

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended January 31, 2020

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number: 001-38828

SEACHANGE INTERNATIONAL, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

500 Totten Pond Road
Waltham, MA
(Address of principal executive offices)

04-3197974
(IRS Employer
Identification No.)

02451
(Zip Code)

(978)-897-0100

(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) Of The Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.01 par value	SEAC	Nasdaq Global Select Market
Series A Participating Preferred Stock Purchase Rights	SEAC	Nasdaq Global Select Market

Securities Registered Pursuant to Section 12(g) Of The Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Accelerated filer ☒

Non-accelerated filer ☐

Smaller reporting company ☒

Emerging growth company ☐

If an emerging growth company, indicate by a check mark if the registrant has elected to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

As of July 31, 2019, the aggregate market value of the voting stock held by non-affiliates of the registrant, based upon the closing price for the registrant's Common Stock on the NASDAQ Global Select Market on such date was \$60,364,119. For the purposes of this calculation, shares owned by officers and directors (and their affiliates) have been excluded. This exclusion is not intended, nor shall it be deemed, to be an admission that such persons are affiliates of the registrant. The registrant does not have any non-voting common stock outstanding.

The number of shares of the registrant's Common Stock outstanding as of the close of business on April 6, 2020 was 37,208,434.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the registrant's definitive proxy statement for the 2020 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A are incorporated by reference into Part III of this Annual Report on Form 10-K to the extent stated herein.

CAUTIONARY STATEMENT FOR PURPOSES OF THE "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

The statements contained in this Annual Report on Form 10-K ("Form 10-K") of SeaChange International, Inc. ("SeaChange," the "Company," "us," or "we"), including, but not limited to the statements contained in Item 1., "Business," and Item 7., "Management's Discussion and Analysis of Financial Condition and Results of Operations," along with statements contained in other reports that we have filed with the Securities and Exchange Commission ("SEC"), external documents and oral presentations, which are not historical facts, are considered to be "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements which may be expressed in a variety of ways, including the use of forward looking terminology (although not all forward-looking statements contain these words), such as "believe," "expect," "seek," "intend," "may," "will," "should," "could," "potential," "continue," "estimate," "plan," or "anticipate," or the negatives thereof, other variations thereon or compatible terminology, relate to, among other things, our transition to being a company that primarily provides software solutions, the effect of certain legal claims against us, projected changes in our revenue, earnings and expenses (including taxes), exchange rate sensitivity, interest rate sensitivity, liquidity, product introductions, industry changes, general market conditions, our continued limited number of customers, geographic location of sales and a reduction in workforce and the impact thereof. You should not place undue reliance on these statements. We disclaim any undertaking to publicly update or revise any forward-looking statements to reflect any change in our expectations with regard thereto or any changes in events, conditions or circumstances on which such statements are based.

These forward-looking statements, and any forward-looking statements contained in other public disclosures of the Company which make reference to the cautionary factors contained in this Form 10-K, reflect our current beliefs, expectations and projections, are based on assumptions that involve (known and unknown) risks and uncertainties and are subject to change based on the considerations described below. We discuss many of these risks and uncertainties in greater detail in Item 1A., "Risk Factors," of this Form 10-K, but many of these factors are beyond our ability to control or predict. These and other risks and uncertainties may cause our actual results, performance or achievements to differ materially from anticipated future results, performance or achievements expressed or implied by such forward-looking statements.

The following discussion should be read in conjunction with Part II, Item 7, "Management Discussion and Analysis of Financial Condition and Results of Operations," and our financial statements and footnotes contained in this Form 10-K.

TABLE OF CONTENTS

PART I

	Page
Item 1. BUSINESS.....	4
Item 1A. RISK FACTORS	8
Item 1B. UNRESOLVED STAFF COMMENTS	29
Item 2. PROPERTIES	29
Item 3. LEGAL PROCEEDINGS	29
Item 4. MINE SAFETY DISCLOSURES	29

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES	30
Item 6. SELECTED FINANCIAL DATA	30
Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	31
Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.....	45
Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA	46
Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.....	82
Item 9A. CONTROLS AND PROCEDURES.....	82
Item 9B. OTHER INFORMATION	83

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE	86
Item 11. EXECUTIVE COMPENSATION.....	87
Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.....	87
Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE	87
Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES	87

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES	88
Item 16. FORM 10-K SUMMARY	92
SIGNATURES.....	93

PART I

ITEM 1. BUSINESS

GENERAL

SeaChange International, Inc., a Delaware corporation founded on July 9, 1993, is an industry leader in the delivery of multiscreen, advertising and premium over the top (“OTT”) video management solutions headquartered in Waltham, Massachusetts. Our software products and services facilitate the aggregation, licensing, management and distribution of video and advertising content for service providers, telecommunications companies, satellite operators and broadcasters. We sell our software products and services worldwide, primarily to service providers including: operators, such as Liberty Global, plc., Altice NV, Cox Communications, Inc. and Rogers Communications, Inc.; telecommunications companies, such as Verizon Communications, Inc., AT&T, Inc. and Frontier Communications Corporation; satellite operators such as Direct TV and Dish Network Corporation; and broadcasters.

Our software products and services are designed to empower video providers to create, manage and monetize the increasingly personalized, highly engaging experiences that viewers demand. Using our products and services, we believe customers can increase revenue by offering services such as video-on-demand (“VOD”) programming on a variety of consumer devices, including televisions (“TVs”), mobile telephones (“smart phones”), personal computers (“PCs”), tablets and OTT streaming players. Our solutions enable service providers to offer other interactive television services that allow subscribers to receive personalized services and interact with their video devices, thereby enhancing their viewing experience. Our products also allow our customers to insert advertising into broadcast and VOD content.

SeaChange serves an exciting global marketplace where multiscreen viewing is increasing, consumer device options are evolving rapidly, and viewing habits are shifting. The primary driver of our business is enabling the delivery of video assets in the changing multiscreen television environment. Through strategic collaborations, we have expanded our capabilities, products and services to address the delivery of content to devices other than television set-top boxes, namely PCs, tablets, smart phones and OTT streaming players. We believe that our strategy of expanding into adjacent product lines will also position us to further support and maintain our existing service provider customer base. Providing our customers with more scalable software platforms enables them to further reduce their infrastructure costs, improve reliability and expand service offerings to their customers. Additionally, we believe we are well positioned to capitalize on new customers entering the multiscreen marketplace and increasingly serve adjacent markets. Our core technologies provide a foundation for software products and services that can be deployed in next generation video delivery systems capable of increased levels of subscriber activity across multiple devices.

In February 2019, we acquired Xstream A/S, a leading OTT media cloud platform provider with its primary operations in Warsaw, Poland. Xstream provides a managed service, OTT video solution that serves more than five million active subscribers globally. Xstream’s MediaMaker video platform has enhanced the SeaChange end-to-end video framework. We have used the acquisition of Xstream to accelerate our penetration in OTT and new market segments and a fully cloud-based end-to-end video platform that operates in a hosted managed service environment.

We have initiated restructuring programs during the past three years, to help us improve operations and optimize our cost structure. In fiscal 2019, we began taking steps to reduce our costs further by implementing a restructuring plan (the “2019 Restructuring Plan”), the primary element of which was staff reductions across all of our functions and geographic areas and for which we expect annualized cost savings of approximately \$6.0 million. In fiscal 2020 we continued to streamline our operations and closed our service organizations in Ireland and the Netherlands for which we expect additional annualized cost savings of approximately \$6.0 million. Overall, we expect to have annualized cost savings of approximately \$12.0 million as a result of the restructuring programs that have been initiated over the past two fiscal years.

Notwithstanding the success of our restructuring programs, during the fourth quarter of fiscal 2019, we experienced a decline in our stock price and actual operating results and, accordingly, revised our forecasts. These events were a trigger for an impairment review, as a result of which we determined that the carrying value of goodwill and certain long-lived assets exceeded their fair value, such that we recorded a \$17.0 million impairment charge to reduce the carrying value of our building, included in property, plant and equipment, the remaining net book value of our intangible assets and our goodwill to fair value. The impact of this impairment charge is excluded from our non-GAAP operating results included in this report.

On February 28, 2019, we entered into a Cooperation Agreement with TAR Holdings LLC and Karen Singer (collectively, “TAR Holdings”). As of the date of the Cooperation Agreement, TAR Holdings beneficially owned approximately 20.6% of our outstanding common stock. Pursuant to the Cooperation Agreement, we agreed to set the size of the Board at eight members, appoint Robert Pons to the Board as a Class II Director with a term to expire at the 2019 annual meeting of stockholders, and appoint Jeffrey Tudor to the Board as a Class III Director with a term to expire at the 2020 annual meeting of stockholders. Mr. Pons and Mr. Tudor were accordingly appointed to our Board upon execution of the Cooperation Agreement on February 28, 2019.

On March 4, 2019, our Board approved and adopted a Tax Benefits Preservation Plan (the “Tax Benefits Preservation Plan”) to deter acquisitions of our common stock that would potentially limit our ability to use net operating loss carryforwards and certain other tax attributes (“NOLs”) to reduce our potential future federal income tax obligations. In connection with the Tax Benefits Preservation Plan, we declared a dividend of one preferred share purchase right for each share of our common stock issued and outstanding as of March 15, 2019 to our stockholders of record on that date. The Tax Benefits Preservation Plan was approved by our stockholders at our 2019 annual meeting of stockholders.

FRAMEWORK

Our business is focused on offering an end-to-end video delivery platform (“Framework”). Framework is a value-based engagement, which provides content and service providers with a complete software delivery platform for linear, VOD and time shift TV (“TSTV”) over managed and unmanaged networks. Framework includes, but is not limited to, the following modules: video back-office, media asset management, targeted advertising management, analytics and the client interface for set-top boxes (“STBs”), Smart-TVs and mobile devices. Our revenue sources consist of Framework revenue from these areas as well as related services. Framework is available as a product, SaaS, and/or managed service, on-premises, cloud and hybrid.

Video Back-Office

The back-office is a comprehensive software platform that enables content and service providers to manage, monetize and deliver a seamless viewing experience to subscribers across TVs, PCs, tablets, smart phones and other IP-enabled devices. It is a modular software solution allowing customers to gradually adopt new functionality and features to expand multiscreen television distribution capabilities.

Media Asset Management

In today’s multiscreen viewing environment, programming or advertisements are reproduced with numerous variants to serve the unique requirements of multiple network types, consumer devices and geographies. Metadata, such as poster, description and pricing, associated with the programming, is also managed by the platform. At the point of content ingest, our media asset management software is used to receive, manage and publish video content for viewing on televisions, tablets, PCs and other consumer devices. Our media asset management simplifies the increasingly complex tasks of movie and television program asset tracking, metadata management, and overall content workflow processing.

Advanced Advertising Platform

As more video content is served to multiple consumer devices, the ability to generate additional revenue by inserting advertising across multiple platforms becomes crucial to service providers seeking to offset content rights costs and

reduce subscriber fees for viewing the content. The advanced advertising platform enables service providers to maximize advertising revenue across multiscreen, broadcast, on-demand and OTT viewing and reach their audiences while viewers watch content across multiple devices. The advanced advertising platform also enables targeted, real time and programmatic advertisement insertion to optimize the revenue generation.

Client Application

The client application empowers service providers and content owners to optimize live and on-demand video consumption on multiscreen and OTT services. The client application's features and functionality allow operators to fully leverage the extensive content management, delivery and monetization capabilities of our platforms. The client application products provide a ready-to-deploy multiscreen user experience coupled with a UX Manager cloud service that has been designed to optimize the management of the TV screen's user experience and customization.

Analytics

Analytics equips operators with valuable insight into subscriber engagement with their video service in order to optimize retention and monetization. Extensive, pre-built dashboards and reports provide a robust view of VOD catalog engagement, channel lineup utilization, and promotion effectiveness for increased transactional revenues. The benefits of analytic insights include, but are not limited to, identifying at-risk subscribers to incentivize them and reduce the risk of churn, determining effective promotions to increase VOD revenues and catalog productivity, and tracking asset popularity to make accurate business decisions about content providers and VOD price points.

Services

SeaChange offers comprehensive technical support and maintenance including an onsite dedicated engineer for Framework projects. We have developed extensive capabilities in systems integration, implementation and customer engineering. We also provide managed services capabilities offering end-to-end management of video platform in the cloud, including remote monitoring and proactive system maintenance, to help our customers quickly and confidently establish new on-demand and multiscreen capabilities.

STRATEGY

Our goal is to strengthen our position as a leading global provider of multiscreen video delivery and advertising solutions by enabling service providers and content owners to increase revenue opportunities by delivering transformative multiscreen video services to their end users. Key elements of our strategy include:

- We intend to continue providing our current and future customer base with industry-leading solutions through our focus on product innovation and substantial investment in research and development for our latest feature-rich software products and services;
- We intend to continue providing pre-packaged integrated solutions, known as end-to-end solutions, with the goal of better enabling new and existing customers to drive the adoption of subscription-based, SaaS models through service offerings hosted and/or managed by us;
- We intend to continue pursuing strategic collaborations that we believe will strengthen our industry leadership position, expand our geographic presence, open new markets or allow us to expand to new products or services, or enhance our existing ones;
- We may enter strategic relationships to help our customers address deficiencies in their market space; and
- We intend to continue to focus on both selling our products to support a single screen and to upgrade our services to support multiple devices as service providers expand their reach. We intend to continue to be able to scale to enable platforms as part of the initial sale.

RESEARCH AND DEVELOPMENT

We have focused and streamlined our research and development efforts in recent years. We believe that our success will depend on our ability to develop and rapidly introduce new integrated solutions and enhancements to our existing products that meet changing customer requirements in our current and future customer base as well as new markets. We have made substantial investments in developing and bringing to market our next generation software products which utilize microservices-based software architectures and advanced orchestration. Our current research and development activities are focused on developing cloud-based multiscreen television platforms, content management solutions, additional user experience applications, advertising solutions and integrating the solutions we currently offer. The majority of our research and development efforts are performed by our engineering and development team in Warsaw, Poland.

SELLING AND MARKETING

Our sales cycle has historically been long, in some instances 12-24 months. Framework engagements can be large and span for multiple years and it can be difficult to predict in what fiscal period the sale will occur. While currently a small portion of our revenue, our newer SaaS offerings have shorter sales and deployment cycles as our customers' subscribers are added to existing managed services in the cloud. We primarily utilize a direct sales process and work closely with customers to understand and define their needs. We use several marketing programs to support the sale and distribution of Framework. We also market certain features of Framework to systems integrators and value-added resellers. We attend and exhibit Framework at a limited number of prominent industry trade shows and conferences and we present our technology at seminars and smaller conferences to promote awareness.

OUR CUSTOMERS

We currently sell our products primarily to video service providers, such as cable system operators and telecommunications companies, as well as content providers. Historically, a significant portion of our revenue in any given fiscal period has been derived from substantial orders placed by these large organizations. For the fiscal year ended January 31, 2020, no customer accounted for more than 10% of our total revenue.

We expect that we will continue to be dependent upon a limited number of customers for a significant portion of our revenue in the near future, even as we intend to penetrate new markets and customers. As a result of this customer concentration, our business, financial condition and results of operations could be materially adversely affected by the failure of anticipated orders to materialize and by deferrals or cancellations of orders because of changes in customer requirements or new product announcements or introductions. In addition, the concentration of customers may cause variations in revenue, expenses and operating results on a quarterly basis due to seasonality of orders, the timing and relative size of orders received and accepted during a fiscal quarter, or the timing and size of orders for which revenue recognition criteria have been satisfied during a fiscal quarter.

COMPETITION

The markets in which we compete are characterized by intense competition, with many suppliers providing different types of products to different segments of the markets. In new markets for our products, we compete based on price, functionality and delivery capabilities. In markets in which we have an established presence, we compete principally based on the breadth of our products' features and benefits, including the flexibility, scalability, professional quality, ease of use, reliability and cost effectiveness of our products, and our reputation and the depth of our expertise, customer service and support. While we believe that we currently compete favorably overall with respect to these factors and that our ability to provide integrated solutions to manage and distribute digital video differentiates us from our competitors, in the future we may not be able to continue to compete successfully with respect to these factors.

In the market for multiscreen video, we compete with various larger companies offering video platforms and applications such as Synamedia, Arris Group Inc., TiVo and MediaKind, as well as in-house solutions built by the service providers. Increasingly, we are also seeing competition from integrated end-to-end solutions and many OTT providers. We expect the competition in each of the markets in which we operate to intensify in the future with existing and new competitors with significant market presence and financial resources.

Many of our current and prospective competitors have significantly greater financial, technical, manufacturing, sales, marketing and other resources than we do. As a result, these competitors may be able to devote greater resources to the development, promotion, sale and support of their products. Moreover, these companies may introduce additional products that are competitive with ours or enter strategic relationships to offer complete solutions. Therefore, our products may not be able to compete effectively with these products from these companies in the future.

PATENTS AND INTELLECTUAL PROPERTY

Our success and our ability to compete are dependent, in part, upon the proprietary rights of our intellectual property. We currently have 24 patents worldwide. In addition, we rely on a combination of contractual rights, trademark laws, trade secrets and copyright laws to establish and protect our proprietary rights in our products. It is possible that the validity of these patents would not be upheld.

It is also possible that the steps taken by us to protect our intellectual property will be inadequate to prevent misappropriation of our technology or that our competitors will independently develop technologies that are substantially equivalent or superior to our technology. In addition, the laws of some foreign countries in which our products are or may be distributed do not protect our proprietary rights to the same extent as do the laws of the United States. Currently, we are not party to intellectual property litigation, but we may be a party to litigation in the future to enforce our intellectual property rights or because of an allegation that we infringe others' intellectual property.

EMPLOYEES

As of January 31, 2020, we had 182 employees, of which 3 were part-time. We also use other temporary employees and contractors in the ordinary course of our business. We believe that our relations with our employees are good. None of our employees are represented by a collective bargaining agreement. Employees in certain foreign jurisdictions are represented by local works council as may be customary or required in those jurisdictions.

AVAILABLE INFORMATION

SeaChange is subject to the informational requirements pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). SeaChange files periodic reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information may be accessed through the SEC's Interactive Data Electronic Applications system at <http://www.sec.gov>.

Financial and other information about SeaChange, including our Code of Ethics and Business Conduct and charters for our Audit Committee, Compensation Committee and Corporate Governance and Nominating Committee, is available on the Investor Relations section of our website at www.seachange.com. We make available free of charge on our website our Form 10-K, Quarterly Reports on Form 10-Q ("Form 10-Q"), Current Reports on Form 8-K ("Form 8-K") and amendments to those reports as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information contained on our website is not incorporated by reference into this document and should not be considered a part of this Form 10-K. Our website address is included in this document as an inactive textual reference only.

ITEM 1A. RISK FACTORS

We wish to caution each reader of this Form 10-K to consider the following factors and other factors discussed herein and in other past reports, including but not limited to prior year Form 10-K and Form 10-Q reports filed with the SEC. Our business and results of operations could be materially affected by any of the following risks. The factors discussed herein are not exhaustive. Therefore, the factors contained herein should be read together with other reports that we file with the SEC from time to time, which may supplement, modify, supersede, or update the factors listed in this document. You should also refer to the other information contained in this Form 10-K, including our consolidated Financial Statements and the related notes.

Our business is dependent on customers' continued spending on video solutions and services. A reduction in spending by customers would adversely affect our business.

Our performance is dependent on customers' continued spending for video solutions and services. Spending for these systems and services is cyclical and can be curtailed or deferred on short notice. A variety of factors affect the amount of spending, and, therefore, our sales and profits, including:

- general economic conditions; customer specific financial or stock market conditions;
- availability and cost of capital;
- governmental regulation;
- demand for services;
- competition from other providers of video solutions and services;
- acceptance by our customers; and
- real or perceived trends or uncertainties in these factors.

Any reduction in spending by our customers would adversely affect our business. We continue to have limited visibility into the capital spending plans of our current and prospective customers. Fluctuations in our revenue can lead to even greater fluctuations in our operating results. Our planned expense levels depend in part on our expectations of future revenue. Our planned expenses include significant investments, particularly within our research and development organization, which we believe are necessary to continue to provide innovative solutions to meet our current and prospective customers' needs. As a result, it is difficult to forecast revenue and operating results. If our revenue and operating results are below the expectations of our investors and market analysts, it could cause a decline in the price of our common stock.

Our efforts to introduce SaaS-based multiscreen service offerings may either not succeed or impair the sale of our on-site licensed offerings, the occurrence of either of which may adversely affect our financial condition and operating results.

We have devoted, and will continue to devote, considerable resources, including the allocation of capital expenditures to growing our SaaS service offering revenue over the next several years. There can be no assurance that we will meet our revenue targets for this service and if we fail to achieve our revenue goals, our growth and operating results will be materially adversely affected. Additionally, new or existing customers may choose to purchase our SaaS services rather than our on-premise solutions. If our customers' purchases trend away from perpetual licenses toward our SaaS, or to the extent customers defer orders due to evaluation of SaaS, our product revenue, and our timing of revenue generally, may be adversely affected, which could adversely affect our results of operations and financial condition.

If we fail to develop and consistently deliver innovative technologies and services in response to changes in the technology and entertainment industries, our business could decline.

The markets for our products, services and technologies is characterized by rapid change and technological evolution. We will need to continue to expend considerable resources on research and development in the future in order to continue to design and deliver enduring, innovative entertainment products, services and technologies. Despite our efforts, we may not be able to consistently develop and effectively market new products, technologies and services that adequately or competitively address the needs of the changing marketplace. In addition, we may not correctly identify new or changing market trends at an early enough stage to capitalize on market opportunities. Our future success depends to a great extent on our ability to develop and consistently deliver innovative technologies that are widely adopted in response to changes in the technology and entertainment industries and that are compatible with the technologies, services or products introduced by other entertainment industry participants.

Despite our efforts and investments in developing new products, services and technologies:

- we may not receive significant revenue from our current research and development efforts for several years, if at all;

- we cannot assure you that the level of funding and significant resources we are committing for investments in new products, services and technologies will be sufficient or result in successful new products, services or technologies;
- we cannot assure you that our newly developed products, services or technologies can be successfully protected as proprietary intellectual property rights or will not infringe the intellectual property of others;
- we cannot assure you that any new products or services that we develop will achieve market acceptance;
- our products, services and technologies may become obsolete due to rapid advancements in technology and changes in consumer preferences;
- we cannot assure you that revenue from new products, services or technologies will offset any decline in revenue from our products, services and technologies which may become obsolete; and
- our competitors and/or potential customers may develop products, services or technologies similar to those developed by us, resulting in a reduction in the potential demand for our newly developed products, services or technologies.

Our failure to successfully develop new and improved products, services and technologies, including as a result of any of the risks described above, may reduce our future growth and profitability and may adversely affect our business, results and financial condition.

We operate in a relatively new and rapidly developing market, which makes it difficult to evaluate our business and future prospects.

The market for our products and services is relatively new and rapidly developing, which makes it difficult to evaluate our business and future prospects. We have encountered, and will continue to encounter, risks and difficulties frequently experienced by growing companies in rapidly changing industries, including those related to:

- market acceptance of our current and future products and services;
- customer renewal rates;
- our ability to compete with other companies that are currently in, or may in the future enter, the market for our products;
- our ability to successfully expand our business, especially internationally;
- our ability to control costs, including our operating expenses;
- the amount and timing of operating expenses, particularly sales and marketing expenses, related to the maintenance and expansion of our business, operations and infrastructure;
- network outages or security breaches and any associated expenses;
- foreign currency exchange rate fluctuations;
- write-downs, impairment charges or unforeseen liabilities in connection with acquisitions;
- our ability to successfully manage acquisitions; and
- general economic and political conditions in our domestic and international markets.

If we do not manage these risks successfully, our business will be harmed.

Our future success is dependent on the manner in which the multiscreen video and OTT markets develop, and if these markets develop in a manner that does not facilitate inclusion of our products and services, our business may not continue to grow.

A large portion of our anticipated revenue growth is expected to come from sales and services related to our multiscreen video and OTT products. These markets continue to develop as commercial markets, both within and outside North America. In addition to the potential size of these markets and the timing of their development being uncertain, so too is the technological manner in which they will develop. The success of these markets will require that video service providers continue to upgrade their cable networks to service and successfully market multiscreen video, OTT and similar services to their cable television subscribers in a manner that permits inclusion of our products and services. If cable system operators and telecommunications companies fail to make the capital expenditures necessary to upgrade their networks or determine that broad deployment of multiscreen video and OTT services is not viable as a business proposition or if our products cannot support a substantial number of subscribers while maintaining a high level of performance, our revenue will not grow as we have planned.

We may be unsuccessful in our efforts to become a company that primarily provides software solutions.

Our efforts to become a company that primarily provides software solutions may result in a reduction in both the range of products and services we offer and in the range of our current and potential future customers. Each of these factors may increase the level of execution risk in our strategy, in that there may be increased variability in our revenue. If we are unsuccessful in this transition, our business, financial condition and results of operation may be adversely affected, and the market price of our common stock may decrease.

If we are unable to successfully compete in our marketplace, our financial condition and operating results may be adversely affected.

We currently compete against companies offering video software solutions and have increasingly seen competition from integrated end-to-end solutions and a large number of OTT players. To the extent the products developed are competitive with and not complementary to our products, they may be more cost-effective than our solutions, which could result in cable television system operators and telecommunications companies discontinuing their purchases of our on-demand products. Due to the rapidly evolving markets in which we compete, additional competitors with significant market presence and financial resources, such as in-house solutions and online video platforms, may enter those markets, thereby further intensifying competition. Increased competition could result in price reductions, cancellations of purchase orders, losses of business with current customers to competitors, and loss of market share which would adversely affect our business, financial condition and results of operations. Many of our current and potential competitors have greater financial, selling and marketing, technical and other resources than we do. They may be in better position to withstand any significant reduction in capital spending by customers in our markets and may not be as susceptible to downturns in a particular market. Moreover, our competitors may also foresee the course of market developments more accurately than we do. Although we believe that we have certain technological and other advantages over our competitors, realizing and maintaining these advantages will require a continued high level of investment by us in research and product development, marketing and customer service and support. In the future, we may not have sufficient resources to continue to make these investments or to make the technological advances necessary to compete successfully with our existing competitors or with new competitors. If we are unable to compete effectively, our business, prospects, financial condition and operating results would be materially adversely affected because of the difference in our operating results from the assumptions on which our business model is based.

If we fail to respond to rapidly changing technologies related to multiscreen video, our business, financial condition and results of operations would be materially adversely affected because the competitive advantage of our products and services relative to those of our competitors would decrease.

The markets for our products are characterized by rapidly changing technology, evolving industry standards and frequent new product introductions and enhancements. Future technological advances in the television and video industries may result in the availability of new products or services that could compete with the solutions provided by us or reduce the cost of existing products or services, any of which could enable our existing or potential customers to fulfill their video needs better and more cost efficiently than with our products. Our future success will

depend on our ability to enhance our existing video products, including the development of new applications for our technology, and to develop and introduce new products to meet and adapt to changing customer requirements and emerging technologies such as the OTT market. In the future, we may not be successful in enhancing our video products or developing and marketing new products which satisfy customer needs or achieve market acceptance. In addition, there may be services, products or technologies developed by others that render our products or technologies uncompetitive, unmarketable or obsolete, or announcements of currently planned or other new product offerings either by us or our competitors that cause customers to defer or fail to purchase our existing solutions.

We have taken and continue to take measures to address the variability in the market for our products and services, which could have long-term negative effects on our business or impact our ability to adequately address a rapid increase in customer demand.

We have taken and continue to take measures to address the variability in the market for our products and services, including due to the impact of worldwide economic cycles, to increase average revenue per unit of our sales and to reduce our operating expenses, rationalize capital expenditure and minimize customer turnover. These measures include shifting more of our operations to lower cost regions by outsourcing and off-shoring, implementing cost reduction programs and reducing and rationalizing planned capital expenditures and expense budgets. We cannot ensure that the measures we have taken will not impair our ability to effectively develop and market products and services, to remain competitive in the industries in which we compete, to operate effectively, to operate profitably during slowdowns or to effectively meet a rapid increase in customer demand. These measures may have long-term negative effects on our business by reducing our pool of technical talent, decreasing or slowing improvements in our products and services, making it more difficult to hire and retain talented individuals and to quickly respond to customers or competitors in an upward cycle.

Because our customer base has been highly concentrated among a limited number of large customers, the loss of reduced demand by, or the return of product by one or more of these customers or the failure of revenue acceptance criteria to have been satisfied in a given fiscal quarter, could have a material adverse effect on our business, financial condition and results of operations.

Our customer base is highly concentrated among a limited number of large customers, and, therefore, a limited number of customers account for a significant percentage of our revenue in any fiscal period. Our sales to specific customers tend to vary significantly from year to year and from quarter to quarter depending upon these customers' budgets for capital expenditures and our new product introductions. We believe that a significant amount of our revenue will continue to be derived from a limited number of large customers in the future. The loss of, reduced demand for products or related services by, or return of a product previously purchased by any of our major customers or the failure of revenue acceptance criteria to have been satisfied in a given fiscal quarter, could materially and adversely affect, either in a particular quarter or on a more long-term basis, our business, financial condition and results of operations.

If we are unable to retain our existing customers, our revenue and results of operations will be adversely affected.

A portion of our business is subscription-based and as we seek to accelerate our penetration in OTT and serving new market segments with a SaaS revenue model, we will expand our subscription-based model. Our customers have no obligation to renew their subscriptions after their subscription period expires, and we will experience losses of customers that elect not to renew, in some cases, for reasons beyond our control. Even if subscriptions are renewed, they may not be renewed on the same or on more profitable terms. As a result, our ability to retain our existing customers and grow depends in part on subscription renewals. We may not be able to accurately predict future trends in customer renewals, and our customers' renewal rates have and may continue to fluctuate because of several factors, including their satisfaction or dissatisfaction with our services, the cost of our services and the cost of services offered by our competitors, reductions in our customers' and their end users' spending levels or the introduction by competitors of attractive features and functionality. If our customer retention rate decreases, we may need to increase the rate at which we add new customers in order to maintain and grow our revenue, which may require us to incur significantly higher sales and marketing expenses than we currently anticipate, or our revenue may decline. If our customers do not renew their subscriptions for our services, renew on less favorable terms, or do not purchase additional functionality or subscriptions, our revenue may grow more slowly than expected or decline, and our profitability and gross margins may be harmed or affected. Our Framework subscription model was

introduced in fiscal 2020 and as such we do not have historical renewal data to rely on to help us predict our future renewal rates and we will not have relevant renewal data for a number of years.

Consolidations in the markets we serve could result in delays or reductions in purchases of products, which would have a material adverse effect on our business.

The markets we serve have historically experienced, and continue to experience, the consolidation of many industry participants. For example, AT&T acquired Direct TV, Charter Communications acquired Time Warner Cable, Altice NV acquired HOT, Suddenlink Communications and Cablevision Systems Corp., and Frontier Communications Corporation bought select assets from Verizon Communications Inc. When consolidations occur, it is possible that the acquirer will not continue using the same suppliers, possibly resulting in an immediate or future elimination of sales opportunities for us or our competitors. Even if sales are not reduced, consolidation can also result in pressure from customers for lower prices or better terms, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired. Consolidations also could result in delays in purchasing decisions by the affected companies prior to completion of the transaction and by the merged businesses. The purchasing decisions of the merged companies could have a material adverse effect on our business.

Cancellation or deferral of purchases of our products or final customer acceptance could cause a substantial variation in our operating results, resulting in a decrease in the market price of our common stock and making period-to-period comparisons of our operating results less meaningful.

We have historically derived a substantial portion of our revenue from purchase orders that have exceeded one million dollars in value. A significant cancellation or deferral of purchases of our products or receiving final customer acceptance could result in a substantial variation in our operating results in any particular quarter due to the resulting decrease in revenue and gross margin. In addition, to the extent significant sales occur earlier than expected, operating results for subsequent quarters may be adversely affected because our operating costs and expenses are based, in part, on our expectations of future revenue, and we may be unable to adjust spending in a timely manner to compensate for any revenue shortfall. Because of these factors, in some future quarter our operating results may be below guidance that we may issue or the expectations of public market analysts and investors, either of which may adversely affect the market price of our common stock. In addition, these factors may make period-to-period comparisons of our operating results less meaningful.

Adoption of our value based selling approach for our products and services may adversely impact our revenues and operating results.

In February 2019, we began providing our products and services to customers on the basis of our value based selling approach, under which customers would license our products and services, including specified upgrades, for a fixed period of time for a fixed price. If we do not correctly understand the magnitude of expenses we will incur in connection with these new agreements, our operating results would be materially affected. In addition, our revenues may be adversely affected if the new approach results in a delay in our ability to recognize revenue, in which case our revenues and operating results would be materially affected.

Due to the lengthy sales cycle involved in the sale of our products, our quarterly results may vary and should not be relied on as an indication of future performance.

Our software products and related services are relatively complex and their purchase generally involves a significant commitment of capital, with attendant delays frequently associated with large capital expenditures and implementation procedures within an organization. Moreover, the purchase of these products typically requires coordination and agreement among a potential customer's corporate headquarters and its regional and local operations. For these and other reasons, the sales cycle associated with the purchase of our software products and services is typically lengthy and subject to a number of significant risks, including customers' budgetary constraints and internal acceptance reviews, over which we have little or no control. Based upon all of the foregoing, we believe that our quarterly revenue and operating results are likely to vary significantly in the future, that period-to-period comparisons of our results of operations are not necessarily meaningful and that these comparisons should not be relied upon as indications of future performance.

If there were a decline in demand or average selling prices for our products and services, our revenue and operating results would be materially affected.

A decline in demand or average selling prices for our products or services in the foreseeable future, whether as a result of new product introductions by others, price competition, technological change, inability to enhance the products in a timely fashion, or otherwise, could have a material adverse effect on our business, financial condition and results of operations. Increasingly, we are seeing competition from integrated end-to-end solutions and a large number of OTT players, each of which may reduce the demand for or average selling prices of our products and services and adversely affect our business, financial condition and results of operations.

We must manage product transitions successfully to remain competitive.

The introduction of a new product or product line is a complex task, involving significant expenditures in research and development, training, promotion and sales channel development. However, we cannot assure that we will be able to execute product transitions in an efficient manner or that product transitions will be executed without harming our operating results. Failure to develop products with required features and performance levels or any delay in bringing a new product to market could significantly reduce our revenue and harm our competitive position.

We may fail to achieve our financial forecasts due to inaccurate sales forecasts or other factors.

Our revenue is difficult to forecast, and as a result, our quarterly operating results can fluctuate substantially. We use a "pipeline" system, a common industry practice, to forecast sales and trends in our business. Our sales personnel monitor the status of all proposals and estimate when a customer will make a purchase decision and the dollar amount of the sale. These estimates are aggregated periodically to generate a sales pipeline. Our pipeline estimates can prove to be unreliable both in a particular quarter and over a longer period of time, in part because the "conversion rate" or "closure rate" of the pipeline into contracts can be very difficult to estimate. A reduction in the conversion rate, or in the pipeline itself, could cause us to plan or budget incorrectly and adversely affect our business or results of operations. In particular, a slowdown in capital spending or economic conditions generally can unexpectedly reduce the conversion rate in particular periods as purchasing decisions are delayed, reduced in amounts or cancelled. The conversion rate can also be affected by the tendency of some of our customers to wait until the end of a fiscal period in the hope of obtaining more favorable terms, which can also impede our ability to negotiate, execute and deliver upon these contracts in a timely manner.

In addition to the other risks described in this "Risk Factors" section, the following risks could cause fluctuations in our quarterly operating results:

- our ability to retain existing customers and attract new customers;
- the rates at which our customers renew;
- the amount of revenue generated from our customers' use of our products or services in excess of their committed contractual entitlements;
- the timing and amount of costs of new and existing sales and marketing efforts;
- the timing and amount of operating costs and capital expenditures relating to expansion of our business, operations and infrastructure; and

- the cost and timing of the development and introduction of new product and service offerings by us or our competitors.

Because a significant portion of our cost structure is largely fixed in the short-term, revenue shortfalls tend to have a disproportionately negative impact on our profitability. The number of large new software licenses transactions increases the risk of fluctuations in our quarterly results because a delay in even a small number of these transactions could cause our quarterly revenue and profitability to fall significantly short of our predictions.

Restructuring programs could have a material negative impact on our business.

To increase strategic focus and operational efficiency we have implemented restructuring programs. In fiscal 2017, we undertook significant cost-saving actions and established an additional company-wide cost savings program in the second half of fiscal 2017. The 2017 restructuring program allowed us to achieve approximately \$38 million in annualized cost savings since their commencement and resulted in aggregate charges of approximately \$9 million as of January 31, 2018 in severance and restructuring costs. In fiscal 2019, we further implemented a cost restructuring program (the “2019 Restructuring Program”), the primary element of which was staff reductions across all of our functions and geographic areas. In fiscal 2020, we continued to streamline our operations and closed our service organizations in Ireland and the Netherlands for which we expect additional annualized costs savings of \$6.0 million. As a result of these restructuring programs, our total number of employees significantly decreased. We may incur additional restructuring costs or not realize the expected benefits of these new initiatives. Further, we could experience delays, business disruptions, decreased productivity, unanticipated employee turnover and increased litigation-related costs in connection with past and future restructuring and other efficiency improvement activities, and there can be no assurance that our estimates of the savings achievable by restructuring will be realized. As a result, our restructuring and our related cost reduction activities could have an adverse impact on our financial condition or results of operations.

If we are unable to manage our efforts to focus our business and grow in targeted areas, our business may be harmed through a diminished ability to monitor and control effectively our operations, and a decrease in the quality of work and innovation of our employees.

Our ability to successfully focus our business and grow in targeted areas requires effective planning and management. We are also continuing to transition towards greater reliance on our software products and services for a significant portion of our total revenue. In light of the growing complexities in managing our expanding portfolio of products and services, our anticipated future operations may continue to strain our operational and administrative resources. To manage future growth effectively, we must continue to improve our operational controls and internal controls over financial reporting, integrate new personnel and the businesses we have acquired, or will acquire, and manage our expanding international operations. A failure to manage our growth may harm our business through a decreased ability to monitor and control effectively our operations, and a decrease in the quality of work and innovation of our employees upon which our business is dependent.

Because our business is susceptible to risks associated with international operations, we may not be able to maintain or increase international sales of our products and services.

Approximately 53% of our total revenue was generated from sales outside the United States (“U.S.”) during the most recent fiscal year. Our international operations are expected to continue to account for a significant portion of our business in the foreseeable future. However, in the future we may be unable to maintain or increase international sales of our products and services. Our international operations are subject to a variety of risks, including:

- difficulties in establishing and managing international distribution channels;
- difficulty in staffing and managing foreign operations;
- inability to collect accounts receivable;
- difficulties in selling, servicing and supporting overseas products and services and in translating products and services into foreign languages;

- the uncertainty of laws and enforcement in certain countries relating to the protection of intellectual property;
- fluctuations in currency exchange rates;
- multiple and possibly overlapping tax structures;
- negative tax consequences such as withholding taxes and employer payroll taxes;
- differences in labor laws and regulations affecting our ability to hire and retain employees and engage in restructuring activities;
- business and operational disruptions or delays caused by political, social and economic instability and unrest, including risks related to terrorist activity;
- changes in economic policies by foreign governments, including the imposition and potential continued expansion of economic sanctions by the U.S. and the European Union (the “EU”) or the Russian Federation;
- the burden of complying with a wide variety of foreign laws, treaties and technical standards;
- cultural differences in the conduct of business;
- natural disasters and pandemics; and
- growth and stability of the economy or political changes in international markets.

The impact of one or more of these international risks could have a material and adverse effect on our business, financial condition, operating results and cash flow.

We are exposed to fluctuations in currency exchange rates that could negatively impact our financial results and cash flows.

Because a significant portion of our business is conducted outside the U.S., we face exposure to adverse movements in foreign currency exchange rates. These exposures may change over time as business practices evolve, and they could have a material adverse impact on our financial results and cash flows. An increase in the value of the U.S. dollar could increase the real cost to our customers of our products in those markets outside the U.S. where we often sell in dollars, and a weakened dollar could increase local currency operating costs. In preparing our consolidated financial statements, certain financial information is required to be translated from foreign currencies to the U.S. dollar using either the spot rate or the weighted average exchange rate. If the U.S. dollar weakens or strengthens relative to applicable local currencies, there is a risk our reported sales, operating expenses and net income could significantly fluctuate. We are not able to predict the degree of exchange rate fluctuations; nor can we estimate the effect any future fluctuations may have upon our future operations.

Economic conditions and regulatory changes following the United Kingdom’s exit from the EU could have a material adverse effect on our business and results of operations.

The U.K. formally left the EU on January 31, 2020, typically referred to as “Brexit.” Pursuant to the formal withdrawal arrangements agreed between the U.K. and EU, the U.K. will be subject to a transition period until December 31, 2020 during which EU rules will continue to apply. Negotiations between the U.K. and EU are expected to continue in relation to the customs and trading relationship between the U.K. and EU following the expiration of the transition period. The uncertainty concerning the U.K.’s legal, political and economic relationship with the EU after the transition period may be a source of instability in international markets, create significant currency fluctuations and otherwise adversely affect trading agreements or similar cross-border cooperation arrangements, whether economic, tax, fiscal, legal, regulatory or otherwise. While the full effects of Brexit will not be known for some time, Brexit could cause disruptions to, and create uncertainty surrounding, our business and results of operations. For example, following the transition period, the U.K. could lose the benefits of global trade agreements negotiated by the EU on behalf of its members, which may result in increased trade barriers that could make our doing business in the EU and the European Economic Area more difficult. Ongoing global market volatility and a deterioration in economic conditions due to uncertainty surrounding the future relationship between

the U.K. and EU could significantly disrupt the markets in which we operate and lead our customers to closely monitor their costs and delay capital spending decisions.

Additionally, Brexit has resulted in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. Although this strengthening has been somewhat ameliorated by the implementation of the transition period, because we translate revenue denominated in foreign currency into U.S. dollars for our financial statements, during periods of a strengthening U.S. dollar, our reported revenue from foreign operations is reduced. As a result of Brexit and the continued negotiations between the U.K. and EU, there may be further periods of volatility in the currencies in which we conduct business.

The effects of Brexit will depend on any agreements the U.K. makes to retain access to EU markets following the transition period. The measures could potentially disrupt the markets we serve and may cause us to lose customers and employees. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which EU laws to replace or replicate, which could present new regulatory costs and challenges.

Any of these effects of Brexit could materially adversely affect our business, results of operations and financial condition.

Our ability to compete could be jeopardized if we are unable to protect our intellectual property rights from third-party challenges.

Our success and ability to compete depends upon our ability to protect our proprietary technology that is incorporated into our products. We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. Although we have issued patents, we cannot assure that any additional patents will be issued or that the issued patents will not be invalidated. We also enter confidentiality or license agreements with our employees, consultants and corporate partners, and control access to and distribution of our software, documentation and other proprietary information. Despite these precautions, it may be possible for a third-party to copy or otherwise misappropriate and use our products or technology without authorization, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the U.S. We may need to resort to litigation in the future to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. If competitors are able to use our technology, our ability to compete effectively could be harmed.

We have been and, in the future, could become subject to litigation regarding intellectual property rights, which could seriously harm our business and require us to incur significant legal costs to defend our intellectual property rights.

The industry in which we operate is characterized by vigorous protection and pursuit of intellectual property rights or positions, which on occasion, have resulted in significant and often protracted litigation. We have from time to time received, and may in the future receive, communications from third-parties asserting infringements on patent or other intellectual property rights covering our products or processes. We may be a party to litigation in the future to enforce our intellectual property rights or because of an allegation that we infringe others' intellectual property. Any parties asserting that our products infringe upon their proprietary rights would force us to defend ourselves and possibly our customers or manufacturers against the alleged infringement, as many of our commercial agreements require us to defend and/or indemnify the other party against intellectual property infringement claims brought by a third-party with respect to our products. We have received certain claims for indemnification from customers but have not been made party to any litigation involving intellectual property infringement claims as a result. These claims and any resulting lawsuit, if successful, could subject us to significant liability for damages and invalidation of our proprietary rights. This possibility of multiple damages serves to increase the incentive for plaintiffs to bring such litigation. In addition, these lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management time and attention away from our operations. Although we carry general liability insurance, our insurance may not cover potential claims of this type or may not be adequate to indemnify us for all liability that may be imposed. In addition, any potential intellectual property litigation also could force us to stop selling, incorporating or using the products that use the infringed intellectual property or obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology, although this license may not be available on reasonable terms, or at all, or redesign those products that use the

infringed intellectual property. If we are forced to take any of the foregoing actions, our business may be seriously harmed.

If content providers limit the scope of content licensed for use in the digital VOD and OTT market, our business, financial condition and results of operations could be negatively affected because the potential market for our products would be more limited than we currently believe and have communicated to the financial markets.

The success of the multiscreen video market is contingent on content providers permitting their content to be licensed for use in this market. Content providers may, due to concerns regarding either or both marketing and illegal duplication of the content, limit the extent to which they provide content to their subscribers. A limitation of content for the VOD and OTT market would indirectly limit the market for our products that are used in connection with that market.

If we are not able to obtain necessary licenses, services or distribution rights for third-party technology at acceptable prices, or at all, our products could become obsolete or we may not be able to deliver certain product offerings.

We have incorporated third-party licensed technology into our current products and our product lines. From time to time, we may be required to license additional technology or obtain services from third-parties to develop new products or product enhancements or to provide specific solutions. Third-party providers may not be available or continue to be available to us on commercially reasonable terms. The inability to maintain or re-license any third-party products required in our current products or to obtain any new third-party licenses and services necessary to develop new products and product enhancements or provide specific solutions could require us to obtain substitute technology of lower quality or performance standards or at greater cost. Such inability could delay or prevent us from making these products or services, which could seriously harm the competitiveness of our solutions.

A portion of the technology licensed by us incorporates “open source” software, and we may incorporate open source software in the future. Such open source software is generally licensed by its authors or other third parties under open source licenses. Although we monitor our use of open source closely, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. In addition, if we fail to comply with these licenses, we may be subject to certain conditions, including requirements that we offer our services that incorporate the open source software for no cost, that we make available source code for modifications or derivative works we create based upon, incorporating or using the open source software and that we license such modifications or alterations under the terms of the particular open source license. If an author or other third party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations and could be subject to significant damages, enjoined from the sale of our services that contain the open source software and required to comply with the foregoing conditions, which could disrupt the distribution and sale of some of our services. We could also be required to seek licenses from third-parties to continue offering our products, to re-engineer our products or to discontinue the sale of our products in the event re-engineering cannot be accomplished on a timely or successful basis, any of which could adversely affect our business, operating results and financial condition.

Our products are subject to warranty claims.

We sell our products with warranties as to the products’ performance in accordance with standard published specifications in effect at the time of delivery. There can be no assurance that the provision in our financial statements for estimated product warranty expense will be sufficient. We cannot ensure you that our efforts to reduce our risk through warranty disclaimers will effectively limit our liability. Any significant occurrence of warranty expense in excess of estimates could have a material adverse effect on our operating results, financial condition and cash flow. Further, we provide maintenance support to our customers and allocate a portion of the product purchase price to the initial warranty period and recognize revenue on a straight-line basis over that warranty period related to both the warranty obligation and the maintenance support agreement. We cannot be sure that the cost of such maintenance support will be adequately provided for in our financial statements and any

additional maintenance expenses could likewise have a material adverse effect on our operating results, financial condition and cash flow.

If our software products contain serious errors or defects, then we may lose revenue and market acceptance and may incur costs to defend or settle claims.

Complex software applications such as ours often contain errors or defects, particularly when first introduced or when new versions or enhancements are released. Despite internal testing and testing by our customers, our current and future products may contain serious defects, which could result in lost revenue, lost customers, slower growth or a delay in market acceptance.

Since our customers use our products for critical business applications, errors, defects or other performance problems could result in damage to our customers. These errors and defects could result in product liability, services level agreement claims or warranty claims. Although our customer agreements typically contain provisions designed to limit our exposure to claims, including warranty disclaimers, existing or future laws or unfavorable judicial decisions could negate these limitations. Even if not successful, a claim brought against us would likely be time-consuming and costly and could seriously damage our reputation in the marketplace, making it harder for us to sell our products and/or collect payment from our customers.

We may not fully realize the benefits of our completed acquisitions or it may take longer than we anticipate for us to achieve those benefits. Future acquisitions may be difficult to integrate, disrupt our business, dilute stockholder value or divert management attention.

As part of our business strategy, we have acquired and may in the future seek to acquire or invest in new businesses, products or technologies that we believe could complement or expand our business, augment our market coverage, enhance our technical capabilities or otherwise offer growth opportunities. For example, in February 2019, we acquired Xstream A/S, an OTT media cloud platform provider based in Copenhagen, Denmark and Warsaw, Poland for approximately \$4.6 million in cash and 541,738 shares of our common stock. Acquisitions could create risks for us, including:

- difficulties in assimilation of acquired personnel, operations, technologies or products that may affect our ability to develop new products and services and compete in our rapidly changing marketplace due to a resulting decrease in the quality of work and innovation of our employees upon which our business is dependent;
- delays in realizing, or failure to realize, the anticipated benefits of an acquisition. Even if we can integrate these businesses and operations successfully, we may not realize the full benefits we expect to achieve, within the anticipated timeframe, or at all. If a company we purchase does not perform as we expected, our investment could become impaired or we could discontinue the operations and our financial results could be negatively impacted;
- adverse effects on the business relationships with pre-existing suppliers and customers of both companies. This may be important to our business because we sell our products to a limited number of large customers, we purchase certain components used in manufacturing our products from sole suppliers and we use a limited number of third-party manufacturers to manufacture our product; and
- uncertainty among current and prospective employees regarding their future roles with our company, which might adversely affect our ability to retain, recruit and motivate key personnel.

Acquisitions or divestitures may adversely affect our financial condition.

We could acquire additional products, technologies or businesses, or enter joint venture arrangements, to complement or expand our business, or engage in divestitures. As previously noted, we acquired Xstream A/S in February 2019. Negotiation of potential acquisitions, divestitures or joint ventures and our integration or transfer of acquired or divested products, technologies or businesses, could divert management's time and resources.

As part of our strategy for growth, we may continue to explore acquisitions, divestitures, or strategic collaborations, which may not be completed or may not be ultimately beneficial to us.

Acquisitions or divestitures may pose risks to our operations, including:

- problems and increased costs in connection with the integration or divestiture of the personnel, operations, technologies, or products of the acquired or divested businesses;
- unanticipated costs;
- potential disruption of our business and the diversion of management's attention from our core business during the acquisition or divestiture process;
- inability to make planned divestitures of businesses on favorable terms in a timely manner or at all;
- acquired assets becoming impaired because of technical advancements or worse-than-expected performance by the acquired company; and
- entering markets in which we have no, or limited, prior experience.

Additionally, in connection with any acquisitions or investments we could:

- issue stock that would dilute our existing stockholders' ownership percentages, such as occurred in connection with our February 2019 acquisition of Xstream A/S;
- incur debt and assume liabilities;
- record contingent liabilities estimated for potential earnouts based on achieving financial targets;
- obtain financing on unfavorable terms;
- incur amortization expenses related to acquired intangible assets or incur large and immediate write-offs;
- incur large expenditures related to office closures of the acquired companies, including costs relating to the termination of employees and facility and leasehold improvement charges resulting from our having to vacate the acquired companies' premises; and
- reduce the cash that would otherwise be available to fund operations or for other purposes.

We face the risk that capital needed for our business will not be available when we need it or that it would result in substantial dilution to our stockholders.

To the extent that our existing cash and investments are insufficient to fund our future activities, we may need to raise additional funds through public or private equity or debt financings. If unfavorable capital market conditions exist and we were to seek additional funding, we may not be able to raise sufficient capital on favorable terms and on a timely basis, if at all. Failure to obtain capital when required by our business circumstances would have a material adverse effect on our business, financial condition and results of operations. In addition, our stockholders may incur substantial dilution from any financing that we undertake given our current stock price.

We may not have access in the future to sufficient funding to finance desired growth and operations.

If we cannot secure future funds or financing on acceptable terms, we may be unable to support our future operations or growth strategy. We use cash for strategic collaborations and other investments, both of which are elements of our growth strategy, and the timing and size of our collaboration or investment efforts cannot be readily predicted. If we experience deficits in our cash flows from operating activities in the future or we are unable to obtain new financing, there could be limitations on the availability of funds resulting in limitations in our financial flexibility, thereby inhibiting our future operations or growth strategy and that may result in our need to seek capital through additional debt financing arrangements, debt offerings, or equity offerings, which either may not be available to us or may not be available to us on favorable terms, including resulting in significant dilution of our stockholders.

If our indefinite-lived or other long-lived assets become impaired, we may be required to record a significant charge to earnings.

Our valuation methodology for assessing impairment requires management to make judgments and assumptions based on projections of future operating performance. We operate in highly competitive environments and projections of future operating results and cash flows may vary materially from actual results. We may be required to record a significant noncash charge to earnings in our financial statements during the period in which any impairment of our indefinite-lived assets or other long-lived assets is determined, such as the \$17.0 million impairment charges we recorded in fiscal 2019, to our consolidated statements of operations and comprehensive loss as a result of our impairment testing of our goodwill and other long-lived assets.

Our ability to utilize our net operating losses, or NOLs, and certain other tax attributes may be limited.

As of January 31, 2020, we had federal NOLs of \$108.9 million. Federal and state tax laws impose restrictions on the utilization of NOLs and tax credit carryforwards in the event of an “ownership change” as defined by Section 382 of the Internal Revenue Code of 1986, as amended (“Section 382”). Generally, an “ownership change” occurs if the percentage of the value of the stock that is owned by one or more direct or indirect “five percent shareholders” increases by more than 50% over their lowest ownership percentage at any time during an applicable testing period (typically, three years). Under Section 382, if a corporation undergoes an “ownership change,” such corporation’s ability to use its pre-change NOL and tax credit carryforwards and other pre-change tax attributes to offset its post-change income may be limited. While no “ownership change” has resulted in annual limitations, future changes in our stock ownership, which may be outside of our control, may trigger an “ownership change.” In addition, future equity offerings or acquisitions that have equity as a component of the consideration could result in an “ownership change.” If an “ownership change” occurs in the future, utilization of our NOL and tax credit carryforwards or other tax attributes may be limited, which could potentially result in increased future tax liability to us. Any limitation on our ability to use NOLs may adversely impact our financial results. In March 2019, we adopted a Tax Benefits Preservation Plan in the form of a stockholder rights agreement with an ownership trigger threshold of 4.9% to assist in the preservation of our ability to use NOLs and tax credit carryforwards, which was approved by our stockholders at our last annual meeting of stockholders.

We may not be able to hire and retain highly skilled employees, which could affect our ability to compete effectively because our business is technology-based.

Our success depends to a significant degree upon the continued contributions of our key personnel, many of whom would be difficult to replace. We believe that our future success will also depend in large part upon our ability to attract and retain highly skilled managerial, engineering, customer service, selling and marketing, finance, administrative and manufacturing personnel, as our business is technology-based. Because competition for these personnel is intense, we may not be able to attract and retain qualified personnel in the future. The loss of the services of any of the key personnel, the integration of new personnel, the inability to attract or retain qualified personnel in the future or delays in hiring required personnel, particularly software engineers and sales personnel, could have a material adverse effect on our business, financial condition and results of operations because our business is technology-based.

We have experienced turnover in our senior management, which could result in operational and administrative inefficiencies and could hinder the execution of our growth strategy.

We have recently experienced turnover in our senior management. For example, Mr. Yossi Aloni joined us as Chief Commercial Officer in January 2019 and was appointed as Chief Executive Officer (“CEO”) and President in August 2019, and our Chief Financial Officer joined us in October 2019. Lack of management continuity could harm our customer relationships, delay product development processes, adversely affect our ability to successfully execute our growth strategy, result in operational and administrative inefficiencies and added costs, and could impede our ability to recruit new talented individuals to senior management positions, which could adversely impact our results of operations, stock price and customer relationships. Our success largely depends on our ability to integrate any new senior management within our organization in order to achieve our operating objectives, and changes in other key positions may affect our financial performance and results of operations as new members of management become familiar with our business.

We face significant risks to our business when we engage in the outsourcing of engineering work, including outsourcing of software work overseas, which, if not properly managed, could result in the loss of valuable intellectual property and increased costs due to inefficient and poor work product, which could harm our business, including our financial results, reputation, and brand.

We may, from time-to-time, outsource engineering work related to the design and development of our products, typically to save money and gain access to additional engineering resources. We have worked, and expect to work in the future, with companies located in jurisdictions outside of the U.S., including, but not limited to Poland and the Netherlands. We have limited experience in the outsourcing of engineering and other work to third-parties located internationally that operate under different laws and regulations than those in the U.S. If we are unable to properly manage and oversee the outsourcing of this engineering and other work related to our products, we could suffer the loss of valuable intellectual property, or the loss of the ability to claim such intellectual property, including patents and trade names. Additionally, instead of saving money, we could in fact incur significant additional costs because of inefficient engineering services and poor work product. As a result, our business would be harmed, including our financial results, reputation, and brand.

We may have additional tax liabilities.

We are subject to income taxes in both the U.S. and numerous foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are regularly under audit by various tax jurisdictions. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on our income tax provision, net income, or cash flows in the period or periods for which that determination is made. In addition, we are subject to sales, use and similar taxes in many countries, jurisdictions and provinces, including those states in the U.S. where we maintain a physical presence or have a substantial nexus. These taxing regimes are complex. For example, in the U.S., each state and local taxing authority has its own interpretation of what constitutes a sufficient physical presence or nexus to require the collection and remittance of these taxes. Similarly, each state and local taxing authority has its own rules regarding the applicability of sales tax by customer or product type.

If our security measures are breached and unauthorized access is obtained to a customer's data or our data on our systems, our service may be perceived as not being secure, customers may curtail or stop using our service and we may incur significant legal and financial exposure and liabilities.

Cyber criminals and hackers may attempt to penetrate our network security, misappropriate our proprietary information or cause business interruptions. Our service involves the transmission of customers' proprietary information and security breaches could expose us to a risk of loss of this information or a network disruption, which may result in litigation and possible liability. These security measures may be breached as a result of third-party action, including intentional misconduct by computer hackers, employee error, malfeasance or otherwise and result in unauthorized publication of our confidential business or proprietary information, cause an interruption in our operations, result in the unauthorized release of customer or employee data, result in a violation of privacy or other laws, expose us to a risk of litigation or damage our reputation, which could harm our business and operating results. Additionally, third-parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information to gain access to our customers' data or our data or IT systems. Because the techniques used to obtain unauthorized access, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. In addition, our customers may authorize third-party technology providers to access their customer data. Because we do not control our customers and third-party technology providers, or the processing of such data by third-party technology providers, we cannot ensure the integrity or security of such transmissions or processing. Malicious third-parties may also conduct attacks designed to temporarily deny customers access to our services. Any security breach could result in a loss of confidence in the security of our service, damage our reputation, negatively impact our future sales, disrupt our business operations and lead to legal liability from customers, third parties and governmental authorities. While we believe that we have taken appropriate security measures to minimize these risks to our data and information systems, there can be no assurance that our efforts will prevent breakdowns or breaches in our systems that could adversely affect our business.

Recently reported hacking attacks on government and commercial computer systems raise the risks that such an attack may compromise, in a material respect, one or more of our computer systems and permit hackers access to our proprietary information and data. If such an attack does, in fact, allow access to or theft of our proprietary information or data, our business, operating results and reputation could be materially and adversely affected.

Evolving data privacy regulations, including the EU’s General Data Protection Regulation (“GDPR”), and the California Consumer Privacy Act (“CCPA”), may subject us to significant penalties.

In May 2018, the EU’s GDPR came into effect, and changed how businesses can collect, use and process the personal data of EU residents. The GDPR has extraterritorial effect and imposes a mandatory duty on businesses to self-report personal data breaches to authorities, and, under certain circumstances, to affected individuals. The GDPR also grants individuals the right to erasure (commonly referred to as the right to be forgotten), which may put a burden on us to erase records upon request. Compliance with the GDPR’s new requirements may increase our legal, compliance, and operational costs. Non-compliance with the GDPR’s requirements can result in significant penalties, which may have a material adverse effect on our business, expose us to legal and regulatory costs, and impair our reputation.

Other jurisdictions, including certain U.S. states and non-U.S. jurisdictions where we conduct business, have also enacted or are considering enacting their own versions of “GDPR-like” data privacy legislation, which could create additional compliance challenges, heightened regulatory scrutiny, administrative burden and potentially expose us to significant penalties. For example, in June 2018, California’s legislature passed the CCPA, which went into effect on January 1, 2020. Any failure or perceived failure by us, our business partners, or third party service providers to comply with GDPR, CCPA, other privacy-related or data protection laws and regulations, or the privacy commitments in contracts could result in proceedings against us by governmental entities or others and significant fines, which could have a material adverse effect on our business and operating results and harm our reputation.

In addition, some countries have or are considering legislation requiring local storage and processing of data that, if enacted, could increase the cost and complexity of offering our products, software and services or maintaining our business operations in those jurisdictions.

Interruptions or delays in service from our third-party data center hosting facilities or our enterprise cloud computing providers could impair the delivery of our service, adversely affect our financial results and otherwise harm our business.

We use third-party data center hosting facilities for customers buying our SaaS product offering, and we use enterprise cloud computing providers in connection with certain other aspects of our business, including cloud-based data processing, storage and other services. In the case of data center hosting facilities, while we control the actual computer and storage systems upon which our software runs, and deploy them to the data center hosting facilities, we do not control the operation or availability of these facilities. We similarly do not have control over the operation or availability of enterprise cloud computing providers that we use. Any changes in third-party service levels at these facilities or any errors, defects, disruptions or other performance problems at or related to these facilities that affect our services could harm our reputation and may damage our customers’ businesses.

Interruptions in our service may reduce our revenue, cause us to issue credits or pay penalties, cause customers to terminate their subscriptions and adversely affect our attrition rates and our ability to attract new customers. Our business will also be harmed if our customers and potential customers believe our service is unreliable. We do not control the operation of any of these facilities, and they are vulnerable to damage or interruption from earthquakes, floods, fires, power loss, telecommunications failures and similar events. They may also be subject to break-ins, sabotage, intentional acts of vandalism and similar misconduct. Despite precautions taken at these facilities, the occurrence of a natural disaster or an act of terrorism, a decision to close the facilities without adequate notice or other unanticipated problems at these facilities could result in lengthy interruptions in our service. Even with the disaster recovery arrangements, our service could be interrupted.

A disruption to our information technology systems could significantly impact our operations and impact our revenue and profitability.

Our data processing and financial reporting systems are cloud-based and hosted by a third-party. An interruption to the third-party systems or in the infrastructure that allows us to connect to the third-party systems for an extended

period may impact our ability to operate the business and process transactions which could result in a decline in sales and affect our ability to achieve or maintain profitability. It may also result in our inability to comply with SEC regulations in a timely manner.

Our stock price may be volatile and an investment in our stock may decline. If we fail to comply with the continuing listing standards of The NASDAQ Global Select Market, our securities could be delisted.

Historically, the market for technology stocks has been extremely volatile. Our common stock has experienced, and may continue to experience, substantial price volatility. The occurrence of any one or more of the factors noted in these risk factors could cause the market price of our common stock to fluctuate or decline below the \$1.00 Nasdaq minimum price requirement such that we become subject to delisting proceedings. Any delisting of our securities could have an adverse effect on the market price of, and the efficiency of the trading market for our securities, not only in terms of the number of shares that can be bought and sold at a given price, but also through delays in the timing of transactions and less coverage of us by securities analysts, if any. Also, if in the future we were to determine that we need to seek additional equity capital, having been delisted or being subject to delisting proceedings could have an adverse effect on our ability to raise capital in the public or private markets. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted against such companies.

Actions that may be taken by significant stockholders may divert the time and attention of our Board of Directors and management from our business operations.

Campaigns by significant investors to effect changes at publicly-traded companies continue to be prevalent. There can be no assurance that one or more current or future stockholders will not pursue actions to effect changes in our management and strategic direction, including through the solicitation of proxies from our stockholders. If a proxy contest were to be pursued by a stockholder, it could result in substantial expense to us, consume significant attention of our management and Board of Directors, and disrupt our business. On February 28, 2019, we entered into a cooperation agreement with Karen Singer and TAR Holdings LLC. Pursuant to the terms of the cooperation agreement, we appointed both Robert Pons and Jeffrey Tudor to our Board. Certain of our significant stockholders expressed disagreement with the cooperation agreement and it is possible that some of our stockholders may conduct a "vote no" campaign against the election of all or certain of our board members standing for election at our upcoming annual meeting of stockholders and cause the Board to consider the resignation of any candidate who does not achieve the support of a majority of votes cast in an uncontested election. Similar to a proxy contest, this could result in substantial expense to us, consume significant attention of our management and Board of Directors, and disrupt our business.

Securities analysts may not publish favorable research or reports about our business or may publish no information, which could cause our stock price or trading volume to decline.

The trading market for our common stock is influenced by the research and reports that industry or financial analysts publish about us and our business. We do not control these analysts. BWS Financial Inc. ceased to cover us in March 2019, and we are currently covered by only a limited number of analysts. If any of the analysts who cover us issue an adverse opinion regarding our stock price, our business or stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports covering us, we could lose visibility in the market, which in turn could cause our stock price or trade volume to decline.

We utilize non-GAAP reporting in our quarterly earnings press releases.

We publish non-GAAP financial measures in our quarterly earnings press releases, along with a reconciliation of non-GAAP financial measures to those measures determined in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The reconciling items have adjusted for certain non-cash or non-recurring items and are described in detail in each such quarterly earnings press release. We believe that this presentation may be meaningful to investors in analyzing the results of operations and income generation as this is how our business is managed. The market price of our stock may fluctuate based on future non-GAAP results if investors base their investment decisions upon such non-GAAP financial measures. If we decide to curtail use of

non-GAAP financial measures in our quarterly earnings press releases, the market price of our stock could be affected if investors analyze our performance in a different manner.

Changes in financial accounting standards may cause adverse unexpected revenue fluctuations and affect our reported results of operations.

We prepare our consolidated financial statements in accordance with GAAP. These principles are subject to interpretations by the SEC and various bodies formed to interpret and create appropriate accounting principles. A change in these principles can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. The adoption of new or revised accounting principles may require that we make significant changes to our systems, processes and controls.

Any weakness identified in our system of internal controls by us and our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 could have an adverse effect on our business.

Section 404 of the Sarbanes-Oxley Act of 2002 requires that companies evaluate and report on their systems of internal control over financial reporting. In addition, our independent registered public accounting firm must express an opinion on our internal controls over financial reporting based on their audit. There can be no assurance that no weakness in our internal control over financial reporting will occur in future periods, or that any weakness will not have a material adverse effect on our business or financial results, including our ability to report our financial results in a timely manner.

We use estimates in accounting for our contracts. Changes in our estimates could adversely affect our future financial results.

Contract accounting requires judgment relative to assessing risks, estimating revenue and costs and making assumptions including, in the case of our professional services contracts, the total amount of labor required to complete a project and the complexity of the development and other technical work to be completed. Due to the size and nature of many of our contracts, the estimation of total revenue and cost at completion is complicated and subject to many variables. Assumptions must be made regarding the length of time to complete the contract because costs also include estimated third-party vendor and contract labor costs. Penalties related to performance on contracts are considered in estimating sales and profit and are recorded when there is sufficient information for us to assess anticipated performance. Third-party vendors' assertions are also assessed and considered in estimating costs and margin.

Because of the significance of the judgments and estimation processes described above, it is likely that materially different sales and profit amounts could be recorded if we used different assumptions or if the underlying circumstances were to change. Changes in underlying assumptions, circumstances or estimates may adversely affect future period financial performance.

Our ability to deliver products and services that satisfy customer requirements is heavily dependent on the performance of our third-party vendors.

We rely on other companies to provide products and to perform some of the services that we provide to our customers. If one or more of our third-party vendors experience delivery delays or other performance problems, we may be unable to meet commitments to our customers. In addition, if one or more of the products which we depend on becomes unavailable or is available only at very high prices, we may be unable to deliver one or more of our products in a timely fashion or at budgeted costs. In some instances, we depend upon a single source of supply. Any service disruption from one of these third-party vendors, either due to circumstances beyond the supplier's control or because of performance problems or financial difficulties, could have a material adverse effect on our ability to meet commitments to our customers or increase our operating costs.

We enter into fixed-price contracts, which could subject us to losses if we have cost overruns.

While firm fixed-price contracts enable us to benefit from performance improvements, cost reductions and efficiencies, they also subject us to the risk of reduced margins or incurring losses if we are unable to achieve

estimated costs and revenue. If our estimated costs exceed our estimated price, we will recognize a loss, which can significantly affect our reported results. The long-term nature of many of our contracts makes the process of estimating costs and revenue on fixed-price contracts inherently risky. Fixed-price development contracts are generally subject to more uncertainty than fixed-price production contracts. Many of these development programs have highly complex designs. If we fail to meet the terms specified in those contracts, our related margin could be reduced. In addition, technical or quality issues that arise during development could lead to schedule delays and higher costs to complete, which could result in a material charge or otherwise adversely affect our financial condition.

Because we purchase certain components used in assembling some of our products from sole suppliers, our business, financial condition and results of operations could be materially adversely affected by a failure of these suppliers to provide these components.

We rely on a limited number of third-parties who provide certain components used in our products. We may experience quality control problems, where products did not meet specifications or were damaged in shipping, and delays in the receipt of these components. These risks could be heightened during a substantial economic slowdown or if a sole supplier were adversely affected by a natural disaster because our suppliers are more likely to experience adverse changes in their financial condition and operations during such a period. While we believe that there are alternative suppliers available for these components, we believe that the procurement of these components from alternative suppliers could take a significant amount of time. In addition, these alternative components may not be functionally equivalent or may not be available on a timely basis or on similar terms. The inability to obtain sufficient key components as required, or to develop alternative sources if and as required in the future, could result in delays or reductions in product shipments which, in turn, could have a material adverse effect on our business, financial condition and results of operations. While to date there has been suitable component capacity readily available at acceptable quality levels, in the future there may not be suppliers that can meet our future volume or quality requirements at a price that is favorable to us. Any financial, operational, production or quality assurance difficulties experienced by these suppliers that result in a reduction or interruption in supply to us could have a material adverse effect on our business, financial condition and results of operations.

Our products are often integrated with other third-party products. Third-party delays could adversely affect our future financial operating results.

We sell our products in accordance with our standard product specifications. There can be instances where our products are integrated into a larger solution with other third-party products, the delivery of which is controlled by third party providers. We have little, if any, control over the timing of delivery of third-party products, and a delay from the time of our product delivery to the production launch of the larger solution can materially impact our financial operating results.

We may experience risks in our investments due to changes in the market, which could adversely affect the value or liquidity of our investments.

We maintain a portfolio of marketable securities in a variety of instruments, which may include commercial paper, certificates of deposit, money market funds, government debt securities and corporate bonds. These investments are subject to general credit, liquidity, market, and interest rate risks. As a result, we may experience a reduction in value or loss of liquidity of our investments. These market risks associated with our investment portfolio may have a negative adverse effect on our results of operations, liquidity and financial condition.

The performance of the companies in which we have made and may in the future make equity investments could have a material adverse effect on our financial condition and results of operations.

We have made non-controlling equity investments in complementary companies in the past and we may make additional investments in the future. These investments may require additional capital and may not generate the expected rate of return that we believed possible at the time of making the investment. This may adversely affect our financial condition or results of operations. Also, investments in development-stage companies may generate other than temporary declines in the fair value of our investment that would result in impairment charges.

The success of our business model could be influenced by changes in the regulatory environment, such as changes that either would limit capital expenditures by television, cable or telecommunications operators or reverse the trend towards deregulation in the industries in which we compete.

The telecommunications and media industries are subject to extensive regulation which may limit the growth of our business, both in the U.S. and other countries. The growth of our business internationally is dependent in part on deregulation of the telecommunications industry abroad, like that which has occurred in the U.S., and the timing and magnitude of this growth, which is uncertain. Video service providers are subject to extensive government regulation by the Federal Communications Commission and other federal, state and international regulatory agencies. These regulations could have the effect of limiting capital expenditures by video service providers and thus could have a material adverse effect on our business, financial condition and results of operations. The enactment by federal, state or international governments of new laws or regulations, changes in the interpretation of existing regulations or a reversal of the trend toward deregulation in these industries could adversely affect our customers, and thereby materially adversely affect our business, financial condition and results of operations.

Uncertainties of regulation of the Internet and data traveling over the Internet could have a material and adverse impact on our financial condition and results of operations.

Currently, few laws or regulations apply directly to access to or commerce on the Internet. With more business being conducted over the Internet, there have been calls for more stringent copyright protection, tax, consumer protection, cybersecurity, data localization and content restriction laws, both in the U.S. and abroad. We could be materially, adversely affected by regulation of the Internet and Internet commerce in any country where we operate. Such regulations could include matters such as net neutrality. Further, governments may regulate or restrict the sales, licensing, distribution, and export or import of certain technologies to certain countries. The adoption of regulation of Internet and Internet commerce could decrease demand for our products and, at the same time, increase the cost of selling our products and services, which could have a material and adverse effect on our financial condition and results of operations. In addition, the enactment of new federal, state, or foreign data privacy laws and regulations could cause customers not to be able to take advantage of all the features or capabilities of our products and services, which in turn could reduce demand for certain of our products and services.

There is no assurance that the current cost of Internet connectivity and network access will not rise with the increasing popularity of online media services.

We rely on third-party service providers for our principal connections to the Internet and network access, and to deliver media to consumers. As demand for online media increases, there can be no assurance that Internet and network service providers will continue to price their network access services on reasonable terms. The distribution of online media requires delivery of digital content files and providers of network access and distribution may change their business models and increase their prices significantly, which could slow the widespread adoption of such services. In order for our services to be successful, there must be a reasonable price model in place to allow for the continuous distribution of digital media files. We have limited or no control over the extent to which any of these circumstances may occur, and if network access or distribution prices rise, our business, financial condition and results of operations would likely be adversely affected.

We are subject to the Foreign Corrupt Practices Act ("FCPA"), and our failure to comply could result in penalties that could harm our reputation, business, and financial condition.

We are subject to the FCPA, which generally prohibits companies and their intermediaries from making improper payments to foreign officials to obtain or keep business. The FCPA also requires companies to maintain adequate record-keeping and internal accounting practices to accurately reflect the transactions of the Company. Under the FCPA, U.S. companies may be held liable for actions taken by their strategic or local partners or representatives. The FCPA and similar laws in other countries can impose civil and criminal penalties for violations.

If we do not properly implement practices and controls with respect to compliance with the FCPA and similar laws, or if we fail to enforce those practices and controls properly, we may be subject to regulatory sanctions, including administrative costs related to governmental and internal investigations, civil and criminal penalties, injunctions and restrictions on our business activities, all of which could harm our reputation, business and financial condition.

Terrorist acts, conflicts, wars and geopolitical uncertainties may seriously harm our business and revenue, costs and expenses and financial condition and stock price.

Terrorist acts, conflicts, wars (wherever located around the world) or geopolitical uncertainties may cause damage or disruption to our business, our employees, facilities, partners, suppliers, distributors, resellers or customers, or adversely affect our ability to manage logistics, operate our transportation and communication systems or conduct certain other critical business operations. The potential for future attacks, the national and international responses to attacks or perceived threats to national security, and other actual or potential conflicts or wars, have created many economic and political uncertainties. In addition, as a multinational company with headquarters and significant operations located in the U.S., actions against or by the U.S. may impact our business or employees. Although it is impossible to predict the occurrences or consequences of any such events, if they occur, they could result in a decrease in demand for our products, make it difficult or impossible to provide services or deliver products to our customers or to receive components from our suppliers, create delays and inefficiencies in our supply chain and result in the need to impose employee travel restrictions. We are predominately uninsured for losses and interruptions caused by terrorist acts, conflicts and wars.

Delaware law and our certificate of incorporation and bylaws contain anti-takeover provisions, and our Board of Directors has adopted a Tax Benefits Preservation Plan in the form of a stockholder rights agreement, any of which could delay or discourage a merger, tender offer, or assumption of control of the Company not approved by our Board that some stockholders may consider favorable.

Delaware law and our certificate of incorporation and bylaws contain certain provisions, and our Board of Directors recently adopted Tax Benefits Preservation Plan in the form of a stockholder rights agreement with an ownership trigger threshold of 4.9%, any of which could render more difficult, or discourage a merger, tender offer, or assumption of control of the Company that is not approved by our Board of Directors. The Tax Benefits Preservation Plan, however, should not interfere with any merger, tender or exchange offer or other business combination approved by our Board of Directors. Nor does the rights agreement prevent our Board of Directors from considering any offer that it considers to be in the best interest of the Company's stockholders.

The recent COVID-19 outbreak may adversely affect our revenues, results of operations and financial condition.

The U.S. and other countries are experiencing outbreaks of COVID-19, which is continuing to spread to other countries, including countries in which we, our customers and our suppliers do business. Governments in affected regions have implemented and may continue to implement safety precautions, including quarantines, travel restrictions, business closures, cancellations of public gatherings and other measures. Other organizations and individuals are taking additional steps to avoid or reduce infection, including limiting travel and staying home from work. These measures are disrupting normal business operations both in and outside of affected areas. We continue to monitor our operations and government recommendations and have made appropriate modifications to our operations because of COVID-19, including substantial modifications to employee travel, employee work locations, virtualization or cancellation of customer and employee events, and remote sales, implementation, and support activities, among other modifications. These decisions may delay or reduce sales and harm productivity and collaboration. The cancellation of major industry events in the region reduces our ability to meet with existing and potential new customers. Our customers' businesses could be disrupted or they could seek to limit spending, either of which could foreclose future business opportunities, could negatively impact the willingness of our customers to enter into or renew contracts with us and ultimately could adversely affect our revenues. The pandemic has impacted our ability to complete certain implementations, negatively impacting our ability to recognize revenue, and could also negatively impact the payment of accounts receivable and collections. Although we are unable to predict the precise impact of COVID-19 on our business, our mobile communications business in particular depends to a large extent on travel and the willingness of customers to enter into or renew contracts with us. We anticipate that, unless the outbreak is swiftly contained, governmental, individual, business and other organizational measures to limit the spread of the virus will adversely affect our revenues, results of operations and financial condition, perhaps materially. This or any other outbreak and any additional preventative or protective actions that may be taken in response to this or any other global health threat or pandemic may result in additional business and/or operational disruption.

Additionally, global economic disruptions like COVID-19 could negatively impact our supply chain and cause delays in the delivery of raw materials, components and other supplies that we need to conduct our operations. We

may be unable to locate replacement materials, components or other supplies, and ongoing delays could reduce sales and adversely affect our revenues and results of operations. The extent to which COVID-19 will impact our business will depend on many factors beyond our control, including the speed of contagion, the development and implementation of effective preventative measures and possible treatments, the scope of governmental and other restrictions on travel and other activity, and public reactions to these factors.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

<u>Location</u>	<u>Principal Use</u>	<u>Square Feet</u>
<u>Leased Facilities</u>		
Waltham, MA	Corporate Headquarters, Engineering,	17,077
	Customer Services, Sales and Marketing	
Warsaw, Poland	Engineering and Customer Services	26,189

We also lease or sublease offices in Ireland and Turkey but do not consider these leases or subleases to be material. We believe that existing facilities are adequate to meet our foreseeable requirements and can renew our existing leases or obtain alternative space on terms that would not have a material impact on our financial condition.

ITEM 3. LEGAL PROCEEDINGS

We are not currently a party to any material legal proceedings. From time to time, we may be subject to various legal proceedings and claims that arise in the ordinary course of our business activities. Regardless of the outcome, litigation can have a material adverse effect on us because of defense and settlement costs, diversion of management resources, and other factors.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Certain Information Regarding the Trading of Our Common Stock

Our common stock is traded on NASDAQ under the symbol "SEAC".

Holders of Our Common Stock

On April 20, 2020, there were 113 holders of record of our common stock. Because many of the shares of our common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these recordholders.

Recent Sales of Unregistered Equity Securities

None.

Issuer Purchases of Equity Securities

We did not purchase any of our registered equity securities during the period from November 1, 2019 to January 31, 2020.

Dividends

We have never declared or paid any cash dividends on our common stock, since inception, and do not expect to pay cash dividends on our common stock in the foreseeable future. We currently intend to retain all our future earnings for use in operations and to finance the expansion of our business.

Securities Authorized for Issuance Under Equity Compensation Plans

Information regarding our equity compensation plans and the securities authorized for issuance thereunder is set forth herein under Part III, Item 12 below.

ITEM 6. SELECTED FINANCIAL DATA

We are a smaller reporting company, as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended, for this reporting period and are not required to provide the information required under this item.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with our consolidated financial statements and accompanying notes included in this Form 10-K. When reviewing the discussion, you should keep in mind the substantial risks and uncertainties that characterize our business. In particular, we encourage you to review the risks and uncertainties described under Item 1A., *"Risk Factors,"* of this Form 10-K. These risks and uncertainties could cause actual results to differ materially from those forecasted in forward-looking statements or implied by past results and trends. Forward-looking statements are statements that attempt to project or anticipate future developments in our business; we encourage you to review the discussion of forward-looking statements under *"Cautionary Statement for Purposes of the "Safe Harbor" Provisions of the Private Securities Litigation Reform Act of 1995,"* at the beginning of this report. These statements, like all statements in this report, speak only as of the date of this report (unless another date is indicated), and we undertake no obligation to update or revise such statements as a result of future developments. Unless otherwise specified, any reference to a "year" is to a fiscal year ended January 31st.

Business Overview

SeaChange International, Inc., a Delaware corporation ("SeaChange," the "Company," "us," or "we") founded on July 9, 1993, is an industry leader in the delivery of multiscreen, advertising and premium over the top ("OTT") video management solutions headquartered in Waltham, Massachusetts. Our software products and services facilitate the aggregation, licensing, management and distribution of video and advertising content for service providers, telecommunications companies, satellite operators and broadcasters. We sell our software products and services worldwide, primarily to service providers including: operators, such as Liberty Global, plc., Altice NV, Cox Communications, Inc. and Rogers Communications, Inc.; telecommunications companies, such as Verizon Communications, Inc., AT&T, Inc. and Frontier Communications Corporation; satellite operators such as Direct TV and Dish Network Corporation; and broadcasters.

Our software products and services are designed to empower video providers to create, manage and monetize the increasingly personalized, highly engaging experiences that viewers demand. Using our products and services, we believe customers can increase revenue by offering services such as video-on-demand ("VOD") programming on a variety of consumer devices, including televisions ("TVs"), mobile telephones ("smart phones"), personal computers ("PCs"), tablets and OTT streaming players. Our solutions enable service providers to offer other interactive television services that allow subscribers to receive personalized services and interact with their video devices, thereby enhancing their viewing experience. Our products also allow our customers to insert advertising into broadcast and VOD content.

SeaChange serves an exciting global marketplace where multiscreen viewing is increasing, consumer device options are evolving rapidly, and viewing habits are shifting. The primary driver of our business is enabling the delivery of video assets in the changing multiscreen television environment. Through strategic collaborations, we have expanded our capabilities, products and services to address the delivery of content to devices other than television set-top boxes, namely PCs, tablets, smart phones and OTT streaming players. We believe that our strategy of expanding into adjacent product lines will also position us to further support and maintain our existing service provider customer base. Providing our customers with more scalable software platforms enables them to further reduce their infrastructure costs, improve reliability and expand service offerings to their customers. Additionally, we believe we are well positioned to capitalize on new customers entering the multiscreen marketplace and increasingly serve adjacent markets. Our core technologies provide a foundation for software products and services that can be deployed in next generation video delivery systems capable of increased levels of subscriber activity across multiple devices.

In February 2019, we acquired Xstream A/S, a leading OTT media cloud platform provider with its primary operations in Warsaw, Poland. Xstream provides a managed service, OTT video solution that serves more than five million active subscribers globally. Xstream's MediaMaker video platform has enhanced the SeaChange end-to-end video framework. We have used the acquisition of Xstream to accelerate our penetration in OTT and new market segments and fully cloud-based end-to-end video platform that operates in a hosted managed service environment.

We have initiated restructuring programs in the past three years, to help us improve operations and optimize our cost structure. In fiscal 2019, we further implemented a cost restructuring program (the “2019 Restructuring Program”), the primary element of which was staff reductions across all of our functions and geographic areas and for which we have annualized cost savings of approximately \$6.0 million. In fiscal 2020, we continued to streamline our operations and closed our service organizations in Ireland and the Netherlands for which we expect additional annualized cost savings of approximately \$6.0 million. Overall, we expect to have annualized cost savings of approximately \$12.0 million as a result of the restructuring programs that have been initiated over the past two fiscal years.

Notwithstanding the success of our restructuring programs, during the fourth quarter of fiscal 2019, we experienced a decline in our stock price and actual operating results and, accordingly, revised our forecasts. These events were a trigger for an impairment review, as a result of which we determined that the carrying value of goodwill and certain long-lived assets exceeded their fair value, such that we recorded a \$17.0 million impairment charge to reduce the carrying value of our building, included in property, plant and equipment, the remaining net book value of our intangible assets and our goodwill to fair value. The impact of this impairment charge is excluded from our non-GAAP operating results included in this report.

On February 28, 2019, we entered into a Cooperation Agreement with TAR Holdings LLC and Karen Singer (collectively, “TAR Holdings”). As of the date of the Cooperation Agreement, TAR Holdings beneficially owned approximately 20.6% of our outstanding common stock. Pursuant to the Cooperation Agreement, we agreed to set the size of the Board at eight members, appoint Robert Pons to the Board as a Class II Director with a term to expire at the 2019 annual meeting of stockholders, and appoint Jeffrey Tudor to the Board as a Class III Director with a term to expire at the 2020 annual meeting of stockholders. Mr. Pons and Mr. Tudor were accordingly appointed to our Board upon execution of the Cooperation Agreement on February 28, 2019.

On March 4, 2019, our Board approved and adopted a Tax Benefits Preservation Plan to deter acquisitions of our common stock that would potentially limit our ability to use net operating loss carryforwards and certain other tax attributes (“NOLs”) to reduce our potential future federal income tax obligations. In connection with the Tax Benefits Preservation Plan, we declared a dividend of one preferred share purchase right for each share of our common stock issued and outstanding as of March 15, 2019 to our stockholders of record on that date. The Tax Benefits Preservation Plan was approved by our stockholders at our 2019 annual meeting of stockholders.

Results of Operations

The following discussion summarizes the key factors our management believes are necessary for an understanding of our consolidated financial statements.

Revenue and Gross Profit

The components of our total revenue and gross profit are described in the following table:

	For the Fiscal Years Ended January 31,		Change	
	2020	2019	\$	%
(Amounts in thousands, except for percentage data)				
Revenue:				
Product	\$ 39,914	\$ 20,655	\$ 19,259	93.2%
Service	27,240	41,747	(14,507)	(34.7%)
Total revenue	67,154	62,402	4,752	7.6%
Cost of product revenue	6,179	3,460	2,719	78.6%
Cost of service revenue	17,473	21,612	(4,139)	(19.2%)
Total cost of revenue	23,652	25,072	(1,420)	(5.7%)
Gross profit	\$ 43,502	\$ 37,330	\$ 6,172	16.5%
Gross product profit margin	84.5%	83.2%		1.3%
Gross service profit margin	35.9%	48.2%		(12.4%)
Gross profit margin	64.8%	59.8%		5.0%

International revenue accounted for 53% and 62% of total revenue in fiscal 2020 and fiscal 2019, respectively. The decrease in international sales as a percentage of total revenue in fiscal 2020, as compared to fiscal 2019, is primarily due to a decrease in revenue generated from one major customer in Europe, the Middle East, and Africa during fiscal 2020 compared to fiscal 2019.

Product Revenue

Product revenue increased by \$19.3 million for fiscal 2020 from fiscal 2019 primarily due to a \$18.3 million increase in revenues related to our end-to-end Framework product, which is inclusive of video platform, user experience, and advertising solutions previously sold separately.

Service Revenue

Service revenue decreased by \$14.5 million in fiscal 2020 from fiscal 2019 primarily due to a \$6.1 million decrease in revenues related to installation and customized development services as a result of our Framework product's out-of-the-box functionality as well as a \$7.0 million decrease in post-warranty maintenance revenues associated with decommissioned legacy products.

Gross Profit and Margin

Cost of revenue consists primarily of the cost of resold third-party products and services, purchased components and subassemblies, labor and overhead, testing and implementation, and ongoing maintenance of complete systems.

Our gross profit margin increased by 5% in fiscal 2020 from fiscal 2019 primarily due to a shift in sales to our higher-margin Framework product in fiscal 2020. Product profit margin increased by 1% in fiscal 2020 from fiscal 2019 due to an increase in higher-margin Framework revenue in fiscal 2020. Service profit margins decreased by 12% in fiscal 2020 from fiscal 2019 primarily due to fixed costs related to the decommissioning of our legacy products in fiscal 2020.

Operating Expenses

Research and Development

Research and development expenses consist of salaries and related costs, including stock-based compensation, for personnel in software development and engineering functions as well as contract labor costs, depreciation of development and test equipment and an allocation of related facility expenses. The following table provides information regarding the change in research and development expenses during the periods presented:

	For the Fiscal Years Ended January 31,		Change	
	2020	2019	\$	%
(Amounts in thousands, except for percentage data)				
Research and development expenses	\$ 16,050	\$ 19,705	\$ (3,655)	(18.5%)
% of total revenue	23.9%	31.6%		

Research and development expenses decreased by \$3.7 million in fiscal 2020 from fiscal 2019 primarily due to a \$2.4 million decrease in labor costs associated with the lower headcount resulting from the cost-savings efforts implemented in fiscal 2019 as part of our restructuring program, as well as a \$1.2 million decrease in outside services.

Selling and Marketing

Selling and marketing expenses consist of salaries and related costs, including stock-based compensation, for personnel engaged in selling and marketing functions, as well as commissions, travel expenses, certain promotional expenses and an allocation of related facility expenses. The following table provides information regarding the change in selling and marketing expenses during the periods presented:

	For the Fiscal Years Ended January 31,		Change	
	2020	2019	\$	%
(Amounts in thousands, except for percentage data)				
Selling and marketing expenses	\$ 12,179	\$ 14,414	\$ (2,235)	(15.5%)
% of total revenue	18.1%	23.1%		

Selling and marketing expenses decreased by \$2.2 million in fiscal 2020 from fiscal 2019 primarily due to a \$1.5 million decrease in labor costs associated with the lower headcount resulting from the cost-savings efforts implemented in fiscal 2019 as part of our restructuring program as well as a \$0.8 million decrease in outside services.

General and Administrative

General and administrative expenses consist of salaries and related costs, including stock-based compensation, for personnel in executive, finance, legal, human resources, information technology and administrative functions, as well as legal and accounting services, insurance premiums and an allocation of related facilities expenses. The following table provides information regarding the change in general and administrative expenses during the periods presented:

	For the Fiscal Years Ended January 31,		Change	
	2020	2019	\$	%
(Amounts in thousands, except for percentage data)				
General and administrative expenses	\$ 15,211	\$ 19,618	\$ (4,407)	(22.5%)
% of total revenue	22.7%	31.4%		

General and administrative expenses decreased by \$4.4 million in fiscal 2020 from fiscal 2019 primarily due to a \$1.8 million decrease in stock-based compensation, a \$1.4 million decrease in labor costs associated with lower

headcount resulting from the cost-savings efforts implemented in fiscal 2019 as part of our restructuring program, and a \$1.1 million decrease in our provision for bad debt.

Severance and Restructuring Costs

Severance consist of employee-related severance charges not related to a restructuring plan. Restructuring costs consist of charges related to restructuring including employee-related severance charges, remaining lease obligations and termination costs, and the disposal of equipment.

	For the Fiscal Years Ended January 31,		Change	
	2020	2019	\$	%
(Amounts in thousands, except for percentage data)				
Severance and restructuring costs	\$ 3,523	\$ 2,381	\$ 1,142	48.0%
% of total revenue	5.2%	3.8%		

Severance and restructuring costs increased by \$1.1 million in fiscal 2020 from fiscal 2019 primarily due to the closing of our service organizations in Ireland and the Netherlands, for which we expect annualized cost savings of approximately \$6.0 million. Charges to restructuring also included cost reduction initiatives implemented during the second half of fiscal 2019 (the “2019 Restructuring Program”), for which will expect additional annualized cost savings of \$6.0 million once completed.

Loss on Sale of Fixed Assets

In December 2019, the Company sold its corporate headquarters in Acton, MA for \$0.5 million, net of disposal costs. At the time of the sale, the Company disposed of all building and land related assets as well as non-building related assets. The net book value of all assets disposed of was \$5.9 million. We recorded a net loss on the sale of the fixed assets of \$5.4 million in our consolidated statements of operations and comprehensive loss in fiscal 2020.

Loss on Impairment of Goodwill and Long-Lived Assets

Loss on impairment of goodwill and long-lived assets was \$17.0 million in fiscal 2019. In the fourth quarter of fiscal 2019, we performed impairment reviews of our goodwill and long-lived assets. The impairment reviews were triggered by a decline in our stock price, actual operating results and revised forecasts, which we considered to be triggering events for such reviews.

As a result of the impairment tests, in fiscal 2019 we recorded an impairment charge of \$1.2 million to reduce the carrying value of our building from \$4.7 million to \$3.5 million and we recorded an impairment charge of \$0.3 million to reduce the carrying value of our intangible assets from \$0.3 million to zero, representing the fair values of these long-lived assets. The fair value for the building was determined using market data, and the fair value of the intangible assets was determined using a discounted cash flow approach. Also as a result of the impairment tests, in fiscal 2019 we recorded an impairment charge of \$15.5 million to reduce goodwill from \$24.3 million to \$8.8 million based on the difference between our carrying value, after accounting for the impairment charges of long-lived assets, and our fair value determined using a discounted cash flow approach.

There was no loss on impairment of goodwill and long-lived assets in fiscal 2020.

Other Income (Expense), Net

The table below provides detail regarding our other income (expense), net:

	For the Fiscal Years Ended January 31,		Change	
	2020	2019	\$	%
(Amounts in thousands, except for percentage data)				
Gain on sale of investment in affiliate	1,495	175	1,320	>100.0%
Interest income, net	361	301	60	19.9%
Foreign exchange loss, net	(2,126)	(4,653)	2,527	(54.3%)
Miscellaneous income (expense), net	281	(40)	321	>(100.0%)
	<u>\$ 11</u>	<u>\$ (4,217)</u>	<u>\$ 4,228</u>	

Gain on Sale of Investment in Affiliate

In connection with the sale of our investment in Layer3 TV, Inc. (“Layer 3”), a company in which we had a cost-method investment, we received \$4.6 million in fiscal 2018. We were entitled to additional payments of up to \$2.1 million, subject to satisfaction of provisions associated with the transaction, of which we received \$0.2 million in fiscal 2019. We recorded a gain on sale of investment in affiliate of \$0.2 million in our consolidated statements of operations and comprehensive loss in fiscal 2019 related to this payment. We received our final Layer3 payment of \$1.8 million in fiscal 2020, which was partially offset by a \$0.3 million loss on an unrelated investment. We recorded a net gain on sale of investment in affiliate of \$1.5 million in our consolidated statements of operations and comprehensive loss in fiscal 2020.

Foreign Exchange Loss, Net

Foreign exchange loss, net, was \$2.1 million in fiscal 2020 compared to \$4.7 million in fiscal 2019. Our foreign exchange loss, net, is primarily due to the revaluation of intercompany notes receivable.

Income Tax Provision (Benefit)

We recorded an income tax expense of \$48 thousand in fiscal 2020 and an income tax benefit of \$2.0 million in fiscal 2019. In fiscal 2020, our tax expense was largely driven by foreign withholding taxes. In fiscal 2019, we recorded a tax benefit largely due to our ability to carryback a loss in the Netherlands to obtain a refund of taxes paid with our fiscal 2018 tax return filing. Our effective tax rate in fiscal 2020 and in future periods may fluctuate on a quarterly basis, as a result of changes in our jurisdictional forecasts where losses cannot be benefitted due to the existence of valuation allowances on our deferred tax assets, changes in actual results versus our estimates, or changes in tax laws, regulations, accounting principles, or interpretations thereof.

The U.S. Tax Cuts and Job Act (the “Tax Reform Act”) introduced significant changes to U.S. income tax law. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system and a one-time tax on the mandatory deemed repatriation of cumulative foreign earnings (the “Transition Tax”) as of December 31, 2017.

In fiscal 2019 other significant provisions of the Tax Reform Act came into effect that may impact our income taxes. These provisions consist of: an exemption from U.S. tax on dividends of future foreign earnings, limitations on the deductibility of certain executive compensation, deductions related to foreign derived intangible income, and a minimum tax on certain foreign earnings in excess of 10% of the foreign subsidiaries’ tangible assets (i.e., global intangible low-taxed income or “GILTI”).

Liquidity and Capital Resources

The following table includes key line items of our consolidated statements of cash flows:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Net cash used in operating activities	\$ (14,794)	\$ (21,524)
Net cash provided by (used in) investing activities	3,762	(2,047)
Net cash provided by financing activities	472	40
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(460)	187
Net decrease in cash, cash equivalents and restricted cash	\$ (11,020)	\$ (23,344)

Historically, we have financed our operations and capital expenditures primarily with our cash and investments. Our cash, cash equivalents, restricted cash and marketable securities totaled \$13.9 million at January 31, 2020.

In fiscal 2019 we implemented the 2019 Restructuring Program and incurred restructuring charges in excess of \$2.0 million in taking steps to further reduce our operating costs, primarily through staff reductions across all of our functions and geographic areas, for which we have annualized cost savings of \$6.0 million. In fiscal 2020, we incurred an additional \$3.4 million in restructuring charges, which was inclusive of \$2.1 million of charges in connection with closing our Ireland and Netherlands service organizations in the continued streamlining of our operations. Additional annualized cost savings from this initiative is expected to be approximately \$6.0 million and annualized cost savings as a result of the restructuring actions taken in fiscal 2019 and fiscal 2020 are expected to be approximately \$12.0 million in the aggregate once completed.

We believe that existing cash and investments and cash expected to be provided by future operating activities, augmented by the plans highlighted above, are adequate to satisfy our working capital, capital expenditure requirements and other contractual obligations for at least the next 12 months.

If our expectations are incorrect, we may need to raise additional funds to fund our operations, to take advantage of unanticipated strategic opportunities or to strengthen our financial position. In the future, we may enter into other arrangements for potential investments in, or acquisitions of, complementary businesses, services or technologies, which could require us to seek additional equity or debt financing. If adequate funds are not available or are not available on acceptable terms, we may not be able to follow through with our operational plans, take advantage of market opportunities to develop new products or to otherwise respond to competitive pressures, or invest in complementary businesses or technologies.

Net cash used in operating activities

Net cash used in operating activities was \$14.8 million for fiscal 2020 and was primarily the result of our \$8.9 million net loss and changes in our operating assets and liabilities, including a \$17.8 million increase in unbilled receivables primarily related to Framework and a \$1.5 million gain on sale of investment in affiliate and other investments partially offset by a \$7.1 million decrease in accounts receivable due to the timing of payments and a \$5.4 loss on the sale of fixed assets.

Net cash used in operating activities was \$21.5 million for fiscal 2019 and was primarily the result of our \$38.0 million net loss and changes in our working capital of \$11.5 million, including a \$4.9 million decrease in accounts payable and a \$3.4 million decrease in deferred revenue, and a \$2.5 million increase in unbilled receivables.

Changes in accounts receivable, unbilled receivables, accounts payable and accrued expenses were generally due to timing of customer and vendor invoicing and payments as well as the timing of Framework engagements.

Net cash provided by (used in) investing activities

Net cash provided by (used in) investing activities was \$3.8 million and (\$2.0) million for fiscal 2020 and 2019, respectively. Net cash provided by investing activities in fiscal 2020 was primarily due to the sales and maturities of

marketable securities and proceeds from the sale of investments in affiliates, net. Net cash used in investing activities in fiscal 2019 was primarily due to the purchases of marketable securities.

Net cash provided by financing activities

Net cash provided by financing activities was \$0.5 million and less than \$0.1 million in fiscal 2020 and 2019, respectively. Net cash provided by financing activities in fiscal 2020 and 2019 was primarily from proceeds received for the issuance of common stock.

Impact of COVID-19 Pandemic

In the first quarter of fiscal 2021, concerns related to the spread of COVID-19 began to create global business disruptions as well as disruptions in our operations and to create potential negative impacts on our revenues and other financial results. COVID-19 was declared a pandemic by the World Health Organization on March 11, 2020. The extent to which COVID-19 will impact our financial condition or results of operations is currently uncertain and depends on factors including the impact on our customers, partners, and vendors and on the operation of the global markets in general. Due to our business model, the effect of COVID-19 on our results of operations may also not be fully reflected for some time.

We are currently conducting business with substantial modifications to employee travel, employee work locations, virtualization or cancellation of customer and employee events, and remote sales, implementation, and support activities, among other modifications. These decisions may delay or reduce sales and harm productivity and collaboration. We have observed other companies and governments making similar alteration to their normal business operations, and in general, the markets are experiencing a significant level of uncertainty at the current time. Virtualization of our team's sales activities could foreclose future business opportunities, particularly as our customers limit spending, which could negatively impact the willingness of our customers to enter into or renew contracts with us. The pandemic has impacted our ability to complete certain implementations, negatively impacting our ability to recognize revenue, and could also negatively impact the payment of accounts receivable and collections. We may take further actions that alter our business operations as the situation evolves. As a result, the ultimate impact of the COVID-19 pandemic and the effects of the operational alterations we have made in response on our business, financial condition, liquidity, and financial results cannot be predicted at this time.

On March 27, 2020, President Trump signed into law the "Coronavirus Aid, Relief and Economic Security (CARES) Act." The CARES Act, among other things, includes provisions relating to refundable payroll tax credits, deferment of employer side social security payments, net operating loss carryback periods, alternative minimum tax credit refunds, modifications to the net interest deduction limitations and technical corrections to tax depreciation methods for qualified improvement property. We continue to examine the impacts this CARES Act may have on our business, including our ability to utilize our NOLs.

Tax Benefits Preservation Plan

On March 4, 2019, we entered into the a Tax Benefits Preservation Plan in the form of a stockholder rights agreement (“Rights Agreement”) and issued a dividend of one preferred share purchase right (a “Right”) for each share of common stock payable on March 15, 2019 to the stockholders of record of such shares on that date. Each Right entitles the registered holder, under certain circumstances, to purchase from us one one-hundredth of a share of Series A Participating Preferred Stock, par value \$0.01 per share (the “Preferred Shares”), of the Company, at a price of \$8.00 per one one-hundredth of a Preferred Share represented by a Right (the “Purchase Price”), subject to adjustment. The description and terms of the Rights are set forth in the Rights Agreement.

The Rights are not exercisable until the Distribution Date (as defined in the Rights Agreement). Until a Right is exercised, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends.

At any time prior to ten (10) business days after the time any Person becomes an Acquiring Person (as defined in the Rights Agreement), the Board may redeem the Rights in whole, but not in part, at a price of \$0.0001 per Right (the “Redemption Price”). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

The Rights will expire on the earlier of (i) the time at which the Rights are redeemed, (ii) the time at which the Rights are exchanged, (iii) the consummation of a reorganization transaction entered into by the Company resulting in stock transfer restrictions similar to the Rights Agreement, (iv) the close of business on the effective date of the repeal of Section 382 (as defined in the Rights Agreement) or if the Rights Agreement is no longer necessary for the preservation of NOLs, (v) the date on which the Board determines that the Rights Agreement is no longer necessary to preserve NOLs, (vi) the beginning of the taxable year to which the Board determines that none of the NOLs may be carried forward or (vii) the close of business on March 4, 2022 (the “Final Expiration Date”).

On June 28, 2019, we entered into an amendment to the Rights Agreement, between us and Computershare Trust Company, N.A., as rights agent, for the purpose of modifying the definition of “Final Expiration Date” to delete the extension of the Final Expiration Date in the event any person becomes an Acquiring Person (as defined in the Rights Agreement).

On August 8, 2019, we entered into an amendment No. 2 to the Rights Agreement, between us and Computershare Trust Company, N.A., as rights agent, for the purpose of modifying the definition of “Acquiring Person” to not include TAR Holdings and their respective affiliates and associates, provided the aggregate beneficial ownership of TAR Holdings does not exceed 25.0% of the Company securities then outstanding.

Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K in fiscal year 2019 or fiscal 2020.

Critical Accounting Policies and Significant Judgments and Estimates

Our consolidated financial statements are prepared in accordance with U.S. GAAP, which requires management to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results could differ from these estimates under different assumptions and conditions.

The significant accounting policies and methods used in the preparation of our consolidated financial statements are described in Note 2, “*Summary of Significant Accounting Policies*,” to our consolidated financial statements set forth in Part II, Item 8, of this Form 10-K. We believe the following critical accounting policies reflect the most significant estimates, judgments and assumptions used in the preparation of our consolidated financial statements.

Revenue Recognition

Our revenue is derived from sales of software licenses and associated hardware and support services, including professional services and maintenance fees related to our software licenses.

Our contracts, including contracts for our end-to-end software delivery platform solution (the “Framework”), often contain multiple performance obligations. For contracts with multiple performance obligations, we account for individual performance obligations separately if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis when available or expected cost plus margin or residual approach. If the transaction price contains discounts or we expect to provide future price concessions, these elements are considered when determining the transaction price prior to allocation. Variable fees within the transaction price are estimated and recognized as revenue when we satisfy our performance obligations to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur. If the contract grants the client the option to acquire additional products or services, we assess whether or not any discount on the products and services is in excess of levels normally available to similar clients and, if so, we account for that discount as an additional performance obligation.

Framework

We have concluded that Framework has multiple performance obligations. The selling price of Framework is highly variable as a result of our value-based engagement where pricing for our customers is based on the operating expense savings that we enable using the Framework engagement.

Framework Software Licenses

We have concluded that a Framework software license is a distinct performance obligation as the client can benefit from the software on its own. Software license revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the client, which is defined as the point in time when the client can use and benefit from the license. The software license is delivered before related services are provided and is functional without services, updates, and technical support. As a result of the highly variable selling price, revenue recognition and consideration related to the Framework software license is allocated under the residual method.

Framework Hardware

We have concluded that Framework hardware, when included in a Framework contract, is a distinct performance obligation as the client can benefit from the product. Framework hardware revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the customer, which is defined as the point in time when the client can use and benefit from the hardware. In situations where the hardware is distinct and it is delivered before services are provided and is functional without services, control is transferred upon delivery or acceptance by the customer.

Framework Support Services

We have concluded that Framework support services is a distinct performance obligation. Framework support services is included in services revenue in our consolidated statements of operations and comprehensive loss. Support services includes software upgrades on a when-and-if available basis, support, bug fixes or patches and general maintenance support. Framework support services is not sold on a standalone basis. The standalone selling price is determined using a cost-plus approach, and revenue is recognized ratably over the passage of the contractual term.

Legacy Software Licenses

We have concluded that a software license is a distinct performance obligation as the client can benefit from the software on its own. Software license revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the client, which is defined as the point in time when the client can use and benefit from the license. The software license is delivered before related services are provided and is functional without services, updates, and technical support.

Legacy Hardware

We have concluded that hardware is a distinct performance obligation as the client can benefit from the product on its own. Hardware revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the customer, which is defined as the point in time when the client can use and benefit from the hardware. In situations where the hardware is distinct and it is delivered before services are provided and is functional without services, control is transferred upon delivery or acceptance by the customer.

Legacy Maintenance

Historically, maintenance revenue, which is included in services revenue in our consolidated statements of operations and comprehensive loss, includes revenue from client support and related professional services. Client support includes software upgrades on a when-and-if available basis, telephone support, bug fixes or patches and general hardware maintenance support. Maintenance is priced as a percentage of the list price of the related software license and hardware. Historically, we determined the standalone selling price of maintenance based on this pricing relationship and observable data from standalone sales of maintenance.

We have identified three separate distinct performance obligations of maintenance:

- Software upgrades and updates;
- Technical support; and
- Hardware support.

These performance obligations are distinct within the contract and, although they are not sold separately, the components are not essential to the functionality of the other components. Each of the performance obligations included in maintenance revenue is a stand ready obligation that is recognized ratably over the passage of the contractual term for products sold on a standalone basis.

Legacy Services

Historically, our services revenue, excluding maintenance revenue, is comprised of software license implementation services, engineering services, training and reimbursable expenses. We have concluded that services are distinct performance obligations, with the exception of engineering services. Engineering services may be provided on a standalone basis or bundled with a license when we are providing custom development.

The standalone selling price for services in time and materials contracts is determined by observable prices in standalone services arrangements and recognized as revenue as the services are performed based on an input measure of hours incurred to total estimated hours.

We estimate the standalone selling price for fixed price services based on estimated hours adjusted for historical experience at time and material rates charged in standalone services arrangements. Revenue for fixed price services is recognized over time as the services are provided based on an input measure of hours incurred to total estimated hours.

Contract Modifications

We occasionally enter into amendments to previously executed contracts that constitute contract modifications. We assess each of these contract modifications to determine:

- If the additional products and services are distinct from the product and services in the original arrangement; and
- If the amount of consideration expected for the added products and services reflects the standalone selling price of those products and services.

A contract modification meeting both criteria is accounted for as a separate contract. A contract modification not meeting both criteria is considered a change to the original contract and is accounted for on either a prospective basis as a termination of the existing contract and the creation of a new contract or a cumulative catch-up basis.

Significant Judgments

Our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. Once we determine the performance obligations, we determine the transaction price, which includes estimating the amount of variable consideration to be included in the transaction price, if any. We then allocate the transaction price to each performance obligation in the contract based on a relative standalone selling price method. The corresponding revenue is recognized as the related performance obligations are satisfied as discussed in the revenue categories above.

Judgment is required to determine the standalone selling price for each distinct performance obligation. We determine standalone selling price based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, we estimate the standalone selling price, taking into account available information such as market conditions, and internally approved pricing guidelines related to the performance obligations. In instances where stand-alone selling price is not directly observable, such as when we don't sell the product or service separately, we determine the stand-alone selling price based on a cost-plus model as market and other observable inputs are seldom present based on the proprietary nature of our products and services.

Our contracts do not generally include a variable component to the transaction price. With certain statements of work, we explicitly state that we are to be reimbursed for reasonable travel and entertainment expenses incurred as part of the delivery of professional services. In the cases when we are entitled to collect all travel and entertainment expenses incurred, an estimate of the fulfillment costs is made at the onset of the contract in order to determine the transaction price. The revenue associated with travel and entertainment expenses is then recognized over time along with the professional services.

Some of our contracts have payment terms that differ from the timing of revenue recognition, which requires us to assess whether the transaction price for those contracts include a significant financing component. We have elected the practical expedient that permits an entity to not adjust for the effects of a significant financing component if we expect that at the contract inception, the period between when the entity transfers a promised good or service to a customer and when the customer pays for that good or service, will be one year or less. For those contracts in which the period exceeds the one-year threshold, this assessment, as well as the quantitative estimate of the financing component and its relative significance, requires judgment. We estimate the significant financing component provided to our customers with extended payment terms by determining the present value of the future payments by applying a discount rate that reflects the customer's creditworthiness.

Contract Balances

Contract assets consist of unbilled revenue, which is recognized as work progresses in accordance with agreed-upon contractual terms, either at periodic intervals or upon achievement of contractual milestones. Unbilled receivables expected to be billed and collected within one year are classified as current assets or long-term assets if expected to be billed and collected after one year. Contract liabilities consist of deferred revenue and customer deposits that arise when amounts are billed to or collected from customers in advance of revenue recognition.

Costs to Obtain and Fulfill a Contract

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We have determined that commissions and special incentive payments (“Spiffs”) for hardware and software maintenance and support and professional services paid under our sales incentive programs meet the requirements to be capitalized under ASC 340-40. Costs to obtain a contract are amortized as selling and marketing expense over the expected period of benefit in a manner that is consistent with the transfer of the related goods or services to which the asset relates. The judgments made in determining the amount of costs incurred include whether the commissions are in fact incremental and would not have occurred absent the customer contract and the estimate of the amortization period. The commissions and Spiffs related to professional services are amortized over time as work is completed. The commissions and Spiffs for hardware and software maintenance are amortized over the life of the contract. These costs are periodically reviewed for impairment. We determined that no impairment of these assets existed as of January 31, 2020 or 2019. We have elected to apply the practical expedient and recognize the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that we otherwise would have recognized is one year or less.

We capitalize incremental costs incurred to fulfill our contracts that (i) relate directly to the contract, (ii) are expected to generate resources that will be used to satisfy our performance obligation under the contract, and (iii) are expected to be recovered through revenue generated under the contract. Contract fulfillment costs include direct labor for support services, software enhancements, reimbursable expenses and professional services for customized software development costs. The revenue associated with the support services, software enhancements and reimbursable expenses is recognized ratably over time; therefore, the associated costs are expensed as incurred. The professional services associated with the customized software are not recognized until completion. As such, the professional services costs are capitalized and recognized upon completion of the services.

Allowances for Doubtful Accounts

We evaluate our customers’ financial conditions, require advance payments from certain of our customers and maintain reserves for potential credit losses. We perform ongoing credit evaluations of our customers’ financial conditions but generally do not require collateral. For some international customers, we may require an irrevocable letter of credit to be issued by the customer before the purchase order is accepted. We monitor payments from customers and assess any collection issues. We maintain an allowance for specific doubtful accounts for estimated losses resulting from the inability of our customers to make required payments and record these allowances as a charge to general and administrative expenses in our consolidated statements of operations and comprehensive loss. We base our general allowances for doubtful accounts on historical collections and write-off experience, current trends, credit assessments, and other analysis of specific customer situations. We charge off trade accounts receivables against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Recoveries of trade receivables previously charged off are recorded when received.

Goodwill and Acquired Intangible Assets

We record goodwill when consideration paid in a business acquisition exceeds the value of the net assets acquired. Our estimates of fair value are based upon assumptions believed to be reasonable at that time but such estimates are inherently uncertain and unpredictable. Assumptions may be incomplete or inaccurate, and unanticipated events or circumstances may occur, which may affect the accuracy or validity of such assumptions, estimates or actual results. Goodwill is not amortized, but rather is tested for impairment annually in our third quarter beginning August 1st of each year, or more frequently if facts and circumstances warrant a review, such as the circumstances mentioned in impairment of long-lived assets. We have determined that there is a single reporting unit for the purpose of conducting this goodwill impairment assessment. We assess both the existence of potential impairment and the amount of impairment loss by comparing the fair value of the reporting unit with its carrying amount, including goodwill.

Intangible assets are recorded at their estimated fair values at the date of acquisition. We amortize acquired intangible assets over their estimated useful lives based on the pattern of consumption of the economic benefits or, if that pattern cannot be readily determined, on a straight-line basis.

Impairment of Long-Lived Assets

Long-lived assets primarily consist of property, plant and equipment and intangible assets with finite lives. Long-lived assets are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or group of assets may not be recoverable. Recoverability of long-lived assets or groups of assets is assessed based on a comparison of the carrying amount to the estimated future undiscounted cash flows. If estimated future undiscounted net cash flows are less than the carrying amount, the asset is considered impaired and expense is recorded at an amount required to reduce the carrying amount to fair value. Determining the fair value of long-lived assets includes significant judgment by management, and different judgments could yield different results.

We assess the useful lives and possible impairment of existing recognized intangible assets whenever events or changes in circumstances occur that indicate that it is more likely than not that an impairment has occurred. We test intangible assets with definite lives for impairment by comparing the carrying amount to the sum of the net undiscounted cash flows expected to be generated by the asset whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. If the carrying amount of the asset exceeds its net undiscounted cash flows, then an impairment loss is recognized for the amount by which the carrying amount exceeds its fair value. We use a discounted cash flow approach or other methods, if appropriate, to assess fair value. Factors considered important which could trigger a review include:

- significant underperformance relative to historical or projected future operating results;
- significant changes in the manner of use of the acquired assets or the strategy for our overall business;
- identification of other impaired assets within a reporting unit;
- significant negative industry or economic trends;
- a significant decline in our stock price for a sustained period; and
- a decline in our market capitalization relative to net book value.

Determining whether a triggering event has occurred involves significant judgment.

Income Taxes

Income tax comprises current and deferred tax. Income tax is recognized in the consolidated statements of operations and comprehensive loss except to the extent that it relates to items recognized directly within equity or in other comprehensive loss. Income taxes payable, which is included in other accrued expenses in our consolidated balance sheets, is the expected tax payable on the taxable income for the year, using tax rates enacted or substantially-enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax assets and liabilities are recognized, using the balance sheet method, for the expected tax consequences of temporary differences between the carrying amounts of assets and liabilities and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences: the initial recognition of goodwill, the initial recognition of assets and liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that they probably will not reverse in the foreseeable future. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantially-enacted by the reporting date.

A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income in the countries where the deferred tax assets originated and during the periods when the deferred tax assets become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment.

We operate in multiple jurisdictions with complex tax policy and regulatory environments. In certain of these jurisdictions, we may take tax positions that management believes are supportable, but are potentially subject to successful challenge by the applicable taxing authority. These interpretational differences with the respective governmental taxing authorities can be impacted by the local economic and fiscal environment. We evaluate our tax positions and establish liabilities in accordance with the applicable accounting guidance on uncertainty in income taxes. We review these tax uncertainties in light of changing facts and circumstances, such as the progress of tax audits, and adjust them accordingly.

Our policy is to classify interest and penalties related to unrecognized tax benefits, if and when required, as a component of income tax provision (benefit), in our consolidated statements of operations and comprehensive loss. We have made a policy election to treat the GILTI tax as a period expense.

Because there are several estimates and assumptions inherent in calculating the various components of our tax provision, certain changes or future events such as changes in tax legislation, geographic mix of earnings, completion of tax audits or earnings repatriation plans could have an impact on those estimates and our effective tax rate.

Stock-Based Compensation

We measure stock options and other stock-based awards granted to employees and directors based on their fair value on the date of the grant and recognize compensation expense of those awards over the requisite service period, which is generally the vesting period of the respective award. We apply the straight-line method of expense recognition to all awards with only service-based vesting conditions and apply the graded-vesting method to all awards with both service-based and performance-based vesting conditions, commencing when achievement of the performance condition becomes probable. We apply the graded-vesting method to awards with market conditions that include graded-vesting features.

Recently Issued Accounting Pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position and results of operations is disclosed in Note 2, “*Summary of Significant Accounting Policies*,” to our audited consolidated financial statements appearing in Part II, Item 8 of this Form 10-K.

Inflation Risk

During the last two years, inflation and changing prices have not had a material effect on our business. We are unable to predict whether inflation or changing prices will materially affect our business in the foreseeable future.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company, as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended, for this reporting period and are not required to provide the information required under this item.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to the Consolidated Financial Statements

	<u>Page</u>
Reports of Independent Registered Public Accounting Firms.....	47
Consolidated Balance Sheets as of January 31, 2020 and 2019	49
Consolidated Statements of Operations and Comprehensive Loss for the years ended January 31, 2020 and 2019.....	50
Consolidated Statements of Cash Flows for the years ended January 31, 2020 and 2019	51
Consolidated Statements of Stockholders' Equity for the years ended January 31, 2020 and 2019.....	52
Notes to Consolidated Financial Statements.....	53

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of
SeaChange International, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of SeaChange International, Inc. (the “Company”) as of January 31, 2020, the related consolidated statements of operations and comprehensive loss, stockholders’ equity and cash flows for the year ended January 31, 2020, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of January 31, 2020, and the results of its operations and its cash flows for the year ended January 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of January 31, 2020, based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 2013 and our report dated April 20, 2020, expressed an unqualified opinion on the effectiveness of the Company’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Marcum LLP

Marcum LLP

We have served as the Company’s auditor since 2019.
Philadelphia, Pennsylvania
April 20, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
SeaChange International, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheet of SeaChange International, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of January 31, 2019, the related consolidated statements of operations and comprehensive (loss), stockholders’ equity, and cash flows for the year ended January 31, 2019, and the related notes and financial statement schedule included under Item 15(a) (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of January 31, 2019, and the results of its operations and its cash flows for the year ended January 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor from 2007 to 2019.

Boston, Massachusetts
April 12, 2019

SEACHANGE INTERNATIONAL, INC.
CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except share data)

	January 31, 2020	January 31, 2019
Assets		
Current assets:		
Cash, cash equivalents and restricted cash	\$ 9,297	\$ 20,317
Marketable securities	3,835	4,020
Accounts receivable, net of allowance for doubtful accounts of \$947 and \$577 at January 31, 2020 and 2019, respectively	12,127	19,267
Unbilled receivables	14,279	5,448
Inventory	—	924
Prepaid expenses and other current assets	5,112	6,033
Total current assets	44,650	56,009
Property and equipment, net	554	7,192
Operating lease right-of-use assets	4,860	—
Marketable securities, long-term	782	6,339
Intangible assets, net	2,300	—
Goodwill	9,775	8,753
Unbilled receivables, long-term	9,031	—
Other assets	938	450
Total assets	<u>\$ 72,890</u>	<u>\$ 78,743</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 4,007	\$ 4,503
Accrued expenses	7,986	7,762
Deferred revenue	5,041	8,104
Total current liabilities	17,034	20,369
Deferred revenue, long-term	1,140	2,642
Operating lease liabilities, long-term	4,348	—
Taxes payable, long-term	436	429
Deferred tax liabilities, long-term	—	203
Total liabilities	22,958	23,643
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock, \$0.01 par value; 100,000,000 shares authorized at January 31, 2020 and 2019; 37,303,952 shares issued and 37,163,462 shares outstanding at January 31, 2020; 35,946,100 shares issued and 35,905,610 outstanding at January 31, 2019	373	359
Additional paid-in capital	245,067	242,442
Treasury stock, at cost; 140,490 shares at January 31, 2020 and 40,490 shares at January 31, 2019	(147)	(5)
Accumulated other comprehensive loss	(2,137)	(3,393)
Accumulated deficit	(193,224)	(184,303)
Total stockholders' equity	49,932	55,100
Total liabilities and stockholders' equity	<u>\$ 72,890</u>	<u>\$ 78,743</u>

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

SEACHANGE INTERNATIONAL, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Amounts in thousands, except per share data)

	<u>For the Fiscal Years Ended January 31,</u>	
	<u>2020</u>	<u>2019</u>
Revenue:		
Product	\$ 39,914	\$ 20,655
Service	27,240	41,747
Total revenue	67,154	62,402
Cost of revenue:		
Product	6,179	3,460
Service	17,473	21,612
Total cost of revenue	23,652	25,072
Gross profit	43,502	37,330
Operating expenses:		
Research and development	16,050	19,705
Selling and marketing	12,179	14,414
General and administrative	15,211	19,618
Severance and restructuring costs	3,523	2,381
Loss on sale of fixed assets	5,423	—
Loss on impairment of goodwill and long-lived assets	—	17,015
Total operating expenses	52,386	73,133
Loss from operations	(8,884)	(35,803)
Other income (expense), net	11	(4,217)
Loss before income taxes	(8,873)	(40,020)
Income tax provision (benefit)	48	(2,018)
Net loss	\$ (8,921)	\$ (38,002)
Net loss per share, basic	\$ (0.24)	\$ (1.06)
Net loss per share, diluted	\$ (0.24)	\$ (1.06)
Weighted average common shares outstanding, basic	36,699	35,691
Weighted average common shares outstanding, diluted	36,699	35,691
Comprehensive loss:		
Net loss	\$ (8,921)	\$ (38,002)
Other comprehensive income, net of tax:		
Foreign currency translation adjustment	1,212	1,992
Unrealized gains on marketable securities	44	49
Total other comprehensive income	1,256	2,041
Comprehensive loss	\$ (7,665)	\$ (35,961)

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

SEACHANGE INTERNATIONAL, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands)

	<u>For the Fiscal Years Ended January 31,</u>	
	<u>2020</u>	<u>2019</u>
Cash flows from operating activities:		
Net loss	\$ (8,921)	\$ (38,002)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	2,016	2,924
Loss on sale of fixed assets	5,423	—
Provision for bad debts	628	1,779
Loss on impairment of goodwill and long-lived assets	—	17,015
Stock-based compensation expense	1,151	2,939
Deferred income taxes	(203)	(4)
Realized and unrealized foreign currency transaction loss	2,126	3,459
Gain on sale of investment in affiliate and other investments, net	(1,495)	(175)
Other	—	53
Changes in operating assets and liabilities:		
Accounts receivable	7,134	513
Unbilled receivables	(17,840)	(2,468)
Inventory	924	(260)
Prepaid expenses and other current assets and other assets	1,609	(877)
Accounts payable	(1,149)	2,219
Accrued expenses and other liabilities	(170)	(7,087)
Deferred revenue	(4,565)	(3,379)
Other	(1,462)	(173)
Net cash used in operating activities	(14,794)	(21,524)
Cash flows from investing activities:		
Purchases of property and equipment	(281)	(364)
Proceeds from sale of building and land	600	—
Cash paid for acquisitions, net	(3,838)	—
Purchases of marketable securities	(790)	(8,510)
Proceeds from sales and maturities of marketable securities	6,576	6,652
Proceeds from sale of investment in affiliate, net	1,495	175
Net cash provided by (used in) investing activities	3,762	(2,047)
Cash flows from financing activities:		
Proceeds from issuance of common stock	614	83
Repurchases of common stock	(142)	—
Other financing activities	—	(43)
Net cash provided by financing activities	472	40
Effect of exchange rate on cash and cash equivalents	(460)	187
Net decrease in cash, cash equivalents and restricted cash	(11,020)	(23,344)
Cash, cash equivalents and restricted cash at beginning of period	20,317	43,661
Cash, cash equivalents and restricted cash at end of period	<u>\$ 9,297</u>	<u>\$ 20,317</u>
Supplemental disclosure of cash flow information		
Income taxes paid	<u>\$ 463</u>	<u>\$ 2,965</u>
Non-cash activities:		
Right-of-use assets obtained in exchange for lease obligations	<u>\$ 5,600</u>	<u>\$ —</u>
Fair value of common stock issued in acquisition	<u>\$ 874</u>	<u>\$ —</u>

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

SEACHANGE INTERNATIONAL, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Amounts in thousands, except share amounts)

	Common Stock		Additional		Accumulated		Total
	Number of	Par Value	Paid-in	Treasury	Other	Accumulated	Stockholders'
	Shares		Capital	Stock	Comprehensive	Deficit	Equity
					Loss		
Balances at January 31, 2018	35,634,984	\$ 356	\$ 239,423	\$ (5)	\$ (5,434)	\$ (148,620)	\$ 85,720
Adjustment resulting from the adoption of ASC 606	—	—	—	—	—	2,319	2,319
Issuance of common stock pursuant to exercise of stock options	20,937	—	54	—	—	—	54
Issuance of common stock pursuant to vesting of restricted stock units	277,385	3	(3)	—	—	—	—
Issuance of common stock pursuant to ESPP purchases	12,794	—	29	—	—	—	29
Stock-based compensation expense	—	—	2,939	—	—	—	2,939
Unrealized losses on marketable securities	—	—	—	—	49	—	49
Foreign currency translation adjustment	—	—	—	—	1,992	—	1,992
Net loss	—	—	—	—	—	(38,002)	(38,002)
Balances at January 31, 2019	<u>35,946,100</u>	<u>\$ 359</u>	<u>\$ 242,442</u>	<u>\$ (5)</u>	<u>\$ (3,393)</u>	<u>\$ (184,303)</u>	<u>\$ 55,100</u>
	Common Stock		Additional		Accumulated		Total
	Number of	Par Value	Paid-in	Treasury	Other	Accumulated	Stockholders'
	Shares		Capital	Stock	Comprehensive	Deficit	Equity
					Loss		
Balances at January 31, 2019	35,946,100	\$ 359	\$ 242,442	\$ (5)	\$ (3,393)	\$ (184,303)	\$ 55,100
Issuance of common stock pursuant to acquisition of Xstream	541,738	5	869	—	—	—	874
Issuance of common stock pursuant to vesting of restricted stock units	608,200	6	(6)	—	—	—	—
Issuance of common stock pursuant to ESPP purchases	12,453	-	20	—	—	—	20
Issuance of common stock pursuant to exercise of stock options	195,461	3	591	—	—	—	594
Repurchases of common stock	—	—	—	(142)	—	—	(142)
Stock-based compensation expense	—	—	1,151	—	—	—	1,151
Unrealized gains on marketable securities	—	—	—	—	44	—	44
Foreign currency translation adjustment	—	—	—	—	1,212	—	1,212
Net loss	—	—	—	—	—	(8,921)	(8,921)
Balances at January 31, 2020	<u>37,303,952</u>	<u>\$ 373</u>	<u>\$ 245,067</u>	<u>\$ (147)</u>	<u>\$ (2,137)</u>	<u>\$ (193,224)</u>	<u>\$ 49,932</u>

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

SEACHANGE INTERNATIONAL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business and Basis of Presentation

SeaChange International, Inc. (“we” or the “Company”), a Delaware corporation was founded on July 9, 1993. We are an industry leader in the delivery of multiscreen, advertising and premium over-the-top (“OTT”) video management solutions. Our software products and services are designed to empower video providers to create, manage and monetize the increasingly personalized, highly engaging experiences that viewers demand.

Liquidity

We continue to realize the savings related to our restructuring activities. During fiscal 2019, we made significant reductions to our headcount as part of our ongoing restructuring efforts from which we have generated annualized cost savings of approximately \$6 million. In fiscal 2020, we continued to streamline our operations and closed our service organizations in Ireland and the Netherlands. These measures are important steps in restoring us to profitability and positive cash flow. We believe that existing cash and investments and cash expected to be provided by future operating results, augmented by the plans highlighted below (see Note 7), are adequate to satisfy our working capital, capital expenditure requirements and other contractual obligations for at least the next 12 months.

If our expectations are incorrect, we may need to raise additional funds to fund our operations to take advantage of unanticipated strategic opportunities or to strengthen our financial position. In the future, we may enter into other arrangements for potential investments in, or acquisitions of, complementary businesses, services or technologies, which could require us to seek additional equity or debt financing. If adequate funds are not available or are not available on acceptable terms, we may not be able to follow through our operational plans, take advantage of market opportunities to develop new products or to otherwise respond to competitive pressures, or invest in complementary businesses or technologies.

Impact of COVID-19 Pandemic

In the first quarter of fiscal 2021, concerns related to the spread of COVID-19 began to create global business disruptions as well as disruptions in our operations and to create potential negative impacts on our revenues and other financial results. COVID-19 was declared a pandemic by the World Health Organization on March 11, 2020. The extent to which COVID-19 will impact our financial condition or results of operations is currently uncertain and depends on factors including the impact on our customers, partners, and vendors and on the operation of the global markets in general. Due to our business model, the effect of COVID-19 on our results of operations may also not be fully reflected for some time.

We are currently conducting business with substantial modifications to employee travel, employee work locations, virtualization or cancellation of customer and employee events, and remote sales, implementation, and support activities, among other modifications. These decisions may delay or reduce sales and harm productivity and collaboration. We have observed other companies and governments making similar alteration to their normal business operations, and in general, the markets are experiencing a significant level of uncertainty at the current time. Virtualization of our team’s sales activities could foreclose future business opportunities, particularly as our customers limit spending, which could negatively impact the willingness of our customers to enter into or renew contracts with us. The pandemic has impacted our ability to complete certain implementations, negatively impacting our ability to recognize revenue, and could also negatively impact the payment of accounts receivable and collections. We may take further actions that alter our business operations as the situation evolves. As a result, the ultimate impact of the COVID-19 pandemic and the effects of the operational alterations we have made in response on our business, financial condition, liquidity, and financial results cannot be predicted at this time.

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”). We consolidate the financial statements of our wholly-owned subsidiaries and all intercompany transactions and account balances have been eliminated in consolidation. Certain prior year amounts have been reclassified to conform to the current year presentation.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of these consolidated financial statements in conformity with GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and disclosure of contingent assets and liabilities. Significant estimates and assumptions reflected in these consolidated financial statements include, but are not limited to, those related to revenue recognition, allowance for doubtful accounts, goodwill and intangible assets, impairment of long-lived assets, accounting for income taxes, and the valuation of stock-based awards. We base our estimates on historical experience, known trends and other market-specific or relevant factors that are believed to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known. Actual results may differ from those estimates or assumptions.

Business Combinations

We account for acquisitions of entities that include inputs and processes and have the ability to create outputs as business combinations. We allocate the purchase price of the acquisition to the tangible assets acquired, liabilities assumed, and identifiable intangible assets acquired based on their estimated fair values. The excess of the purchase price over those fair values is recorded as goodwill. Acquisition-related expenses and restructuring costs are expensed as incurred. During the measurement period, we record adjustments to provisional amounts recorded for assets acquired and liabilities assumed with the corresponding offset to goodwill. After the measurement period, which could be up to one year after the transaction date, subsequent adjustments are recorded to the Company’s consolidated statements of operations.

Cash, Cash Equivalents, and Restricted Cash

Cash and cash equivalents include cash on hand and on deposit and highly liquid investments in money market mutual funds, government sponsored enterprise obligations, treasury bills, commercial paper and other money market securities with remaining maturities at the date of purchase of 90 days or less. All cash equivalents are carried at cost, which approximates fair value. Restricted cash represents cash that is restricted as to withdrawal or usage and consists primarily of cash held as collateral in relation to obligations set forth by our landlords.

The following tables provides a summary of cash, cash equivalents and restricted cash that constitutes the total amounts shown in the consolidated statements of cash flows as of January 31, 2020 and 2019:

	As of January 31,	
	2020	2019
	(Amounts in thousands)	
Cash and cash equivalents	\$ 9,013	\$ 20,317
Restricted cash	284	-
Total cash, cash equivalents and restricted cash	<u>\$ 9,297</u>	<u>\$ 20,317</u>

Marketable Securities

Our investments, consisting of debt securities, are classified as available-for-sale and are carried at fair value, with the unrealized gains and losses, net of tax, reported as a component of accumulated other comprehensive

loss in stockholders' equity. Realized gains and losses and declines in value determined to be other than temporary are based on the specific identification method and are included as a component of other income (expense), net in the consolidated statements of operations and comprehensive loss.

We evaluate our investments with unrealized losses for other-than-temporary impairment. When assessing investments for other-than-temporary declines in value, we consider such factors as, among other things, how significant the decline in value is as a percentage of the original cost, how long the market value of the investment has been less than its original cost, our ability and intent to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair value and market conditions in general. If any adjustment to fair value reflects a decline in the value of the investment that we consider to be "other than temporary," we reduce the investment to fair value through a charge to the statement of operations and comprehensive loss. No such adjustments were necessary during the periods presented.

Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

Our cash equivalents and marketable securities are carried at fair value determined according to the fair value hierarchy described above (see Note 3). The carrying values of our accounts and other receivables, unbilled receivables, accounts payable and accrued expenses approximate their fair values due to the short-term nature of these assets and liabilities.

Concentration of Credit Risk and of Significant Customers

Financial instruments which potentially expose us to concentrations of credit risk include cash, cash equivalents, restricted cash, marketable securities and accounts receivable. We have cash investment policies which, among other things, limit investments to investment-grade securities. We restrict our cash equivalents and marketable securities to repurchase agreements with major banks and United States ("U.S.") government and corporate securities which are subject to minimal credit and market risk. We perform ongoing credit evaluations of our customers.

We sell our software products and services worldwide primarily to service providers, consisting of operators, telecommunications companies, satellite operators and broadcasters. No customer accounted for more than 10% of total revenue in fiscal 2020. Two customers accounted for 24% and 11% each of total revenue in fiscal 2019. Two customers accounted for 16% and 10% of the accounts receivable balance as of January 31, 2020. Two customers accounted for 44% and 15% of the accounts receivable balance as of January 31, 2019.

Allowances for Doubtful Accounts

We evaluate our customers' financial condition, require advance payments from certain of our customers and maintain reserves for potential credit losses. We perform ongoing credit evaluations of our customers'

financial condition but generally do not require collateral. For some international customers, we may require an irrevocable letter of credit to be issued by the customer before the purchase order is accepted. We monitor payments from customers and assess any collection issues. We maintain an allowance for specific doubtful accounts for estimated losses resulting from the inability of our customers to make required payments and record these allowances as a charge to general and administrative expenses in our consolidated statements of operations and comprehensive loss. We base our general allowances for doubtful accounts on historical collections and write-off experience, current trends, credit assessments, and other analysis of specific customer situations. We charge off trade accounts receivables against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Recoveries of trade receivables previously charged off are recorded when received.

Inventory Valuation

Inventory is valued at the lower of cost or net realizable value. Cost is computed using the first-in, first-out method. We regularly review inventory quantities on-hand for excess and obsolete inventory and, when circumstances indicate, record charges to write down inventories to their estimated net realizable value after evaluating historical sales, future demand, market conditions and expected product life cycles. Such charges are classified as cost of revenue in the consolidated statements of operations and comprehensive loss. Any write-down of inventory to net realizable value creates a new cost basis.

Property, Plant and Equipment, Net

Property, plant and equipment consists of land, buildings, office furniture and equipment, computer equipment, software and demonstration equipment, service and spare components, and leasehold improvements. Deployed assets are included in computer equipment, and assemblies used to service our installed base are included in service and spare components.

Property, plant and equipment is recorded at cost less depreciation and is depreciated using the straight-line method over the estimated lives of the related assets. Upon retirement or sale, the cost of the assets disposed of and the related accumulated depreciation are eliminated from the accounts, and any resulting gain or loss is reflected in the consolidated statements of operations. Expenditures for maintenance and repairs are charged to expense as incurred. Estimated useful lives of assets are as follows:

Buildings	20 years
Office furniture and equipment	5 years
Computer equipment, software and demonstration equipment	3 years
Service and spare components	5 years
Leasehold improvements	Shorter of lease term or estimated useful life

Investments in Affiliates

Our investments in affiliates included investments accounted for under the cost method of accounting as the investments represented less than a 20% ownership interest of the common shares of the affiliate.

In connection with the sale of our investment in Layer3 TV, Inc. ("Layer 3"), a company in which we had a cost-method investment, we received \$4.6 million in fiscal 2018. We were entitled to additional payments of up to \$2.1 million, subject to satisfaction of provisions associated with the transaction, of which we received \$0.2 million in fiscal 2019. We recorded a gain on sale of investment in affiliate of \$0.2 million in our consolidated statements of operations and comprehensive loss in fiscal 2019 related to this payment. We received our final Layer3 payment of \$1.8 million in fiscal 2020 which was partially offset by a \$0.3 million loss on an unrelated investment. We recorded a net gain on sale of investment in affiliate of \$1.5 million in our consolidated statements of operations and comprehensive loss in fiscal 2020.

The balance of our investments in affiliates was zero as of January 31, 2020 and 2019.

Segment Information

Our operations are organized into one reportable segment. Operating segments are defined as components of an enterprise evaluated regularly by the Company's senior management in deciding how to allocate resources and assess performance. Our reportable segment was determined based upon the nature of the products offered to customers, the market characteristics of each operating segment and the Company's management structure.

Goodwill and Acquired Intangible Assets

We record goodwill when consideration paid in a business acquisition exceeds the value of the net assets acquired. Our estimates of fair value are based upon assumptions believed to be reasonable at that time but such estimates are inherently uncertain and unpredictable. Assumptions may be incomplete or inaccurate and unanticipated events or circumstances may occur, which may affect the accuracy or validity of such assumptions, estimates or actual results. Goodwill is not amortized but rather is tested for impairment annually in our third quarter beginning August 1st of each year, or more frequently, if facts and circumstances warrant a review such as the circumstances mentioned in impairments of long-lived assets. We have determined that there is a single reporting unit for the purpose of conducting this goodwill impairment assessment. We assess both the existence of potential impairment and the amount of impairment loss by comparing the fair value of the reporting unit with its carrying amount, including goodwill. Through January 31, 2020, we have recorded accumulated goodwill impairment charges of \$54.8 million (see Note 6).

Intangible assets are recorded at their estimated fair values at the date of acquisition. We amortize acquired intangible assets over their estimated useful lives based on the pattern of consumption of the economic benefits or, if that pattern cannot be readily determined, on a straight-line basis.

Internal Use Software

Certain costs incurred in the application development phase of software development for internal use are capitalized and amortized over the product's estimated useful life, which is three years. We expense all costs incurred that relate to planning and post implementation phases of development. Capitalized costs related to internally developed software under development are classified as construction in progress until the technology is available for intended use, at which time the amortization commences. Maintenance and training costs are expensed as incurred.

Impairment of Long-Lived Assets

Long-lived assets primarily consist of property, plant and equipment and intangible assets with finite lives. Long-lived assets are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or group of assets may not be recoverable. Recoverability of long-lived assets or groups of assets is assessed based on a comparison of the carrying amount to the estimated future undiscounted cash flows. If estimated future undiscounted net cash flows are less than the carrying amount, the asset is considered impaired and expense is recorded at an amount required to reduce the carrying amount to fair value. Determining the fair value of long-lived assets includes significant judgment by management, and different judgments could yield different results.

We assess the useful lives and possible impairment of existing recognized long-lived assets whenever events or changes in circumstances occur that indicate that it is more likely than not that an impairment has occurred. Factors considered important which could trigger a review include:

- significant underperformance relative to historical or projected future operating results;
- significant changes in the manner of use of the acquired assets or the strategy for our overall business;
- identification of other impaired assets within a reporting unit;
- significant negative industry or economic trends;

- a significant decline in our stock price for a sustained period; and
- a decline in our market capitalization relative to net book value.

Determining whether a triggering event has occurred involves significant judgment (see Note 6).

Income Taxes

Income taxes comprise current and deferred income tax. Income taxes are recognized in the consolidated statements of operations and comprehensive loss except to the extent that it relates to items recognized directly within equity or in other comprehensive loss. Income taxes payable, which is included in accrued expenses in our consolidated balance sheets, is the expected taxes payable on the taxable income for the year, using tax rates enacted or substantially-enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax assets and liabilities are recognized, using the balance sheet method, for the expected tax consequences of temporary differences between the carrying amounts of assets and liabilities and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences: the initial recognition of goodwill, the initial recognition of assets and liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that they probably will not reverse in the foreseeable future. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantially-enacted by the reporting date.

A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income in the countries where the deferred tax assets originated and during the periods when the deferred tax assets become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment.

We operate in multiple jurisdictions with complex tax policy and regulatory environments. In certain of these jurisdictions, we may take tax positions that management believes are supportable but are potentially subject to successful challenge by the applicable taxing authority. These interpretational differences with the respective governmental taxing authorities can be impacted by the local economic and fiscal environment. We evaluate our tax positions and establish liabilities in accordance with the applicable accounting guidance on uncertainty in income taxes. We review these tax uncertainties in light of changing facts and circumstances, such as the progress of tax audits, and adjust them accordingly.

Our policy is to classify interest and penalties related to unrecognized tax benefits, if and when required, as a component of income tax provision (benefit), in our consolidated statements of operations and comprehensive loss. We have made a policy election to treat the GILTI tax as a period expense.

Because there are several estimates and assumptions inherent in calculating the various components of our tax provision, certain changes or future events such as changes in tax legislation, geographic mix of earnings, completion of tax audits or earnings repatriation plans could have an impact on those estimates and our effective tax rate.

Restructuring

Restructuring charges that we record consist of employee-related severance charges, remaining lease obligations and termination costs, and the disposal of related equipment. Restructuring charges represent our best estimate of the associated liability at the date the charges are recognized. Adjustments for changes in assumptions are recorded as a component of operating expenses in the period they become known (see Note 7).

Foreign Currency Translation and Transactions

The functional currency of each of our foreign subsidiaries is the currency of the local country unless otherwise determined that the U.S. dollar would serve as a more appropriate functional currency given the economic operations of the foreign subsidiary. Assets and liabilities of our foreign subsidiaries are translated into U.S. dollars using the period-end exchange rates, and income and expense items are translated into U.S. dollars using average exchange rates in effect during each period. The effects of these foreign currency translation adjustments are included in accumulated other comprehensive loss, a separate component of stockholders' equity.

We also incur transaction gains and losses resulting from intercompany transactions as well as transactions with customers or vendors denominated in currencies other than the functional currency of the legal entity in which the transaction is recorded. Foreign currency transaction losses are included in the consolidated statements of operations and comprehensive loss as a component of other expense and totaled \$2.1 million and \$4.7 million for fiscal 2020 and 2019, respectively.

Comprehensive Loss and Accumulated Other Comprehensive Loss

Comprehensive loss includes our net loss as well as other changes in stockholders' equity that result from transactions and economic events other than those with stockholders. Our only elements of other comprehensive loss are foreign currency translation adjustments and changes in unrealized gains on marketable securities.

Accumulated other comprehensive loss on the consolidated balance sheets as of January 31, 2020 and 2019 consists of foreign currency translation adjustments of (\$2.2) million and (\$3.4) million, respectively, and unrealized gains on marketable securities of \$0.1 million and less than \$0.1 million, respectively.

Revenue Recognition

The Company adopted Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers (Topic 606) (as amended, "ASC 606"), effective February 1, 2018, using the modified retrospective method applied to those contracts which were not substantially completed as of February 1, 2018. ASC 606 provides guidance on recognizing revenue, including a five-step model to determine when revenue recognition is appropriate. The standard requires that an entity recognize revenue to depict the transfer of control of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

Our revenue is derived from sales of software licenses and associated hardware, professional services, and maintenance fees related to our software licenses.

Our contracts, including contracts for our end-to-end software delivery platform solution (the "Framework"), often contain multiple performance obligations. For contracts with multiple performance obligations, we account for individual performance obligations separately if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis when available or expected cost plus margin or residual approach. If the transaction price contains discounts or we expect to provide future price concessions, these elements are considered when determining the transaction price prior to allocation. Variable fees within the transaction price are estimated and recognized as revenue when we satisfy our performance obligations to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur. If the contract grants the client the option to acquire additional products or services, we assess whether or not any discount on the products and services is in excess of levels normally available to similar clients and, if so, we account for that discount as an additional performance obligation.

Framework

We have concluded that Framework has multiple performance obligations. The selling price of Framework is highly variable as a result of our value-based engagement where pricing for our customers is based on the operating expense savings that we enable using the Framework engagement.

Framework Software Licenses

We have concluded that a Framework software license is a distinct performance obligation as the client can benefit from the software on its own. Software license revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the client, which is defined as the point in time when the client can use and benefit from the license. The software license is delivered before related services are provided and is functional without services, updates, and technical support. As a result of the highly variable selling price, revenue recognition and consideration related to the Framework software license is allocated under the residual method.

Framework Hardware

We have concluded that Framework hardware, when included in a Framework contract, is a distinct performance obligation as the client can benefit from the product. Framework hardware revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the customer, which is defined as the point in time when the client can use and benefit from the hardware. In situations where the hardware is distinct and it is delivered before services are provided and is functional without services, control is transferred upon delivery or acceptance by the customer.

Framework Support Services

We have concluded that Framework support services is a distinct performance obligation. Framework support services is included in services revenue in our consolidated statements of operations and comprehensive loss. Support services includes software upgrades on a when-and-if available basis, support, bug fixes or patches and general maintenance support. Framework support services standalone is not sold on a standalone basis. The selling price is determined using a cost-plus approach, and revenue is recognized ratably over the passage of the contractual term.

Legacy Software Licenses

We have concluded that a software license is a distinct performance obligation as the client can benefit from the software on its own. Software license revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the client, which is defined as the point in time when the client can use and benefit from the license. The software license is delivered before related services are provided and is functional without services, updates, and technical support.

Legacy Hardware

We have concluded that hardware is a distinct performance obligation as the client can benefit from the product on its own. Hardware revenue is included in product revenue in our consolidated statement of operations and comprehensive loss and is typically recognized when control is transferred to the customer, which is defined as the point in time when the client can use and benefit from the hardware. In situations where the hardware is distinct and it is delivered before services are provided and is functional without services, control is transferred upon delivery or acceptance by the customer.

Legacy Maintenance

Historically, maintenance revenue, which is included in services revenue in our consolidated statements of operations and comprehensive loss, includes revenue from client support and related professional services. Client support includes software upgrades on a when-and-if available basis, telephone support, bug fixes or patches and general hardware maintenance support. Maintenance is priced as a percentage of the list price of the related software license and hardware. Historically, we determined the standalone selling price of maintenance based on this pricing relationship and observable data from standalone sales of maintenance.

We have identified three separate distinct performance obligations of maintenance:

- Software upgrades and updates;
- Technical support; and
- Hardware support.

These performance obligations are distinct within the contract and, although they are not sold separately, the components are not essential to the functionality of the other components. Each of the performance obligations included in maintenance revenue is a stand ready obligation that is recognized ratably over the passage of the contractual term for products sold on a standalone basis.

Legacy Services

Historically, our services revenue, excluding maintenance revenue, is comprised of software license implementation services, engineering services, training and reimbursable expenses. We have concluded that services are distinct performance obligations, with the exception of engineering services. Engineering services may be provided on a standalone basis or bundled with a license when we are providing custom development.

The standalone selling price for services in time and materials contracts is determined by observable prices in standalone services arrangements and recognized as revenue as the services are performed based on an input measure of hours incurred to total estimated hours.

We estimate the standalone selling price for fixed price services based on estimated hours adjusted for historical experience at time and material rates charged in standalone services arrangements. Revenue for fixed price services is recognized over time as the services are provided based on an input measure of hours incurred to total estimated hours.

Contract Modifications

We occasionally enter into amendments to previously executed contracts that constitute contract modifications. We assess each of these contract modifications to determine:

- If the additional products and services are distinct from the product and services in the original arrangement; and
- If the amount of consideration expected for the added products and services reflects the standalone selling price of those products and services.

A contract modification meeting both criteria is accounted for as a separate contract. A contract modification not meeting both criteria is considered a change to the original contract and is accounted for on either a prospective basis as a termination of the existing contract and the creation of a new contract or a cumulative catch-up basis.

Significant Judgments

Our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. Once we determine the performance obligations, we determine the transaction price, which includes estimating the amount of variable consideration to be included in the transaction price, if any. We then allocate the transaction price to each performance obligation in the contract based on a relative standalone selling price method. The corresponding revenue is recognized as the related performance obligations are satisfied as discussed in the revenue categories above.

Judgment is required to determine the standalone selling price for each distinct performance obligation. We determine standalone selling price based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, we estimate the standalone selling price, taking into account available information such as market conditions, and internally approved pricing guidelines related to the performance obligations. In instances where stand-alone selling price is not directly observable, such as when we don't sell the product or service separately, we determine the stand-alone selling price based on a cost-plus model as market and other observable inputs are seldom present based on the proprietary nature of our products and services.

Our contracts do not generally include a variable component to the transaction price. With certain statements of work, we explicitly state that we are to be reimbursed for reasonable travel and entertainment expenses incurred as part of the delivery of professional services. In the cases when we are entitled to collect all travel and entertainment expenses incurred, an estimate of the fulfillment costs is made at the onset of the contract in order to determine the transaction price. The revenue associated with travel and entertainment expenses is then recognized over time along with the professional services.

Some of our contracts have payment terms that differ from the timing of revenue recognition, which requires us to assess whether the transaction price for those contracts include a significant financing component. We have elected the practical expedient that permits an entity to not adjust for the effects of a significant financing component if we expect that at the contract inception, the period between when the entity transfers a promised good or service to a customer and when the customer pays for that good or service, will be one year or less. For those contracts in which the period exceeds the one-year threshold, this assessment, as well as the quantitative estimate of the financing component and its relative significance, requires judgment. We estimate the significant financing component provided to our customers with extended payment terms by determining the present value of the future payments by applying a discount rate that reflects the customer's creditworthiness.

Contract Balances

Contract assets consist of unbilled revenue, which is recognized as work progresses in accordance with agreed-upon contractual terms, either at periodic intervals or upon achievement of contractual milestones. Unbilled receivables expected to be billed and collected within one year are classified as current assets or long-term assets if expected to be billed and collected after one year. Contract liabilities consist of deferred revenue and customer deposits that arise when amounts are billed to or collected from customers in advance of revenue recognition.

Costs to Obtain and Fulfill a Contract

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We have determined that commissions and special incentive payments ("Spiffs") for hardware and software maintenance and support and professional services paid under our sales incentive programs meet the requirements to be capitalized under ASC 340-40. Costs to obtain a contract are amortized as selling and marketing expense over the expected period of benefit in a manner that is consistent with the transfer of the related goods or services to which the asset relates. The judgments made in determining the amount of costs incurred include whether the commissions are in fact incremental and would not have occurred absent the customer contract and the estimate of the amortization period. The commissions and Spiffs related to professional services are amortized over time as work is completed. The commissions

and Spiffs for hardware and software maintenance are amortized over the life of the contract. These costs are periodically reviewed for impairment. We determined that no impairment of these assets existed as of January 31, 2020 or 2019. We have elected to apply the practical expedient and recognize the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that we otherwise would have recognized is one year or less.

We capitalize incremental costs incurred to fulfill our contracts that (i) relate directly to the contract, (ii) are expected to generate resources that will be used to satisfy our performance obligation under the contract, and (iii) are expected to be recovered through revenue generated under the contract. Contract fulfillment costs include direct labor for support services, software enhancements, reimbursable expenses and professional services for customized software development costs. The revenue associated with the support services, software enhancements and reimbursable expenses is recognized ratably over time; therefore, the associated costs are expensed as incurred. The professional services associated with the customized software are not recognized until completion. As such, the professional services costs are capitalized and recognized upon completion of the services.

Stock-Based Compensation

We measure stock options and other stock-based awards granted to employees and directors based on their fair value on the date of the grant and recognize compensation expense of those awards, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award. We apply the straight-line method of expense recognition to all awards with only service-based vesting conditions and apply the graded-vesting method to all awards with both service-based and performance-based vesting conditions, commencing when achievement of the performance condition becomes probable. We apply the graded-vesting method to awards with market conditions that include graded-vesting features.

Leases

We account for our leases in accordance with ASC 842, *Leases*. A contract is accounted for as a lease when we have the right to control the asset for a period of time while obtaining substantially all of the asset's economic benefits. We determine if an arrangement is a lease or contains an embedded lease at inception. For arrangements that meet the definition of a lease, we determine the initial classification and measurement of our right-of-use operating lease asset and corresponding liability at the lease commencement date. We determine the classification and measurement of a modified lease at the date it is modified. The lease term includes only renewal options that are reasonably assured to exercise. The present value of lease payments is typically determined by using the Company's estimated secured incremental borrowing rate for the associated lease term as interest rates implicit in the leases are not normally readily determinable. Management's policy is to utilize the practical expedient to not record leases with an original term of twelve months or less on our consolidated balance sheets, and lease payments are recognized in the consolidated statements of operations and comprehensive loss on a straight-line basis over the lease term.

Our existing leases are for facilities, automobiles and equipment. None of our leases are with related parties. In addition to rent, office leases may require us to pay additional amounts for taxes, insurance, maintenance and other expenses, which are generally referred to as non-lease components. As a practical expedient, we account for the non-lease components together with the lease components as a single lease component for all of our leases. Only the fixed costs for leases are accounted for as a single lease component and recognized as part of a right-of-use asset and liability.

Net Loss Per Share

Basic net loss per share is computed by dividing net loss by the weighted average number of unrestricted common shares outstanding during the period. Diluted net loss per share is computed by dividing net income loss by the sum of the weighted average number of unrestricted common shares outstanding during the period and the weighted average number of potential common shares from the assumed exercise of stock options and the vesting of shares of restricted and deferred common stock units using the "treasury stock" method when the effect is not anti-dilutive. In periods in which we report a net loss, diluted net loss per share is the same as basic net loss per share.

Recently Adopted Accounting Pronouncements

In August 2018, the Financial Accounting Standards Board (the "FASB") issued ASU 2018-13, "*Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*." ASU 2018-13 modifies the disclosure requirements on fair value measurements. ASU 2018-13 was adopted on February 1, 2019 and had no material impact on our consolidated financial statements.

In June 2018, the FASB issued ASU 2018-07, "*Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*." ASU 2018-07 expands the scope of Topic 718 to include all share-based payment transactions for acquiring goods and services from nonemployees. ASU 2018-07 was adopted on February 1, 2019 and had no material impact on our consolidated financial statements.

In February 2018, the FASB issued ASU 2018-02, *“Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.”* On December 22, 2017, the U.S. federal government enacted a tax bill, H.R.1, *An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018 (“Tax Cuts and Jobs Act”)*, which requires deferred tax liabilities and assets to be adjusted for the effect of a change in tax laws. ASU 2018-02 allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Reform Act. We adopted ASU 2018-02 effective February 1, 2019 and there was no impact to our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which is intended to improve financial reporting about leasing transactions. In July 2018, the Financial Accounting Standards Board issued ASU 2018-11 to amend ASU 2016-02 and provide an additional (and optional) transition method to adopt the new lease standard. This transition method allows entities to apply the new lease standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption instead of using the original modified retrospective transition method of adoption which requires the restatement of all prior-period financial statements. Under this new transition method, the comparative periods in the financial statements will continue to be presented in accordance with prior GAAP. On February 1, 2019, we adopted the new lease standard on a prospective basis using the new transition method under ASU 2018-11. Under this guidance, upon adoption in February 2019, we recognized right-of-use assets and operating lease liabilities of \$1.7 million for all leases with lease terms of more than 12 months. There was no impact to retained earnings as of that date. In addition, we adopted the guidance by electing the following practical expedients: (1) We did not reassess whether any expired or existing contracts contained leases, (2) We did not reassess the lease classification for any expired or existing leases, and (3) We excluded variable payments from the lease contract consideration and recorded those as incurred. The adoption of the standard did not have a material impact on our results of operations or cash flows. Our future commitments under lease obligations and additional disclosures are summarized in Note 9.

Recently Issued Accounting Pronouncements

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326)*, which introduces a new methodology for accounting for credit losses on financial instruments, including available-for-sale debt securities and accounts receivable. The guidance establishes a new “expected loss model” that requires entities to estimate current expected credit losses on financial instruments by using all practical and relevant information. Any expected credit losses are to be reflected as allowances rather than reductions in the amortized cost of available-for-sale debt securities. ASU 2016-13 is effective in the first quarter of fiscal 2021. We are currently evaluating if this guidance will have a material effect to our consolidated financial statements.

3. Fair Value Measurements

The following tables set forth our financial assets that were accounted for at fair value on a recurring basis. There were no fair value measurements of our financial assets using level 3 inputs for the periods presented:

	Total	Fair Value at January 31, 2020	
		Using	
		Level 1	Level 2
(Amounts in thousands)			
Assets:			
Cash equivalents	\$ 1,408	\$ 1,408	\$ —
Marketable securities:			
U.S. Treasury Notes and bonds	3,360	3,360	—
Corporate bonds	1,257	—	1,257
Total	<u>\$ 6,025</u>	<u>\$ 4,768</u>	<u>\$ 1,257</u>

	Fair Value at January 31, 2019		
	Using		
	Total	Level 1	Level 2
	(Amounts in thousands)		
Assets:			
Cash equivalents	\$ 2,887	\$ 2,724	\$ 163
Marketable securities:			
U.S. Treasury Notes and bonds	7,072	7,072	—
U.S. Agency bonds	992	—	992
Corporate bonds	2,295	—	2,295
Total	\$ 13,246	\$ 9,796	\$ 3,450

Cash equivalents include money market funds and U.S. treasury bills.

Marketable securities by security type consisted of the following:

	As of January 31, 2020			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(Amounts in thousands)			
U.S. Treasury Notes and bonds	\$ 3,310	\$ 50	\$ —	\$ 3,360
Corporate bonds	1,254	3	—	1,257
	<u>\$ 4,564</u>	<u>\$ 53</u>	<u>\$ —</u>	<u>\$ 4,617</u>

	As of January 31, 2019			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(Amounts in thousands)			
U.S. Treasury Notes and bonds	\$ 7,055	\$ 17	\$ —	\$ 7,072
U.S. Agency bonds	1,001	—	(9)	992
Corporate Bonds	2,308	—	(13)	2,295
	<u>\$ 10,364</u>	<u>\$ 17</u>	<u>\$ (22)</u>	<u>\$ 10,359</u>

As of January 31, 2020, marketable securities consisted of investments that mature within one year, with the exception of investments with a fair value of \$781 thousand that mature between one and two years.

4. Acquisitions

On February 6, 2019, we acquired 100% of the outstanding shares of Xstream A/S in exchange for an aggregate of \$0.9 million in shares of our common stock, based on the 20 day trailing volume weighted average closing price as of the acquisition date, and \$4.6 million in cash, resulting in a total purchase price of \$5.4 million. The acquisition of Xstream accelerates our penetration in OTT and new market segments and fully cloud-based end-to-end video platform that operates in a hosted managed environment. In addition, Xstream's MediaMaker video platform enhances our end-to-end video Framework.

Estimated fair value of consideration:	
Cash	\$ 4,552
Stock consideration	874
Total purchase price	<u>\$ 5,426</u>

Estimated fair value of assets acquired and liabilities assumed:	
Cash and cash equivalents	\$ 714
Other current assets	927
Other long-term assets	152
Finite-life intangible assets	3,569
Goodwill	1,300
Current liabilities	(1,236)
Allocated purchase price	<u>\$ 5,426</u>

	Useful Life	Fair Value (amounts in thousands)
Customer contracts	3 years	\$ 2,205
Existing technology	3 years	1,364
		<u>\$ 3,569</u>

We utilized the income approach methodology for the valuation of the identified intangible assets. Specifically, we used the excess earnings method to value the customer relationships, the relief-from-royalty method for the existing technology. Varying discount rates were also applied to the projected net cash flows and EBITDA as applicable. We believe the assumptions are representative of those a market participant would use in estimating fair value.

Goodwill recorded as part of the acquisition is not deductible for tax purposes.

5. Consolidated Balance Sheet Detail

Inventory

Inventory consists of the following:

	As of	
	January 31, 2020	January 31, 2019
	(Amounts in thousands)	
Components and assemblies	\$ -	\$ 763
Finished products	-	161
Total inventory	<u>\$ -</u>	<u>\$ 924</u>

Property, Plant and Equipment, Net

Property, plant and equipment, net consists of the following:

	As of	
	January 31, 2020	January 31, 2019
	(Amounts in thousands)	
Building	\$ -	\$ 3,467
Land	-	2,780
Computer equipment, software and demonstration equipment	9,695	12,316
Service and spare components	1,158	1,158
Office furniture and equipment	170	738
Leasehold improvements	154	531
	11,177	20,990
Less: Accumulated depreciation and amortization	(10,623)	(13,798)
Total property and equipment, net	<u>\$ 554</u>	<u>\$ 7,192</u>

As a result of our impairment analysis in the fiscal year ended January 31, 2019, we recorded an impairment charge of \$1.2 million to reduce the carrying value of our building to \$3.5 million.

As a result of the sale of our Acton, MA headquarters in the fourth quarter of fiscal year ended January 31, 2020 for \$0.5 million, net of disposal costs, we recorded a one-time \$5.4 million loss on the sale of fixed assets reported in the consolidated statement of operations and comprehensive loss.

Depreciation expense of property and equipment was \$0.9 million and \$1.3 million for the years ended January 31, 2020 and 2019, respectively.

Accrued Expenses

Accrued expenses consist of the following:

	As of	
	January 31, 2020	January 31, 2019
	(Amounts in thousands)	
Accrued employee compensation and benefits	\$ 3,236	\$ 1,866
Accrued professional fees	928	1,521
Sales tax and VAT payable	317	1,502
Accrued restructuring	744	653
Accrued third party hardware costs	1,169	-
Accrued other	1,592	2,220
Total accrued expenses	<u>\$ 7,986</u>	<u>\$ 7,762</u>

6. Goodwill and Intangible Assets

Goodwill

Goodwill represents the difference between the purchase price and the estimated fair value of identifiable assets acquired and liabilities assumed. We are required to perform impairment tests related to our goodwill annually, which we perform during the third quarter of each fiscal year, or when we identify certain triggering events or circumstances that would more likely than not reduce the estimated fair value of the goodwill below its carrying amount. The following table represents the changes in goodwill:

	Goodwill (Amounts in thousands)
Balance as of January 31, 2018	\$ 25,579
Cumulative translation adjustment	(1,324)
Loss on Impairment	(15,502)
Balance as of January 31, 2019	8,753
Goodwill arising from the Xstream acquisition	1,300
Cumulative translation adjustment	(278)
Balance as of January 31, 2020	<u>\$ 9,775</u>

When assessing goodwill impairment for fiscal 2020, we first performed a qualitative assessment to determine whether it was necessary to perform the two-step quantitative analysis. Based on the qualitative assessment we determined it was unlikely that our fair value was less than its carrying value, and therefore, there was no impairment of goodwill recorded.

In the second and fourth quarters of fiscal 2019, we performed impairment reviews of goodwill and long-lived assets. The impairment reviews were triggered by declines in the stock price, actual operating results and revised forecasts, which we considered to be triggering events for such reviews.

As a result of the quantitative impairment tests performed in the second quarter of fiscal 2019, we determined that the estimated fair value of goodwill and long-lived assets exceeded their carrying value. Therefore, no impairment charges on our goodwill or other long-lived assets were recorded. In the fourth quarter we utilized actual results for the full fiscal 2019 and revised forecasts which were impacted by actual results in our impairment test (using discounted cash flow analyses as discussed below). As a result of the quantitative impairment tests performed in the fourth quarter of fiscal 2019, we determined that the carrying value of goodwill and long-lived assets exceeded their fair value, therefore we recorded an impairment charge to reduce the carrying value of the building, included in property, plant and equipment, the remaining net book value of intangible assets and goodwill to fair value.

We performed our quantitative goodwill impairment test, utilizing the single-step approach to compare the carrying value of the reporting unit to its estimated fair value. We considered three generally accepted approaches for valuing businesses: the income approach, the market approach and the asset-based (cost) approach to arrive at fair value. Based on our particular facts and circumstances, we elected to rely on the income and market approach. We calculated the impairment charge using a discounted cash flow analysis, a form of the income approach and the guideline public company method, a form of the market approach. The discounted cash flow analysis relied on certain assumptions regarding future net free cash flows based on industry market data, historical performance and expected future performance. Future net free cash flows were discounted to present value using a risk-adjusted discount rate, which reflects the Weighted Average Cost of Capital (“WACC”). The WACC was developed using information from same or similar industry participants and publicly available market data. The guideline public company method examined the trading multiples of similarly publicly traded companies as they related to our operating metrics. As a result of the impairment test in fiscal 2019, we recorded an impairment charge of \$15.5 million to reduce goodwill from \$24.3 million to \$8.8 million, based on the difference between our carrying value, after accounting for the impairment charges of long-lived assets, and our fair value determined using a discounted cash flow approach. Our accumulated impairment as of January 31, 2020 and 2019 was \$54.8 million.

As a result of the impairment tests in fiscal 2019, we recorded an impairment charge of \$1.2 million to reduce the carrying value of our building of \$4.7 million to \$3.5 million and an impairment charge of \$0.3 million to reduce the carrying value of intangible assets of \$0.3 million to zero, representing the fair value of these long-lived assets. Fair value for the building was determined using market data and fair value of the intangible assets was determined using a discounted cash flow approach.

Intangible Assets, Net

Intangible assets, net, consisted of the following at January 31, 2020:

	As of January 31, 2020			
	Gross	Accumulated Amortization	Cumulative Translation Adjustment	Net
	(Amounts in thousands)			
Finite-lived intangible assets:				
Acquired customer contracts	\$ 2,205	\$ 718	\$ (66)	\$ 1,421
Acquired existing technology	1,364	445	(40)	879
Total finite-lived intangible assets	<u>\$ 3,569</u>	<u>\$ 1,163</u>	<u>\$ (106)</u>	<u>\$ 2,300</u>

We recognized amortization expense of intangible assets in cost of revenue and operating expense categories as follows:

	For the Fiscal Year Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Cost of revenue	\$ —	28
Selling and marketing	608	687
Research and development	555	181
	<u>\$ 1,163</u>	<u>\$ 896</u>

Amortization expense, reported in cost of service revenue in the consolidated statement of operations and comprehensive loss was \$0.7 million in fiscal 2019 for internally developed software, which is included in other assets on the consolidated balance sheets. There was no amortization expense associated with internally developed software in fiscal 2020. We did not capitalize additional costs in fiscal 2020 or 2019 and the net book value of internally developed software was zero at January 31, 2020 and 2019.

7. Severance and Restructuring Costs

Severance Costs

Severance charges incurred, unrelated to a restructuring plan, were \$0.2 million and \$0.8 million in fiscal 2020 and 2019, respectively. These charges were primarily related to the departure of former employees.

Restructuring Costs

During the third quarter of fiscal 2019, we announced and implemented cost-saving actions (the “2019 Restructuring Plan”). The primary element of the 2019 Restructuring Plan was staff reductions across all functions and geographic areas. We incurred restructuring charges of \$1.6 million in fiscal 2019, primarily for employee-related benefits for terminated employees. We incurred restructuring charges of \$3.4 million in fiscal 2020 primarily related to the closing of our service organizations in Ireland and the Netherlands in a continued effort to streamline operations.

The following table shows the change in balances of our accrued restructuring reported as a component of other accrued expenses on the consolidated balance sheets:

	Employee-Related Benefits	Closure of Leased Facilities	Other Restructuring	Total
	(Amounts in thousands)			
Accrued balance as of January 31, 2018	\$ 61	\$ 135	\$ 29	\$ 225
Restructuring charges incurred	1,565	7	36	1,608
Cash payments	(965)	(142)	(65)	(1,172)
Other charges	(8)	—	—	(8)
Accrued balance as of January 31, 2019	653	—	—	653
Restructuring charges incurred	2,995	113	259	3,367
Cash payments	(2,877)	(6)	(259)	(3,142)
Other charges	(27)	(107)	—	(134)
Accrued balance as of January 31, 2020	<u>\$ 744</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 744</u>

8. Commitments and Contingencies

Indemnification and Warranties

We provide indemnification, to the extent permitted by law, to our officers, directors, employees and agents for liabilities arising from certain events or occurrences while the officer, director, employee or agent is, or was, serving at our request in such capacity. With respect to acquisitions, we provide indemnification to, or assume indemnification obligations for, the current and former directors, officers and employees of the acquired companies in accordance with the acquired companies' governing documents. As a matter of practice, we have maintained directors' and officers' liability insurance including coverage for directors and officers of acquired companies.

We enter agreements in the ordinary course of business with customers, resellers, distributors, integrators and suppliers. Most of these agreements require us to defend and/or indemnify the other party against intellectual property infringement claims brought by a third-party with respect to our products. From time to time, we also indemnify customers and business partners for damages, losses and liabilities they may suffer or incur relating to personal injury, personal property damage, product liability, and environmental claims relating to the use of our products and services or resulting from the acts or omissions of us, our employees, authorized agents or subcontractors. From time to time, we have received requests from customers for indemnification of patent litigation claims. Management cannot reasonably estimate any potential losses, but these claims could result in material liability for us. There are no current pending legal proceedings, in the opinion of management that would have a material adverse effect on our financial position, results from operations and cash flows. There is no assurance that future legal proceedings arising from ordinary course of business or otherwise, will not have a material adverse effect on our financial position, results from operations or cash flows.

We warrant that our products, including software products, will substantially perform in accordance with our standard published specifications in effect at the time of delivery. In addition, we provide maintenance support to our customers and therefore allocate a portion of the product purchase price to the initial warranty period and recognize revenue on a straight-line basis over that warranty period related to both the warranty obligation and the maintenance support agreement. When we receive revenue for extended warranties beyond the standard duration, it is deferred and recognized on a straight-line basis over the contract period. Related costs are expensed as incurred.

9. Operating Leases

The Company has noncancelable operating leases for facilities, automobiles and equipment expiring at various dates through 2026. As discussed in Note 2, the Company adopted ASC 842 as of February 1, 2019 on a prospective basis using the transition method under ASU 2018-11. In accordance with this method, the Company recognized a right of use asset and an operating lease liability of \$1.7 million as of February 1, 2019.

In the third quarter of fiscal 2020, we terminated lease agreements for certain office space located in the Netherlands and Ireland, which will result in a reduction to our existing lease commitments in the amount of \$0.1 million in each of the fiscal years 2021 and 2022.

The components of lease expense for the fiscal year ended January 31, 2020 are as follows:

	Fiscal Year Ended January 31, 2020	
	(Amounts in thousands)	
Operating lease cost	\$	906
Short term lease cost		27
Total lease cost	\$	<u>933</u>

Supplemental cash flow information related to the Company's operating leases was as follows:

	Fiscal Year Ended January 31, 2020
	(Amounts in thousands)
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from operating leases	\$ 906
Right-of-use assets obtained in exchange for lease obligations	
Operating leases	\$ 5,600

Supplemental balance sheet information related to the Company's operating leases was as follows:

	January 31, 2020
	(Amounts in thousands)
Operating lease right-of-use assets	\$ 4,860
Current portion, operating lease liabilities	722
Operating lease liabilities, long term	4,348
Total operating lease liabilities	<u>\$ 5,070</u>
Weighted average remaining lease term (years)	5.0
Weighted average incremental borrowing rate	5.0%

The current portion, operating lease liabilities is included in the balance of accrued expenses at January 31, 2020. Rent payments for continuing operations were approximately \$0.9 million for the fiscal year ended January 31, 2020. Future minimum lease payments for operating leases with initial or remaining terms in excess of one year at January 31, 2020 are as follows:

	Payments for Operating Leases
For the fiscal years ended January 31,	(Amounts in thousands)
2021	\$ 965
2022	1,052
2023	1,036
2024	1,184
2025	1,201
Thereafter	59
Total lease payments	5,497
Less interest	427
Total operating lease liabilities	<u>\$ 5,070</u>

The Company's total lease cost for fiscal 2019 was \$1.2 million, and was accounted for under the former guidance of ASC 840, *Leases (Topic 840)*.

10. Stockholders' Equity

Stock Authorization

The Board of Directors is authorized to issue from time to time up to an aggregate of 5,000,000 shares of preferred stock, in one or more series. Each such series of preferred stock shall have the number of shares, designations, preferences, voting powers, qualifications and special or relative rights or privileges to be determined by the Board of Directors, including dividend rights, voting rights, redemption rights and sinking fund provisions, liquidation preferences, conversion rights and preemptive rights. No preferred stock has been issued as of January 31, 2020. We have designated 1,000,000 shares of Series A Participating Preferred Stock in connection with our Rights Plan (as defined below).

Equity Plans

2011 Compensation and Incentive Plan.

Our 2011 Compensation and Incentive Plan (the "2011 Plan") provides for the grant of incentive stock options, nonqualified stock options, restricted stock, restricted stock units ("RSUs"), deferred stock units ("DSUs"), performance stock units ("PSUs") and other equity based non-stock option awards as determined by the plan administrator to our officers, employees, consultants, and directors. We may satisfy awards upon the exercise of stock options or the vesting of stock units with newly issued shares or treasury shares. The Board of Directors is responsible for the administration of the 2011 Plan and determining the terms of each award, award exercise price, the number of shares for which each award is granted and the rate at which each award vests. In certain instances, the Board of Directors may elect to modify the terms of an award. The number of shares authorized for issuance under the 2011 Plan is 9,300,000. Additionally, outstanding awards under our 2005 Equity Compensation and Incentive Plan that expired, terminated, surrendered or canceled without having been fully exercised became available for issuance under the 2011 Plan. As of January 31, 2020, there were 2,719,297 shares available for future grant.

Nonemployee members of the Board of Directors may elect to receive DSUs in lieu of RSUs. The number of units subject to the DSUs is determined as of the grant date and shall fully vest one year from the grant date. The shares underlying the DSUs are not vested and issued until the earlier of the director ceasing to be a member of the Board of Directors (provided such time is subsequent to the first day of the succeeding fiscal year) or immediately prior to a change in control.

Option awards may be granted to employees at an exercise price per share of not less than 100% of the fair market value per common share on the date of the grant. Option awards granted under the 2011 Plan generally vest over a period of one to three years and expire ten years from the date of the grant.

We have a Long-Term Incentive Program ("LTI Program"), adopted in fiscal 2016, under which the named executive officers and other of our key employees may receive long-term equity-based incentive awards, which are intended to align the interests of our named executive officers and other key employees with the long-term interests of our stockholders and to emphasize and reinforce our focus on team success. Long-term equity-based incentive compensation awards are made in the form of stock options, RSUs and PSUs subject to vesting based in part on the extent to which employment continues.

2015 Employee Stock Purchase Plan

Under our 2015 Employee Stock Purchase Plan (the "ESPP"), six-month offering periods begin on October 1 and April 1 of each year during which eligible employees may elect to purchase shares of our common stock according to the terms of the offering. On each purchase date, eligible employees can purchase our stock at a price per share equal to 85% of the closing price of our common stock on the exercise date, but no less than par value. The maximum number of shares of our common stock authorized for sale under the ESPP is

1,150,000 shares of which 1,080,726 remain available under the ESPP as of January 31, 2020. Under the ESPP, 14,057 and 12,794 shares were purchased during fiscal 2020 and fiscal 2019, respectively.

Stock Option Valuation

Service-Based Options

We measure the fair value of service-based options using the Black-Scholes option-pricing model. Key input assumptions used to estimate the fair value of stock options include the exercise price, the expected option term, the risk-free interest rate over the option's expected term, the expected annual dividend yield and the expected stock price volatility. The expected option term was determined using the "simplified" method for "plain vanilla" options. The expected stock price volatility was established using the historical volatility of our common stock over a period of time equal to the expected term of the stock option. The risk-free interest rate is based upon the U.S. treasury bond yield at the grant date, using a remaining term equal to the expected life. The expected dividend yield is 0%, as we have not paid cash dividends on our common stock since our inception.

The following table presents, on a weighted average basis, the assumptions used in the Black-Scholes option pricing model to determine the fair value of stock options granted:

	For the Fiscal Years Ended January 31,	
	2020	2019
Risk-free interest rate	1.8%	2.4%
Expected volatility	50.5%	41.0%
Expected dividend yield	0.0%	0.0%
Expected term (in years)	6.0	6.0

Market-Based Options

Our former CEO was granted 800,000 market-based options issued in fiscal 2016 and fiscal 2017. These stock options vest in approximately equal increments based upon the closing price of our common stock achieving a certain level and continued service conditions. We measured the grant-date fair value of these options using a Monte Carlo simulation model and recognized the associated expense over the requisite service period. The fair value of these stock options was \$2.1 million, which was recognized over three years. In February 2019, these options were cancelled upon the resignation of our CEO, at which time we reversed \$0.5 million of stock-based compensation expense related to the final performance period for a portion of the grant.

We have not granted additional market-based options since fiscal 2017.

Stock Option Activity

The following table summarizes our stock option activity:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding as of January 31, 2019	4,124,202	\$ 3.28	6.96	\$ 32,000
Granted	1,555,000	1.94		
Exercised	(195,461)	3.04		
Forfeited	(2,715,275)	2.72		
Outstanding as of January 31, 2020	<u>2,768,466</u>	\$ 2.14	8.03	\$ 6,430,232
Vested and expected to vest as of January 31, 2020	<u>2,552,241</u>	\$ 2.09	8.52	\$ 6,018,110
Options exercisable as of January 31, 2020	<u>677,220</u>	\$ 2.67	6.18	\$ 1,271,367

The weighted average grant-date fair values of stock options granted during the years ended January 31, 2020 and 2019 were \$1.94 per share and \$0.86 per share, respectively.

Stock Units

We have granted RSUs and DSUs with service-based vesting criteria that generally vest over one to three years. In fiscal 2020, we granted 744,931 DSU shares and 128,961 RSU shares. In fiscal 2019, we granted 156,250 DSU shares and 389,500 RSU shares. We have also granted PSUs with performance-based and market-based vesting criteria. In fiscal 2019, we granted an aggregate of 210,000 performance-based PSUs to employees under the LTI Program. We did not grant any PSUs in fiscal 2020. The PSUs vest in three equal annual installments upon the achievement of certain Company-specific goals in each of the three years.

The following table summarizes our stock unit activity:

	Number of Shares	Weighted Average Grant-Date Fair Value
Unvested balance as of January 31, 2019	1,695,996	\$ 3.00
Granted	873,892	2.13
Vested	(608,200)	3.96
Forfeited	(816,735)	2.27
Unvested balance as of January 31, 2020	<u>1,144,953</u>	\$ 2.30

Stock-Based Compensation

We recognized stock-based compensation expense within the accompanying consolidated statements of operations and comprehensive loss as follows:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Cost of revenue	\$ 4	\$ —
Research and development	302	186
Sales and marketing	230	373
General and administrative	615	2,380
	<u>\$ 1,151</u>	<u>\$ 2,939</u>

As of January 31, 2020, unrecognized stock-based compensation expense related to unvested stock options was approximately \$1.7 million, which is expected to be recognized over a weighted average period of 2.34 years. As of January 31, 2020, unrecognized stock-based compensation expense related to unvested RSUs and DSUs was \$1.0 million, which is expected to be recognized over a weighted average amortization period of 1.37 years.

Tax Benefits Preservation Plan

On March 4, 2019, we entered into the a Tax Benefits Preservation Plan in the form of a stockholder rights agreement (“Rights Agreement”) and issued a dividend of one preferred share purchase right (a “Right”) for each share of common stock payable on March 15, 2019 to the stockholders of record of such shares on that date. Each Right entitles the registered holder, under certain circumstances, to purchase from us one one-hundredth of a share of Series A Participating Preferred Stock, par value \$0.01 per share (the “Preferred Shares”), of the Company, at a price of \$8.00 per one one-hundredth of a Preferred Share represented by a Right (the “Purchase Price”), subject to adjustment. The description and terms of the Rights are set forth in the Rights Agreement.

The Rights are not exercisable until the Distribution Date (as defined in the Rights Agreement). Until a Right is exercised, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends.

At any time prior to ten (10) business days after the time any Person becomes an Acquiring Person (as defined in the Rights Agreement), the Board may redeem the Rights in whole, but not in part, at a price of \$0.0001 per Right (the “Redemption Price”). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

The Rights will expire on the earlier of (i) the time at which the Rights are redeemed, (ii) the time at which the Rights are exchanged, (iii) the consummation of a reorganization transaction entered into by the Company resulting in stock transfer restrictions similar to the Rights Agreement, (iv) the close of business on the effective date of the repeal of Section 382 (as defined in the Rights Agreement) or if the Rights Agreement is no longer necessary for the preservation of NOLs, (v) the date on which the Board determines that the Rights Agreement is no longer necessary to preserve NOLs, (vi) the beginning of the taxable year to which the Board determines that none of the NOLs may be carried forward or (vii) the close of business on March 4, 2022 (the “Final Expiration Date”).

On June 28, 2019, we entered into an amendment to the Rights Agreement, between us and Computershare Trust Company, N.A., as rights agent, for the purpose of modifying the definition of “Final Expiration Date” to delete the extension of the Final Expiration Date in the event any person becomes an Acquiring Person (as defined in the Rights Agreement).

On August 8, 2019, we entered into an amendment No. 2 to the Rights Agreement, between us and Computershare Trust Company, N.A., as rights agent, for the purpose of modifying the definition of “Acquiring Person” to not include TAR Holdings and their respective affiliates and associates, provided the aggregate beneficial ownership of TAR Holdings does not exceed 25.0% of the Company securities then outstanding.

11. Stock Repurchase Program

On June 6, 2019, the Board authorized a share repurchase program of up to \$5.0 million of then-outstanding shares of the Company's common stock over the next year. Under the share repurchase program, the Company is authorized to repurchase, from time to time, outstanding shares of common stock in accordance with applicable laws both on the open market, including under trading plans established pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended and in privately negotiated transactions.

The following table provides a summary of the Company's stock repurchase activities for the fiscal year ended January 31, 2020 (in thousands, except per share amounts):

	For the Fiscal Year Ended January 31, 2020	
Shares repurchased		100
Average cost per share	\$	1.42
Value of shares repurchased	\$	142

12. Revenue from Contracts with Customers

Our products and services facilitate the aggregation, licensing, management and distribution of video and advertising content to cable television system operators, telecommunication companies, satellite operators and media companies. Offerings include and revenue is generated from the sales of software and associated hardware, professional services, and maintenance fees related to our software licenses. These offerings can be sold on a standalone basis or as a component of a contract with multiple performance obligations. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price. The performance obligations include future credits, significant discounts and material rights in addition to the software and associated hardware, professional services, and maintenance fees related to our software licenses.

The revenue for perpetual licenses to software applications and hardware is recognized upon delivery or acceptance by the customer. Product maintenance and technical support is recognized ratably over the stated or implied maintenance periods.

The professional services are either fixed price or time and material contracts and consist of installation and integration, customized development and customized software, training, and on-site managed services. The installation and integration is recognized over time based on an input measure of hours incurred to total estimated hours. The customized development and software is recognized at a point in time upon delivery and acceptance of the final software product. The training and the on-site managed services are recognized over the service period.

Disaggregated Revenue

The following table shows our revenue disaggregated by revenue stream:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Product	\$ 39,914	\$ 20,655
Professional services	6,222	13,908
Maintenance	21,018	27,839
Total revenue	<u>\$ 67,154</u>	<u>\$ 62,402</u>

Transaction Price Allocated to Future Performance Obligations

The aggregate amount of transaction price that is allocated to performance obligations that have not yet been satisfied or are partially satisfied as of January 31, 2020 is \$31.9 million. This amount in part includes amounts billed for undelivered services that are included in deferred revenue reported on the consolidated balance sheets.

13. Geographic Information

The following summarizes revenue by customers' geographic locations:

	For the Fiscal Years Ended January 31,			
	2020	%	2019	%
	(Amounts in thousands, except percentages)			
Revenue by customers' geographic locations:				
North America (1)	\$ 40,072	60%	\$ 30,002	48%
Europe and Middle East	15,829	24%	21,990	35%
Latin America	9,639	14%	9,068	15%
Asia Pacific	1,614	2%	1,342	2%
Total revenue	<u>\$ 67,154</u>		<u>\$ 62,402</u>	

(1) Includes total revenue for the U.S. for the periods shown as follows:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands, except percentages)	
US Revenue	\$ 31,707	\$ 23,582
% of total revenue	47%	38%

The following summarizes long-lived assets by geographic locations:

	For the Fiscal Years Ended January 31,			
	2020	%	2019	%
	(Amounts in thousands, except percentages)			
Long-lived assets by geographic locations (1):				
North America	\$ 13,293	75%	\$ 7,148	93%
Europe and Middle East	4,359	25%	446	6%
Asia Pacific	31	0%	48	1%
Total long-lived assets by geographic location	<u>\$ 17,683</u>		<u>\$ 7,642</u>	

(1) Excludes marketable securities, long-term and goodwill.

14. Income Taxes

The components of loss from operations before income taxes are as follows:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Domestic	\$ (3,314)	\$ (16,087)
Foreign	(5,559)	(23,933)
Loss before income taxes	<u>\$ (8,873)</u>	<u>\$ (40,020)</u>

The components of the income tax provision (benefit) from operations are as follows:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Current:		
State	\$ 20	\$ 5
Foreign	210	(1,882)
Total	230	(1,877)
Deferred:		
Foreign	(182)	(141)
Total	(182)	(141)
Income tax provision (benefit)	<u>\$ 48</u>	<u>\$ (2,018)</u>

The income tax provision (benefit) for continuing operations computed using the federal statutory income tax rate differs from our effective tax rate primarily due to the following:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Statutory U.S. federal tax rate	\$ (1,863)	\$ (8,404)
State taxes, net of federal tax benefit	20	5
Losses not benefitted	(3,207)	3,464
Non-deductible stock compensation expense	326	267
Other non-deductible items	406	347
Innovative technology and development incentive	(298)	(317)
Foreign tax rate differential	447	(388)
Tax gain on restructuring activities	4,196	—
Goodwill impairment	—	3,647
Current fiscal year impact of FIN 48	21	(639)
Income tax provision (benefit)	<u>\$ 48</u>	<u>\$ (2,018)</u>

The U.S. Tax Cuts and Job Act (the “Tax Reform Act”) introduced significant changes to U.S. income tax law. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system and a one-time tax on the mandatory deemed repatriation of cumulative foreign earnings (the “Transition Tax”) as of December 31, 2017.

We are subject to additional requirements of the Tax Reform Act in years after January 31, 2019. Those provisions include a tax on global intangible low-taxed income (“GILTI”), a limitation on certain executive compensation, and other immaterial provisions. We have elected to account for GILTI as a period cost, and therefore included GILTI expense in our effective tax rate calculation. In the current year GILTI had no tax impact.

As a result of the Tax Reform Act, foreign earnings may now generally be repatriated back to the U.S. without incurring U.S. federal income tax. We assert to indefinitely reinvest the cumulative undistributed earnings of our foreign subsidiaries with a carve out for our Irish operations.

The components of deferred income taxes are as follows:

	As of January 31,	
	2020	2019
	(Amounts in thousands)	
Deferred tax assets:		
Accruals and reserves	\$ 545	\$ 1,518
Deferred revenue	274	760
Stock-based compensation expense	503	1,373
U.S. federal, state and foreign tax credits	7,929	7,949
Property and equipment	119	278
Intangible assets	—	54
Loss carryforwards	29,373	29,909
Deferred tax assets	38,743	41,841
Less: Valuation allowance	(38,248)	(41,979)
Net deferred tax assets	495	(138)
Deferred tax liabilities:		
Other	46	46
Intangible assets	449	—
Total net deferred tax liabilities	\$ —	\$ (184)

At January 31, 2020, we had federal, state and foreign net operating loss carry forwards of \$108.9 million, \$68.5 million and \$9.8 million respectively, which can be used to offset future tax liabilities and expire at various dates beginning in fiscal 2020. Utilization of these net operating loss carry forwards may be limited pursuant to provisions of the respective local jurisdiction. In addition, at January 31, 2020, we had federal and state research and development credit carry forwards of \$3.8 million and \$1.8 million respectively, and state investment tax credit carry forwards of \$0.2 million. We have foreign tax credit carry forwards of \$2.2 million, which are available to reduce future federal regular income taxes. These credits expire at various dates beginning in fiscal 2020, except for \$0.2 million in credits that have an unlimited carryforward period.

We review the adequacy of the valuation allowance for deferred tax assets on a quarterly basis. We have evaluated the positive and negative evidence bearing upon the realizability of our deferred tax assets and have established a valuation allowance of \$38.2 million for such assets, which are comprised principally of net operating loss carry forwards, research and development credits, deferred revenue, inventory and stock-based compensation. If we generate pre-tax income in the future, some portion or all of the valuation allowance could be reversed and a corresponding increase in net income would be reported in future periods. The valuation allowance decreased by \$3.7 million for the year ended January 31, 2020 and increased by \$3.7 million for the fiscal year ended January 31, 2019.

A reconciliation of the total amounts of gross unrecognized tax benefits, is as follows:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Balance of gross unrecognized tax benefits, beginning of period	\$ 4,318	\$ 4,856
Decrease due to expiration of statute of limitation	—	(477)
Effect of currency translation	(12)	(61)
Balance of gross unrecognized tax benefits, end of period	\$ 4,306	\$ 4,318

As of January 31, 2020, we have \$0.1 million unrecognized tax benefits, that if recognized, would reduce income tax expense in fiscal 2021. We recognized interest and penalties related to unrecognized tax benefits in the income tax provision (benefit) on our consolidated statements of operations and comprehensive loss. As of January 31, 2020 and 2019, total gross interest accrued was \$0.1 million.

15. Employee Benefit Plans

We sponsor a 401(k) retirement savings plan (the “Plan”) that covers substantially all domestic employees of SeaChange. The Plan allows employees to contribute gross salary through payroll deductions up to the legally mandated limit. Participation in the Plan is available to full-time employees who meet eligibility requirements. We also contribute to various retirement plans for our employees outside the U.S. according to the local plans specific to each foreign location. Amounts contributed will vary. During fiscal 2020 and 2019, we contributed \$0.4 million, and \$0.5 million, respectively.

16. Net Loss Per Share

The number of common shares used in the computation of diluted net loss per share for the periods presented does not include the effect of the following potentially outstanding common shares because the effect would have been anti-dilutive:

	For the Fiscal Years Ended January 31,	
	2020	2019
	(Amounts in thousands)	
Stock options	1,290	3,245
Restricted stock units	51	264
Deferred stock units	10	18
Performance stock units	—	567
	<u>1,351</u>	<u>4,094</u>

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(A) Evaluation of Disclosure Controls and Procedures

We evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as of the end of the period covered by this Form 10-K. Yossi Aloni, our CEO and President, and Michael D. Prinn, our Chief Financial Officer, Senior Vice President and Treasurer, participated in this evaluation. Based upon that evaluation, Messrs. Aloni and Prinn concluded that our disclosure controls and procedures were effective as of January 31, 2020.

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this annual report, or the evaluation date. Disclosure controls and procedures are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our management, after evaluating the effectiveness of our disclosure controls and procedures as of the evaluation date, concluded that as of the evaluation date, our disclosure controls and procedures were effective at the reasonable assurance level.

(B) Report of Management on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of January 31, 2020. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) in the 2013 *Internal Control—Integrated Framework*. Based on this assessment and those criteria, our management concluded that as of January 31, 2020, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of January 31, 2020 has been audited by Marcum LLP, our independent registered public accounting firm, as stated in their report which is included in Part II, Item 8 of this Form 10-K.

(C) Changes in Internal Control Over Financial Reporting

On February 6, 2019, we completed the acquisition of Xstream A/S. We have not yet fully incorporated the internal controls and procedures of the Xstream A/S into our internal control over financial reporting and management has excluded this from our assessment of the effectiveness of our internal control over financial reporting as of January 31, 2020. The portion of the transaction excluded constituted 6% of our total assets as of January 31, 2020 and 5% of our total revenues for the year then ended. We are continuing to integrate this acquired operations into our overall internal control over financial reporting process. There has been no other change in our internal control over financial reporting during the fiscal year ended January 31, 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Stockholders and Board of Directors of SeaChange International, Inc.

Opinion on Internal Control over Financial Reporting

We have audited SeaChange International, Inc.'s (the "Company") internal control over financial reporting as of January 31, 2020, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheet as of January 31, 2020 and the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows and the related notes for the year ended January 31, 2020 of the Company, and our report dated April 20, 2020 expressed an unqualified opinion on those financial statements.

As described in the accompanying Report of Management on Internal Control over Financial Reporting, management has excluded its subsidiary, Xstream A/S, from its assessment of internal control over financial reporting as of January 31, 2020 because this entity was acquired by the Company in a purchase business combination during the year ended January 31, 2020. We have also excluded Xstream A/S from our audit of internal control over financial reporting. This subsidiary's combined total assets and total revenues represent approximately 6% and 5%, respectively, of the related consolidated financial statement amounts as of and for the year ended January 31, 2020.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made

only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that degree of compliance with the policies or procedures may deteriorate.

/s/ Marcum LLP

Marcum LLP
Philadelphia, Pennsylvania
April 20, 2020

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information concerning our directors is hereby incorporated by reference from the information contained under the heading “Election of Directors” in our definitive proxy statement related to our Annual Meeting of Stockholders to be held on or about July 11, 2020 which will be filed with the Securities and Exchange Commission (the “Commission”) within 120 days after the close of the fiscal year (the “Definitive Proxy Statement”).

Certain information regarding our executive officers is set forth below. The other information required by this item concerning directors and executive officers of SeaChange is hereby incorporated by reference to the information contained under the headings “Availability of Corporate Governance Documents”, “Audit Committee,” “Information Concerning Executive Officers” and “Section 16(a) Beneficial Ownership Reporting Compliance” in the Definitive Proxy Statement.

The following is a list of our executive officers, their ages as of April 20, 2020 and their positions held with us:

Name	Age	Title
Yosef Aloni	51	Chief Executive Officer and President
Michael Prinn	46	Chief Financial Officer, Senior Vice President and Treasurer
Marek Kielczewski	43	Chief Technology Officer and Senior Vice President
Chad Hassler	46	Chief Commercial Officer and Senior Vice President

Mr. Aloni, 51, joined the Company on January 2, 2019 as Chief Commercial Officer and Senior Vice President, and from February 25, 2019 to April 4, 2019 served in the office of the CEO, and was appointed CEO and President effective August 29, 2019. Prior to joining SeaChange, Mr. Aloni was the Chief Corporate Operations of ATEME from January 2015 to January 2019. Mr. Aloni served as the President, Product Management & Marketing at Magnum Semiconductor from January 2010 to January 2015. Prior to joining Magnum Semiconductor, Mr. Aloni was the Vice President, Product Management & Marketing at Optibase. Mr. Aloni has held various other positions with Ted-Ad/MGM International and HOT. Mr. Aloni also served as Lieutenant, Head of Video Section for the Israel Defense Forces.

Mr. Prinn, 46 joined the Company on October 8, 2019 as Chief Financial Officer, Senior Vice President and Treasurer. Prior to joining SeaChange, Mr. Prinn previously served as the Vice President, Finance of Brightcove Inc. (NASDAQ: BCOV) from October 2018 to September 2019. Prior to that, from October 2012 to September 2018, Mr. Prinn served as the Executive Vice President and Chief Financial Officer of Bridgeline Digital, Inc. (NASDAQ: BLIN). In addition to his duties as Chief Financial Officer, Mr. Prinn acted as Co-Interim Chief Executive Officer and President of Bridgeline Digital from December 2015 to May 2016, when a new President and Chief Executive Officer was appointed.

Mr. Kielczewski, 43, joined the Company on May 5, 2016 as Senior Vice President CPE Software as part of SeaChange’s acquisition of DCC Labs in May 2016. He became Senior Vice President, Global Engineering in August 2017 and became the Chief Technology Officer in November 2018, and, from February 25, 2019 to April 4, 2019, served in the Office of the CEO. Prior to joining SeaChange, Mr. Kielczewski was the Chief Executive Officer of DCC Labs from December 2009 to May 2016. Mr. Kielczewski served as the Chief Operating Officer of Sentivision from March 2002 to July 2008. Mr. Kielczewski also served as an IT Director at 7bulls S.A.

Mr. Hassler, 46, joined SeaChange on February 11, 2019 as Vice President, North America, and was appointed Chief Commercial Officer on August 29, 2019. Prior to joining SeaChange, Mr. Hassler was the Vice President North America of ATEME from September 2015 to February 2019. Mr. Hassler served as the Vice President of Sales at Concurrent Computer Corporation from September 2012 to September 2015. Prior to joining Concurrent Computer, Mr. Hassler was the Director of Sales at Harmonic.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item is incorporated by reference to the information contained under the headings “Compensation of Directors” and “Compensation Discussion and Analysis” in the Definitive Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this item is incorporated by reference to the information contained under the headings “Securities Ownership of Certain Beneficial Owners and Management” and “Compensation Discussion and Analysis” in the Definitive Proxy Statement.

Equity Compensation Plan Information

The following table provides information about the common stock that may be issued upon the exercise of options, warrants and rights under all of our existing equity compensation plans as of January 31, 2020, including our Amended and Restated 2011 Compensation and Incentive Plan (the “2011 Plan”).

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders (1)	3,913,419 (2)	\$ 2.14	3,800,023 (3)

(1) Consists of the 2011 Plan and the 2015 Employee Stock Purchase Plan (the “ESPP”).

(2) Includes 1,144,953 shares of restricted stock units, deferred stock units and performance stock units that are not included in the calculation of the weighted average exercise price.

(3) As of January 31, 2020, 2,719,297 shares remained available for issuance under the 2011 Plan and 1,080,726 shares remained available under the ESPP.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item is incorporated by reference to the information contained under the heading “Determination of Director Independence” and “Certain Relationships and Related Transactions” in the Definitive Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this item is incorporated by reference to the information contained under the heading “Ratification of Appointment of Independent Registered Public Accounting Firm” in the Definitive Proxy Statement.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)(1) Index to the Consolidated Financial Statements

The following Consolidated Financial Statements of the Registrant are included in Part II, Item 8., “*Financial Statements and Supplementary Data*,” of this Form 10-K:

	<u>Page</u>
Reports of Independent Registered Public Accounting Firms.....	47
Consolidated Balance Sheets as of January 31, 2019 and 2018	49
Consolidated Statements of Operations and Comprehensive Loss for the years ended January 31, 2020 and 2019.....	50
Consolidated Statements of Cash Flows for the years ended January 31, 2020 and 2019	51
Consolidated Statements of Stockholders’ Equity for the years ended January 31, 2020 and 2019	52
Notes to Consolidated Financial Statements.....	53

(a)(2) Index to Exhibits

See Item 15 (b) below.

(b) Exhibits

The following list of exhibits includes exhibits submitted with this Form 10-K as filed with the SEC and those incorporated by reference to other filings.

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of the Company (see Exhibit 3.3 to the Company's Registration Statement on Form S-1 previously filed on November 4, 1996 with the Commission and incorporated herein by reference).
3.2	Certificate of Amendment, filed May 25, 2000 with the Secretary of State in the State of Delaware, to the Amended and Restated Certificate of Incorporation of the Company (filed as Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q previously filed on December 15, 2000 with the Commission and incorporated herein by reference).
3.3	Certificate of Designations, Preferences and Rights of Series A Participating Preferred Stock of the Company, filed March 5, 2019 with the Secretary of State in the State of Delaware (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K previously filed March 5, 2019 with the Commission and incorporated herein by reference).
3.4	Amended and Restated By-laws of the Company (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K previously filed on December 6, 2016 with the Commission and incorporated herein by reference).
4.1	Specimen certificate representing the Common Stock (filed as Exhibit 4.1 to the Company's Registration Statement on Form S-1 previously filed on November 4, 1996 with the Commission and incorporated herein by reference).
4.2*	Description of Equity Securities Registered under Section 12 of the Exchange Act.
4.3	Tax Benefits Preservation Plan, dated as of March 4, 2019, between the Company and Computershare Inc. (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K previously filed March 5, 2019 with the Commission and incorporated herein by reference).
4.4	Amendment to Tax Benefits Preservation Plan, dated as of June 28, 2019, between the Company and Computershare Inc. (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K previously filed June 28, 2019 with the Commission and incorporated herein by reference).
4.5	Amendment No.2. to Tax Benefits Preservation Plan, dated as of August 8, 2019, between the Company and Computershare Inc. (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K previously filed August 8, 2019 with the Commission and incorporated herein by reference).
10.1	Second Amended and Restated 2011 Compensation and Incentive Plan (filed as Appendix A to the Company's Proxy Statement on Schedule 14A previously filed on May 26, 2017 with the Commission and incorporated herein by reference). **
10.2	Form of Restricted Stock Unit Agreement pursuant to the Company's 2011 Compensation and Incentive Plan (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on July 20, 2011 with the Commission and incorporated herein by reference). **
10.3	Form of Incentive Stock Option Agreement pursuant to the Company's 2011 Compensation and Incentive Plan (filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q previously filed December 5, 2014 with the Commission and incorporated herein by reference). **
10.4	Form of Deferred Stock Unit Award Grant Notice pursuant to the Company's 2011 Compensation and Incentive Plan (filed as Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q previously filed December 5, 2014 with the Commission and incorporated herein by reference). **
10.5	Form of Non-Qualified Stock Option Agreement for Employees pursuant to the Company's 2011 Compensation and Incentive Plan (filed as Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q previously filed December 5, 2014 with the Commission and incorporated herein by reference). **

Exhibit No.	Description
10.6	Form of Restricted Stock Unit Agreement for Non-Employee Directors pursuant to the Company's 2011 Compensation and Incentive Plan (filed as Exhibit 10.3 to the Company's Annual Report on Form 10-K previously filed on April 4, 2014 with the Commission and incorporated herein by reference). **
10.7	Form of Performance Stock Unit Agreement pursuant to the Company's 2011 Compensation and Incentive Plan (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 28, 2016 with the Commission and incorporated herein by reference). **
10.8	Form of Performance Stock Unit Agreement pursuant to the Company's 2011 Compensation and Incentive Plan (filed as Exhibit 10.8 to the Company's Annual Report on Form 10-K previously filed on April 16, 2018 with the Commission and incorporated herein by reference). **
10.9	Amended and Restated 2005 Equity Compensation and Incentive Plan (filed as Appendix A to the Company's Proxy Statement on Schedule 14A previously filed on May 25, 2007 with the Commission and incorporated herein by reference). **
10.10	Form of Restricted Stock Unit Agreement pursuant to the Company's 2005 Equity Compensation and Incentive Plan (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed December 14, 2005 with the Commission and incorporated herein by reference). **
10.11	Form of Incentive Stock Option Agreement pursuant to the Company's 2005 Equity Compensation and Incentive Plan (filed as Exhibit 10.3 to the Company's Annual Report on Form 10-K previously filed April 17, 2006 with the Commission and incorporated herein by reference). **
10.12	Form of Non-Qualified Stock Option Agreement pursuant to the Company's 2005 Equity Compensation and Incentive Plan (filed as Exhibit 10.4 to the Company's Annual Report on Form 10-K previously filed April 17, 2006 with the Commission and incorporated herein by reference). **
10.13	Form of Indemnification Agreement (filed as Exhibit 10.15 to the Company's Annual Report on Form 10-K previously filed April 10, 2013 with the Commission and incorporated herein by reference). **
10.14	SeaChange International, Inc. 2015 Employee Stock Purchase Plan (filed as Appendix A to the Company's Proxy Statement on Schedule 14A previously filed on May 22, 2015 with the Commission and incorporated herein by reference). **
10.15	Change-in-Control Severance Agreement, dated as of July 6, 2016, by and between the Company and Peter Faubert (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K previously filed on July 7, 2016 with the Commission and incorporated by reference). **
10.16	Amended and Restated Change-in-Control Severance Agreement, dated as of January 26, 2016, by and between the Company and David McEvoy (filed as Exhibit 10.5 to the Company's Current Report on Form 8-K previously filed on January 28, 2016 with the Commission and incorporated herein by reference). **
10.17	Change-in-Control Severance Agreement, dated as of October 18, 2018, by and between the Company and Marek Kielczewski. ** (filed as Exhibit 10.19 to the Company's Annual Report on Form 10-K previously filed on April 12, 2019 with the Commission and incorporated herein by reference).
10.18	Change-in-Control Severance Agreement, dated as of January 1, 2019, by and between the Company and Yossi Aloni. ** (filed as Exhibit 10.20 to the Company's Annual Report on Form 10-K previously filed on April 12, 2019 with the Commission and incorporated herein by reference).
10.19	Offer letter, dated as of August 29, 2019, by and between SeaChange International, Inc. and Yossi Aloni (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on August 29, 2019 with the Commission and incorporated herein by reference) **

Exhibit No.	Description
10.20	Purchase and Sale Agreement and Escrow Instructions between SeaChange International, Inc. and Calare Properties, Inc. dated November 4, 2019 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on November 11, 2019 with the Commission and incorporated herein by reference).
10.21	License Agreement between SeaChange International, Inc. and 50 Nagog Park Acton LLC dated December 6, 2019 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on December 11, 2019 with the Commission and incorporated herein by reference).
10.22	Cooperation Agreement, dated as of February 28, 2019, by and among the Company, Karen Singer and TAR Holdings LLC (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on March 1, 2019 with the Commission and incorporated herein by reference).
10.23	Amendment to Cooperation Agreement, dated as of August 8, 2019, by and among the Company, Karen Singer and TAR Holdings LLC (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on August 8, 2019 with the Commission and incorporated herein by reference).
10.23	Offer letter, dated as of September 6, 2019, by and between SeaChange International, Inc. and Michael Prinn (filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q previously filed on December 5, 2019 with the Commission and incorporated herein by reference). **
10.24	Change-in-Control Severance Agreement, dated as of October 8, 2019, by and between SeaChange International, Inc. and Michael Prinn (filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q previously filed on December 5, 2019 with the Commission and incorporated herein by reference). **
10.25*#	Sublease Agreement, dated as of December 19, 2019, by and between Saucony, Inc. and SeaChange International Inc.
16.1	Letter from Grant Thornton LLP, dated September 9, 2019, to the Securities and Exchange Commission (filed as Exhibit 16.1 to the Company's Current Report on Form 8-K previously filed on September 10, 2019 with the Commission and incorporated herein by reference).
21.1	List of Subsidiaries of the Registrant.
23.1*	Consent of Grant Thornton LLP.
23.2*	Consent of Marcum LLP.
24.1	Power of Attorney (included on signature page).
31.1*	Certification Pursuant to Rule 13a-14(a) of the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification Pursuant to Rule 13a-14(a) of the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase

Exhibit No.	Description
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

- * Provided herewith
- ** Management contract or compensatory plan
- # Confidential portions omitted and filed separately with the U.S. Securities and Exchange Commission pursuant to Rule 24b-2 promulgated under the Securities Exchange Act of 1934, as amended.

(c) Financial Statement Schedules

We hereby file as part of this Form 10-K the consolidated financial statements schedule listed in Item 15 (a) (2) above, which is attached hereto.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15 (d) of the Securities Exchange Act of 1934, SeaChange International, Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SEACHANGE INTERNATIONAL, INC.

Dated: April 20, 2020

By: /s/ YOSSİ ALONİ

Yossi Aloni

Chief Executive Officer

(Principal Executive Officer)

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Yosef Aloni and Michael D. Prinn, jointly and severally, his attorney-in-fact, each with the power of substitution, for him in any and all capacities, to sign any amendments to this Form 10-K and to file same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title(s)</u>	<u>Date</u>
<u>/s/ YOSSİ ALONİ</u> Yossi Aloni	Chief Executive Officer, Director (Principal Executive Officer)	April 20, 2020
<u>/s/ MICHAEL D. PRINN</u> Michael D. Prinn	Chief Financial Officer Senior Vice President and Treasurer (Principal Financial and Accounting Officer)	April 20, 2020
<u>/s/ ROBERT M. PONS</u> Robert M. Pons	Director	April 20, 2020
<u>/s/ ANDREW SRIUBAS</u> Andrew Sriubas	Director	April 20, 2020
<u>/s/ JEFFREY M. TUDER</u> Jeffrey M. Tudor	Director	April 20, 2020

**SEACHANGE INTERNATIONAL, INC.
SUBSIDIARIES OF THE REGISTRANT**

Subsidiary Name	Subsidiary Jurisdiction
SEAC Canada Limited	Canada
S.E.A.C. Germany GmbH	Germany
SeaChange India Private, Ltd.	India
SeaChange Ireland Operations Limited	Ireland
SeaChange Japan KK	Japan
Cambio Maritimo Mexico, S. de R.L de C.V.	Mexico
SeaChange B.V.	Netherlands
SeaChange NLG B.V.	Netherlands
SeaChange Philippines Corporation	Philippines
SeaChange LLC	Russia
SeaChange Asia Pacific Pte. Ltd.	Singapore
SeaChange Telekomünikasyon Hizmetleri Anonim Sirketi	Turkey
SeaChange International U.K. Ltd.	United Kingdom
SeaChange Holdings, Inc.	United States
SeaChange Polska Sp zoo	Poland
Xstream A/S	Denmark
Xstream Sp Zoo	Poland

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated April 12, 2019, with respect to the consolidated financial statements included in the Annual Report of SeaChange International, Inc. on Form 10-K for the year ended January 31, 2020. We consent to the incorporation by reference of said report in the Registration Statements of SeaChange International, Inc. on Forms S-3 (File No. 333-201866) and on Forms S-8 (File Nos. 333 136322, 333-17379, 333-100160, 333-65854, 333-113761, 333-128987, 333-147970, 333-153424, 333-175707, 333-201867, 333-210716 and 333-220912).

/s/ GRANT THORNTON LLP

Boston, Massachusetts

April 20, 2020

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the following Registration Statements:

- 1) Registration Statement (Form S-3 No. 333-201866) of SeaChange International, Inc.; and
- 2) Registration Statement (Form S-8 Nos. 333-128987, 333-147970, 333-175707, 333-201867, 333-210716, and 333-220912) of SeaChange International, Inc.,

of our report dated April 20, 2020, with respect to our audit of the consolidated financial statements of SeaChange International, Inc. as of January 31, 2020 and for the year ended January 31, 2020 and our report dated April 20, 2020 with respect to our audit of the effectiveness of internal control over financial reporting of SeaChange International, Inc. as of January 31, 2020, which reports are included in this Annual Report on Form 10-K of SeaChange International, Inc. for the year ended January 31, 2020.

/s/ Marcum LLP

Marcum LLP
Philadelphia, Pennsylvania
April 20, 2020

CERTIFICATION

I, Yossi Aloni, certify that:

1. I have reviewed this annual report on Form 10-K of SeaChange International, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 20, 2020

By: /s/ YOSHI ALONI

Yossi Aloni

Chief Executive Officer

(Principal Executive Officer)

CERTIFICATION

I, Michael D. Prinn, certify that:

1. I have reviewed this annual report on Form 10-K of SeaChange International, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 20, 2020

By: /s/ MICHAEL D. PRINN

Michael D. Prinn
*Chief Financial Officer,
Senior Vice President and Treasurer
(Principal Financial and Accounting Officer)*

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of SeaChange International, Inc. (the “*Company*”) on Form 10-K for the year ended January 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “*Report*”), I, Yossi Aloni, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Company’s Annual Report on Form 10-K fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ YOSSİ ALONİ

Yossi Aloni

Chief Executive Officer

(Principal Executive Officer)

Dated: April 20, 2020

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of SeaChange International, Inc. (the “*Company*”) on Form 10-K for the year ended January 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “*Report*”), I, Michael D. Prinn, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Company’s Annual Report on Form 10-K fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ MICHAEL D. PRINN

Michael D. Prinn

*Chief Financial Officer, Senior Vice President, and Treasurer
(Principal Financial and Accounting Officer)*

Dated: April 20, 2020

