **Streamline the re-manufacturing process.** Minimize the direct purchase and manufacture of new components.

Control tower

A cockpit for critical data checks, including key performance indicators, against regulatory compliance and automatic exceptions alerts.



Inventory planning

Built-in network modeling, synchronization strategies, differentiated service levels management and replenishment rules.

Reverse logistics

Real-time reverse supply chain data inputs for dismantling bills of materials, dismantling routes, re-manufacturing routes and push flows.

Optimize transportation load building across the supply chain

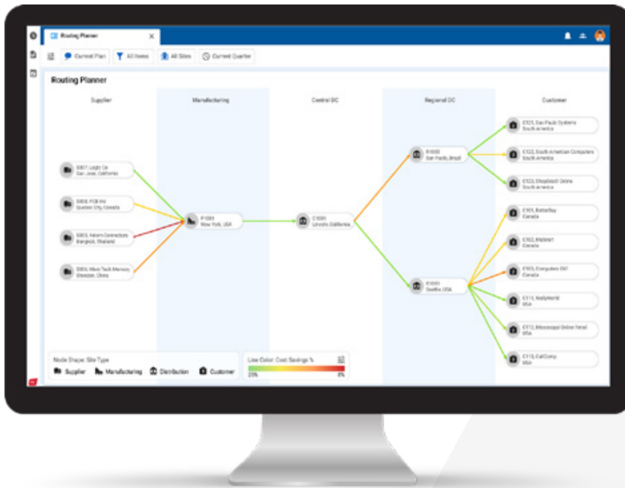
With Kinaxis Transportation Load Optimizer by 4flow, Kinaxis can help customers gain an accurate view of their rail, ocean, air and truck load transportation costs by considering transportation variables such as carrier rates and inventory costs to help planners make confident, profitable supply chain decisions.

4FLOW

This RapidResponse solution extension's optimization algorithms are based on real-world constraints, including freight rates and actual transportation capacities, for actionable planning results. Kinaxis Transportation Load Optimizer reduces transportation spend by "preponing" and postponing shipments to consolidate orders and create fuller, more efficient loads. It also reduces freight spend and increases capacity utilization by creating fuller, more efficient loads, resulting in significantly reduced freight spend and CO_2 emissions for greater sustainability.

Benefits

1. **Create efficient transportation loads.** Adjust orders into physical and shippable loads considering real-world logistics network characteristics.
2. **Increase agility.** Optimize and maximize transportation capacities from a strategic level down to the operational level.
3. **Take control.** Schedule transportation right down to the part number level.
4. **Empower planners.** Forecast full transportation loads and less-than-full transportation loads in the short and medium term.
5. **Reduce risk.** Anticipate freight costs when calculating what-next scenarios in the S&OP process.

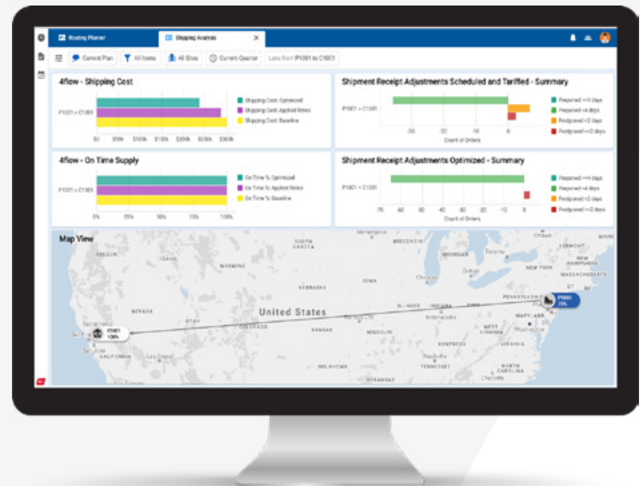


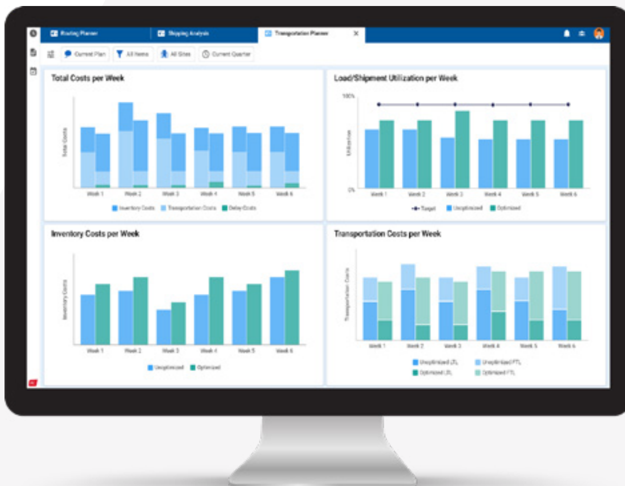
Routing planner

Get a complete view of the transportation network to quickly see how shipments are transported on different routes from suppliers to the end customer. Identify what lanes have the longest lead time or highest percentage of cost savings.

Shipping analysis

See the difference in price between the baseline, 4flow's transportation analysis and the shipping cost after optimization – so you can see how many shipments were "preponed" and postponed to achieve load consolidation and optimal cost results.





Optimized cost dashboard

The Transportation Planner allows quick comparison of costs before and after optimization. Identify how load utilization, inventory costs, transportation costs and total cost are impacted in a selected time frame.

Consolidated Financial Statements, Years Ended December 31, 2020 and 2019

Consolidated Financial Statements of

Kinaxis Inc.

Years ended December 31, 2020 and 2019

(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, 2020 and December 31, 2019
- 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, 2020 and December 31, 2019, 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.

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Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the year ended December 31, 2020. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We have determined the matters described below to be the key audit matters to be communicated in our auditors' report.

Allocation of the transaction price to multiple performance obligations in contracts with customers

Description of the matter

We draw attention to Notes 2(f) and 3(b) to the financial statements. The Entity's contracts with customers often include the delivery of multiple products and services, which are generally capable of being distinct and accounted for as separate performance obligations. The accounting for a contract or contracts with a customer that contain multiple performance obligations requires the Entity to allocate the contracts or contracts' transaction price to the identified distinct performance obligations. The allocation of the transaction price requires significant judgment and estimates relating to the determination of the standalone selling price ("SSP") for each distinct performance obligation. The methodology used to determine the SSP depends on the nature of the products and services and how they are priced in contracts with customers. This allocation affects the amount and timing of revenue recognized for each performance obligation.

Why the matter is a key audit matter

We identified the allocation of the transaction price to multiple performance obligations in contracts with customers as a key audit matter. There was a significant risk of material misstatement relating to the methodology used to determine SSP for each distinct performance obligation within a contract or contracts with a customer. In addition, significant auditor judgment was required to evaluate the results of our audit procedures due to the significant judgments and estimates associated with the determination of the SSP.

How the matter was addressed in the audit

The primary procedures we performed to address this key audit matter included the following:

We evaluated the methodology used to determine the SSP by comparing it to pricing patterns in customer contracts, historical methodologies used by the Entity, and general practices in the Entity's industry.

For a selection of new customer contracts with multiple performance obligations, we examined the key terms and assessed the allocation of the transaction price to each distinct performance obligation based on its respective SSP derived from the underlying methodology.

Initial measurement of customer relationships and technology acquired in the Rubikloud Technologies, Inc. business combination

Description of the matter

We draw attention to Notes 2(f), 3(o) and 4 to the financial statements. On July 2, 2020, the Entity acquired 100% of the outstanding shares of Rubikloud Technologies, Inc. and its subsidiaries (collectively, "Rubikloud") in a business combination. The Entity's intangible assets consist of customer relationships and technology acquired in a business combination. These intangible assets are recorded at their fair value at the acquisition date. The acquisition date fair value of the customer relationships and technology was $2,800 thousand and $10,700 thousand, respectively. The Entity estimates the fair value of customer relationships and technology acquired in a business combination based on the income approach. The income approach is a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues attributable to acquired customer relationships or technology, customer attrition rate, technology migration rate, future expenses, and discount rates.

Why the matter is a key audit matter

We identified the evaluation of the initial measurement of the customer relationships and technology acquired in the Rubikloud business combination as a key audit matter. This matter represented a significant risk of material misstatement given the magnitude of the intangible assets, and the income approach included significant assumptions for which there was limited observable market information. Significant auditor judgment was required due to the high degree of subjectivity and estimation uncertainty within the significant assumptions used to determine the fair value of the intangible assets at the acquisition date.

How the matter was addressed in the audit

The primary procedures we performed to address this key audit matter included the following:

We evaluated the appropriateness of the future revenues and expenses, customer attrition rate, and technology migration rate assumptions by considering past performance, industry data, and assessing against comparable companies.

We involved valuation professionals with specialized skills and knowledge, who assisted in assessing the appropriateness of the discount rates by comparing the Entity's inputs to the discount rates to publicly available data for comparable entities.

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 generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the 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.
- Determine, from the other matters communicated with those charged with governance, those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our auditors' report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants
The engagement partner on the audit resulting in this auditors' report is Anuj Madan.

Ottawa, Canada

March 3, 2021

Kinaxis Inc.

Consolidated Statements of Financial Position

(Expressed in thousands of USD)

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 182,958	$ 182,284
Short-term investments	30,180	30,319
Trade and other receivables (note 5)	82,883	80,623
Investment tax credits recoverable (note 19)	1,109	–
Prepaid expenses	9,264	6,534
	306,394	299,760
Non-current assets:		
Property and equipment (note 6)	30,746	25,704
Right-of-use assets (note 7)	15,722	8,671
Contract acquisition costs (note 8)	16,484	15,497
Unbilled receivables (note 5)	2,013	249
Other receivables	752	713
Deferred tax assets (note 19)	2,308	149
Investment tax credits recoverable (note 19)	980	–
Intangible assets (note 9)	13,023	–
Goodwill (note 10)	39,988	–
	$ 428,410	$ 350,743
Liabilities and Shareholders' Equity		
Current liabilities:		
Trade payables and accrued liabilities (note 11)	$ 33,030	$ 20,770
Deferred revenue (note 12)	94,275	83,673
Lease obligations (note 13)	4,554	2,288
	131,859	106,731
Non-current liabilities:		
Lease obligations (note 13)	12,065	6,818
Deferred tax liabilities (note 19)	2,729	7,092
	14,794	13,910
Shareholders' equity:		
Share capital (note 14)	173,104	140,961
Contributed surplus	35,846	30,392
Accumulated other comprehensive loss	(20)	(348)
Retained earnings	72,827	59,097
	281,757	230,102
	$ 428,410	$ 350,743

See accompanying notes to consolidated financial statements.

On behalf of the Board of Directors:

(signed) John (Ian) Giffen Director *(signed) Betsy Rafael* 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)

		2020		2019
Revenue (note 16)	$	224,189	$	191,549
Cost of revenue		70,131		53,850
Gross profit		154,058		137,699
Operating expenses:				
Selling and marketing		52,630		44,270
Research and development		47,420		34,125
General and administrative		33,232		26,852
		133,282		105,247
		20,776		32,452
Other income (expense):				
Foreign exchange loss		(196)		(226)
Net finance and other income		890		3,037
		694		2,811
Profit before income taxes		21,470		35,263
Income tax expense (note 19):				
Current		5,714		9,015
Deferred		2,026		2,917
		7,740		11,932
Profit		13,730		23,331
Other comprehensive income (loss):				
Items that are or may be reclassified subsequently to profit or loss:				
Foreign currency translation differences - foreign operations		328		(29)
Total comprehensive income	$	14,058	$	23,302
Basic earnings per share	$	0.51	$	0.89
Weighted average number of basic Common Shares (note 15)		26,716,027		26,180,034
Diluted earnings per share	$	0.49	$	0.87
Weighted average number of diluted Common Shares (note 15)		28,138,911		26,967,805

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 income (loss)	Retained earnings	Total equity
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 14)	–	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
Profit	–	–	–	13,730	13,730
Other comprehensive income	–	–	328	–	328
Total comprehensive income	–	–	328	13,730	14,058
Share options exercised	27,187	(6,807)	–	–	20,380
Restricted share units vested	4,956	(4,956)	–	–	–
Share based payments (note 14)	–	17,217	–	–	17,217
Total shareholder transactions	32,143	5,454	–	–	37,597
Balance, December 31, 2020	$ 173,104	$ 35,846	$ (20)	$ 72,827	$ 281,757

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)

		2020		2019
Cash flows from operating activities:				
Profit	$	13,730	$	23,331
Items not affecting cash:				
Depreciation of property and equipment and right-of-use assets (note 18)		14,335		11,908
Amortization of intangible assets (note 18)		1,227		–
Share-based payments (note 14)		17,217		13,367
Net finance income		(890)		(3,037)
Income tax expense (note 19)		7,740		11,932
Investment tax credits recoverable (note 19)		(2,089)		–
Change in operating assets and liabilities (note 20)		10,492		(9,161)
Interest received		1,761		3,653
Interest paid		(674)		(531)
Income taxes paid		(3,379)		(14,863)
		59,470		36,599
Cash flows used in investing activities:				
Acquisition of businesses, net of cash acquired (note 4)		(61,767)		–
Purchase of property and equipment (note 6)		(14,439)		(11,719)
Purchase of short-term investments		(110,616)		(60,108)
Redemption of short-term investments		110,558		85,108
		(76,264)		13,281
Cash flows from financing activities:				
Payment of lease obligations (note 13)		(3,742)		(2,674)
Common shares issued on exercise of stock options		20,380		8,751
		16,638		6,077
Increase (decrease) in cash and cash equivalents		(156)		55,957
Cash and cash equivalents, beginning of year		182,284		126,144
Effects of exchange rates on cash and cash equivalents		830		183
Cash and cash equivalents, end of year	$	182,958	$	182,284

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, 2020 and 2019 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 registered offices in the United States; Japan; Hong Kong; The Netherlands; South Korea; United Kingdom; Singapore; France; Ireland; Germany; India; and 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 includes the accounts of Kinaxis Inc. and its wholly-owned subsidiaries, outlined in Note 24.

The consolidated financial statements were authorized for issue by the Board of Directors on March 3, 2021.

(b) Comparative figures:

Certain comparative figures have been adjusted for the year ended December 31, 2019. Lease security deposits previously reported with the current portion of trade and other receivables have been classified as long-term. This adjustment was not considered material and did not affect the Company’s consolidated revenue or consolidated profit.

(c) 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.

(d) 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.

2. Basis of preparation (continued):

(e) Foreign currency:

Foreign currency transactions

The financial statements of the Company are measured using USD as the functional currency. The functional currency of Kinaxis' significant wholly-owned subsidiaries is outlined in Note 24. 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 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. 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.

(f) 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 include, but are not limited to, allocation of the transaction price to multiple performance obligations in contracts with customers, recognition of deferred tax assets, valuation of trade and other receivables, valuation of share-based payments, the fair value of contingent consideration and valuation of intangible assets acquired in business combinations. 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.

2. Basis of preparation (continued):

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

The continuing uncertainty around the outbreak of the novel coronavirus ("COVID-19") pandemic required the use of judgments and estimates in the preparation of the consolidated financial statements for the year ended December 31, 2020. The future impact of COVID-19 uncertainties could generate, in future reporting periods, a significant impact to the reported amounts of assets, liabilities, revenue and expenses in these and any future consolidated financial statements. Examples of accounting estimates and judgments that may be impacted by the pandemic include, but are not limited to: revenue recognition, impairment of goodwill and intangible assets, allowance for expected credit losses, and provisions.

Allocation of the transaction price to multiple performance obligations in contracts with customers

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 judgment. In general, the Company's professional services are capable of being distinct as they could be performed by third party service providers and do not involve significant customization of the licensed software.

The allocation of the transaction price requires significant judgment and estimates relating to the determination of the standalone selling price ("SSP") for each distinct performance obligation. The methodology used to determine the SSP depends on the nature of the products and services and how they are priced in contracts with customers. This allocation affects the amount and timing of revenue recognized for each performance obligation. In order to determine the SSP of promised products or services, we conduct a regular analysis to determine whether various products or services have an observable SSP. If the Company does not have an observable SSP for a particular product or service, then SSP for that particular good or service is estimated using reasonably available information and maximizing observable inputs with approaches including historical pricing, cost plus a margin, adjusted market assessment, and the residual approach. 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.

2. Basis of preparation (continued):

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

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, forfeiture rate, 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 14.

Contingent consideration

The Company measures the contingent consideration payable in a business combination at the estimated fair value at each reporting date. The fair value is estimated based on the range of possible outcomes and Management's assessment of the likelihood of each outcome.

Fair value of acquired intangible assets

The Company estimates the fair value of customer relationships and technology acquired in a business combination based on the income approach. The income approach is a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues attributable to acquired customer relationships or technology, customer attrition rates, technology migration rate, future expenses, and discount rates.

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 transaction price the Company expects to receive in exchange for the products or services. The Company's contracts with customers often include the delivery of multiple products and services, which are generally capable of being distinct and accounted for as separate performance obligations. The accounting for a contract or contracts with a customer that contain multiple performance obligations requires the Company to allocate the contract or contracts' transaction price to the identified distinct 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 revenue is 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.

3. Significant accounting policies (continued):

(b) Revenue recognition (continued):

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 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.

3. Significant accounting policies (continued):

(c) Financial instruments (continued):

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.

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.

3. Significant accounting policies (continued):

(c) Financial instruments (continued):

De-recognition of financial liabilities

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

(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. 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").

3. Significant accounting policies (continued):

(f) Property and equipment (continued):

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.

(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 right-of-use 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.

3. Significant accounting policies (continued):

(g) Leases (continued):

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.

(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.

3. Significant accounting policies (continued):

(k) Income taxes (continued):

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 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.

Uncertain tax positions

The Company periodically evaluates the positions taken in its tax returns with respect to situations in which applicable tax rules may be subject to interpretations. The Company establishes provisions related to tax uncertainties where appropriate, based on an estimate of the amount ultimately will be paid to the tax authorities.

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.

3. Significant accounting policies (continued):

(k) Income taxes (continued):

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 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.

3. Significant accounting policies (continued):

(n) Business combinations:

The Company accounts for business combinations using the acquisition method. Goodwill arising on acquisitions is measured as the fair value of the consideration transferred less the net recognized amount of the estimated fair value of identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. Transaction costs that the Company incurs in connection with a business combination are expensed as incurred.

The Company uses its best estimates and assumptions to reasonably value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, and these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with a corresponding offset to goodwill. Upon conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in profit or loss.

(o) Acquired intangible assets:

The Company's intangible assets consist of customer relationships and technology acquired in a business combination. These intangible assets are recorded at their fair value at the acquisition date. The Company uses the income approach to value acquired technology and customer relationships intangible assets, which are the two material intangible asset categories reported in the financial statements.

The income approach is a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. The discounted cash flow ("DCF") is the methodology used, which is a form of the income approach that begins with a forecast of the annual cash flows a market participant would expect the subject intangible asset to generate over a discrete projection period. The future cash flows for each of the years in the discrete projection period are then converted to their present value equivalent using a rate of return appropriate for the risk of achieving the intangible assets' projected cash flows, again, from a market participant perspective. The present value of the future cash flows are then added to the present value of the residual value of the intangible asset (if any) at the end of the discrete projection period to arrive at a conclusion with respect to the estimated fair value of the subject intangible asset. After initial recognition, intangible assets are measured at cost less any accumulated amortization and impairment losses.

Intangible assets with finite useful lives are amortized on a straight-line basis over their estimated useful lives. The estimated useful life for customer relationships is three to six years and the useful life for technology is seven years. Amortization methods, useful lives and residual values are reviewed at each financial year end and adjusted prospectively if appropriate.

3. Significant accounting policies (continued):

(o) Acquired intangible assets (continued):

Intangible assets with finite useful lives are tested for impairment whenever there is an indication that the asset may be impaired. An impairment loss is recognized if the recoverable amount of the asset is less than the carrying amount. The recoverable amount is the higher of fair value less costs to sell and value in use.

(p) Goodwill:

Goodwill arises from a business combination as the excess of the consideration transferred over the identifiable net assets acquired. After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

For the purpose of impairment testing, goodwill is allocated to the cash-generating unit that is expected to benefit from the related business combination. The Company as a whole has been assessed as a single CGU. The CGU is tested for impairment annually on December 31 and whenever there is an indication that the CGU may be impaired. The impairment testing methodology is based on a comparison between the recoverable amount (higher of fair value less costs to sell and value-in-use of the CGU) and the net asset carrying value (including goodwill). If the recoverable amount of the CGU is less than the carrying amount of the CGU, the impairment loss is first allocated to reduce the carrying amount of any goodwill allocated to the CGU and then to the other assets of the CGU. An impairment loss is recognized immediately in profit or loss. Any impairment loss in respect of goodwill is not reversed.

4. Business combinations:

Prana Consulting, Inc.

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 operating results of Prana have been consolidated into the Company’s results subsequent to the acquisition date. The Company incurred acquisition-related costs of $204 which have been recorded in general and administrative expense.

The purchase price consists of cash consideration of $3,206 and contingent consideration with an estimated fair value of $800, resulting in total consideration of $4,006. The contingent consideration payable is measured at the estimated fair value at each reporting date.

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 under this arrangement is between $150 and $1,000.

4. Business combinations (continued):

Prana Consulting, Inc. (continued):

The following table presents the purchase price allocation at the acquisition date:

Assets acquired and liabilities assumed:		
Cash and cash equivalents	$	625
Trade and other receivables		701
Land		18
Customer relationships		750
Accounts payable and accrued liabilities		(1,747)
		347
Goodwill		3,659
Total consideration	$	4,006

The trade and other receivables comprise gross contractual amounts of $636 which have been fully collected.

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 entire goodwill is deductible for tax purposes.

Since the date of acquisition, the acquisition had no significant impact on revenue and net earnings for the year ended December 31, 2020. Pro forma results of operations for this acquisition have not been presented as they are not considered material to our consolidated result of operations.

Rubikloud Technologies, Inc.

On July 2, 2020, the Company acquired 100% of the outstanding shares of Rubikloud Technologies, Inc. and all of its subsidiaries ("Rubikloud") in exchange for cash. Rubikloud is a provider of artificial intelligence solutions that automate supply chain prescriptive analytics and decision-making in the retail and consumer packaged goods industries. The operating results of Rubikloud have been consolidated into the Company's results subsequent to the acquisition date. The Company incurred acquisition-related costs of $1,009 which have been recorded in general and administrative expense.

The purchase price consists of cash consideration of $60,000, adjusted for Rubikloud's closing cash and indebtedness at the date of acquisition and subject to post-closing working capital adjustments, resulting in a total consideration of $60,358.

4. Business combinations (continued):

Rubikloud Technologies, Inc. (continued):

The following table presents the purchase price allocation at the acquisition date:

Assets acquired and liabilities assumed:		
Cash and cash equivalents	$	1,172
Trade and other receivables		1,077
Prepaid expenses		153
Contract acquisition costs		81
Property and equipment		322
Right-of-use assets		3,298
Intangible assets:		
Technology		10,700
Customer relationships		2,800
Deferred tax assets		8,929
Trade payables and accrued liabilities		(556)
Deferred revenue		(649)
Lease obligation		(3,298)
		24,029
Goodwill		36,329
Total consideration	$	60,358

The trade and other receivables comprise gross contractual amounts of $452, of which $262 have been fully collected.

The goodwill is primarily attributable to the expected synergies that will result from integrating Rubikloud's offerings with RapidResponse to enhance its demand planning capabilities, and the assembled workforce. The goodwill is not deductible for tax purposes. Since the date of acquisition, the acquisition had no significant impact on revenue and net earnings for the year ended December 31, 2020. Pro forma results of operations for this acquisition have not been presented as they are not considered material to our consolidated result of operations.

Cash flows used in the acquisition of businesses include the total consideration paid, net of cash acquired and contingent consideration.

5. Trade and other receivables:

	December 31, 2020	December 31, 2019
Trade accounts receivable	$ 67,288	$ 65,406
Unbilled receivables	13,800	13,880
Investment tax credits receivable	211	–
Taxes receivable	–	382
Other	1,584	977
	82,883	80,645
Loss allowance	–	(22)
	$ 82,883	$ 80,623

There were no trade and other receivables written off in 2020 (2019 – $2,768).

The following table presents changes in unbilled receivables:

	2020	2019
Balance, beginning of year	$ 14,129	$ 6,865
Amounts transferred to trade accounts receivable from the balance at the beginning of year	(13,654)	(5,614)
Amounts written off	–	(794)
Revenue in excess of billings, net of amounts transferred to trade accounts receivable	15,338	13,672
Balance, end of year	$ 15,813	$ 14,129
Current	$ 13,800	$ 13,880
Non-current	2,013	249

6. Property and equipment:

Cost	Land	Computer equipment	Computer software	Office furniture and equipment	Leasehold improvements	Total property and equipment
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
Additions	18	10,825	275	335	3,326	14,779
Dispositions	–	(14)	–	(37)	(300)	(351)
Effects of movement in exchange rates	–	729	17	8	89	843
Balance, December 31, 2020	$ 18	$ 54,187	$ 3,234	$ 1,154	$ 8,476	$ 67,069

Accumulated depreciation	Land	Computer equipment	Computer software	Office furniture and equipment	Leasehold improvements	Total property and equipment
Balance, December 31, 2018	$ –	$ 13,767	$ 1,059	$ 224	$ 2,943	$ 17,993
Depreciation (note 18)	–	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
Depreciation (note 18)	–	8,420	835	305	672	10,232
Dispositions	–	(14)	–	(37)	(300)	(351)
Effects of movement in exchange rates	–	293	(8)	37	26	348
Balance, December 31, 2020	$ –	$ 29,340	$ 2,317	$ 567	$ 4,099	$ 36,323

Carrying value	Land	Computer equipment	Computer software	Office furniture and equipment	Leasehold improvements	Total property and equipment
December 31, 2019	$ –	$ 22,006	$ 1,452	$ 586	$ 1,660	$ 25,704
December 31, 2020	$ 18	$ 24,847	$ 917	$ 587	$ 4,377	$ 30,746

Additions for the year ended December 31, 2020 include $340 in acquisitions through business combinations, as outlined in note 4, and $2,200 in leasehold improvements in progress related to our new office lease in Ottawa, Canada, as outlined in note 13. There were no proceeds associated with asset dispositions in 2020 (2019 – no proceeds associated with asset dispositions).

7. Right-of-use assets:

	Offices	Data centres	Total right-of-use assets
Balance, January 1, 2019	$ 2,954	$ 5,919	$ 8,873
Additions	203	2,746	2,949
Depreciation (note 18)	(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
Additions	7,034	3,779	10,813
Depreciation (note 18)	(1,780)	(2,323)	(4,103)
Effects of movement in exchange rates	76	265	341
Balance, December 31, 2020	$ 7,317	$ 8,405	$ 15,722

Additions for the year ended December 31, 2020 include $3,298 in right-of-use assets acquired through business combinations, as outlined in note 4.

8. Contract acquisition costs:

	2020	2019
Balance, beginning of year	$ 15,497	$ 13,902
Additions	7,090	5,951
Amortization	(6,229)	(4,356)
Effects on movements in exchange rates	126	–
Balance, end of year	$ 16,484	$ 15,497

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

9. Intangible assets:

	Customer relationships	Technology	Total intangible assets
Balance, December 31, 2019	$ –	$ –	$ –
Additions (note 4)	3,550	10,700	14,250
Amortization (note 18)	(463)	(764)	(1,227)
Balance, December 31, 2020	$ 3,087	$ 9,936	$ 13,023

10. Goodwill:

	2020	2019
Balance, beginning of year	$ –	$ –
Acquisition of Prana Consulting, Inc. (note 4)	3,659	–
Acquisition of Rubikloud Technologies, Inc. (note 4)	36,329	–
Balance, end of year	$ 39,988	$ –

The annual impairment test of goodwill was performed on December 31, 2020 and did not result in an impairment loss.

11. Trade payables and accrued liabilities:

	December 31, 2020	December 31, 2019
Trade accounts payable	$ 5,896	$ 4,285
Accrued liabilities	22,131	13,360
Taxes payable	5,003	3,125
	$ 33,030	$ 20,770

12. Deferred revenue:

	2020	2019
Balance, beginning of year	$ 83,673	$ 78,496
Amounts invoiced and revenue deferred	93,347	82,949
Recognition of deferred revenue included in the balance at the beginning of year	(82,745)	(77,772)
Balance, end of year	$ 94,275	$ 83,673

13. Lease obligations:

The Company's leases are for office space and data centers. These leases contain no renewal options 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.

	December 31, 2020	December 31, 2019
Current	$ 4,554	$ 2,288
Non-current	12,065	6,818
Total lease obligations	$ 16,619	$ 9,106

The following table presents the contractual undiscounted cash flows for lease obligations as at December 31, 2020:

Less than one year	$ 5,188
One to five years	12,798
Total undiscounted lease obligations	$ 17,986

Interest expense on lease obligations for 2020 was $674 (2019 – $531). The expense relating to variable lease payments not included in the measurement of lease obligations was $1,077 (2019 – $730). This consists of variable lease payments for operating costs, property taxes, and insurance. Expenses relating to short-term leases were $543 (2019 – $556) and expenses relating to leases of low value assets were not material. Total cash outflow for leases was $6,036 (2019 – $4,491), including $3,742 (2019 – $2,674) of principal payments on lease obligations.

The Company has entered into commitments to lease office space in Ottawa, Canada, and to expand data centres in Montreal, Canada. The office lease in Ottawa is expected to commence in late 2021 and the minimum payments required under this commitment are $44,060 over a fifteen year period. The data center lease expansions in Montreal will commence in January 2021 and July 2021 and the minimum payments required under these commitments are $1,659 over a three to four year period.

14. Share capital:

Authorized

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

Issued

	Common shares	
	Shares	Amount
Shares outstanding, 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, December 31, 2019	26,403,004	$ 140,961
Shares issued from exercised options	618,531	27,187
Shares issued from vested restricted share units	64,387	4,956
Shares outstanding, December 31, 2020	27,085,922	$ 173,104

Stock option plans

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

		2020		2019
	Shares	Weighted average exercise price	Shares	Weighted average exercise price
Options outstanding, beginning of period	2,228,738	$ 44.24	2,089,873	$ 38.32
Granted	626,999	112.85	468,044	57.81
Exercised	(618,531)	32.94	(261,929)	33.41
Forfeited	(8,750)	71.34	(67,250)	54.98
Options outstanding, end of period	2,228,456	$ 68.82	2,228,738	44.24
Options exercisable, end of period	932,258	$ 40.73	1,041,110	30.43

14. Share capital (continued):

The following table presents information about stock options outstanding at December 31, 2020:

	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 $30	148,524	3.09	$ 11.22	148,524	$ 11.22
$30 to $60	1,210,173	4.09	50.04	712,599	44.04
$60 to $90	598,259	3.47	80.05	71,135	69.16
$120 to $150	44,000	4.36	134.68	–	–
$150 to $180	227,500	4.61	164.08	–	–
	2,228,456	3.92	$ 68.82	932,258	$ 40.73

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 (“the Plans”). Stock options granted under the new plans will have an exercise price equal to 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, 2020, there were 498,407 stock options available for grant under the Plans.

In 2020, the Company granted 626,999 options (year ended December 31, 2019 – 468,044) and recorded share-based compensation expense of $10,308 (2019 – $8,271) related to the vesting of options granted in 2020 and previous years. The per share weighted-average fair value of stock options granted during 2020 was $30.77 (2019 – $18.51) 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 0.71% (2019 – 2.45%), an expected life of three to five years (2019 – three to five years), and estimated volatility of 35% (2019 – 38%). The forfeiture rate is estimated at 15% (2019 – 15%) based upon an analysis of actual forfeitures.

14. Share capital (continued):

Share Unit Plan

At December 31, 2020, there were 205,378 share units available for grant under the Share Unit Plan.

In 2020, the Company granted 81,970 restricted share units (“RSU”) (2019 – 70,982). At December 31, 2020, there were 78,305 RSUs outstanding (2019 – 60,722). Each RSU entitles the participant to receive one Common Share. The RSUs generally vest over time in three equal annual tranches. The weighted-average grant date fair value of the RSUs granted during 2020 was $94.04 per unit (2019 – $63.13) using the fair value of a Common Share at time of grant. The Company recorded share-based compensation expense of $6,009 (2019 – $4,196) related to the RSUs.

In 2020, the Company granted 10,842 deferred share units (“DSU”) (2019 – 14,256). At December 31, 2020, there were 55,928 DSUs outstanding (2019 – 45,086). 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 during the 2020 was $83.00 per unit (2019 – $63.13) using the fair value of a Common Share at time of grant. The Company recorded share-based compensation of $900 (2019 – $900) related to the DSUs.

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

	2020	2019
Cost of revenue	$ 1,693	$ 900
Selling and marketing	5,218	5,484
Research and development	3,058	1,574
General and administrative	7,248	5,409
	$ 17,217	$ 13,367

15. Earnings per share:

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

	2020	2019
Issued Common Shares, beginning of year	26,403,004	26,078,181
Effect of shares issued from exercise of options	309,329	98,234
Effect of shares issued from vesting of restricted share units	3,694	3,619
Weighted average number of basic Common Shares	26,716,027	26,180,034
Effect of share options on issue	1,200,057	644,062
Effect of share units on issue	222,827	143,709
Weighted average number of diluted Common Shares	28,138,911	26,967,805

For 2020, 271,500 (2019 – 1,233,608) options were excluded from the weighted average number of diluted common shares as their effect would have been anti-dilutive.

16. Revenue:

The following table presents revenue of the Company:

	2020	2019
SaaS	$ 148,873	$ 118,860
Professional services	45,899	33,549
Subscription term licenses	17,890	26,218
Maintenance and support	11,527	12,922
	$ 224,189	$ 191,549

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, 2020:

	2021	2022	2023 and thereafter	Total
SaaS	$ 144,479	$ 104,877	$ 104,100	$ 353,456
Maintenance and support	12,224	8,313	5,075	25,612
Subscription term licenses	2,183	–	–	2,183
	$ 158,886	$ 113,190	$ 109,175	$ 381,251

17. Personnel expenses:

	2020	2019
Salaries including bonuses	$ 102,423	$ 71,823
Benefits	15,993	11,274
Commissions	8,706	6,190
Share-based payments	17,217	13,367
	$ 144,339	$ 102,654

18. Depreciation and amortization:

The following table presents total depreciation expense of property and equipment and right-of-use assets by function:

	2020	2019
Cost of revenue	$ 8,649	$ 8,384
Selling and marketing	4	4
Research and development	2,755	1,365
General and administrative	2,927	2,155
	$ 14,335	$ 11,908

The following table presents total amortization expense of intangible assets by function:

	2020	2019
Cost of revenue	$ 764	–
General and administrative	463	–
	$ 1,227	–

19. Income tax expense:

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

	2020	2019
Current tax expense		
Current income tax	$ 5,714	$ 9,015
Deferred tax expense		
Origination and reversal of temporary differences	2,026	2,917
	$ 7,740	$ 11,932

19. 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:

	2020	2019
Canadian tax rate	26.50%	26.50%
Expected Canadian income tax expense	$ 5,689	$ 9,345
Increase (reduction) in income taxes resulting from:		
Difference between current and future tax rates and other	40	308
Foreign tax rate differences	40	133
Permanent difference of share-based payments	1,971	2,146
	$ 7,740	$ 11,932

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, 2019	Recognized in profit and loss	Balance at December 31, 2020
Deferred tax assets (liabilities):			
Tax effect of investment tax credits	$ (431)	$ (77)	$ (508)
Intangible property	–	(3,333)	(3,333)
Property and equipment	(3,541)	(375)	(3,916)
Contract acquisition costs	(3,666)	(805)	(4,471)
Share-based payments	1,329	965	2,294
Net operating loss carryforwards	–	8,100	8,100
Other	(634)	2,047	1,413
	$ (6,943)	$ 6,522	$ (421)

The company has net operating loss carryforwards as at December 31, 2020 of $8,100 (2019 – $nil). The Company has investment tax credits available to reduce federal income taxes payable in Canada of $2,089, with $980 classified as a non-current asset at December 31, 2020 (2019 – $nil).

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, 2020 was $21,215 (2019 – $14,913).

19. Income tax expense (continued):

	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)

20. Statement of cash flow:

The following table presents changes in operating assets and liabilities:

	2020	2019
Trade and other receivables	$ (591)	$ (16,776)
Prepaid expenses	(2,516)	(716)
Contract acquisition costs	(775)	(1,566)
Trade payables and accrued liabilities	6,459	4,726
Deferred revenue	7,915	5,171
	$ 10,492	$ (9,161)

21. 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, 2020. As part of the acquisition of Rubikloud, a Standby Letter of Credit has been issued against this facility in the amount of CAD$1.4 million.

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, 2020 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$5.0 million, a borrowing limit applies that is based principally on the Company’s accounts receivable.

22. Financial instruments:

(a) Fair value of financial instruments:

The carrying amounts of short-term 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 and are considered to be Level 1 financial instruments. 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.

(b) Credit risk:

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

	2020	2019
United States	$ 46,935	$ 45,950
Europe	16,849	15,889
Asia	1,920	2,057
Canada	1,584	1,510
	$ 67,288	$ 65,406

The following table presents aging of trade accounts receivable:

	2020	2019
Current	$ 53,190	$ 41,209
Past due:		
0 – 30 days	9,093	17,854
31 – 60 days	3,105	2,453
Greater than 60 days	1,900	3,890
	$ 67,288	$ 65,406

At December 31, 2020, two customers individually accounted for greater than 10% of total trade accounts receivable (December 31, 2019 – one customer). For 2020, no customer individually accounted for greater than 10% of revenue (2019 – no customers).

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

22. Financial instruments (continued):

(b) Credit risk (continued):

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. During the year ended December 31, 2020, the Company did not deem any receivables to be uncollectable (2019 – $2,768 written off). As at December 31, 2020, the Company has not recorded a loss allowance (2019 – $22).

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.

(c) 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, 2020, the Company had cash and cash equivalents and short-term investments totaling $213,138 (2019 – $212,603). Further, the Company has a credit facility as disclosed in Note 21. The Company's trade payables and accrued liabilities are due within 3 months or less.

(d) 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.

22. Financial instruments (continued):

(d) Market risk (continued):

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, and Great British Pound. 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 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, 2020, 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 $2,525 lower (2019 – $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, 2020 In thousands of local currency	USD	CAD	EUR	JPY	GBP
Trade receivables	58,515	6	686	122,257	4,934
Unbilled receivables	12,771	13	3	103,923	5
Other receivables	3,179	(3,145)	505	3,927	8
Trade payables	(2,293)	(1,103)	(2,249)	(107,655)	812
Accrued liabilities	1,751	(22,174)	(1,509)	(167,690)	(659)
	73,923	(26,403)	(2,564)	(45,238)	5,100

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

22. Financial instruments (continued):

(d) Market risk (continued):

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, 2020, the Company has not drawn on the revolving demand facility.

23. 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: the design, development, marketing and sale of supply chain planning software and solutions.

Geographic information

The following table presents external revenue on a geographic basis:

	2020	2019
United States	$ 139,762	$ 125,591
Europe	50,128	41,275
Asia	29,548	19,584
Canada	4,751	5,099
	$ 224,189	$ 191,549

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

	2020	2019
Canada	$ 16,800	$ 14,020
United States	6,044	5,851
Asia	4,710	3,450
Europe	3,192	2,383
	$ 30,746	$ 25,704

23. Segmented information (continued):

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

	2020	2019
Canada	$ 6,413	$ 2,984
United States	2,220	2,743
Asia	5,843	2,097
Europe	1,246	847
	$ 15,722	$ 8,671

24. Related party transactions:

Details of the Company's significant subsidiaries at December 31, 2020 and 2019 are as follows:

Name of subsidiary	Principal activity	Place of incorporation and operation	Functional Currency	Proportion of ownership interest and voting power held	
				2020	2019
Kinaxis Asia Limited	Sales	Hong Kong	USD	100%	100%
Kinaxis Corp.	Sales	State of Delaware, USA	USD	100%	100%
Kinaxis Europe B.V.	Sales	The Netherlands	EUR	100%	100%
Kinaxis Japan K.K.	Sales	Japan	JPY	100%	100%
Kinaxis Korea Limited	Sales	South Korea	KRW	100%	100%
Kinaxis UK Limited	Sales	United Kingdom	GBP	100%	100%
Kinaxis Singapore Pte. Ltd.	Sales	Singapore	USD	100%	100%
Prana Consulting Services Private Ltd.	Support	India	INR	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:

	2020	2019
Salary and other short-term benefits	$ 6,034	$ 5,135
Share-based payments	16,403	10,061
	$ 22,437	$ 15,196

25. 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.

The Company has access to a revolving demand facility which bears interest at bank prime per annum which has not been drawn as at December 31, 2020. The terms of the facility require the Company to meet certain financial covenants which are monitored by senior management to ensure compliance, as outlined in note 21.

26. 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 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.

26. Contingencies (continued):

c) The Company is involved in litigation with a competitor, whereby the competitor has made certain allegations concerning patent infringement. The Company will accrue a liability if the Company determines that it is more likely than not that a present obligation exists that will result in an outflow of resources and the amount of the obligation can be reliably estimated. Significant judgment is required in both the determination of probability and the determination as to whether an amount of an obligation is reliably estimable. The Company has assessed that its defense against these allegations will more likely than not be successful and a present obligation does not exist. At December 31, 2020, the Company has not recorded a liability regarding these allegations.

The Company is required to apply judgment with respect to any potential loss or range of loss in connection with litigation. The outcome of litigation and claims is intrinsically subject to considerable uncertainty.

Management's Discussion and Analysis for the Year Ended December 31, 2020

KINAXIS INC.

MANAGEMENT’S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED DECEMBER 31, 2020

DATED: March 3, 2021

*Unless the context requires otherwise, all references in this management's discussion and analysis (the "**MD&A**") to "Kinaxis", "we", "us", "our" and the "Company" refer to Kinaxis Inc. and its subsidiaries as constituted on December 31, 2020. This MD&A has been prepared with an effective date of March 3, 2021.*

*This MD&A for the year ended December 31, 2020 should be read in conjunction with our annual audited consolidated financial statements and the related notes thereto as at and for the year ended December 31, 2020 and the annual audited consolidated financial statements for the year ended December 31, 2019. The financial information presented in this MD&A is derived from our annual audited consolidated financial statements prepared in accordance with International Financial Reporting Standards ("**IFRS**") as issued by the International Accounting Standards Board ("**IASB**"). This MD&A contains forward-looking statements that involve risks, uncertainties and assumptions, including statements regarding anticipated developments in future financial periods and our future plans and objectives. There can be no assurance that such information will prove to be accurate, and readers are cautioned not to place undue reliance on such forward-looking statements. See "Forward-Looking Statements".*

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

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

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

Non-IFRS Measures

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

Adjusted profit, Adjusted EBITDA and Adjusted diluted earnings per share should not be considered a substitute for or in isolation from measures prepared in accordance with IFRS. These non-IFRS measures should be read in conjunction with our annual audited consolidated financial statements and the related notes thereto as at and for the year ended December 31, 2020. 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 our people;
- our expectations about advancement in our technologies;
- our competitive position and our expectations regarding competition;
- regulatory developments and the regulatory environments which we operate;
- anticipated trends and challenges in our business and the markets in which we operate; and
- expected impact of COVID-19 on the Company's future operations and performance.

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.

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're 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 and privacy 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 or privacy relating to customer information.
- Privacy and security concerns, including evolving laws and regulations in these areas, could adversely affect our business and operating results.
- We may incur operating losses in the future.
- If we're unable to develop new products and services, sell our solutions into new markets or further penetrate our existing markets, our revenue will not grow as expected.
- If we do not maintain the compatibility of our solutions with third party applications that our customers use in their business processes, demand for our solutions could decline.
- If we're unable to assess and adapt to rapid technological developments, it could impair our ability to remain competitive.
- We enter into service level agreements with all our customers. If we do not 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.
- Events that are out of our control, such as a geopolitical crisis, widespread outbreak of an illness or other health issue, a natural disaster or terrorist attack could negatively affect various aspects of our business.
- 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.
- If a third party makes an assertion that we're infringing its intellectual property, it could subject us to costly and time-consuming litigation or expensive licenses which could harm our business.
- We participate in highly competitive markets, 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're unable to retain our key employees, our business would be harmed and we might not be able to implement our business plan successfully.
- Our growth depends on the continued development of our direct sales force.
- As we increase our emphasis on our partner ecosystem, 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 do not balance our expenses with our revenue forecasts, our results could be harmed.

- Interruptions or delays in the services provided by third parties 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 North America, our business will be susceptible to risks associated with international operations.
- Our business may suffer if we do not develop widespread brand awareness cost-effectively.
- Our strategy includes pursuing acquisitions and our potential inability to successfully integrate newly-acquired companies or businesses may adversely affect our financial results.
- Efforts to reduce climate change could affect our sales and financial results.
- 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.
- The market price of our common shares may be volatile.
- We may issue additional common shares in the future which may dilute our shareholders' investments.

These risks are described in further detail in the section entitled "Risk Factors" in our most recently filed Annual Information Form. Although the forward-looking statements contained in this MD&A are based upon assumptions management believes to be reasonable, these risks, uncertainties, assumptions and other factors could cause our actual results, performance, achievements and experience to differ materially from our expectations, future results, performances or achievements expressed or implied by the forward-looking statements. In light of these risks, uncertainties and assumptions, readers should not place undue reliance on forward-looking statements.

On March 3, 2020, COVID-19 was characterized as a pandemic by the World Health Organization. The spread of COVID-19 has significantly impacted the global economy. We are closely monitoring the effects and impact on our operations and financial performance; however, the extent of impact is difficult to fully predict at this time due to the rapid and ongoing evolution of this uncertain situation. We continue to conduct business with substantial modifications to employee travel, employee work locations and virtualization or cancellation of all sales and marketing events, along with substantially modified interactions with customers and suppliers, among other modifications. We will continue to actively monitor the impact of the COVID-19 pandemic on all aspects of our business, including customer purchasing decisions, and may take further actions that alter our business operations as may be required by governments, or that we determine are in the best interest of our employees, customers, partners, suppliers, and shareholders.

While the COVID-19 pandemic has not had a significant impact on our financial results to date, some customers and prospects have implemented expanded contract approval processes or have deferred projects. As a result, we have not been able to close new subscription business at the levels we expected, pre-pandemic. Further, while net

subscription revenue retention remains over 100%, we have experienced some and may experience other instances where customers are not in a position to renew their subscription agreements, given the current business environment. It is uncertain and difficult to predict what the full potential effects the COVID-19 pandemic may have on our business including the effects on our customers and prospects, or our financial results and our ability to successfully execute our business strategies and initiatives. Due to our subscription-based business model, any impact may not be fully reflected in our financial results until future periods.

Overview

Kinaxis delivers unparalleled supply chain agility and resiliency to supply chains across the globe. We are revolutionizing planning across integrated business planning and the digital supply chain with fast, confident decision-making. We combine human intelligence with AI and concurrent planning to help companies plan for any future, monitor risks and opportunities and respond in real time. Our subscription-based, industry-proven, software applications and extensible, cloud-based RapidResponse platform empowers planners, business leaders and IT professionals to know sooner, act faster and remove waste, so they can make the best decisions for their business, their customers and the environment.

Our target market is large global enterprises that have significant unresolved supply chain challenges, across seven vertical markets comprising high technology and electronics, aerospace and defense, life sciences and pharmaceuticals, industrial, automotive, consumer products and retail. Our customers include many leading organizations like Merck & Co., Ford Motor Company, Proctor & Gamble, and Schneider Electric. We believe this market is growing as a result of a number of factors, including increased complexity and globalization of supply chains, shifting regulations, increasing customer expectations, an inflexibility of current systems to deal with constant disruption and change in supply chains, and competitive pressures on our customers.

We sell our product using a subscription-based model, with the product being delivered from the cloud in the vast majority of cases, from locations we manage within leased third-party data center facilities. Revenue from product delivered from the cloud is recorded as Software as a Service ("**SaaS**") revenue. Certain customers have licensed our subscription product on an on-premise basis or have retained the option to take the hosted software on-premise as a hybrid subscription. Under IFRS 15, for on-premise and hybrid customers the deemed software component for the applicable subscription term is recognized as "subscription term license revenue" upon initiation or renewal of the subscription contract term, with the remaining maintenance and support component and hosting services for hybrid subscriptions recognized ratably over the term as "maintenance and support revenue". Our agreements with customers are typically three 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. The 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. We also provide professional services for implementation and configuration of the product, as well as ongoing technical services and training. Professional services are typically billed on a time and material basis.

We have established a consistent financial track record of strong revenue growth, solid earnings performance and cash generation. Our SaaS revenue growth is driven both by contracts with new customers and expansion of our solution within our existing customer base. Approximately two-thirds of SaaS revenue growth has been derived from new customers. Subscription term license revenue is generally driven by the timing of renewals of the underlying on-premise customer contracts. Our combined net revenue retention from both SaaS and on-premise subscriptions is greater than 100%, reflecting our longer term contract structure and strong renewal history.

For the three months and year ended December 31, 2020, our SaaS revenue growth was 24% and 25%, respectively (2019 – 26% and 22%); subscription term license revenue was $1.9 million and $17.9 million, respectively (2019 – $12.1 million and $26.2 million); and total revenue was $54.9 million and $224.2 million, respectively (2019 - $56.3 million and $191.5 million). For the three months and year ended December 31, 2020, our Adjusted EBITDA was 11% and 24% of revenue (2019 – 32% and 30%). Our ending cash and short-term investment balance was $213.1 million (December 31, 2019 – $212.6 million).

For the three months and year ended December 31, 2020, our ten largest customers accounted for 31% and 27% of our total revenues (2019 – 39% and 32%) with no 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, typically as much as 18 months. 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 supported by our system integrator, value added reseller and other service partners.

We continue to invest in our partnerships both from a sales and product implementation perspective. We work with global and regional system integrators, which are able to positively influence the decision making process at major target customers and help customers realize end-to-end supply chain optimization by implementing our industry-leading concurrent planning solution. Such partners include Accenture, Deloitte, EY, Genpact, mSE Solutions, Crimson and Co., and Cognizant. In Asia we work with certain organizations as value added reseller partners, as that is frequently the most effective way to engage accounts in those markets. Our referral partners direct new opportunities to us under a business arrangement, Finally, we work with solution extension partners, such as 4flow, OCYO Consulting, PlanetTogether, project44 and Resilience360 to increase the value that customers gain from RapidResponse. These partners, which we work with under revenue sharing agreements, deliver digital inputs or domain-specific applications that leverage the power of concurrent planning and extend the capabilities of the platform.

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, most notably due to COVID-19 in recent periods, 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 are headquartered in Ottawa, Ontario. We have subsidiaries located in the United States, the Netherlands, the United Kingdom, Hong Kong, Singapore, France, Germany and Ireland and subsidiaries and offices in Seoul, South Korea; Tokyo, Japan; and Chennai, India. We continue to expand our operations internationally. For the three months and year ended December 31, 2020, 62% and 64% of our revenues were derived from North American customers (2019 – 71% and 68%) and our remaining revenues were derived from European and Asian customers.

On January 31, 2020, we acquired 100% of the outstanding shares of Prana Consulting, Inc. and all of its subsidiaries (“Prana”) in exchange for cash consideration of $3,206 and contingent consideration with an estimated fair value of $800, resulting in a total consideration of $4,006. Prana provides consulting services for implementation of our software.

On July 2, 2020, we acquired 100% of the outstanding shares of Rubikloud Technologies Inc. and all of its subsidiaries (“Rubikloud”) in exchange for a total consideration of $60,358 in cash. Rubikloud is a provider of artificial intelligence solutions that automate supply chain prescriptive analytics and decision-making in the retail and consumer packaged goods industries. Rubikloud's advanced artificial intelligence-based demand forecasting capabilities immediately enhance solutions for CPG customers and prospects and provides Kinaxis an entry point into the enterprise retail industry. The addition of Rubikloud’s team leverages artificial intelligence and machine learning capabilities across the Kinaxis RapidResponse platform.

Key Performance Indicators

The key performance indicators that we use to manage our business and evaluate our financial results and operating performance are: SaaS revenue, 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.

Recurring revenue model

Our subscription customers generally enter into three to five year agreements which are paid annually in advance. SaaS and on-premise subscription agreements are generally subject to price increases upon renewal reflecting both

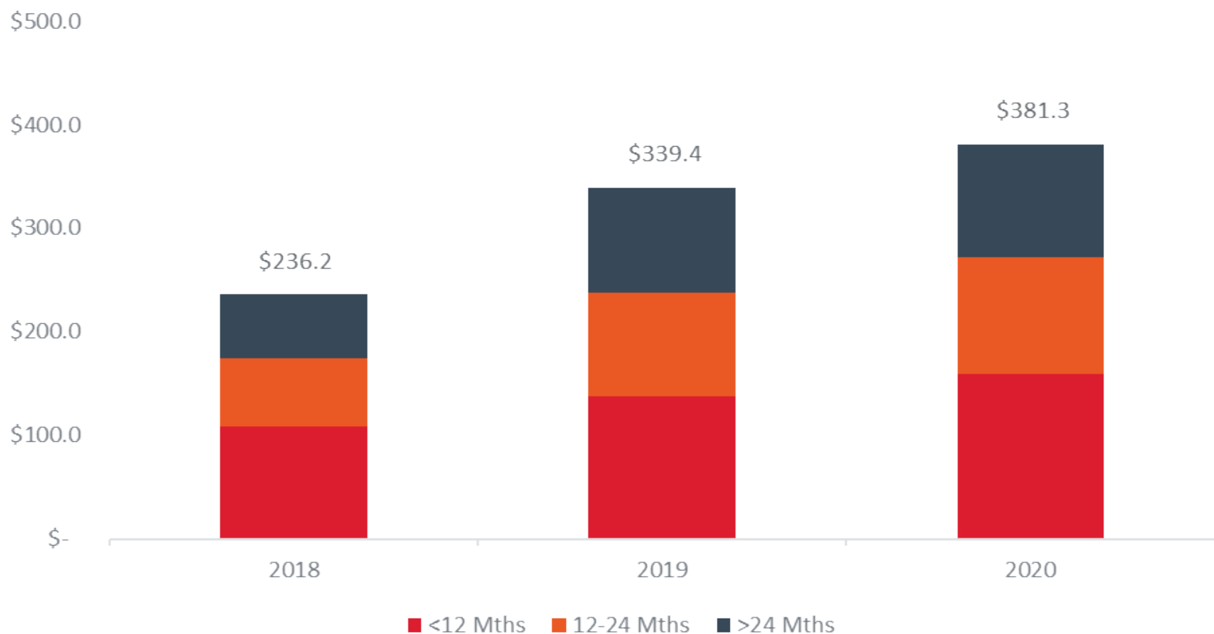
inflationary increases and the additional value provided by our solutions. In addition to the expected increase in SaaS and subscription term license revenue from price increases over time, existing customers may subscribe for additional applications, users or sites during the terms of their agreements.

Our subscription model results in a high proportion of recurring revenue, which includes SaaS and 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 or renewal (as a subscription term license). The amount and timing of any recurring subscription term license revenue from on-premise subscription agreements is subject to the timing and length of renewal term of the agreement.

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 annual 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 expected annual SaaS revenue is recognized from customer contracts that are in place at the beginning of the year 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.

Our business model continues to focus on delivering long-term value to our customers. As a result, we typically enter into three to five year agreements with our customers. Secured subscription backlog represents the total revenue expected to be recognized in the future related to performance obligations that are unsatisfied or partially unsatisfied at period end. As at December 31, 2020, secured subscription backlog amounts to $381.3 million, including $353.5 million in SaaS revenue (December 31, 2019 - $339.4 million and $310.6 million).



Significant Factors Affecting Results of Operations

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

Revenue

Our revenue consists of SaaS revenue, subscription term license revenue, professional services revenue, and maintenance and support revenue.

SaaS revenue is primarily comprised of fees for provision of RapidResponse as software as a service in our hosted, cloud environment. This includes hosting services and maintenance and support for the solution over the term of the contract when the product is provided from the cloud under a SaaS arrangement.

Subscription term license revenue is comprised of fees for the implied software component for on-premise subscriptions, which is recognized as revenue upon term commencement.

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 is comprised of fees for the implied maintenance and support component for on-premise and hybrid subscriptions as well as a small amount of 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.

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, amortization related to acquired technology, depreciation related to our computer hardware and leased data center facilities where we physically host our SaaS solution, and network connectivity costs for the provisioning of hosting services under SaaS arrangements.

Selling and marketing expenses

Selling 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, selling and marketing expenses will continue to increase.

Research and development expenses

Research and development expenses consist primarily of personnel and related costs for the teams responsible for the ongoing research, development and product management of RapidResponse. These expenses are recorded net of any applicable scientific research and experimental development investment tax credits ("**investment tax credits**") earned for expenses incurred in Canada against eligible projects. We only record non-refundable tax credits to the extent there is reasonable assurance we will be able to use the investment tax credits to reduce current or future tax liabilities. As the Company has an established history of profits, we do expect to realize the benefit of these tax credits in the near term. Further, we anticipate that spending on research and development 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 and amortization related to customer relationships. We expect that, in the future, general and administrative expenses will continue to 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 USD with the exception of our subsidiaries in South Korea (Korean Won), Japan (Japanese Yen), the Netherlands, France, and Ireland (Euro), the United Kingdom (British Pound), and India (Indian Rupee). We derive most of our revenue in USD. Our head office and a significant portion of our employees are located in Ottawa, Canada, and as such approximately half of our expenses are incurred in Canadian dollars.

Results of Operations

The following table sets forth a summary of our results of operations:

	Three months ended December 31,		Year ended December 31,	
	2020	**2019**	**2020**	**2019**
	(In thousands of USD, except earnings per share)			
Statement of Operations				
Revenue	$ 54,945	$ 56,312	$ 224,189	$ 191,549
Cost of revenue	20,104	14,872	70,131	53,850
Gross profit	34,841	41,440	154,058	137,699
Operating expenses	38,326	29,695	133,282	105,247
	(3,485)	11,745	20,776	32,452
Foreign exchange loss	(364)	(40)	(196)	(226)
Net finance and other income (loss)	(91)	610	890	3,037
Profit (loss) before income taxes	(3,940)	12,315	21,470	35,263
Income tax expense (recovery)	(2,354)	4,484	7,740	11,932
Profit (loss)	$ (1,586)	$ 7,831	$ 13,730	$ 23,331
Adjusted profit(1)	$ 3,400	$ 11,008	$ 30,947	$ 36,698
Adjusted EBITDA(1)	$ 6,095	$ 18,134	$ 53,751	$ 57,727
Basic earnings (loss) per share	$ (0.06)	$ 0.30	$ 0.51	$ 0.89
Diluted earnings (loss) per share	$ (0.06)	$ 0.29	$ 0.49	$ 0.87
Adjusted diluted earnings per share(1)	$ 0.12	$ 0.40	$ 1.10	$ 1.36

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 December 31, 2020	As at December 31, 2019
	(In thousands of USD)	
Total assets	$ 428,410	$ 350,743
Total non-current liabilities	14,794	13,910

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 (recovery), depreciation and amortization, foreign exchange loss 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 December 31,		Year ended December 31,	
	2020	2019	2020	2019
	(In thousands of USD)			
Profit (loss)	$ (1,586)	$ 7,831	$ 13,730	$ 23,331
Share-based compensation	4,986	3,177	17,217	13,367
Adjusted profit	$ 3,400	$ 11,008	$ 30,947	$ 36,698
Income tax expense (recovery)	(2,354)	4,484	7,740	11,932
Depreciation and amortization	4,494	3,212	15,562	11,908
Foreign exchange loss	364	40	196	226
Net finance expense (income)	191	(610)	(694)	(3,037)
	2,695	7,126	22,804	21,029
Adjusted EBITDA	$ 6,095	$ 18,134	$ 53,751	$ 57,727
Adjusted EBITDA as a percentage of revenue	11%	32%	24%	30%

Revenue

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 to 2020
	2020	**2019**	**%**	**2020**	**2019**	**%**
			(In thousands of USD)			
SaaS	$ 39,815	$ 32,006	24%	$ 148,873	$ 118,860	25%
Professional services	11,334	8,931	27%	45,899	33,549	37%
Subscription term license	1,948	12,120	(84%)	17,890	26,218	(32%)
Maintenance and support	1,848	3,255	(43%)	11,527	12,922	(11%)
	54,945	56,312	(2%)	224,189	191,549	17%

Total revenue for the three months ended December 31, 2020 was $54.9 million, a decrease of $1.4 million compared to the same period in 2019. The decrease was due to an 84% decrease in subscription term license revenue and a 43% decrease in maintenance and support revenue, offset by a 24% increase in SaaS revenue and 27% increase in professional services revenue. Total revenue for the year ended December 31, 2020 was $224.2 million, an increase of $32.6 million compared to the same period in 2019. The increase was due to a 37% increase in professional services revenue, a 25% increase in SaaS revenue, offset by a 32% decrease in subscription term license revenue and 11% decrease in maintenance and support revenue.

SaaS revenue

SaaS revenue for the three months and year ended December 31, 2020 was $39.8 million and $148.9 million, an increase of $7.8 million and $30.0 million compared to the same periods in 2019. This increase was due to contracts secured with new customers, as well as expansion of existing customer subscriptions.

Professional services revenue

Professional services revenue for the three months and year ended December 31, 2020 was $11.3 million and $45.9 million, an increase of $2.4 million and $12.4 million compared to the same periods in 2019. Professional services revenue has increased due to expanded service offerings and increased capacity acquired through the acquisition of Prana. Professional services revenue varies quarter to quarter due to the size, timing and scheduling of customer engagements and the level of partner led engagements.

Subscription term license revenue

Subscription term license revenue for the three months and year ended December 31, 2020 was $1.9 million and $17.9 million, a decrease of $10.2 million and $8.3 million compared to the same period in 2019. Generally, subscription term license revenue varies quarter to quarter due to the timing of renewals and expansions for on-premise and hybrid subscription arrangements. The current period fluctuation reflects the normal cycle of such renewals.

Maintenance and support revenue

Maintenance and support revenue for the three months and year ended December 31, 2020 was $1.8 million and $11.5 million, a decrease of $1.5 million compared to the same periods in 2019. The decrease was primarily due to a one-time adjustment of the revenue allocated to the maintenance and support component of a specific customer's on-going, long-term contract.

Cost of Revenue

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 to 2020
	2020	2019	%	2020	2019	%
			(In thousands of USD)			
Cost of revenue	$ 20,104	$ 14,872	35%	$ 70,131	$ 53,850	30%
Gross profit	34,841	41,440	(16%)	154,058	137,699	12%
Gross profit percentage	63%	74%		69%	72%	

Cost of revenue for the three months and year ended December 31, 2020 was $20.1 million and $70.1 million, an increase of $5.2 million and $16.3 million compared to the same periods in 2019. Cost of revenue increased due to higher headcount and related compensation costs and higher partner and third-party service provider costs to support our increased customer base. In January 2020, we acquired Prana and expanded our professional services headcount and capabilities. Cost of revenue also increased due to higher depreciation costs and costs related to public cloud service providers associated with the expansion of data center capacity to support a growing customer base, and due to higher amortization costs related to the intangible technology asset purchased via the acquisition of Rubikloud expansion.

As a percentage of revenue, gross profit was 63% and 69% for the three months and year ended December 31, 2020, compared to 74% and 72% for the same periods in 2019. The gross profit percentage was lower for the three months and year ended December 31, 2020 due to revenue mix in the periods. The lower proportion of subscription term license revenue and higher proportion of professional services revenue compared to the same periods in 2019 contributed to a lower gross margin. Subscription term license revenue carries a higher gross margin than revenue recognized ratably over the term, while professional services revenue earns a lower gross margin. Additionally, costs related to public cloud service providers and amortization of costs related to the intangible technology asset acquired in the acquisition of Rubikloud impacts our gross margin percentage.

Selling and Marketing Expenses

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 to 2020
	2020	2019	%	2020	2019	%
			(In thousands of USD)			
Selling and marketing	$ 15,521	$ 13,747	13%	$ 52,630	$ 44,270	19%
As a percentage of revenue	28%	24%		23%	23%	

Selling and marketing expenses for the three months and year ended December 31, 2020 was $15.5 million and $52.6 million, an increase of $1.8 million and $8.4 million compared to the same periods in 2019. The increase in selling and marketing expenses was due to higher headcount and related compensation costs, partially offset by a decrease in travel expense. We continue to expand our sales and marketing team, as well as our partner network.

Research and Development Expenses

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 and 2020
	2020	2019	%	2020	2019	%
			(In thousands of USD)			
Research and development	$ 13,822	$ 9,443	46%	$ 47,420	$ 34,125	39%
As a percentage of revenue	25%	17%		21%	18%	

Research and development expenses for the three months and year ended December 31, 2020 was $13.8 million and $47.4 million, an increase of $4.4 million and $13.3 million compared to the same periods in 2019. The increase in research and development expenses was due to higher headcount and related compensation costs. In July 2020, we acquired Rubikloud to expand our artificial intelligence and machine learning capabilities, which included an experienced team of developers to support product development activities for retail and consumer packaged goods customers. Other organic investment in headcount supports ongoing programs to drive further innovation in our RapidResponse platform and ensure sustainable market leadership.

General and Administrative Expenses

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 to 2020
	2020	2019	%	2020	2019	%
			(In thousands of USD)			
General and administrative	$ 8,983	$ 6,505	38%	$ 33,232	$ 26,852	24%
As a percentage of revenue	16%	12%		15%	14%	

General and administrative expenses for the three months and year ended December 31, 2020 was $8.9 million and $33.2 million, an increase of $2.5 million and $6.4 million compared to the same periods in 2019. The increase in general and administrative expenses was due to higher headcount and related compensation costs, amortization of acquired customer relationships, as well as higher external professional service fees related to the acquisition of Prana and Rubikloud during the periods. The increases also reflect investments in corporate infrastructure and capability to support our global expansion and growth strategy.

Other Income and Expense

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 to 2020
	2020	2019	%	2020	2019	%
			(In thousands of USD)			
Other income:						
Foreign exchange gain (loss)	$ (364)	$ (40)	– (1)	$ (196)	$ (226)	(13%)
Net finance and other income	(91)	610	(115%)	890	3,037	(71%)
Total other income (expense)	(455)	570	(180%)	694	2,811	(75%)

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

Total other income for the three months and year ended December 31, 2020 was an expense of $0.5 million and income of $0.7 million, a decrease of $1.0 million and $2.1 million compared to the same periods in 2019. The

decrease in other income was due to lower interest rates earned on cash and short-term investments. The lower interest income was offset by interest expense on lease obligations. The increase in foreign exchange losses was caused by USD exchange rate changes during the period, which had an impact on foreign-denominated cash and working capital balances

Income Taxes

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 to 2020
	2020	2019	%	2020	2019	%
	(In thousands of USD)					
Income tax expense (recovery)	$ (2,354)	$ 4,484	(152%)	$ 7,740	$ 11,932	(35%)
As a percentage of profit (loss) before income taxes	(60%)	36%		36%	34%	

Income tax recovery for the three months ended December 31, 2020 was $2.4 million, a decrease income tax expense of $6.8 million compared to the same period in 2019. This change in income tax expense was due to a loss before income taxes and adjusted estimates recorded in the period based on final tax provisions and adjustments to filed positions. Income tax expense for the year ended December 31, 2020 was $7.7 million, a decrease of $4.2 million compared to the same period in 2019. The decrease was due to lower profit before income taxes and an increase in share-based compensation as a percentage of profit. As a percentage of loss before taxes, income tax recovery for the three months ended December 31, 2020 was 60%. Income tax expense as a percentage of profit (loss) before income taxes has changed due to a loss before income tax in the three months ended December 31, 2020, and adjusted estimates recorded in the period based on final tax provisions and adjustments to filed positions. As a percentage of profit before taxes, income tax expense for the year ended December 31, 2020 was 36%, compared to 34% for the same period in 2019. Income tax as a percentage of profit before income taxes has increased due to an increase in share-based compensation as a percentage of profit before tax, which is not considered deductible for income tax purposes in Canada.

Profit

	Three months ended December 31,		2019 to 2020	Year ended December 31,		2019 to 2020
	2020	2019	%	2020	2019	%
	(In thousands of USD except earnings per share)					
Profit (loss)	$ (1,586)	$ 7,831	(120%)	$ 13,730	$ 23,331	(41%)
Adjusted profit[(1)]	3,400	11,008	(69%)	30,947	36,698	(16%)
Adjusted EBITDA[(1)]	6,095	18,134	(66%)	53,751	57,727	(7%)
Basic earnings (loss) per share	$ (0.06)	$ 0.30		$ 0.51	$ 0.89	
Diluted earnings (loss) per share	$ (0.06)	$ 0.29		$ 0.49	$ 0.87	
Adjusted diluted earnings per share[(1)]	$ 0.12	$ 0.40		$ 1.10	$ 1.36	

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.

Loss for the three months ended December 31, 2020 was $1.6 million or $0.06 per basic share and $0.06 per diluted share, compared to profit of $7.8 million or $0.30 per basic share and $0.29 per diluted share for the same period in 2019. Profit for the year ended December 31, 2020 was $13.7 million or $0.51 per basic share and $0.49 per diluted share compared to $23.3 million or $0.89 per basic share and $0.87 per diluted share for the same period in

2019. The decrease in profit was due to higher headcount costs and acquisition-related expenses, partly offset by an increase in revenues.

Adjusted EBITDA for the three months and year ended December 31, 2020 was $6.1 million and $53.8 million, compared to $18.1 million and $57.7 million for the same period in 2019. The decrease in adjusted EBITDA was due to an increase in operating expenses and cost of sales, partly offset by an increase in revenues.

Key Balance Sheet Items

	As at December 31, 2020	As at December 31, 2019
	(In thousands of USD)	
Total assets	$ 428,410	$ 350,743
Total liabilities	146,653	120,641

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

Trade and other receivables

	As at December 31, 2020	As at December 31, 2019
	(In thousands of USD)	
Trade accounts receivable	$ 67,288	$ 65,406
Unbilled receivables	13,800	13,880
Investment tax credits receivable	211	–
Taxes receivable	–	382
Other	1,584	977
Loss allowance	–	(22)
Total trade and other receivables	82,883	80,623

Trade accounts receivable at December 31, 2020 were $67.3 million, an increase of $1.9 million compared to December 31, 2019 due to variances in the timing of billings and collections on receivables. The balance at any point in time is impacted by the timing of the annual subscription billing cycle for each customer and when new customer contracts are secured. Unbilled receivables at December 31, 2020 were $13.8 million, consistent with the balance at December 31, 2019. The aging of trade receivables is generally current or within 30 days past due and overdue amounts do not reflect any credit issues.

Right-of-use assets & Lease obligations

	As at December 31, 2020	As at December 31, 2019
	(In thousands of USD)	
Right-of-use assets	$ 15,722	$ 8,671
Lease obligations:		
Current	4,554	2,288
Non-current	12,065	6,818
	16,619	9,106

The right-of-use assets and lease obligations relate to our leases for office space and data centers. Right-of-use assets at December 31, 2020 were $15.7 million, an increase of $7.1 million compared to December 31, 2019. Lease obligations at December 31, 2020 were $16.6 million, an increase of $7.5 million compared to December 31, 2019. This increase is due to a new Japan office lease, Toronto office lease from the Rubikloud acquisition and data centre expansions in Europe, Japan and Canada, partly offset by regular lease payments.

Contract acquisition costs

	As at December 31, 2020	As at December 31, 2019
	(In thousands of USD)	
Contract acquisition costs	$ 16,484	$ 15,497

Contract acquisition costs are capitalized and amortized over the expected life of the customer upon commencement of the related revenue. Contract acquisition costs consist of sales commissions paid to employees and third party referral fees. Variable compensation plans are determined on an annual basis and may differ in how they correlate to revenue from year to year. Contract acquisition costs at December 31, 2020 were $16.5 million, an increase of $1.0 million compared to December 31, 2019. This increase was due to commissions recognized in the period, partly offset by regular amortization.

Deferred revenue

	As at December 31, 2020	As at December 31, 2019
	(In thousands of USD)	
Deferred revenue	$ 94,275	$ 83,673

Deferred revenue at December 31, 2020 was $94.3 million, an increase of $10.7 million compared to December 31, 2019. We generally bill our customers annually in advance for SaaS agreements resulting in initially recording the amount billed as deferred revenue which is subsequently drawn down to revenue over the agreement term. The change in deferred revenue was due to variances in the timing of billings for new and existing customer contracts. There was no deferred revenue relating to subscription term periods beyond one year.

Summary of Quarterly Results

The following table summarizes selected results for the eight most recent completed quarters to December 31, 2020.

	Three months ended							
	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019
Revenue:								
SaaS	$ 39,815	$ 39,322	$ 35,741	$ 33,995	$ 32,006	$ 31,229	$ 28,283	$ 27,342
Professional services	11,334	11,492	12,400	10,673	8,931	9,348	8,358	6,912
Subscription term license	1,948	1,035	10,003	4,904	12,120	3,278	2,414	8,406
Maintenance and support	1,848	3,267	3,229	3,183	3,255	3,276	3,297	3,094
	54,945	55,116	61,373	52,755	56,312	47,131	42,352	45,754
Cost of revenue	20,104	18,557	15,634	15,836	14,872	13,803	12,984	12,191
Gross profit	34,841	36,559	45,739	36,919	41,440	33,328	29,368	33,563
Operating expenses	38,326	35,754	30,618	28,584	29,695	27,810	24,368	23,374
	(3,485)	805	15,121	8,335	11,745	5,518	5,000	10,189
Foreign exchange gain (loss)	(364)	124	(5)	49	(40)	(101)	85	(170)
Net finance and other income (loss)	(91)	156	152	673	610	841	821	765
Profit (loss) before income taxes	(3,940)	1,085	15,268	9,057	12,315	6,258	5,906	10,784
Income tax expense (recovery)	(2,354)	354	6,264	3,476	4,484	1,725	1,905	3,818
Profit	$ (1,586)	$ 731	$ 9,004	$ 5,581	$ 7,831	$ 4,533	$ 4,001	$ 6,966
Share-based compensation	4,986	4,732	3,723	3,776	3,177	3,537	3,581	3,072
Adjusted profit[(1)]	$ 3,400	$ 5,463	$ 12,727	$ 9,357	$ 11,008	$ 8,070	$ 7,582	$ 10,038
Income tax expense (recovery)	(2,354)	354	6,264	3,476	4,484	1,725	1,905	3,818
Depreciation and amortization	4,494	4,500	3,627	2,941	3,212	3,045	2,974	2,677
Foreign exchange loss (gain)	364	(124)	5	(49)	40	101	(85)	170
Net finance income (expense)	191	(59)	(152)	(673)	(610)	(841)	(821)	(765)
	2,695	4,671	9,744	5,695	7,126	4,030	3,973	5,900
Adjusted EBITDA[(1)]	$ 6,095	$ 10,134	$ 22,471	$ 15,052	$ 18,134	$ 12,100	$ 11,555	$ 15,938
Basic earnings (loss) per share	$ (0.06)	$ 0.03	$ 0.34	$ 0.21	$ 0.30	$ 0.17	$ 0.15	$ 0.27
Diluted earnings (loss) per share	$ (0.06)	$ 0.03	$ 0.32	$ 0.20	$ 0.29	$ 0.17	$ 0.15	$ 0.26
Adjusted diluted earnings per share[(1)]	$ 0.12	$ 0.20	$ 0.46	$ 0.34	$ 0.40	$ 0.30	$ 0.28	$ 0.37

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.

Our quarterly revenue has generally trended upwards over the past eight quarters, primarily due to sales of new subscriptions for RapidResponse as well as new customer deployment activity. Subscription term license revenue varies quarter to quarter due to the timing of new contracts, expansions and renewals for on-premise and hybrid subscription arrangements.

Cost of revenue has increased as we continue to invest in the personnel and data center capacity to support the growth in our business. Gross margin has ranged from 63% to 75% of revenue, with fluctuations due to the varying subscription term license revenue in each quarter and increase in cost of revenues. Operating expenses have increased for the majority of the periods presented primarily due to the addition of personnel in connection with the expansion of our business.

Liquidity and Capital Resources

Our primary source of cash flow is sales of subscriptions for our software and sales of professional 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 December 31, 2020	As at December 31, 2019
	(In thousands of USD)	
Cash and cash equivalents	$ 182,958	$ 182,284
Short-term investments	30,180	30,319
	213,138	212,603

Cash and cash equivalents increased $0.7 million to $183.0 million at December 31, 2020. Short-term investments decreased $0.1 million to $30.2 million at December 31, 2020. Total cash and cash equivalents and short-term investments increased $0.5 million to $213.1 million at December 31, 2020.

In addition to the cash and short-term investment balances, we have a $20.0 million CAD revolving demand facility available to meet ongoing working capital requirements. As part of the acquisition of Rubikloud, a Standby Letter of Credit has been issued against this facility in the amount of $1.4 million CAD. Our principal cash requirements are for working capital and capital expenditures. Excluding deferred revenue, working capital at December 31, 2020 was $268.8 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 $95.1 million and finance our longer-term growth.

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

	Three months ended December 31,		Year ended December 31,	
	2020	2019	2020	2019
	(In thousands of USD)			
Operating activities	$ 3,200	$ 8,025	$ 59,470	$ 36,599
Investing activities	(2,136)	(1,378)	(76,264)	13,281
Financing activities	1,381	3,749	16,638	6,077
Effects of exchange rates	657	(69)	830	183
Net cash inflows (outflows)	3,102	10,327	674	56,140
Net purchase (redemption) of short-term investments	10	–	58	(25,000)
Net inflows (outflows) from cash and short-term investments	3,112	10,327	732	31,140

Cash provided by operating activities

Cash generated by operating activities for the three months ended December 31, 2020 was $3.2 million, compared to $8.0 million for the same period in 2019. The decrease was due to the change in net operating assets and liabilities primarily due to an increase in accounts payable.

Cash generated by operating activities for the year ended December 31, 2020 was $59.5 million, compared to $36.6 million for the same period in 2019. The increase was due to the change in net operating assets and liabilities due to collections of accounts receivable and lower income tax payments.

Cash provided by (used in) investing activities

Cash provided by/used in investing activities is driven by business acquisitions, net redemption of short-term investments as well as 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 for the three months ended December 31, 2020 was $2.1 million, compared to cash used in investing activities of $1.4 million for the same period in 2019. The change was due to an increase in purchases of property and equipment.

Cash used in investing activities for the year ended December 31, 2020 was $76.3 million, compared to cash provided by investing activities of $13.3 million for the same period in 2019. The change was primarily due to the acquisition of Rubikloud and Prana, as well as an increase in purchase of property and equipment. 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 for the three months ended December 31, 2020 was $1.4 million, compared to $3.7 million for the same period in 2019. The decrease was due to an increase in lease obligation payments and a decrease in proceeds from stock options exercised.

Cash provided by financing activities for the year ended December 31, 2020 was $16.6 million, compared to $6.1 million for the same period in 2019. The increase was due to higher proceeds from stock options exercised.

Contractual Obligations

Our operating lease commitments are primarily for office premises and secure data center facilities with expiry dates that range from July 2021 to February 2037. The largest lease commitment relates to a new head office in Ottawa, Canada, the lease of which commences in 2021 and expires in 2037. Given the ongoing cash generated from operations and our existing cash and credit facilities, we believe there is sufficient liquidity to meet our contractual obligations.

The following table summarizes our contractual obligations as at December 31, 2020, including commitments relating to leasing contracts:

	Less than 1 year	1 to 3 years	3 to 5 years (In thousands of USD)	More than 5 years	Total amount
Commitments					
Operating lease agreements..................	$ 6,664	$ 15,538	$ 7,092	$ 32,762	$ 62,056
Financial Obligations					
Trade payables and accrued liabilities..	33,030	–	–	–	33,030
Total Contractual Obligations	$ 39,694	$ 15,538	$ 7,092	$ 32,762	$ 95,086

The following table summarizes our contractual obligations as at December 31, 2019, including commitments relating to leasing contracts:

	Less than 1 year	1 to 3 years	3 to 5 years (In thousands of USD)	More than 5 years	Total amount
Commitments					
Operating lease agreements..................	$ 4,437	$ 13,182	$ 5,572	$ 34,757	$ 57,948
Financial Obligations					
Trade payables and accrued liabilities..	20,770	–	–	–	20,770
Total Contractual Obligations	$ 25,207	$ 13,182	$ 5,572	$ 34,757	$ 78,718

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements, other than variable payments related to operating leases and operating leases with terms of twelve months or less (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 months and year ended December 31, 2020 and 2019 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.

Market risk

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

a) 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, and British Pound. 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.

b) 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 Royal Bank prime rate and Royal Bank US base 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 annual consolidated financial statements for the year ended December 31, 2020 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. In addition, we applied the following accounting policies and estimates in relation to our acquisition of Prana and Rubikloud:

Business combinations

We account for business combinations using the acquisition method. Goodwill arising on acquisitions is measured as the fair value of the consideration transferred less the net recognized amount of the estimated fair value of identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. Transaction costs that we incur in connection with a business combination are expensed as incurred.

We use our best estimates and assumptions to reasonably value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, and these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed with a corresponding offset to goodwill. Upon conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in profit or loss.

Acquired intangible assets

Our intangible assets consist of customer relationships and technology acquired in a business combination. These intangible assets are recorded at their fair value at the acquisition date. We use the income approach to value acquired technology and customer relationships intangible assets, which are the two material intangible asset categories reported in the financial statements.

We use the income approach as a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. The discounted cash flow ("DCF") is the methodology used, which is a form of the income approach that begins with a forecast of the annual cash flows a market participant would expect the subject intangible asset to generate over a discrete projection period. The future cash flow for each of the years in the discrete projection period are then converted to their present value equivalent using a rate of return appropriate for the risk of achieving the intangible assets' projected cash flows, again, from a market participant perspective. The present value of the future cash flows are then added to the present value of the residual value of the intangible assets (if any) at the end of the discrete

projection period to arrive at a conclusion with respect to the estimated fair value of the subject intangible asset. After initial recognition, intangible assets are measured at cost less accumulated amortization and impairment losses.

We amortize intangible assets with finite useful lives on a straight-line basis over their estimated useful lives. The estimated useful life for customer relationships is three to six years and the estimated useful life for technology is seven years. Our amortization methods, useful lives and residual values are reviewed at each financial year end and adjusted prospectively if appropriate.

We test our intangible assets with finite useful lives for impairment annually and whenever there is an indication that the asset may be impaired. An impairment loss is recognized if the recoverable amount of the asset is less than the carrying amount. The recoverable amount is the higher of fair value less costs to sell and value in use.

Estimate of fair value of acquired intangible assets

We estimate the fair value of customer relationships and technology acquired in a business combination based on the income approach. The income approach is a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to future revenues attributable to acquired customer relationships or technology, customer attrition rates, technology migration rate, future expenses, and discount rates.

Goodwill

Goodwill arises from a business combination as the excess of the consideration transferred over the identifiable net assets acquired. After initial recognition, we measure goodwill at cost less any accumulated impairment losses.

For the purpose of impairment testing, goodwill is allocated to the cash-generating unit that is expected to benefit from the related business combination. The Company as a whole has been assessed as a single cash-generating unit ("CGU"). The CGU is tested for impairment annually and whenever there is an indication that the unit may be impaired. If the recoverable amount of the CGU is less than the carrying amount of the unit, the impairment loss is first allocated to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit. The impairment testing methodology is based on a comparison between the higher of fair value less costs to sell and value-in-use of the CGU and the net asset carrying value (including goodwill). The recoverable amount is the higher of fair value less costs to sell and value in use. An impairment loss is recognized immediately in profit or loss. Any impairment loss in respect of goodwill is not reversed.

Estimate of contingent consideration

We measure the contingent consideration payable in a business combination at the estimated fair value at each reporting date. The fair value is estimated based on the range of possible outcomes and our assessment of the likelihood of each outcome.

Contingencies

We are involved in litigation with a competitor, whereby the competitor has made certain allegations concerning patent infringement. We will accrue a liability if we determine that it is more likely than not that a present obligation exists that will result in an outflow of resources and the amount of the obligation can be reliably estimated. Significant judgment is required in both the determination of probability and the determination as to whether an amount of an obligation is reliably estimable. We have assessed that our defense against these allegations will more likely than not be successful and a present obligation does not exist. At December 31, 2020, we have not recognized a liability regarding these allegations.

We are required to apply judgment with respect to any potential loss or range of loss in connection with litigation. The outcome of litigation and claims is intrinsically subject to considerable uncertainty.

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. As at December 31, 2020, management assessed the design of our ICFR and concluded that our ICFR is appropriately designed and there are no material weaknesses that have been identified. Other than additional controls to address accounting for business combinations, there were no significant changes to our ICFR for the three months and year ended December 31, 2020.

Outstanding Share Information

As of December 31, 2020, our authorized capital consists of an unlimited number of common shares with no stated par value. Changes in the number of common shares, options, restricted share units and deferred share units outstanding for the year ended December 31, 2020 and as of March 3, 2021 are summarized as follows:

Class of Security	Number outstanding at December 31, 2019	Net issued	Number outstanding at December 31, 2020	Net issued	Number outstanding at March 3, 2021
Common shares	26,403,004	682,918	27,085,922	796	27,086,718
Stock options	2,228,738	(282)	2,228,456	(3,796)	2,224,660
Restricted Share Units	60,722	17,583	78,305	–	78,305
Deferred Share Units	45,086	10,842	55,928	–	55,928

Our outstanding common shares increased by 682,918 shares in 2020 due to the exercise of stock options.

Our outstanding stock options decreased by 282 options in 2020 due to the grant of 626,999 options less 618,531 options exercised and 8,750 options forfeited. Each option is exercisable for one common share.

Our outstanding restricted share units increased by 17,583 units in 2020 due to units granted. Our outstanding deferred share units increased by 10,842 units in 2020 due to units granted. 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.

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