

**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, 2018

or

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

Commission File Number: 0-21393

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post 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, 2017, 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 \$98,541,508. The number of shares of the registrant's Common Stock outstanding as of the close of business on April 12, 2018 was 35,614,396.

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 revenues, 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 products and services facilitate the aggregation, licensing, management and distribution of video and advertising content for cable television system operators, telecommunications companies, satellite operators and media companies. We sell our software products and services worldwide, primarily to television service providers including: cable television system operators, such as Liberty Global, plc. (“LGI”), Comcast Corporation (“Comcast”), 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 media companies such as Filmbank Media.

Our 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 revenues 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, such as mobile and OTT. Our core technologies provide a foundation for products and services that can be deployed in next generation video delivery systems capable of increased levels of subscriber activity across multiple devices.

On May 5, 2016, we acquired a 100% share of DCC Labs in exchange for an aggregate of \$2.7 million in newly issued shares of SeaChange 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. The acquisition of DCC Labs in fiscal 2017 enabled us to optimize the operations of our In-Home business, which developed home video gateway software including SeaChange’s Nucleus and NitroX products. In addition, the acquisition brought market-ready products, including an optimized television software stack for Europe’s Digital Video Broadcasting community, and an HTML5 framework for building additional user experience client applications across a variety of CPE devices, including Android TV STBs, tablets, mobile and computer devices. During fiscal 2018, the In-Home business became the center of engineering and expanded to include product development for backoffice, advertising and legacy products. The Poland operation became the prime engineering location and as of the end of fiscal 2018, was the largest location by number of engineers. In addition, the engineering efforts were combined and the teams were re-organized into a single global team in fiscal 2018, which spans a reduced number of locations globally compared to fiscal 2017. As part of the engineering transition, organizational improvements were implemented in order to focus on software quality, reliability and pre-integration, in order to de-risk deployments and improve go-to-market time for new solutions and existing upgrades. The global engineering team introduced DevOps practices with a customer-centric view of technology improvements across all products within the SeaChange solution. Along with operational improvements, engineering introduced changes to process and workflow which enabled more accurate effort estimations and velocity tracking. With the introduction of common agile project methodology across all teams and products, the efficiency of software engineering increased, which allowed more engineering resources to focus on innovation and development of industry leading features and enhancements to existing products as well as new product releases that expand the SeaChange technology franchise. At the same time, improved efficiency and better allocation of software developers enabled a more lean and targeted approach to supporting existing deployments and delivering upon support commitments for legacy products using a cost-optimized workforce.

In conjunction with the DCC Labs acquisition and an additional company-wide cost savings program established in the second half of fiscal 2017, SeaChange commenced a restructuring program (“Restructuring Program”), which has allowed us to achieve approximately \$38 million in annualized cost savings since its commencement. The Restructuring Program resulted in aggregate charges of \$9.2 million as of January 31, 2018 in severance and other restructuring costs. These charges include costs for workforce reductions, facility closings and other costs to complete the restructuring, such as legal and consulting fees. As of January 31, 2018, the Restructuring Program has been completed and has helped us improve operations and optimize our cost structure since its

inception. Any remaining costs related to the Restructuring Program will be expensed as incurred to severance and other restructuring costs in our consolidated statements of operations and comprehensive income (loss) in future quarters.

PRODUCTS AND SERVICES

Our business is focused on the following product areas: video platform (including content management), advertising and user experience. Our revenue sources consist of product revenue from these areas, as well as related services.

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. We offer our Adrenalin platform under two deployment options: through onsite software licenses and on a cloud-based offering through software-as-a-service (“SaaS”). With an onsite software license model, revenue is derived from perpetual software licenses, maintenance and support fees and professional services. In a SaaS offering, we license our product offerings and customers pay us on a monthly recurring basis based on the total number of subscribers deployed by the customer.

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.

End-to-End Integrated Platforms. Leveraging the experience gained through our SeaChange Rave™ offering, we continue to expand our offerings in the integrated platform service/solution market.

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

Nucleus. Nucleus ports to third-party set-top boxes, or other customer on-premises equipment hardware and system on a chip, and acts as a hub for all video distribution to any IP- connected device in the home, such as tablets, smart phones and game consoles. SeaChange capitalizes on open software and networking technologies to offer Nucleus, a fully customizable foundation for rich multiscreen services running on the chipset and hardware. Nucleus enables the service providers to select the chipset, hardware and set-top box vendor of their choice. Nucleus extends providers’ video services to a wide range of video consumer devices through its support for Digital Living Network Alliance networking protocols. This enhances the overall offering by providing the framework for the introduction of new applications. Further, Nucleus leverages the industry Reference Design Kit, a technology standard that enables the video service provider community to use open technologies to more rapidly introduce and support service innovations.

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 and Nucleus.

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 offer managed services with advantages,

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 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;
- 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; and
- We intend to expand our customer base in Asia Pacific and Latin America as well as market segments such as mobile, satellite, telecommunications and media companies.

RESEARCH AND DEVELOPMENT

We have focused and streamlined our research and development efforts in recent years. Our research and development costs were \$23.2 million in fiscal 2018, \$30.1 million in fiscal 2017 and \$33.7 million in fiscal 2016. 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 products. Our current research and development activities are focused on developing multiscreen television platforms, content management solutions, additional user experience applications, advertising solutions and integrating the solutions we currently offer. Our direct sales and marketing groups closely monitor changes in customer needs, changes in the marketplace and emerging industry standards to help us focus our research and development efforts to address our customers' needs, such as increasing average revenue per subscriber, lowering operating and capital costs and reducing customer churn. Our significant research and development efforts are performed at our Acton, Massachusetts headquarters, in Warsaw, Poland and in Eindhoven, Netherlands.

During fiscal 2018, we continued the focus of our research and development efforts on the next generation software platforms, which are vital to our customers' success. We achieved this by further increasing our investment in our software products for multiscreen video platforms. As of January 31, 2018, we had a research and development staff of 104 full-time employees and 67 contract employees.

SELLING AND MARKETING

Our sales cycle tends to be long, in some instances 12-24 months, and purchase orders can be more than one million dollars. It is sometimes difficult to predict in what quarter or fiscal year our sales will occur. Considering the complexity of our video products, we primarily utilize a direct sales process. We sell and market our products worldwide through a combination of a direct sales organization and sales representatives and partners. Working closely with customers to understand and define their needs enables us to obtain better information regarding market requirements, enhance our expertise in our customers' industries, and more effectively and precisely convey to customers how our solutions address their specific 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. In fiscal 2018 and 2017, to increase software sales in North America and EMEA, we increased our sales efforts in those regions. We also increased our sales efforts in other geographic areas such as Asia Pacific and Latin America. As of January 31, 2018, we had a selling and marketing staff of 41 employees.

MANUFACTURING AND QUALITY CONTROL

Our manufacturing operation consists primarily of component and subassembly procurement, systems integration and final assembly, testing and quality control of the complete systems. As of January 31, 2018 we had a manufacturing staff of 4 employees, reflecting our transition to being a company that primarily provides software solutions.

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 service provider customers. A significant portion of our revenues in any given fiscal period have been derived from substantial orders placed by these large organizations. For the fiscal year ended January 31, 2018, LGI was the only customer that accounted for more than 10% of our total revenues.

We expect that we will continue to be dependent upon a limited number of customers for a significant portion of our revenues 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.

We do not believe that our backlog at any time is meaningful as an indicator of our future level of revenue for any specific future period. Because of the requirements of some customers, orders may require substantive acceptance criteria prior to revenue being recognized, resulting in the related revenues not being recognized in the ensuing quarter. Therefore, there is no direct correlation between the backlog at the end of any quarter and our total revenue for the following quarter or other periods. If our sales growth increases or we experience business model changes, our backlog may become a meaningful indicator of revenue in the future.

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 Cisco Systems, Inc., Arris Group Inc., TiVo Corporation and Ericsson Inc., as well as in-house solutions built by the service provider. Increasingly, we are also seeing competition from integrated end-to-end solutions such as Comcast's X-1 platform 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 have currently been granted 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 in the future, not all these patent applications will be issued or that, if issued, 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

The table below represents the number of full-time employees that we employ in different geographic areas across the world for the periods shown. We also use part-time and many other temporary employees 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.

<u>Country</u>	<u>January 31,</u>		
	<u>2018</u>	<u>2017</u>	<u>2016</u>
United States	150	199	307
Philippines	—	132	171
Netherlands	49	83	116
Poland	57	31	—
Other international	30	51	66
Total employees by country	<u>286</u>	<u>496</u>	<u>660</u>

During fiscal 2017, we implemented costs-savings efforts related to the TLL, LLC ("Timeline Labs") business and the DCC Labs acquisition. We implemented an additional company-wide cost savings program beginning in the third quarter of fiscal 2017, which included a worldwide reduction in workforce, to help improve operations and optimize our cost structure with the goal of restoring SeaChange to profitability and positive cash flow. In total, these actions affected more than 180 employees in fiscal 2018 and approximately 170 employees in fiscal 2017. Reductions in workforce relating to this latest cost-savings efforts are completed.

ACQUISITIONS AND LOSS ON IMPAIRMENT OF TLL, LLC

DCC Labs

On May 5, 2016, we acquired a 100% share of DCC Labs in exchange for an aggregate of \$2.7 million in newly issued shares of SeaChange common stock and \$5.2 million in cash, net of cash acquired, resulting in a total net purchase price of \$7.9 million. The acquisition of DCC Labs enables us to optimize the operations of our In-Home business, which develops home video gateway software including SeaChange's Nucleus and NitroX products. In addition, the acquisition brings market-ready products, including an optimized television software stack for Europe's Digital Video Broadcasting community and an HTML5 framework for building additional user experience client applications across a variety of CPE devices, including Android TV STBs, tablets, mobile and computer devices.

We accounted for the acquisition of DCC Labs as a business combination, which requires us to record the assets acquired and liabilities assumed at fair value. The amount by which the purchase price exceeds the fair value of the net assets acquired was recorded as goodwill. We engaged an independent appraiser to assist management in assessing the fair values of the tangible and intangible assets acquired and liabilities assumed and the amount of goodwill to be recognized as of the acquisition date. Assets acquired in the acquisition include receivables, prepaid expenses and property and equipment while liabilities assumed include accounts payable, other accrued expenses, deferred taxes and income taxes payable. The amounts recorded for these assets and liabilities are final based on information obtained about the facts and circumstances that existed as of the acquisition date.

Loss on Impairment of TLL, LLC

In January 2016, our Board of Directors authorized a restructuring plan to wind down the Timeline Labs operations, as previously reported in a Current Report on Form 8-K filed with the SEC on February 17, 2016. Based on the decision to enter into the restructuring plan and the plan's impact on the projected future cash flows of the Timeline Labs operations, we determined that the

carrying amount of all long-term assets that resulted from the February 2015 acquisition had exceeded their fair value as of January 31, 2016. As a result, these long-term assets were deemed fully impaired and we recorded the \$21.9 million net book value of these long-term assets as a component of loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2016. Additionally, we reduced the contingent consideration liability associated with the Timeline Labs acquisition to zero, as we determined that the defined performance criteria would not be achieved, and credited the reversal of the liability of \$0.4 million to loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2016. In addition, we incurred \$0.7 million in severance and other restructuring charges during fiscal 2017 related to cost-saving actions taken with respect to the Timeline Labs business.

EXECUTIVE OFFICERS

The following is a list of our executive officers, their ages as of April 12, 2018 and their positions held with us:

Name	Age	Title
Edward Terino	64	Chief Executive Officer and Director
Jonathan Rider	54	Chief Operating Officer, Senior Vice President
Peter Faubert	47	Chief Financial Officer, Senior Vice President, Finance and Administration and Treasurer
David McEvoy	60	Senior Vice President and General Counsel and Secretary

Mr. Terino became SeaChange’s Chief Executive Officer (“CEO”) effective April 6, 2016 having previously served as Chief Operating Officer (“COO”) since June 2015. He has served on the Company’s board of directors since 2010. Mr. Terino’s professional experience spans 30 years in senior management and operational roles for public companies including service as Senior Vice President (“SVP”) and Chief Financial Officer (“CFO”) of Art Technology Group, Inc. from September 2001 to June 2005, CEO and CFO of Arlington Tankers Ltd. from July 2005 to December 2008, and Vice President (“VP”) of Finance and Operations at Houghton Mifflin Harcourt from 1985 to 1996. He has served on the board of directors for software and technology companies including Extreme Networks, Inc. from October 2012 to November 2013, S1 Corporation from April 2007 to February 2012, Phoenix Technologies Ltd. from November 2009 to November 2010, and EBT International, Inc. from October 1999 to March 2006. He also served on the board of directors of Baltic Shipping Ltd. from March 2010 to July 2015.

Mr. Rider joined the Company on April 19, 2016 as Chief Information Officer (“CIO”). He became COO and Senior Vice President on January 31, 2017. He brings over 30 years of senior management experience in the high technology sector. Prior to joining SeaChange, Mr. Rider was CIO of Dynatrace from August 2014 to February 2016; Senior Vice President, Technology and Engineering of Arcadia Solutions from September 2013 to August 2014; and Principal and CIO of JetStream Consulting LLC from June 2006 to January 2014. Mr. Rider held various senior positions with PTC, Gilbane Building Company, Monster Worldwide, Netscout Systems and Helidesigns. Mr. Rider served as a U.S. Army Officer and helicopter instructor. He has a bachelor of science degree in aeronautics, engineering/aviation and a master’s degree in e-business from the University of Phoenix.

Mr. Faubert joined the Company on July 7, 2016 as CFO, SVP and Treasurer. 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. McEvoy joined the Company on July 1, 2012 as VP and General Counsel. He became SVP and General Counsel on February 1, 2013. 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.

GEOGRAPHIC INFORMATION

Geographic information is included in Part II, Item 7 of this Form 10-K under the heading “*Management’s Discussion and Analysis of Financial Condition and Results of Operations-Results of Operations*” and in Note 11, “*Segment Information, Significant Customers and Geographic Information,*” to the consolidated financial statements located in Part II, Item 8, of this Form 10-K.

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 obtained by visiting the Public Reference Room of the SEC at 100 F Street, N.E., Washington, DC 20549 or by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an internet site (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file electronically.

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.schange.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 web site 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 revenues, 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 revenues 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 revenues. 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 such as Comcast's X-1 platform 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 revenues 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 revenues 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 Verizon Communications Inc. announced that it is selling assets to Frontier Communications Corporation. 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 derive a substantial portion of our revenues from purchase orders that exceed one million dollars in value. Therefore, any 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 revenues, 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.

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 revenues 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 revenues 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 such as Comcast's X-1 platform 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 revenues and harm our competitive position.

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

Our revenues are 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 our 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 revenues 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 in the second half of fiscal 2017 with a reduction in workforce. 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 65% 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 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.

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. 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, such as the Timeline Labs acquisition on February 2, 2015, for which we subsequently impaired substantially all acquired assets and certain liabilities as of January 2016;
- 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. 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, which was the basis for the impairment charge of \$21.5 million taken in January 2016 related to the assets acquired in the February 2015 Timeline Labs acquisition; 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;
- 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 cash equivalents 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.

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.

If our indefinite-lived or other intangible 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 intangible assets is determined, such as the \$23.5 million impairment charge we recorded in fiscal 2017 to our consolidated statements of operations and comprehensive income (loss) as a result of our annual testing of our goodwill.

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 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 television 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.

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 the Company's 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 recorded a \$14.7 million deferred tax benefit in connection to the reduction of the previously recorded deferred tax liability.

We may need to adjust estimates resulting from the U.S. Tax Cuts and Jobs Act of 2017.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act ("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%, the elimination or reduction of certain domestic deductions and credits and limitations on the deductibility of interest expense and executive compensation. The Tax Reform Act also transitions international taxation from a worldwide system to a modified territorial system and includes base erosion prevention measures on non-U.S. earnings, which has the effect of subjecting certain earnings of our foreign subsidiaries to U.S. taxation as global intangible low-taxed income ("GILTI"). These changes were effective January 1, 2018.

The Tax Reform Act also includes a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings ("Transition Tax"). The Transition Tax may be paid over an eight-year period and will not accrue interest.

We have made a preliminary estimate of the Transition Tax and the re-measurement of our deferred tax assets and liabilities as of January 31, 2018. See Part II, Item 8, Note 12, "Income Taxes," of this Form 10-K for additional information. The preliminary estimate is subject to change as we finalize our analysis and as interpretations of the provisions of the Tax Reform Act continue to develop. The final determination of the Transition Tax and the re-measurement of our deferred tax assets and liabilities will be completed as additional information becomes available, but no later than one year from the enactment of the Tax Reform Act. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the Tax Reform Act may require further adjustments and changes in our estimates, which could have a material adverse effect on our business, results of operations or financial conditions.

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.

Interruptions or delays in service from our third-party data center hosting facilities could impair the delivery of our service and harm our business.

For our customers buying our SaaS product offering, we use third-party data center hosting facilities located in the United States and the United Kingdom. Any damage to, or failure of, our systems generally could result in interruptions in our service. 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.

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.

Our stock price may be volatile and an investment in our stock may decline.

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. The stock market in general, and The NASDAQ Global Select Market ("NASDAQ") and technology companies have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of such companies. These broad market and industry factors may materially adversely affect the market price of our common stock, regardless of our actual operating performance. In these circumstances, investors may be unable to sell their shares of our common stock at or above their purchase price over the short-term, or at all. 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.

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. 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 net income (loss) and U.S. GAAP earnings (loss) per share for certain non-cash, non-operating or non-recurring items and are described in detail in each such quarterly earnings press release. We believe that this presentation may be more 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 May 2014, the Financial Accounting Standards Board (“FASB”) issued new accounting guidance for revenue recognition which we have elected to adopt on February 1, 2018 using the modified retrospective method of adoption. The Company has substantially completed the implementation of this guidance and has identified the necessary changes to its policies, processes, systems, and controls. Based upon the work performed to date, the Company expects to record a cumulative-effect adjustment as of February 1, 2018 to increase retained earnings by an estimated range of approximately \$1.7 million to \$4.0 million. Such adjustment includes an increase in retained earnings of approximately \$1 million to \$3 million due to higher revenue that would have been recognized under the new guidance if it had been adopted for the fiscal year ended January 31, 2018 and an increase in retained earnings of \$0.7 million to \$1.0 million due to reduced commission expense that would have been recognized under ASC 606 if the standard had been adopted for the fiscal year ended January 31, 2018. The resulting tax effect of this cumulative-effect adjustment is not expected to be significant to retained earnings. We expect to fully disclose the impacts of the new standard in connection with our Form 10-Q for the first quarter of fiscal 2019.

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 the Company’s internal controls over financial reporting based on their audit. As disclosed in this Form 10-K, we have remediated the material weaknesses in the design of certain of our internal controls reported in our Form 10-K for the fiscal year ended January 31, 2017, previously filed with the SEC on April 17, 2017. In future periods, we may identify additional deficiencies in our system of internal controls over financial reporting that may require remediation. The existence and identification of any such material weaknesses may have an adverse effect on our business.

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 revenues 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 revenues 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, such as occurred in fiscal 2016 when we recorded a \$9.2 million provision for loss contract as a result of delays of customer acceptance relating to a fixed-price customer contract on a multi-year arrangement which included multiple vendors. Between fiscal 2017 and fiscal 2018, we recorded a \$4.7 million reduction in that provision after amending our contract with the fixed-price customer, thus eliminating the second phase of the project and calculating a better estimate of the remaining costs to complete the project. 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 revenues. 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 revenues 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.

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.

As a Delaware corporation, we are subject to certain Delaware anti-takeover provisions.

As a Delaware corporation, we are subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation Law, which may, unless certain criteria are met, prohibit large stockholders, those owning 15% or more of the voting rights of our common stock, from merging or combining with us for a practical period of time. Any provision of our certificate of incorporation or bylaws or Delaware law that has the effect of delaying or deterring a change in control of SeaChange could limit the opportunity of our stockholders to receive a premium for their shares of SeaChange common stock and could affect the price that some investors are willing to pay for our common stock.

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	Engineering, Sales and Customer Services	20,553
Warsaw, Poland	Engineering and Customer Services	14,242
Manila, Philippines (2)	Vacant	14,175

- (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. We assessed whether the Corporate Headquarters would qualify as an asset held for sale and determined that it did not since it didn’t meet all six of the criteria of an asset held for sale under current accounting guidance.
- (2) The “cease-use” date of our facility in the Philippines was November 30, 2017. The facility is currently vacant. However, as of January 31, 2018, we were still under contract with the lessor until September 30, 2019. In February 2018, we negotiated with the lessor to terminate the lease on March 31, 2018 in exchange for a termination fee equal to six month’s rent which obligation was accrued in January 2018 to severance and other restructuring costs in our consolidated statement of operations and comprehensive income (loss).

In addition, we lease or sublease offices in Santa Monica and San Francisco, California, Ireland and Turkey. We believe that existing facilities are adequate to meet our foreseeable requirements.

In fiscal 2018, we incurred restructuring charges of \$0.7 million to exit our facility in the Philippines as part of our cost reduction initiative implemented in the second half of fiscal 2017.

In fiscal 2017, we incurred restructuring charges of \$0.4 million to exit our facilities in California and Oregon as part of our cost savings actions related to the impairment of the Timeline Labs business and to the acquisition of DCC Labs. Currently, we are subleasing the facilities in Santa Monica and San Francisco, California until the end of their respective lease terms in fiscal 2019.

ITEM 3. LEGAL PROCEEDINGS

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.

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

Market for Registrant's Common Equity

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

The following table sets forth the quarterly high and low closing sales prices per share reported on NASDAQ for our last two fiscal years ended January 31, 2018 and 2017:

	Fiscal Year 2018		Fiscal Year 2017	
	High	Low	High	Low
Three Month Period Ended:				
First Quarter	\$ 2.57	\$ 2.25	\$ 6.25	\$ 3.73
Second Quarter	2.93	2.36	3.77	3.19
Third Quarter	2.89	2.51	3.32	2.62
Fourth Quarter	3.99	2.53	2.80	2.30

On April 12, 2018, there were 129 holders of record.

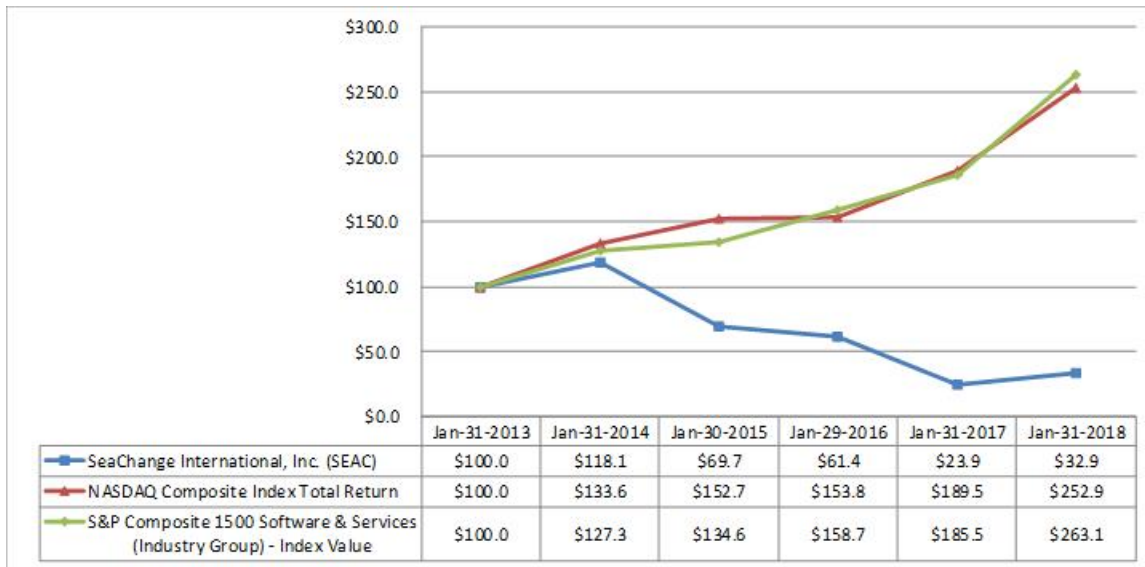
We have never declared or paid any cash dividends on our common stock, since inception, and do not expect to pay cash dividends on our common stock in the foreseeable future. We currently intend to retain all our future earnings for use in operations and to finance the expansion of our business.

Issuer Purchases of Equity Securities

Stock Performance Graph

The following graph compares the change in the cumulative total stockholder return on SeaChange's common stock during the period from the close of trading on January 31, 2013 through January 31, 2018, with the cumulative total return on the Center for Research in Securities Prices ("CRSP") Index for NASDAQ (U.S. Companies) and a Standard Industrial Classification ("SIC") Code Index based on SeaChange's SIC Code. The comparison assumes \$100 was invested on January 31, 2013 in SeaChange's common stock at the \$11.15 closing price on January 31, 2013 and in each of the foregoing indices and assumes reinvestment of dividends, if any.

The following graph is not “soliciting material,” is not deemed filed with the SEC and is not to be incorporated by reference in any filing of SeaChange under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. The stock price performance shown on the following graph is not necessarily indicative of future price performance. Information used on the graph was obtained from a third-party provider, a source believed to be reliable, but SeaChange is not responsible for any errors or omissions in such information.



Notes:

- (1) The lines represent monthly index levels derived from compounded daily returns that include all dividends.
- (2) If the monthly interval, based on the fiscal year end, is not a trading day, the preceding trading day is used.
- (3) The index level for all series was set to 100 on January 31, 2013.

ITEM 6. SELECTED FINANCIAL DATA

Our selected financial data below should be read in conjunction with our audited, consolidated financial statements and related notes contained in Part II, Item 8, "Financial Statements and Supplementary Data," of this Form 10-K. For all periods presented, these selected financial data have been adjusted to reflect the businesses divested as discontinued operations.

CONSOLIDATED STATEMENTS OF OPERATIONS DATA

	For the Fiscal Years Ended January 31,				
	2018	2017	2016	2015	2014
	(Amounts in thousands, except per share data)				
Product revenue	\$ 28,791	\$ 18,205	\$ 21,896	\$ 31,507	\$ 54,749
Service revenue	51,476	65,590	85,096	83,928	91,570
Total revenues	80,267	83,795	106,992	115,435	146,319
Total operating costs and expenses	(85,677)	(137,941)	(155,191)	(141,888)	(147,948)
Other income (expenses), net	4,081	(1,972)	(523)	(2,161)	(224)
Gain (loss) on investment in affiliates	2,555	(500)	(31)	—	(363)
Income (loss) from continuing operations before income taxes and equity income in earnings of affiliates	1,226	(56,618)	(48,753)	(28,614)	(2,216)
Income tax (benefit) provision	(12,272)	14,631	(1,029)	(1,106)	55
Equity income in earnings of affiliates, net of tax	—	—	27	19	44
Income (loss) from continuing operations	13,498	(71,249)	(47,697)	(27,489)	(2,227)
Income (loss) from discontinued operations, net	—	—	—	5	(803)
Net income (loss)	\$ 13,498	\$ (71,249)	\$ (47,697)	\$ (27,484)	\$ (3,030)
Income (loss) per share:					
Basic	\$ 0.38	\$ (2.04)	\$ (1.42)	\$ (0.84)	\$ (0.09)
Diluted	\$ 0.38	\$ (2.04)	\$ (1.42)	\$ (0.84)	\$ (0.09)
Income (loss) per share from continuing operations:					
Basic	\$ 0.38	\$ (2.04)	\$ (1.42)	\$ (0.84)	\$ (0.07)
Diluted	\$ 0.38	\$ (2.04)	\$ (1.42)	\$ (0.84)	\$ (0.07)
Income (loss) per share from discontinued operations:					
Basic	\$ —	\$ —	\$ —	\$ 0.00	\$ (0.02)
Diluted	\$ —	\$ —	\$ —	\$ 0.00	\$ (0.02)

CONSOLIDATED BALANCE SHEET DATA

	As of January 31,				
	2018	2017	2016	2015	2014
	(Amounts in thousands)				
Working capital	\$ 48,105	\$ 41,942	\$ 59,887	\$ 101,014	\$ 125,875
Total assets	119,330	116,067	177,669	212,351	254,113
Deferred revenue	14,433	14,936	17,410	19,088	25,628
Long-term liabilities	4,202	19,108	3,699	6,266	6,670
Total liabilities	33,610	46,531	46,651	41,300	49,672
Total stockholders' equity	85,720	69,536	131,018	171,051	204,441

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

We are an industry leader in the delivery of multiscreen, advertising and premium over-the-top ("OTT") video management solutions headquartered in Acton, Massachusetts. Our products and services facilitate the aggregation, licensing, management and distribution of video and advertising content for cable television system operators, telecommunications companies, satellite operators and media companies. We currently operate under one reporting segment.

We address what we see as the continuing rise of Internet Protocol television ("IPTV") and OTT services by such companies as Netflix, Hulu, Amazon, mlbam, Kaltura, Ooyala and Brightcove and by media companies such as HBO, CBS and BBC. This rise of IPTV and OTT video services globally has increased the demand for multiscreen capabilities on a range of consumer devices operating on cloud-based platforms. We have been increasing our strategic investments in research and development related to our cloud-based offerings, as well as in sales and marketing as we focus on our go-to-market efforts in these areas.

We continue to invest in developing next generation capabilities in our four main product offerings: video back office, advertising, content management and user experience. Our suite of products allows us to provide customers with end-to-end video delivery capabilities across multiple platforms, thus reducing cost and increasing speed and ease of use for end users. We believe that by delivering innovative solutions to both our existing customer base and to content owners that are looking to provide end-to-end solutions, we can meet their growing needs and help them get to market faster, which will help them drive new revenue growth. We have virtualized our solutions and products to make integrating with existing networks simple and this ease-of-use is a core competency of our platform. We have optimized our software solutions to serve a wide range of consumer devices.

We expect to increase software sales in North America and Europe, the Middle East and Africa ("EMEA") through targeted sales efforts in those regions. In addition, we believe that we have the opportunity for revenue growth by expanding our selling efforts in Asia Pacific and Latin America. We also believe that our existing service operator customers will continue upgrading to new features that can increase average revenue per subscriber, reduce operating and capital expenses, and lower customer churn.

We continue to experience fluctuations in our revenues from period to period due to the following factors:

- Changes to estimated times to complete long-term projects;
- The time required to deliver and install the product and for the customer to accept the product and services;
- Timing of customers in selecting programs to launch our services to their end users;
- The ability of our customers to process the purchase order within their organizations in a timely manner;
- The transition from perpetual license to subscription, cloud-based revenue and the associated deviation from our traditional professional services model;
- Budgetary approvals by our customers for capital purchases;
- Uncertainty caused by potential consolidation in the industry; and
- Changes in foreign exchange rates.

These, together with other factors, could result in reductions in sales of our products, longer sales cycles, difficulties in collection of accounts receivable, a longer period of time before we may recognize revenue attributable to a sale, changes in cost estimates on long-term contracts which could result in a loss provision, gross margin deterioration, slower adoption of new technologies, the transition to SaaS, and increased price competition.

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 the Company’s 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 remeasured the deferred tax liability in connection with 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. This change was not related to the Tax Cuts and Jobs Act of 2017 (the “Tax Reform Act”) enacted on December 22, 2017.

On May 5, 2016, we acquired a 100% share of DCC Labs in exchange for an aggregate of \$2.7 million in newly issued shares of SeaChange common stock and \$5.2 million in cash, net of cash acquired, resulting in a total net purchase price of \$7.9 million. The stock consideration was determined by dividing the total value of \$2.7 million by the volume weighted average closing price of our common stock for the twenty trading days preceding the closing. DCC Labs is a developer of set-top and multiscreen device software. Of the total consideration, \$0.5 million in cash and all the stock (681,278 shares) were initially held in escrow as security for the indemnification obligations of the former DCC Labs owners to SeaChange under the purchase agreement, with one-third of the stock in escrow to be released to the former DCC Labs owners annually on the anniversary date of the acquisition beginning on May 5, 2017 and ending May 5, 2019, and one-half of the cash in escrow to be released to the former DCC Labs owners on May 5, 2017 and May 5, 2018. On May 5, 2017, \$0.3 million in cash and 227,090 shares of our common stock initially deposited with an Escrow Agent were disbursed to the sellers.

The acquisition of DCC Labs in fiscal 2017 enabled us to optimize the operations of our In-Home business, which developed home video gateway software including SeaChange’s Nucleus and NitroX products. In addition, the acquisition brought market-ready products, including an optimized television software stack for Europe’s Digital Video Broadcasting community, and an HTML5 framework for building additional user experience client applications across a variety of CPE devices, including Android TV STBs, tablets, mobile and computer devices. During fiscal 2018, the In-Home business became the center of engineering and expanded to include product development for backoffice, advertising and legacy products. The Poland operation became the prime engineering location and as of the end of fiscal 2018, was the largest location by number of engineers. In addition, the engineering efforts were combined and the teams were re-organized into a single global team in fiscal 2018, which spans a reduced number of locations globally compared to fiscal 2017. As part of the engineering transition, organizational improvements were implemented in order to focus on software quality, reliability and pre-integration, in order to de-risk deployments and improve go-to-market time for new solutions and existing upgrades. The global engineering team introduced DevOps practices with a customer-centric view of technology improvements across all products within the SeaChange solution. Along with operational improvements, engineering introduced changes to process and workflow which enabled more accurate effort estimations and velocity tracking. With the introduction of common agile project methodology across all teams and products, the efficiency of software engineering increased, which allowed more engineering resources to focus on innovation and development of industry leading features and enhancements to existing products as well as new product releases that expand the SeaChange technology franchise. At the same time, improved efficiency and better allocation of software developers enabled a more lean and targeted approach to supporting existing deployments and delivering upon support commitments for legacy products using a cost-optimized workforce.

In conjunction with the DCC Labs acquisition and an additional company-wide cost savings program established in the second half of fiscal 2017, SeaChange commenced a restructuring program (“Restructuring Program”), which has allowed us to achieve approximately \$38 million in annualized cost savings since its commencement. The Restructuring Program resulted in aggregate charges of \$9.2 million as of January 31, 2018 in severance and other restructuring costs. These charges include costs for workforce reductions, facility closings and other costs to complete the restructuring, such as legal and consulting fees. As of January 31, 2018, the Restructuring Program has been completed and has helped us improve operations and optimize our cost structure since its inception. Any remaining costs related to the Restructuring Program will be expensed as incurred to severance and other restructuring costs in our consolidated statements of operations and comprehensive income (loss) in future quarters.

Results of Operations

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

Revenues

The components of our total revenues are described in the following table:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
(Amounts in thousands, except for percentage data)							
Revenues:							
Products	\$ 28,791	\$ 18,205	\$ 21,896	\$ 10,586	58.1%	\$ (3,691)	(16.9%)
Services	51,476	65,590	85,096	(14,114)	(21.5%)	(19,506)	(22.9%)
Total revenues	80,267	83,795	106,992	(3,528)	(4.2%)	(23,197)	(21.7%)
Cost of product revenues	4,048	6,779	6,752	(2,731)	(40.3%)	27	0.4%
Cost of service revenues	22,868	36,829	44,239	(13,961)	(37.9%)	(7,410)	(16.7%)
(Recovery on) provision for loss contract	(593)	(4,118)	9,162	3,525	100.0%	(13,280)	N/A
Total cost of revenues	26,323	39,490	60,153	(13,167)	(33.3%)	(20,663)	(34.4%)
Gross profit	\$ 53,944	\$ 44,305	\$ 46,839	\$ 9,639	21.8%	\$ (2,534)	(5.4%)
Gross product profit margin	85.9%	62.8%	69.2%		23.2%		(6.4%)
Gross service profit margin	56.7%	50.1%	37.2%		6.6%		12.9%
Gross profit margin	67.2%	52.9%	43.8%		14.3%		9.1%

Fiscal 2018 As Compared to Fiscal 2017

Product Revenue. The increase in product revenue for fiscal 2018 of \$10.6 million, as compared to fiscal 2017, was primarily due to a \$12.3 million increase in video platform, user experience and advertising revenues. This increase is primarily due to the purchase of software licenses by our largest customer in the third and fourth quarters of fiscal 2018 as they continue to build out their back-office solution. This increase was partially offset by a \$1.8 million decrease in hardware and third-party product revenues in fiscal 2018 compared to fiscal 2017.

Service Revenue. Service revenue decreased \$14.1 million in fiscal 2018, as compared to fiscal 2017. The decline was primarily due to a decrease of \$10.9 million recognized for professional services provided on our video platform during fiscal 2018. Additionally, there was a \$3.2 million decrease in maintenance and support revenue provided on post-warranty contracts as customers continue to provide their own solutions.

In fiscal 2018 and fiscal 2017, one customer accounted for more than 10% of our total revenue. See Part II, Item 8, Note 11, "Segment Information, Significant Customers and Geographic Information," to this Form 10-K for more information.

International revenue accounted for 65% and 64% of total revenues in fiscal 2018 and fiscal 2017, respectively. The increase in the international revenue as a percentage of total revenue for fiscal 2018, as compared to fiscal 2017 is primarily due to a decrease in revenue outside the United States at a lower rate than the decrease in domestic revenue. Specifically, in the third and fourth quarter of fiscal 2018, we sold a total of approximately \$14 million of software licenses to our largest customer in Europe.

Gross Profit and Margin. Cost of revenues consists primarily of the cost of resold third-party products and services, purchased components and subassemblies, labor and overhead relating to the assembly and testing of complete systems and costs related to customized software development contracts.

Our gross profit margin increased 14 percentage points in fiscal 2018, as compared to fiscal 2017. Product gross margin increased 23 percentage points in fiscal 2018 compared to fiscal 2017. This increase is primarily due to an increase in software license revenues, which carry higher gross margins, and a decrease in costs, specifically employee-related costs resulting from the cost-savings initiatives implemented beginning in the third quarter of fiscal 2017. Service profit margins increased seven percentage points in fiscal 2018, as compared to fiscal 2017. This is primarily due to lower employee-related costs described above.

(Recovery on) provision for loss contract

Contract accounting requires judgment relative to assessing risks, estimating the revenue and costs and making assumptions for the length of time to complete the contract. Since the financial reporting of these contracts depends on estimates, which are assessed continually during the term of the contract, recognized revenues and costs are subject to revisions as the contract progresses towards completion. Any changes to these assumptions and estimates could result in gains or losses in the future. During fiscal 2016, delays of customer acceptance relating to fixed-price customer contracts on a multi-year arrangement that included multiple vendors occurred. As a result, we recorded approximately \$9.2 million as a provision for loss contract in our consolidated statements of operations and comprehensive income (loss). We agreed with the customer on the replacement of certain third-party vendors and a change in the timeline of this project, which was estimated to be completed in June 2017. As the system integrator on the project, we are subject to any costs overruns or increases with these vendors resulting in delays of acceptance by our customer. Any further delays of acceptance by the customer will result in incremental expenditures and increase the loss.

Due to the elimination of the second phase of this project, as well as other changes in the scope of the project since the end of the third quarter of fiscal 2017, we recorded a recovery on loss contract in fiscal 2018 and 2017 of \$0.6 million and \$4.1 million, respectively, in our consolidated statement of operations and comprehensive income (loss). As of January 31, 2018, this project is complete.

Fiscal 2017 As Compared to Fiscal 2016

Product Revenue. The decrease in product revenue for fiscal 2017 of \$3.7 million, as compared to fiscal 2016, was primarily due to a \$6.3 million decrease in hardware and advertising revenue offset by a \$2.6 million increase in our video platform, user experience and third-party product revenues.

Service Revenue. Service revenue decreased \$19.5 million in fiscal 2017, as compared to fiscal 2016. The decline was primarily due to less revenue recognized for professional services provided on our video platform during the period. Additionally, there was a decrease in maintenance and support revenue provided on post-warranty contracts as customers continue to provide their own solutions.

In fiscal 2017, one customer accounted for more than 10% of our total revenue. Two customers accounted for more than 10% of our total revenue in fiscal 2016. See Part II, Item 8, Note 11, "Segment Information, Significant Customers and Geographic Information," to this Form 10-K for more information.

International revenue accounted for 64% and 56% of total revenues in fiscal 2017 and fiscal 2016, respectively. The increase in the international revenue as a percentage of total revenue for fiscal 2017, as compared to the same prior period is primarily due to the decrease in domestic revenue at a higher rate than the decrease in international revenue. Domestic maintenance and support revenue provided on post-warranty contracts continues to decrease year over year as customers continue to provide their own maintenance solutions.

Gross Profit and Margin. Our gross profit margin increased nine percentage points in fiscal 2017, as compared to fiscal 2016. However, excluding the (recovery on) provision for loss contract recorded in the third quarter of fiscal 2016 and adjusted in the fourth quarter of fiscal 2017, our gross profit margin decreased four percentage points in fiscal 2017, as compared to fiscal 2016. Product gross margin decreased six percentage points in fiscal 2017, as compared to fiscal 2016 due to lower software and license revenue. Service profit margins increased 13 percentage points in fiscal 2017, as compared to fiscal 2016. However, excluding the (recovery on) provision for loss contract, service profit margin decreased four percentage points in fiscal 2017, as compared to fiscal 2016. This is due to the lower service revenue to absorb our fixed costs of the professional services organization.

Operating Expenses

Research and Development

The following table provides information regarding the change in research and development expenses during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Research and development expenses	\$ 23,162	\$ 30,093	\$ 33,696	\$ (6,931)	(23.0%)	\$ (3,603)	(10.7%)
% of total revenue	28.9%	35.9%	31.5%				

Fiscal 2018 As Compared to Fiscal 2017. Research and development expenses consist primarily of employee costs, which include salaries, benefits and related payroll taxes, contract labor costs, depreciation of development and test equipment and an allocation of

related facility expenses. Research and development costs decreased \$6.9 million in fiscal 2018 as compared to fiscal 2017, primarily due to the restructuring of the research and development group after our acquisition of DCC Labs in May 2016 and to cost-savings efforts implemented in the second half of fiscal 2017.

Fiscal 2017 As Compared to Fiscal 2016. Research and development costs decreased \$3.6 million in fiscal 2017 as compared to fiscal 2016, primarily due to lower labor costs associated with the decreased headcount from the Timeline Labs restructuring in February 2016, to the restructuring of the research and development group after our acquisition of DCC Labs in May 2016 and to cost-savings efforts implemented in the second half of fiscal 2017. These restructuring efforts would have resulted in a larger decrease in our research and development costs period over period than would have been achieved if we did not capitalize \$3.0 million of costs related to the development of our internal-use software in fiscal 2016. This software was placed in service at the beginning of fiscal 2017 and no further costs were capitalized.

Selling and Marketing

The following table provides information regarding the change in selling and marketing expenses during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Selling and marketing expenses	\$ 12,614	\$ 16,158	\$ 15,197	\$ (3,544)	(21.9%)	\$ 961	6.3%
% of total revenue	15.7%	19.3%	14.2%				

Fiscal 2018 As Compared to Fiscal 2017. Selling and marketing expenses consist primarily of payroll costs, which include salaries and related payroll taxes, benefits and commissions, travel expenses and certain promotional expenses. Selling and marketing expenses decreased \$3.5 million in fiscal 2018 primarily due to lower employee-related costs. These lower costs were a result of the cost-savings initiatives implemented during the second half of fiscal 2017. This decrease was partially offset by the transfer of 12 employees from research and development to our selling and marketing group. The year over year decrease was also offset by an increase in internal commissions in fiscal 2018 as compared to fiscal 2017 due to increased bookings during fiscal 2018.

Fiscal 2017 As Compared to Fiscal 2016. Selling and marketing expenses increased \$1.0 million in fiscal 2017 primarily due to an increase in marketing payroll costs resulting from the addition of DCC Labs in May 2016 and to the hiring of a new senior vice president of marketing in February 2016.

General and Administrative

The following table provides information regarding the change in general and administrative expenses during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
General and administrative expenses	\$ 14,671	\$ 16,173	\$ 15,470	\$ (1,502)	(9.3%)	\$ 703	4.5%
% of total revenue	18.3%	19.3%	14.5%				

Fiscal 2018 As Compared to Fiscal 2017. General and administrative expenses consist primarily of employee costs, which include salaries and related payroll taxes and benefit-related costs, legal and accounting services and an allocation of related facilities expenses. General and administrative expenses decreased \$1.5 million in fiscal 2018 as compared to fiscal 2017 primarily due to a decrease in labor costs resulting from the reduction of our headcount as part of our cost-savings initiatives implemented in the second half of fiscal 2017. The change does not reflect the full benefit that we anticipated to realize from our restructuring efforts because we had a \$0.9 million increase in professional fees in fiscal 2018 from higher accounting and internal controls consulting services.

Fiscal 2017 As Compared to Fiscal 2016. General and administrative expenses increased \$0.7 million in fiscal 2017 as compared to fiscal 2016. The change did not reflect the full benefit that we anticipated to realize from our restructuring efforts because we had a \$0.4 million increase in professional fees in fiscal 2017, including audit, tax and legal fees and an increase in bad debt expense.

Amortization of Intangible Assets

The following table provides information regarding the change in amortization of intangible assets during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Amortization of intangible assets	\$ 2,423	\$ 3,302	\$ 4,780	\$ (879)	(26.6%)	\$ (1,478)	(30.9%)
% of total revenue	3.0%	3.9%	4.5%				

Amortization expense is primarily related to the costs of acquired intangible assets. Amortization expense on certain intangible assets is based on the future economic value of the related intangible assets which is generally higher in the earlier years of the assets' lives. The decrease in amortization expense in fiscal 2018, as compared to fiscal 2017, is primarily due to fully amortized intangible assets from prior acquisitions and to the change in foreign exchange rates. The decreases were partially offset by a full year of amortization of intangible assets recorded in fiscal 2018 related to our acquisition of DCC Labs in May 2016.

Amortization expense decreased \$1.5 million in fiscal 2017, as compared to fiscal 2016 primarily due to the impairment of intangible assets, related to our acquisition of TLL, LLC, recorded in fiscal 2016 as well as fully amortized intangible assets from prior acquisitions. These decreases were partially offset by the addition of amortization of intangible assets related to our acquisition of DCC Labs in May 2016.

Stock-based Compensation Expense

The following table provides information regarding the change in stock-based compensation expense during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Stock-based compensation expenses	\$ 2,696	\$ 2,621	\$ 3,552	\$ 75	2.9%	\$ (931)	(26.2%)
% of total revenue	3.4%	3.1%	3.3%				

Fiscal 2018 As Compared to Fiscal 2017. Stock-based compensation expense is related to the issuance of stock awards to our employees, executives and members of our Board of Directors. Stock-based compensation expense increased \$0.1 million in fiscal 2018, as compared to fiscal 2017. The increase is primarily due to an \$0.8 million reversal of previously recognized stock-based compensation expense in fiscal 2017 for our former CEO's market-based stock options, as well as a \$0.2 million increase due to modifications of certain stock awards for terminated employees recorded in fiscal 2017. Offsetting these increases is a \$0.7 million decrease in stock option expense primarily due to fully-amortized tranches of market-based options awarded to our current CEO and a \$0.3 million decrease in expense related to non-performance based restricted-stock units due to lower grant day stock prices.

Fiscal 2017 As Compared to Fiscal 2016. Stock-based compensation expense decreased \$0.9 million in fiscal 2017, as compared to fiscal 2016 primarily due to stock modifications in connection with separation agreements with certain terminated employees, as well as a decrease in stock compensation recorded on non-performance-based equity after the departure of our former CEO in the first quarter of fiscal 2017. Also, because of the departure of our former CEO, we reversed \$0.8 million of previously recognized stock-based compensation expense on his market-based stock options. Finally, certain employees elected to receive a discounted cash payment, in lieu of restricted stock units, for their fiscal 2016 incentive compensation, resulting in a \$0.4 million decrease in stock-based compensation expense in fiscal 2017. Partially offsetting these decreases is an increase in stock options granted during fiscal 2017 and expense recognized on performance stock units which were granted at the end of fiscal 2016.

Professional Fees - Other

The following table provides information regarding the change in professional fees expenses associated with acquisitions, divestitures, litigation and strategic alternatives during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Professional fees - other	\$ 21	\$ 347	\$ 637	\$ (326)	(93.9%)	\$ (290)	(45.5%)
% of total revenue	0.0%	0.4%	0.6%				

Professional fees decreased in fiscal 2018 compared to fiscal 2017 due to a decrease in costs related to strategic alternatives, specifically costs from our purchase of DCC Labs in May 2016. Professional fees in fiscal 2017 decreased \$0.3 million, as compared to fiscal 2016 due to costs related to strategic alternatives incurred in fiscal 2016 partially offset by costs in fiscal 2017 for the acquisition of DCC Labs.

Severance and Other Restructuring Expenses

The following table provides information regarding the change in severance and other restructuring expenses during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Severance and other restructuring expenses	\$ 4,740	\$ 7,151	\$ 1,061	\$ (2,411)	(33.7%)	\$ 6,090	>100%
% of total revenue	5.9%	8.5%	1.0%				

Fiscal 2018 As Compared to Fiscal 2017. Severance and other restructuring costs decreased \$2.4 million in fiscal 2018, as compared to fiscal 2017. Charges in fiscal 2018 include \$4.1 million related to a cost reduction initiative that began in the second half of fiscal 2017 and has been completed as of January 31, 2018, \$0.1 million of charges related to the reduction in force in our engineering and services organization as a result of our acquisition of DCC Labs in May 2016 and to severance charges not related to a restructuring plan of \$0.5 million. Charges in fiscal 2017 included \$3.1 million related to the cost reduction initiative mentioned above, \$0.7 million related to the restructuring activities of our Timeline Labs operations, \$1.9 million related to the reduction in force in our In-Home engineering and services organization in conjunction with our acquisition of DCC Labs in May 2016 and to severance charges not related to a restructuring plan of \$1.5 million, including severance related to our former CEO and CFO.

Fiscal 2017 As Compared to Fiscal 2016. Severance and other restructuring costs increased \$6.1 million in fiscal 2017, as compared to fiscal 2016 due to cost savings initiatives implemented during the second half of fiscal 2017, which resulted in charges of \$3.1 million. Restructuring charges related to our Timeline Labs operation and DCC Labs acquisition resulted in charges totaling \$2.6 million recorded during fiscal 2017. In addition, severance charges of \$1.5 million not related to a restructuring plan included \$1.0 million of severance to our former CEO and \$0.2 million of severance to our former CFO along with severance paid to 13 other former employees. Severance and other restructuring costs in fiscal 2016 included severance for a former General Manager of our EMEA operations and 17 other former employees.

Change in Fair Value of Earn-outs

The following table provides information regarding the change in fair value of earn-outs during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Change in fair value of earn-outs	\$ —	\$ 249	\$ —	\$ (249)	(100.0%)	\$ 249	N/A
% of total revenue	0.0%	0.3%	0.0%				

The \$0.2 million in earn-outs costs for fiscal 2017 is due to a charge recorded that represents the fair value (at the issuance date) of additional shares issued to the former holders of Timeline Labs pursuant to the terms of the Timeline Labs purchase agreement based on our stock price at the time of deferred stock consideration issuances.

Loss on Impairment of Long-lived Assets

The following table provides information regarding the change in loss on impairment of long-lived assets during the periods presented:

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Loss on impairment of long-lived assets	\$ —	\$ 23,772	\$ 21,464	\$ (23,772)	(100.0%)	\$ 2,308	10.8%
% of total revenue	0.0%	28.4%	20.1%				

In fiscal 2017, we recorded a loss on impairment of long-lived assets of \$23.8 million which included a charge related to the impairment of our goodwill resulting from our annual goodwill impairment test which concluded in the fourth quarter of fiscal 2017. We finalized “Step 1” of this impairment test in the third quarter and determined that the fair value of our reporting unit was less than its carrying value and needed to perform “Step 2” which we performed in the fourth quarter of fiscal 2017. We compared the implied fair value of our goodwill to its carrying value as required by “Step 2” and determined that the implied fair value of our goodwill was less than its carrying value and that it was not recoverable, resulting in an impairment charge of \$23.5 million being recorded in our consolidated statements of operations and comprehensive income (loss) in the quarter ended January 31, 2017. In addition, we recorded an impairment charge on our Greenville, New Hampshire building in the fourth quarter of fiscal 2017 to write off its remaining book value. We had been actively trying to sell this building since fiscal 2012, writing down its carrying value several times. However, due to the location of the property and the overall market conditions in the area, we were not able to find a buyer. Therefore, we recorded a \$0.3 million impairment charge in our consolidated statements of operations and comprehensive income (loss) in the quarter ended January 31, 2017 to write down the carrying value to zero.

In January 2016, our Board of Directors authorized a restructuring plan, as previously reported in a Form 8-K filed with the SEC on February 17, 2016. Based on the decision to enter into the restructuring plan and the plan’s impact on the projected future cash flows of the Timeline Labs operations, we determined that the carrying amount of all long-term assets that resulted from the February 2015 acquisition had exceeded the fair value as of January 31, 2016. As a result, these long-term assets were deemed fully impaired and we recorded the \$21.9 million net book value of these long-term assets as a component of loss on impairment of TLL, LLC net assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2016. Additionally, we reduced the contingent consideration liability associated with the Timeline Labs acquisition to zero, as we determined that the defined performance criteria would not be achieved, and recorded the reversal of the liability of \$0.4 million to loss on impairment of TLL, LLC net assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2016. In February 2016, we implemented cost-saving actions related to the restructuring plan. See Part II, Item 8, Note 4, “Acquisitions and Loss on Impairment of TLL, LLC,” to this Form 10-K for more information.

Other Income (Expenses), Net

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

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Gain (loss) on investment in affiliates	\$ 2,555	\$ (500)	\$ (31)	\$ 3,055	>(100%)	\$ (469)	>100%
Interest income, net	147	129	165	18	14.0%	(36)	(21.8%)
Foreign exchange gain (loss)	3,828	(2,093)	(723)	5,921	>(100%)	(1,370)	>100%
Miscellaneous income (expense)	106	(8)	35	114	>(100%)	(43)	>(100%)
	<u>\$ 6,636</u>	<u>\$ (2,472)</u>	<u>\$ (554)</u>	<u>\$ 9,108</u>		<u>\$ (1,918)</u>	

Gain (loss) on investment in affiliates

In connection with the acquisition in January 2018 by T-Mobile of Layer3 TV, Inc. (“Layer 3”), a next generation cable provider in which we previously had made an equity investment, we received \$4.6 million upon closing of the transaction, with an additional payment of up to \$2.1 million being held in escrow, subject to satisfaction of the escrow provisions. As a result of the sale of our investment in Layer 3, we realized a gain of \$2.6 million in gain (loss) on investment in affiliates in our consolidated statements of operations and comprehensive income (loss) for fiscal 2018.

In the fourth quarter of fiscal 2017, we determined that the fair value of a certain cost-method investment was less than its carrying value. Accordingly, we recorded a \$0.5 million impairment charge in January 2017 which is included in gain (loss) on investment in affiliates in our consolidated statements of operations and comprehensive income (loss).

Foreign exchange gain (loss)

In January 2018, a note receivable between our Netherlands and British Virgin Islands (“BVI”) entities was settled. The loan was established in Euros, our Netherlands subsidiary’s functional currency, and therefore generated a realized foreign exchange gain of \$2.0 million. In January 2018, we also 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 with the reduction of the previously recorded deferred tax liability. Due to the weakening of the U.S. dollar against the Euro in fiscal 2018, we recorded a foreign exchange gain of \$2.4 million when this deferred tax benefit was recorded in January 2018. We also established an intercompany loan between our U.S. and Netherlands entities in fiscal 2010, which was settled in the fourth quarter of fiscal 2017. The loan was established in Euros and

generated a realized foreign exchange loss of \$1.8 million upon settlement of the loan. The realized foreign exchange gains recorded in fiscal 2018 and the realized foreign exchange loss recorded in fiscal 2017, were recorded in other income (expenses), net, on the consolidated statements of operations and comprehensive income (loss). In addition, there was a \$0.3 million increase in foreign exchange loss in fiscal 2018, as compared to fiscal 2017, due to the weakening of the U.S. dollar compared to other foreign currencies, primarily the Euro, during the period.

Income Tax (Benefit) Provision

	For the Fiscal Years Ended January 31,			FY18 vs. FY17		FY17 vs. FY16	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
	(Amounts in thousands, except for percentage data)						
Income tax (benefit) provision	\$ (12,272)	\$ 14,631	\$ (1,029)	\$ (26,903)	>(100%)	\$ 15,660	>(100%)
% of total revenue	(15.3%)	17.5%	(1.0%)				

Fiscal 2018 As Compared to Fiscal 2017

We recorded an income tax benefit of \$12.3 million in fiscal 2018 and a tax provision of \$14.6 million in fiscal 2017. 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 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 2018 and in future periods may fluctuate on a quarterly basis, as a result of changes in our jurisdictional forecasts where losses cannot be benefitted due to the existence of valuation allowances on our deferred tax assets, changes in actual results versus our estimates, or changes in tax laws, regulations, accounting principles, or interpretations thereof.

The Company reviews all available evidence to evaluate the recovery of deferred tax assets, including the recent history of losses in all tax jurisdictions, as well as its ability to generate income in future periods. As of January 31, 2018, due to the uncertainty related to the ultimate use of certain deferred income tax assets, the Company has recorded a valuation allowance on certain of its deferred assets.

We file income tax returns in the U.S. federal jurisdiction, various state jurisdictions, and various foreign jurisdictions. We have closed out an audit with the Internal Revenue Service (“IRS”) through fiscal 2013. We are no longer subject to U.S. federal examinations before fiscal 2015. However, the taxing authorities will still have the ability to review the propriety of certain tax attributes created in closed years if such tax attributes are utilized in an open tax year, such as our federal research and development credit carryovers.

On December 22, 2017, 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 and a repeal of the corporate alternative minimum tax (“AMT”) and allowing for a refund of prior year AMT paid. These changes were effective January 1, 2018.

The Tax Reform Act also includes a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries’ previously untaxed foreign earnings (“Transition Tax”). The Transition Tax may be paid over an eight-year period and will not accrue interest.

On December 22, 2017, the SEC 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. The measurement period is deemed to have ended earlier when the registrant has obtained, prepared, and analyzed the information necessary to finalize its accounting.

SAB 118 summarizes a three-step process to be applied at each reporting period to account for and qualitatively disclose: (1) the effects of the change in tax law for which accounting is complete; (2) provisional amounts (or adjustments to provisional amounts) for the effects of the tax law where accounting is not complete, but that a reasonable estimate has been determined; and (3) a reasonable estimate cannot yet be made and therefore taxes are reflected in accordance with law prior to the enactment of the Tax Reform Act.

The Company is still evaluating the provisions of the Tax Reform Act and amounts reflected in the financial statements for the year ended January 31, 2018 are provisional. The ultimate impact may differ from these provisional amounts, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the Tax Reform Act. The accounting is expected to be completed in fiscal 2019.

The Tax Reform Act reduces the U.S. statutory tax rate from 35% to 21% for years after 2017. Accordingly, we have re-measured our U.S. deferred tax assets and liabilities as of January 31, 2018 to reflect the reduced rate that will apply in future periods when these deferred tax assets will reverse, resulting in a provisional reduction of our net deferred tax assets, by \$17.1 million, which is offset by a corresponding reduction to our valuation allowance in the fourth quarter of fiscal 2018. As a result, there was no impact to the Company's consolidated statements of operations and comprehensive income (loss) due to the reduction in the U.S. corporate tax rate.

The Transition Tax is a tax on previously untaxed accumulated and current earnings and profits of our foreign subsidiaries. To determine the amount of the Transition Tax, we must determine, in addition to other factors, the amount of post-1986 earnings and profit of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. We estimated a Transition Tax impact of approximately \$3.9 million, which is offset by tax losses, resulting in no material impact to our consolidated financial statements. Our estimate represents a reasonable estimate of the Transition Tax; however, we are continuing to gather additional information to more precisely compute the amount of the Transition Tax.

Other significant provisions that are not yet effective but may impact income taxes in future years include: 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"). We are still evaluating whether to make a policy election to treat the GILTI tax as a period expense or to provide U.S. deferred taxes on foreign temporary differences that are expected to generate GILTI income when they reverse in future years.

Fiscal 2017 As Compared to Fiscal 2016

We recorded an income tax provision of \$14.6 million in fiscal 2017 which was due to deferred income tax expense of \$14.7 million related to the change in assertion regarding the undistributed foreign earnings of certain of our foreign subsidiaries.

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 of the U.S. Pursuant to Accounting Standard Codification Topic No. 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 the Company's working capital needs. Accordingly, in the second quarter of fiscal 2017, we withdrew the permanent reinvestment assertion on \$58.6 million of earnings generated by our Irish operations through July 2016. We recorded a deferred tax liability of \$14.7 million related to the foreign income taxes on \$58.6 million of undistributed earnings.

We have not provided for U.S. federal or foreign income taxes on \$6.0 million of our non-U.S. subsidiaries' undistributed earnings as of January 31, 2017. The \$6.0 million of undistributed foreign earnings have been reinvested in our foreign operations, as we have determined that these earnings are necessary to support our planned ongoing investments in our foreign operations, and as a result, these earnings remain indefinitely reinvested in those operations. In making this decision, we considered cash needs for investing in our existing businesses, potential acquisitions and capital transactions.

The Company reviews all available evidence to evaluate the recovery of deferred tax assets, including the recent history of losses in all tax jurisdictions, as well as its ability to generate income in future periods. As of January 31, 2017, due to the uncertainty related to the ultimate use of certain deferred income tax assets, the Company has recorded a valuation allowance on substantially all of its deferred assets.

Non-GAAP Measures

We define non-GAAP income (loss) from operations as U.S. GAAP operating loss plus stock-based compensation expenses, amortization of intangible assets, (recovery on) provision for loss contract, change in fair value of earn-outs, non-operating professional fees, severance and other restructuring costs and loss on impairment of 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. These non-GAAP financial measures may not be computed in the same manner as similarly titled measures used by other companies. We expect to continue to incur expenses like the financial adjustments described above in arriving at non-GAAP income (loss) from operations and investors should not infer from our presentation of this non-GAAP financial measure that these costs are unusual, infrequent or non-recurring.

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 2018, 2017 and 2016 (amounts in thousands, except per share and percentage data):

	For the Fiscal Year Ended January 31, 2018			For the Fiscal Year Ended January 31, 2017			For the Fiscal Year Ended January 31, 2016		
	GAAP As Reported	Adjustments	Non-GAAP	GAAP As Reported	Adjustments	Non-GAAP	GAAP As Reported	Adjustments	Non-GAAP
Revenues:									
Products	\$ 28,791	\$ —	\$ 28,791	\$ 18,205	\$ —	\$ 18,205	\$ 21,896	\$ —	\$ 21,896
Services	51,476	—	51,476	65,590	—	65,590	85,096	—	85,096
Total revenues	80,267	—	80,267	83,795	—	83,795	106,992	—	106,992
Cost of revenues:									
Products	3,942	—	3,942	6,453	—	6,453	6,013	—	6,013
Services	22,001	—	22,001	35,740	—	35,740	44,159	—	44,159
(Recovery on) provision for loss contract	(593)	593	—	(4,118)	4,118	—	9,162	(9,162)	—
Amortization of intangible assets	970	(970)	—	1,283	(1,283)	—	739	(739)	—
Stock-based compensation	3	(3)	—	132	(132)	—	80	(80)	—
Total cost of revenues	26,323	(380)	25,943	39,490	2,703	42,193	60,153	(9,981)	50,172
Gross profit	53,944	380	54,324	44,305	(2,703)	41,602	46,839	9,981	56,820
Gross profit percentage	67.2%	0.5%	67.7%	52.9%	(3.2%)	49.7%	43.8%	9.3%	53.1%
Operating expenses:									
Research and development	23,162	—	23,162	30,093	—	30,093	33,696	—	33,696
Selling and marketing	12,614	—	12,614	16,158	—	16,158	15,197	—	15,197
General and administrative	14,671	—	14,671	16,173	—	16,173	15,470	—	15,470
Amortization of intangible assets	1,453	(1,453)	—	2,019	(2,019)	—	4,041	(4,041)	—
Stock-based compensation expense	2,693	(2,693)	—	2,489	(2,489)	—	3,472	(3,472)	—
Change in fair value of earn-outs	—	—	—	249	(249)	—	—	—	—
Professional fees - other	21	(21)	—	347	(347)	—	637	(637)	—
Severance and other restructuring costs	4,740	(4,740)	—	7,151	(7,151)	—	1,061	(1,061)	—
Loss on impairment of long-lived assets	—	—	—	23,772	(23,772)	—	21,464	(21,464)	—
Total operating expenses	59,354	(8,907)	50,447	98,451	(36,027)	62,424	95,038	(30,675)	64,363
(Loss) income from operations	\$ (5,410)	\$ 9,287	\$ 3,877	\$ (54,146)	\$ 33,324	\$ (20,822)	\$ (48,199)	\$ 40,656	\$ (7,543)
(Loss) income from operations percentage	(6.8%)	11.6%	4.8%	(64.6%)	39.8%	(24.8%)	(45.0%)	38.0%	(7.0%)
Weighted average common shares outstanding:									
Basic	35,412	35,412	35,412	34,970	34,970	34,970	33,506	33,506	33,506
Diluted	35,412	35,685	35,685	34,970	35,057	34,970	33,506	33,663	33,506
Non-GAAP operating (loss) income per share:									
Basic	\$ (0.15)	\$ 0.26	\$ 0.11	\$ (1.55)	\$ 0.95	\$ (0.60)	\$ (1.44)	\$ 1.21	\$ (0.23)
Diluted	\$ (0.15)	\$ 0.26	\$ 0.11	\$ (1.55)	\$ 0.95	\$ (0.60)	\$ (1.44)	\$ 1.21	\$ (0.23)

The changes in the table above during fiscal 2018, compared to fiscal 2017 and during fiscal 2017 compared to fiscal 2016, were a result of the factors described in connection with revenues and operating expenses under Item 7. “*Management’s Discussion and Analysis of Financial Conditions and Results of Operations – Results of Operations*,” of this Form 10-K.

In managing and reviewing our business performance, we exclude several items required by U.S. GAAP. Management believes that excluding these items is useful in understanding the trends and managing our operations. We provide these supplemental non-GAAP measures to assist the investment community to see SeaChange through the “eyes of management,” and therefore enhance the understanding of our operating performance. Non-GAAP financial measures should be viewed in addition to, not as an alternative to, our reported results prepared in accordance with U.S. GAAP. Our non-GAAP financial measures reflect adjustments based on the following items:

(Recovery on) Provision for Loss Contract. We entered a fixed-price customer contract on a multi-year arrangement, which included multiple vendors. As the system integrator on the project, we are subject to any cost overruns or increases with these vendors resulting in delays of acceptance by our customer. Delays of customer acceptance on this project result in incremental expenditures and require us to recognize a loss on this project in the period the determination is made. As a result, we recorded an estimated charge of \$9.2 million in fiscal 2016. Subsequently, because of changes in the scope of the project and negotiations with the fixed-price customer, we recorded adjustments since fiscal 2016 totaling \$4.7 million to reduce this estimated loss. We believe that the exclusion of this line item amount allows a comparison of operating results that would otherwise impair comparability between periods.

Amortization of Intangible Assets. We incur amortization expense of intangible assets related to various acquisitions that have been made in recent years. These intangible assets are valued at the time of acquisition, are then amortized over a period of several years after the acquisition and generally cannot be changed or influenced by management after the acquisition. We believe that exclusion of these expenses allows comparisons of operating results that are consistent over time for the Company’s newly-acquired and long-held businesses.

Stock-based Compensation Expense. We incur expenses related to stock-based compensation included in our U.S. GAAP presentation of cost of revenues, selling and marketing expense, general and administrative expense and research and development expense. Although stock-based compensation is an expense we incur and is viewed as a form of compensation, the expense varies in amount from period to period, and is affected by market forces that are difficult to predict and are not within the control of management, such as the market price and volatility of our shares, risk-free interest rates and the expected term and forfeiture rates of the awards.

Change in Fair Value of Earn-outs. The change in the fair value of the earn-outs payable to the former shareholders of the businesses we acquire is considered by management to be non-recurring and therefore, impairs comparability among periods.

Professional Fees - Other. We have excluded the effect of legal and other professional costs associated with our acquisitions, divestitures, litigation and strategic alternatives because the amounts are considered significant non-recurring expenses.

Severance and Other Restructuring Costs. We incur charges due to the restructuring of our business, including severance charges and facility reductions resulting from our restructuring and streamlining efforts and any changes due to revised estimates, which we generally would not have otherwise incurred in the periods presented as part of our continuing operations.

Loss on Impairment of Long-lived Assets. We incur losses on impairment of long-lived assets when it is determined that an impairment exists based upon estimated undiscounted future cash flows over the remaining useful life of the assets and compare that value to the carrying value of the assets. These charges are considered non-recurring.

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,			FY18 vs FY17	FY17 vs FY16
	2018	2017	2016	\$ Change	\$ Change
	(Amounts in thousands)				
Total cash provided by (used in) operating activities	\$ 12,947	\$ (28,338)	\$ (18,662)	\$ 41,285	\$ (9,676)
Total cash provided by (used in) investing activities	6,011	(3,872)	(13,046)	9,883	9,174
Total cash (used in) provided by financing activities	(87)	(123)	192	36	(315)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(3,621)	1,929	312	(5,550)	1,617
Net increase (decrease) in cash, cash equivalents and restricted cash	\$ 15,250	\$ (30,404)	\$ (31,204)	\$ 45,654	\$ 800

Historically, we have financed our operations and capital expenditures primarily with cash on-hand. Cash, cash equivalents, restricted cash and marketable securities increased from \$38.7 million at January 31, 2017 to \$52.1 million at January 31, 2018.

During fiscal 2018, we made significant reductions to our headcount as part of our ongoing restructuring effort from which we expect to generate annualized savings of approximately \$18 million. These measures are important steps in restoring SeaChange to profitability and positive cash flow. The Company believes that existing funds and cash expected to be provided by future operating activities, augmented by the plans highlighted above, are adequate to satisfy our working capital, potential acquisitions and capital expenditure requirements and other contractual obligations for the foreseeable future, including at least the next 12 months.

However, 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 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.

Operating Activities

Below are key line items affecting cash from operating activities:

	For the Fiscal Years Ended January 31,			FY18 vs FY17	FY17 vs FY16
	2018	2017	2016	\$ Change	\$ Change
	(Amounts in thousands)				
Net income (loss)	\$ 13,498	\$ (71,249)	\$ (47,697)	\$ 84,747	\$ (23,552)
Adjustments to reconcile net income (loss) to cash provided by (used in) operating activities	(9,411)	44,924	41,550	(54,335)	3,374
Net income (loss) including adjustments	4,087	(26,325)	(6,147)	30,412	(20,178)
Decrease (increase) in accounts receivable and unbilled receivables	9,100	4,736	(6,080)	4,364	10,816
(Increase) decrease in prepaid expenses and other current assets	(588)	1,378	(1,097)	(1,966)	2,475
(Decrease) increase in accounts payable	(2,499)	(1,674)	874	(825)	(2,548)
Increase (decrease) in accrued expenses	3,505	(4,872)	(2,712)	8,377	(2,160)
Decrease in deferred revenues	(1,078)	(2,417)	(1,431)	1,339	(986)
All other - net	420	836	(2,069)	(416)	2,905
Net cash provided by (used in) operating activities	\$ 12,947	\$ (28,338)	\$ (18,662)	\$ 41,285	\$ (9,676)

For fiscal 2018, cash provided by operating activities was \$12.9 million. This cash provided by operating activities was primarily the result of our net income, including adjustments, of \$4.1 million and to the changes in working capital, which include a decrease in receivables of \$9.1 million due to collections from customers during the fiscal year and to an increase in accrued expenses of \$3.5 million, specifically income taxes payable from foreign locations and accrued bonus based on improved operating results of the Company in fiscal 2018. Offsetting these sources of cash was a \$1.1 million decrease in deferred revenue and a \$2.5 million decrease in accounts payable due to the timing of payments to vendors.

For fiscal 2017, we used net cash in operating activities of \$283 million. This cash used in operating activities was primarily the result of our net loss including adjustments of \$26.3 million offset by changes in working capital, which include a decrease in receivables of \$4.7 million due to the timing of customer payments, offset by a decrease in accrued expenses of \$4.9 million related to the payment of severance and bonuses, a \$2.4 million decrease in deferred revenue and a \$1.7 million decrease in accounts payable due to the timing of payments to vendors.

Investing Activities

Cash flows from investing activities are as follows:

	For the Fiscal Years Ended January 31,			FY18 vs FY17	FY17 vs FY16
	2018	2017	2016	\$ Change	\$ Change
	(Amounts in thousands)				
Purchases of property and equipment	\$ (526)	\$ (683)	\$ (1,397)	\$ 157	\$ 714
Investment in capitalized software	—	—	(2,440)	—	2,440
Purchases of marketable securities	(7,246)	(2,008)	(9,033)	(5,238)	7,025
Proceeds from sale and maturity of marketable securities	8,992	4,005	11,043	4,987	(7,038)
Proceeds from sale of investments in affiliates	4,555	—	464	4,555	(464)
Acquisition of business, net of cash acquired	—	(5,243)	(11,686)	5,243	6,443
Other investing activities	236	57	3	179	54
Net cash provided by (used in) investing activities	<u>\$ 6,011</u>	<u>\$ (3,872)</u>	<u>\$ (13,046)</u>	<u>\$ 9,883</u>	<u>\$ 9,174</u>

In fiscal 2018, \$6.0 million in cash was provided by investing activities. Specifically, we received proceeds of \$4.6 million from the sale of our investment in affiliate in the fourth quarter of fiscal 2018. In addition, cash provided by investing activities includes \$0.2 million in proceeds from the sale of property and equipment in fiscal 2018 and the proceeds from the sale or maturity of marketable securities, net of purchases, during the fiscal year of \$1.7 million. This was offset by cash used of \$0.5 million for the purchase of capital assets during the fiscal year.

In connection with the acquisition in January 2018 by T-Mobile of Layer 3, a next generation cable provider in which we previously had made an equity investment, we received \$4.6 million upon closing of the transaction.

In fiscal 2017, we used \$3.9 million in cash related to investing activities. Specifically, we used cash of \$5.2 million for the acquisition of DCC Labs and \$0.7 million for the purchase of capital assets offset by \$2.0 million of proceeds from the sale or maturity of marketable securities, net of purchases.

Financing Activities

Cash flows from financing activities are as follows:

	For the Fiscal Years Ended January 31,			FY18 vs FY17	FY17 vs FY16
	2018	2017	2016	\$ Change	\$ Change
	(Amounts in thousands)				
Proceeds from issuance of common stock	\$ 54	\$ 60	\$ 193	\$ (6)	\$ (133)
Other financing activities	(141)	(183)	(1)	42	(182)
Net cash (used in) provided by financing activities	<u>\$ (87)</u>	<u>\$ (123)</u>	<u>\$ 192</u>	<u>\$ 36</u>	<u>\$ (315)</u>

For fiscal 2018 and fiscal 2017, cash (used in) provided by 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.

Effect of exchange rate changes decreased cash and cash equivalents by \$3.6 million for fiscal 2018, primarily due to the strengthening of the Euro against the U.S. dollar in fiscal 2018.

Contractual Obligations

The following table reflects our current and contingent contractual obligations to make potential future payments as of January 31, 2018:

	Total	Less than one year	One to three years	Three to five years	Over five years
	(Amounts in thousands)				
Purchase obligations (1)	\$ 2,844	\$ 2,844	\$ —	\$ —	\$ —
Non-cancelable lease obligations (2)	3,501	1,314	1,589	598	—
Total	<u>\$ 6,345</u>	<u>\$ 4,158</u>	<u>\$ 1,589</u>	<u>\$ 598</u>	<u>\$ —</u>

- (1) Represents obligations under agreements with non-cancelable terms to purchase goods or services. The agreements are enforceable and legally binding, and specify terms, including quantities to be purchased and the timing of the purchase.
- (2) Represents the minimum lease cash payments for operating lease obligations. Excludes aggregate related sublease rental receipts of \$0.1 million on operating lease obligations.

We have excluded from the table above uncertain tax liabilities as defined by authoritative guidance due to the uncertainty of the amount and period of payment. As of January 31, 2018, we have gross unrecognized tax benefits of \$4.9 million.

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, revenues, 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 significant estimates, judgments and assumptions used in the preparation of our consolidated financial statements.

Principles of Consolidation

The consolidated financial statements include accounts of the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Our investments in affiliates include investments accounted for under the cost method of accounting as the investments represent less than a 20% ownership interest of the common shares of the affiliate are carried at cost.

We periodically review indicators of the fair value of our investments in affiliates to assess whether available facts or circumstances, both internally and externally, may suggest an other-than-temporary decline in the value of the investment. The carrying value of an investment in an affiliate accounted for under the cost method of accounting may be affected by the affiliate's ability to obtain adequate funding and execute its business plans, general market conditions, its current cash position, earnings and cash flow forecasts, recent operational performance, and any other readily available data. We record an impairment charge when we believe an investment has experienced a decline in value that is other-than-temporary.

Revenue Recognition

Our transactions frequently involve the sales of hardware, software, systems and services in multiple-element arrangements. Revenues from sales of hardware, software and systems that do not require significant modification or customization of the underlying software are recognized when:

- persuasive evidence of an arrangement exists;

- delivery has occurred, and title and risk of loss have passed to the customer;
- fees are fixed or determinable; and
- collection of the related receivable is considered probable.

Customers are billed for installation, training, project management and at least one year of product maintenance and technical support at the time of the product sale. Revenue from these activities is deferred at the time of the product sale and recognized ratably over the period these services are performed. Revenue from ongoing product maintenance and technical support agreements is recognized ratably over the period of the related agreements. Revenue from software development contracts that include significant modification or customization, including software product enhancements, is recognized based on the percentage of completion contract accounting method using labor efforts expended in relation to estimates of total labor efforts to complete the contract. The percentage of completion method requires that adjustments or re-evaluations to estimated project revenues and costs be recognized on a project-to-date cumulative basis, as changes to the estimates are identified. Revisions to project estimates are made as additional information becomes known, including information that becomes available after the date of the consolidated financial statements up through the date such consolidated financial statements are filed with the SEC. If the final estimated profit to complete a long-term contract indicates a loss, a provision is recorded immediately for the total loss anticipated. Accounting for contract amendments and customer change orders are included in contract accounting when executed. Revenue from shipping and handling costs and other out-of-pocket expenses reimbursed by customers are included in revenues and cost of revenues. Our share of intercompany profits associated with sales and services provided to affiliated companies are eliminated in consolidation in proportion to our equity ownership.

Contract accounting requires judgment relative to assessing risks, estimating revenues 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 revenues 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.

Revenue from the sale of software-only products remains within the scope of the software revenue recognition rules. Maintenance and support, training, consulting, and installation services no longer fall within the scope of the software revenue recognition rules, except when they are sold with and relate to a software-only product. Revenue recognition for products that no longer fall under the scope of the software revenue recognition rules is like that for other tangible products and Accounting Standard Update No. ("ASU") 2009-13, "*Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements*," amended ASC 605 and is applicable for multiple-deliverable revenue arrangements. ASU 2009-13 allows companies to allocate revenue in a multiple-deliverable arrangement in a manner that better reflects the transaction's economics.

Under the software revenue recognition rules, the fee is allocated to the various elements based on vendor-specific objective evidence ("VSOE") of fair value. Under this method, the total arrangement value is allocated first to undelivered elements based on their fair values, with the remainder being allocated to the delivered elements. Where fair value of undelivered service elements has not been established, the total arrangement value is recognized over the period during which the services are performed. The amounts allocated to undelivered elements, which may include project management, training, installation, maintenance and technical support and certain hardware and software components, are based upon the price charged when these elements are sold separately and unaccompanied by the other elements. The amount allocated to installation, training and project management revenue is based upon standard hourly billing rates and the estimated time necessary to complete the service. These services are not essential to the functionality of systems as these services do not alter the equipment's capabilities, are available from other vendors and the systems are standard products. For multiple-element arrangements that include software development with significant modification or customization and systems sales where VSOE of the fair value does not exist for the undelivered elements of the arrangement (other than maintenance and technical support), percentage of completion accounting is applied for revenue recognition purposes to the entire arrangement except for maintenance and technical support.

Under the revenue recognition rules for tangible products as amended by ASU 2009-13, the fee from a multiple-deliverable arrangement is allocated to each of the deliverables based upon their relative selling prices as determined by a selling-price hierarchy. A deliverable in an arrangement qualifies as a separate unit of accounting if the delivered item has value to the customer on a stand-alone basis. A delivered item that does not qualify as a separate unit of accounting is combined with the other undelivered items in the arrangement and revenue is recognized for those combined deliverables as a single unit of accounting. The selling price used for each deliverable is based upon VSOE if available, third-party evidence ("TPE") if VSOE is not available, and best estimate of selling price ("BESP") if neither VSOE nor TPE are available. TPE is the price of the Company's, or any competitor's, largely interchangeable products or services in stand-alone sales to similarly situated customers. BESP is the price at which we would sell the deliverable if it were sold regularly on a stand-alone basis, considering market conditions and entity-specific factors.

The selling prices used in the relative selling price allocation method for certain of our services are based upon VSOE. The selling prices used in the relative selling price allocation method for third-party products from other vendors are based upon TPE. The selling prices used in the relative selling price allocation method for our hardware products, software, subscriptions, and customized services for which VSOE does not exist are based upon BESP. We do not believe TPE exists for these products and services because they are differentiated from competing products and services in terms of functionality and performance and there are no competing products or services that are largely interchangeable. Management establishes BESP with consideration for market conditions, such as the impact of competition and geographic considerations, and entity-specific factors, such as the cost of the product, discounts provided and profit objectives. Management believes that BESP is reflective of reasonable pricing of that deliverable as if priced on a stand-alone basis.

For our cloud and managed service revenues, we generate revenue from two sources: (1) subscription and support services; and (2) professional services and other. Subscription and support revenue includes subscription fees from customers accessing our cloud-based software platform and support fees. Our arrangements with customers do not provide the customer with the right to take possession of the software supporting the cloud-based software platform at any time. Professional services and other revenue include fees from implementation and customization to support customer requirements. Amounts that have been invoiced are recorded in accounts receivable and in deferred revenue or revenue, depending on whether the revenue recognition criteria have been met. For the most part, subscription and support agreements are entered into for 12 to 36 months. Generally, most of the professional services components of the arrangements with customers are performed within a year of entering a contract with the customer.

In most instances, revenue from a new customer acquisition is generated under sales agreements with multiple elements, comprised of subscription and support and other professional services. We evaluate each element in a multiple-element arrangement to determine whether it represents a separate unit of accounting. An element constitutes a separate unit of accounting when the delivered item has standalone value and delivery of the undelivered element is probable and within our control.

In determining when to recognize revenue from a customer arrangement, we are often required to exercise judgment regarding the application of our accounting policies to an arrangement. The primary judgments used in evaluating revenue recognized in each period involve: determining whether collection is probable, assessing whether the fee is fixed or determinable, and determining the fair value of the maintenance and service elements included in multiple-element software arrangements. Such judgments can materially impact the amount of revenue that we record in a given period. While we follow specific and detailed rules and guidelines related to revenue recognition, we make and use significant management judgments and estimates about the revenue recognized in any reporting period, particularly in the areas described above. If management made different estimates or judgments, material differences in the timing of the recognition of revenue could occur.

Allowance for Doubtful Accounts

We recognize revenue for products and services only in those situations where collection from the customer is probable. 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 allowances for specific doubtful accounts and other risk categories of accounts based on estimates of 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. While such credit losses have historically been within our expectations and the allowances established, we cannot guarantee that we will continue to experience the same credit loss rates that we have in the past. If the financial condition of our customers were to change, additional allowances may be required or established allowances may be considered unnecessary. Judgment is required in making these determinations and our failure to accurately estimate the losses for doubtful accounts and ensure that payments are received on a timely basis could have a material adverse effect on our business, financial condition and results of operations.

Fair Value Measurements

We measure certain financial assets and liabilities at fair value based on valuation techniques using the best information available, which may include quoted market prices, market comparables and discounted cash flow projections. Financial instruments include money market funds, corporate debt investments, asset-backed securities, government-sponsored enterprises and state municipal obligations.

In general, and where applicable, we use quoted prices in active markets for identical assets or liabilities to determine fair value. If quoted prices in active markets for identical assets or liabilities are not available to determine fair value, then we use quoted prices for similar assets and liabilities or inputs that are observable either directly or indirectly.

Inventories and Reserves

Inventories are stated at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method. Inventories consist primarily of components and subassemblies and finished products held for sale. All our hardware components are purchased from outside vendors. The value of inventories is reviewed quarterly to determine that the carrying value is stated at the lower of cost or net realizable value. We record charges to reduce inventory to its net realizable value when impairment is identified through the quarterly review process. The obsolescence evaluation is based upon assumptions and estimates about future demand and possible alternative uses and involves significant judgments.

Accounting for Business Combinations

We apply the acquisition method of accounting for business combinations, including our acquisition of DCC Labs on May 5, 2016. Under this method of accounting, we are required to record the assets acquired, liabilities assumed, contractual contingencies, and contingent consideration at their fair value on the acquisition date. Determining these fair values and completing the purchase price allocation process requires management to make significant estimates and assumptions, especially at acquisition date with respect to intangible assets, estimated contingent consideration payments and pre-acquisition contingencies. Any excess of the purchase price over the fair value of the net assets acquired is recognized as goodwill. Although we believe the assumptions and estimates we have made have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired company and are inherently uncertain. Examples of critical estimates in accounting for acquisitions include but are not limited to:

- the estimated fair value of acquisition-related contingent consideration, which is calculated using a probability-weighted discounted cash flow model based upon the forecasted achievement of post-acquisition bookings targets;
- the future expected cash flows from product sales, support agreements, consulting contracts, other customer contracts and acquired developed technologies and patents; and
- the relevant discount rates.

Unanticipated events and circumstances may occur which may affect the accuracy or validity of such assumptions, estimates or actual results. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Additionally, any change in the fair value of the acquisition-related contingent consideration once determined, including changes from events after the acquisition date, such as changes in our estimate of the bookings that are expected to be achieved, will be recognized in earnings in the period of the estimated fair value change. A change in fair value of the acquisition-related contingent consideration could have a material effect on the consolidated statements of operations and comprehensive income (loss) and statement of financial position in the period of the change in estimate.

Long-Lived Assets

We review property and equipment, investments and other long-lived assets on a regular basis for impairment when indication of potential impairment exists. If such circumstances exist, we evaluate the carrying value of long-lived assets to determine if impairment exists based upon estimated undiscounted future cash flows over the remaining useful life of the assets and compare that value to the carrying value of the assets. Our cash flow estimates contain management's best estimates, using appropriate and customary assumptions and projections at the time.

In August 2017, we placed our corporate headquarters and the adjacent land (the "Corporate Headquarters"), located in Acton, Massachusetts, on the market for sale. We assessed whether the Corporate Headquarters would qualify as an asset held for sale and determined that it would not since it did not meet all six of the criteria of an asset held for sale under current accounting guidance. During the assessment, we received information from a third-party real estate broker which led management to believe that there was a significant decrease in the fair value of the Corporate Headquarters. We considered this to be a triggering event and were required to test the Corporate Headquarters for recoverability. We evaluated the undiscounted future cash flows over the remaining useful life of

the primary asset of the asset group and determined that an impairment did not exist as of the date of the triggering event. Our cash flow estimates contain management's best estimates, using appropriate and customary assumptions and projections at the time.

Acquired Intangible Assets and Goodwill

Acquired Intangible Assets

We use significant judgment in determining the fair value of acquired intangible assets, whether the assets are amortizable or non-amortizable and the period and method by which the intangible asset will be amortized. Intangible assets include customer contracts, completed technology, non-compete agreements, trademarks, backlogs and patents. We engage third-party valuation specialists to assist us with the initial measurement of the fair value of acquired intangible assets. Acquired intangible assets, other than goodwill, are amortized on a straight-line basis over their estimated useful lives during the period the economic benefits of the intangible asset are consumed or otherwise used up. We review definite-lived intangible assets for impairment when indication of a potential impairment exists.

Goodwill

In connection with acquisitions of businesses, we recognize the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired as goodwill. Goodwill is not amortized, but is evaluated for impairment at least annually, in our third quarter beginning August 1st, or more frequently if indicators are present or changes in circumstances suggest that an impairment exists. As of August 1, 2017, we early adopted ASU 2017-04, "*Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment.*" ASU 2017-04 eliminated Step 2 of the goodwill impairment test in which an entity had to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities. The standard does not change the guidance on completing Step 1 of the goodwill impairment test. In accordance with the new standard, we compare the fair value of our reporting unit with the carrying amount, including goodwill. We recognize an impairment charge for the amount by which the carrying amount exceeds a reporting unit's fair value, as applicable. The process of evaluating goodwill for impairment requires several judgments and assumptions to be made to determine the fair value, including the method used to determine fair value, discount rates, expected levels of cash flows, revenues and earnings, and the selection of comparable companies used to develop market-based assumptions. We may employ the three generally accepted approaches for valuing businesses: the market approach, the income approach, and the asset-based (cost) approach to arrive at the fair value. The choice of which approach and methods to use in a situation depends on the facts and circumstances.

In evaluating goodwill for impairment, we chose to use the market approach and the income approach to determine the fair value. The market approach provides value indications through a comparison with guideline public companies or guideline transactions. The valuation multiple is an expression of what investors believe to be a reasonable valuation relative to a measure of financial information such as revenues, earnings or cash flows. The income approach provides value indications through an analysis of its projected earnings, discounted to present value. We employed a weighted-average cost of capital rate based on the risk-free interest rate and other factors such as equity risk premiums and the ratio of total debt to equity capital. In performing the annual impairment test, we took steps to ensure appropriate and reasonable cash flow projections and assumptions were used.

Our projections for the next two and a half years included increased operating expenses in line with the expected revenue growth based on current market and economic conditions and our historical knowledge. Historical growth rates served as only one input to the projected future growth used in the goodwill impairment analysis. These historical growth rates were adjusted based on other inputs regarding anticipated customer contracts. The forecasts have incorporated any changes to the revenue and operating expenses through the end of fiscal 2018. We estimated the operating expenses based on a rate consistent with the current experience and estimated revenue growth over the next two and a half years. Future adverse changes in market conditions or poor operating results could result in losses, thereby possibly requiring an impairment charge in the future.

In the third quarter of fiscal 2018, we finalized the "Step 1" analysis of our annual goodwill impairment test for fiscal 2018. Based on this analysis, we determined that fair value of our reporting unit exceeded its carrying value, which was \$64.2 million at August 1, 2017. As a result, no impairment charge was required related to the annual test.

In addition, since we considered the significant decrease in fair value of the Corporate Headquarters a triggering event, we were required to complete an additional goodwill impairment test as of the date of the triggering event. We completed the additional goodwill impairment test and determined that the implied fair value of the reporting unit exceeds its carrying value as of the date of the triggering event. Accordingly, no impairment charge was recognized in fiscal 2018.

During our fiscal 2017 annual impairment test, we determined based on "Step 1" that the fair value of our reporting unit was less than its carrying value, which was \$102.5 million at August 1, 2016. Our forecast indicated that the estimated fair value of net assets was less than the carrying value which is a potential indicator of impairment. The comparison of estimated fair value to the carrying value

of our reporting unit ranged from a shortfall of approximately \$23.0 million to \$14.5 million. Since the estimated fairvalue of our reporting unit was less than its carrying value, we determined that it was necessary to perform “Step 2” of the impairment test. In “Step 2” of the impairment test we compared the implied fair value of our goodwill to its carrying value. After adjusting the carrying value of all assets, liabilities and equity to fair value at August 1, 2016, the estimated implied fair value of goodwill was calculated to be \$22.3 million. Since the implied fair value of goodwill of \$22.3 million is less than the carrying value of \$45.8 million as of August 1, 2016, we recorded an impairment charge of \$23.5 million to loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) in the fourth quarter of fiscal 2017.

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. The Company expenses 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. The carrying value of our capitalized internally developed software costs was \$0.7 million as of January 31, 2018. Maintenance and training costs are expensed as incurred. In November 2017, we closed our Philippines facility as part of our cost-savings initiatives which began in the second half of fiscal 2017. As a result, we wrote off \$0.1 million of internally developed software costs to severance and other restructuring costs in our consolidated statements of operations and comprehensive income (loss).

Software Development Costs

We also purchase software for resale and capitalize those costs associated with projects that meet technological feasibility. Amortization expense of capitalized software is recorded over the period of economic consumption or the life of the agreement, whichever results in the higher expense, starting with the first shipment of the product to a customer. Amortization expense of capitalized software was \$0.9 million, \$1.0 million and \$0.1 million in fiscal 2018, fiscal 2017 and fiscal 2016, respectively.

Accounting for 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).

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.

On December 22, 2017, the Tax Reform Act was signed into law. We are required to recognize in the period of enactment, the effect of the tax law changes, such as re-measuring our U.S. deferred tax assets and liabilities, reassessing the net realizability of deferred tax assets and liabilities, and determining the applicability of the one-time mandatory transition tax on accumulated foreign earnings. Additionally, on December 22, 2017, the SEC staff issued SAB 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act." SAB 118 has provided guidance which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. As a result of the change in law, including a reduction in the corporate tax rate, the Company recorded a provisional reduction to its deferred tax assets of \$17.1 million and a corresponding reduction to its valuation allowance in the fourth quarter of fiscal 2018 which represents the Company's best estimate of the impact of the Tax Reform Act in accordance with the Company's understanding of the Tax Reform Act and available guidance as of the date of this filing. As a result, there was no impact to the Company's consolidated statements of operations and comprehensive income (loss) income statement due to the reduction in the U.S. corporate tax rate. We will continue to analyze the Tax Reform Act and related accounting guidance and interpretations in order to finalize any impacts within the measurement period. See Note 12, "Income Taxes," to this Form 10-K for more information.

Stock-based Compensation

We account for all employee and non-employee director stock-based compensation awards using the authoritative guidance regarding share-based payments. We continue to use the Black-Scholes pricing model as we feel it is the most appropriate method for determining the estimated fair value of the non-market-based awards. We also use the Monte Carlo pricing model for our market-based option awards and performance stock units ("PSUs"). Determining the appropriate fair value model and calculating the fair value of share-based payment awards requires the input of highly subjective assumptions, including the expected life of the share-based payment awards and stock price volatility. Management estimates the volatility based on the historical volatility of our stock. The assumptions used in calculating the fair value of share-based payment awards represent management's best estimates, but these estimates involve inherent uncertainties and the application of management's judgment. As a result, if circumstances change and we use different assumptions, our stock-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and only recognize expense for those shares expected to vest. If our actual forfeiture rate is materially different from our estimate, the stock-based compensation expense could be significantly different from what we have recorded in the current period. The estimated fair value of our market-based awards, less expected forfeitures, is amortized over the awards' vesting period on a graded vesting basis, whereas the fair value of non-market-based awards and employee stock purchase plan ("ESPP") stock units, less estimated forfeitures, are amortized on a straight-line basis.

Foreign Currency Translation

For subsidiaries where the U.S. dollar is designated as the functional currency of the entity, we translate that entity's monetary assets and liabilities denominated in local currencies into U.S. dollars (the functional and reporting currency) at current exchange rates, as of each balance sheet date. Non-monetary assets (e.g., inventories, property and equipment and intangible assets) and related income statement accounts (e.g., cost of sales, depreciation, amortization of intangible assets) are translated at historical exchange rates between the functional currency (the U.S. dollar) and the local currency. Revenue and other expense items are translated using average exchange rates during the fiscal period. Translation adjustments resulting from translation of the subsidiaries' accounts are included in accumulated other comprehensive loss, a separate component of stockholders' equity. Gains and losses resulting from foreign currency transactions, and any unrealized gains and losses on short-term intercompany transactions are included in other income (expenses), net on our consolidated statements of operations and comprehensive income (loss).

For subsidiaries where the local currency is designated as the functional currency, we translate the subsidiaries' assets and liabilities into U.S. dollars (the reporting currency) at current exchange rates as of each balance sheet date. Revenue and expense items are translated using average exchange rates during the period. Cumulative translation adjustments are presented as a separate component of stockholders' equity. Exchange gains and losses on foreign currency transactions and unrealized gains and losses on short-term intercompany transactions are included in other income (expenses), net on our consolidated statements of operations and comprehensive income (loss).

The aggregate foreign exchange transaction gain (loss) included as other income (expenses), net, on our consolidated statements of operations and comprehensive income (loss) was \$3.8 million, (\$2.1) million and (\$0.7) million for the fiscal years ended January 31, 2018, 2017 and 2016, respectively.

Recent Accounting Standard Updates

We consider the applicability and impact of all ASUs on our consolidated financial statements. Updates not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on our consolidated financial position or results of operations. Recently issued ASUs which we feel may be applicable to us are as follows:

Recently Issued Accounting Standard Updates – Not Yet Adopted

Comprehensive Income

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.

Revenue from Contracts with Customers (Topic 606)

In May 2014, the FASB issued ASU 2014-09, “*Revenue from Contracts with Customers (Topic 606).*” ASU 2014-09 provides enhancements to the quality and consistency of how revenue is reported while also improving comparability in the financial statements of companies using International Financial Reporting Standards and U.S. GAAP. The core principle requires entities to recognize revenue in a manner that depicts the transfer of goods or services to customers in amounts that reflect the consideration an entity expects to be entitled to in exchange for those goods or services. In July 2015, the FASB voted to approve a one-year deferral, making the standard effective for public entities for annual and interim periods beginning after December 15, 2017.

In March 2016, the FASB issued ASU 2016-08, “*Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net).*” The purpose of ASU 2016-08 is to clarify the guidance on principal versus agent considerations. It includes indicators that help to determine whether an entity controls the specified good or service before it is transferred to the customer and to assist in determining when the entity satisfied the performance obligation and as such, whether to recognize a gross or a net amount of consideration in their consolidated statement of operations.

In April 2016, the FASB issued ASU 2016-10, “*Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing.*” ASU 2016-10 clarifies that entities are not required to assess whether promised goods or services are performance obligations if they are immaterial in the context of the contract. ASU 2016-10 also addresses how to determine whether promised goods or services are separately identifiable and permits entities to make a policy election to treat shipping and handling costs as fulfillment activities. In addition, it clarifies key provisions in Topic 606 related to licensing.

In May 2016, the FASB issued ASU 2016-11, “*Revenue Recognition (Topic 605) and Derivatives and Hedging (Topic 815).*” ASU 2016-11 rescinds previous SEC comments that were codified in Topic 605, Topic 932 and Topic 815. Upon adoption of Topic 606, certain SEC comments including guidance on accounting for shipping and handling fees and costs and consideration given by a vendor to a customer should not be relied upon.

In May 2016, the FASB also issued ASU 2016-12, “*Revenue from Contracts with Customers (Topic 606): Narrow Scope Improvements and Practical Expedients.*” ASU 2016-12 provides clarity around collectability, presentation of sales taxes, non-cash consideration, contract modifications at transition and completed contracts at transition. ASU 2016-12 also includes a technical correction within Topic 606 related to required disclosures if the guidance is applied retrospectively upon adoption.

In December 2016, the FASB issued ASU 2016-20, “*Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers.*” ASU 2016-20 allows entities not to make quantitative disclosures about remaining performance obligations in certain cases and requires entities that use any of the optional exemptions to expand their qualitative disclosures. ASU 2016-20 also clarifies other areas of the new revenue standard, including disclosure requirements for prior period performance obligations, impairment guidance for contract costs and the interaction of impairment guidance in ASC 340-40 with other guidance elsewhere in the Codification.

The Company has elected the modified retrospective adoption model, effective February 1, 2018. The Company’s quarterly results beginning with the quarter ending April 30, 2018 and comparative prior periods will be compliant with ASC 606 and its Form 10-K for the year ended January 31, 2019 will be the Company’s first Annual Report that will be issued in compliance with ASC 606.

The Company has substantially completed the implementation of ASC 606 and has identified the necessary changes to its policies, processes, systems, and controls. Based upon the work performed to date, the Company expects to record a cumulative-effect adjustment as of February 1, 2018 to increase retained earnings by an estimated range of approximately \$1.7 million to \$4.0 million. Such adjustment includes an increase in retained earnings by approximately \$1 million to \$3 million due to higher revenue that would have been recognized under ASC 606 if the standard had been adopted for the fiscal year ended January 31, 2018 and an increase in retained earnings of \$0.7 million to \$1.0 million due to reduced commission expense that would have been recognized under ASC 606 if the standard had been adopted for the fiscal year ended January 31, 2018. The resulting tax effect of this cumulative-effect adjustment is not expected to be significant to retained earnings. We expect to fully disclose the impacts of the new standard in connection with our Form 10-Q filing for the first quarter of fiscal 2019.

The Company anticipates the following impacts upon adoption of the standard:

- Currently, the Company recognizes revenue from perpetual licenses with extended payment terms over the term of the agreement as payments are received, provided all other criteria for revenue recognition have been met, and any corresponding maintenance over the term of the agreement. The adoption of ASC 606 will result in revenue for performance obligations being recognized as they are satisfied. Therefore, revenue from perpetual license performance obligations with extended payment terms will be recognized when control is transferred to the customer. Any unrecognized license revenue from the arrangement, included in deferred revenue at January 31, 2018, will not be recognized in revenue in future periods but as a cumulative adjustment to retained earnings. Further, revenue from the maintenance performance obligations is expected to be recognized on a straight-line basis over the contractual term. Due to the revenue from perpetual licenses with extended payment terms being recognized prior to amounts being billed to the customer, the Company expects to recognize a net contract asset on the balance sheet.
- Currently, the Company allocates revenue to licenses under the residual method when it has Vendor Specific Objective Evidence (“VSOE”) for the remaining undelivered elements, which allocates any future credits or significant discounts entirely to the license. The adoption of ASC 606 will result in future credits, significant discounts, and material rights under ASC 606, being allocated to all performance obligations based upon their relative selling price. Under ASC 606, additional license revenue from the reallocation of such arrangement considerations will be recognized when control is transferred to the customer, which is generally upon delivery of the license.
- Currently, the Company does not have VSOE for professional services and maintenance in certain geographical areas, which results in revenue being deferred in such instances until such time as VSOE exists for all undelivered elements or recognized ratably over the longest performance period. The adoption of ASC 606 eliminates the requirement for VSOE and replaces it with the concept of a standalone selling price. Once the transaction price is allocated to each of the performance obligations, the Company can recognize revenue as the performance obligations are delivered, either at a point in time or over time. Under ASC 606, license revenue will be recognized when control is transferred to the customer and professional services revenue will be recognized over time based on labor hours expended. This will result in the acceleration of professional services revenue when compared to the current practice of ratable recognition for professional services when there is a lack of VSOE.
- Sales commissions and other third-party acquisition costs resulting directly from securing contracts with customers are currently expensed when incurred. ASC 606 will require these costs to be recognized as an asset when incurred and to be expensed over the associated contract term. However, because the sales commission paid on the maintenance renewals is not commensurate with the original deal, ASC 606 requires that these acquisition costs be expensed over the customer life, which we have estimated to be five years. The Company expects this change to impact all arrangements that included implicit or explicit maintenance contracts.
- ASC 606 provides additional accounting guidance for contract modifications whereby changes must be accounted for either as a retrospective change (creating either a catch up or deferral of past revenues), prospectively with a reallocation of revenues amongst identified performance obligations, or prospectively as separate contracts which will not require any reallocation. This may result in a difference in the timing of the recognition of revenue as compared to how contract modifications are recognized currently.

There will be a corresponding effect on tax liabilities in relation to all of the above impacts.

Leases

In February 2016, the FASB issued ASU 2016-02, “*Leases (Topic 842)*.” 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 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.

Recently Issued Accounting Standard Updates – Adopted During the Period

Income Taxes

In March 2018, the FASB issued ASU 2018-05, *Income Taxes (Topic 740) - Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118*. ASU 2018-05 amends ASC 740, *Income Taxes* to provide guidance on accounting for the tax effects of the Tax Reform Act pursuant to Staff Accounting Bulletin No. 118, which allows companies to complete the accounting under ASC 740 within a one-year measurement period from the Tax Reform Act enactment date. This update was effective upon issuance. Therefore, we have applied the guidance in this update within our consolidated financial statements for the fiscal year ended January 31, 2018. See Note 12, *Income Taxes*, of this Form 10-K for more information on the adoption of this guidance.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Exchange Rate Risk

We face exposure to financial market risks, including adverse movements in foreign currency exchange rates and changes in interest rates. These exposures may change over time as business practices evolve and could have a material adverse impact on our financial results. Our foreign currency exchange exposure is primarily associated with product sales arrangements or settlement of intercompany payables and receivables among subsidiaries and their respective parent company, and/or investment/equity contingency considerations denominated in the local currency where the functional currency of the foreign subsidiary is the U.S. dollar.

Our principal currency exposures relate primarily to the U.S. dollar and the Euro. All foreign currency gains and losses are included in other income (expenses), net, in the accompanying consolidated statements of operations and comprehensive income (loss). For fiscal 2018 we recorded \$3.8 million in gains primarily due to the settlement of a note receivable between our Netherlands and British Virgin Islands entities. The loan was established in Euros, our Netherland subsidiary's functional currency, and therefore generated a realized foreign exchange gain of \$2.0 million. In addition, we also re-measured the deferred tax liability related to the outside basis difference 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. Due to the weakening of the U.S. dollar against the Euro in fiscal 2018, we recorded a foreign exchange gain of \$2.4 million when this deferred tax liability was reversed in January 2018.

A substantial portion of our earnings are generated by our foreign subsidiaries whose functional currency are other than the U.S. dollar. Therefore, our earnings could be materially impacted by movements in foreign currency exchange rates upon the translation of the subsidiary's earnings into the U.S. dollar. If the U.S. dollar had strengthened by 10% compared to the Euro, our total revenues would have decreased by \$3.3 million and loss from operations would have decreased \$1.9 million.

Interest Rate Risk

Exposure to market risk for changes in interest rates relates primarily to our investment portfolio of marketable debt securities of various issuers, types and maturities. We do not use derivative instruments in our investment portfolio, and our investment portfolio only includes highly liquid instruments. Our cash and marketable securities include cash equivalents, which we consider to be investments purchased with original maturities of 90 days or less. There is risk that losses could be incurred if we were to sell any securities prior to stated maturity. Given the short maturities and investment grade quality of the portfolio holdings at January 31, 2018, a hypothetical 10% adverse movement in interest rates should not have a material adverse impact on the fair value of our investment portfolio.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
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, 2018 and 2017, and the related consolidated statements of operations and comprehensive income (loss), stockholders’ equity, and cash flows for each of the three years in the period ended January 31, 2018, and the related notes and schedule (collectively referred to as the “financial statements”). We also have audited the Company’s internal control over financial reporting as of January 31, 2018, 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, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended January 31, 2018 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, 2018, 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 16, 2018

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

	January 31, 2018	January 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	\$ 43,652	\$ 28,302
Restricted cash	9	109
Marketable securities	3,991	5,253
Accounts and other receivables, net of allowance for doubtful accounts of \$16 and \$876 at January 31, 2018 and January 31, 2017, respectively	22,537	25,985
Unbilled receivables	3,101	6,553
Inventories, net	666	770
Prepaid expenses and other current assets	3,557	2,393
Total current assets	77,513	69,365
Property and equipment, net	9,471	11,485
Marketable securities, long-term	4,449	4,991
Investments in affiliates	—	2,000
Intangible assets, net	1,303	2,603
Goodwill, net	25,579	23,287
Other assets	1,015	2,336
Total assets	<u>\$ 119,330</u>	<u>\$ 116,067</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 2,431	\$ 4,978
Deferred revenues	11,598	12,517
Other accrued expenses	15,379	9,928
Total current liabilities	29,408	27,423
Deferred revenues, long-term	2,835	2,419
Taxes payable, long-term	1,152	1,427
Deferred tax liabilities, long-term	215	14,732
Other liabilities, long-term	—	530
Total liabilities	33,610	46,531
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock, \$0.01 par value; 100,000,000 shares authorized; 35,634,984 shares issued and 35,594,494 outstanding at January 31, 2018, and 35,339,232 shares issued and 35,298,742 outstanding at January 31, 2017	356	353
Additional paid-in capital	239,423	236,677
Treasury stock, at cost; 40,490 common shares at January 31, 2018 and January 31, 2017, respectively	(5)	(5)
Accumulated loss	(148,620)	(162,118)
Accumulated other comprehensive loss	(5,434)	(5,371)
Total stockholders' equity	85,720	69,536
Total liabilities and stockholders' equity	<u>\$ 119,330</u>	<u>\$ 116,067</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,		
	2018	2017	2016
Revenues:			
Products	\$ 28,791	\$ 18,205	\$ 21,896
Services	51,476	65,590	85,096
Total revenues	<u>80,267</u>	<u>83,795</u>	<u>106,992</u>
Cost of revenues:			
Products	3,942	6,453	6,013
Services	22,001	35,740	44,159
(Recovery on) provision for loss contract	(593)	(4,118)	9,162
Amortization of intangible assets	970	1,283	739
Stock-based compensation expense	3	132	80
Total cost of revenues	<u>26,323</u>	<u>39,490</u>	<u>60,153</u>
Gross profit	<u>53,944</u>	<u>44,305</u>	<u>46,839</u>
Operating expenses:			
Research and development	23,162	30,093	33,696
Selling and marketing	12,614	16,158	15,197
General and administrative	14,671	16,173	15,470
Amortization of intangible assets	1,453	2,019	4,041
Stock-based compensation expense	2,693	2,489	3,472
Change in fair value of earn-outs	—	249	—
Professional fees - other	21	347	637
Severance and other restructuring costs	4,740	7,151	1,061
Loss on impairment of long-lived assets	—	23,772	21,464
Total operating expenses	<u>59,354</u>	<u>98,451</u>	<u>95,038</u>
Loss from operations	<u>(5,410)</u>	<u>(54,146)</u>	<u>(48,199)</u>
Other income (expenses), net	4,081	(1,972)	(523)
Gain (loss) on investment in affiliates	2,555	(500)	(31)
Income (loss) from operations before income taxes and equity income in earnings of affiliates	1,226	(56,618)	(48,753)
Income tax (benefit) provision	(12,272)	14,631	(1,029)
Equity income in earnings of affiliates, net of tax	—	—	27
Net income (loss)	<u>\$ 13,498</u>	<u>\$ (71,249)</u>	<u>\$ (47,697)</u>
Net income (loss)	<u>\$ 13,498</u>	<u>\$ (71,249)</u>	<u>\$ (47,697)</u>
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustment	(3)	1,267	(847)
Unrealized loss on marketable securities(1)	(60)	(25)	(12)
Comprehensive income (loss)	<u>\$ 13,435</u>	<u>\$ (70,007)</u>	<u>\$ (48,556)</u>
Net loss per share:			
Basic	<u>\$ 0.38</u>	<u>\$ (2.04)</u>	<u>\$ (1.42)</u>
Diluted	<u>\$ 0.38</u>	<u>\$ (2.04)</u>	<u>\$ (1.42)</u>
Weighted average common shares outstanding:			
Basic	<u>35,412</u>	<u>34,970</u>	<u>33,506</u>
Diluted	<u>35,685</u>	<u>34,970</u>	<u>33,506</u>

(1) Tax amounts for all periods were not significant

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,		
	2018	2017	2016
Cash flows from operating activities:			
Net income (loss)	\$ 13,498	\$ (71,249)	\$ (47,697)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization of property and equipment	2,273	2,953	3,380
(Recovery on) provision for loss contract	(593)	(4,118)	9,162
Amortization of intangible assets	2,423	3,302	4,780
Provision for bad debts	79	597	58
Stock-based compensation expense	2,696	2,621	3,552
Deferred income taxes	(14,132)	14,676	(985)
(Gain) loss on investment in affiliates	(2,555)	500	31
Loss on impairment of long-lived assets	—	23,772	21,464
Other	398	621	108
Changes in operating assets and liabilities, excluding impact of acquisitions:			
Accounts receivable	5,132	42	(1,721)
Unbilled receivables	3,968	4,694	(4,359)
Inventories	34	806	(937)
Prepaid expenses and other assets	(588)	1,378	(1,097)
Accounts payable	(2,499)	(1,674)	874
Accrued expenses	3,505	(4,872)	(2,712)
Deferred revenues	(1,078)	(2,417)	(1,431)
Other operating activities	386	30	(1,132)
Total cash provided by (used in) operating activities	<u>12,947</u>	<u>(28,338)</u>	<u>(18,662)</u>
Cash flows from investing activities:			
Purchases of property and equipment	(526)	(683)	(1,397)
Investment in capitalized software	—	—	(2,440)
Purchases of marketable securities	(7,246)	(2,008)	(9,033)
Proceeds from sale and maturity of marketable securities	8,992	4,005	11,043
Proceeds from sale of investment in affiliates	4,555	—	464
Acquisition of businesses and payment of contingent consideration, net of cash acquired	—	(5,243)	(11,686)
Other investing activities	236	57	3
Total cash provided by (used in) investing activities	<u>6,011</u>	<u>(3,872)</u>	<u>(13,046)</u>
Cash flows from financing activities:			
Proceeds from issuance of common stock	54	60	193
Payments of withholding tax on RSU vesting	(141)	(183)	(1)
Total cash (used in) provided by financing activities	<u>(87)</u>	<u>(123)</u>	<u>192</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(3,621)	1,929	312
Net increase (decrease) in cash, cash equivalents and restricted cash	<u>15,250</u>	<u>(30,404)</u>	<u>(31,204)</u>
Cash, cash equivalents and restricted cash, beginning of period	28,411	58,815	90,019
Cash, cash equivalents and restricted cash, end of period	<u>\$ 43,661</u>	<u>\$ 28,411</u>	<u>\$ 58,815</u>
Supplemental disclosure of cash flow information:			
Income taxes paid	\$ 368	\$ 178	\$ 640
Interest paid	\$ —	\$ 6	\$ 6
Supplemental disclosure of non-cash investing and financing activities:			
Fair value of common stock issued for acquisition of DCC Labs	\$ —	\$ 2,640	\$ —
Fair value of common stock issued for acquisition of TLL, LLC	\$ —	\$ —	\$ 3,019
Fair value of common stock issued for deferred stock consideration obligation	\$ —	\$ 3,452	\$ 1,754
Transfer of items originally classified as inventories to equipment	\$ —	\$ 24	\$ 532

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	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)		Treasury Stock		Total Stockholders' Equity
	Number of Shares	Par Value			Cumulative Translation Adjustment	Unrealized Gain/Loss on Investments	Number of Shares	Amount	
Balance at January 31, 2015	32,733,636	\$ 327	\$ 219,651	\$ (43,172)	\$ (5,797)	\$ 43	(39,784)	\$ (1)	\$ 171,051
Issuance of common stock pursuant to exercise of stock options	28,740	—	193	—	—	—	—	—	193
Issuance of common stock pursuant to vesting of restricted stock units	278,544	3	(3)	—	—	—	—	—	—
Issuance of common stock pursuant to the TLL, LLC acquisition	777,857	8	4,771	—	—	—	—	—	4,779
Purchase of treasury shares	—	—	—	—	—	—	(122)	(1)	(1)
Stock-based compensation expense	—	—	3,552	—	—	—	—	—	3,552
Change in fair value on marketable securities	—	—	—	—	—	(12)	—	—	(12)
Translation adjustment	—	—	—	—	(847)	—	—	—	(847)
Net loss	—	—	—	(47,697)	—	—	—	—	(47,697)
Balance at January 31, 2016	33,818,777	338	228,164	(90,869)	(6,644)	31	(39,906)	(2)	131,018
Issuance of common stock pursuant to vesting of restricted stock units	208,474	2	—	—	—	—	—	—	2
Issuance of common stock pursuant to the TLL, LLC acquisition	542,274	5	3,198	—	—	—	—	—	3,203
Issuance of common stock pursuant to TLL purchase adjustment mechanism	70,473	1	248	—	—	—	—	—	249
Issuance of commons stock pursuant to the acquisition of DCC Labs	681,278	7	2,633	—	—	—	—	—	2,640
Issuance of common stock pursuant to ESPP purchases	17,956	—	61	—	—	—	—	—	61
Purchase of treasury shares	—	—	—	—	—	—	(584)	(3)	(3)
Stock-based compensation expense	—	—	2,621	—	—	—	—	—	2,621
Fiscal 2016 compensation paid in restricted stock units	—	—	(248)	—	—	—	—	—	(248)
Change in fair value on marketable securities	—	—	—	—	—	(25)	—	—	(25)
Translation adjustment	—	—	—	—	1,267	—	—	—	1,267
Net loss	—	—	—	(71,249)	—	—	—	—	(71,249)
Balance at January 31, 2017	35,339,232	353	236,677	(162,118)	(5,377)	6	(40,490)	(5)	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
Change in fair value on marketable securities	—	—	—	—	—	(60)	—	—	(60)
Translation adjustment	—	—	—	—	(3)	—	—	—	(3)
Net income	—	—	—	13,498	—	—	—	—	13,498
Balance at January 31, 2018	<u>35,634,984</u>	<u>\$ 356</u>	<u>\$ 239,423</u>	<u>\$ (148,620)</u>	<u>\$ (5,380)</u>	<u>\$ (54)</u>	<u>(40,490)</u>	<u>\$ (5)</u>	<u>\$ 85,720</u>

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

SEACHANGE INTERNATIONAL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business

We are an industry leader in the delivery of multiscreen, advertising and premium over-the-top (“OTT”) video management solutions. Our products and services are designed to empower video providers to create, manage and monetize the increasingly personalized, highly engaging experiences that viewers demand.

2. Summary of Significant Accounting Policies

Significant accounting policies followed in the preparation of the accompanying consolidated financial statements are as follows:

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. We have reclassified certain prior period data to conform to our current fiscal year presentation.

Effective February 1, 2017, the Company changed how it classifies costs associated with its solution architect employees. In fiscal 2017, all solution architect costs were classified as cost of revenues. However, beginning in fiscal 2018, the Company began reflecting in cost of revenues only those costs associated with revenue-generating projects, based on the hours worked by solution architect employees. Solution architect costs that are not associated with revenue-generating projects are recognized as selling and marketing expenses since these employees are involved in pre-sale and other customer-facing activities.

We have adjusted prior fiscal year amounts to conform to the current fiscal year presentation. The effect of this change in methodology, which is a decrease to cost of revenue and an increase to selling and marketing expenses, is reflected in our current statements of operations and comprehensive income (loss) for fiscal 2017. There were no such costs in fiscal 2016:

	As Filed Fiscal 2017 January 31, 2017	Adjustment to Conform to Current Year Presentation	As Filed Fiscal 2018 January 31, 2017
	(Amounts in thousands)		
Cost of revenues - service	\$ 37,865	\$ (2,125)	\$ 35,740
Selling and marketing expenses	\$ 14,033	\$ 2,125	\$ 16,158

Use of Estimates

The preparation of these financial statements in conformity with U.S. GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and disclosure of contingent assets and liabilities. On an ongoing basis, management evaluates these estimates and judgments, including those related to the timing and amounts of revenue recognition, valuation of inventory, collectability of accounts receivable, valuation of investments and income taxes, assumptions used to determine stock-based compensation, valuation of goodwill and intangible assets and related amortization. Management bases these estimates on historical and anticipated results and trends and on various other assumptions that management believes are reasonable under the circumstances, including assumptions as to future events. These estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. By their nature, estimates are subject to an inherent degree of uncertainty. Actual results may differ from management’s estimates.

Cash, cash equivalents and restricted cash

Cash and cash equivalents include cash on hand and on deposit and highly liquid investments in money market mutual funds, government sponsored enterprise obligations, treasury bills, commercial paper and other money market securities with remaining maturities at date of purchase of 90 days or less. All cash equivalents are carried at cost, which approximates fair

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

We early adopted the new Financial Accounting Standards Board (“FASB”) guidance on August 1, 2017, which changed the presentation of our consolidated statements of cash flows and related disclosures for all periods presented. Accordingly, the following is a summary of our cash, cash equivalents, and restricted cash total as presented in our consolidated statements of cash flows for the fiscal years ended January 31, 2018, 2017 and 2016:

	For the Fiscal Year Ended		
	January 31,		
	2018	2017	2016
	(Amounts in thousands)		
Cash and cash equivalents	\$ 43,652	\$ 28,302	\$ 58,733
Restricted cash	9	109	82
Total cash, cash equivalents, and restricted cash	<u>\$ 43,661</u>	<u>\$ 28,411</u>	<u>\$ 58,815</u>

Marketable Securities

We account for investments in accordance with authoritative guidance that defines investment classifications. We determine the appropriate classification of debt securities at the time of purchase and reevaluate such designation as of each balance sheet date. Our investment portfolio consists primarily of money market funds, U.S. treasury notes and bonds, U.S. government agency notes and bonds and corporate bonds at January 31, 2018 and 2017, but can consist of asset-backed securities and government-sponsored enterprises. Our marketable securities are classified as available-for-sale and are reported at fair value with unrealized gains and losses, net of tax, reported in stockholders’ equity as a component of accumulated other comprehensive loss. The amortization of premiums and accretion of discounts to maturity are computed under the effective interest method and are included in other income (expenses), net in our consolidated statements of operations and comprehensive income (loss). Interest on securities is recorded as earned and is also included in other income (expenses), net. Any realized gains or losses would be shown in the accompanying consolidated statements of operations and comprehensive income (loss) in other income (expenses), net.

We evaluate our investments on a regular basis to determine whether an other-than-temporary decline in fair value has occurred. This evaluation consists of a review of several factors, including, but not limited to: the length of time and extent that an investment has been in an unrealized loss position; the existence of an event that would impair the issuer’s future earnings potential; and our intent and ability to hold an investment for a period of time sufficient to allow for any anticipated recovery in fair value. Declines in value below cost for investments where it is considered probable that all contractual terms of the investment will be satisfied, are due primarily to changes in interest rates, and where the company has the intent and ability to hold the investment for a period sufficient to allow a market recovery, are not assumed to be other-than-temporary. Any other-than-temporary declines in fair value are recorded in earnings and a new cost basis for the investment is established.

Liquidity

We continue to realize the savings related to our restructuring activities. During fiscal 2018, we made significant reductions to our headcount as part of our ongoing restructuring effort from which we expect to generate annualized savings of approximately \$18 million. These measures are important steps in restoring SeaChange to profitability and positive cash flow. The Company believes that existing funds and cash expected to be provided by future operating activities are adequate to satisfy our working capital, potential strategic collaborations and capital expenditure requirements and other contractual obligations for the foreseeable future, including at least the next 12 months.

Fair Value Measurements

Definition and Hierarchy

The applicable accounting guidance defines fair value as the exchange price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The guidance establishes a framework for measuring fair value and expands required disclosure about the fair value measurements of assets and liabilities. This guidance requires us to classify and disclose assets and liabilities measured at fair value on a recurring basis, as well as fair value measurements of assets and liabilities measured on a non-recurring basis in periods after initial measurement, in a fair value hierarchy.

The fair value hierarchy is broken down into three levels based on the reliability of inputs and requires an entity to maximize the use of observable inputs, where available. The following summarizes the three levels of inputs required:

- Level 1 – Observable inputs that reflect quoted prices for identical assets or liabilities in active markets.
- Level 2 – Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not very active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Valuation Techniques

Inputs to valuation techniques are observable and unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our market assumptions. When developing fair value estimates for certain financial assets and liabilities, we maximize the use of observable inputs and minimize the use of unobservable inputs. When available, we use quoted market prices, market comparables and discounted cash flow projections. Financial assets include money market funds, U.S. treasury notes or bonds, U.S. government agency bonds and corporate bonds.

In general, and where applicable, we use quoted prices in active markets for identical assets or liabilities to determine fair value. If quoted prices in active markets for identical assets or liabilities are not available to determine fair value, then we use quoted prices for similar assets and liabilities or inputs that are observable either directly or indirectly. In periods of market inactivity, the observability of prices and inputs may be reduced for certain instruments. This condition could cause an instrument to be reclassified from Level 1 to Level 2 or from Level 2 to Level 3.

Concentration of Credit Risk

Financial instruments which potentially expose us to concentrations of credit risk include cash equivalents, investments in treasury bills, certificates of deposits and commercial paper, trade accounts receivable, accounts payable and accrued liabilities. We have cash investment policies which, among other things, limit investments to investment-grade securities. We restrict our cash equivalents and investments in 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. As of January 31, 2018, one customer represented more than 10% of consolidated accounts receivable while as of January 31, 2017, two customers did. For fiscal 2018 and fiscal 2017, one customer accounted for more than 10% of our total revenue while two customers accounted for more than 10% of our total revenue in fiscal 2016.

Accounts Receivable and Allowances for Doubtful Accounts

For trade accounts receivable, 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. At January 31, 2018, allowance for doubtful accounts was not a material amount, while our allowance for doubtful accounts was \$0.9 million at January 31, 2017 to provide for potential credit losses. 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

Inventories are stated at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method. Inventories consist primarily of components and subassemblies and finished products held for sale. The values of inventories are reviewed quarterly to determine that the carrying value is stated at the lower of cost or net realizable value. We record charges to reduce inventory to its net realizable value when impairment is identified through a quarterly review process. The obsolescence evaluation is based upon assumptions and estimates about future demand, or possible alternative uses and involves significant judgments.

Property and Equipment

Property and equipment consists of land and buildings, office and computer equipment, leasehold improvements, demonstration equipment, deployed assets and spare components and assemblies used to service our installed base. Property and equipment are recorded at cost, net of accumulated depreciation and amortization, and are depreciated over their estimated useful lives. Determining the useful lives of property and equipment requires us to make significant judgments that can materially impact our operating results. If our estimates require adjustment, it could have a material impact on our reported results.

Demonstration equipment consists of systems manufactured by us for use in marketing and selling activities. Leasehold improvements are amortized over the shorter of their estimated useful lives or the term of the respective leases using the straight-line method. Deployed assets consist of movie systems owned and manufactured by us that are installed in a hotel environment. Deployed assets are depreciated over the life of the related service agreements. Capitalized service and spare components are depreciated over the estimated useful lives using the straight-line method. Maintenance and repair costs are expensed as incurred.

Generally, property and equipment include assets in service. Fully depreciated assets remaining in service along with related accumulated depreciation are not removed from the balance sheet until the corresponding asset is removed from service either through a retirement or sale. Upon retirement or sale of an asset or asset group, the cost of the assets disposed of and the related accumulated depreciation are removed from the accounts and the resulting gain or loss, if any, is recognized in other income (expenses), net in our consolidated statements of operations and comprehensive income (loss).

Investments in Affiliates

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

We periodically review indicators of the fair value of our investments in affiliates to assess whether available facts or circumstances, both internally and externally, may suggest an other-than-temporary decline in the value of the investment. If we determine that an other-than-temporary impairment has occurred, we will write-down the investment to its fair value. The carrying value of an investment in an affiliate accounted for under the cost method of accounting may be affected by the affiliate's ability to obtain adequate funding and execute its business plans, general market conditions, its current cash position, earnings and cash flow forecasts, recent operational performance, and any other readily available data. We record an impairment charge when we believe an investment has experienced a decline in value that is other-than-temporary. In January 2017, we recorded a \$0.5 million impairment charge to gain (loss) on investment in affiliates in our consolidated statements of operations and comprehensive income (loss) for one of our cost-method investments as we determined that the fair value of the investment was below its carrying value and that the carrying value was not expected to be recoverable within a reasonable amount of time (see Note 3, "Fair Value Measurements" to this Form 10-K for more information).

In connection with the acquisition in January 2018 by T-Mobile of Layer3 TV, Inc. ("Layer 3"), a next generation cable provider in which we previously had made an equity investment, we received \$4.6 million upon closing of the transaction, with an additional payment of up to \$2.1 million being held in escrow, subject to satisfaction of the escrow provisions. As a result of the sale of our investment in Layer 3, we realized a gain of \$2.6 million in gain (loss) on investment in affiliates in our consolidated statements of operations and comprehensive income (loss) for fiscal 2018.

Intangible Assets and Goodwill

Intangible assets consist of customer contracts, non-compete agreements, completed technology, trademarks, backlogs and patents. The intangible assets are amortized to cost of sales and operating expenses, as appropriate, on a straight-line or accelerated basis, using the economic consumption life basis, to reflect the period that the assets will be consumed, which are:

Intangible assets with finite useful lives:

Customer contracts	1 - 8 years
Non-compete agreements	2 - 3 years
Completed technology	4 - 6 years
Trademarks, patents and other	5 - 7 years

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. The Company expenses 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. The carrying value of our capitalized internally developed software costs was \$0.7 million as of January 31, 2018. Maintenance and training costs are expensed as incurred.

Goodwill is recorded when the consideration for an acquisition exceeds the fair value of net tangible and identifiable intangible assets acquired.

Impairment of Assets

Indefinite-lived intangible assets, such as goodwill, are not amortized but are evaluated for impairment at the reporting unit level annually, in our third quarter beginning August 1st. Indefinite-lived intangible assets may be tested for impairment on an interim basis in addition to the annual evaluation if an event occurs or circumstances change such as declines in sales, earnings or cash flows, decline in the Company's stock price, or material adverse changes in the business climate, which would more likely than not reduce the fair value of a reporting unit below its carrying amount.

The process of evaluating indefinite-lived intangible assets for impairment requires several judgments and assumptions to be made to determine the fair value, including the method used to determine fair value, discount rates, expected levels of cash flows, revenues and earnings, and the selection of comparable companies used to develop market-based assumptions. We may employ the three generally accepted approaches for valuing businesses: the market approach, the income approach and the asset-based (cost) approach to arrive at the fair value. The choice of which approach and methods to use in a particular situation depends on the facts and circumstances.

We also evaluate property and equipment, intangible assets with finite useful lives and other long-lived assets on a regular basis for the existence of facts or circumstances, both internal and external that may suggest an asset is not recoverable. If such circumstances exist, we evaluate the carrying value of long-lived assets to determine if impairment exists based upon estimated undiscounted future cash flows over the remaining useful life of the primary asset in the asset group and compare that value to the carrying value of the assets. Our cash flow estimates contain management's best estimates, using appropriate and customary assumptions and projections at the time.

In August 2017, we placed our corporate headquarters and the adjacent land (the "Corporate Headquarters"), located in Acton, Massachusetts, on the market for sale. We assessed whether the Corporate Headquarters would qualify as an asset held for sale and determined that it would not since it did not meet all six of the criteria of an asset held for sale under current accounting guidance. During the assessment, we received information from a third-party real estate broker which led management to believe that there was a significant decrease in the fair value of the Corporate Headquarters. We considered this to be a triggering event and were required to test the Corporate Headquarters for recoverability. We evaluated the undiscounted future cash flows over the remaining useful life of the primary asset of the asset group and determined that an impairment did not exist as of the date of the triggering event.

In the third quarter of fiscal 2017, we finalized our "Step 1" analysis of our annual goodwill impairment test. Our forecast indicated that the estimated fair value of net assets may be less than its carrying value which is a potential indicator of impairment. As such, we were required to perform "Step 2" of the impairment test during which we compared the implied fair value of our goodwill to its carrying value. We completed the goodwill impairment testing of our reporting unit during the fourth quarter of fiscal 2017. Since the implied fair value of goodwill was determined to be lower than its carrying value, we recorded an impairment charge of \$23.5 million to loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) (see Note 6, "Goodwill and Intangible Assets" to this Form 10-K for more information).

In January 2017, after a potential buyer declined to purchase our facility in Greenville, New Hampshire, we determined that the sale of this facility was not imminent due to the location of the building and the overall market conditions in the area. Consequently, we decided to fully impair the facility since we felt the carrying amount was greater than the fair value. As a result, we recorded a \$0.3 million loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss).

In the fourth quarter of fiscal 2017, a certain cost-method investment was determined to be impaired and written off. Accordingly, we recorded a \$0.5 million impairment charge in January 2017 which is included in loss on investment in affiliates in our consolidated statements of operations and comprehensive income (loss). The cost-method investment is a privately-held entity without quoted market prices and therefore, falls within Level 3 of the fair value hierarchy due to the use of significant unobservable inputs to determine its fair value. In determining the fair value of this cost-method investment, we considered

many factors including, but not limited to, operating performance of the investee, the amount of cash that the investee has on hand and the overall market conditions in which the investee operates.

As of January 31, 2016, the Company reviewed the projected future cash flows of the Timeline Labs operations and determined that the carrying amount was greater than the fair value. As a result, all long-term assets related to Timeline Labs were fully impaired and reflected as a \$21.9 million loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2016 which included: i) \$15.8 million relating to the Timeline Labs acquired goodwill, ii) \$5.2 million of acquired intangible assets, and iii) \$0.9 million of capitalized internal use software. Additionally, we reduced the contingent consideration liability associated with the Timeline Labs acquisition to zero, as we determined the defined performance criteria would not be achieved. Therefore, we recorded the reversal of the liability of \$0.4 million to the loss on impairment of long-lived assets. The amount of goodwill impaired represented all the goodwill that resulted from this acquisition due to the short duration of time between the acquisition and the event causing us to impair the assets.

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 other 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).

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.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act ("Tax Reform Act") was signed into law. We are required to recognize in the period of enactment, the effect of the tax law changes, such as remeasuring our U.S. deferred tax assets and liabilities, reassessing the net realizability of deferred tax assets and liabilities, and determining the applicability of the one-time mandatory transition tax on accumulated foreign earnings. Additionally, on December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. ("SAB") 118, "*Income Tax Accounting Implications of the Tax Cuts and Jobs Act*." SAB 118 has provided guidance which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. As a result of the change in law including a reduction in the corporate tax rate, the Company recorded a provisional reduction to its deferred tax assets of \$17.1 million and a corresponding reduction to its valuation allowance in the fourth quarter of fiscal 2018, which represents the Company's best estimate of the impact of the Tax Reform Act in accordance

with the Company's understanding of the Tax Reform Act and available guidance as of the date of this filing. As a result, there was no impact to the Company's consolidated statements of operations and comprehensive income (loss) due to the reduction in the U.S. corporate tax rate. We will continue to analyze the Tax Reform Act and related accounting guidance and interpretations in order to finalize any impacts within the measurement period. See Note 12, "Income Taxes," to this Form 10-K for more information.

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. Differences between actual and expected charges and changes in assumptions could have a material effect on our restructuring accrual as well as our consolidated results of operations. See Note 7, "Severance and Other Restructuring Costs," to this Form 10-K for more information on the current restructuring plan.

Foreign Currency Translation

For subsidiaries where the U.S. dollar is designated as the functional currency of the entity, we translate that entity's monetary assets and liabilities denominated in local currencies into U.S. dollars (the functional and reporting currency) at current exchange rates, as of each balance sheet date. Non-monetary assets (e.g., inventories, property and equipment and intangible assets) and related income statement accounts (e.g., cost of sales, depreciation, amortization of intangible assets) are translated at historical exchange rates between the functional currency (the U.S. dollar) and the local currency. Revenue and other expense items are translated using average exchange rates during the fiscal period. Translation adjustments resulting from translation of the subsidiaries' accounts are included in accumulated other comprehensive loss, a separate component of stockholders' equity. Gains and losses on foreign currency transactions, and any unrealized gains and losses on short-term intercompany transactions are included in other income (expenses), net.

For subsidiaries where the local currency is designated as the functional currency, we translate their assets and liabilities into U.S. dollars (the reporting currency) at current exchange rates as of each balance sheet date. Revenue and expense items are translated using average exchange rates during the period. Cumulative translation adjustments are presented as a separate component of stockholders' equity. Exchange gains and losses on foreign currency transactions and unrealized gains and losses on short-term inter-company transactions are included in other income (expenses), net.

The aggregate foreign exchange transaction gains (losses) included in other income (expenses), net, on the consolidated statements of operations and comprehensive income (loss), were \$3.8 million, (\$2.1) million and approximately (\$0.7) million for fiscal 2018, 2017 and 2016, respectively.

Comprehensive Income (Loss)

We present accumulated other comprehensive loss in our consolidated balance sheets and comprehensive income (loss) in the consolidated statement of operations and comprehensive income (loss). At the end of fiscal 2018, 2017 and 2016, our comprehensive income (loss) of \$13.4 million, (\$70.0) million and (\$48.6) million consists of net income (loss), cumulative translation adjustments and unrealized gains and losses on marketable securities.

Revenue Recognition

Our transactions frequently involve the sales of hardware, software, systems and services in multiple-element arrangements. Revenues from sales of hardware, software and systems that do not require significant modification or customization of the underlying software are recognized when:

- persuasive evidence of an arrangement exists;
- delivery has occurred, and title and risk of loss have passed to the customer;
- fees are fixed or determinable; and
- collection of the related receivable is considered probable.

Customers are billed for installation, training, project management and at least one year of product maintenance and technical support at the time of the product sale. Revenue from these activities is deferred at the time of the product sale and recognized

ratably over the period these services are performed. Revenue from ongoing product maintenance and technical support agreements is recognized ratably over the period of the related agreements. Revenue from software development contracts that include significant modification or customization, including software product enhancements, is recognized based on the percentage of completion contract accounting method using labor efforts expended in relation to estimates of total labor efforts to complete the contract. The percentage of completion method requires that adjustments or re-evaluations to estimated project revenues and costs be recognized on a project-to-date cumulative basis, as changes to the estimates are identified. Revisions to project estimates are made as additional information becomes known, including information that becomes available after the date of the consolidated financial statements up through the date such consolidated financial statements are filed with the SEC. If the final estimated profit to complete a long-term contract indicates a loss, a provision is recorded immediately for the total loss anticipated. Accounting for contract amendments and customer change orders are included in contract accounting when executed. Revenue from shipping and handling costs and other out-of-pocket expenses reimbursed by customers are included in revenues and cost of revenues. Our share of intercompany profits associated with sales and services provided to affiliated companies are eliminated in consolidation in proportion to our equity ownership.

Contract accounting requires judgment relative to assessing risks, estimating revenues 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 revenues 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 contract amendments and customer change orders are included in contract accounting 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.

Revenue from the sale of software-only products remains within the scope of the software revenue recognition rules. Maintenance and support, training, consulting, and installation services no longer fall within the scope of the software revenue recognition rules, except when they are sold with and relate to a software-only product. Revenue recognition for products that no longer fall under the scope of the software revenue recognition rules is like that for other tangible products and Accounting Standard Update No. ("ASU") 2009-13, "*Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements*," amended Accounting Standard Codification Topic No. ("ASC") 605 and is applicable for multiple-deliverable revenue arrangements. ASU 2009-13 allows companies to allocate revenue in a multiple-deliverable arrangement in a manner that better reflects the transaction's economics.

Under the software revenue recognition rules, the fee is allocated to the various elements based on vendor-specific objective evidence ("VSOE") of fair value. Under this method, the total arrangement value is allocated first to undelivered elements based on their fair values, with the remainder being allocated to the delivered elements. Where fair value of undelivered service elements has not been established, the total arrangement value is recognized over the period during which the services are performed. The amounts allocated to undelivered elements, which may include project management, training, installation, maintenance and technical support and certain hardware and software components, are based upon the price charged when these elements are sold separately and unaccompanied by the other elements. The amount allocated to installation, training and project management revenue is based upon standard hourly billing rates and the estimated time necessary to complete the service. These services are not essential to the functionality of systems as these services do not alter the equipment's capabilities, are available from other vendors and the systems are standard products. For multiple-element arrangements that include software development with significant modification or customization and systems sales where VSOE of the fair value does not exist for the undelivered elements of the arrangement (other than maintenance and technical support), percentage of completion accounting is applied for revenue recognition purposes to the entire arrangement except for maintenance and technical support.

Under the revenue recognition rules for tangible products as amended by ASU 2009-13, the fee from a multiple-deliverable arrangement is allocated to each of the deliverables based upon their relative selling prices as determined by a selling-price hierarchy. A deliverable in an arrangement qualifies as a separate unit of accounting if the delivered item has value to the customer on a stand-alone basis. A delivered item that does not qualify as a separate unit of accounting is combined with the other undelivered items in the arrangement and revenue is recognized for those combined deliverables as a single unit of accounting. The selling price used for each deliverable is based upon VSOE if available, third-party evidence ("TPE") if VSOE is not available, and best estimate of selling price ("BESP") if neither VSOE nor TPE are available. TPE is the price of the Company's, or any competitor's, largely interchangeable products or services in stand-alone sales to similarly situated customers. BESP is the price at which we would sell the deliverable if it were sold regularly on a stand-alone basis, considering market conditions and entity-specific factors.

The selling prices used in the relative selling price allocation method for certain of our services are based upon VSOE. The selling prices used in the relative selling price allocation method for third-party products from other vendors are based upon

TPE. The selling prices used in the relative selling price allocation method for our hardware products, software, subscriptions, and customized services for which VSOE does not exist are based upon BESP. We do not believe TPE exists for these products and services because they are differentiated from competing products and services in terms of functionality and performance and there are no competing products or services that are largely interchangeable. Management establishes BESP with consideration for market conditions, such as the impact of competition and geographic considerations, and entity-specific factors, such as the cost of the product, discounts provided and profit objectives. Management believes that BESP is reflective of reasonable pricing of that deliverable as if priced on a stand-alone basis.

For our cloud and managed service revenues, we generate revenue from two sources: (1) subscription and support services; and (2) professional services and other. Subscription and support revenue includes subscription fees from customers accessing our cloud-based software platform and support fees. Our arrangements with customers do not provide the customer with the right to take possession of the software supporting the cloud-based software platform at any time. Professional services and other revenue include fees from implementation and customization to support customer requirements. Amounts that have been invoiced are recorded in accounts receivable and in deferred revenue or revenue, depending on whether the revenue recognition criteria have been met. For the most part, subscription and support agreements are entered into for 12 to 36 months. Generally, most of the professional services components of the arrangements with customers are performed within a year of entering a contract with the customer.

In most instances, revenue from a new customer acquisition is generated under sales agreements with multiple elements, comprised of subscription and support and other professional services. We evaluate each element in a multiple-element arrangement to determine whether it represents a separate unit of accounting. An element constitutes a separate unit of accounting when the delivered item has standalone value and delivery of the undelivered element is probable and within our control.

In determining when to recognize revenue from a customer arrangement, we are often required to exercise judgment regarding the application of our accounting policies to an arrangement. The primary judgments used in evaluating revenue recognized in each period involve: determining whether collection is probable, assessing whether the fee is fixed or determinable, and determining the fair value of the maintenance and service elements included in multiple-element software arrangements. Such judgments can materially impact the amount of revenue that we record in a given period. While we follow specific and detailed rules and guidelines related to revenue recognition, we make and use significant management judgments and estimates about the revenue recognized in any reporting period, particularly in the areas described above. If management made different estimates or judgments, material differences in the timing of the recognition of revenue could occur.

Stock-based Compensation

We account for all employee and non-employee director stock-based compensation awards using the authoritative guidance regarding share-based payments. We continue to use the Black-Scholes pricing model as we feel it is the most appropriate method for determining the estimated fair value of the non-market-based awards. We also use the Monte Carlo pricing model for our market-based option awards and performance stock units (“PSUs”). Determining the appropriate fair value model and calculating the fair value of share-based payment awards requires the input of highly subjective assumptions, including the expected life of the share-based payment awards and stock price volatility. Management estimates the volatility based on the historical volatility of our stock. The assumptions used in calculating the fair value of share-based payment awards represent management’s best estimates, but these estimates involve inherent uncertainties and the application of management’s judgment. As a result, if circumstances change and we use different assumptions, our stock-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and only recognize expense for those shares expected to vest. If our actual forfeiture rate is materially different from our estimate, the stock-based compensation expense could be significantly different from what we have recorded in the current period. The estimated fair value of our market-based awards, less expected forfeitures, is amortized over the awards’ vesting period on a graded vesting basis, whereas the fair value of non-market-based awards and employee stock purchase plan (“ESPP”) stock units, less estimated forfeitures, are amortized on a straight-line basis.

Advertising Costs

Advertising costs are charged to expense as incurred. Advertising costs were not material for fiscal 2018 and were \$0.1 million for fiscal 2017 and 2016, respectively.

Earnings Per Share

Earnings per share are presented in accordance with authoritative guidance which requires the presentation of “basic” earnings per share and “diluted” earnings per share. Basic earnings per share is computed by dividing earnings available to common shareholders by the weighted-average shares of common stock outstanding during the period. For the purposes of calculating diluted earnings per share, the denominator includes both the weighted average number of shares of common stock outstanding during the period and the weighted average number of potential shares of common stock, such as stock options and restricted stock, calculated using the treasury stock method. For calculating diluted loss per share, we do not include these shares in the denominator because these shares would have an anti-dilutive effect on periods in which we incur a net loss. Certain shares of our common stock have exercise prices in excess of the average market price. These shares are anti-dilutive and are omitted from the calculation of earnings per share. For more information on this see Note 14., “*Net Income (Loss) Per Share,*” to this Form 10-K.

Recent Accounting Standard Updates

We consider the applicability and impact of all ASUs on our consolidated financial statements. Updates not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on our consolidated financial position or results of operations. Recently issued ASUs which we feel may be applicable to us are as follows:

Recently Issued Accounting Standard Updates – Not Yet Adopted

Comprehensive Income

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.

Revenue from Contracts with Customers (Topic 606)

In May 2014, the FASB issued ASU 2014-09, “*Revenue from Contracts with Customers (Topic 606).*” ASU 2014-09 provides enhancements to the quality and consistency of how revenue is reported while also improving comparability in the financial statements of companies using International Financial Reporting Standards and U.S. GAAP. The core principle requires entities to recognize revenue in a manner that depicts the transfer of goods or services to customers in amounts that reflect the consideration an entity expects to be entitled to in exchange for those goods or services. In July 2015, the FASB voted to approve a one year deferral, making the standard effective for public entities for annual and interim periods beginning after December 15, 2017.

In March 2016, the FASB issued ASU 2016-08, “*Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net).*” The purpose of ASU 2016-08 is to clarify the guidance on principal versus agent considerations. It includes indicators that help to determine whether an entity controls the specified good or service before it is transferred to the customer and to assist in determining when the entity satisfied the performance obligation and as such, whether to recognize a gross or a net amount of consideration in their consolidated statement of operations.

In April 2016, the FASB issued ASU 2016-10, “*Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing.*” ASU 2016-10 clarifies that entities are not required to assess whether promised goods or services are performance obligations if they are immaterial in the context of the contract. ASU 2016-10 also addresses how to determine whether promised goods or services are separately identifiable and permits entities to make a policy election to treat shipping and handling costs as fulfillment activities. In addition, it clarifies key provisions in Topic 606 related to licensing.

In May 2016, the FASB issued ASU 2016-11, “*Revenue Recognition (Topic 605) and Derivatives and Hedging (Topic 815).*” ASU 2016-11 rescinds previous SEC comments that were codified in Topic 605, Topic 932 and Topic 815. Upon adoption of Topic 606, certain SEC comments including guidance on accounting for shipping and handling fees and costs and consideration given by a vendor to a customer should not be relied upon.

In May 2016, the FASB also issued ASU 2016-12, “*Revenue from Contracts with Customers (Topic 606): Narrow Scope Improvements and Practical Expedients*” ASU 2016-12 provides clarity around collectability, presentation of sales taxes, non-

cash consideration, contract modifications at transition and completed contracts at transition. ASU 2016-12 also includes a technical correction within Topic 606 related to required disclosures if the guidance is applied retrospectively upon adoption.

In December 2016, the FASB issued ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*. ASU 2016-20 allows entities not to make quantitative disclosures about remaining performance obligations in certain cases and requires entities that use any of the optional exemptions to expand their qualitative disclosures. ASU 2016-20 also clarifies other areas of the new revenue standard, including disclosure requirements for prior period performance obligations, impairment guidance for contract costs and the interaction of impairment guidance in ASC 340-40 with other guidance elsewhere in the Codification.

The Company has elected the modified retrospective adoption model, effective February 1, 2018. The Company's quarterly results beginning with the quarter ending April 30, 2018 and comparative prior periods will be compliant with ASC 606 and its Form 10-K for the year ended January 31, 2019 will be the Company's first Annual Report that will be issued in compliance with ASC 606.

The Company has substantially completed the implementation of ASC 606 and has identified the necessary changes to its policies, processes, systems, and controls. Based upon the work performed to date, the Company expects to record a cumulative-effect adjustment as of February 1, 2018 to increase retained earnings by an estimated range of approximately \$1.7 million to \$4.0 million. Such adjustment includes an increase in retained earnings by approximately \$1 million to \$3 million due to higher revenue that would have been recognized under ASC 606 if the standard had been adopted for the fiscal year ended January 31, 2018 and an increase in retained earnings of \$0.7 million to \$1.0 million due to reduced commission expense that would have been recognized under ASC 606 if the standard had been adopted for the fiscal year ended January 31, 2018. The resulting tax effect of this cumulative-effect adjustment is not expected to be significant to retained earnings. We expect to fully disclose the impacts of the new standard in connection with our Form 10-Q filing for the first quarter of fiscal 2019.

The Company expects the following impacts upon adoption of the standard:

- Currently, the Company recognizes revenue from perpetual licenses with extended payment terms over the term of the agreement as payments are received, provided all other criteria for revenue recognition have been met, and any corresponding maintenance over the term of the agreement. The adoption of ASC 606 will result in revenue for performance obligations being recognized as they are satisfied. Therefore, revenue from perpetual license performance obligations with extended payment terms will be recognized when control is transferred to the customer. Any unrecognized license revenue from the arrangement, included in deferred revenue at January 31, 2018, will not be recognized in revenue in future periods but as a cumulative adjustment to retained earnings. Further, revenue from the maintenance performance obligations is expected to be recognized on a straight-line basis over the contractual term. Due to the revenue from perpetual licenses with extended payment terms being recognized prior to amounts being billed to the customer, the Company expects to recognize a net contract asset on the balance sheet.
- Currently, the Company allocates revenue to licenses under the residual method when it has Vendor Specific Objective Evidence ("VSOE") for the remaining undelivered elements, which allocates any future credits or significant discounts entirely to the license. The adoption of ASC 606 will result in future credits, significant discounts, and material rights under ASC 606, being allocated to all performance obligations based upon their relative selling price. Under ASC 606, additional license revenue from the reallocation of such arrangement considerations will be recognized when control is transferred to the customer, which is generally upon delivery of the license.
- Currently, the Company does not have VSOE for professional services and maintenance in certain geographical areas, which results in revenue being deferred in such instances until such time as VSOE exists for all undelivered elements or recognized ratably over the longest performance period. The adoption of ASC 606 eliminates the requirement for VSOE and replaces it with the concept of a standalone selling price. Once the transaction price is allocated to each of the performance obligations, the Company can recognize revenue as the performance obligations are delivered, either at a point in time or over time. Under ASC 606, license revenue will be recognized when control is transferred to the customer and professional services revenue will be recognized over time based on labor hours expended. This will result in the acceleration of professional services revenue when compared to the current practice of ratable recognition for professional services when there is a lack of VSOE.
- Sales commissions and other third-party acquisition costs resulting directly from securing contracts with customers are currently expensed when incurred. ASC 606 will require these costs to be recognized as an asset when incurred and to be expensed over the associated contract term. However, because the sales commission paid on the maintenance renewals is not commensurate with the original deal, ASC 606 requires that these acquisition costs be expensed over the customer life. The Company expects this change to impact all arrangements that included implicit or explicit maintenance contracts.

- ASC 606 provides additional accounting guidance for contract modifications whereby changes must be accounted for either as a retrospective change (creating either a catch up or deferral of past revenues), prospectively with a reallocation of revenues amongst identified performance obligations, or prospectively as separate contracts which will not require any reallocation. This may result in a difference in the timing of the recognition of revenue as compared to how contract modifications are recognized currently.

There will be a corresponding effect on tax liabilities in relation to all of the above impacts.

Leases

In February 2016, the FASB issued ASU 2016-02, "*Leases (Topic 842)*." 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 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.

Recently Issued Accounting Standard Updates – Adopted During the Period

Income Taxes

In March 2018, the FASB issued ASU 2018-05, "*Income Taxes (Topic 740) - Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118*." ASU 2018-05 amends ASC 740, "*Income Taxes*" to provide guidance on accounting for the tax effects of the Tax Reform Act pursuant to Staff Accounting Bulletin No. 118, which allows companies to complete the accounting under ASC 740 within a one-year measurement period from the Tax Reform Act enactment date. This update was effective upon issuance. Therefore, we have applied the guidance in this update within our consolidated financial statements for the fiscal year ended January 31, 2018. See Note 12, "*Income Taxes*," of this Form 10-K for more information on the adoption of this guidance.

3. Fair Value Measurements

Assets and Liabilities that are Measured at Fair Value on a Recurring Basis

The following tables set forth our financial assets and liabilities that were accounted for at fair value on a recurring basis as of January 31, 2018 and January 31, 2017. There were no fair value measurements of our financial assets and liabilities using significant level 3 inputs for the periods presented:

	January 31, 2018	Fair Value at January 31, 2018 Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
(Amounts in thousands)			
Financial assets:			
Cash equivalents (a)	\$ 4,568	\$ —	\$ 4,568
Available-for-sale marketable securities:			
Current marketable securities:			
U.S. treasury notes and bonds - conventional	1,993	1,993	—
U.S. government agency issues	1,998	—	1,998
Non-current marketable securities:			
U.S. treasury notes and bonds - conventional	1,724	1,724	—
U.S. government agency issues	985	—	985
Corporate bonds	1,740	—	1,740
Total	\$ 13,008	\$ 3,717	\$ 9,291

	January 31, 2017	Fair Value at January 31, 2017 Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
(Amounts in thousands)			
Financial assets:			
Cash equivalents (a)	\$ 2,726	\$ 2,726	\$ —
Available-for-sale marketable securities:			
Current marketable securities:			
U.S. treasury notes and bonds - conventional	4,253	4,253	—
U.S. government agency issues	1,000	—	1,000
Non-current marketable securities:			
U.S. treasury notes and bonds - conventional	1,997	1,997	—
U.S. government agency issues	2,994	—	2,994
Total	\$ 12,970	\$ 8,976	\$ 3,994

a) Money market funds and U.S. treasury bills are included in cash and cash equivalents on the accompanying consolidated balance sheets.

Assets and Liabilities that are Measured at Fair Value on a Nonrecurring Basis

Assets and liabilities that are measured at fair value on a nonrecurring basis relate primarily to our tangible property and equipment, goodwill, and other intangible assets, which are re-measured when the derived fair value is below carrying value on our consolidated balance sheets. For these assets and liabilities, we do not periodically adjust carrying value to fair value except in the event of impairment. If we determine that impairment has occurred, the carrying value of the asset is reduced to fair value and the difference is recorded to loss from impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss).

Available-for-Sale Securities

We determine the appropriate classification of debt investment securities at the time of purchase and reevaluate such designation as of each balance sheet date. Our investment portfolio consists of money market funds, U.S. treasury notes and bonds, U.S. government agency notes and bonds as of January 31, 2018 and 2017, and corporate bonds as of January 31, 2018. All highly liquid investments with an original maturity of three months or less when purchased are cash equivalents. All cash equivalents are carried at cost, which approximates fair value. Our marketable securities are classified as available-for-sale and are reported at fair value with unrealized gains and losses, net of tax, reported in stockholders' equity as a component of accumulated other comprehensive loss. The amortization of premiums and accretions of discounts to maturity are computed under the effective interest method and is included in other income (expenses), net, in our consolidated statements of operations and comprehensive income (loss). Interest on securities is recorded as earned and is also included in other income (expenses), net. Any realized gains or losses would be shown in the accompanying consolidated statements of operations and comprehensive income (loss) in other income (expenses), net. We provide fair value measurement disclosures of available-for-sale securities in accordance with one of three levels of fair value measurement mentioned above.

The following is a summary of cash, cash equivalents and available-for-sale securities, including the cost basis, aggregate fair value and unrealized gains and losses, for short-and long-term marketable securities portfolio as of January 31, 2018 and 2017:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
(Amounts in thousands)				
January 31, 2018:				
Cash	\$ 39,084	\$ —	\$ —	\$ 39,084
Cash equivalents	4,568	—	—	4,568
Cash and cash equivalents	43,652	—	—	43,652
U.S. treasury notes and bonds - short-term	2,001	—	(8)	1,993
U.S. treasury notes and bonds - long-term	1,740	—	(16)	1,724
U.S. government agency issues - short-term	1,991	9	(2)	1,998
U.S. government agency issues - long-term	1,002	—	(17)	985
Corporate bonds - long-term	1,760	—	(20)	1,740
Total cash, cash equivalents and marketable securities	<u>\$ 52,146</u>	<u>\$ 9</u>	<u>\$ (63)</u>	<u>\$ 52,092</u>
January 31, 2017:				
Cash	\$ 25,576	\$ —	\$ —	\$ 25,576
Cash equivalents	2,726	—	—	2,726
Cash and cash equivalents	28,302	—	—	28,302
U.S. treasury notes and bonds - short-term	4,248	5	—	4,253
U.S. treasury notes and bonds - long-term	2,003	—	(6)	1,997
U.S. government agency issues - short-term	991	9	—	1,000
U.S. government agency issues - long-term	2,996	—	(2)	2,994
Total cash, cash equivalents and marketable securities	<u>\$ 38,540</u>	<u>\$ 14</u>	<u>\$ (8)</u>	<u>\$ 38,546</u>

The gross realized gains and losses on sale of available-for-sale securities for fiscal 2018, 2017 and 2016 were immaterial. For purposes of determining gross realized gains and losses, the cost of securities sold is based on specific identification.

Contractual maturities of available-for-sale debt securities at January 31, 2018 are as follows (amounts in thousands):

	Estimated Fair Value
Maturity of one year or less	\$ 3,991
Maturity between one and five years	4,449
Total	<u>\$ 8,440</u>

We concluded that there were no other-than-temporary declines of available-for-sale securities as of January 31, 2018, 2017 and 2016. The unrealized holding losses, net of tax, on available-for-sale securities, which are not material for the periods presented, have been included in stockholders' equity as a component of accumulated other comprehensive loss.

Cash, Cash Equivalents and Marketable Securities

Cash and cash equivalents consist primarily of highly liquid investments in money market mutual funds, government sponsored enterprise obligations, treasury bills, commercial paper and other money market securities with remaining maturities at date of purchase of 90 days or less.

The fair value of cash, cash equivalents, restricted cash and marketable securities at January 31, 2018 and 2017 was \$52.1 million and \$38.7 million, respectively.

Restricted Cash

At times, we may be required to maintain cash held as collateral for performance obligations with our customers which we classify as restricted cash on our consolidated balance sheets. Restricted cash was not material as of January 31, 2018 and was \$0.1 million as of January 31, 2017.

4. Acquisitions and Loss on Impairment of TLL, LLC

DCC Labs

On May 5, 2016, we acquired a 100% share of DCC Labs in exchange for an aggregate of \$2.7 million in newly issued shares of SeaChange common stock and \$5.2 million in cash, net of cash acquired, resulting in a total net purchase price of \$7.9 million. The stock consideration was determined by dividing the total value of \$2.7 million by the volume weighted average closing price of our common stock for the twenty trading days preceding the closing. DCC Labs is a developer of set-top and multiscreen device software. Of the total consideration, \$0.5 million in cash and all the stock (681,278 shares) were initially held in escrow as security for the indemnification obligations of the former DCC Labs owners to SeaChange under the purchase agreement, with one-third of the stock in escrow to be released to the former DCC Labs owners annually on the anniversary date of the acquisition beginning on May 5, 2017 and ending May 5, 2019, and one-half of the cash in escrow to be released to the former DCC Labs owners on May 5, 2017 and May 5, 2018. On May 5, 2017, \$0.3 million in cash and 227,090 shares of our common stock initially deposited with an Escrow Agent were disbursed to the sellers.

The acquisition of DCC Labs in fiscal 2017 enabled us to optimize the operations of our In-Home business, which developed home video gateway software including SeaChange's Nucleus and NitroX products. In addition, the acquisition brought market-ready products, including an optimized television software stack for Europe's Digital Video Broadcasting community, and an HTML5 framework for building additional user experience client applications across a variety of CPE devices, including Android TV STBs, tablets, mobile and computer devices. During fiscal 2018, the In-home business became the center of engineering and expanded to include product development for backoffice, advertising and legacy products. The Poland operation became the prime engineering location and as of the end of fiscal 2018, was the largest location by number of engineers. In addition, the engineering efforts were combined and the teams were re-organized into a single global team in fiscal 2018, which spans a reduced number of locations globally compared to fiscal 2017. As part of the engineering transition, organizational improvements were implemented in order to focus on software quality, reliability and pre-integration, in order to de-risk deployments and improve go-to-market time for new solutions and existing upgrades. The global engineering team introduced DevOps practices with a customer-centric view of technology improvements across all products within the SeaChange solution. Along with operational improvements, engineering introduced changes to process and workflow which enabled more accurate effort estimations and velocity tracking. With the introduction of common agile project methodology across all teams and products, the efficiency of software engineering increased, which allowed more engineering resources to focus on innovation and development of industry leading features and enhancements to existing products as well as new product releases that expand the SeaChange technology franchise. At the same time, improved efficiency and better allocation of software developers enabled a more lean and targeted approach to supporting existing deployments and delivering upon support commitments for legacy products using a cost-optimized workforce.

We accounted for the acquisition of DCC Labs as a business combination, which requires us to record the assets acquired and liabilities assumed at fair value. The amount by which the purchase price exceeds the fair value of the net assets acquired was recorded as goodwill. We engaged an independent appraiser to assist management in assessing the fair values of the tangible and intangible assets acquired and liabilities assumed and the amount of goodwill to be recognized as of the acquisition date. Assets acquired in the acquisition include receivables, prepaid expenses and property and equipment while liabilities assumed include accounts payable, other accrued expenses, deferred taxes and income taxes payable. The amounts recorded for these assets and liabilities are final based on information obtained about the facts and circumstances that existed as of the acquisition date.

The allocation of purchase price was as follows (amounts in thousands):

Estimated Fair value of consideration:	
Cash, net of cash acquired	\$ 5,243
Stock consideration	2,640
Total purchase price	\$ 7,883
Estimated Fair value of assets acquired and liabilities assumed:	
Current assets	826
Other long-term assets	116
Finite-life intangible assets	810
Goodwill	7,255
Current liabilities	(618)
Other long-term liabilities	(506)
Allocated purchase price	\$ 7,883

Acquired Goodwill

We recorded the \$7.3 million excess of the purchase price over the fair value of the identified tangible and intangible assets as goodwill, primarily due to expected synergies between the combined companies and expanded market opportunities. The goodwill is not deductible for tax purposes.

Intangible Assets

In determining the fair value of the intangible assets, the Company considered, among other factors, the intended use of the assets and the estimates of future performance of DCC Labs, based on analyses of historical financial performance. The fair values of identified intangible assets were calculated using an income-based approach based on estimates and assumptions provided by DCC Labs' and the Company's management.

The following table sets forth the components of the identified intangible assets associated with the DCC Labs acquisition and their estimated useful lives:

	<u>Useful life</u>	<u>Fair Value</u> (Amounts in thousands)
Tradename	4 years	\$ 60
Customer contracts	2 years	230
Non-compete agreements	2 years	30
Existing technology	3 years	490
		<u>\$ 810</u>

Impact to Fiscal 2017 Financial Results

DCC Labs' financial results have only been included in our fiscal 2017 consolidated financial results for the period from May 5, 2016 through January 31, 2017. As a result, our consolidated financial results for fiscal 2017 do not include DCC Labs' results for the period from February 1, 2016 to May 4, 2016. For that period, DCC Labs' revenue was not significant and its operating loss was approximately \$1.2 million.

Acquisition-related Costs

In connection with the acquisition, we incurred approximately \$0.2 million in acquisition-related costs, including legal, accounting and other professional services for fiscal 2017. The acquisition costs were expensed as incurred and included in professional fees – other, in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2017.

Loss on Impairment of TLL, LLC

In January 2016, our Board of Directors authorized a restructuring plan, as previously reported in a Form 8-K filed with the SEC on February 17, 2016. Based on the decision to enter the restructuring plan and the plan's impact on the projected future cash

flows of the Timeline Labs operations, we determined that the carrying amount of all long-term assets that resulted from the February 2015 acquisition had exceeded the fair value as of January 31, 2016. As a result, these long-term assets were deemed fully impaired and we recorded the \$21.9 million net book value of these long-term assets as a component of loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2016. Additionally, we reduced the contingent consideration liability associated with the Timeline Labs acquisition to zero, as we determined that the defined performance criteria would not be achieved, and credited the reversal of the liability of \$0.4 million to loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2016. In addition, we incurred \$0.7 million in severance and restructuring charges in February 2016 related to the cost-saving actions taken with respect to the Timeline Labs business.

5. Consolidated Balance Sheet Detail

Inventories, net

Inventories consist primarily of hardware and related component parts and are stated at the lower of cost (on a first-in, first-out basis) or net realizable value. Inventories consist of the following:

	January 31,	
	2018	2017
	(Amounts in thousands)	
Components and assemblies	\$ 426	\$ 500
Finished products	240	270
Total inventories, net	<u>\$ 666</u>	<u>\$ 770</u>

Property and equipment, net

Property and equipment, net consists of the following:

	Estimated Useful Life (Years)	January 31,	
		2018	2017
		(Amounts in thousands)	
Land		\$ 2,780	\$ 2,780
Buildings	20	11,839	11,726
Office furniture and equipment	5	774	1,091
Computer equipment, software and demonstration equipment	3	12,770	18,194
Service and spare components	5	1,158	1,158
Leasehold improvements	1-7	537	1,064
		<u>29,858</u>	<u>36,013</u>
Less - Accumulated depreciation and amortization		<u>(20,387)</u>	<u>(24,528)</u>
Total property and equipment, net		<u>\$ 9,471</u>	<u>\$ 11,485</u>

Depreciation and amortization expense of property and equipment was \$2.3 million, \$3.0 million and \$3.4 million for the years ended January 31, 2018, 2017 and 2016, respectively.

During fiscal 2018, we wrote off the book value of fixed assets that were at our closed facilities in Milpitas, California, Ft. Washington, Pennsylvania and Manilla, Philippines. These facilities were closed as a direct result of cost savings initiatives implemented during the second half of fiscal 2017. The gain (loss) on disposal associated with these closures was not material.

During the third quarter of fiscal 2017, we began actively marketing our facility in Greenville, New Hampshire for sale and identified a potential buyer. Accordingly, we determined at the time that the sale of the asset group was probable by the end of the fourth quarter of fiscal 2017. We determined that the asset group met all the criteria of held for sale accounting and classified the asset group as held for sale on our consolidated balance sheets beginning in the third quarter of fiscal 2017. Subsequently, in January 2017, after a potential buyer declined to purchase this facility, we determined that the sale of the facility was not imminent due to the location of the building and the overall market conditions in the area. Consequently, we decided to fully impair the facility since we felt that carrying amount was greater than the fair value. As a result, we recorded a \$0.3 million loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss) for the fiscal year ended January 31, 2017. In April 2017, we sold the facility for \$0.1 million.

Investments in affiliates

In connection with the acquisition in January 2018 by T-Mobile of Layer 3, a next generation cable provider in which we previously had made an equity investment, we received \$4.6 million upon closing of the transaction, with an additional payment of up to \$2.1 million being held in escrow, subject to satisfaction of the escrow provisions. As a result of the sale of our investment in Layer 3, we realized a gain of \$2.6 million in gain (loss) on investment in affiliates in our consolidated statements of operations and comprehensive income (loss) for fiscal 2018.

Other accrued expenses

Other accrued expenses consist of the following:

	January 31,	
	2018	2017
	(Amounts in thousands)	
Accrued compensation and commissions	\$ 1,414	\$ 1,799
Accrued bonuses	2,715	1,871
Accrued restructuring	225	1,023
Employee benefits	601	885
Sales tax and VAT payable	4,001	731
Income taxes payable	2,869	188
Accrued other	3,554	3,431
Total other accrued expenses	<u>\$ 15,379</u>	<u>\$ 9,928</u>

6. Goodwill and Intangible Assets

Goodwill, net

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 of the Company below its carrying amount. At January 31, 2018 and 2017, we had goodwill of \$25.6 million and \$23.3 million, respectively. The change in the carrying amount of goodwill for fiscal year 2018 is due to the impact of foreign currency translation adjustments related to goodwill balances that are recorded in currencies other than the U.S. dollar. The following table represents the changes in goodwill for the fiscal years ended January 31, 2018 and 2017 (amounts in thousands):

Balance as of January 31, 2016:	
Goodwill, gross	\$ 55,962
Accumulated impairment losses	(15,787)
Goodwill, net	40,175
Acquisition of DCC Labs	7,255
Goodwill impairment charge	(23,492)
Cumulative translation adjustment	(651)
Balance as of January 31, 2017:	
Goodwill, gross	62,566
Accumulated impairment losses	(39,279)
Goodwill, net	23,287
Cumulative translation adjustment	2,292
Balance as of January 31, 2018	
Goodwill, gross	64,858
Accumulated impairment losses	(39,279)
Goodwill, net	<u>\$ 25,579</u>

In the third quarter of fiscal 2018, we finalized the "Step 1" analysis of our annual goodwill impairment test for fiscal 2018. Based on this analysis, we determined that fair value of our reporting unit exceeded its carrying value, which was \$64.2 million

at August 1, 2017. As a result, no impairment charge was required related to the annual test. See “Critical Accounting Policies and Significant Judgement and Estimates – Goodwill” in Part II, Item 7 of this Form 10-K for more information.

During the third quarter of fiscal 2018, we determined that there was a significant decrease in fair value of the Corporate Headquarters (see Note 2, “Summary of Significant Accounting Policies – Impairment of Assets,” for more information). We considered this significant decrease in fair value a triggering event. As a result, we were required to complete an additional goodwill impairment test as of the date of the triggering event. We completed the additional goodwill impairment test and determined that the implied fair value of the reporting unit exceeds its carrying value as of the date of the triggering event. Accordingly, no impairment charge was recognized.

While no impairment resulted from our annual test, impairment charges may occur in the future as a result of changes in projected growth and other factors. No triggering events have occurred during the fourth quarter of fiscal 2018 that would indicate a potential impairment of goodwill exists.

We determined based on “Step 1” of our fiscal 2017 annual impairment test, that the fair value of our reporting unit was less than its carrying value, which was \$102.5 million at August 1, 2016. Since the estimated fair value of our reporting unit was less than its carrying value, we determined that it was necessary to perform “Step 2” of the impairment test. In “Step 2” of the impairment test we compared the implied fair value of our goodwill to its carrying value. After adjusting the carrying value of all assets, liabilities and equity to fair value at August 1, 2016, the estimated implied fair value of goodwill was calculated to be \$22.3 million. Since the implied fair value of goodwill of \$22.3 million is less than the carrying value of \$45.8 million as of August 1, 2016, we recorded an impairment charge of \$23.5 million to loss on impairment of long-lived assets in our consolidated statements of operations and comprehensive income (loss).

Intangible assets, net

Intangible assets, net, consisted of the following at January 31, 2018 and 2017:

	Weighted average remaining life (Years)	January 31, 2018			January 31, 2017		
		Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
(Amounts in thousands)							
Finite-lived intangible assets:							
Customer contracts	1.7	\$ 30,818	\$ (29,836)	\$ 982	\$ 30,056	\$ (28,019)	\$ 2,037
Non-compete agreements	0.5	2,639	(2,635)	4	2,374	(2,356)	18
Completed technology	1.8	11,479	(11,203)	276	10,496	(9,997)	499
Trademarks, patents and other	2.5	7,189	(7,148)	41	7,125	(7,076)	49
Total finite-lived intangible assets	1.7	<u>\$ 52,125</u>	<u>\$ (50,822)</u>	<u>\$ 1,303</u>	<u>\$ 50,051</u>	<u>\$ (47,448)</u>	<u>\$ 2,603</u>

Amortization expense for intangible assets was \$2.4 million, \$3.3 million and \$4.8 million for fiscal 2018, 2017 and 2016, respectively.

The total amortization expense for each of the next five fiscal years is as follows (amounts in thousands):

For the Fiscal Years Ended January 31,	Estimated Amortization Expense
2019	\$ 914
2020	385
2021	4
2022	—
2023	—
2024 and thereafter	—
Total	<u>\$ 1,303</u>

Actual amortization may differ from estimated amounts in the table above due to fluctuations in foreign currency exchange rates, additional intangible asset acquisitions, potential impairment, accelerated amortization, or other events.

7. Severance and Other Restructuring Costs

Restructuring Costs

During fiscal 2018, we incurred restructuring charges totaling \$4.2 million primarily from employee-related benefits for terminated employees and costs to close facilities.

The following table shows the change in balances of our accrued restructuring reported as a component of other accrued expenses on the consolidated balance sheet as of January 31, 2018 (amounts in thousands):

	<u>Employee- Related Benefits</u>	<u>Closure of Leased Facilities</u>	<u>Other Restructuring</u>	<u>Total</u>
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	<u>\$ 61</u>	<u>\$ 135</u>	<u>\$ 29</u>	<u>\$ 225</u>

During the third quarter of fiscal 2017, we implemented a restructuring program (“Restructuring Plan”) with the purpose of reducing costs and assisting in restoring SeaChange to profitability and positive cash flow. This program included measures intended to allow the Company 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 total estimated restructuring costs associated with the Restructuring Plan are anticipated to be approximately \$7.5 million and will be recorded in severance and other restructuring costs in our consolidated statements of operations and comprehensive income (loss) as they are incurred. We recorded \$4.1 million of restructuring expense in connection with this plan during fiscal 2018, which was primarily made up of employee-related costs and facility closings. Since its implementation, we have recognized \$7.2 million in restructuring charges related to the Restructuring Plan. We do not expect to incur any more significant restructuring charges related to this plan.

During the second quarter of fiscal 2017, we restructured our operations in connection with the acquisition of DCC Labs. This restructuring resulted in a workforce reduction within our engineering and services organization and in the closing of our facility in Portland, Oregon and a substantial reduction to our facility in Milpitas, California. We recorded \$0.1 million of restructuring expense in connection with this action during fiscal 2018, which was primarily made up of facility and other costs not related to employees. We incurred charges totaling \$2.0 million in severance and other restructuring costs from the second quarter of fiscal 2017 through the end of fiscal 2018 related to the acquisition. We do not expect to incur any further material restructuring charges related to this acquisition.

Severance Costs

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 including a Senior Vice President and a Vice President. During fiscal 2017, we incurred severance charges of \$1.5 million, primarily from the departure of our former Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”) during the first half of fiscal 2017 as well as the termination of 13 other former employees.

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 \$1.6 million, \$2.4 million and \$2.7 million for fiscal 2018, 2017 and 2016, respectively. Future commitments under minimum lease payments as of January 31, 2018 are as follows (amounts in thousands):

For the Fiscal Years Ended January 31,	Operating Leases
2019	\$ 1,314
2020	910
2021	678
2022	432
2023	167
2024 and thereafter	—
Minimum operating lease payments	\$ 3,501

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 issued as of January 31, 2018.

Stock Option Plans

2011 Compensation and Incentive Plan.

In July 2011, our stockholders approved the adoption of our 2011 Compensation and Incentive Plan (the "2011 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") and other equity based non-stock option awards as determined by the plan administrator to officers, employees, consultants, and directors of the Company.

On July 13, 2017, our stockholders approved an amendment to the 2011 Plan which increased the number of shares under the 2011 Plan by 4,000,000 shares and correspondingly increased the number of incentive stock options that can be authorized for issuance under the 2011 Plan.

Effective February 1, 2014, SeaChange gave its non-employee members of the Board of Directors the option to receive DSUs in lieu of RSUs, beginning with the annual grant for fiscal 2015. 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. Commencing with fiscal 2016, we changed the policy regarding the timing of the equity grant from the first day of the applicable fiscal year to the date of our annual meeting of stockholders.

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. As of January 31, 2018, there were 2,527,281 shares available for future grant under the 2011 Plan.

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. Stock units may be granted to any officer, employee, director, or consultant at a purchase price per share as determined by the Board of Directors. Option awards granted under the 2011 Plan generally vest over a period of one to four years and expire ten years from the date of the grant.

In fiscal 2016, the Board of Directors developed a new Long-Term Incentive (“LTI”) Program under which the named executive officers and other key employees of the Company will 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 performance stock units (“PSUs”) subject to vesting based in part on the extent to which employment continues for three years. In fiscal 2018, the Board of Directors changed the structure of prospective LTI performance-based awards, changing from awards based on total shareholder return to awards based on Company-specific financial performance metrics.

2015 Employee Stock Purchase Plan

In July 2015, we adopted the 2015 Employee Stock Purchase Plan (the “ESPP”). The purpose of the ESPP is to provide eligible employees, including executive officers of SeaChange, with the opportunity to purchase shares of our common stock at a discount through accumulated payroll deductions of up to 15%, but not less than one percent of their eligible compensation, subject to any plan limitations. Offering periods typically commence on October 1st and April 1st and end on March 31st and September 30th with the last trading day being the exercise date for the offering period. The first offering period under the ESPP commenced on October 1, 2015. On each purchase date, eligible employees will 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 which will be authorized for sale under the ESPP is 1,150,000 shares. Under the ESPP, 24,467 and 17,956 shares were purchased during fiscal 2018 and fiscal 2017, respectively. Stock-based compensation expense related to the ESPP was immaterial for fiscal 2018 and fiscal 2017.

Stock-based Compensation

We use the provisions of the authoritative guidance which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors based on estimated fair values. The fair value of our stock options and PSUs, less expected forfeitures, is amortized over the awards’ vesting period on a graded vesting basis, whereas the RSUs and DSUs, less expected forfeitures, are amortized on a straight-line basis over the requisite service period of those awards. We have applied the provisions of authoritative guidance allowing the use of a “simplified” method, in developing an estimate of the expected term of “plain vanilla” share options.

The effect of recording stock-based compensation was as follows:

	For the Fiscal Years Ended January 31,		
	2018	2017	2016
	(Amounts in thousands)		
Stock-based compensation expense by type of award:			
Stock options	\$ 1,025	\$ 873	\$ 1,257
Restricted stock units	664	624	1,203
Deferred stock units	487	709	607
Performance-based restricted stock units	511	398	475
Employee stock purchase plan	9	17	10
Total stock-based compensation	<u>\$ 2,696</u>	<u>\$ 2,621</u>	<u>\$ 3,552</u>

Since stock-based awards are expected to be made each year and vest over several years, the effects of applying authoritative guidance for recording stock-based compensation for the year ended January 31, 2018 are not indicative of future amounts.

Determining Fair Value

Stock Options

We record the fair value of most stock options using the Black-Scholes valuation 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 a blended volatility, which is an average of the historical volatility of our common stock over a period of time equal to the expected term of the stock option, and the average volatility of our common stock over the most recent one-year and two-year periods. 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 fair value of stock options granted was estimated at the date of grant using the following assumptions:

	For the Fiscal Years Ended January 31,		
	2018	2017	2016
Expected term (in years)	6-7	6-7	6-7
Expected volatility (range)	39-46%	40-45%	40-45%
Weighted average volatility	41%	42%	42%
Risk-free interest rate	1.9-2.5%	1.0-2.0%	1.5-2.0%
Weighted average interest rate	2.4%	1.1%	1.6%
Expected dividend yield	0%	0%	0%

Market-Based Options

We have granted market-based options to certain officers with their appointment. These stock options have an exercise price equal to our closing stock price on the date of grant and will vest in approximately equal increments based upon the closing price of SeaChange's common stock. We record the fair value of these stock options using the Monte Carlo simulation model, since the stock option vesting is variable depending on the closing price of our traded common stock. The model simulated the daily trading price of the market-based stock options' expected terms to determine if the vesting conditions would be triggered during the term. Effective April 6, 2016, Ed Terino, who previously served as our Chief Operating Officer ("COO"), was appointed Chief Executive Officer ("CEO") of SeaChange and was granted 600,000 market-based options, bringing the total of his market-based options, when added to the 200,000 market-based options he received upon hire as COO in June 2015, to 800,000 market-based options. The fair value of these 800,000 stock options was estimated to be \$2.1 million. As of January 31, 2018, \$0.3 million remained unamortized on the market-based stock options, which will be expensed over the next 1.1 years, the remaining weighted average amortization period.

The following table summarizes the Company's stock option activity:

	For the Fiscal Years Ended January 31,					
	2018		2017		2016	
	Shares	Weighted average exercise price	Shares	Weighted average exercise price	Shares	Weighted average exercise price
Outstanding at beginning of period	2,141,567	\$ 4.70	1,192,677	\$ 6.80	1,626,421	\$ 7.77
Granted	1,400,000	\$ 3.16	1,581,614	\$ 4.02	612,678	\$ 6.44
Exercised	—	\$ —	—	\$ —	(28,740)	\$ 6.74
Forfeited/expired/cancelled	(301,462)	\$ 5.65	(632,724)	\$ 6.98	(1,017,682)	\$ 8.13
Outstanding at end of period	<u>3,240,105</u>	\$ 3.94	<u>2,141,567</u>	\$ 4.70	<u>1,192,677</u>	\$ 6.80
Options exercisable at end of period	<u>399,232</u>	\$ 3.98	<u>203,982</u>	\$ 6.28	<u>80,000</u>	\$ 6.83
Weighted average remaining contractual term (in years)		8.00		8.01		8.10

The weighted-average fair valuation at grant date of stock options granted during the years ended January 31, 2018, 2017 and 2016, was \$1.34, \$3.09, and \$2.75, respectively. As of January 31, 2018, the unrecognized stock-based compensation related to the unvested stock options was approximately \$1.1 million, net of estimated forfeitures. Total unrecognized compensation cost will be adjusted for any future changes in estimated changes in forfeitures. This cost will be recognized over an estimated weighted average amortization period of 2.3 years.

Intrinsic value is defined as the difference between the market price on the date of exercise and the grant date price. The aggregate intrinsic value for options outstanding was \$0.7 million as of January 31, 2018 and \$0.1 million for 2016. There was no intrinsic value as of January 31, 2017 as the market price on the date of exercise was higher than the grant date price for options outstanding. The aggregate intrinsic value of vested shares and share options expected to vest as of January 31, 2018, 2017 and 2016 was \$0.7 million, \$0 and \$0.1 million, respectively.

Cash received from employees as a result of employee stock option exercises during fiscal 2016 was \$0.2 million. There were no stock options exercised in fiscal 2018 and 2017.

The following table summarizes information about stock options outstanding and exercisable as of January 31, 2018:

	Options Outstanding			Options Exercisable	
	Number outstanding	Weighted average remaining contractual terms (years)	Weighted average exercise price	Number exercisable	Weighted average exercise price
Range of exercise prices					
\$2.42 to \$2.42	413,797	8.36	\$ 2.42	133,517	\$ 2.42
\$2.60 to \$2.64	300,000	4.20	\$ 2.61	18,750	\$ 2.64
\$2.67 to \$3.30	260,000	8.27	\$ 2.98	40,000	\$ 3.13
\$3.33 to \$3.33	1,050,000	10.00	\$ 3.33	—	\$ —
\$3.41 to \$3.41	50,000	8.27	\$ 3.41	12,500	\$ 3.41
\$3.50 to \$3.50	100,000	8.26	\$ 3.50	25,000	\$ 3.50
\$3.77 to \$3.77	21,067	1.25	\$ 3.77	14,046	\$ 3.77
\$3.83 to \$3.83	75,000	8.21	\$ 3.83	18,750	\$ 3.83
\$5.56 to \$7.25	800,000	7.97	\$ 5.98	—	\$ —
\$6.05 to \$6.05	165,241	1.77	\$ 6.05	131,669	\$ 6.05
\$8.15 to \$8.15	5,000	1.42	\$ 8.15	5,000	\$ 8.15
	<u>3,240,105</u>	8.00	\$ 3.94	<u>399,232</u>	\$ 3.98

Stock Units (RSUs, DSUs and PSUs)

We record stock-based compensation expense associated with stock units using the market value of our stock on the date of grant, less forfeitures, and amortize the fair value over the awards' vesting period on a straight-line basis for awards with only a service condition and graded vesting basis for awards that include both a performance and service condition.

The following table summarizes the stock unit activity:

	For the Fiscal Years Ended January 31,					
	2018		2017		2016	
	Shares	Weighted average grant date fair value	Shares	Weighted average grant date fair value	Shares	Weighted average grant date fair value
Unvested at beginning of period	1,453,058	\$ 5.54	1,053,045	\$ 7.34	435,306	\$ 8.91
Awarded	796,304	\$ 3.07	837,927	\$ 3.07	904,344	\$ 6.46
Vested	(271,285)	\$ 2.85	(208,474)	\$ 3.46	(277,373)	\$ 6.89
Forfeited/expired/cancelled	(53,187)	\$ 5.71	(229,440)	\$ 6.68	(9,232)	\$ 8.42
Unvested at end of period	<u>1,924,890</u>	\$ 4.89	<u>1,453,058</u>	\$ 5.54	<u>1,053,045</u>	\$ 7.34

As of January 31, 2018, the unrecognized stock-based compensation related to the unvested RSUs and DSUs was \$2.9 million. This cost will be recognized over an estimated weighted average amortization period of 1.5 years.

In fiscal 2018, 2017 and 2016, under the LTI Program, the Company granted an aggregate of 232,500, 307,963 and 301,192 PSUs, respectively, to employees. In fiscal 2018, the target number of PSUs granted represents the right to receive a corresponding number of shares of our common stock based on the Company achieving certain overall financial objectives for fiscal 2019, 2020 and 2021 relating to total revenue and non-GAAP operating income in fiscal 2019 and to be determined in fiscal 2020 and 2021. These financial objectives will be quantified by the Board each fiscal year. The target number of PSUs granted to an employee in fiscal 2017 and 2016 represents the right to receive a corresponding number of shares of our common stock, subject to adjustment depending on SeaChange's total shareholder return ("TSR") for the period between, February 1, 2017 and January 31, 2020 (for the fiscal 2017 grant) and between February 1, 2016 and January 31, 2019 (for the fiscal 2016 grant) measured against the TSR of the common stock of the companies comprising the S&P SmallCap 600 Index (collectively referred to as the "SeaChange Relative TSR Percentile Rank"). The number of shares of our common stock that these employees are entitled to receive at January 31, 2019 and 2020 range from 0% to 150% of the target PSU award. If the SeaChange Relative TSR Percentile Rank relative to the companies in the S&P SmallCap 600 Index is less than the 25th percentile, the target grants are forfeited.

We record the fair value of these PSUs using the Monte Carlo simulation model since the vesting is variable depending on the actual future financial results of the Company and SeaChange Relative TSR Percentile Ranking. We recognize stock compensation expense related to the PSUs ratably over the required service period based on the estimate that it is probable that the measurement criteria will be achieved and the targeted number of shares will vest. If there is a change in the estimate of the number of shares that are probable of vesting, we will cumulatively adjust compensation expense in the period that the change in estimate is made. The fair value of the granted PSUs was estimated to be \$3.7 million and will be expensed over the next 3 years.

10. Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss consisted of the following:

	Foreign Currency Translation Adjustment	Changes in Fair Value of Available- for-Sale Investments	Accumulated Other Comprehensive Loss
(Amounts in thousands)			
Balance at January 31, 2016	\$ (6,644)	\$ 31	\$ (6,613)
Other comprehensive loss	1,267	(25)	1,242
Balance at January 31, 2017	(5,377)	6	(5,371)
Other comprehensive loss	(3)	(60)	(63)
Balance at January 31, 2018	<u>\$ (5,380)</u>	<u>\$ (54)</u>	<u>\$ (5,434)</u>

Unrealized holding losses on securities available for sale are not material for the periods presented.

Comprehensive income (loss) consists of net income (loss) and other comprehensive income (loss), which includes foreign currency translation adjustments and changes in unrealized gains and losses on marketable securities. For purposes of comprehensive income (loss) disclosures, we do not record tax expense or benefits for the net changes in the foreign currency translation adjustments.

11. Segment Information, Significant Customers and Geographic Information

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.

Significant Customers

The following table summarizes revenues by significant customers where such revenue exceeded 10% of total revenues for the indicated period:

	For Fiscal Years Ended January 31,		
	2018	2017	2016
Customer A	37%	30%	28%
Customer B	N/A	N/A	10%

Geographic Information

The following summarizes revenues by customers' geographic locations:

	For the Fiscal Years Ended January 31,					
	2018		2017		2016	
	Amount	%	Amount	%	Amount	%
(Amounts in thousands, except percentages)						
Revenues by customers' geographic locations:						
North America (1)	\$ 32,409	40 %	\$ 37,570	45 %	\$ 58,113	55 %
Europe and Middle East	39,177	49 %	38,169	45 %	42,201	39 %
Latin America	7,379	9 %	5,764	7 %	4,707	4 %
Asia Pacific	1,302	2 %	2,292	3 %	1,971	2 %
Total revenues	<u>\$ 80,267</u>		<u>\$ 83,795</u>		<u>\$ 106,992</u>	

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

	For the Fiscal Years Ended January 31,		
	2018	2017	2016
	(Amounts in thousands, except percentages)		
U.S. Revenue	\$ 27,876	\$ 30,094	\$ 46,978
% of total revenue	34.7 %	35.9 %	43.9 %

The following summarizes long-lived assets by geographic locations:

	January 31,			
	2018		2017	
	Amount	%	Amount	%
(Amounts in thousands, except percentages)				
Long-lived assets by geographic locations (1):				
North America	\$ 9,792	83 %	\$ 14,729	80 %
Europe and Middle East	1,949	17 %	2,878	16 %
Asia Pacific	48	0 %	817	4 %
Total long-lived assets by geographic location	<u>\$ 11,789</u>		<u>\$ 18,424</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,		
	2018	2017	2016
	(Amounts in thousands)		
Domestic	\$ (16,158)	\$ (40,452)	\$ (38,709)
Foreign	17,384	(16,166)	(10,044)
Income (loss) from operations before income taxes	<u>\$ 1,226</u>	<u>\$ (56,618)</u>	<u>\$ (48,753)</u>

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

	For the Fiscal Years Ended January 31,		
	2018	2017	2016
	(Amounts in thousands)		
Current:			
Federal	\$ (595)	\$ —	\$ —
State	(18)	50	50
Foreign	2,473	(94)	(49)
Total	<u>1,860</u>	<u>(44)</u>	<u>1</u>
Deferred:			
Foreign	(14,132)	14,675	(1,030)
Total	(14,132)	14,675	(1,030)
Income tax (benefit) provision	<u>\$ (12,272)</u>	<u>\$ 14,631</u>	<u>\$ (1,029)</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,		
	2018	2017	2016
	(Amounts in thousands)		
Statutory U.S. federal tax rate	\$ 415	\$ (19,816)	\$ (17,066)
State taxes, net of federal tax benefit	(4)	32	33
Income not benefitted	481	10,679	15,712
Non-deductible stock compensation expense	158	266	3
Other non-deductible items (1)	(46)	252	(31)
Innovative technology and development incentive	—	—	(189)
Foreign tax rate differential	(2,014)	3,770	816
Outside basis difference in foreign subsidiaries	(14,675)	14,675	—
Goodwill impairment	—	5,044	—
Tax Reform Act (2)	3,882	—	—
Current fiscal year impact of FIN 48	(469)	(271)	(307)
Income tax (benefit) provision	<u>\$ (12,272)</u>	<u>\$ 14,631</u>	<u>\$ (1,029)</u>

- (1) Within the other line in the table above, other non-deductible items were (\$0.1) million, \$0.1 million and (\$0.2) million for the fiscal years ended January 31, 2018, 2017 and 2016, 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.

On December 22, 2017, the United States enacted the Tax Reform Act. The Tax Reform Act has resulted in significant changes in the U.S. corporate income tax system that affected our fiscal year ended January 31, 2018, including, but not limited to, the following:

- Reduction of the corporate federal income tax rate from 35% to 21% effective January 1, 2018;
- Repeal of the corporate alternative minimum tax (“AMT”);
- A one-time transition tax on the deemed repatriation of accumulated previously untaxed foreign earnings (“Transition Tax”);
- A move to a territorial tax system;
- Additional limitations on executive compensation; and

- Acceleration of business asset expensing.

On December 22, 2017, the SEC 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. The measurement period is deemed to have ended when the registrant has obtained, prepared, and analyzed the information necessary to finalize its accounting.

SAB 118 summarizes a three-step process to be applied at each reporting period to account for and qualitatively disclose: (1) the effects of the change in tax law for which accounting is complete; (2) provisional amounts (or adjustments to provisional amounts) for the effects of the tax law where accounting is not complete, but that a reasonable estimate has been determined; and (3) a reasonable estimate cannot yet be made and therefore taxes are reflected in accordance with law prior to the enactment of the Tax Reform Act.

The Company is still evaluating the provisions of the Tax Reform Act and amounts reflected in the financial statements for the year ended January 31, 2018 are provisional. The ultimate impact may differ from these provisional amounts, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the Tax Reform Act. The accounting is expected to be completed within the one-year measurement period.

The Tax Reform Act reduces the U.S. statutory tax rate from 35% to 21% for years after 2017. Accordingly, we have re-measured our U.S. deferred tax assets and liabilities as of January 31, 2018 to reflect the reduced rate that will apply in future periods when these deferred tax assets will reverse, resulting in a provisional reduction of our net deferred tax assets, by \$17.1 million, which is offset by a corresponding reduction to our valuation allowance in the fourth quarter of fiscal 2018. As a result, there was no impact to the Company's consolidated statements of operations and comprehensive income (loss) due to the reduction in the U.S. corporate tax rate.

The Transition Tax is a tax on previously untaxed accumulated and current earnings and profits of our foreign subsidiaries. To determine the amount of the Transition Tax, we must determine, in addition to other factors, the amount of post-1986 earnings and profits of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. We estimated a Transition Tax impact of approximately \$3.9 million, which is offset by tax losses, resulting in no material impact to our consolidated financial statements. Our estimate represents a reasonable estimate of the Transition Tax; however, we are continuing to gather additional information to more precisely compute the amount of the Transition Tax and the impact to our federal and state deferred tax assets.

Other significant provisions that are not yet effective but may impact income taxes in future years include: 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"). We are still evaluating whether to make a policy election to treat the GILTI tax as a period expense or to provide U.S. deferred taxes on foreign temporary differences that are expected to generate GILTI income when they reverse in future years.

The components of deferred income taxes are as follows:

	January 31,	
	2018	2017
	(Amounts in thousands)	
Deferred tax assets:		
Accruals and reserves	\$ 963	\$ 1,815
Deferred revenue	476	79
Stock-based compensation expense	1,134	3,730
U.S. federal, state and foreign tax credits	8,070	7,459
Intangible assets	(201)	6,834
Loss carryforwards	27,642	38,356
Deferred tax assets	38,084	58,273
Less: Valuation allowance	(38,305)	(58,134)
Net deferred tax assets	(221)	139
Deferred tax liabilities:		
APB 23 deferred tax liability	—	14,675
Other	47	75
Property and equipment	(71)	121
Total net deferred tax liabilities	\$ (197)	\$ (14,732)

At January 31, 2018, we had federal, state and foreign net operating loss carry forwards of \$111.1 million, \$148.7 million and \$2.4 million respectively, which can be used to offset future tax liabilities and expire at various dates beginning in fiscal 2019. Utilization of these net operating loss carry forwards may be limited pursuant to provisions of the respective local jurisdiction. In addition, at January 31, 2018, 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 \$2.6 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.

As a result of the Tax Reform Act, the corporate AMT has been repealed for tax years beginning after December 31, 2017. Taxpayers with AMT credit carryforwards that are not used by fiscal 2019 may claim a partial refund beginning in fiscal 2019 and any remaining amount is refundable by fiscal 2022. For the fiscal year ended January 31, 2018, we have set up a tax receivable of \$0.6 million and removed the credit from our deferred tax assets to reflect the future refund of our AMT credits.

We review the adequacy of the valuation allowance for deferred tax assets on a quarterly basis. We have evaluated the positive and negative evidence bearing upon the realizability of our deferred tax assets and have established a valuation allowance of \$38.3 million for such assets, which are comprised principally of net operating loss carry forwards, research and development credits, deferred revenue, inventory and stock-based compensation. If we generate pre-tax income in the future, some portion or all of the valuation allowance could be reversed and a corresponding increase in net income would be reported in future periods. The valuation allowance decreased \$19.8 million from \$58.1 million at January 31, 2017.

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 ASC 740-30, 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 the Company's 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 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.

As of January 31, 2018, 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,	
	2018	2017
	(Amounts in thousands)	
Balance of gross unrecognized tax benefits, beginning of period	\$ 5,093	\$ 5,151
Gross amounts of increases in unrecognized tax benefits as a result of tax positions taken in the current period	—	321
Decrease for change in U.S. federal tax rate	—	—
Decrease due to expiration of statute of limitation	(389)	(269)
Decrease for tax positions related to prior years	—	(96)
Effect of currency translation	152	(14)
Balance of gross unrecognized tax benefits, end of period	<u>\$ 4,856</u>	<u>\$ 5,093</u>

As of January 31, 2018, the amount of unrecognized tax benefits, if recognized, would reduce income tax expense by \$0.6 million. 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, 2018 and 2017, total gross interest accrued was \$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 2018, 2017 and 2016, we contributed \$1.1 million, \$1.4 million and \$1.5 million, respectively.

Prior to November 30, 2017, we had a statutory pension benefit obligation covering current employees in the Philippines. On November 30, 2017, as part of the Restructuring Plan, we decided to close our facility in the Philippines. Therefore, a complete reduction in workforce of the remaining employees working at that facility occurred in the fourth quarter of fiscal 2018. As a result, there was no pension benefit obligation balance as of January 31, 2018 as no pay-outs to terminated employees were required under the Restructuring Plan or by Philippines law. The components of the change in this pension benefit obligation as of January 31, 2018 and 2017 are as follows:

	January 31,	
	2018	2017
	(Amounts in thousands)	
Projected benefit obligation, beginning of fiscal year	\$ 530	\$ 1,063
Service cost	—	238
Interest cost	—	54
Actuarial gain	—	(801)
Foreign currency exchange rate changes	—	(24)
Termination of the Plan	(530)	—
Projected benefit obligation, end of fiscal year	<u>\$ —</u>	<u>\$ 530</u>
Funded status at end of fiscal year (1)	<u>\$ —</u>	<u>\$ 530</u>

(1) These unfunded amounts are included in other liabilities, long-term on our consolidated balance sheets for the periods presented.

The following sets forth the components of our net periodic benefit cost under the pension plan:

	January 31,		
	2018	2017	2016
	(Amounts in thousands)		
Service cost	\$ —	\$ 238	\$ 288
Interest cost	—	54	51
Actuarial gain	—	(801)	(435)
Net periodic benefit cost	<u>\$ —</u>	<u>\$ (509)</u>	<u>\$ (96)</u>

Key weighted average assumptions used in the accounting for the pension plan to determine the benefit obligation and net benefit cost were as follows:

	January 31,	
	2018	2017
Discount rate	N/A	5.72 %
Compensation increase rate	N/A	5.00 %

14. Net Income (Loss) Per Share

Net income (loss) per share is presented in accordance with authoritative guidance which requires the presentation of “basic” and “diluted” earnings per share. Basic net income (loss) per share is computed by dividing earnings available to common shareholders by the weighted average shares of common stock outstanding during the period. For the purposes of calculating diluted net income (loss) per share, the denominator includes both the weighted average number of shares of common stock outstanding during the period and the weighted average number of shares of potential dilutive shares of common stock, such as stock awards, calculated using the treasury stock method. Basic and diluted net income (loss) per share was the same for fiscal 2017 and 2016 as the impact of potential dilutive shares outstanding was anti-dilutive.

The following table sets forth our computation of basic and diluted net income (loss) per common share (amounts in thousands, except per share data):

	For the Fiscal Years Ended January 31,		
	2018	2017	2016
Net income (loss)	<u>\$ 13,498</u>	<u>\$ (71,249)</u>	<u>\$ (47,697)</u>
Weighted average shares used in computing net income (loss) per share - basic	35,412	34,970	33,506
Effect of dilutive shares:			
Stock options	60	—	—
Restricted stock units	63	—	—
Deferred stock units	84	—	—
Performance stock units	66	—	—
Dilutive potential common shares	<u>273</u>	<u>—</u>	<u>—</u>
Weighted average shares used in computing net income (loss) per share - diluted	<u>35,685</u>	<u>34,970</u>	<u>33,506</u>
Net income (loss) per share:			
Basic	<u>\$ 0.38</u>	<u>\$ (2.04)</u>	<u>\$ (1.42)</u>
Diluted	<u>\$ 0.38</u>	<u>\$ (2.04)</u>	<u>\$ (1.42)</u>

The number of common shares used in the computation of diluted netincome (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 (amounts in thousands):

	For the Fiscal Year Ended January 31,		
	2018	2017	2016
Stock options	1,522	1,415	1,493
Restricted stock units	159	448	145
Deferred stock units	13	70	31
Performance stock units	297	318	5
Total	<u>1,991</u>	<u>2,251</u>	<u>1,674</u>

15. Quarterly Results of Operations—Unaudited

The following table sets forth certain unaudited quarterly results of operations for fiscal 2018 and fiscal 2017. In the opinion of management, this information has been prepared on the same basis as the audited consolidated financial statements and all necessary adjustments, consisting only of normal recurring adjustments, have been included in the amounts stated below to present fairly the quarterly information when read in conjunction with the audited consolidated financial statements and notes thereto included elsewhere in this Form 10-K. The quarterly operating results are not necessarily indicative of future results of operations.

	Fiscal Year Ended January 31, 2018			
	Q1	Q2	Q3	Q4
	(Amounts in thousands, except per share data)			
Revenue	\$ 16,667	\$ 17,225	\$ 23,430	\$ 22,945
Gross profit	9,877	11,416	16,364	16,287
Operating expenses	15,345	13,499	15,444	15,066
Net (loss) income (1)	(5,371)	(1,529)	(220)	20,618
(Loss) income per share (2):				
Basic	\$ (0.15)	\$ (0.05)	\$ (0.00)	\$ 0.58
Diluted	\$ (0.15)	\$ (0.05)	\$ (0.00)	\$ 0.58

	Fiscal Year Ended January 31, 2017			
	Q1	Q2	Q3	Q4
	(Amounts in thousands, except per share data)			
Revenue	\$ 21,570	\$ 18,452	\$ 19,961	\$ 23,812
Gross profit	9,662	8,023	10,378	16,242
Operating expenses (3)	19,237	19,691	18,813	40,710
Net loss (1)	(8,907)	(26,884)	(8,082)	(27,376)
Loss per share (2):				
Basic	\$ (0.26)	\$ (0.77)	\$ (0.23)	\$ (0.78)
Diluted	\$ (0.26)	\$ (0.77)	\$ (0.23)	\$ (0.78)

- (1) Net income in the fourth quarter of fiscal 2018 includes a tax benefit of \$14.7 million resulting from the re-measurement of the deferred tax liability in connection with the outside basis of our foreign subsidiaries and a \$2.6 million gain on the sale of our investment in Layer 3. Net loss in the second quarter of fiscal 2017 includes a tax provision of \$14.6 million related to foreign income taxes on \$58.6 million of undistributed earnings. Also, the fourth quarter of fiscal 2017 includes a \$23.7 million loss on impairment of long-lived assets as we found during “Step 2” of our annual goodwill impairment test that the carrying value of our goodwill was greater than the implied fair value. As a result, we recorded an impairment charge of \$23.5 million. In addition, we fully impaired the fair market value of our facility in Greenville, New Hampshire by recording an impairment charge of \$0.2 million as we feel that the sale of this facility is not imminent due to the facility’s location and the market conditions in the area. Finally, we also recorded an impairment charge of \$0.5 million to write down an investment in affiliate whose fair value was determined to be lower than its carrying value.
- (2) The sum of per share data may not agree to annual amounts due to rounding.
- (3) Effective February 1, 2017, the Company changed how it classifies costs associated with its solution architect employees. In fiscal 2017, all solution architect costs were classified as cost of revenues. However, beginning in fiscal 2018, the Company began reflecting in cost of revenues only those costs associated with revenue-generating projects, based on the hours worked by solution architect employees. Solution architect costs that are not associated with revenue-generating projects are recognized as selling and marketing expenses since these employees are involved in pre-sale and other customer-facing activities. We have adjusted prior fiscal year amounts to conform to the current fiscal year presentation. The effect of this change in methodology, which is a decrease to cost of revenue and an increase to selling and marketing expenses, is reflected in our current statements of operations and comprehensive income (loss) for fiscal 2017. See Note 2, “*Summary of Significant Accounting Policies – Basis of Presentation and Principles of Consolidation*,” for more information.

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. Edward Terino, our Chief Executive Officer, and Peter R. Faubert, our Chief Financial Officer, participated in this evaluation. Based upon that evaluation, Messrs. Terino and Faubert concluded that our disclosure controls and procedures were effective as of January 31, 2018.

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, 2018. 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, 2018, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of January 31, 2018 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

During the fiscal quarter ended January 31, 2018, management finalized the process of designing and implementing remediation plans intended to address the control deficiencies which resulted in the material weaknesses previously disclosed in Item 9A (B), “*Report of Management on Internal Control Over Financial Reporting*,” to our Form 10-K previously filed on April 17, 2017. The following actions were completed during the fiscal year ended January 31, 2018:

- We made improvements to certain internal controls over financial reporting which we believe increased the effectiveness of our control environment, monitoring processes, and control activities, including their alignment with risks of misstatement and clarity of precision levels applied.
- We have enhanced the design and implemented new internal controls over financial reporting to expand our review of professional services revenue to include revenue recognized on projects below \$25,000.
- We have enhanced the design and implemented new internal controls over financial reporting to include a review of all journal entries at an international subsidiary for completeness and accuracy.

- We have implemented a new internal control over financial reporting whereby the Corporate Controller reviews the impact of currency translation adjustments on intercompany notes payable on a monthly basis.

Other than as described above, there was no change in our internal control over financial reporting during the fourth fiscal quarter ended January 31, 2018 that has materially affected, or is 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, 2018 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 in Part I, Item 1, “Business,” of this Form 10-K under the heading “Executive Officers.” 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.

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, 2018, 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 (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders (1)	5,164,995 (2)\$	3.94	2,527,281 (3)

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

(2) Includes 1,924,890 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, 2018, there were 2,527,281 shares remaining available for issuance under the 2011 Plan and 1,107,577 shares 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 ACCOUNTING 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	55
Consolidated Balance Sheets as of January 31, 2018 and 2017	57
Consolidated Statements of Operations and Comprehensive Income (Loss) for the years ended January 31, 2018, 2017 and 2016	58
Consolidated Statements of Cash Flows for the years ended January 31, 2018, 2017 and 2016	59
Consolidated Statements of Stockholders' Equity for the years ended January 31, 2018, 2017 and 2016	60
Notes to Consolidated Financial Statements	61

(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	101

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>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>
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.</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>
10.11	<u>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).</u>
10.12	<u>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).</u>
10.13	<u>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).</u>

Exhibit No.	Description
10.14	SeaChange International, Inc. 2015 Employee Stock Purchase Plan (filed as Appendix A to the Company's Proxy Statement on Schedule 14A previously filed on May 22, 2015 with the Commission and incorporated herein by reference).
10.15	Amended and Restated Change-in-Control Severance Agreement, dated as of January 26, 2016, by and between the Company and Edward Terino (filed as Exhibit 10.3 to the Company's Current Report on Form 8-K previously filed on January 28, 2016 with the Commission and incorporated herein by reference).
10.16	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).
10.17	Change-in-Control Severance Agreement, dated as of January 31, 2017, by and between the Company and Jon Rider (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on February 3, 2017 with the Commission and incorporated herein 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	Cooperation Agreement, dated as of August 17, 2017, by and among the Company and the persons set forth on the signature pages thereto (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K previously filed on August 18, 2017 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

Exhibits which are incorporated herein by reference can be inspected and copied at the public reference facilities maintained by the SEC, 450 Fifth Street, Room 1024, N.W., Washington, D.C. 20549. Copies of such material can also be obtained from the Public Reference Section of the Commission, 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates.

(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, 2018, 2017 and 2016

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, 2018	\$ 876	\$ 79	\$ 10	\$ (949)	\$ 16
Year ended January 31, 2017	\$ 415	\$ 597	\$ (61)	\$ (75)	\$ 876
Year ended January 31, 2016	\$ 400	\$ 59	\$ —	\$ (44)	\$ 415
Deferred Tax Assets Valuation Allowance:					
Year ended January 31, 2018	\$ 58,134	\$ (19,829)	\$ —	\$ —	\$ 38,305
Year ended January 31, 2017	\$ 47,368	\$ 10,766	\$ —	\$ —	\$ 58,134
Year ended January 31, 2016	\$ 30,369	\$ 16,999	\$ —	\$ —	\$ 47,368

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 16, 2018

By: /s/ EDWARD TERINO
Edward Terino
Chief Executive Officer and Director

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Edward Terino 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/ EDWARD TERINO</u> Edward Terino	Chief Executive Officer, Director (Principal Executive Officer)	April 16, 2018
<u>/s/ PETER R. FAUBERT</u> Peter R. Faubert	Chief Financial Officer, Senior Vice President and Treasurer (Principal Financial and Accounting Officer)	April 16, 2018
<u>/s/ MARK BONNEY</u> Mark Bonney	Director	April 16, 2018
<u>/s/ MARY PALERMO COTTON</u> Mary Palermo Cotton	Director	April 16, 2018
<u>/s/ WILLIAM MARKEY</u> William Markey	Director	April 16, 2018
<u>/s/ ANDREW SRIUBAS</u> Andrew Sriubas	Director	April 16, 2018
<u>/s/ ED WILSON</u> Ed Wilson	Director	April 16, 2018

SEACHANGE INTERNATIONAL, INC.

Performance Stock Unit Agreement

SeaChange International, Inc., a Delaware corporation (the "Company"), hereby grants as of the award date below ("Award Date") to the person named below (the "Recipient"), and the Recipient hereby accepts, an award ("Award") of Performance Stock Units ("PSU") that will vest as described in the Vesting Schedule, such Award to be subject to the terms and conditions specified in the attached Exhibit A.

Recipient Name:
Award Date:
Target Number of PSUs:
Vesting Schedule:

Vesting Date

Target Number of PSUs

PSUs (the "Target Tranche 1 Shares"), with the number awarded to be based on the performance-based goals approved by the Committee as of the Award Date and attached hereto as Attachment 1.

PSUs (the "Target Tranche 2 Shares"), with the number awarded to be based on performance-based goals to be established by the Company subsequent to the Award Date and to be attached hereto as Attachment 2.

PSUs (the "Target Tranche 3 Shares"), with the number awarded to be based on performance-based goals to be established by the Company subsequent to the Award Date and to be attached hereto as Attachment 3.

By signing this Agreement, the Recipient acknowledges receipt of a copy of this Agreement and a copy of the Plan (as defined below) and the Prospectus related thereto.

This Agreement will be effective only upon execution by the Recipient and delivery of such signed Agreement to the Company.

IN WITNESS WHEREOF, the Company and the Recipient have caused this instrument to be executed as of the Award Date set forth above.

(Recipient Signature)
(Street Address)
(City/State/Zip Code)

SEACHANGE INTERNATIONAL, INC.

By:
Name: Peter R. Faubert
Title: Chief Financial Officer, Senior Vice President & Treasurer

Performance Stock Unit Agreement
Terms and Conditions

1. **Award.** The Recipient is hereby granted an Award of PSUs, effective as of the date set forth on the cover page attached hereto (the "Award Date"), subject to the terms and condition set forth herein (collectively with the cover page, the "Agreement"), and subject to and governed by the Company's Second Amended and Restated 2011 Compensation and Incentive Plan (the "Plan"). Capitalized terms not otherwise defined herein shall have the meanings ascribed to them in the Plan. Each PSU represents the right to receive one share of the Company's Common Stock upon the satisfaction of terms and conditions set forth in this Agreement and the Plan. The Recipient shall have no rights as a stockholder, including dividend or voting rights, with respect to the PSUs.

2. **Vesting.** Except as set forth in Section 5 herein, the PSUs will remain restricted and may not be sold, assigned, exchanged, pledged or otherwise transferred by the Recipient until the PSUs have become vested pursuant to the terms of this Agreement. The PSUs will vest as provided on the cover page hereto. Each date on which a portion of the Award vests shall be referred to herein as a "Vesting Date." Upon the occurrence of a "Change in Control" (as defined in the form of the Company's Change in Control Severance Agreement), fifty percent (50%) of the target number of PSU's to vest in prospective periods shall vest immediately prior to a Change in Control, subject to the Recipient being an employee of the Company as of such date.

3. **Distribution of the Award; Tax Election; Dividend Equivalents.** As soon as reasonably practicable following each Vesting Date, the Company will release the portion of the Award that has become vested as of such Vesting Date in the form of shares of the Company's Common Stock. Recipient's tax obligations for the vesting of these shares shall be satisfied by an Automatic Sell-To-Cover (STC) by Broker (as described in subsection (b) below) unless Recipient notifies the Company's stock administrator in writing, prior to the vesting of these shares, that Recipient would prefer to pay the Company directly (as described in subsection (a) below).

(a) **Payment by Recipient to Company.** The Company shall provide the Recipient with at least seven (7) days written notice prior to the Vesting Date; such notice to specify the amount that the Recipient is required to pay to satisfy any applicable withholding Taxes (as hereinafter defined). The Recipient may deposit with the Company an amount of cash equal to the amount determined by the Company, utilizing a tax rate determined by the Company in its reasonable discretion, to be required with respect to any withholding taxes, FICA contributions, or the like under any national, federal, state, local or other statute, ordinance, rule, or regulation in connection with the award or settlement of the restricted stock units (the "Taxes"). Alternatively, if the Company does not receive such amount from the Recipient at least two (2) days prior to the Vesting Date, the Company will withhold a number of shares (rounded up to the nearest whole share) of the Company's Common Stock with a market value determined as of the close of business on the business day immediately preceding the Vesting Date) equal to the amount of such Taxes associated with the vesting or settlement of the Award; *provided, however*, that the Company shall not be liable for determining the exact number of shares.

(b) **Automatic Sell-To-Cover (STC) by Broker.** Upon the vesting of such PSUs, the Company will provide irrevocable instructions to a broker on behalf of the Recipient to sell a number of shares equal in value to reasonably satisfy any applicable withholding taxes, FICA contributions, or the like under any national, federal, state, local or other statute, ordinance, rule, or regulation in connection with the vesting of the PSUs (the "Taxes"). The proceeds from such sale will be remitted to the Company to pay the Taxes on behalf of the Recipient. By accepting this PSU award, the Recipient is hereby authorizing the Company to provide such instructions regarding the settlement of the PSUs and the payment of the Taxes.

The Recipient shall have the right to receive dividend equivalent payments with respect to the Common Stock subject to the Award as provided in this paragraph. Upon each Vesting Date, Recipient shall be entitled to receive a dividend equivalent payment in respect of the shares of Common Stock covered by the Award that are not vested on the record date for each dividend payment, if any, made by the Company on its Common Stock for which the record date occurred (i) on or after the Award Date or the immediately preceding Vesting Date, as the case may be, and (ii) prior to the applicable Vesting Date, in an amount in cash equal to the amount of any dividend which otherwise would have been paid to the Recipient if such unvested shares had been issued for the benefit of the Recipient on the record dates for such dividend payments, subject to any applicable withholding for Taxes. Such dividend equivalent payments may be settled by

the Company subject to such other conditions or terms that the Committee may establish. Except for dividend equivalent payments, the Recipient shall have no rights as a stockholder, including voting rights, with respect to the PSUs.

4. Termination of Relationship with the Company. If the Recipient ceases to be employed by the Company or a Subsidiary, or to be a Director of the Company, for any reason, any portion of the Award that has not become vested on or prior to the date of such cessation shall thereupon be forfeited.

5. Award Not Transferable. The Award will not be assignable or transferable by the Recipient, except by will or the laws of descent and distribution.

6. Transferability of Award Shares. Until registered under the Securities Act of 1933, as amended, or any successor statute (the "Securities Act"), the shares of Common Stock represented by the PSUs will be of an illiquid nature and will be deemed to be "restricted securities" for purposes of the Securities Act. Accordingly, such shares must be sold in compliance with the registration requirements of the Securities Act or an exemption therefrom. The Company reserves the right to place restrictions required by law on any shares of the Company's Common Stock received by the Recipient pursuant to the Award.

7. Conformity with the Plan. The Award is intended to conform in all respects with, and is subject to applicable provisions of, the Plan. To the extent that any provision of this Agreement conflicts with the express terms of the Plan, it is hereby acknowledged and agreed that the terms of the Plan shall control and, if necessary, the applicable provisions of this Agreement shall be deemed to be amended so as to carry out the purpose and intent of the Plan. By the Recipient's acceptance of this Agreement, the Recipient agrees to be bound by all of the terms of this Agreement and the Plan. Notwithstanding any other provision of this Section 7, in the event that the provisions of this Agreement are subject to Section 409A of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations promulgated thereunder ("Section 409A"), the provisions of this Agreement shall comply with, and shall be interpreted in a manner consistent with, Section 409A.

8. No Rights to Continued Employment. Nothing in this Agreement confers any right on the Recipient to continue as an employee or Director of the Company or a Subsidiary or affects in any way the right of any of the Company or a Subsidiary to terminate any such relationship of the Recipient.

9. Miscellaneous.

(a) Notices. All notices hereunder shall be in writing and shall be deemed given when sent by certified or registered mail, postage prepaid, return receipt requested, if to the Recipient, to the address set forth above or at the address shown on the records of the Company, and if to the Company, to the Company's principal executive offices, attention of the Corporate Secretary.

(b) Entire Agreement; Modification. This Agreement, together with the Plan, constitutes the entire agreement between the parties relative to the subject matter hereof, and supersedes all proposals, written or oral, and all other communications between the parties relating to the subject matter of this Agreement. The Company may amend, suspend or terminate the Plan, this Agreement and the Award granted hereunder at any time; provided, however, that no such amendment, suspension or termination may materially impair any Award without the Recipient's written consent.

(c) Fractional Shares. If the shares under this Award become issuable for a fraction of a share because of the adjustment provisions contained in the Plan, such fraction shall be rounded down to the nearest whole share.

(d) Severability. The invalidity, illegality or unenforceability of any provision of this Agreement shall in no way affect the validity, legality or enforceability of any other provision.

(e) Successors and Assigns. Except as provided herein, this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, subject to the limitations set forth in Section 5 hereof.

(f) Governing Law. Participants and the Company agree to resolve issues that may arise out of or relate to the Plan or the same subject matter by binding arbitration in Boston, Massachusetts in accordance with the rules of the American Arbitration Association. The Plan and Award granted hereunder, including the Agreement, shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, excluding its conflicts or choice of law rules or principles that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction.

(g) Data Protection Waiver. The Recipient understands and consent to the Company or its agents or independent contractors appointed to administer the Plan obtaining certain of the Recipient's personal employment information required for the effective administration of the Plan and that such information may be transmitted outside of the country of the Recipient's employment and/or residence. Information relating to the Recipient's participation under the Plan may constitute personal data that is subject to the Company's policies on protection and use of personal data.

(h) Clawback. This Award and any resulting payment or delivery of shares of the Company's Common Stock is subject to set-off, recoupment, or other recovery or "claw back" as required by applicable law or by a Company policy on the claw back of compensation, as amended from time to time.

[Remainder of Page Intentionally Left Blank]

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

Subsidiary Name	Subsidiary Jurisdiction
ZQ Interactive, Ltd.	British Virgin Islands
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 Software Solutions B.V.	Netherlands
SeaChange Interactive Solutions 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

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated April 16, 2018, 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, 2018. We consent to the incorporation by reference of said report in the Registration Statements of SeaChange International, Inc. on Forms S-3 (File No. 333-56410 and File No. 333-201866) and on Forms S-8 (File Nos. 333-136322, 333-17379, 333-100160, 333-65854, 333-113761, 333-128987, 333-147970, 333-153424, 333-175707, 333-201867, 333-210716 and 333-220912).

/s/ GRANT THORNTON LLP

Boston, Massachusetts
April 16, 2018

CERTIFICATION

I, Edward Terino, 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 16, 2018

By: /s/ EDWARD TERINO
Edward Terino
Chief Executive Officer
(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 16, 2018

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, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Edward Terino, 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/ EDWARD TERINO

Edward Terino
Chief Executive Officer and Director

Dated: April 16, 2018

**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, 2018 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 16, 2018