

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended April 30, 2019

OR

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

For the transition period from _____ to _____

Commission File Number: 001-38828

SEACHANGE INTERNATIONAL, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

50 Nagog Park, Acton, MA

Address of Principal Executive Offices

04-3197974

(IRS Employer
Identification No.)

01720

Zip Code

(978) 897-0100

Registrant's Telephone Number, Including Area Code

Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report

Securities registered pursuant to Section 12(b) of the Act:

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

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not 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 Exchange Act.): YES NO

The number of shares outstanding of the registrant's Common Stock on May 31, 2019 was 36,607,461.

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PART I – FINANCIAL INFORMATION

ITEM 1. Financial Statements

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

	April 30, 2019	January 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 14,697	\$ 20,317
Marketable securities	3,282	4,020
Accounts receivable, net of allowance for doubtful accounts of \$628 and \$577 at April 30, 2019 and January 31, 2019, respectively	9,921	19,267
Unbilled receivables	5,961	5,448
Inventory	758	924
Prepaid expenses and other current assets	6,660	6,033
Total current assets	<u>41,279</u>	<u>56,009</u>
Property, plant and equipment, net	6,979	7,192
Operating lease right-of-use assets	1,964	—
Marketable securities, long-term	6,362	6,339
Intangible assets, net	3,287	—
Goodwill	9,812	8,753
Other assets	614	450
Total assets	<u>\$ 70,297</u>	<u>\$ 78,743</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 3,565	\$ 4,503
Accrued expenses	8,626	7,762
Deferred revenue	7,804	8,104
Total current liabilities	<u>19,995</u>	<u>20,369</u>
Deferred revenue, long-term	2,114	2,642
Operating lease liabilities	1,255	—
Taxes payable, long-term	420	429
Deferred tax liabilities, long-term	571	203
Total liabilities	<u>24,355</u>	<u>23,643</u>
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Common stock, \$0.01 par value; 100,000,000 shares authorized at April 30, 2019 and January 31, 2019; 36,553,025 shares issued and 36,512,535 shares outstanding at April 30, 2019, 35,946,100 shares issued and 35,905,610 outstanding at January 31, 2019	365	359
Additional paid-in capital	242,885	242,442
Treasury stock, at cost; 40,490 shares at April 30, 2019 and January 31, 2019	(5)	(5)
Accumulated other comprehensive loss	(2,151)	(3,393)
Accumulated deficit	(195,152)	(184,303)
Total stockholders' equity	<u>45,942</u>	<u>55,100</u>
Total liabilities and stockholders' equity	<u>\$ 70,297</u>	<u>\$ 78,743</u>

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

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

	<u>For the Three Months Ended April 30,</u>	
	<u>2019</u>	<u>2018</u>
Revenue:		
Product	\$ 1,179	\$ 3,091
Service	7,306	11,844
Total revenue	<u>8,485</u>	<u>14,935</u>
Cost of revenue:		
Product	909	326
Service	4,668	5,703
Total cost of revenue	<u>5,577</u>	<u>6,029</u>
Gross profit	2,908	8,906
Operating expenses:		
Research and development	4,252	5,729
Selling and marketing	2,852	3,667
General and administrative	4,249	4,572
Severance and restructuring costs	211	54
Total operating expenses	<u>11,564</u>	<u>14,022</u>
Loss from operations	(8,656)	(5,116)
Other expense, net	(1,791)	(849)
Loss from operations before income taxes	(10,447)	(5,965)
Income tax expense (benefit)	402	(494)
Net loss	<u>\$ (10,849)</u>	<u>\$ (5,471)</u>
Net loss per share, basic and diluted	\$ (0.30)	\$ (0.15)
Weighted average common shares outstanding, basic and diluted	36,461	35,608
Comprehensive loss:		
Net loss	\$ (10,849)	\$ (5,471)
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustment	1,207	575
Unrealized gains (losses) on marketable securities	35	(29)
Total other comprehensive income	<u>1,242</u>	<u>546</u>
Comprehensive loss	<u>\$ (9,607)</u>	<u>\$ (4,925)</u>

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

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

	Common Stock		Additional Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Number of Shares	Par Value					
Balances at January 31, 2019	35,946,100	\$ 359	242,442	\$ (5)	\$ (3,393)	\$ (184,303)	\$ 55,100
Issuance of common stock pursuant to acquisition of Xstream	541,738	5	869	—	—	—	874
Issuance of common stock pursuant to vesting of restricted stock units	57,368	1	(1)	—	—	—	—
Issuance of common stock pursuant to ESPP purchases	7,819	—	9	—	—	—	9
Stock-based compensation credit	—	—	(434)	—	—	—	(434)
Unrealized gains on marketable securities	—	—	—	—	35	—	35
Foreign currency translation adjustment	—	—	—	—	1,207	—	1,207
Net loss	—	—	—	—	—	(10,849)	(10,849)
Balances at April 30, 2019	<u>36,553,025</u>	<u>\$ 365</u>	<u>\$ 242,885</u>	<u>\$ (5)</u>	<u>\$ (2,151)</u>	<u>\$ (195,152)</u>	<u>\$ 45,942</u>

	Common Stock		Additional Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Number of Shares	Par Value					
Balances at January 31, 2018	35,634,984	\$ 356	239,423	\$ (5)	(5,434)	\$ (148,620)	\$ 85,720
Adjustment resulting from the adoption of ASC 606	—	—	—	—	—	2,319	2,319
Issuance of common stock pursuant to exercise of stock options	5,875	—	16	—	—	—	16
Issuance of common stock pursuant to vesting of restricted stock units	8,356	—	—	—	—	—	—
Issuance of common stock pursuant to ESPP purchases	9,421	—	21	—	—	—	21
Stock-based compensation expense	—	—	879	—	—	—	879
Unrealized losses on marketable securities	—	—	—	—	(29)	—	(29)
Foreign currency translation adjustment	—	—	—	—	575	—	575
Net loss	—	—	—	—	—	(5,471)	(5,471)
Balances at April 30, 2018	<u>35,658,636</u>	<u>\$ 356</u>	<u>\$ 240,339</u>	<u>\$ (5)</u>	<u>\$ (4,888)</u>	<u>\$ (151,772)</u>	<u>\$ 84,030</u>

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

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

	For the Three Months Ended April 30,	
	2019	2018
Cash flows from operating activities:		
Net loss	\$ (10,849)	\$ (5,471)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	550	787
Provision for bad debts	98	—
Stock-based compensation (credit) expense	(434)	879
Deferred income taxes	368	—
Unrealized foreign currency transaction gain	1,207	575
Other	42	(7)
Changes in operating assets and liabilities, including impact of acquisitions:		
Accounts receivable	9,870	10,449
Unbilled receivables	(491)	(3,571)
Inventory	166	(80)
Prepaid expenses and other current assets and other assets	(355)	224
Accounts payable	(1,591)	(576)
Accrued expenses and other liabilities	(438)	(6,139)
Deferred revenue	(828)	(2,778)
Other operating activities	—	2,356
Net cash used in operating activities	<u>(2,685)</u>	<u>(3,352)</u>
Cash flows from investing activities:		
Purchases of property, plant and equipment	(50)	(113)
Cash paid for acquisitions, net	(3,838)	—
Purchases of marketable securities	(6,231)	(3,830)
Proceeds from sales and maturities of marketable securities	6,946	2,009
Net cash used in investing activities	<u>(3,173)</u>	<u>(1,934)</u>
Cash flows from financing activities:		
Proceeds from issuance of common stock	9	37
Other financing activities	—	(9)
Net cash provided by financing activities	<u>9</u>	<u>28</u>
Effect of exchange rate on cash and cash equivalents	229	453
Net decrease in cash and cash equivalents	(5,620)	(4,805)
Cash and cash equivalents at beginning of period	20,317	43,661
Cash and cash equivalents at end of period	<u>\$ 14,697</u>	<u>\$ 38,856</u>
Supplemental disclosure of cash flow information		
Income taxes paid	<u>\$ 17</u>	<u>\$ 182</u>
Non-cash activities:		
Purchases of property and equipment included in accounts payable	<u>\$ 19</u>	<u>\$ —</u>
Fair value of common stock issued in acquisition	<u>\$ 874</u>	<u>\$ —</u>

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

SEACHANGE INTERNATIONAL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Nature of Business and Basis of Presentation

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

Liquidity

We continue to realize the savings related to our restructuring activities. During fiscal 2019, we made significant reductions to our headcount as part of our ongoing restructuring effort from which we expect to generate annualized savings of more than \$6 million. These measures are important steps in restoring us to profitability and positive cash flow. We believe that existing cash and investments and cash expected to be provided by future operating results, augmented by the plans highlighted below (see Note 9), are adequate to satisfy our working capital, capital expenditure requirements and other contractual obligations for at least the next 12 months.

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

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”). We consolidate the financial statements of our wholly-owned subsidiaries and all intercompany transactions and account balances have been eliminated in consolidation.

2. Significant Accounting Policies

Use of Estimates

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

Concentration of Credit Risk and of Significant Customers

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

We sell our software products and services worldwide primarily to service providers, consisting of operators, telecommunications companies, satellite operators and broadcasters. One customer accounted for 17% of total revenue in the first quarter of fiscal 2020. Two customers accounted for 19% and 10%, respectively, of total revenue in the first quarter of fiscal 2019. Two customers accounted for 25% and 15%, respectively, of the accounts receivable balance as of April 30, 2019. Two customers accounted for 44% and 15%, respectively, of the accounts receivable balance as of January 31, 2019.

Marketable Securities

Our investments, consisting of debt securities, are classified as available-for-sale and are carried at fair value, with the unrealized gains and losses, net of tax, reported as a component of accumulated other comprehensive income (loss) in stockholders' equity. Realized gains and losses and declines in value determined to be other than temporary are based on the specific identification method and are included as a component of other income (expense), net in the consolidated statements of operations and comprehensive loss.

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

Fair Value Measurements

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

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

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

Goodwill and Acquired Intangible Assets

We record goodwill when consideration paid in a business acquisition exceeds the value of the net assets acquired. Our estimates of fair value are based upon assumptions believed to be reasonable at that time but that are inherently uncertain and unpredictable. Assumptions may be incomplete or inaccurate, and unanticipated events or circumstances may occur, which may affect the accuracy or validity of such assumptions, estimates or actual results. Goodwill is not amortized, but rather is tested for impairment annually in our third quarter beginning August 1st of each year, or more frequently if facts and circumstances warrant a review, such as the ones mentioned in impairments of long-lived assets below. We have determined that there is a single reporting unit for the purpose of conducting this goodwill impairment assessment. We assess both the existence of potential impairment and the amount of impairment loss by comparing the fair value of the reporting unit with its carrying amount, including goodwill. Through April 30, 2019, we have recorded accumulated goodwill impairment charges of \$54.8 million (see Note 6).

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

Impairment of Long-Lived Assets

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

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

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

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

Revenue Recognition

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

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

Hardware

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

Software licenses

We have concluded that our software licenses are either (1) a distinct performance obligation as the client can benefit from the software on its own or (2) a combined performance obligation with hardware, depending on the nature of the promise to the customer. In either scenario, software license revenue is typically recognized at a point in time when control is transferred to the client, which is defined as the point in time when the client can use and benefit from the license. The software license is delivered before related services are provided and is functional without services, updates, and technical support. Our license arrangements generally contain multiple performance obligations, including hardware, installation services, training, and maintenance. We have determined standalone selling price for software utilizing the relative allocation method based on observable evidence.

Maintenance

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

We have identified three separate distinct performance obligations of maintenance:

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

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

Services

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

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

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

Contract modifications

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

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

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

Significant Judgments

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

Judgment is required to determine the standalone selling price for each distinct performance obligation. We determine standalone selling price based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, we estimate the standalone selling price taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations.

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

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

Contract Balances

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

Costs to Obtain and Fulfill a Contract

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We have determined that commissions and special incentive payments ("Spiffs") for hardware and software maintenance and support and professional services paid under our sales incentive programs meet the requirements to be capitalized under ASC 340-40. Costs to obtain a contract are amortized as selling and marketing expense over the expected period of benefit in a manner that is consistent with the transfer of the related goods or services to which the asset relates. The judgments made in determining the amount of costs incurred include whether the commissions are in fact incremental and would not have occurred absent the customer contract and the estimate of the amortization period. The commissions and Spiffs related to professional services are amortized over time, as work is completed. The commissions and Spiffs for hardware and software maintenance are amortized over the life of the customer, which is estimated to be five years. These costs are periodically reviewed for impairment. We determined that no impairment existed as of April 30, 2019. We have elected to apply the practical expedient and recognize the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that we otherwise would have recognized is one year or less.

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

Leases

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

Our existing leases are for facilities, automobiles and equipment. None of our leases are with related parties. In addition to rent, office leases may require us to pay additional amounts for taxes, insurance, maintenance and other expenses, which are generally referred to as non-lease components. As a practical expedient, we account for the non-lease components together with the lease components as a single lease component for all of our leases. Only the fixed costs for leases are accounted for as a single lease component and recognized as part of a right-of-use asset and liability. Rent expense for operating leases is recognized on a straight-line basis over the reasonably assured lease term based on the total lease payments and is included in operating expense in the consolidated statements of operations.

Net Income (Loss) Per Share

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

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

	For Three Months Ended April 30,	
	2019	2018
	(Amounts in thousands)	
Stock options	2,937	3,195
Restricted stock units	291	387
Deferred stock units	188	163
Performance stock units	115	351
	3,531	4,096

Recently Adopted Accounting Pronouncements

In August 2018, the FASB issued Accounting Standards Update ("ASU") 2018-15, "*Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract.*" ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by these amendments. We adopted ASU 2018-15 on February 1, 2019, which did not have a material impact to our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, "*Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement.*" ASU 2018-13 modifies the disclosure requirements on fair value measurements. We adopted ASU 2018-13 on February 1, 2019, which did not have a material impact to our consolidated financial statements.

In June 2018, the FASB issued ASU 2018-07, "*Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting.*" ASU 2018-07 expands the scope of Topic 718 to include all share-based payment transactions for acquiring goods and services from nonemployees. We adopted ASU 2018-07 on February 1, 2019, which did not have a material impact to our consolidated financial statements.

In February 2018, the FASB issued ASU 2018-02, “Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.” On December 22, 2017, the U.S. federal government enacted a tax bill, H.R.1, *An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018 (“Tax Cuts and Jobs Act”)*, which requires deferred tax liabilities and assets to be adjusted for the effect of a change in tax laws. ASU 2018-02 allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Reform Act. We adopted ASU 2018-02 effective February 1, 2019 and elected not to reclassify the income tax effects stranded in other comprehensive income to retained earnings and, as a result, there was no impact to our consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-08, *Receivables—Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities* which requires companies to amend the amortization period for premiums on debt securities with explicit call features to be the earliest call date rather than through the contractual life of the debt instrument. This amendment aims to more closely align the recognition of interest income with the manner in which market participants price such instruments. We adopted this guidance on February 1, 2019, which did not have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which is intended to improve financial reporting about leasing transactions. In July 2018, the Financial Accounting Standards Board issued ASU 2018-11 to amend ASU 2016-02 and provide an additional (and optional) transition method to adopt the new lease standard. This transition method allows entities to apply the new lease standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption instead of using the original modified retrospective transition method of adoption which requires the restatement of all prior-period financial statements. Under this new transition method, the comparative periods in the financial statements will continue to be presented in accordance with prior GAAP. On February 1, 2019, we adopted the new lease standard on a prospective basis using the new transition method under ASU 2018-11. Under this guidance, as of February 2019, we recognized right-of-use assets and operating lease liabilities of \$1.7 million for all leases with lease terms of more than 12 months. There was no impact to retained earnings as of that date. In addition, we adopted the guidance by electing the following practical expedients: (1) We did not reassess whether any expired or existing contracts contained leases, (2) We did not reassess the lease classification for any expired or existing leases, and (3) We excluded variable payments from the lease contract consideration and recorded those as incurred. The adoption of the standard did not have a material impact on our results of operations or cash flows. Our future commitments under lease obligations and additional disclosures are summarized in Note 8.

Recently Issued Accounting Pronouncement

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

3. Fair Value Measurements

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

	Total	Fair Value at April 30, 2019 Using	
		Level 1	Level 2
		(Amounts in thousands)	
Assets:			
Cash equivalents	\$ 3,690	\$ 2,723	\$ 967
Marketable securities:			
U.S. Treasury Notes and bonds	6,350	6,350	—
U.S. Agency bonds	995	—	995
Corporate bonds	2,299	—	2,299
Total	\$ 13,334	\$ 9,073	\$ 4,261

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

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

Marketable securities by security type consisted of the following:

	As of April 30, 2019			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(Amounts in thousands)			
U.S. Treasury Notes and bonds	\$ 6,306	\$ 44	\$ —	\$ 6,350
U.S. Agency bonds	1,001	—	(6)	995
Corporate bonds	2,306	—	(7)	2,299
	<u>\$ 9,613</u>	<u>\$ 44</u>	<u>\$ (13)</u>	<u>\$ 9,644</u>

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

As of April 30, 2019, marketable securities consisted of investments that mature within one year, with the exception of investments with a fair value of \$4.6 million that mature between one and three years.

4. Consolidated Balance Sheet Detail

Inventory

Inventory consists of the following:

	As of	
	April 30, 2019	January 31, 2019
	(Amounts in thousands)	
Components and assemblies	\$ 163	\$ 763
Finished products	595	161
Total inventory	<u>\$ 758</u>	<u>\$ 924</u>

Property, plant and equipment, net

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

	As of	
	April 30, 2019	January 31, 2019
	(Amounts in thousands)	
Buildings	\$ 3,467	\$ 3,467
Land	2,780	2,780
Computer equipment, software and demonstration equipment	12,326	12,316
Service and spare components	1,158	1,158
Office furniture and equipment	726	738
Leasehold improvements	490	531
	<u>20,947</u>	<u>20,990</u>
Less: Accumulated depreciation and amortization	(13,968)	(13,798)
Total property, plant and equipment, net	<u>\$ 6,979</u>	<u>\$ 7,192</u>

Accrued expenses

Accrued expenses consist of the following:

	As of	
	April 30, 2019	January 31, 2019
	(Amounts in thousands)	
Accrued employee compensation and benefits	\$ 1,909	\$ 1,866
Accrued professional fees	2,103	1,521
Sales tax and VAT payable	1,774	1,502
Current obligation - right of use operating leases	709	—
Accrued payroll taxes and withholdings	463	295
Income taxes payable	430	—
Accrued restructuring (Note 9)	209	653
Accrued other	1,029	1,925
Total accrued expenses	<u>\$ 8,626</u>	<u>\$ 7,762</u>

5. Acquisition

On February 6, 2019, we acquired all of the outstanding stock of Xstream A/S, (“Xstream”) for \$4.6 million in cash and 541,738 shares of common stock for a total transaction value of \$5.4 million. Xstream provides a managed service, OTT video solution that serves more than five million active subscribers globally.

The acquisition has been accounted for as a business combination and, in accordance with ASC 805, *Business Combinations*, we have recorded the assets acquired and liabilities assumed at their respective fair values as of the acquisition date. The following table summarizes the preliminary purchase price allocation recorded

Estimated fair value of consideration:	
Cash	\$ 4,552
Stock consideration	874
Total purchase price	<u>\$ 5,426</u>
Estimated fair value of assets acquired and liabilities assumed:	
Cash and cash equivalents	\$ 714
Other current assets	927
Other long-term assets	152
Finite-life intangible assets	3,648
Goodwill	1,221
Current liabilities	(1,236)
Allocated purchase price	<u>\$ 5,426</u>

The significant intangible assets identified in the preliminary purchase price allocation discussed above include developed technology and customer relationships, which are amortized over their respective useful lives on a straight-line basis. Amortization of developed technology is included within cost of revenue and amortization of customer relationships and tradenames is included within sales and marketing expense. To value the developed technology asset, the Company utilized the income approach, specifically a discounted cash-flow method known as the multi-period excess earnings method. Customer relationships represent the underlying relationships with certain customers to provide ongoing services for products sold. The Company utilized the income approach, specifically the distribution method, a subset of the excess-earnings method to value the customer relationships.

The following table presents the estimated fair values and useful lives of the identifiable intangible assets acquired:

	<u>Useful Life</u>	<u>Fair Value</u> (amounts in thousands)
Customer contracts	3 years	\$ 2,273
Existing technology	3 years	1,375
		<u>\$ 3,648</u>

Goodwill was recognized for the excess purchase price over the fair value of the net assets acquired. The goodwill reflects the value of the synergies the Company expects to realize and the assembled workforce. Goodwill from the Xstream acquisition is included within the Company's one reporting unit and is included in the Company's enterprise-level annual review for impairment. Goodwill resulting from the Xstream acquisition is not deductible for tax purposes.

The purchase price has been allocated to the tangible and intangible assets acquired and liabilities assumed based upon the respective estimates of fair value as of the date of the acquisition, which remains preliminary, and using assumptions that the Company's management believes are reasonable given the information then available. The final allocation of the purchase price may differ materially from the information presented in these consolidated financial statements. Any changes to the preliminary estimates of the fair value of the assets acquired and liabilities assumed will be recorded as adjustments to those assets and liabilities and residual amounts will be allocated to goodwill.

The revenues and loss before income taxes from Xstream included in our consolidated results for the three months ended April 30, 2019 were \$0.9 million and \$0.4 million, respectively. The Xstream results include expenses resulting from purchase accounting that include amortization of intangibles. We have not presented pro forma results of operations for the Xstream acquisition because it is not material to the Company's consolidated results of operations, financial position, or cash flows.

6. Goodwill and Intangible Assets

Goodwill represents the difference between the purchase price and the estimated fair value of identifiable assets acquired and liabilities assumed. We are required to perform impairment tests related to our goodwill annually, which we perform during the third quarter of each fiscal year, or when we identify certain triggering events or circumstances that would more likely than not reduce the estimated fair value of the goodwill below its carrying amount. The following table represents the changes in goodwill since January 31, 2019:

	<u>Goodwill</u> (Amounts in thousands)
Balance as of January 31, 2019:	\$ 8,753
Goodwill arising from the Xstream acquisition	1,221
Cumulative translation adjustment	(162)
Balance as of April 30, 2019:	<u>\$ 9,812</u>

Intangible assets, net, consisted of the following at April 30, 2019:

	<u>As of April 30, 2019</u>		
	<u>Gross</u>	<u>Accumulated Amortization</u>	<u>Net</u>
	(Amounts in thousands)		
Finite-lived intangible assets:			
Acquired customer contracts	\$ 2,233	\$ 185	\$ 2,048
Acquired existing technology	1,352	113	1,239
Total finite-lived intangible assets	<u>\$ 3,585</u>	<u>\$ 298</u>	<u>\$ 3,287</u>

As a result of our impairment analysis in the fourth quarter of fiscal 2019, the carrying value of our intangible assets was zero as of January 31, 2019.

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

	For the Three Months ended April 30,	
	2019	2018
(Amounts in thousands)		
Cost of revenue	\$ —	\$ 178
Selling and marketing	185	145
Research and development	113	81
	<u>\$ 298</u>	<u>\$ 404</u>

Future estimated amortization expense of acquired intangibles as of April 30, 2019 is as follows:

For the Fiscal Years Ended January 31,	Estimated Amortization Expense (Amounts in thousands)
2020	\$ 897
2021	1,195
2022	1,195
2023 and thereafter	—
Total	<u>\$ 3,287</u>

7. 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.

8. Operating leases

The Company has noncancelable operating leases for facilities, automobiles and equipment expiring at various dates through 2023 and thereafter. As discussed in Note 2, the Company adopted ASC 842 as of February 1, 2019 on a prospective basis using the transition method under ASU 2018-11. In accordance with this method, the Company recognized a right of use asset and an operating lease liability of \$1.7 million as of February 1, 2019.

The components of lease expense for the three months ended April 30, 2019 are as follows:

	Three Months Ended April 30, 2019
	(Amounts in thousands)
Operating lease cost	\$ 206
Short term lease cost	11
Total lease cost	<u>\$ 217</u>

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

	Three Months Ended April 30, 2019
	(Amounts in thousands)
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from operating leases	\$ 206
Right-of-use assets obtained in exchange for lease obligations	
Operating leases	\$ 348

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

	April 30, 2019
	(Amounts in thousands)
Operating lease right-of-use assets	\$ 1,964
Current portion, operating lease liabilities	709
Operating lease liabilities, long term	1,255
Total operating lease liabilities	<u>\$ 1,964</u>
Weighted average remaining lease term	3.2 years
Weighted average incremental borrowing rate	7.0 %

The current portion, operating lease liabilities is included in the balance of accrued expenses at April 30, 2019. Rent payments for continuing operations were approximately \$0.2 million for the three months ended April 30, 2019. Future minimum lease payments for operating leases, with initial or remaining terms in excess of one year at April 30, 2019, are as follows:

For the fiscal years ended January 31,	Operating Leases	
	(Amounts in thousands)	
2020	\$	616
2021		678
2022		650
2023		224
2024		26
Thereafter		—
Total lease payments		2,194
Less interest		(230)
Total operating lease liabilities	\$	<u>1,964</u>

9. Severance and Other Restructuring Costs

During the three months ended April 30, 2019, we incurred restructuring charges of \$0.1 million, primarily for employee-related benefits for terminated employees, partially offset by the reversal of deferred rent. In September 2018, we announced that we implemented cost-savings actions during the third quarter of fiscal 2019 (the "2019 Restructuring Program"). The primary element of this restructuring program was staff reductions across all of our functions and geographic areas and this program is expected to be completed by the end of the first six months of fiscal 2020. Annualized cost savings are expected to be more than \$6 million and severance and restructuring charges are expected to be approximately \$2 million.

The following table shows the change in balances since January 31, 2019 of our accrued restructuring reported as a component of other accrued expenses on the consolidated balance sheets:

	Employee- Related Benefits	Closure of Leased Facilities	Other Restructuring	Total
	(Amounts in thousands)			
Accrual balance as of January 31, 2019	\$ 653	\$ —	\$ —	\$ 653
Restructuring charges incurred	230	(125)	31	136
Cash payments	(667)	—	(31)	(698)
Other charges	(7)	125	—	118
Accrual balance as of April 30, 2019	<u>\$ 209</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 209</u>

10. Stock-based Compensation Expense

Equity Plans

2011 Compensation and Incentive Plan.

Our 2011 Compensation and Incentive Plan (the "2011 Plan") provides for the grant of incentive stock options, nonqualified stock options, restricted stock, restricted stock units ("RSUs"), deferred stock units ("DSUs"), performance stock units ("PSUs") and other equity based non-stock option awards as determined by the plan administrator to our officers, employees, consultants and directors. We may satisfy awards upon the exercise of stock options or the vesting of stock units with newly issued shares or treasury shares. The Board of Directors is responsible for the administration of the 2011 Plan and determining the terms of each award, award exercise price, the number of shares for which each award is granted and the rate at which each award vests. In certain instances, the Board of Directors may elect to modify the terms of an award. The number of shares authorized for issuance under the 2011 Plan is 9,300,000. Additionally, outstanding awards under the 2005 Equity Compensation and Incentive Plan that, since adoption of the 2011 Plan, expire, terminate, or are surrendered or canceled without having been fully exercised are available for issuance under the 2011 Plan. As of April 30, 2019, there were 3,322,669 shares available for future grant.

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

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

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

2015 Employee Stock Purchase Plan

Under our 2015 Employee Stock Purchase Plan (the “ESPP”), six-month offering periods begin on October 1 and April 1 of each year during which eligible employees may elect to purchase shares of our common stock according to the terms of the offering. On each purchase date, eligible employees can purchase our stock at a price per share equal to 85% of the closing price of our common stock on the exercise date, but no less than par value. The maximum number of shares of our common stock authorized for sale under the ESPP is 1,150,000 shares, of which 1,086,964 remain available under the ESPP as of April 30, 2019. Under the ESPP, 7,819 and 9,421 shares were purchased during the first quarter of fiscal 2020 and fiscal 2019, respectively.

Award Activity

Market-Based Options

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

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

In the first quarter of fiscal 2020, we granted 50,000 option awards and 426,847 DSU awards with a combined fair value totaling \$0.6 million.

Stock-based Compensation

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

	For the Three Months Ended April 30,	
	2019	2018
	(Amounts in thousands)	
Cost of revenue	\$ (3)	\$ 1
Research and development	68	53
Sales and marketing	(86)	114
General and administrative	(413)	711
	<u>\$ (434)</u>	<u>\$ 879</u>

As of April 30, 2019, unrecognized stock-based compensation expense related to unvested stock options was approximately \$1.3 million, which is expected to be recognized over a weighted average period of 2.1 years. As of April 30, 2019, unrecognized stock-based compensation expense related to unvested RSUs and DSUs was \$1.2 million, which is expected to be recognized over a weighted average amortization period of 1.9 years. As of April 30, 2019, unrecognized stock-based compensation expense related to unvested PSUs was \$0.1 million, which is expected to be recognized over a weighted average amortization period of 0.8 years.

11. Revenues from Contracts with Customers

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

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

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

Disaggregated Revenue

The following table shows our revenue disaggregated by revenue stream for the three months ended April 30, 2019 and 2018:

	For the Three Months Ended April 30,	
	2019	2018
	(Amounts in thousands)	
Product	\$ 1,179	\$ 3,091
Professional services	2,081	4,637
Maintenance - first year	575	658
Maintenance - renewal	4,650	6,549
Total revenue	<u>\$ 8,485</u>	<u>\$ 14,935</u>

Transaction Price Allocated to Future Performance Obligations

The aggregate amount of transaction price that is allocated to performance obligations that have not yet been satisfied or are partially satisfied as of April 30, 2019 is \$21.1 million. This amount includes amounts billed for undelivered services that are included in deferred revenue.

12. Segment Information, Significant Customers and Geographic Information

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

Geographic Information

The following summarizes revenue by customers' geographic locations:

	For the Three Months Ended April 30,			
	2019	%	2018	%
	(Amounts in thousands, except percentages)			
Revenue by customer's geographic locations:				
North America (1)	\$ 4,089	49%	\$ 7,114	48%
Europe and Middle East	2,970	35%	6,023	40%
Latin America	1,047	12%	1,496	10%
Asia Pacific	379	4%	302	2%
Total revenue	<u>\$ 8,485</u>		<u>\$ 14,935</u>	

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

	For the Three Months Ended April 30,	
	2019	2018
	(Amounts in thousands, except percentages)	
US Revenue	\$ 3,398	\$ 5,787
% of total revenue	40 %	39 %

The following summarizes long-lived assets by geographic locations:

	As of April 30, 2019	%	As of January 31, 2019	%
(Amounts in thousands, except percentages)				
Long-lived assets by geographic locations (1):				
North America	\$ 8,926	70%	\$ 7,148	93%
Europe and Middle East	3,872	30%	446	6%
Asia Pacific	46	0%	48	1%
Total long-lived assets by geographic location	<u>\$ 12,844</u>		<u>\$ 7,642</u>	

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

13. Income Taxes

Each interim period is considered an integral part of the annual period and, accordingly, we measure our income tax expense using an estimated annual effective tax rate. A company is required, at the end of each interim reporting period, to make its best estimate of the annual effective tax rate for the full fiscal year and use that rate to provide for income taxes on a current year-to-date basis, as adjusted for discrete taxable events that occur during the interim period.

We recorded an income tax provision of \$0.4 million and an income tax benefit of \$0.5 million in the three months ended April 30, 2019 and 2018, respectively. Our effective tax rate in fiscal 2020 and in future periods may fluctuate on a quarterly basis as a result of changes in our jurisdictional forecasts where losses cannot be benefitted due to the existence of valuation allowances on our deferred tax assets, changes in actual results versus our estimates, or changes in tax laws, regulations, accounting principles or interpretations thereof.

The 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 April 30, 2019, 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.

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

We 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; 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 March 4, 2019, our Board approved and adopted a Tax Benefits Preservation Plan to potentially limit our ability to use net operating loss carryforwards and certain other tax attributes ("NOLs") to reduce our potential future federal income tax obligations. In connection with the Tax Benefits Preservation Plan, we declared a dividend of one preferred share purchase right for each share of our common stock issued and outstanding as of March 15, 2019 to our stockholders of record on that date. The Tax Benefits Preservation Plan expires by its terms if not approved by our stockholders at our 2019 annual meeting of stockholders on July 11, 2019.

14. Subsequent Event

On June 6, 2019, the Board authorized a share repurchase program of up to \$5 million of then-outstanding shares of the Company over the next year. Under the share repurchase program, the Company is authorized to repurchase, from time to time, outstanding shares of common stock in accordance with applicable laws both on the open market, including under trading plans established pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended and in privately negotiated transactions. The actual timing, number and value of shares repurchased will be determined by the Company and will depend on a number of factors, including market conditions, applicable legal requirements and compliance with the terms of loan covenants. The share repurchase program may be suspended, modified or discontinued at any time and we have obligation to repurchase any amount of its common stock under the program.

ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

This Form 10-Q contains or incorporates forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, and such statements involve risks and uncertainties. The following information should be read in conjunction with the unaudited consolidated financial information and the notes thereto included in this Form 10-Q. You should not place undue reliance on these forward-looking statements. Actual events or results may differ materially due to competitive factors and other factors referred to in Part I, Item 1A. "Risk Factors" in our Form 10-K for our fiscal year ended January 31, 2019 and elsewhere in this Form 10-Q. These factors may cause our actual results to differ materially from any forward-looking statement. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate, and management's beliefs and assumptions. We undertake no obligation to publicly update or revise the statements in light of future developments. In addition, other written or oral statements that constitute forward-looking statements may be made by us or on our behalf. Words such as "expect," "seek," "anticipate," "intend," "plan," "believe," "could," "estimate," "may," "target," "project," or variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties, and assumptions that are difficult to predict.

Business Overview

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

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

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

We have historically sold and licensed our products and services on a standalone basis. Commencing February 2019, we adopted a value-based selling approach as part of which we offer our customers the ability to license all of our product and services, including specified upgrades, for a fixed period of time for a fixed price which we refer to as framework deals.

In February 2019, we acquired Xstream A/S, a leading OTT media cloud platform provider with its primary operations in Warsaw, Poland. Xstream provides a managed service, OTT video solution that serves more than five million active subscribers globally. Xstream's MediaMaker video platform will enhance the SeaChange end-to-end video framework. We intend to use the acquisition of Xstream to accelerate our penetration in OTT and new market segments with a software-as-a-service ("SaaS") revenue model and fully cloud-based end-to-end video platform that operates in a hosted managed service environment.

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

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

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

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

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

On March 4, 2019, our Board approved and adopted a Tax Benefits Preservation Plan to potentially limit our ability to use net operating loss carryforwards and certain other tax attributes ("NOLs") to reduce our potential future federal income tax obligations. In connection with the Tax Benefits Preservation Plan, we declared a dividend of one preferred share purchase right for each share of our common stock issued and outstanding as of March 15, 2019 to our stockholders of record on that date. The Tax Benefits Preservation Plan expires by its terms if not approved by our stockholders at our 2019 annual meeting of stockholders on July 11, 2019.

Results of Operations

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

Revenue and Gross Profit

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

	For the Three Months ended April 30,		Change	
	2019	2018	\$	%
(Amounts in thousands, except for percentage data)				
Revenue:				
Product	\$ 1,179	\$ 3,091	\$ (1,912)	(61.9%)
Service	7,306	11,844	(4,538)	(38.3%)
Total revenue	8,485	14,935	(6,450)	(43.2%)
Cost of product revenue	909	326	583	178.8%
Cost of service revenue	4,668	5,703	(1,035)	(18.1%)
Total cost of revenue	5,577	6,029	(452)	(7.5%)
Gross profit	\$ 2,908	\$ 8,906	\$ (5,998)	(67.3%)
Gross product profit margin	22.9%	89.5%		(66.6%)
Gross service profit margin	36.1%	51.8%		(15.7%)
Gross profit margin	34.3%	59.6%		(25.4%)

Fiscal Three Months ended April 30, 2019 as Compared to Fiscal Three Months ended April 30, 2018

Product Revenue. Product revenue decreased by \$1.9 million for three months ended April 30, 2019 as compared to the three months ended April 30, 2018 primarily due to a \$2.7 million decrease in our video platform partially offset by a \$0.8 million increase in our online video platform or OVP platform revenue from our Xstream acquisition and a \$0.2 million increase in advertising revenue. The decrease in our video platform, user experience, and third-party product revenue was primarily the result of a one-time purchase of a significant number of licenses by one of our major customers in fiscal 2019 and delays in executing our framework deals in the current period ended April 30, 2019.

Service Revenue. Service revenue decreased by \$4.5 million for the three months ended April 30, 2019 as compared to the three months ended April 30, 2018 primarily due to a decrease of \$2.5 million in professional service revenue as a result of lower bookings during the three months ended April 30, 2019. Additionally, maintenance and support revenue provided on post-warranty contracts decreased by \$2.0 million as customers continue to provide their own solutions and legacy products are decommissioned.

During the three months ended April 30, 2019 one customer accounted for more than 10% of our total revenue. During the three months ended April 30, 2018 two customers accounted for more than 10% of our total revenue. See Part I Item I, Note 2, "Summary of Significant Accounting Policies," to this Form 10-Q for more information.

International revenue accounted for 60% and 61% of total revenue in the three months ended April 30, 2019 and 2018, respectively. The decrease in international sales as a percentage of total revenue in the three months ended April 30, 2019 as compared to the same period in fiscal 2018, is primarily due to a decrease in revenue generated from one major customer in EMEA during fiscal 2019 compared to fiscal 2018.

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

Our gross profit margin decreased by 25% for the three months ended April 30, 2019 compared to the three months ended April 30, 2018 primarily due to a change in the sales mix during the period. Product profit margin decreased by 67% for the three months ended April 30, 2019 compared to the three months ended April 30, 2018, primarily due to an increase in lower-margin OVP platform revenue from our Xstream acquisition in the three months ended April 30, 2019 as compared to higher-margin software license revenue in the three months ended April 30, 2018. Service profit margins decreased by 16% for the three months ended April 30, 2019 compared to the three months ended April 30, 2018, primarily due to lower service revenue to absorb our fixed costs from professional services during the three months ended April 30, 2019.

Operating Expenses

Research and Development

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

	For the Three Months ended April 30,		Change	
	2019	2018	\$	%
	(Amounts in thousands, except for percentage data)			
Research and development expenses	\$ 4,252	\$ 5,729	\$ (1,477)	(25.8%)
% of total revenue	50.1%	38.4%		

Fiscal Three Months ended April 30, 2019 as Compared to Fiscal Three Months ended April 30, 2018

Research and development expenses decreased by \$1.5 million for the three months ended April 30, 2019 as compared to the same period in fiscal 2019 primarily due to a decrease in labor costs associated with the lower headcount of \$0.8 million and contract labor of \$0.6 million resulting from the cost-savings efforts implemented as part of our restructuring programs in fiscal 2019.

Selling and Marketing

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

	For the Three Months ended April 30,		Change	
	2019	2018	\$	%
	(Amounts in thousands, except for percentage data)			
Selling and marketing expenses	\$ 2,852	\$ 3,667	\$ (815)	(22.2%)
% of total revenue	33.6%	24.6%		

Fiscal Three Months ended April 30, 2019 as Compared to Fiscal Three Months ended April 30, 2018

Selling and marketing expenses decreased by \$0.8 million for the three months ended April 30, 2019 as compared to the same period in fiscal 2019, primarily due to a \$0.4 million decrease in labor costs associated with lower headcount and a \$0.3 million decrease in stock-based compensation as a result of reversals of stock-based compensation expense for terminated employees with awards that did not vest.

General and Administrative

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

	For the Three Months ended April 30,		Change	
	2019	2018	\$	%
	(Amounts in thousands, except for percentage data)			
General and administrative expenses	\$ 4,249	\$ 4,572	\$ (323)	(7.1%)
% of total revenue	50.1%	30.6%		

Fiscal Three Months ended April 30, 2019 as Compared to Fiscal Three Months ended April 30, 2018

General and administrative expenses decreased by \$0.3 million for the three months ended April 30, 2019 as compared to April 30, 2018, primarily due to a decrease in stock-based compensation of \$1.0 million as a result of a reversal of expense related to terminations, partially offset by an increase in professional fees of \$0.6 million related to costs associated with merger and acquisition activity, activist investors and adoption of the tax benefit preservation plan.

Severance and Restructuring Costs

Severance and other restructuring costs increased \$0.2 million for the three months ended April 30, 2019, as compared to the same period of fiscal 2019. Charges in the three months ended April 30, 2019 include cost reduction initiatives put in place during the second half of fiscal 2019.

Other Expense, Net

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

	For the Three Months ended April 30,		Change	
	2019	2018	\$	%
	(Amounts in thousands, except for percentage data)			
Interest income, net	\$ 83	\$ 41	\$ 42	>100.0 %
Foreign exchange losses, net	(1,895)	(900)	(995)	>100.0 %
Miscellaneous income, net	21	10	11	>100.0 %
	<u>\$ (1,791)</u>	<u>\$ (849)</u>	<u>\$ (942)</u>	

The principal component of other expense, net, are foreign exchange losses, which amounted to \$1.9 million and \$1.0 million in the three months ended April 30, 2019 and 2018, respectively. Our foreign exchange losses, net are primarily due to the revaluation of intercompany notes receivable.

Income Tax Provision (Benefit)

We recorded an income tax provision of \$0.4 million and an income tax benefit of \$0.5 million for the three months ended April 30, 2019 and 2018, respectively. Our effective tax rate in fiscal 2020 and in future periods may fluctuate on a quarterly basis, as a result of changes in our jurisdictional forecasts where losses cannot be benefitted due to the existence of valuation allowances on our deferred tax assets, changes in actual results versus our estimates, or changes in tax laws, regulations, accounting principles or interpretations thereof.

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

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 April 30, 2019, 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.

Non-GAAP Measures

We define non-GAAP loss from operations as U.S. GAAP operating loss plus stock-based compensation expenses, amortization of intangible assets, non-operating expense professional fees and severance and other restructuring costs. We discuss non-GAAP loss from operations in our quarterly earnings releases and certain other communications, as we believe non-GAAP operating loss from operations is an important measure that is not calculated according to U.S. GAAP. We use non-GAAP 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 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 the 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 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. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies. We expect to continue to incur expenses similar to the financial adjustments described above in arriving at non-GAAP 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 loss from operations for the three months ended April 30, 2019 and 2018:

	For the Three Months ended April 30,	
	2019	2018
	(Amounts in thousands)	
GAAP loss from operations	\$ (8,656)	\$ (5,116)
Amortization of intangible assets	299	404
Stock-based compensation	(434)	879
Professional fees - other	1,119	—
Severance and other restructuring costs	211	54
Non-GAAP loss from operations	<u>\$ (7,461)</u>	<u>\$ (3,779)</u>

Liquidity and Capital Resources

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

	For the Three Months ended April 30,	
	2019	2018
	(Amounts in thousands)	
Net cash used in operating activities	\$ (2,685)	\$ (3,352)
Net cash used in investing activities	(3,173)	(1,934)
Net cash provided by financing activities	9	28
Effect of exchange rate changes on cash and cash equivalents	229	453
Net decrease in cash and cash equivalents	<u>\$ (5,620)</u>	<u>\$ (4,805)</u>

Historically, we have financed our operations and capital expenditures primarily with our cash and investments. Our cash, cash equivalents and marketable securities totaled \$24.3 million at April 30, 2019.

In September 2018, we implemented the 2019 Restructuring Program. The primary element of this restructuring program was staff reductions across all of our functions and geographic areas and we expect the program to be completed by the end of the first six months of fiscal 2020. Annualized cost savings are expected to be more than \$6 million once completed and severance and restructuring charges are estimated to be approximately \$2 million. We believe that existing cash and investments and cash expected to be provided by future operating activities, augmented by the plans highlighted above, are adequate to satisfy our working capital, capital expenditure requirements and other contractual obligations for at least the next 12 months.

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

Net cash used in operating activities

Our operating activities used cash of \$2.7 million for the three months ended April 30, 2019, primarily resulting from our net loss of \$10.8 million, partially offset by changes in our operating assets and liabilities of \$6.3 million and net non-cash charges of \$1.8 million. Net cash used by changes in our operating assets and liabilities in the first quarter of fiscal 2020 consisted primarily of a \$9.8 million increase in accounts and other receivables, partially offset by a \$2.1 million decrease in accounts payable and accrued expenses, a \$0.8 million decrease in deferred revenue and a \$0.5 million increase in unbilled receivables.

We used net cash in operating activities of \$3.4 million for the three months ended April 30, 2018. Cash used in operating activities was primarily the result of our net loss including adjustments of \$3.2 million, a decrease in accrued expenses of \$6.1 million, primarily related to the settlement of the value-added tax liability during the first quarter of fiscal 2019, and a decrease in deferred revenues of \$2.8 million due primarily to the impact of the initial adoption of ASC 606, which resulted in the changes in the timing of revenue recognition. Offsetting this use of cash was a decrease in receivables of \$6.9 million due to the timing of customer payments.

Net cash used in investing activities

Net cash used in investing activities was \$3.1 million and \$1.9 million for the three months ended April 30, 2019 and 2018, respectively. During the first quarter of fiscal 2020, cash used in investing activities was primarily due to \$3.8 million of net cash used in the acquisition of Xstream, partially offset by a \$0.7 million receipt of net cash related to the timing of purchases, sales and maturities of marketable securities. Net cash used in investing activities in the first quarter of fiscal 2019 was primarily due to the use of \$1.8 million of net cash related to the timing of purchases, sales and maturities of marketable securities.

Net cash provided by financing activities

Net cash provided by financing activities was less than \$0.1 million in both of the first quarters of fiscal 2020 and 2019, respectively. Financing activities reflects proceeds received from the issuance of common stock for the employee stock purchase plan and exercise of stock options.

Critical Accounting Policies and Significant Judgments and Estimates

We prepare our consolidated financial statements in accordance with GAAP. The preparation of consolidated financial statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from the estimates made by our management.

Other than the impact of the adoption of ASU 2016-02, *Leases (Topic 842)* as disclosed in Note 2 to our unaudited consolidated financial statements included in this Quarterly Report on Form 10-Q, there have been no material changes to our critical accounting policies and estimates from those disclosed in our financial statements and the related notes and other financial information included in our Annual Report on Form 10-K on file with the SEC.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the Securities and Exchange Commission.

Recently Issued Accounting Pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position and results of operations is disclosed in Note 2 to our unaudited consolidated financial statements included in this Quarterly Report on Form 10-Q.

ITEM 3. Quantitative and Qualitative Disclosures About Market Risk

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

ITEM 4. Controls and Procedures

Evaluation of disclosure controls and procedures. We evaluated the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as of the end of the period covered by this Form 10-Q. Our Executive Chair and principal executive officer and our Chief Financial Officer reviewed and participated in this evaluation. The Company's disclosure controls and procedures are designed to ensure that material information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such material information is accumulated and communicated to our management, including our Executive Chair and CFO, as appropriate, to allow timely decisions regarding required disclosures. Based upon that evaluation, Messrs. Bonney and Faubert concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report and as of the date of the evaluation.

Changes in internal control over financial reporting. Effective February 1, 2019, we adopted Accounting Standards Codification ("ASC") 842, "Leases" ("ASC 842"). ASC 842 requires management to make significant judgments and estimates. As a result, we implemented changes to our internal controls related to lease evaluation for the three months ended April 30, 2019. These changes include updated accounting policies affected by ASC 842 as well as redesigned internal controls over financial reporting related to ASC 842 implementation. Additionally, management has expanded data gathering procedures to comply with the additional disclosure requirements. Other than the foregoing, as a result of the evaluation completed by us, and in which Messrs. Bonney and Faubert participated, we have concluded that there were no changes during the fiscal quarter ended April 30, 2019 in our internal control over financial reporting, which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. Legal Proceedings

We enter into 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. Management cannot reasonably estimate any potential losses, but these claims could result in material liability for us.

ITEM 1A. Risk Factors

In addition to other information set forth in this Form 10-Q, you should carefully consider the risk factors discussed in Part I, "Item 1A. Risk Factors" in our Form 10-K for the fiscal year ended January 31, 2019, which could materially affect our business, financial conditions, and results of operations. The risks described in our Form 10-K are not the only risks that we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition or future results.

ITEM 6. Exhibits

(a) Exhibits

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

Index to Exhibits

No.	Description
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 (filed herewith).
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 (filed herewith).
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith).
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith).
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

SIGNATURES

Pursuant to the requirements 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.

Dated: June 7, 2019

SEACHANGE INTERNATIONAL, INC.

by: /s/ MARK J. BONNEY
Mark J. Bonney
Executive Chair

by: /s/ PETER R. FAUBERT
Peter R. Faubert
Chief Financial Officer, Senior Vice President and Treasurer

CERTIFICATION

I, Mark J. Bonney, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: June 7, 2019

By: /s/ MARK J. BONNEY

Mark J. Bonney

Executive Chair

(Principal Executive Officer)

CERTIFICATION

I, Peter R. Faubert, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: June 7, 2019

By: /s/ PETER R. FAUBERT

Peter R. Faubert

Chief Financial Officer, Senior Vice President and Treasurer

(Principal Financial and Accounting Officer)

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

In connection with the Quarterly Report of SeaChange International, Inc. (the "*Company*") on Form 10-Q for the period ending April 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "*Report*"), I, Mark J. Bonney, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report 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.

Date: June 7, 2019

/s/ MARK J. BONNEY

Mark J. Bonney

Executive Chair

(Principal Executive 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 Quarterly Report of SeaChange International, Inc. (the "*Company*") on Form 10-Q for the period ending April 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "*Report*"), I, Peter R. Faubert, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report 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.

Date: June 7, 2019

/s/ PETER R. FAUBERT

Peter R. Faubert

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