

**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, 2019

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)

04-3197974
(IRS Employer
Identification No.)

50 Nagog Park, Acton, MA 01720
(Address of principal executive offices, including zip code)

(978)-897-0100

(Registrant's telephone number, including area code)

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

Common Stock, \$0.01 par value

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or in any amendment to this Form 10-K.

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, 2018, 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 \$106,171,547. The number of shares of the registrant's Common Stock outstanding as of the close of business on April 1, 2019 was 36,512,535.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the definitive Proxy Statement filed no later than 120 days after the Company's fiscal year end pursuant to Regulation 14A are incorporated by reference into Part III of this Annual Report on Form 10-K.

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 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. We do not undertake any obligation to publicly update any forward-looking statements.

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, are based on assumptions that involve 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. 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.

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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 Acton, 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. (“LGI”), 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 serving 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 will enhance the SeaChange end-to-end video framework. We intend to use the acquisition of Xstream to accelerate our penetration in OTT and new market segments with a software-as-a-service (“SaaS”) revenue model and a fully cloud-based end-to-end video platform that operates in a hosted managed service environment.

In May 2016, we acquired DCC Labs, a developer of set-top and multiscreen device software. This acquisition enabled us to optimize the operations of our In-Home business and centralize our worldwide engineering team in Warsaw, Poland.

We have initiated restructuring programs in the past three years, to help us improve operations and optimize our cost structure. Our restructuring programs in 2017 included the wind down of the Timeline Labs operations, inclusive of an impairment charge of long-lived assets related to the Timeline Labs operations, the reorganization of our engineering teams and other company-wide-cost savings initiatives resulting in annualized cost savings of \$38 million and aggregate charges of \$9 million. In fiscal 2019, we began taking steps to reduce our costs further for which we estimate restructuring charges will be approximately \$2 million and for which we expect annualized costs savings of over \$6 million.

Notwithstanding the success of our restructuring programs, during the fourth quarter of fiscal 2019, we experienced a decline in 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.

In January 2019, we announced the appointment of Yossi Aloni as Senior Vice President and Chief Commercial Officer. In February 2019, Edward Terino resigned as our Chief Executive Officer and as a Director, effective February 24, 2019 and we created an interim Office of the CEO, to provide ongoing leadership and oversight of the day-to-day operations of the Company. The Office of the CEO included Yossi Aloni, Chief Commercial Officer; Peter Faubert, Chief Financial Officer; Marek Kielczewski, Chief Technology Officer; and David McEvoy, General Counsel. On April 4, 2019, we appointed our existing Director, Mark Bonney, to serve as

Executive Chair. The Executive Chair serves as Chairman of the Board and principal executive officer. In connection with that appointment, the Office of the CEO was eliminated and Mr. Markey resigned as Chairman of the Board though continues as a member of the Board of Directors.

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 Tuder to the Board as a Class III Director with a term to expire at the 2020 annual meeting of stockholders. Mr. Pons and Mr. Tuder 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 expires by its terms if not approved by our stockholders at our 2019 annual meeting of stockholders.

PRODUCTS AND SERVICES

Our business is focused on the following product areas: video platform, content management, advertising and user experience. Our revenue sources consist of product revenue from these areas, as well as related services. We offer software products under two deployment options: onsite software licenses and a cloud-based offering through SaaS.

Video Platform

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

MediaMaker. MediaMaker is an OTT video cloud platform that enables operators, broadcasters, media companies and content owners to ingest, manage, monetize and distribute their content across networks and devices. With its three modules, loading dock, store and play, MediaMaker provides core functionalities needed for an OTT business: Content Ingestion, Monetization and End-user Experience.

Content Management

SeaChange AssetFlow Content Management Solution. 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 AssetFlow software is used to receive, manage and publish video content for viewing on televisions, tablets, PCs and other consumer devices. AssetFlow simplifies the increasingly complex tasks of movie and television program asset tracking, metadata management, and overall content workflow processing.

Advertising

SeaChange Infusion 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. Infusion 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.

User Experience

SeaChange NitroX. NitroX empowers service providers and content owners to optimize live and on-demand video consumption on multiscreen and OTT services. Its features and functionality allow service providers to fully leverage the extensive content management, delivery and monetization capabilities of SeaChange's platforms. NitroX products provide a ready-to-deploy

multiscreen user experience that is pre-integrated with SeaChange's widely deployed Adrenalin or third-party multiscreen video platform.

Services

SeaChange offers comprehensive professional services, maintenance and support for all its products. 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 provide 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 timely 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 in Warsaw, Poland.

SELLING AND MARKETING

Our sales cycle has historically been long, in some instances 12-24 months. Purchase orders can be more than one million dollars 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. These customers pay on a per-subscriber basis. 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 our products. We also market certain of our products to systems integrators and value-added resellers. We attend and exhibit our products at a limited number of prominent industry trade shows and conferences and we present our technology at seminars and smaller conferences to promote their 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. Our customer base is highly concentrated among a limited number of large customers. 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, 2019, Altice and LGI each 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 provider. 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.

PROPRIETARY RIGHTS

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, 2019, we had 249 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.

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 been, and will continue to, devote considerable resources and allocate 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 are unable to successfully introduce new products or enhancements to existing products on a timely basis, our financial condition and operating results may be adversely affected by a decrease in sales of our products.

Because our business plan is based on technological development of new products and enhancements to our existing products, our future success is dependent on our successful introduction of these new products and enhancements on a timely basis. In the future, we may experience difficulties that could delay or prevent the successful development, introduction and marketing of these and other new products and enhancements, or find that our new products and enhancements do not adequately meet the requirements of the marketplace or achieve market acceptance. Announcements of currently planned or other new product offerings may cause customers to defer purchasing our existing products. Moreover, despite testing by us and by current and potential customers, errors or failures may be found in our products, and, even if discovered, may not be successfully corrected in a timely manner. These errors or failures could cause delays in product introductions and acceptance, or require design modifications that could adversely affect our competitive position. Our inability to complete the development of new products or enhancements on a timely basis or the failure of these new products or enhancements to achieve market acceptance could have a material adverse effect on our business, financial condition and results of operations in future periods.

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 is highly concentrated among a limited number of large customers, the loss of or reduced demand by, 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. We generally do not have written agreements that require customers to purchase fixed minimum quantities of our products. 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, 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.

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, or the return of previously purchased products 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.

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 related to DCC Labs and established an additional company-wide cost savings program in the second half of fiscal 2017. These 2017 restructuring programs have 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 September 2018, we implemented a further cost restructuring program, the primary element of which was staff reductions across all of our functions and geographic areas. We expect annualized cost savings of over \$6 million once completed and restructuring charges are estimated to be approximately \$2 million. As a result of these restructuring programs, our total number of employees significantly decreased. These changes have resulted in significant disruption in our business, and 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 62% of our total revenue is generated from sales outside the United States. 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;
- 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 United States and the European Union on 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 United States, 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 United States 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.

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 United States. 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.

We may also incorporate open source software into our products. 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. We could also be subject to similar conditions or restrictions should there be any changes in the licensing terms of the open source software incorporated into our products. In either event, we could 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.

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. 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 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 and \$23.8 million impairment charges we recorded in fiscal 2019 and 2017, respectively, to our consolidated statements of operations and comprehensive income (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, 2019, we had federal net operating losses or NOLs of \$118.0 million. Under Section 382 of the Internal Revenue Code, if a corporation undergoes an “ownership change”, the corporation’s ability to use its pre-change NOLs, capital loss carry forwards and other pre-change tax attributes to offset its post-change income, may be limited. 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. If our stockholders do not approve the Tax Benefits Preservation Plan at our upcoming annual meeting of stockholders, the Tax Benefits Preservation Plan will terminate by its terms, exposing us to a greater risk that we undergo an “ownership change”. Any limitation on our ability to use NOLs may adversely impact our financial results.

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 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 United States, 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 United States. 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 United States 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 United States where we maintain a physical presence or have a substantial nexus. These taxing regimes are complex. For example, in the United States, 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.

Our foreign subsidiaries generate earnings that are not subject to U.S. income taxes so long as they are permanently reinvested in our operations outside the United States. Pursuant to Accounting Standard Codification Topic No. (“ASC”) 740-30, “*Income Taxes-Other Considerations or Special Areas*,” undistributed earnings of foreign subsidiaries that are no longer permanently reinvested would become subject to deferred income taxes under U.S. tax law. Prior to the second quarter of fiscal 2017, we asserted that the undistributed earnings of all our foreign subsidiaries were permanently reinvested.

In the second quarter of fiscal 2017, following a review of our operations, liquidity and funding, and investment in our product roadmap, we determined that the ability to access certain amounts of foreign earnings would provide greater flexibility to meet our working capital needs. Accordingly, in the second quarter of fiscal 2017, we recognized a deferred tax liability of \$14.7 million on \$58.6 million of undistributed earnings generated by our Irish operations through July 2016. In the fourth quarter of fiscal 2018, we completed a restructuring of our foreign operations, wherein we centralized our European operations for greater efficiency and cost savings in the Netherlands. As part of that process the residence of SEAC Ireland was moved to the Netherlands. In connection with the restructuring and change in tax status, we also obtained a step-up in tax basis of certain of our foreign subsidiaries. As a result, we re-measured the deferred tax liability in connection with the outside basis differences of our foreign subsidiaries and, in fiscal 2018, recorded a \$14.7 million deferred tax benefit in connection to the reduction of the previously recorded deferred tax liability.

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.

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 and lead to legal liability. 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 European Union’s General Data Protection Regulation (“GDPR”), may subject us to significant penalties.

In May 2018, the European Union’s GDPR came into effect, and changed how businesses can collect, use and process the personal data of European Union 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 data privacy legislation. For example, in June 2018, California's legislature passed the California Consumer Privacy Act of 2018, which will go into effect in 2020. Increasingly numerous, fast-changing, and complex legislation related to data privacy may result in greater compliance costs, heightened regulatory scrutiny, and significant penalties. New and changing regulations may increase compliance costs such that they hamper our ability to expand into new territories.

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 above 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 of Directors 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 U.S. GAAP. The reconciling items have adjusted U.S. GAAP income (loss) from operations and U.S. GAAP earnings (loss) per share 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 U.S. 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.

For example, in February 2016, the Financial Accounting Standards Board (“FASB”) issued new lease accounting guidance under ASC 842 requiring lease assets and lease liabilities to be recognized on the balance sheet and disclosure of key information about leasing requirements. In order to be able to comply with the requirements of the new guidance, we need to invest effort in analyzing the existing lease arrangements and assessing the appropriate treatment. This may require incremental resources and could increase operating costs in future periods. If we are not able to timely implement the new guidance, this could result in inaccurate or incomplete presentation of our lease assets and liabilities.

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 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 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.

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 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 United States 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 United States, 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 United States 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.

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 United States, actions against or by the United States 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 combinations 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.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

<u>Location</u>	<u>Principal Use</u>	<u>Square Feet</u>
<u>Owned Facilities</u>		
Acton, Massachusetts (1)	Corporate Headquarters, Engineering, Customer Services, Sales and Marketing	124,128
<u>Leased Facilities</u>		
Eindhoven, The Netherlands (2)	Engineering, Sales and Customer Services	20,553
Warsaw, Poland	Engineering and Customer Services	14,242

(1) In August 2017, we placed our corporate headquarters and the adjacent land (the "Corporate Headquarters"), located in Acton Massachusetts, on the market for sale.

(2) In the first quarter of fiscal 2020, we reduced the square footage of our offices located in Eindhoven, The Netherlands to 6,512 square feet.

We also lease or sublease offices in Ireland and Turkey. We believe that existing facilities are adequate to meet our foreseeable requirements.

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 1, 2019, there were 126 holders of record. This number does not include stockholders for whom shares are held in "nominee" or "street" name.

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, 2018 to January 31, 2019.

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 ("MD&A")

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 risk 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 the statements considering 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 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 Acton, 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. ("LGI"), 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 serving 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 will enhance the SeaChange end-to-end video framework. We intend to use the acquisition of Xstream to accelerate our penetration in OTT and new market segments with a software-as-a-service ("SaaS") revenue model and fully cloud-based end-to-end video platform that operates in a hosted managed service environment.

In May 2016, we acquired DCC Labs, a developer of set-top and multiscreen device software. This acquisition enabled us to optimize the operations of our In-Home business and centralize our worldwide engineering team in Warsaw, Poland.

We have initiated restructuring programs in the past three years, to help us improve operations and optimize our cost structure. Our restructuring programs in 2017 included the wind down of the Timeline Labs operations, inclusive of an impairment charge of long-lived assets related to the Timeline Labs operations, the reorganization of our engineering teams and other company-wide-cost savings initiatives resulting in annualized cost savings of \$38 million and aggregate charges of \$9 million. In fiscal 2019 we began taking steps to reduce our costs further for which we expect restructuring charges to be approximately \$2 million and for which we expect annualized costs savings of over \$6 million.

Notwithstanding the success of our restructuring programs, during the fourth quarter of fiscal 2019, we experienced a decline in 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.

In January 2019, we announced the appointment of Yossi Aloni as Senior Vice President and Chief Commercial Officer. In February 2019, Edward Terino resigned as our Chief Executive Officer and as a Director, effective February 24, 2019, and we created an interim Office of the CEO, to provide ongoing leadership and oversight of the day-to-day operations of the Company. The Office of the CEO included Yossi Aloni, Chief Commercial Officer; Peter Faubert, Chief Financial Officer; Marek Kielczewski, Chief Technology Officer; and David McEvoy, General Counsel. On April 4, 2019, we appointed our existing Director, Mark Bonney, to serve as Executive Chair. The Executive Chair serves as Chairman of the Board and principal executive officer. In connection with that appointment, the Office of the CEO was eliminated and Mr. Markey resigned as Chairman of the Board though continues as a member of the Board of Directors.

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 Tuder to the Board as a Class III Director with a term to expire at the 2020 annual meeting of stockholders. Mr. Pons and Mr. Tuder 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 expires by its terms if not 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	
	2019	2018	\$	%
(Amounts in thousands, except for percentage data)				
Revenue:				
Product	\$ 20,655	\$ 28,791	\$ (8,136)	(28.3 %)
Service	41,747	51,476	(9,729)	(18.9 %)
Total revenue	62,402	80,267	(17,865)	(22.3 %)
Cost of product revenue	3,460	4,048	(588)	(14.5 %)
Cost of service revenue	21,612	22,275	(663)	(3.0 %)
Total cost of revenue	25,072	26,323	(1,251)	(4.8 %)
Gross profit	\$ 37,330	\$ 53,944	\$ (16,614)	(30.8 %)
Gross product profit margin	83.2 %	85.9 %		(2.7 %)
Gross service profit margin	48.2 %	56.7 %		(8.5 %)
Gross profit margin	59.8 %	67.2 %		(7.4 %)

Fiscal 2019 As Compared to Fiscal 2018

Product Revenue. Product revenue decreased by \$8.1 million for fiscal 2019 from fiscal 2018 primarily due to a \$10.8 million decrease in our video platform, user experience, and third-party product revenue, partially offset by a \$2.5 million increase in advertising revenue. The decrease in our video platform, user experience, and third-party product revenue was primarily the result of a one-time purchase of a significant number of licenses by one of our major customers in fiscal 2018.

Service Revenue. Service revenue decreased by \$9.7 million in fiscal 2019 from fiscal 2018 primarily due to a decrease of \$5.0 million in professional service revenue as a result of lower bookings on our video platform during fiscal 2019. Additionally, maintenance and support revenue provided on post-warranty contracts decreased by \$2.5 million as customers continue to provide their own solutions and legacy products are decommissioned.

In fiscal 2019 and fiscal 2018, two and one customers accounted for more than 10% of our total revenue, respectively. See Part II, Item 8, Note 2, “*Summary of Significant Accounting Policies*,” to this Form 10-K for more information.

International revenue accounted for 62% and 65% of total revenue in fiscal 2019 and fiscal 2018, respectively. The decrease in international sales as a percentage of total revenue in fiscal 2019, as compared to fiscal 2018, is primarily due to a decrease in revenue generated from one major customer in EMEA during fiscal 2019 compared to fiscal 2018.

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 relating to the assembly, testing and implementation and ongoing maintenance of complete systems.

Our gross profit margin decreased by 7% in fiscal 2019 from fiscal 2018 primarily due to a change in the sales mix during fiscal 2019. Product profit margin decreased by 3% in fiscal 2019 from fiscal 2018 due to an increase in lower-margin hardware component revenue in fiscal 2019 as compared to higher-margin software license revenue in fiscal 2018. Service profit margins decreased by 9% in fiscal 2019 from fiscal 2018 primarily due to lower service revenue to absorb our fixed costs from professional services during fiscal 2019.

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:

	<u>For the Fiscal Years Ended January 31,</u>		<u>Change</u>	
	<u>2019</u>	<u>2018</u>	<u>\$</u>	<u>%</u>
	<i>(Amounts in thousands, except for percentage data)</i>			
Research and development expenses	\$ 19,705	\$ 23,444	\$ (3,739)	(15.9%)
% of total revenue	31.6%	29.2%		

Fiscal 2019 As Compared to Fiscal 2018

Research and development expenses decreased by \$3.7 million in fiscal 2019 from fiscal 2018, primarily due to a decrease in labor costs associated with the lower headcount resulting from the cost-savings efforts implemented as part of our restructuring programs in fiscal 2017 and fiscal 2019.

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:

	<u>For the Fiscal Years Ended January 31,</u>		<u>Change</u>	
	<u>2019</u>	<u>2018</u>	<u>\$</u>	<u>%</u>
	<i>(Amounts in thousands, except for percentage data)</i>			
Selling and marketing expenses	\$ 14,414	\$ 14,247	\$ 167	1.2%
% of total revenue	23.1%	17.7%		

Fiscal 2019 As Compared to Fiscal 2018

Selling and marketing expenses increased by \$0.2 million in fiscal 2019 from fiscal 2018 primarily due to a \$1.2 million increase in contract labor and professional fees, partially offset by a \$0.9 million decrease in commission expense in fiscal 2019 as compared to fiscal 2018.

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	
	2019	2018	\$	%
	(Amounts in thousands, except for percentage data)			
General and administrative expenses	\$ 19,618	\$ 16,923	\$ 2,695	15.9%
% of total revenue	31.4%	21.1%		

Fiscal 2019 As Compared to Fiscal 2018

General and administrative expenses increased by \$2.7 million in fiscal 2019 from fiscal 2018 primarily due to an increase in professional fees and contract labor and an increase in our provision for bad debt.

Severance and Restructuring Costs

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

Fiscal 2019 As Compared to Fiscal 2018

Severance and restructuring costs were \$2.4 million in fiscal 2019 and \$4.7 million in fiscal 2018. Severance and restructuring costs in fiscal 2019 included \$1.6 million related to the cost savings actions implemented during the third quarter of fiscal 2019 (the "2019 Restructuring Program") and \$0.8 million related to severance charges not related to a restructuring plan. In September 2018, in order to return us to profitability, we announced the 2019 Restructuring Program. The primary element of this program is staff reductions across all of our functions and geographic areas and we expect the program to be completed by the end of the first quarter of fiscal year 2020. Annualized cost savings will be over \$6 million once completed and severance and restructuring costs are estimated to be approximately \$2 million.

Severance and restructuring costs in fiscal 2018 were related to the restructuring program we implemented in the third quarter of fiscal 2017 (the "2017 Restructuring Program") which was largely completed by the beginning of fiscal year 2019.

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 and zero in fiscal 2018. 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 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 fourth quarter of fiscal 2019, we determined that the carrying value of goodwill and certain long-lived assets exceeded their fair value, therefore we recorded an 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.

As a result of the impairment tests, 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 we recorded an impairment charge of \$0.3 million to reduce the carrying value of our intangible assets of \$0.3 million to zero, representing fair value 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. As a result of the impairment tests, we also 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.

Other Income (Expenses), Net

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

	For the Fiscal Years Ended January 31,		Change	
	2019	2018	\$	%
	(Amounts in thousands, except for percentage data)			
Gain on sale of investment in affiliate	\$ 175	\$ 2,555	\$ (2,380)	(93.2) %
Interest income, net	301	147	154	>100.0 %
Foreign exchange gains (losses), net	(4,653)	3,828	(8,481)	>(100.0) %
Miscellaneous income (expense), net	(40)	106	(146)	>(100.0) %
	<u>\$ (4,217)</u>	<u>\$ 6,636</u>	<u>\$ (10,853)</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 recorded a gain on sale of investment in affiliate of \$2.6 million in our consolidated statements of operations and comprehensive income (loss) 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 income (loss) in fiscal 2019 related to this payment. We cannot provide assurance as to the timing of or whether we will receive additional such payments.

Foreign exchange gains (losses)

Foreign exchange losses, net, were \$4.7 million in fiscal 2019 as compared to foreign exchange gains, net of \$3.8 million in fiscal 2018. Our foreign exchange gains (losses), net are primarily due to the revaluation of intercompany notes receivable.

Income Tax Benefit

Fiscal 2019 As Compared to Fiscal 2018

We recorded an income tax benefit of \$2.0 million and \$12.3 million in fiscal 2019 and fiscal 2018, respectively. In fiscal 2019 we recorded a tax benefit that is largely due to our ability to carryback a current year loss in the Netherlands to obtain a refund of taxes paid with our fiscal 2018 tax return filing. In the fourth quarter of fiscal 2018, we completed a restructuring of our foreign operations, wherein we centralized our European operations for greater efficiency and cost savings in the Netherlands. As part of that process the residence of SeaChange Ireland was moved to the Netherlands. In connection with the restructuring and change in tax status, we also obtained a step-up in tax basis of certain of our foreign subsidiaries. As a result, we re-measured the deferred tax liability related to the outside basis differences of our foreign subsidiaries and recorded a \$14.7 million deferred tax benefit in connection to the reduction of the previously recorded deferred tax liability. Our effective tax rate in fiscal 2019 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.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the "Tax Reform Act") was signed into law. The Tax Reform Act has resulted in significant changes to the U.S. corporate income tax system that affected our fiscal year ended January 31, 2018. These changes include, but are not limited to, a federal statutory rate reduction from 35% to 21% for years after 2017, additional limitations on executive compensation, acceleration of business asset expensing, a repeal of the corporate alternative minimum tax ("AMT") and allowing for a refund of prior year AMT paid, and a limitation of the deduction for net operating losses to 80% of annual taxable income and the elimination of net operating loss carrybacks (though any such net operating losses may be carried forward indefinitely). These changes were effective January 1, 2018.

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 percent of the foreign subsidiaries' tangible assets (i.e., global intangible low-taxed income or "GILTI").

Non-GAAP Measures

To supplement our financial statements presented in accordance with GAAP and to provide investors with additional information regarding our financial results, we have presented in this Form 10-K non-GAAP income (loss) from operations. This non-GAAP financial measure is not based on any standardized methodology prescribed by GAAP and is not necessarily comparable to similarly titled measures presented by other companies.

We define non-GAAP income (loss) from operations as U.S. GAAP operating loss plus recovery on loss contract, amortization of intangible assets, stock-based compensation expense, non-operating professional fees, severance and restructuring costs and loss on impairment of goodwill and long-lived assets. We discuss non-GAAP income (loss) from operations in our quarterly earnings releases and certain other communications as we believe non-GAAP operating income (loss) from operations is an important measure that is not calculated according to U.S. GAAP. We use non-GAAP income (loss) from operations in internal forecasts and models when establishing internal operating budgets, supplementing the financial results and forecasts reported to our Board of Directors, determining a component of bonus compensation for executive officers and other key employees based on operating performance and evaluating short-term and long-term operating trends in our operations. We believe that the non-GAAP income (loss) from operations financial measure assists in providing an enhanced understanding of our underlying operational measures to manage the business, to evaluate performance compared to prior periods and the marketplace, and to establish operational goals. We believe that these non-GAAP financial adjustments are useful to investors because they allow investors to evaluate the effectiveness of the methodology and information used by management in our financial and operational decision-making.

Non-GAAP income (loss) from operations is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with U.S. GAAP. There are a number of limitations related to the use of this non-GAAP financial measure rather than income (loss) from operations, the most directly comparable financial measure calculated and presented in accordance with GAAP. Non-GAAP income (loss) from operations is a non-GAAP financial measure that excludes recoveries on loss contract, amortization of intangible assets, stock-based compensation expense, non-operating professional fees, severance and restructuring costs, and loss on impairment of goodwill and long-lived assets that have recently been, and may continue to be for the foreseeable future, significant recurring cash and non-cash expenses for our business.

The following table includes the reconciliations of our U.S. GAAP loss from operations, the most directly comparable U.S. GAAP financial measure, to our non-GAAP income (loss) from operations for fiscal 2019 and 2018:

	For the Fiscal Year Ended January 31, 2019			For the Fiscal Year Ended January 31, 2018		
	GAAP As Reported	Adjustments	Non-GAAP	GAAP As Reported	Adjustments	Non-GAAP
(Amounts in thousands, except per share data)						
Revenue:						
Product	\$ 20,655	\$ —	\$ 20,655	\$ 28,791	\$ —	\$ 28,791
Service	41,747	—	41,747	51,476	—	51,476
Total revenue	62,402	—	62,402	80,267	—	80,267
Cost of revenue:						
Product	3,460	(28)	3,432	4,048	(109)	3,939
Service	21,612	(683)	20,929	22,275	(271)	22,004
Total cost of revenue	25,072	(711)	24,361	26,323	(380)	25,943
Gross profit	37,330	711	38,041	53,944	380	54,324
Gross profit percentage	59.8%	1.1%	61.0%	67.2%	0.5%	67.7%
Operating expenses:						
Research and development	19,705	(367)	19,338	23,444	(282)	23,162
Selling and marketing	14,414	(1,060)	13,354	14,247	(1,633)	12,614
General and administrative	19,618	(2,583)	17,035	16,923	(2,252)	14,671
Severance and restructuring costs	2,381	(2,381)	—	4,740	(4,740)	—
Loss on impairment of goodwill and long-lived assets	17,015	(17,015)	—	—	—	—
Total operating expenses	73,133	(23,406)	49,727	59,354	(8,907)	50,447
Income (loss) from operations	\$ (35,803)	\$ 24,117	\$ (11,686)	\$ (5,410)	\$ 9,287	\$ 3,877
Income (loss) from operations percentage	(57.4%)	38.6%	(18.7%)	(6.8%)	11.6%	4.8%

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,	
	2019	2018
	(Amounts in thousands)	
Net cash provided by (used in) operating activities	\$ (21,524)	\$ 12,947
Net cash provided by (used in) investing activities	(2,047)	6,011
Net cash provided by (used in) financing activities	40	(87)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	187	(3,621)
Net increase (decrease) in cash, cash equivalents and restricted cash	<u>\$ (23,344)</u>	<u>\$ 15,250</u>

Historically, we have financed our operations and capital expenditures primarily with our cash and investments. Our cash, cash equivalents and marketable securities totaled \$30.7 million at January 31, 2019.

In September 2018, we implemented the 2019 Restructuring Program. The primary element of this restructuring program was staff reductions across all of our functions and geographic areas and we expect the program to be completed by the end of the first quarter of fiscal 2020. Annualized cost savings are expected to be over \$6 million once completed and severance and restructuring charges are estimated to be approximately \$2 million. 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 take advantage of market opportunities, to develop new products or to otherwise respond to competitive pressures.

Net cash provided by (used in) operating activities

Our operating activities used cash of \$21.5 million in fiscal 2019, primarily resulting from our net loss of \$38.0 million and net cash used by changes in our operating assets and liabilities of \$11.5 million, partially offset by net non-cash charges of \$28.0 million. Net cash used by changes in our operating assets and liabilities for fiscal 2019 consisted primarily of a \$4.9 million decrease in accounts payable and accrued expenses, a \$3.4 million decrease in deferred revenue and a \$2.5 million increase in unbilled receivables.

Our operating activities provided \$12.9 million of cash in fiscal 2018, primarily resulting from our net income of \$13.5 million and net cash provided by changes in our operating assets and liabilities of \$8.9 million, partially offset by \$9.4 million of net non-cash items. Net cash provided by changes in our operating assets and liabilities for fiscal 2018 consisted primarily of a \$5.1 million decrease in accounts receivable, a \$4.0 million decrease in unbilled receivables, and a \$1.0 million increase in accounts payable and accrued expenses.

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

Net cash provided by (used in) investing activities

Net cash provided by (used in) investing activities was (\$2.0) million and \$6.0 million for fiscal 2019 and 2018, respectively. During fiscal 2019, cash used in investing activities was primarily due to the timing of purchases, sales and maturities of marketable securities. Net cash provided by investing activities in fiscal 2018 was primarily due to the receipt of \$4.6 million from the sale of our investment in Layer 3 and net proceeds from the timing of purchases, sales and maturities of marketable securities.

Net cash provided by (used in) financing activities

Net cash provided by (used in) financing activities was less than \$0.1 million and (\$0.1) million in fiscal 2019 and 2018, respectively. Financing activities reflects proceeds received from the issuance of common stock for the employee stock purchase plan, offset by employee taxes paid when we withhold shares of common stock for tax-withholding purposes.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

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

On February 1, 2018, we adopted the new revenue standard, which amended revenue recognition principles and provides a single, comprehensive set of criteria for revenue recognition within and across all industries. The new revenue standard provides a five-step framework whereby revenue is recognized when control of promised goods or services is transferred to a customer at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To determine revenue recognition for arrangements that we determine are within the scope of the new revenue standard, we perform the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) we satisfy a performance obligation. We only apply the five-step model to contracts when collectability of the consideration to which we are entitled in exchange for the goods or services we transfer to the customer is determined to be probable.

Our revenue is derived from sales of hardware, software licenses, professional services, and maintenance fees related to the hardware and our software licenses. Our contracts 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 stand-alone selling price basis. 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, account for that discount as an additional performance obligation.

Hardware

We have concluded that hardware is either (1) a distinct performance obligation as the client can benefit from the product on its own or (2) a combined performance obligation with software licenses. This conclusion is dependent on the nature of the promise to the customer. In either scenario, hardware revenue is typically recognized at a point in time when control is transferred to the client, 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, it is delivered before services are provided and is functional without services, therefore the point in time when control is transferred is upon delivery or acceptance by the customer. When hardware and software are combined, we have determined stand-alone selling price for hardware utilizing the relative allocation method based on observable evidence.

Software licenses

We have concluded that our software licenses are either (1) a distinct performance obligation as the client can benefit from the software on its own or (2) a combined performance obligation with hardware, depending on the nature of the promise to the customer.

In either scenario software license revenue is typically recognized at a point in time 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. Our license arrangements generally contain multiple performance obligations, including hardware, installation services, training, and maintenance. We have determined stand-alone selling price for software utilizing the relative allocation method based on observable evidence.

Maintenance

Maintenance revenue, which is included in services revenue in our consolidated statements of operations and comprehensive income (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. 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, which is typically one year.

Services

Our services 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 stand-alone basis, or bundled with a license, when we are providing custom development.

The stand-alone selling price for services in time and materials contracts is determined by observable prices in stand-alone 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 stand-alone selling price for fixed price services based on estimated hours adjusted for historical experience, at time and material rates charged in stand-alone 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 stand-alone 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 stand-alone 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.

With the exception of travel and entertainment expenses, 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 are expected to be billed and collected within one year. Contract liabilities consist of deferred revenue and customer deposits which 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 customer, which is estimated to be five years. These costs are periodically reviewed for impairment. We determined that no impairment of these costs existed as of January 31, 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 costs associated 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 customers' financial condition, require advance payments from certain of our customers and maintain reserves for potential credit losses. We perform ongoing credit evaluations of 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 income (loss). We base our 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 that 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 ones 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 income (loss) except to the extent that it relates to items recognized directly within equity or in other comprehensive

income (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 (benefit) provision, in our consolidated statements of operations and comprehensive income (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, 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.

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

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Board of Directors and Stockholders
SeaChange International, Inc.

Opinions on the financial statements and internal control over financial reporting

We have audited the accompanying consolidated balance sheets of SeaChange International, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of January 31, 2019 and 2018, and the related consolidated statements of operations and comprehensive income (loss), stockholders’ equity, and cash flows for each of the two years in the period ended January 31, 2019, and the related notes and financial statement schedule included under Item 15(a) (collectively referred to as the “financial statements”). We also have audited the Company’s internal control over financial reporting as of January 31, 2019, based on criteria established in the 2013 Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of January 31, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended January 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 31, 2019, based on criteria established in the 2013 Internal Control—Integrated Framework issued by COSO.

Basis for opinions

The Company’s management is responsible for these financial statements, 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 financial statements and an opinion on the Company’s internal control over financial reporting based on our audits. 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 audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements 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 audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 its 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.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2007.

Boston, Massachusetts
April 12, 2019

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

	January 31,	
	2019	2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 20,317	\$ 43,652
Restricted cash	—	9
Marketable securities	4,020	3,991
Accounts and other receivables, net of allowance for doubtful accounts of \$577 and \$16 at January 31, 2019 and 2018, respectively	19,267	22,537
Unbilled receivables	5,448	3,101
Inventory	924	666
Prepaid expenses and other current assets	6,033	3,557
Total current assets	56,009	77,513
Property, plant and equipment, net	7,192	9,471
Marketable securities, long-term	6,339	4,449
Intangible assets, net	—	1,303
Goodwill	8,753	25,579
Other assets	450	1,015
Total assets	<u>\$ 78,743</u>	<u>\$ 119,330</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 4,503	\$ 2,431
Accrued expenses	7,762	15,379
Deferred revenue	8,104	11,598
Total current liabilities	20,369	29,408
Deferred revenue, long-term	2,642	2,835
Taxes payable, long-term	429	1,152
Deferred tax liabilities, long-term	203	215
Total liabilities	23,643	33,610
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock, \$0.01 par value; 100,000,000 shares authorized at January 31, 2019 and 2018; 35,946,100 shares issued and 35,905,610 shares outstanding at January 31, 2019, 35,634,984 shares issued and 35,594,494 outstanding at January 31, 2018	359	356
Additional paid-in capital	242,442	239,423
Treasury stock, at cost; 40,490 shares at January 31, 2019 and 2018	(5)	(5)
Accumulated other comprehensive loss	(3,393)	(5,434)
Accumulated deficit	(184,303)	(148,620)
Total stockholders' equity	55,100	85,720
Total liabilities and stockholders' equity	<u>\$ 78,743</u>	<u>\$ 119,330</u>

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

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

	For the Fiscal Years Ended January 31,	
	2019	2018
Revenue:		
Product	\$ 20,655	\$ 28,791
Service	41,747	51,476
Total revenue	<u>62,402</u>	<u>80,267</u>
Cost of revenue:		
Product	3,460	4,048
Service	21,612	22,275
Total cost of revenue	<u>25,072</u>	<u>26,323</u>
Gross profit	37,330	53,944
Operating expenses:		
Research and development	19,705	23,444
Selling and marketing	14,414	14,247
General and administrative	19,618	16,923
Severance and restructuring costs	2,381	4,740
Loss on impairment of goodwill and long-lived assets	17,015	—
Total operating expenses	<u>73,133</u>	<u>59,354</u>
Loss from operations	(35,803)	(5,410)
Other income (expense), net	(4,217)	6,636
Income (loss) from operations before income taxes	(40,020)	1,226
Income tax benefit	(2,018)	(12,272)
Net income (loss)	<u>\$ (38,002)</u>	<u>\$ 13,498</u>
Net income (loss) per share:		
Basic	\$ (1.06)	\$ 0.38
Diluted	\$ (1.06)	\$ 0.38
Weighted average common shares outstanding:		
Basic	35,691	35,412
Diluted	35,691	35,685
Comprehensive income (loss):		
Net income (loss)	\$ (38,002)	\$ 13,498
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustment	1,992	(3)
Unrealized gains (losses) on marketable securities	49	(60)
Total other comprehensive income (loss)	<u>2,041</u>	<u>(63)</u>
Comprehensive income (loss)	<u>\$ (35,961)</u>	<u>\$ 13,435</u>

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

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

	For the Fiscal Years Ended January 31,	
	2019	2018
Cash flows from operating activities:		
Net income (loss)	\$ (38,002)	\$ 13,498
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization expense	2,924	4,696
Recovery on loss contract	—	(593)
Provision for bad debts	1,779	79
Loss on impairment of goodwill and long-lived assets	17,015	—
Stock-based compensation expense	2,939	2,696
Deferred income taxes	(4)	(14,132)
Unrealized foreign currency transaction loss	3,459	—
Gain on sale of investment in affiliate	(175)	(2,555)
Other	53	398
Changes in operating assets and liabilities, excluding impact of acquisitions:		
Accounts and other receivables	513	5,132
Unbilled receivables	(2,468)	3,968
Inventory	(260)	34
Prepaid expenses and other current assets and other assets	(877)	(588)
Accounts payable	2,219	(2,499)
Accrued expenses	(7,087)	3,505
Deferred revenue	(3,379)	(1,078)
Other operating activities	(173)	386
Net cash provided by (used in) operating activities	(21,524)	12,947
Cash flows from investing activities:		
Purchases of property, plant and equipment	(364)	(526)
Purchases of marketable securities	(8,510)	(7,246)
Proceeds from sales and maturities of marketable securities	6,652	8,992
Proceeds from sale of investment in affiliate	175	4,555
Other investing activities	—	236
Net cash provided by (used in) investing activities	(2,047)	6,011
Cash flows from financing activities:		
Proceeds from issuance of common stock	83	54
Payments of withholding tax on RSU vesting	(43)	(141)
Net cash provided by (used in) financing activities	40	(87)
Effect of exchange rate on cash, cash equivalents and restricted cash	187	(3,621)
Net increase (decrease) in cash, cash equivalents and restricted cash	(23,344)	15,250
Cash, cash equivalents and restricted cash at beginning of period	43,661	28,411
Cash, cash equivalents and restricted cash at end of period	<u>\$ 20,317</u>	<u>\$ 43,661</u>
Supplemental disclosure of cash flow information		
Income taxes paid	\$ 2,965	\$ 368

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 Paid-in Capital	Treasury Stock	Accumulated Other		Accumulated Deficit	Total Stockholders' Equity
	Number of Shares	Par Value			Comprehensive Loss			
Balances at January 31, 2017	35,339,232	\$ 353	\$ 236,677	\$ (5)	\$ (5,371)	\$ (162,118)	\$ 69,536	
Issuance of common stock pursuant to vesting of restricted stock units	271,285	3	(3)	—	—	—	—	
Issuance of common stock pursuant to ESPP purchases	24,467	—	53	—	—	—	53	
Stock-based compensation expense	—	—	2,696	—	—	—	2,696	
Unrealized losses on marketable securities	—	—	—	—	(60)	—	(60)	
Foreign currency translation adjustment	—	—	—	—	(3)	—	(3)	
Net income	—	—	—	—	—	13,498	13,498	
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 gains on marketable securities	—	—	—	—	49	—	49	
Foreign currency translation adjustment	—	—	—	—	1,992	—	1,992	
Net loss	—	—	—	—	—	(38,002)	(38,002)	
Balances at January 31, 2019	35,946,100	\$ 359	\$ 242,442	\$ (5)	\$ (3,393)	\$ (184,303)	\$ 55,100	

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., 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 effort from which we expect to generate annualized savings over \$6 million. 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 above (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 take advantage of market opportunities, to develop new products or to otherwise respond to competitive pressures.

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 (“U.S. GAAP”). We consolidate the financial statements of our wholly-owned subsidiaries and all intercompany transactions and account balances have been eliminated in consolidation.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of these consolidated financial statements in conformity with U.S. 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.

Cash Equivalents

We consider all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents.

Restricted cash

Restricted cash represents cash that is restricted as to withdrawal or usage and consists primarily of cash held as collateral for performance obligations with customers.

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 income (loss) in stockholders’ equity (deficit). 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 income (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 income (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 and cash equivalents, 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 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. Two customers accounted for 24% and 11%, respectively, of total revenue in fiscal 2019. One customer accounted for 37% of total revenue in fiscal 2018. Two customers accounted for 44% and 15%, respectively, of the accounts receivable balance as of January 31, 2019. One customer accounted for 49% of the accounts receivable balance as of January 31, 2018.

Allowances for Doubtful Accounts

We evaluate customers' financial condition, require advance payments from certain of our customers and maintain reserves for potential credit losses. We perform ongoing credit evaluations of 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 income (loss). We base our 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 income (loss). Any write-down of inventory to net realizable value creates a new cost basis.

Property, Plant and Equipment

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 are recorded at cost and 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 recorded a gain on sale of investment in affiliate of \$2.6 million, included in other income (expense) in our consolidated statements of operations and comprehensive income (loss) 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, included in other income (expense) 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 income (loss) in fiscal 2019 related to this payment. We cannot provide assurance as to the timing of or whether we will receive additional such payments.

The balance of our investments in affiliates was zero as of January 31, 2019 and 2018.

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 that 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 ones 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, 2019, 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 treated 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. We test long-lived assets 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. (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 income (loss) except to the extent that it relates to items recognized directly within equity or in other comprehensive income (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 (benefit) provision, in our consolidated statements of operations and comprehensive income (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

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 (deficit).

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 gains (losses) are included in the consolidated statements of operations and comprehensive income (loss) as a component of other income (expense) and totaled (\$4.7) million and \$3.8 million for fiscal 2019 and 2018, respectively.

Comprehensive Income (Loss) and Accumulated Other Comprehensive Loss

Comprehensive income (loss) includes net income (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 income (loss) are foreign currency translation adjustments and changes in unrealized gains (losses) on marketable securities.

Accumulated other comprehensive loss on the consolidated balance sheets as of January 31, 2019 and 2018, consists of foreign currency translation adjustments of (\$3.4) million and (\$5.4) million, respectively, and unrealized gains (losses) on marketable securities of less than \$0.1 million and (\$0.1) million, respectively.

Revenue Recognition

On February 1, 2018, we adopted the new revenue standard, discussed below under the heading "Recently Adopted Accounting Pronouncements", which amended revenue recognition principles and provides a single, comprehensive set of criteria for revenue recognition within and across all industries. The new revenue standard provides a five-step framework whereby revenue is recognized when control of promised goods or services is transferred to a customer at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To determine revenue

recognition for arrangements that we determine are within the scope of the new revenue standard, we perform the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) we satisfy a performance obligation. We only apply the five-step model to contracts when collectability of the consideration to which we are entitled in exchange for the goods or services we transfer to the customer is determined to be probable.

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

Our contracts 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 stand-alone selling price basis. 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.

Hardware

We have concluded that hardware is either (1) a distinct performance obligation as the client can benefit from the product on its own or (2) a combined performance obligation with software licenses. This conclusion is dependent on the nature of the promise to the customer. In either scenario, hardware revenue is typically recognized at a point in time when control is transferred to the client, 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, it is delivered before services are provided and is functional without services, therefore the point in time when control is transferred is upon delivery or acceptance by the customer. When hardware and software are combined, we have determined stand-alone selling price for hardware utilizing the relative allocation method based on observable evidence.

Software licenses

We have concluded that our software licenses are either (1) a distinct performance obligation as the client can benefit from the software on its own or (2) a combined performance obligation with hardware, depending on the nature of the promise to the customer. In either scenario software license revenue is typically recognized at a point in time 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. Our license arrangements generally contain multiple performance obligations, including hardware, installation services, training, and maintenance. We have determined stand-alone selling price for software utilizing the relative allocation method based on observable evidence.

Maintenance

Maintenance revenue, which is included in services revenue in our consolidated statements of operations and comprehensive income (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. 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, which is typically one year.

Services

Our services 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 stand-alone basis, or bundled with a license, when we are providing custom development.

The stand-alone selling price for services in time and materials contracts is determined by observable prices in stand-alone 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 stand-alone selling price for fixed price services based on estimated hours adjusted for historical experience, at time and material rates charged in stand-alone 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 stand-alone 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 stand-alone 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.

With the exception of travel and entertainment expenses, 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 are expected to be billed and collected within one year. Contract liabilities consist of deferred revenue and customer deposits which 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 customer, which is estimated to be five years. These costs are periodically reviewed for impairment. We determined that no impairment existed as of January 31, 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 costs associated 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.

Accounting for 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.

Advertising Costs

Advertising costs are charged to expense as incurred. Advertising costs were not material for fiscal 2019 and 2018.

Net Income (Loss) Per Share

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted average number of unrestricted common shares outstanding during the period. Diluted net income (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 May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* (“ASU 2014-09”) and has since issued several additional amendments thereto, collectively referred to herein as ASC 606. ASC 606 outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry specific guidance. The new standards require entities to apportion consideration from contracts to performance obligations on a relative standalone selling price basis, based on a five-step model. Under ASC 606, revenue is

recognized when a customer obtains control of a promised good or service and is recognized in an amount that reflects the consideration that the entity expects to receive in exchange for the good or service. In addition, ASC 606 provides guidance on accounting for certain revenue related costs, including costs associated with obtaining and fulfilling a contract. ASC 606 may be applied using either a full retrospective approach, under which all years included in the financial statements will be presented under the revised guidance, or a modified retrospective approach, under which financial statements will be prepared under the revised guidance for the year of adoption, but not for prior years. Under the latter method, entities will recognize a cumulative catch-up adjustment to the opening balance of retained earnings at the effective date for contracts that still require performance by the entity at the date of adoption. For public entities, the guidance was effective for annual periods beginning after December 15, 2017, including interim periods within those fiscal years.

Effective February 1, 2018, we adopted ASC 606 using the modified retrospective adoption mode for all contracts not completed as of the date of adoption. The reported results for fiscal 2019 reflect the application of ASC 606 guidance while the reported results for fiscal 2018 were prepared under the guidance of ASC 605, "Revenue Recognition," which is also referred to herein as "legacy U.S. GAAP" or the "previous guidance." The cumulative effect of the changes made to our consolidated balance sheet as of February 1, 2018 for the adoption of the new guidance under the modified retrospective method is as follows:

	As of		
	January 31, 2018 Under ASC 605	Adjustment	February 1, 2018 Under ASC 606
(Amounts in thousands)			
Assets			
Unbilled receivables	\$ 3,101	\$ 137	\$ 3,238
Prepaid expenses and other current assets (1)	3,557	824	4,381
Liabilities			
Deferred revenue	14,433	(1,358)	13,075
Equity			
Accumulated deficit	(148,620)	2,319	(146,301)

(1) Contract assets, short-term are included in prepaid expenses and other current assets in our consolidated balance sheet.

The following tables summarize the effects of adopting ASC 606 on our consolidated financial statements during the year ended January 31, 2019:

	January 31, 2019		
	As reported	Adjustment	Balance Without Adoption of ASC 606
(Amounts in thousands)			
Assets			
Unbilled receivables	\$ 5,448	\$ 1,557	\$ 7,005
Prepaid expenses and other current assets (1)	6,033	(554)	5,479
Liabilities			
Deferred revenue	10,746	6,124	16,870
Equity			
Accumulated deficit	(184,303)	(5,120)	(189,423)

(1) Contract assets, short term are included in prepaid and other current assets in our consolidated balance sheet

For the Year Ended January 31, 2019

	As reported	Adjustment	Balance Without Adoption of ASC 606
(Amounts in thousands, except per share amounts)			
Revenue	\$ 62,402	\$ (3,115)	\$ 59,287
Cost of revenue	25,072	(653)	24,419
Operating expenses	73,133	383	73,516
Loss from operations	(35,803)	(2,845)	(38,648)
Loss before income taxes	(40,020)	(2,845)	(42,865)
Income tax (benefit) provision	(2,018)	—	(2,018)
Net loss	(38,002)	(2,845)	(40,847)
Net loss per share:			
Basic	\$ (1.06)	\$ (0.08)	\$ (1.14)
Diluted	\$ (1.06)	\$ (0.08)	\$ (1.14)

For the Year Ended January 31, 2019

	As reported	Adjustment	Balance Without Adoption of ASC 606
(Amounts in thousands)			
Cash used in operating activities:			
Net loss	\$ (38,002)	\$ (2,802)	\$ (40,804)
Unbilled receivables	(2,468)	(1,557)	(4,025)
Prepaid expenses and other current assets	(877)	554	(323)
Deferred revenue	(3,379)	6,124	2,745
Other operating activities	(173)	(2,319)	(2,492)
Total cash used in operating activities	(21,524)	—	(21,524)

The following summarizes the significant changes under ASC 606 as compared to legacy U.S. GAAP:

- Under legacy U.S. GAAP, we allocated revenue to licenses under the residual method when we had VSOE for the remaining undelivered elements, which method allocated any future credits or significant discounts entirely to the license. Under ASC 606, we allocate all future credits, significant discounts, and material rights to all performance obligations based upon their relative selling price. Additional license revenue from the reallocation of such arrangement consideration is recognized when control is transferred to the customer, which is generally upon delivery of the license.
- Under legacy U.S. GAAP, we did not have VSOE for professional services and maintenance in certain geographical areas, which resulted in revenue being deferred in such instances until such time as VSOE existed for all undelivered elements or recognized ratably over the longest service period. Under ASC 606, the requirement for VSOE is eliminated and replaced with the concept of a standalone selling price. Once the transaction price is allocated to each of the performance obligations, we recognize revenue as the performance obligations are delivered, either at a point in time or over time. Under ASC 606, license revenue is recognized when control is transferred to the customer and professional services revenue is recognized over time based on an input measure of hours incurred to total estimated hours. This results in the acceleration of professional services revenue when compared to the historical practice of ratable recognition for professional services when there is a lack of VSOE.
- Under legacy U.S. GAAP, sales commissions and other third-party acquisition costs resulting directly from securing contracts with customers are expensed when incurred. Under ASC 340, "Other Assets and Deferred Costs," because the sales commission paid on the maintenance renewals is not commensurate with the original arrangement, ASC 340 requires that these acquisition costs be expensed over the expected period of benefit, which we estimate as the customer life of five years.
- Under legacy U.S. GAAP, professional service costs associated with highly customized development efforts related directly to contracts with customers are expensed when incurred. Under ASC 340, these costs are recognized as an asset when incurred and are expensed along with professional service revenue at the time that customized software is delivered and/or accepted.

Recently Issued Accounting Pronouncement

In August 2018, the FASB issued ASU 2018-15, *“Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract.”* ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by these amendments. ASU 2018-15 is effective for us in the first quarter of fiscal 2020, and earlier adoption is permitted. We are currently evaluating the impact the adoption of ASU 2018-15 will have on our consolidated financial statements.

In August 2018, 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 is effective for us in the first quarter of fiscal 2020, and earlier adoption is permitted. We are currently evaluating what impact the adoption of ASU 2018-13 will have 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 is effective for us in the first quarter of fiscal 2020. Early adoption is permitted. We are currently evaluating what impact the adoption of this update will have 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. ASU 2018-02 is effective for us in the first quarter of fiscal 2020. Early adoption is permitted. We are currently evaluating what impact the adoption of this update will have on our consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-08, *Receivables—Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities* which requires companies to amend the amortization period for premiums on debt securities with explicit call features to be the earliest call date rather than through the contractual life of the debt instrument. This amendment aims to more closely align the recognition of interest income with the manner in which market participants price such instruments. ASU 2017-08 is effective for us in the first quarter of fiscal 2020, and earlier adoption is permitted. We are currently evaluating the impact the adoption of ASU 2017-08 will have on our consolidated financial statements.

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. 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 for us in the first quarter of fiscal 2020, and earlier adoption is permitted. We are currently evaluating the impact the adoption of ASU 2016-13 will have on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *“Leases (Topic 842),”* which supersedes ASC 840, *“Leases (Topic 840).”* Subsequently, the FASB issued additional updates which clarify this guidance including ASU 2018-01, *“Leases (Topic 842): Land Easement Practical Expedient for Transitioning to Topic 842,”* in January 2018, which allows an entity to elect an optional transition practical expedient to not evaluate land easements that exist or expired before the entity’s adoption of Topic 842, and ASU 2018-11, *“Leases – Targeted Improvements (Topic 842),”* which provides for an additional transition method that allows companies to apply the new lease standard at the adoption date, eliminating the requirement to apply the standard to the earliest period presented in the consolidated financial statements. ASU 2016-02 requires a lessee to recognize a right-of-use asset and a lease liability for operating leases with terms over twelve months, initially measured at the present value of the lease payments, in its balance sheet. The standard also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, on a generally straight-line basis. It also requires lessees to classify leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase of the leased asset by the lessee. This classification will determine whether the lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. ASU 2016-02, ASU 2018-01 and ASU 2018-11 are effective for us beginning in the first quarter of fiscal 2020. We have begun evaluating and planning for adoption and implementation, including gathering, documenting and analyzing lease agreements subject to the new guidance. We plan to

adopt the new leasing standard using a modified retrospective transition approach to be applied to leases existing as of, or entered into after, January 31, 2019. We will apply the “package of practical expedients”, which permits us to not reassess under the new standards for prior conclusions about lease identification, lease classification and initial direct costs. Upon adoption of the new leasing standards, we expect to recognize a right-of-use asset and related lease liability on our consolidated balance sheets in the range of approximately \$1.5 million to \$2.0 million. We do not expect the adoption of the standard to have a material impact on our results of operations or cash flows.

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, 2019 Using	
		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

	Total	Fair Value at January 31, 2018 Using	
		Level 1	Level 2
		(Amounts in thousands)	
Assets:			
Cash equivalents	\$ 4,568	\$ —	\$ 4,568
Marketable securities:			
U.S. Treasury Notes and bonds	3,717	3,717	—
U.S. Agency bonds	2,983	—	2,983
Corporate bonds	1,740	—	1,740
Total	\$ 13,008	\$ 3,717	\$ 9,291

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

Marketable securities by security type consisted of the following:

	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>

	January 31, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(Amounts in thousands)			
U.S. Treasury Notes and bonds	\$ 3,741	\$ —	\$ (24)	\$ 3,717
U.S. Agency bonds	2,993	9	(19)	2,983
Corporate Bonds	1,760	—	(20)	1,740
	<u>\$ 8,494</u>	<u>\$ 9</u>	<u>\$ (63)</u>	<u>\$ 8,440</u>

As of January 31, 2019, marketable securities consisted of investments that mature within one year, with the exception of investments with a fair value of \$6.3million that mature between one and three years.

4. Acquisitions

In fiscal 2017, we acquired 100% of the outstanding shares of DCC Labs in exchange for an aggregate of \$2.7 million in newly issued shares of our common stock and \$5.2 million in cash, net of cash acquired, resulting in a total net purchase price of \$7.9 million. DCC Labs is a developer of set-top and multiscreen device software.

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 and \$4.6 million in cash, resulting in a total purchase price of \$5.5 million. Xstream is an OTT video and TV cloud platform provider that serves more than five million active subscribers globally (see Note 15).

5. Consolidated Balance Sheet Detail

Inventory

Inventory consists of the following:

	January 31,	
	2019	2018
	(Amounts in thousands)	
Components and assemblies	\$ 763	\$ 426
Finished products	161	240
Total inventory	<u>\$ 924</u>	<u>\$ 666</u>

Property, plant and equipment, net

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

	January 31,	
	2019	2018
	(Amounts in thousands)	
Buildings	\$ 3,467	\$ 11,839
Land	2,780	2,780
Computer equipment, software and demonstration equipment	12,316	12,770
Service and spare components	1,158	1,158
Office furniture and equipment	738	774
Leasehold improvements	531	537
	<u>20,990</u>	<u>29,858</u>
Less: Accumulated depreciation and amortization	(13,798)	(20,387)
Total property, plant and equipment, net	<u>\$ 7,192</u>	<u>\$ 9,471</u>

As a result of our impairment analysis in the fourth quarter of 2019, we recorded an impairment charge of \$1.2 million to reduce the carrying value of our building to \$3.5 million (see Note 6).

Depreciation and amortization expense of property and equipment was \$1.3 million and \$2.3 million for the years ended January 31, 2019 and 2018, respectively.

Accrued expenses

Accrued expenses consist of the following:

	January 31,	
	2019	2018
	(Amounts in thousands)	
Accrued employee compensation and benefits	\$ 1,866	\$ 4,657
Accrued professional fees	1,521	1,092
Sales tax and VAT payable	1,502	4,001
Income taxes payable	—	2,869
Accrued restructuring (Note 7)	653	225
Accrued other	2,220	2,535
Total accrued expenses	<u>\$ 7,762</u>	<u>\$ 15,379</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, 2017:	\$	23,287
Cumulative translation adjustment		2,292
Balance as of January 31, 2018:		25,579
Cumulative translation adjustment		(1,324)
Loss on impairment		(15,502)
Balance as of January 31, 2019:	<u>\$</u>	<u>8,753</u>

In the fourth and second 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, 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 impairments losses as of January 31, 2019 and 2018 were \$54.8 million and \$39.3 million, respectively.

As a result of the impairment tests, 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 recorded an impairment charge of \$0.3 million to reduce the carrying value of intangible assets of \$0.3 million to zero, representing 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, 2018:

	January 31, 2018		
	Gross	Accumulated Amortization	Net
	(Amounts in thousands)		
Finite-lived intangible assets:			
Customer contracts	\$ 30,818	\$ (29,836)	\$ 982
Non-compete agreements	2,639	(2,635)	4
Completed technology	11,479	(11,203)	276
Trademarks, patents and other	7,189	(7,148)	41
Total finite-lived intangible assets	<u>\$ 52,125</u>	<u>\$ (50,822)</u>	<u>\$ 1,303</u>

As a result of our impairment analysis in the fourth quarter of fiscal 2019, we recorded an impairment charge of \$0.3 million to reduce the carrying value of intangible assets to zero.

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

	For the Fiscal Year Ended January 31,	
	2019	2018
	(Amounts in thousands)	
Cost of product revenue	\$ 28	\$ 106
Selling and marketing	687	1,273
Research and development	181	180
	<u>\$ 896</u>	<u>\$ 1,559</u>

We recognized \$0.7 million and \$0.9 million of amortization expense in cost of service revenue during fiscal 2019 and 2018, respectively, of internally developed software, included in other assets on the consolidated balance sheets. We did not capitalize additional costs in fiscal 2019 or 2018 and, at January 31, 2019, the net book value of internally developed software is zero.

7. Severance and Restructuring Costs

Severance Costs

During fiscal 2019, we incurred additional severance charges not related to a restructuring plan of \$0.8 million, primarily from the departure of 19 former employees. During fiscal 2018, we incurred additional severance charges not related to a restructuring plan of \$0.5 million, primarily from the departure of 14 former employees.

Restructuring Costs

During fiscal 2019, we incurred restructuring charges of \$1.6 million, primarily for employee-related benefits for terminated employees. In September 2018, we announced that we implemented cost-savings actions during the third quarter of fiscal 2019 (the “2019 Restructuring Program”). The primary element of this restructuring program was staff reductions across all of our functions and geographic areas and we expect the program to be completed by the end of the first fiscal quarter of 2020. Annualized cost savings are expected to be over \$6 million once completed and severance and restructuring charges are expected to be approximately \$2 million.

During fiscal 2018, we incurred restructuring charges of \$4.2 million primarily from employee-related benefits for terminated employees and costs to close facilities related to our restructuring program implemented in fiscal 2017. During the third quarter of fiscal 2017, we implemented a restructuring program (the “2017 Restructuring Program”) with the purpose of reducing costs and assisting in restoring SeaChange to profitability and positive cash flow. This program included measures intended to allow us to more efficiently operate in a leaner, more direct cost structure. These measures included reductions in workforce, consolidation of facilities, transfers of certain business processes to lower cost regions and reduction in third-party service costs. The 2017 Restructuring Plan was substantially complete as of January 31, 2018. Since its implementation, we recognized \$7.2 million in restructuring charges related to the 2017 Restructuring Program.

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)				
Accrual balance as of January 31, 2017	\$ 785	\$ 130	\$ 108	\$ 1,023
Restructuring charges incurred	2,973	796	387	4,156
Cash payments	(3,733)	(783)	(466)	(4,982)
Other charges	36	(8)	—	28
Accrual 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)
Accrual balance as of January 31, 2019	<u>\$ 653</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 653</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.

Operating Leases

We lease certain of our operating facilities, automobiles and office equipment under non-cancelable operating leases, which expire at various dates through fiscal 2024. Leases for our facilities typically contain standard commercial lease provisions, including renewal options and rent escalation clauses. Rental expense under operating leases was \$1.2 million and \$1.6 million for fiscal 2019 and 2018, respectively. Future commitments under minimum lease payments as of January 31, 2019 are as follows:

For the Fiscal Years Ended January 31,	Lease Commitments	
	(Amounts in thousands)	
2020	\$	956
2021		722
2022		475
2023		202
2024		25
Thereafter		—
Minimum operating lease payments	\$	2,380

In the first quarter of fiscal 2020, we reduced our lease commitment for certain office space located in The Netherlands, which will result in a reduction to our lease commitments of \$0.2 million in each of fiscal 2020 and fiscal 2021.

9. 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 designated or issued as of January 31, 2019.

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 the 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, 2019, there were 1,616,179 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 (“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 1,094,783 remain available under the ESPP as of January 31, 2019. Under the ESPP, 12,794 and 24,467 shares were purchased during fiscal 2019 and fiscal 2018, 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,	
	2019	2018
Risk-free interest rate	2.6 %	2.4 %
Expected volatility	46.8 %	41.0 %
Expected dividend yield	0.0 %	0.0 %
Expected term (in years)	6.0	6.0

Market-Based Options

We have outstanding 800,000 market-based options issued in fiscal 2016 and fiscal 2017 to our CEO as of January 31, 2019. 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 forfeited upon the resignation of our CEO.

We have not granted additional market-based options in fiscal 2019 or 2018.

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, 2018	3,240,105	\$ 3.94	8.00	\$ 683,405
Granted	1,420,000	1.83		
Exercised	(20,937)	2.56		
Forfeited	(514,966)	3.49		
Outstanding as of January 31, 2019	4,124,202	\$ 3.28	6.96	\$ 32,000
Vested and expected to vest as of January 31, 2019	3,324,203	\$ 2.63	6.96	\$ 32,000
Options exercisable as of January 31, 2019	974,793	\$ 3.33	4.89	\$ —

The weighted average grant-date fair values of stock options granted during the years ended January 31, 2019 and 2018, was \$0.86 per share and \$1.34 per share, respectively.

Stock Units

We have granted RSUs and DSUs with service-based vesting criteria that generally vest over one to three years. We have also granted PSUs with performance-based and market-based vesting criteria. In fiscal 2019 and 2018, we granted an aggregate of 210,000 and 232,500 PSUs, respectively, to employees under the LTI Program. The PSUs vest in three equal annual installments upon the achievement of certain Company-specific goals in each of the three years. In fiscal 2017, we granted an aggregate of 307,963 PSUs to employees under the LTI Program, which vest at the end of a three-year period upon the fulfillment of the three-year service period and the achievement of a relative total shareholder return. We measured the grant-date fair value of these awards using a Monte Carlo simulation model and recognize the associated expense over the requisite service period, if fulfilled, regardless of the actual number of awards that vest.

The following table summarizes our stock unit activity:

	Number of Shares	Weighted Average Grant-Date Fair Value
Unvested balance as of January 31, 2018	1,924,890	\$ 4.89
Granted	616,250	1.99
Vested	(277,385)	3.45
Forfeited	(567,759)	5.35
Unvested balance as of January 31, 2019	1,695,996	\$ 3.00

Stock-based Compensation

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

	For the Fiscal Year Ended January 31,	
	2019	2018
	(Amounts in thousands)	
Cost of revenue	\$ —	\$ 3
Research and development	186	102
Sales and marketing	373	360
General and administrative	2,380	2,231
	<u>\$ 2,939</u>	<u>\$ 2,696</u>

As of January 31, 2019, unrecognized stock-based compensation expense related to unvested stock options was approximately \$2.2 million, which is expected to be recognized over a weighted average period of 2.2 years. As of January 31, 2019, unrecognized stock-based compensation expense related to unvested RSUs and DSUs was \$1.5 million, which is expected to be recognized over a weighted average amortization period of 1.8 years. As of January 31, 2019, unrecognized stock-based compensation expense related to unvested PSUs was \$0.9 million, which is expected to be recognized over a weighted average amortization period of 2.1 years.

10. Revenue from Contracts with Customers

On February 1, 2018, we adopted ASC 606 using the modified retrospective method to achieve a consistent application of revenue recognition, resulting in a single revenue model to be applied by reporting companies under U.S. GAAP. Under the new model, recognition of revenue occurs when a customer obtains control of promised goods or services in an amount that reflects the consideration to which the providing entity expects to be entitled in exchange for those goods or services. Therefore, for arrangements that include customer-specified acceptance criteria, revenue is recognized when we can objectively determine that control has been transferred to the customer in accordance with the agreed-upon specifications in the contract, which may occur before formal customer acceptance. In addition, the new guidance requires that reporting companies disclose the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The new guidance no longer requires us to have vendor specific object evidence (“VSOE”) to determine the fair value of undelivered elements in a multiple-element software transaction, resulting in revenue attributable to the sale of software being recognized earlier.

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, hardware, professional services, maintenance and support in order to deploy SeaChange systems and provide ongoing functionality. 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, hardware, professional services, maintenance and support.

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 and 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 year ended January 31, 2019:

	For the Years Ended January 31,	
	2019	2018
	(Amounts in thousands)	
Product	\$ 20,655	\$ 28,791
Professional services	13,908	18,316
Maintenance - first year	2,095	2,127
Maintenance - renewal	25,744	31,033
Total revenue	<u>\$ 62,402</u>	<u>\$ 80,267</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, 2019 is \$24.2 million. This amount includes amounts billed for undelivered services that are included in deferred revenue.

11. Segment and Geographic Information

We have determined that we operate in one segment (see Note 2).

Geographic Information

The following summarizes revenue by customers' geographic locations:

	For the Fiscal Years Ended January 31,			
	2019	%	2018	%
(Amounts in thousands, except percentages)				
Revenue by customer's geographic locations:				
North America (1)	\$ 30,002	48%	\$ 32,409	40%
Europe and Middle East	21,990	35%	39,177	49%
Latin America	9,068	15%	7,379	9%
Asia Pacific	1,342	2%	1,302	2%
Total revenue	<u>\$ 62,402</u>		<u>\$ 80,267</u>	

(1) Includes total revenue for the United States for the periods shown as follows:

	For Fiscal Years Ended January 31,	
	2019	2018
(Amounts in thousands, except percentages)		
US Revenue	\$ 23,582	\$ 27,876
% of total revenue	38 %	35 %

The following summarizes long-lived assets by geographic locations:

	January 31,			
	2019	%	2018	%
(Amounts in thousands, except percentages)				
Long-lived assets by geographic locations (1):				
North America	\$ 7,148	93%	\$ 9,792	83%
Europe and Middle East	446	6%	1,949	17%
Asia Pacific	48	1%	48	0%
Total long-lived assets by geographic location	<u>\$ 7,642</u>		<u>\$ 11,789</u>	

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

12. Income Taxes

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

	For the Fiscal Years Ended January 31,	
	2019	2018
(Amounts in thousands)		
Domestic	\$ (16,087)	\$ (16,158)
Foreign	(23,933)	17,384
Income (loss) from operations before income taxes	<u>\$ (40,020)</u>	<u>\$ 1,226</u>

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

	For the Fiscal Years Ended January 31,	
	2019	2018
	(Amounts in thousands)	
Current:		
Federal	\$ —	\$ (595)
State	5	(18)
Foreign	(1,882)	2,473
Total	(1,877)	1,860
Deferred:		
Foreign	(141)	(14,132)
Total	(141)	(14,132)
Income tax benefit	<u>\$ (2,018)</u>	<u>\$ (12,272)</u>

The income tax (benefit) provision 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,	
	2019	2018
	(Amounts in thousands)	
Statutory U.S. federal tax rate	\$ (8,404)	\$ 415
State taxes, net of federal tax benefit	5	(4)
Income not benefitted	3,664	481
Non-deductible stock compensation expense	267	158
Other non-deductible items (1)	147	(46)
Innovative technology and development incentive	(317)	—
Foreign tax rate differential	(388)	(2,014)
Outside basis difference in foreign subsidiaries	—	(14,675)
Goodwill impairment	3,647	—
Tax Reform Act (2)	—	3,882
Current fiscal year impact of FIN 48	(639)	(469)
Income tax (benefit) provision	<u>\$ (2,018)</u>	<u>\$ (12,272)</u>

- (1) Within the other line in the table above, other non-deductible items were \$0.3 million and less than (\$0.1) million for the fiscal years ended January 31, 2019 and 2018, respectively. These items have been aggregated with various adjustments related to differences in prior year U.S. and foreign tax provisions and the actual returns filed.
- (2) Due to the impact of the one-time transition tax on the deemed repatriation of accumulated foreign earnings required by the Tax Reform Act discussed below.

The Tax Reform Act was signed into United States tax law on December 22, 2017. The Tax Reform Act significantly changed the U.S. corporate income tax regime by, amongst other things, lowering the U.S. corporate tax rate from 35% to 21% effective January 1, 2018, imposing a limitation of the deduction for net operating losses to 80% of annual taxable income and eliminating net operating loss carrybacks, in each case, for losses arising in taxable years beginning after December 31, 2017 (though any such net operating losses may be carried forward indefinitely). The Tax Reform Act also provided for a one-time tax on the deemed repatriation of accumulative foreign earnings of foreign subsidiaries (the "Transition Tax"), as well as prospective changes beginning in 2018, including additional limitations on executive compensation. Under GAAP, the effects of changes in income tax rates and laws are recognized in the period in which the new legislation is enacted.

On December 22, 2017, the Securities and Exchange Commission issued guidance under SAB 118, which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Accordingly, we recorded an estimate of \$3.9 million of Transition Tax expense, offset completely by tax losses, and \$17.1 million due to a remeasurement of our net deferred tax assets offset by valuation allowance, during the year ended January 31, 2018 which reflected provisional amounts for those specific income tax effects of the Tax Reform Act.

As permitted under SAB 118, we recorded provisional estimates for the impact of the Tax Reform Act during the year ended January 31, 2018, and finalized our accounting analysis based on the guidance, interpretations, and data available as of January 31, 2019 resulting in immaterial changes to our provisional amounts.

We are subject to additional requirements of the Tax Reform Act during the year ended 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.

The components of deferred income taxes are as follows:

	January 31,	
	2019	2018
(Amounts in thousands)		
Deferred tax assets:		
Accruals and reserves	\$ 1,518	\$ 963
Deferred revenue	760	476
Stock-based compensation expense	1,373	1,134
U.S. federal, state and foreign tax credits	7,949	8,070
Property and equipment	278	71
Intangible assets	54	(201)
Loss carryforwards	29,909	27,642
Deferred tax assets	41,841	38,155
Less: Valuation allowance	(41,979)	(38,305)
Net deferred tax assets	(138)	(150)
Deferred tax liabilities:		
Other	46	47
Total net deferred tax liabilities	\$ (184)	\$ (197)

At January 31, 2019, we had federal, state and foreign net operating loss carry forwards of \$118.0 million, \$185.8 million and \$2.1 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, 2019, 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 \$2.3 million, which are available to reduce future federal regular income taxes. These credits expire at various dates beginning in fiscal 2019, 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 \$42.0 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 increased \$3.7 million for the year ended January 31, 2019 and decreased by \$19.8 million for the fiscal year ended January 31, 2018.

As of January 31, 2019, we maintain our assertion that all of our foreign earnings, except those related to our Irish operations, are to be permanently reinvested outside the United States.

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

	For the Fiscal Years Ended January 31,	
	2019	2018
(Amounts in thousands)		
Balance of gross unrecognized tax benefits, beginning of period	\$ 4,856	\$ 5,093
Decrease due to expiration of statute of limitation	(477)	(389)
Effect of currency translation	(61)	152
Balance of gross unrecognized tax benefits, end of period	\$ 4,318	\$ 4,856

As of January 31, 2019, we have no unrecognized tax benefits, that if recognized, would reduce income tax expense in fiscal 2020. We recognized interest and penalties related to unrecognized tax benefits in income tax (benefit) provision on our

consolidated statements of operations and comprehensive income (loss). As of January 31, 2019 and 2018, total gross interest accrued was \$0.1 million and \$0.1 million, respectively.

13. 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 United States according to the local plans specific to each foreign location. Amounts contributed will vary. During fiscal 2019 and 2018, we contributed \$0.5 million, and \$1.1 million, respectively.

14. Net Income (Loss) Per Share

The following table sets forth our computation of basic and diluted net income (loss) per common share:

	For Fiscal Years Ended January 31,	
	2019	2018
	(Amounts in thousands, except per share data)	
Net income (loss)	\$ (38,002)	\$ 13,498
Weighted average common shares used in computing net income (loss)		
per share - basic	35,691	35,412
Dilutive potential common shares	—	273
Weighted average common shares used in computing net income (loss)		
per share - dilutive	35,691	35,685
Net income (loss) per share		
Basic	\$ (1.06)	\$ 0.38
Diluted	\$ (1.06)	\$ 0.38

The number of common shares used in the computation of diluted net income (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 Fiscal Years Ended January 31,	
	2019	2018
	(Amounts in thousands)	
Stock options	3,245	1,522
Restricted stock units	264	159
Deferred stock units	18	13
Performance stock units	567	297
	4,094	1,991

15. Subsequent Events

On February 6, 2019, we acquired Xstream A/S for \$4.6 million in cash and 541,738 shares of common stock for a total transaction value of \$5.5 million. Xstream provides a managed service, OTT video solution that serves more than five million active subscribers globally. We are in the process of gathering information to complete our preliminary valuation of certain assets and liabilities acquired as part of the transaction to complete acquisition accounting.

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 Tuder to the Board as a Class III director with a term to expire at the 2020 annual meeting of stockholders. Mr. Pons and Mr. Tuder 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 expires by its terms if not approved by our stockholders at our 2019 annual meeting of stockholders.

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. Mark Bonney, our Executive Chair and principal executive officer, and Peter R. Faubert, our Chief Financial Officer, participated in this evaluation. Based upon that evaluation, Messrs. Bonney and Faubert concluded that our disclosure controls and procedures were effective as of January 31, 2019.

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 accounting principles generally accepted in the United States of America.

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, 2019. 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, 2019, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of January 31, 2019 has been audited by Grant Thornton 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

As a result of the evaluation completed by us, and in which Messrs. Bonney and Faubert participated, we have concluded that there were no changes during the fiscal quarter ended January 31, 2019 in our internal control over financial reporting, which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

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, 2019 which will be filed with 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 12, 2019 and their positions held with us:

Name	Age	Title
Mark Bonney	65	Executive Chair and Director
Yosef Aloni	50	Chief Commercial Officer and Senior Vice President
Peter Faubert	48	Chief Financial Officer, Senior Vice President and Treasurer
Marek Kielczewski	42	Chief Technology Officer and Senior Vice President
David McEvoy	61	General Counsel, Senior Vice President and Secretary

Mr. Bonney, 65, has served as a Director of SeaChange since August 2017 and was appointed Executive Chair on April 4, 2019. Mr. Bonney most recently served as President, Chief Executive Officer and Executive Director of RhythmOne plc from May 2018 to April 1, 2019, at which time Mr. Bonney resigned in connection with the sale of RhythmOne to Taptica International Ltd. Mr. Bonney also served as the Interim Chief Financial Officer of RhythmOne from February 4, 2019 to April 1, 2019. Previously, Mr. Bonney served as President and Chief Executive Officer of MRV Communications, Inc. (NASDAQ: MRVC) from December 2014 until its sale in August 2017 and as a director of MRV Communications, Inc. from April 2013 to August 2017. Mr. Bonney has served as a Director of Zix Corporation (NASDAQ: ZIXI) since January 2013 and serves as a member of its Audit Committee and its Nominating & Corporate Governance Committee. Mr. Bonney also serves as a Director of Community eConsult Network, Inc., a not-for-profit corporation engaged in medical consultative services, and is Chairman Emeritus of Community Health Centers, Inc. Mr. Bonney has held senior financial and management roles at Black & Decker, Zygo Corporation, Axsys Technologies, Inc., American Bank Note Holographics, Inc. and Direct Brands LLC leading up to Chief Financial Officer, President and Chief Executive Officer. In addition to his current directorships he has served as a director of Axsys, American Bank Note Holographics, Threecore, Inc., ASearch LLC and Sigma Designs, Incorporated. Mr. Bonney also founded and served as former Chairman of the Angel Investor Forum. Mr. Bonney holds a BS in Business Administration from Central Connecticut State University and an MBA in Finance from the University of Hartford.

Mr. Aloni, 50, 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. 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. Faubert, 48, joined the Company on July 7, 2016 as CFO, SVP and Treasurer, and, from February 25, 2019 to April 4, 2019, served in the Office of the CEO. He brings over 15 years of extensive finance leadership for public and private software companies that focused on video service providers, mobility and enterprise computing. Prior to joining the Company, Mr. Faubert served as CFO of This Technology, Inc. since December 2013. Prior to that, Mr. Faubert served as CFO and Treasurer of Vision Government Solutions, Inc. from October 2012 to December 2013. He has also served as CFO of JNJ Mobile (MocoSpace) from February 2009 to July 2012 and CFO and Treasurer at Turbine, Inc. from August 2005 to January 2009. Prior to that Mr. Faubert held various senior finance positions with Viisage Technology Inc., Burntsand Inc. and Ariba Inc. Mr. Faubert is also a Certified Public Accountant.

Mr. Kielczewski, 42, 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. McEvoy, 61, joined the Company on July 1, 2012 as VP and General Counsel. He became SVP and General Counsel on February 1, 2013, became the Secretary on May 17, 2013, and, from February 25, 2019 to April 4, 2019, served in the Office of the CEO. Prior to joining SeaChange, Mr. McEvoy was the SVP and General Counsel of Peoplefluent Inc. Mr. McEvoy was the SVP and General Counsel of Art Technology Group, Inc. (“ATG”) from September 2005 to March 2010. ATG was acquired by Oracle on January 5, 2011. Prior to joining ATG, Mr. McEvoy was the Group General Counsel of Gores Technology Group, a private equity firm. Mr. McEvoy has held various General Counsel and other executive level legal positions with several companies including Aprisma Inc., Anker Systems Ltd., VeriFone Inc., Mattel Interactive, Broderbund and The Learning Company.

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, 2019, 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)	5,820,198 (2)\$	3.28	2,710,962 (3)

- (1) Consists of the 2011 Plan and the 2015 Employee Stock Purchase Plan (the “ESPP”).
- (2) Includes 1,695,996 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, 2019, 1,616,179 shares remained available for issuance under the 2011 Plan and 1,094,783 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>
Report of Independent Registered Public Accounting Firm	37
Consolidated Balance Sheets as of January 31, 2019 and 2018	38
Consolidated Statements of Operations and Comprehensive Income (Loss) for the years ended January 31, 2019 and 2018	39
Consolidated Statements of Cash Flows for the years ended January 31, 2019 and 2018	40
Consolidated Statements of Stockholders' Equity for the years ended January 31, 2019 and 2018	41
Notes to Consolidated Financial Statements	42

(a)(2) Index to Financial Statement Schedule

The following Financial Statement Schedule of the Registrant is filed as part of this report:

	<u>Page</u>
Schedule II—Valuation and Qualifying Accounts	73

Schedules not listed above have been omitted because the information requested to be set forth therein is not applicable or is shown in the accompanying consolidated financial statements or notes thereto.

(a)(3) 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	<u>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).</u>
3.2	<u>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).</u>
3.3	<u>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 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).</u>
3.4	<u>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).</u>
4.1	<u>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).</u>
4.2	<u>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).</u>
10.1	<u>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).</u> **
10.2	<u>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).</u> **
10.3	<u>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).</u> **
10.4	<u>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).</u> **
10.5	<u>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).</u> **
10.6	<u>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).</u> **
10.7	<u>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).</u> **
10.8	<u>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).</u> **
10.9	<u>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).</u> **
10.10	<u>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).</u> **

Exhibit No.	Description
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). **
10.16	Change-in-Control Severance Agreement, dated as of July 6, 2016, by and between the Company and Peter Faubert (filed as Exhibit 10.3 to the Company's Current Report on Form 8-K previously filed on July 7, 2016 with the Commission and incorporated by reference). **
10.18	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). **
10.19*	Change-in-Control Severance Agreement, dated as of October 18, 2018, by and between the Company and Marek Kielczewski **
10.20*	Change-in-Control Severance Agreement, dated as of January 1, 2019, by and between the Company and Yossi Aloni **
10.21	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).
21.1*	List of Subsidiaries of the Registrant.
23.1*	Consent of Grant Thornton 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 Document
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
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

* Provided herewith

**Management contract or compensatory plan

(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.

SEACHANGE INTERNATIONAL, INC.

Schedule II – Valuation and Qualifying Accounts

For the Fiscal Years Ended January 31, 2019 and 2018

Description	Balance at beginning of period	Additions		Deductions and write-offs	Balance at end of period
		Charged to costs and expenses	Charged to other accounts		
(Amounts in thousands)					
Accounts Receivable Allowance:					
Year ended January 31, 2019	\$ 16	\$ 1,779	\$ —	\$ (1,218)	\$ 577
Year ended January 31, 2018	\$ 876	\$ 79	\$ 10	\$ (949)	\$ 16
Deferred Tax Assets Valuation Allowance:					
Year ended January 31, 2019	\$ 38,305	\$ 3,674	\$ —	\$ —	\$ 41,979
Year ended January 31, 2018	\$ 58,134	\$ (19,829)	\$ —	\$ —	\$ 38,305

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 12, 2019

By: /s/ MARK BONNEY
Mark Bonney
Executive Chair and Director

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Mark Bonney and Peter R. Faubert, 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/ MARK BONNEY</u> Mark Bonney	Executive Chair, Director (Principal Executive Officer)	April 12, 2019
<u>/s/ PETER R. FAUBERT</u> Peter R. Faubert	Chief Financial Officer Senior Vice President and Treasurer (Principal Financial and Accounting Officer)	April 12, 2019
<u>/s/ MARY PALERMO COTTON</u> Mary Palermo Cotton	Director	April 12, 2019
<u>/s/ WILLIAM MARKEY</u> William Markey	Director	April 12, 2019
<u>/s/ ROBERT M. PONS</u> Robert M. Pons	Director	April 12, 2019
<u>/s/ ANDREW SRIUBAS</u> Andrew Sriubas	Director	April 12, 2019
<u>/s/ JEFFREY M. TUDER</u> Jeffrey M. Tudor	Director	April 12, 2019
<u>/s/ ED WILSON</u> Ed Wilson	Director	April 12, 2019

CHANGE IN CONTROL SEVERANCE AGREEMENT

THIS CHANGE IN CONTROL SEVERANCE AGREEMENT (this "Agreement") , dated as of October 18, 2018 , by and between SeaChange International, Inc., with its principal place of business at 50 Nagog Park, Acton, MA 01720 (the "Company"), and Marek Kielczewski (the "Executive").

WHEREAS, the Executive is employed as the Company's Senior Vice President, Global Engineering;

WHEREAS, the Company considers it essential to the best interests of its stockholders to foster the continuous employment of key management personnel, and recognizes that, as is the case with many publicly held corporations, the possibility of a change in control may exist and that such possibility, and the uncertainty and questions which it may raise among management, may result in the distraction or departure of management personnel to the detriment of the Company and its stockholders; and

WHEREAS, the Board of Directors of the Company has determined that appropriate steps should be taken to reinforce and encourage the Executive's continued attention and dedication to the Executive's assigned duties without distraction in the face of potentially disturbing circumstances arising from the possibility of a change in control of the Company, although no such change is presently known to be contemplated.

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

Section 1

DEFINITIONS

Except as may otherwise be specified or as the context may otherwise require, the following terms shall have the respective meanings set forth below whenever used herein:

"Annual Bonus" shall mean the Executive's target annual bonus (excluding any annual target long-term incentive compensation opportunity) for the Company's fiscal year in which the Covered Termination occurs.

"Base Salary" shall mean the annual base rate of regular compensation of the Executive immediately before a Covered Termination, or if greater, the highest annual rate at any time during the 12-month period immediately preceding the Covered Termination.

"Board" shall mean the Board of Directors of the Company.

"Cause" shall mean (i) the Executive's engaging in willful and repeated gross negligence or gross misconduct, (ii) the Executive's breaching of a material fiduciary duty to the Employer ,

or (iii) the Executive's being convicted of a felony, in either case, to the demonstrable and material injury to the Employer. For purposes hereof, no act, or failure to act, on the Executive's part, shall be deemed "willful" unless done, or omitted to be done, by the Executive not in good faith and without reasonable belief that any act or omission was in the best interest of the Employer.

"Change in Control" shall mean the first to occur, after the date hereof, of any of the following:

(i) the members of the Board at the beginning of any consecutive 12-calendar-month period (the "Incumbent Directors") cease for any reason other than due to death to constitute at least a majority of the members of the Board; provided that any director whose election, or nomination for election by the Company's stockholders, was approved by a vote of at least a majority of the members of the Board then still in office who were members of the Board at the beginning of such 12-calendar-month period, shall be deemed to be an Incumbent Director;

(ii) any consolidation or merger of the Company where the stockholders of the Company, immediately prior to the consolidation or merger, would not, immediately after the consolidation or merger, beneficially own (as such term is defined in Rule 13d-3 under the Securities Exchange Act), directly or indirectly, shares of Stock representing in the aggregate 50% or more of the combined voting power of the securities of the corporation issuing cash or securities in the consolidation or merger (or of its ultimate parent corporation, if any);

(iii) there shall occur (A) any sale, lease, exchange or other transfer (in one transaction or a series of transactions contemplated or arranged by any party as a single plan) of all or substantially all of the assets of the Company, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least 50% of the combined voting power of the voting securities of which are owned by Persons in substantially the same proportion as their ownership of the Company immediately prior to such sale or (B) the approval by stockholders of the Company of any plan or proposal for the liquidation or dissolution of the Company; or

(iv) any corporation or other legal person, pursuant to a tender offer, exchange offer, purchase of stock (whether in a market transaction or otherwise) or other transaction or event acquires securities representing 40% or more of the combined voting power of the voting securities of the Company, or there is a report filed on Schedule 13D or Schedule 14D-1 (or any successor schedule, form or report), each as promulgated pursuant to the U.S. Securities Exchange Act, disclosing that any "person" (as such term is used in Section 13(d)(3) or Section 14(d)(2) of the Securities Exchange Act) has become the "beneficial owner" (as such term is used in Rule 13d-3 under the Securities Exchange Act) of securities representing 40% or more of the combined voting power of the voting securities of the Company.

Notwithstanding the foregoing, none of the foregoing event(s) shall constitute a Change in Control unless such event(s) constitutes a "change in the ownership or effective control" or a change "in the ownership of a substantial portion of the assets," in each case within the meaning of Section 409A(a)(2)(A)(v) of the Code and any regulations and other guidance in effect from time-to-time thereunder.

Upon the occurrence of a Change in Control as provided above, no subsequent event or condition shall constitute a Change in Control for purposes of this Agreement, with the result that there can be no more than one Change in Control hereunder.

“Code” shall mean the Internal Revenue Code of 1986, as amended.

“Company” shall mean, subject to Section 6.1(a), SeaChange International, Inc., a Delaware corporation.

“Covered Termination” shall mean if, within the two (2) year period immediately following a Change in Control, the Executive (i) is terminated by the Employer without Cause (other than on account of death or Disability), or (ii) terminates the Executive’s employment with the Employer for Good Reason. The Executive shall not be deemed to have been terminated for purposes of this Agreement merely because the Executive ceases to be employed by the Employer and becomes employed by a new employer involved in the Change in Control; provided that such new employer shall be bound by this Agreement as if it were the Employer hereunder with respect to the Executive. It is expressly understood that no Covered Termination shall be deemed to have occurred merely because, upon the occurrence of a Change in Control, the Executive ceases to be employed by the Employer and does not become employed by a successor to the Employer after the Change in Control if the successor makes an offer to employ the Executive on terms and conditions which, if imposed by the Employer, would not give the Executive a basis on which to terminate employment for Good Reason.

“Date of Termination” shall mean (i) if the Executive’s employment is terminated by the Company for Cause, the date of receipt of the Notice of Termination for Cause or any later date specified therein (which date shall be not more than thirty (30) days after giving such notice), as the case may be; (ii) if the Executive’s employment is terminated by the Executive for Good Reason, the 30th day following receipt by the Company of the Notice of Termination for Good Reason; (iii) if the Executive’s employment is terminated by the Company other than for Cause or Disability, the date on which the Company notifies the Executive of such termination, (iv) if the Executive’s employment is terminated by reason of death or Disability, the date of death of the Executive or the date on which it is determined that the Executive has a Disability, as the case may be, and (v) if the Executive’s employment is terminated by the Executive without Good Reason (and not due to Disability), the date of receipt of the Notice of Termination (which date shall be not more than thirty (30) days after giving such notice). Notwithstanding the foregoing, in no event shall the Date of Termination with respect to a Covered Termination occur until the Executive experiences a separation from service within the meaning of Section 409A of the Code, and the date on which such separation from service takes place shall be the Date of Termination.

“Disability” shall mean the occurrence after a Change in Control of the incapacity of the Executive due to physical or mental illness, whereby the Executive shall have been absent from the full-time performance of the Executive’s duties with the Employer for six (6) consecutive months or, in any one (1) year period, for an aggregate of six (6) months.

“Employer” shall mean the Company (if and for so long as the Executive is employed thereby) and each Subsidiary which may now or hereafter employ the Executive or, where the context so requires, the Company and such Subsidiaries collectively. A subsidiary which ceases to

be, directly or indirectly, through one or more intermediaries, controlling, controlled by or under common control with the Company prior to a Change in Control (other than in connection with and as an integral part of a series of transactions resulting in a Change in Control) shall, automatically and without any further action, cease to be (or be part of) the Employer for purposes hereof.

“Good Reason” shall mean, without the express written consent of the Executive, the occurrence after a Change in Control of any of the following circumstances:

- (i) the material reduction of the Executive’s title, authority, duties or responsibilities, or the assignment to the Executive of any duties inconsistent with Executive’s position, authority, duties or responsibilities from those in effect immediately prior to the Change in Control;
 - (ii) a requirement that the Executive report to anyone other than the Board and/or the chief executive officer of the acquiring entity and/or the chief business officer of the applicable business unit of the acquiring company;
 - (iii) a material reduction in the budget over which the Executive retains authority from that which exists as of immediately prior to the Change in Control;
 - (iv) a reduction in the Executive’s Base Salary as in effect immediately before the Change in Control;
 - (v) a material reduction in the Executive’s annual bonus opportunity or annual target long-term incentive compensation opportunity (whether payable in cash, shares of Stock or a combination thereof) as in effect on the Change in Control; provided, that for the avoidance of doubt, a material reduction of such annual target long-term incentive compensation opportunity shall not be deemed to occur if such opportunity becomes payable solely in cash;
 - (vi) the Company’s requiring the Executive to be based at any other geographic location more than 50 miles from the Executive’s domicile (currently Warsaw, Poland) immediately prior to the occurrence of a Change in Control, except for required travel on the Company’s business to an extent substantially consistent with Executive’s business travel obligations immediately prior to such Change in Control;
 - (vii) the failure of the Company to obtain a reasonable agreement from any successor to assume and agree to perform this Agreement, as contemplated in Section 6.1(a);
 - (viii) the failure of the Company to pay the Executive any amounts due hereunder; or
 - (ix) any material breach by the Company of this Agreement, including but not limited to a breach of the obligation under Section 2 of this Agreement.
-

For avoidance of doubt, whether there has been a reduction of an annual bonus opportunity or an annual target long-term incentive compensation opportunity under clause (v) above shall take into account, without limitation, any target, minimum and maximum amounts payable and the attainability and otherwise the reasonableness of any performance hurdles, goals and other measures, each considered relative to the corresponding element with respect to the Executive in the period prior to the Change in Control.

Notwithstanding anything to the contrary contained herein, the Executive's termination of employment will not be treated as for Good Reason as the result of the occurrence of any event specified in the foregoing clauses (i) through (ix) unless, within ninety (90) days following the occurrence of such event, the Executive provides written notice to the Company of the occurrence of such event, which notice sets forth the nature of the event and the Executive terminates employment on the 30th day following receipt by the Company of such notice.

"Notice of Termination" shall mean a notice given by the Employer or Executive, as applicable, which shall indicate the date of termination and the specific termination provision in this Agreement relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provisions so indicated.

"Person" shall have the meaning ascribed thereto by Section 3(a)(9) of the Securities Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof (except that such term shall not include (i) the Company or any of its Subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Subsidiaries, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, (iv) a corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportion as their ownership of stock of the Company, or (v) such Executive or any "group" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act) which includes the Executive).

"Securities Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.

"Stock" shall mean the common stock, \$.01 par value, of the Company.

"Subsidiary" shall mean any entity, directly or indirectly, through one or more intermediaries, controlled by the Company.

Section 2

CHANGE IN CONTROL SEVERANCE BENEFITS

2.1 Cash Severance. If a Covered Termination occurs, then, subject to the provisions of Section 2.3(b) and Section 4 below, the Company shall pay to the Executive an amount equal to the sum of: (a) one (1) times the Executive's Base Salary, (b) 150% of the Annual Bonus, plus (c) \$62,000.

2.2 Accelerated Vesting for Equity Awards. The vesting of the Executive's Equity Awards shall be governed by this Section 2.2. The term "Equity Award" shall mean stock options, stock

appreciation rights, restricted stock, restricted stock units, performance shares or any other form of award that is measured with reference to the Stock.

(a) If an Executive's Equity Award (other than a Performance-Vested Equity Award, as defined below) is continued, assumed or substituted and at any time on and after the Change in Control and the Executive suffers a Covered Termination, then the vesting and exercisability of all such unvested Equity Awards held by the Executive shall be accelerated in full and any reacquisition rights held by the Company with respect to any such Equity Award shall lapse in full, in each case, upon such termination. A "Performance-Vested Equity Award" means any Equity Award that provides for vesting upon achieving a goal based on business criteria (including but not limited to stock price) that applies to the Executive, a business unit, division, Subsidiary, affiliate, the Company or any combination of the foregoing. Any accelerated vesting of a Performance-Vested Equity Award in connection with a Change in Control shall be determined under the terms of the underlying award agreement and the plan under which the Executive received such award.

(b) For avoidance of doubt, no change shall be made to any Equity Award (including, without limitation, any substitution or assumption of an Equity Award) that adversely affects the Executive unless it is consented to in writing by the Executive or is permitted under the terms of the plan under which the Equity Award was granted by the Company to the Executive.

2.3 (a) The payments and benefits provided for in Section 2.1 and Section 2.2 shall (except as otherwise expressly provided therein or as provided in Section 2.3(b) or Section 2.4(b), or as otherwise expressly provided hereunder) be made on the business day coinciding with or next following the 10th day following the Date of Termination with respect to a Covered Termination (the "Payment Date").

Notwithstanding any other provision of this Agreement, if the Executive is a "specified employee" as defined in Section 409A of the Code, any payment under this Agreement that would constitute deferred compensation for purposes of Section 409A of the Code that is payable on account of the Executive's separation from service shall be made in accordance with Section 2.4(b) hereof.

(b) Notwithstanding any other provision of this Agreement to the contrary, no payment or benefit otherwise provided for under or by virtue of the foregoing provisions of this Agreement shall be paid or otherwise made available unless, on or before the Payment Date, the Executive has executed and not revoked a valid, binding and irrevocable general release of claims in favor of the Employer, in form and substance reasonably acceptable to the Employer. Failure by the Executive to timely deliver (and not revoke) a valid and binding release shall result in the forfeiture of all payments and benefits under this Agreement.

2.4 The Company and the Executive acknowledge and agree that the payments and benefits described in Section 2.1, Section 2.2 and Section 3.1 of this Agreement (the "Deferred Compensation") may constitute a "nonqualified deferred compensation plan" that is subject to Section 409A of the Code. The Company and the Executive intend to administer the Deferred Compensation in a manner that at all times is either exempt from or complies in form and operation with the applicable limitations and standards of Section 409A of the Code. Therefore,

notwithstanding anything else contained herein, the following limitations are expressly imposed with respect to the Deferred Compensation.

(a) The Executive's entitlement to receive or begin receiving payment of the Deferred Compensation is conditioned upon the Executive's separation from service. For this purpose, the Executive shall have separated from service if and only if his level of services to the Company and its affiliates decreases and is expected to remain at a level equal to twenty percent (20%) or less of the average level of services performed by the Executive during the immediately preceding 36-month period.

(b) If the Executive is a "specified employee" as defined in Section 409A of the Code with respect to the Company upon his separation from service, then any payment required hereunder, to the extent such payment would constitute deferred compensation for purposes of Section 409A of the Code that is payable on account of the Executive's separation from service, shall be deferred and shall not be paid to the Executive until the date that is the later of (1) the date such payment is due under the terms of this Agreement, or (2) 6 months and 1 day following the date of the Executive's separation from service.

(c) It is intended that each installment, if any of the payments and benefits constituting Deferred Compensation shall be treated as a separate "payment" for purposes of Section 409A of the Code. Neither the Company nor the Executive shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A of the Code.

Section 3

PARACHUTE TAX PROVISIONS

3.1 If all, or any portion, of the payments and benefits provided under this Agreement, if any, either alone or together with other payments and benefits which the Executive otherwise receives or is entitled to receive from the Company or its affiliates (collectively, the "Total Payments") would constitute an excess "parachute payment" within the meaning of Section 280G of the Code (whether or not under an existing plan, arrangement or other agreement) and would result in the imposition on the Executive of an excise tax under Section 4999 of the Code (the "Excise Tax"), then the Executive shall be paid or provided, as the case may be, the Total Payments unless the after-tax amount that would be retained by the Executive (after taking into account any and all applicable federal, state and local excise, income or other taxes payable by the Executive, including the Excise Tax) is less than the after-tax amount that would be retained by the Executive (after taking into account any and all applicable federal, state and local excise, income or other taxes payable by the Executive, other than the Excise Tax) if the Executive were instead to be paid or provided, as the case may be, the maximum amount of the Total Payments that the Executive could receive without being subject to the Excise Tax (the "Reduced Payments"), in which case the Executive shall be entitled only to the Reduced Payments. After-tax amounts under this Section 3.1 shall be calculated at the highest marginal individual income tax rate as set forth in the Code as in effect at the time of employment termination, subject to any adjustment that the 280G Firm (as defined in Section 3.2 below) deems appropriate to reflect the phase out of any deductions, exclusions or exemptions with respect to compensation payable to the Executive by the Company.

3.2 The amount or amounts (if any) payable under this Section 3 shall be determined, at the sole cost of the Company, by the 280G Firm, whose determination or determinations shall be final and binding on all parties. The “280G Firm” for purposes of this Section 3 shall be an accounting firm or law firm of national reputation that is selected for this purpose by the Company’s Chief Executive Officer prior to a Change in Control. In order to assess whether payments under this Agreement or otherwise qualify as reasonable compensation that is exempt from being a parachute payment under Section 280G of the Code, the 280G Firm may retain the services of an independent valuation expert. The Company will direct the 280G Firm to submit any determination it makes under Section 3 and provide detailed supporting calculations and any valuation report, if applicable, to both the Executive and the Company as soon as reasonably practicable.

3.3 If the 280G Firm determines that one or more reductions are required under Section 3, the 280G Firm shall also determine which of the Total Payments shall be reduced to the extent necessary so that no portion thereof shall be subject to the excise tax imposed by Section 4999 of the Code, and the Company shall pay only the Reduced Payments to the Executive. The 280G Firm shall make reductions required under Section 3 of this Agreement in a manner that maximizes the net after-tax amount payable to the Executive as follows: first, by reducing or eliminating the portion of the Total Payments that are payable in cash; second, by reducing or eliminating the portion of the Total Payments that are not payable in cash (other than Total Payments as to which Treasury Regulations Section 1.280G-1 Q/A 24(c) (or any successor provision thereto) applies (“Q&A-24(c) Payments”)); and, third, by reducing or eliminating Q/A-24(c) Payments. In the event that any Q&A-24(c) Payment or acceleration is to be reduced, such Q/A-24(c) Payment shall be reduced or cancelled in the reverse order of the date of grant of the awards.

3.4 As a result of the uncertainty in the application of Section 280G at the time that the 280G Firm makes its determinations under this Section 3, it is possible that amounts will have been paid or distributed to the Executive that should not have been paid or distributed (collectively, the “Overpayments”), or that additional amounts should be paid or distributed to the Executive (collectively, the “Underpayments”). If the 280G Firm determines, based on either the assertion of a deficiency by the Internal Revenue Service against the Company or the Executive which assertion the 280G Firm believes has a high probability of success or controlling precedent or substantial authority, that an Overpayment has been made, the Executive must repay the Overpayment to the Company, without interest. If the 280G Firm determines, based upon controlling precedent or substantial authority, that an Underpayment has occurred, the 280G Firm will notify the Executive and the Company of that determination and the amount of that Underpayment will be paid promptly by the Company to the Executive.

3.5 The Executive will provide the 280G Firm access to, and copies of, any books, records, and documents in the Executive’s possession as reasonably requested by the 280G Firm, and otherwise cooperate with the 280G Firm in connection with the preparation and issuance of the determinations and calculations contemplated by Section 3. Cooperation may include, among other things, being interviewed in order for the 280G Firm to assess whether any payments may be exempt from being parachute payments by virtue of qualifying as reasonable compensation for purposes of Section 280G of the Code.

Section 4

RESTRICTIVE COVENANTS

4.1 The Executive shall remain subject to the restrictive covenants set forth in the Employee Noncompetition, Nondisclosure and Developments Agreement (“Noncompete Agreement”) following a Change in Control or any termination of employment thereafter. The Executive acknowledges that the covenants contained in the Noncompete Agreement are reasonable and necessary to protect the legitimate interests of the Company and its affiliates, that the Company would not have entered into this Agreement in the absence of such restrictions under the Noncompete Agreement, and that any violation of any provision of the Noncompete Agreement will result in irreparable injury to the Company. The Executive further represents and acknowledges that: (i) the Executive has been advised by the Company to consult Executive’s own legal counsel in respect of this Agreement and the Noncompete Agreement, and (ii) the Executive has had full opportunity, prior to execution of this Agreement, to review thoroughly this Agreement and the Noncompete Agreement with Executive’s counsel.

Section 5

TERM OF AGREEMENT

5.1 The Agreement shall terminate on December 31, 2019, provided, however, that the term of this Agreement shall be automatically extended thereafter for successive four (4) year periods unless, at least ninety (90) days prior to the termination date of the then current succeeding four-year extended term of this Agreement, either party has notified the other party that the term hereunder shall expire at the end of the then-current term. Notwithstanding the foregoing, if a Change in Control occurs before the expiration of the term of this Agreement as described above, the term of this Agreement shall automatically be extended until the second anniversary of such Change in Control.

5.2 The obligations of the Company and the Executive under this Agreement which by their nature may require either partial or total performance after its expiration shall survive any such expiration.

5.3 This Agreement shall not affect any rights of the Company or the Executive prior to a Change in Control or any rights of the Executive granted in any other agreement, plan or arrangements. The rights, duties and benefits provided hereunder shall only become effective upon a Change in Control. If the employment of the Executive by the Company is terminated for any reason prior to a Change in Control, this Agreement shall thereafter be of no further force and effect.

Section 6

MISCELLANEOUS

6.1 (a) The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company expressly to assume and agree to perform under the terms of this Agreement in the same

manner and to the same extent that the Company and its affiliates would be required to perform it if no such succession had taken place (provided that such a requirement to perform which arises by operation of law shall be deemed to satisfy the requirements for such an express assumption and agreement), and in such event the Company (as constituted prior to such succession) shall have no further obligation under or with respect to this Agreement. Failure of the Company to obtain such assumption and agreement with respect to the Executive prior to the effectiveness of any such succession shall be a breach of the terms of this Agreement with respect to the Executive and shall entitle the Executive to compensation from the Employer (as constituted prior to such succession) in the same amount and on the same terms as the Executive would be entitled to hereunder were the Executive's employment terminated for Good Reason following a Change in Control, except that for purposes of implementing the foregoing, the date on which any such succession becomes effective shall be deemed the Date of Termination. As used in this Agreement, "Company" shall mean the Company as hereinbefore defined and any successor to its business or assets as aforesaid which assumes and agrees (or is otherwise required) to perform this Agreement. Nothing in this Section 6.1(a) shall be deemed to cause any event or condition which would otherwise constitute a Change in Control not to constitute a Change in Control.

(b) Notwithstanding Section 6.1(a), the Company shall remain liable to the Executive upon a Covered Termination after a Change in Control if the Executive is not offered continuing employment by a successor to the Employer on a basis which would not constitute a termination for Good Reason.

(c) This Agreement, and the Executive's and the Company's rights and obligations hereunder, may not be assigned by the Executive or, except as provided in Section 6.1(a), the Company, respectively; any purported assignment by the Executive or the Company in violation hereof shall be null and void.

(d) The terms of this Agreement shall inure to the benefit of and be enforceable by the personal or legal representatives, executors, administrators, permitted successors, heirs, distributees, devisees and legatees of the Executive. If the Executive shall die while an amount would still be payable to the Executive hereunder if they had continued to live, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to the Executive's devisee, legatee or other designee or, if there is no such designee, the Executive's estate.

6.2 The Executive shall not be required to mitigate damages or the amount of any payment or benefit provided for under this Agreement by seeking other employment or otherwise, nor will any payments or benefits hereunder be subject to offset in the event the Executive does mitigate.

6.3 The Employer shall pay all reasonable legal fees and expenses incurred in a legal proceeding, including any arbitration pursuant to Section 6.10 or otherwise, by the Executive in seeking to obtain or enforce any right or benefit provided by this Agreement. Such payments are to be made within twenty (20) days after the Executive's request for payment accompanied with such evidence of fees and expenses incurred as the Employer reasonably may require; provided that if the Executive institutes a proceeding and the judge or other decision-maker presiding over the proceeding affirmatively finds that the Executive has failed to prevail substantially, the

Executive shall pay Executive's own costs and expenses (and, if applicable, return any amounts theretofore paid on the Executive's behalf under this Section 6.3).

6.4 For the purposes of this Agreement, notice and all other communications provided for in this Agreement shall be in writing and shall be deemed to have been duly given when hand delivered or mailed by United States certified or registered express mail, return receipt requested, postage prepaid, if to the Executive, addressed to the Executive at his or her respective address on file with the Company; if to the Company, addressed to SeaChange International, Inc., 50 Nagog Park, Acton, MA 01720, and directed to the attention of its Chief Financial Officer; if to the Board, addressed to the Board of Directors, c/o 50 Nagog Park, Acton, MA 01720, and directed to the Company's Chief Financial Officer; or to such other address as any party may have furnished to the others in writing in accordance herewith, except that notice of change of address shall be effective only upon receipt.

6.5 Unless otherwise determined by the Employer in an applicable plan or arrangement, no amounts payable hereunder upon a Covered Termination shall be deemed salary or compensation for the purpose of computing benefits under any employee benefit plan or other arrangement of the Employer for the benefit of its employees.

6.6 Other than as set forth in a Performance-Vested Equity Award(s) to which the Executive is party with the Company, this Agreement is the exclusive arrangement with the Executive applicable to payments and benefits in connection with a change in control of the Company (whether or not a Change in Control), and supersedes any prior arrangements involving the Company or its predecessors or affiliates relating to any change in control (whether or not a Change in Control). This Agreement shall not limit any right of the Executive to receive any payments or benefits under an employee benefit or executive compensation plan of the Employer, initially adopted as of or after the date hereof, which are expressly contingent thereunder upon the occurrence of a change in control (including, but not limited to, the acceleration of any rights or benefits thereunder); provided that in no event shall the Executive be entitled to any payment or benefit under this Agreement which duplicates a payment or benefit received or receivable by the Executive under any severance or similar plan or policy of the Employer, and in any such case the Executive shall only be entitled to receive the greater of the two payments.

6.7 Any payments hereunder shall be made out of the general assets of the Employer. The Executive shall have the status of general unsecured creditor of the Employer.

6.8 Nothing in this Agreement shall confer on the Executive any right to continue in the employ of the Employer or interfere in any way (other than by virtue of requiring payments or benefits as may expressly be provided herein) with the right of the Employer to terminate the Executive's employment at any time.

6.9 The Employer shall be entitled to withhold from any payments or deemed payments any amount of tax withholding required by law.

6.10 The Executive may elect to have any controversy or claim arising out of or relating to this Agreement or the breach of this Agreement (other than with respect to an alleged breach of a restrictive covenant under Section 4 above) that is not resolved by the Employer submitted to

binding arbitration under the Federal Arbitration Act in Boston, Massachusetts, administered by the American Arbitration Association under its Employment Dispute Resolution Rules, subject to any additional terms and conditions as may be agreed to by the Executive and the Employer. The determination of the arbitrator(s) shall be conclusive and binding on the Employer and Executive and judgment may be entered on the arbitrator(s)' award in any court having jurisdiction. The arbitration provisions hereof shall, with respect to such controversy or dispute, survive the termination of this Agreement. This Section 6.10 shall be administered in accordance with the disputed payment provisions of Treasury Regulation Section 1.409A-3(g).

6.11 This Agreement may be amended, superseded, canceled, renewed or extended, and the terms hereof may be waived, only by a written instrument signed by the parties or, in the case of a waiver, by the party waiving compliance. No delay on the part of any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver on the part of any party of any such right, power or privilege nor any single or partial exercise of any such right, power or privilege, preclude any other or further exercise thereof or the exercise of any other such right, power or privilege.

6.12 The Executive agrees that he will be subject to any compensation clawback or recoupment policies that may be applicable to him as an executive officer of the Company, as in effect from time to time and as approved by the Board or a duly authorized committee thereof, whether or not approved before or after the effective date of this Agreement.

6.13 The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement which shall remain in full force and effect.

6.14 The use of captions in this Agreement is for convenience. The captions are not intended to and do not provide substantive rights.

6.15 THIS AGREEMENT SHALL BE CONSTRUED, ADMINISTERED AND ENFORCED ACCORDING TO THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW, EXCEPT TO THE EXTENT PREEMPTED BY FEDERAL LAW.

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IN WITNESS WHEREOF, the parties hereto have signed their names, effective as of the date first above written.

SEACHANGE INTERNATIONAL, INC.

By: /s/ Edward Terino
Name (Printed): Ed Terino
Title: CEO

EXECUTIVE:

/s/ Marek Kielczewski
Name (Printed): Marek Kielczewski

CHANGE IN CONTROL SEVERANCE AGREEMENT

THIS CHANGE IN CONTROL SEVERANCE AGREEMENT (this "Agreement") , dated as of January 1, 2019 , by and between SeaChange International, Inc., with its principal place of business at 50 Nagog Park, Acton, MA 01720 (the "Company"), and Yossi Aloni (the "Executive").

WHEREAS, the Executive is employed as the Company's Chief Commercial Officer;

WHEREAS, the Company considers it essential to the best interests of its stockholders to foster the continuous employment of key management personnel, and recognizes that, as is the case with many publicly held corporations, the possibility of a change in control may exist and that such possibility, and the uncertainty and questions which it may raise among management, may result in the distraction or departure of management personnel to the detriment of the Company and its stockholders; and

WHEREAS, the Board of Directors of the Company has determined that appropriate steps should be taken to reinforce and encourage the Executive's continued attention and dedication to the Executive's assigned duties without distraction in the face of potentially disturbing circumstances arising from the possibility of a change in control of the Company, although no such change is presently known to be contemplated.

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

Section 1

DEFINITIONS

Except as may otherwise be specified or as the context may otherwise require, the following terms shall have the respective meanings set forth below whenever used herein:

"Annual Bonus" shall mean the Executive's target annual bonus (excluding any annual target long-term incentive compensation opportunity) for the Company's fiscal year in which the Covered Termination occurs.

"Base Salary" shall mean the annual base rate of regular compensation of the Executive immediately before a Covered Termination, or if greater, the highest annual rate at any time during the 12-month period immediately preceding the Covered Termination.

"Board" shall mean the Board of Directors of the Company.

"Cause" shall mean (i) the Executive's engaging in willful and repeated gross negligence or gross misconduct, (ii) the Executive's breaching of a material fiduciary duty to the Employer , or (iii) the Executive's being convicted of a felony, in either case, to the demonstrable and material

injury to the Employer. For purposes hereof, no act, or failure to act, on the Executive's part, shall be deemed "willful" unless done, or omitted to be done, by the Executive not in good faith and without reasonable belief that any act or omission was in the best interest of the Employer.

"Change in Control" shall mean the first to occur, after the date hereof, of any of the following:

(i) the members of the Board at the beginning of any consecutive 12-calendar-month period (the "Incumbent Directors") cease for any reason other than due to death to constitute at least a majority of the members of the Board; provided that any director whose election, or nomination for election by the Company's stockholders, was approved by a vote of at least a majority of the members of the Board then still in office who were members of the Board at the beginning of such 12-calendar-month period, shall be deemed to be an Incumbent Director;

(ii) any consolidation or merger of the Company where the stockholders of the Company, immediately prior to the consolidation or merger, would not, immediately after the consolidation or merger, beneficially own (as such term is defined in Rule 13d-3 under the Securities Exchange Act), directly or indirectly, shares of Stock representing in the aggregate 50% or more of the combined voting power of the securities of the corporation issuing cash or securities in the consolidation or merger (or of its ultimate parent corporation, if any);

(iii) there shall occur (A) any sale, lease, exchange or other transfer (in one transaction or a series of transactions contemplated or arranged by any party as a single plan) of all or substantially all of the assets of the Company, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least 50% of the combined voting power of the voting securities of which are owned by Persons in substantially the same proportion as their ownership of the Company immediately prior to such sale or (B) the approval by stockholders of the Company of any plan or proposal for the liquidation or dissolution of the Company; or

(iv) any corporation or other legal person, pursuant to a tender offer, exchange offer, purchase of stock (whether in a market transaction or otherwise) or other transaction or event acquires securities representing 40% or more of the combined voting power of the voting securities of the Company, or there is a report filed on Schedule 13D or Schedule 14D-1 (or any successor schedule, form or report), each as promulgated pursuant to the U.S. Securities Exchange Act, disclosing that any "person" (as such term is used in Section 13(d)(3) or Section 14(d)(2) of the Securities Exchange Act) has become the "beneficial owner" (as such term is used in Rule 13d-3 under the Securities Exchange Act) of securities representing 40% or more of the combined voting power of the voting securities of the Company.

Notwithstanding the foregoing, none of the foregoing event(s) shall constitute a Change in Control unless such event(s) constitutes a "change in the ownership or effective control" or a change "in the ownership of a substantial portion of the assets," in each case within the meaning of Section 409A(a)(2)(A)(v) of the Code and any regulations and other guidance in effect from time-to-time thereunder.

Upon the occurrence of a Change in Control as provided above, no subsequent event or condition shall constitute a Change in Control for purposes of this Agreement, with the result that there can be no more than one Change in Control hereunder.

“Code” shall mean the Internal Revenue Code of 1986, as amended.

“Company” shall mean, subject to Section 6.1(a), SeaChange International, Inc., a Delaware corporation.

“Covered Termination” shall mean if, within the two (2) year period immediately following a Change in Control, the Executive (i) is terminated by the Employer without Cause (other than on account of death or Disability), or (ii) terminates the Executive’s employment with the Employer for Good Reason. The Executive shall not be deemed to have been terminated for purposes of this Agreement merely because the Executive ceases to be employed by the Employer and becomes employed by a new employer involved in the Change in Control; provided that such new employer shall be bound by this Agreement as if it were the Employer hereunder with respect to the Executive. It is expressly understood that no Covered Termination shall be deemed to have occurred merely because, upon the occurrence of a Change in Control, the Executive ceases to be employed by the Employer and does not become employed by a successor to the Employer after the Change in Control if the successor makes an offer to employ the Executive on terms and conditions which, if imposed by the Employer, would not give the Executive a basis on which to terminate employment for Good Reason.

“Date of Termination” shall mean (i) if the Executive’s employment is terminated by the Company for Cause, the date of receipt of the Notice of Termination for Cause or any later date specified therein (which date shall be not more than thirty (30) days after giving such notice), as the case may be; (ii) if the Executive’s employment is terminated by the Executive for Good Reason, the 30th day following receipt by the Company of the Notice of Termination for Good Reason; (iii) if the Executive’s employment is terminated by the Company other than for Cause or Disability, the date on which the Company notifies the Executive of such termination, (iv) if the Executive’s employment is terminated by reason of death or Disability, the date of death of the Executive or the date on which it is determined that the Executive has a Disability, as the case may be, and (v) if the Executive’s employment is terminated by the Executive without Good Reason (and not due to Disability), the date of receipt of the Notice of Termination (which date shall be not more than thirty (30) days after giving such notice). Notwithstanding the foregoing, in no event shall the Date of Termination with respect to a Covered Termination occur until the Executive experiences a separation from service within the meaning of Section 409A of the Code, and the date on which such separation from service takes place shall be the Date of Termination.

“Disability” shall mean the occurrence after a Change in Control of the incapacity of the Executive due to physical or mental illness, whereby the Executive shall have been absent from the full-time performance of the Executive’s duties with the Employer for six (6) consecutive months or, in any one (1) year period, for an aggregate of six (6) months.

“Employer” shall mean the Company (if and for so long as the Executive is employed thereby) and each Subsidiary which may now or hereafter employ the Executive or, where the context so requires, the Company and such Subsidiaries collectively. A subsidiary which ceases to

be, directly or indirectly, through one or more intermediaries, controlling, controlled by or under common control with the Company prior to a Change in Control (other than in connection with and as an integral part of a series of transactions resulting in a Change in Control) shall, automatically and without any further action, cease to be (or be part of) the Employer for purposes hereof.

“Good Reason” shall mean, without the express written consent of the Executive, the occurrence after a Change in Control of any of the following circumstances:

- (i) the material reduction of the Executive’s title, authority, duties or responsibilities, or the assignment to the Executive of any duties inconsistent with Executive’s position, authority, duties or responsibilities from those in effect immediately prior to the Change in Control;
 - (ii) a requirement that the Executive report to anyone other than the Board and/or the chief executive officer of the acquiring entity and/or the chief business officer of the applicable business unit of the acquiring company;
 - (iii) a material reduction in the budget over which the Executive retains authority from that which exists as of immediately prior to the Change in Control;
 - (iv) a reduction in the Executive’s Base Salary as in effect immediately before the Change in Control;
 - (v) a material reduction in the Executive’s annual bonus opportunity or annual target long-term incentive compensation opportunity (whether payable in cash, shares of Stock or a combination thereof) as in effect on the Change in Control; provided, that for the avoidance of doubt, a material reduction of such annual target long-term incentive compensation opportunity shall not be deemed to occur if such opportunity becomes payable solely in cash;
 - (vi) the Company’s requiring the Executive to be based at any other geographic location more than 50 miles from that location at which the Executive primarily performed Executive’s services immediately prior to the occurrence of a Change in Control, except for required travel on the Company’s business to an extent substantially consistent with Executive’s business travel obligations immediately prior to such Change in Control;
 - (vii) the failure of the Company to obtain a reasonable agreement from any successor to assume and agree to perform this Agreement, as contemplated in Section 6.1(a);
 - (viii) the failure of the Company to pay the Executive any amounts due hereunder; or
 - (ix) any material breach by the Company of this Agreement, including but not limited to a breach of the obligation under Section 2 of this Agreement.
-

For avoidance of doubt, whether there has been a reduction of an annual bonus opportunity or an annual target long-term incentive compensation opportunity under clause (v) above shall take into account, without limitation, any target, minimum and maximum amounts payable and the attainability and otherwise the reasonableness of any performance hurdles, goals and other measures, each considered relative to the corresponding element with respect to the Executive in the period prior to the Change in Control.

Notwithstanding anything to the contrary contained herein, the Executive's termination of employment will not be treated as for Good Reason as the result of the occurrence of any event specified in the foregoing clauses (i) through (ix) unless, within ninety (90) days following the occurrence of such event, the Executive provides written notice to the Company of the occurrence of such event, which notice sets forth the nature of the event and the Executive terminates employment on the 30th day following receipt by the Company of such notice.

"Notice of Termination" shall mean a notice given by the Employer or Executive, as applicable, which shall indicate the date of termination and the specific termination provision in this Agreement relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provisions so indicated.

"Person" shall have the meaning ascribed thereto by Section 3(a)(9) of the Securities Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof (except that such term shall not include (i) the Company or any of its Subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Subsidiaries, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, (iv) a corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportion as their ownership of stock of the Company, or (v) such Executive or any "group" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act) which includes the Executive).

"Securities Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.

"Stock" shall mean the common stock, \$.01 par value, of the Company.

"Subsidiary" shall mean any entity, directly or indirectly, through one or more intermediaries, controlled by the Company.

Section 2

CHANGE IN CONTROL SEVERANCE BENEFITS

2.1 Cash Severance. If a Covered Termination occurs, then, subject to the provisions of Section 2.3(b) and Section 4 below, the Company shall pay to the Executive an amount equal to the sum of: (a) one (1) times the Executive's Base Salary, (b) 150% of the Annual Bonus, plus (c) \$62,000.

2.2 Accelerated Vesting for Equity Awards. The vesting of the Executive's Equity Awards shall be governed by this Section 2.2. The term "Equity Award" shall mean stock options, stock

appreciation rights, restricted stock, restricted stock units, performance shares or any other form of award that is measured with reference to the Stock.

(a) If an Executive's Equity Award (other than a Performance-Vested Equity Award, as defined below) is continued, assumed or substituted and at any time on and after the Change in Control and the Executive suffers a Covered Termination, then the vesting and exercisability of all such unvested Equity Awards held by the Executive shall be accelerated in full and any reacquisition rights held by the Company with respect to any such Equity Award shall lapse in full, in each case, upon such termination. A "Performance-Vested Equity Award" means any Equity Award that provides for vesting upon achieving a goal based on business criteria (including but not limited to stock price) that applies to the Executive, a business unit, division, Subsidiary, affiliate, the Company or any combination of the foregoing. Any accelerated vesting of a Performance-Vested Equity Award in connection with a Change in Control shall be determined under the terms of the underlying award agreement and the plan under which the Executive received such award.

(b) For avoidance of doubt, no change shall be made to any Equity Award (including, without limitation, any substitution or assumption of an Equity Award) that adversely affects the Executive unless it is consented to in writing by the Executive or is permitted under the terms of the plan under which the Equity Award was granted by the Company to the Executive.

2.3 (a) The payments and benefits provided for in Section 2.1 and Section 2.2 shall (except as otherwise expressly provided therein or as provided in Section 2.3(b) or Section 2.4(b), or as otherwise expressly provided hereunder) be made on the business day coinciding with or next following the 10th day following the Date of Termination with respect to a Covered Termination (the "Payment Date").

Notwithstanding any other provision of this Agreement, if the Executive is a "specified employee" as defined in Section 409A of the Code, any payment under this Agreement that would constitute deferred compensation for purposes of Section 409A of the Code that is payable on account of the Executive's separation from service shall be made in accordance with Section 2.4(b) hereof.

(b) Notwithstanding any other provision of this Agreement to the contrary, no payment or benefit otherwise provided for under or by virtue of the foregoing provisions of this Agreement shall be paid or otherwise made available unless, on or before the Payment Date, the Executive has executed and not revoked a valid, binding and irrevocable general release of claims in favor of the Employer, in form and substance reasonably acceptable to the Employer. Failure by the Executive to timely deliver (and not revoke) a valid and binding release shall result in the forfeiture of all payments and benefits under this Agreement.

2.4 The Company and the Executive acknowledge and agree that the payments and benefits described in Section 2.1, Section 2.2 and Section 3.1 of this Agreement (the "Deferred Compensation") may constitute a "nonqualified deferred compensation plan" that is subject to Section 409A of the Code. The Company and the Executive intend to administer the Deferred Compensation in a manner that at all times is either exempt from or complies in form and operation with the applicable limitations and standards of Section 409A of the Code. Therefore,

notwithstanding anything else contained herein, the following limitations are expressly imposed with respect to the Deferred Compensation.

(a) The Executive's entitlement to receive or begin receiving payment of the Deferred Compensation is conditioned upon the Executive's separation from service. For this purpose, the Executive shall have separated from service if and only if his level of services to the Company and its affiliates decreases and is expected to remain at a level equal to twenty percent (20%) or less of the average level of services performed by the Executive during the immediately preceding 36-month period.

(b) If the Executive is a "specified employee" as defined in Section 409A of the Code with respect to the Company upon his separation from service, then any payment required hereunder, to the extent such payment would constitute deferred compensation for purposes of Section 409A of the Code that is payable on account of the Executive's separation from service, shall be deferred and shall not be paid to the Executive until the date that is the later of (1) the date such payment is due under the terms of this Agreement, or (2) 6 months and 1 day following the date of the Executive's separation from service.

(c) It is intended that each installment, if any of the payments and benefits constituting Deferred Compensation shall be treated as a separate "payment" for purposes of Section 409A of the Code. Neither the Company nor the Executive shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A of the Code.

Section 3

PARACHUTE TAX PROVISIONS

3.1 If all, or any portion, of the payments and benefits provided under this Agreement, if any, either alone or together with other payments and benefits which the Executive otherwise receives or is entitled to receive from the Company or its affiliates (collectively, the "Total Payments") would constitute an excess "parachute payment" within the meaning of Section 280G of the Code (whether or not under an existing plan, arrangement or other agreement) and would result in the imposition on the Executive of an excise tax under Section 4999 of the Code (the "Excise Tax"), then the Executive shall be paid or provided, as the case may be, the Total Payments unless the after-tax amount that would be retained by the Executive (after taking into account any and all applicable federal, state and local excise, income or other taxes payable by the Executive, including the Excise Tax) is less than the after-tax amount that would be retained by the Executive (after taking into account any and all applicable federal, state and local excise, income or other taxes payable by the Executive, other than the Excise Tax) if the Executive were instead to be paid or provided, as the case may be, the maximum amount of the Total Payments that the Executive could receive without being subject to the Excise Tax (the "Reduced Payments"), in which case the Executive shall be entitled only to the Reduced Payments. After-tax amounts under this Section 3.1 shall be calculated at the highest marginal individual income tax rate as set forth in the Code as in effect at the time of employment termination, subject to any adjustment that the 280G Firm (as defined in Section 3.2 below) deems appropriate to reflect the phase out of any deductions, exclusions or exemptions with respect to compensation payable to the Executive by the Company.

3.2 The amount or amounts (if any) payable under this Section 3 shall be determined, at the sole cost of the Company, by the 280G Firm, whose determination or determinations shall be final and binding on all parties. The “280G Firm” for purposes of this Section 3 shall be an accounting firm or law firm of national reputation that is selected for this purpose by the Company’s Chief Executive Officer prior to a Change in Control. In order to assess whether payments under this Agreement or otherwise qualify as reasonable compensation that is exempt from being a parachute payment under Section 280G of the Code, the 280G Firm may retain the services of an independent valuation expert. The Company will direct the 280G Firm to submit any determination it makes under Section 3 and provide detailed supporting calculations and any valuation report, if applicable, to both the Executive and the Company as soon as reasonably practicable.

3.3 If the 280G Firm determines that one or more reductions are required under Section 3, the 280G Firm shall also determine which of the Total Payments shall be reduced to the extent necessary so that no portion thereof shall be subject to the excise tax imposed by Section 4999 of the Code, and the Company shall pay only the Reduced Payments to the Executive. The 280G Firm shall make reductions required under Section 3 of this Agreement in a manner that maximizes the net after-tax amount payable to the Executive as follows: first, by reducing or eliminating the portion of the Total Payments that are payable in cash; second, by reducing or eliminating the portion of the Total Payments that are not payable in cash (other than Total Payments as to which Treasury Regulations Section 1.280G-1 Q/A 24(c) (or any successor provision thereto) applies (“Q&A-24(c) Payments”)); and, third, by reducing or eliminating Q/A-24(c) Payments. In the event that any Q&A-24(c) Payment or acceleration is to be reduced, such Q/A-24(c) Payment shall be reduced or cancelled in the reverse order of the date of grant of the awards.

3.4 As a result of the uncertainty in the application of Section 280G at the time that the 280G Firm makes its determinations under this Section 3, it is possible that amounts will have been paid or distributed to the Executive that should not have been paid or distributed (collectively, the “Overpayments”), or that additional amounts should be paid or distributed to the Executive (collectively, the “Underpayments”). If the 280G Firm determines, based on either the assertion of a deficiency by the Internal Revenue Service against the Company or the Executive which assertion the 280G Firm believes has a high probability of success or controlling precedent or substantial authority, that an Overpayment has been made, the Executive must repay the Overpayment to the Company, without interest. If the 280G Firm determines, based upon controlling precedent or substantial authority, that an Underpayment has occurred, the 280G Firm will notify the Executive and the Company of that determination and the amount of that Underpayment will be paid promptly by the Company to the Executive.

3.5 The Executive will provide the 280G Firm access to, and copies of, any books, records, and documents in the Executive’s possession as reasonably requested by the 280G Firm, and otherwise cooperate with the 280G Firm in connection with the preparation and issuance of the determinations and calculations contemplated by Section 3. Cooperation may include, among other things, being interviewed in order for the 280G Firm to assess whether any payments may be exempt from being parachute payments by virtue of qualifying as reasonable compensation for purposes of Section 280G of the Code.

Section 4

RESTRICTIVE COVENANTS

4.1 The Executive shall remain subject to the restrictive covenants set forth in the Employee Noncompetition, Nondisclosure and Developments Agreement (“Noncompete Agreement”) following a Change in Control or any termination of employment thereafter. The Executive acknowledges that the covenants contained in the Noncompete Agreement are reasonable and necessary to protect the legitimate interests of the Company and its affiliates, that the Company would not have entered into this Agreement in the absence of such restrictions under the Noncompete Agreement, and that any violation of any provision of the Noncompete Agreement will result in irreparable injury to the Company. The Executive further represents and acknowledges that: (i) the Executive has been advised by the Company to consult Executive’s own legal counsel in respect of this Agreement and the Noncompete Agreement, and (ii) the Executive has had full opportunity, prior to execution of this Agreement, to review thoroughly this Agreement and the Noncompete Agreement with Executive’s counsel.

Section 5

TERM OF AGREEMENT

5.1 The Agreement shall terminate on December 31, 2019, provided, however, that the term of this Agreement shall be automatically extended thereafter for successive four (4) year periods unless, at least ninety (90) days prior to the termination date of the then current succeeding four-year extended term of this Agreement, either party has notified the other party that the term hereunder shall expire at the end of the then-current term. Notwithstanding the foregoing, if a Change in Control occurs before the expiration of the term of this Agreement as described above, the term of this Agreement shall automatically be extended until the second anniversary of such Change in Control.

5.2 The obligations of the Company and the Executive under this Agreement which by their nature may require either partial or total performance after its expiration shall survive any such expiration.

5.3 This Agreement shall not affect any rights of the Company or the Executive prior to a Change in Control or any rights of the Executive granted in any other agreement, plan or arrangements. The rights, duties and benefits provided hereunder shall only become effective upon a Change in Control. If the employment of the Executive by the Company is terminated for any reason prior to a Change in Control, this Agreement shall thereafter be of no further force and effect.

Section 6

MISCELLANEOUS

6.1 (a) The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company expressly to assume and agree to perform under the terms of this Agreement in the same

manner and to the same extent that the Company and its affiliates would be required to perform it if no such succession had taken place (provided that such a requirement to perform which arises by operation of law shall be deemed to satisfy the requirements for such an express assumption and agreement), and in such event the Company (as constituted prior to such succession) shall have no further obligation under or with respect to this Agreement. Failure of the Company to obtain such assumption and agreement with respect to the Executive prior to the effectiveness of any such succession shall be a breach of the terms of this Agreement with respect to the Executive and shall entitle the Executive to compensation from the Employer (as constituted prior to such succession) in the same amount and on the same terms as the Executive would be entitled to hereunder were the Executive's employment terminated for Good Reason following a Change in Control, except that for purposes of implementing the foregoing, the date on which any such succession becomes effective shall be deemed the Date of Termination. As used in this Agreement, "Company" shall mean the Company as hereinbefore defined and any successor to its business or assets as aforesaid which assumes and agrees (or is otherwise required) to perform this Agreement. Nothing in this Section 6.1(a) shall be deemed to cause any event or condition which would otherwise constitute a Change in Control not to constitute a Change in Control.

(b) Notwithstanding Section 6.1(a), the Company shall remain liable to the Executive upon a Covered Termination after a Change in Control if the Executive is not offered continuing employment by a successor to the Employer on a basis which would not constitute a termination for Good Reason.

(c) This Agreement, and the Executive's and the Company's rights and obligations hereunder, may not be assigned by the Executive or, except as provided in Section 6.1(a), the Company, respectively; any purported assignment by the Executive or the Company in violation hereof shall be null and void.

(d) The terms of this Agreement shall inure to the benefit of and be enforceable by the personal or legal representatives, executors, administrators, permitted successors, heirs, distributees, devisees and legatees of the Executive. If the Executive shall die while an amount would still be payable to the Executive hereunder if they had continued to live, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to the Executive's devisee, legatee or other designee or, if there is no such designee, the Executive's estate.

6.2 The Executive shall not be required to mitigate damages or the amount of any payment or benefit provided for under this Agreement by seeking other employment or otherwise, nor will any payments or benefits hereunder be subject to offset in the event the Executive does mitigate.

6.3 The Employer shall pay all reasonable legal fees and expenses incurred in a legal proceeding, including any arbitration pursuant to Section 6.10 or otherwise, by the Executive in seeking to obtain or enforce any right or benefit provided by this Agreement. Such payments are to be made within twenty (20) days after the Executive's request for payment accompanied with such evidence of fees and expenses incurred as the Employer reasonably may require; provided that if the Executive institutes a proceeding and the judge or other decision-maker presiding over the proceeding affirmatively finds that the Executive has failed to prevail substantially, the

Executive shall pay Executive's own costs and expenses (and, if applicable, return any amounts theretofore paid on the Executive's behalf under this Section 6.3).

6.4 For the purposes of this Agreement, notice and all other communications provided for in this Agreement shall be in writing and shall be deemed to have been duly given when hand delivered or mailed by United States certified or registered express mail, return receipt requested, postage prepaid, if to the Executive, addressed to the Executive at his or her respective address on file with the Company; if to the Company, addressed to SeaChange International, Inc., 50 Nagog Park, Acton, MA 01720, and directed to the attention of its Chief Financial Officer; if to the Board, addressed to the Board of Directors, c/o 50 Nagog Park, Acton, MA 01720, and directed to the Company's Chief Financial Officer; or to such other address as any party may have furnished to the others in writing in accordance herewith, except that notice of change of address shall be effective only upon receipt.

6.5 Unless otherwise determined by the Employer in an applicable plan or arrangement, no amounts payable hereunder upon a Covered Termination shall be deemed salary or compensation for the purpose of computing benefits under any employee benefit plan or other arrangement of the Employer for the benefit of its employees.

6.6 Other than as set forth in a Performance-Vested Equity Award(s) to which the Executive is party with the Company, this Agreement is the exclusive arrangement with the Executive applicable to payments and benefits in connection with a change in control of the Company (whether or not a Change in Control), and supersedes any prior arrangements involving the Company or its predecessors or affiliates relating to any change in control (whether or not a Change in Control). This Agreement shall not limit any right of the Executive to receive any payments or benefits under an employee benefit or executive compensation plan of the Employer, initially adopted as of or after the date hereof, which are expressly contingent thereunder upon the occurrence of a change in control (including, but not limited to, the acceleration of any rights or benefits thereunder); provided that in no event shall the Executive be entitled to any payment or benefit under this Agreement which duplicates a payment or benefit received or receivable by the Executive under any severance or similar plan or policy of the Employer, and in any such case the Executive shall only be entitled to receive the greater of the two payments.

6.7 Any payments hereunder shall be made out of the general assets of the Employer. The Executive shall have the status of general unsecured creditor of the Employer.

6.8 Nothing in this Agreement shall confer on the Executive any right to continue in the employ of the Employer or interfere in any way (other than by virtue of requiring payments or benefits as may expressly be provided herein) with the right of the Employer to terminate the Executive's employment at any time.

6.9 The Employer shall be entitled to withhold from any payments or deemed payments any amount of tax withholding required by law.

6.10 The Executive may elect to have any controversy or claim arising out of or relating to this Agreement or the breach of this Agreement (other than with respect to an alleged breach of a restrictive covenant under Section 4 above) that is not resolved by the Employer submitted to

binding arbitration under the Federal Arbitration Act in Boston, Massachusetts, administered by the American Arbitration Association under its Employment Dispute Resolution Rules, subject to any additional terms and conditions as may be agreed to by the Executive and the Employer. The determination of the arbitrator(s) shall be conclusive and binding on the Employer and Executive and judgment may be entered on the arbitrator(s)' award in any court having jurisdiction. The arbitration provisions hereof shall, with respect to such controversy or dispute, survive the termination of this Agreement. This Section 6.10 shall be administered in accordance with the disputed payment provisions of Treasury Regulation Section 1.409A-3(g).

6.11 This Agreement may be amended, superseded, canceled, renewed or extended, and the terms hereof may be waived, only by a written instrument signed by the parties or, in the case of a waiver, by the party waiving compliance. No delay on the part of any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver on the part of any party of any such right, power or privilege nor any single or partial exercise of any such right, power or privilege, preclude any other or further exercise thereof or the exercise of any other such right, power or privilege.

6.12 The Executive agrees that he will be subject to any compensation clawback or recoupment policies that may be applicable to him as an executive officer of the Company, as in effect from time to time and as approved by the Board or a duly authorized committee thereof, whether or not approved before or after the effective date of this Agreement.

6.13 The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement which shall remain in full force and effect.

6.14 The use of captions in this Agreement is for convenience. The captions are not intended to and do not provide substantive rights.

6.15 THIS AGREEMENT SHALL BE CONSTRUED, ADMINISTERED AND ENFORCED ACCORDING TO THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW, EXCEPT TO THE EXTENT PREEMPTED BY FEDERAL LAW.

[The remainder of this page is left intentionally blank.]

IN WITNESS WHEREOF, the parties hereto have signed their names, effective as of the date first above written.

SEACHANGE INTERNATIONAL, INC.

By: /s/ Edward Terino
Name (Printed): Ed Terino
Title: CEO

EXECUTIVE:

Yosef Yossi Aloni /s/ Yossi
Name (Printed): Yossi Aloni

**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
S.E.A.C. Ireland Limited	Ireland
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
Xstream Asia Pte. Ltd.	Singapore
Xstream North America, Inc.	United States

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

/s/ GRANT THORNTON LLP

Boston, Massachusetts
April 12, 2019

CERTIFICATION

I, Mark J. Bonney, 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 12, 2019

By: /s/ MARK J. BONNEY
Mark J. Bonney
Executive Chair
(Principal Executive Officer)

CERTIFICATION

I, Peter R. Faubert, 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 12, 2019

By: /s/ PETER R. FAUBERT
Peter R. Faubert
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, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “*Report*”), I, Mark J. Bonney, 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/ MARK J. BONNEY

Mark J. Bonney
Executive Chair

Dated: April 12, 2019

**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, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “*Report*”), I, Peter R. Faubert, 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/ PETER R. FAUBERT

Peter R. Faubert
*Chief Financial Officer, Senior Vice President
and Treasurer*

Dated: April 12, 2019