CRAY INC
Form 10-Q
October 30, 2018

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

FORM 10-Q

ý QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended: September 30, 2018
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: 0-26820

CRAY INC.
(Exact name of registrant as specified in its charter)

Washington	93-0962605
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
901 Fifth Avenue, Suite 1000 Seattle, Washington	98164
(Address of Principal Executive Office)	(Zip Code)

(206) 701-2000
(Registrant’s telephone number, including area code)

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 ý 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 ý No ¨
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	ý	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 ý

As of October 26, 2018, there were 40,836,694 shares of Common Stock issued and outstanding.

CRAY INC.
TABLE OF CONTENTS

Page No.

PART I. FINANCIAL INFORMATION	4
Item 1. Unaudited Condensed Consolidated Financial Statements:	4
Condensed Consolidated Balance Sheets as of September 30, 2018 and December 31, 2017	4
Condensed Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2018 and September 30, 2017	5
Condensed Consolidated Statements of Comprehensive Loss for the Three and Nine Months Ended September 30, 2018 and September 30, 2017	6
Condensed Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2018 and September 30, 2017	7
Notes to Condensed Consolidated Financial Statements	9
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	24
Item 3. Quantitative and Qualitative Disclosures About Market Risk	37
Item 4. Controls and Procedures	38
PART II. OTHER INFORMATION	39
Item 1. Legal Proceedings	39
Item1A. Risk Factors	39
Item 6. Exhibits	51
SIGNATURES	52

CRAY, ClusterStor, DataWarp, and Sonexion are registered trademarks of Cray Inc. in the United States and other countries. The CS and XC families of supercomputers and other Cray technologies are all trademarks of Cray Inc. Other trademarks used in this report are the property of their respective owners.

Available Information

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, amendments to those reports and proxy statements filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge at our website at www.cray.com as soon as reasonably practicable after we electronically file such reports with the U.S. Securities and Exchange Commission.

PART I. FINANCIAL INFORMATION
Item 1. Unaudited Condensed Consolidated Financial Statements
CRAY INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited and in thousands, except share data)

	September 30, 2018	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 166,848	$ 137,326
Restricted cash	1,303	1,964
Short-term investments	—	6,997
Accounts and other receivables, net	74,961	162,034
Inventory	141,561	186,307
Prepaid expenses and other current assets	21,231	25,015
Total current assets	405,904	519,643
Long-term restricted cash	16,030	1,030
Long-term investment in sales-type lease, net	13,024	23,367
Property and equipment, net	36,325	36,623
Goodwill	14,182	14,182
Intangible assets other than goodwill, net	3,471	4,345
Other non-current assets	17,433	19,567
TOTAL ASSETS	$ 506,369	$ 618,757
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 28,956	$ 57,207
Accrued payroll and related expenses	17,768	18,546
Other accrued liabilities	7,717	9,471
Customer contract liabilities	57,290	80,119
Total current liabilities	111,731	165,343
Long-term customer contract liabilities	31,661	38,622
Other non-current liabilities	12,725	14,495
TOTAL LIABILITIES	156,117	218,460
Shareholders' equity:		
Preferred stock — Authorized and undesignated, 5,000,000 shares; no shares issued or outstanding	—	—
Common stock and additional paid-in capital, par value $.01 per share — Authorized, 75,000,000 shares; issued and outstanding 40,825,905 and 40,464,963 shares, respectively	643,059	633,408
Accumulated other comprehensive income	707	915
Accumulated deficit	(293,514)	(234,026)
TOTAL SHAREHOLDERS' EQUITY	350,252	400,297
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 506,369	$ 618,757

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

CRAY INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited and in thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenue:				
Product	$57,990	$45,280	$185,823	$117,939
Service	34,806	34,420	106,770	107,927
Total revenue	92,796	79,700	292,593	225,866
Cost of revenue:				
Cost of product revenue	49,053	35,090	148,372	89,356
Cost of service revenue	18,932	16,118	54,651	55,866
Total cost of revenue	67,985	51,208	203,023	145,222
Gross profit	24,811	28,492	89,570	80,644
Operating expenses:				
Research and development, net	26,162	26,626	85,436	76,591
Sales and marketing	15,282	13,392	46,165	43,292
General and administrative	6,580	7,022	17,983	23,024
Restructuring	—	7,653	476	7,653
Total operating expenses	48,024	54,693	150,060	150,560
Loss from operations	(23,213)	(26,201)	(60,490)	(69,916)
Other income, net	151	4,161	199	5,358
Interest income, net	908	880	2,288	2,655
Gain on strategic transaction	—	4,389	—	4,389
Loss before income taxes	(22,154)	(16,771)	(58,003)	(57,514)
Income tax benefit (expense)	(239)	6,539	(348)	21,227
Net loss	$(22,393)	$(10,232)	$(58,351)	$(36,287)
Basic net loss per common share	$(0.55)	$(0.25)	$(1.44)	$(0.91)
Diluted net loss per common share	$(0.55)	$(0.25)	$(1.44)	$(0.91)
Basic weighted average shares outstanding	40,778	40,199	40,611	40,082
Diluted weighted average shares outstanding	40,778	40,199	40,611	40,082

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

CRAY INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited and in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net loss	$(22,393)	$(10,232)	$(58,351)	$(36,287)
Other comprehensive loss, net of tax:				
Unrealized gain (loss) on available-for-sale investments	—	(98)	7	(4)
Foreign currency translation adjustments	(126)	(118)	(1,285)	322
Unrealized gain (loss) on cash flow hedges	(651)	(1,004)	423	(2,178)
Reclassification adjustments on cash flow hedges included in net loss	(462)	56	647	94
Other comprehensive loss	(1,239)	(1,164)	(208)	(1,766)
Comprehensive loss	$(23,632)	$(11,396)	$(58,559)	$(38,053)

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

CRAY INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited and in thousands)

	Nine Months Ended September 30,	
	2018	2017
Operating activities:		
Net loss	$(58,351)	$(36,287)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	12,158	12,134
Share-based compensation expense	9,648	7,643
Deferred income taxes	(115)	(21,419)
Gain on strategic transaction	—	(4,389)
Gain on sale of equity investment	(429)	(3,350)
Other	232	741
Cash provided (used) due to changes in operating assets and liabilities:		
Accounts and other receivables	84,583	137,559
Long-term investment in sales-type lease, net	9,888	7,065
Inventory	38,124	(107,621)
Prepaid expenses and other assets	516	1,939
Accounts payable	(28,029)	(3,512)
Accrued payroll and related expenses and other liabilities	1,511	(3,982)
Customer contract liabilities	(29,315)	(25,205)
Net cash provided by (used in) operating activities	40,421	(38,684)
Investing activities:		
Sales/maturities of available-for-sale investments	7,000	66,610
Purchases of available-for-sale investments	—	(94,902)
Cash received in strategic transaction	1,584	8,000
Proceeds from sale of equity investment	429	4,481
Purchases of property and equipment	(3,813)	(15,647)
Net cash provided by (used in) investing activities	5,200	(31,458)
Financing activities:		
Proceeds from issuance of common stock through employee stock purchase plan	—	365
Purchase of employee restricted shares to fund related statutory tax withholding	(2,934)	(1,869)
Proceeds from exercises of stock options	1,801	693
Net cash used in financing activities	(1,133)	(811)
Effect of foreign exchange rate changes on cash, cash equivalents and restricted cash	(627)	1,152
Net increase (decrease) in cash, cash equivalents and restricted cash	43,861	(69,801)
Cash, cash equivalents and restricted cash:		
Beginning of period	140,320	224,617
End of period	$184,181	$154,816
Supplemental disclosure of cash flow information:		
Cash paid for income taxes	$741	$1,202
Non-cash investing and financing activities:		
Inventory transfers to fixed assets and service spares	$6,572	$1,248
Strategic transaction:		
Non-cash assets acquired:		

Receivable from Seagate	$—	$1,404

7

Inventory	—	4,170
Property and equipment	—	2,684
Intangible assets	—	3,350
Liabilities assumed:		
Deferred revenue	$—	$11,700
Deferred tax liabilities	—	3,019
Other liabilities	—	500

The following is a reconciliation of cash, cash equivalents and restricted cash reported within the Condensed Consolidated Balance Sheets that sum to the total of the same such amounts shown in the Condensed Consolidated Statements of Cash Flows:

	September 30, 2018	December 31, 2017
Cash and cash equivalents	$ 166,848	$ 137,326
Restricted cash (1)	1,303	1,964
Long-term restricted cash (1)	16,030	1,030
Total cash, cash equivalents and restricted cash	$ 184,181	$ 140,320

(1) Restricted cash primarily associated with certain letters of credit to secure customer prepayments and other customer related obligations.

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

CRAY INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1— Basis of Presentation

In these notes, the Company and its wholly-owned subsidiaries are collectively referred to as the “Company.” In the opinion of management, the accompanying Condensed Consolidated Balance Sheets, Statements of Operations, Statements of Comprehensive Loss, and Statements of Cash Flows have been prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP, for interim financial information and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all of the information and notes required by GAAP for complete financial statements. Management believes that all adjustments (consisting of normal recurring adjustments) considered necessary for fair presentation have been included. Interim results are not necessarily indicative of results for a full year. The information included in this quarterly report on Form 10-Q should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the financial statements and notes thereto included in the Company’s annual report on Form 10-K for the fiscal year ended December 31, 2017.

The Company’s revenue, results of operations and cash balances are likely to fluctuate significantly from quarter to quarter. These fluctuations are due to such factors as the high average sales prices and limited number of sales of the Company’s products, the timing of purchase orders and product deliveries, the revenue recognition accounting policy of generally not recognizing product revenue until customer acceptance and other contractual provisions have been fulfilled and the timing of payments for product sales, maintenance services, government research and development funding and purchases of inventory. Given the nature of the Company’s business, its revenue, receivables and other related accounts are likely to be concentrated among a relatively small number of customers.

Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All material intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in the Company’s condensed consolidated financial statements and accompanying notes. Actual results could differ materially from those estimates.

Revenue Recognition

On January 1, 2018, the Company adopted the new accounting standard ASC 606, Revenue from Contracts with Customers, which superseded nearly all existing revenue recognition guidance under GAAP, to all contracts using the modified retrospective method. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. Adoption of the new standard did not have a material impact on the Company’s net loss during the first nine months of 2018. The Company expects the impact of the adoption of the new standard to be immaterial to its net income on an ongoing basis.

The Company’s performance obligations are satisfied over time as work is performed or at a point in time. The majority of the Company’s revenue is recognized at a point in time when products are accepted, installed or delivered. Most of the Company’s revenue is derived from long-term contracts that can span several years. Revenue is recognized when performance obligations under the terms of a contract with the customer are satisfied; generally, this occurs with the transfer of control of the Company’s systems or services. In general, this does not occur until the products have been shipped or services provided to the customer, risk of loss has transferred to the customer, and, where applicable, a customer acceptance has been obtained. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring goods or providing services. Sales, value add, and other taxes that the Company collects concurrent with revenue-producing activities are excluded from revenue. Incidental items that are immaterial in the context of the contract are recognized as expense.

To determine the proper revenue recognition method for contracts, the Company evaluates whether two or more contracts should be combined and accounted for as one single contract and whether the combined or single contract should be accounted for as more than one performance obligation. Contracts are often modified to account for changes

in contract specifications and requirements. To determine the proper revenue recognition method for contract modifications, the Company evaluates whether the contract modification should be accounted for as a separate contract, part of an existing contract, or termination of an existing contract and the creation of a new contract. This evaluation requires significant judgment and the decision to combine a group of contracts or separate the combined or single contract into multiple performance obligations could change the amount of revenue and profit recorded in a given period. For contracts with multiple performance obligations, the Company allocates the contract's

transaction price to each performance obligation using the Company’s estimate of the standalone selling price of each distinct good or service in the contract.

The Company determines the transaction price by reviewing the established contractual terms and other relevant information. Contracts can include penalty clauses and contracts with government customers may not be fully funded, both of which represent variable consideration. Generally, the Company includes both the funded and unfunded portions of a contract with a government customer in the transaction price, as most often it is deemed the contract will become fully funded. The Company also assesses the likelihood of certain penalties that would result in contract price reductions and, if deemed probable, the transaction price is adjusted.

The majority of the Company’s contracts include multiple promised goods and services, which are assessed at contract inception. Each distinct good or service is identified as a performance obligation, which may be an individual good or service or a bundle of goods or services. In order to determine whether the promises are distinct, the Company assesses the use of its products and services by its customers to determine whether the customer can benefit from the good or service on its own or from other readily available resources, and whether the promised transfer of goods or services is separately identifiable from other promises in the contract.

The majority of the Company’s revenues are from product solutions which include supercomputers, storage, and data analytics systems, each of which are usually separate performance obligations. Revenue is recognized when obligations under the terms of a contract with a customer are satisfied. Product revenue is typically recognized upon customer acceptance, or upon installation or delivery if formal acceptance is not required. Service revenue is typically recognized over time and consists mainly of system maintenance, analyst services, and engineering services, each of which are usually separate performance obligations. System maintenance commences upon customer acceptance or installation, depending on the contract terms, and revenue is recognized ratably over the remaining term of the maintenance contract. On-site analysts provide specialized services to customers, the revenue for which is recognized ratably over the contract period. Service revenue is recognized on a straight-line basis over the service period as the services are available continuously to the customer. Revenue from engineering services can be recognized as services are performed or as milestones are achieved, depending on the terms of the contract and nature of services performed.

If, in a contract, the customer has an option to acquire additional goods or services, that option gives rise to a performance obligation if the option provides a material right to the customer that it would not receive without entering into that contract. Revenue from purchase options can be recognized as those future goods or services are transferred or when the option expires.

The Company performs an assessment to determine whether a significant financing component is present in a contract. If a contract is determined to include a significant financing component, the interest rate used in the calculation is based on the prevailing interest rates at contract inception and the entity’s creditworthiness. When the period between providing a good or service to the customer is expected to be less than one year from payment, the Company applies the practical expedient and does not adjust the consideration for the effects of a significant financing component.

Occasionally, the Company’s contracts include noncash consideration. This typically consists of returned parts when a system is upgraded or de-installed. Noncash consideration is measured at contract inception at estimated fair value.

The total transaction price is allocated to each performance obligation identified in the contract based on its relative standalone selling price. The Company does not have directly observable standalone selling prices for the majority of its performance obligations due to a relatively small number of customer contracts that differ in system size and contract terms which can be due to infrequently selling each performance obligation separately, not pricing products within a narrow range, or only having a limited sales history, such as in the case of certain advanced and emerging technologies. When a directly observable standalone selling price is not available, the Company estimates the standalone selling price. In determining the estimated standalone selling price, the Company uses the cost to provide the product or service plus a margin, or considers other factors. When using cost plus a margin, the Company considers the total cost of the product or service, including customer-specific and geographic factors as appropriate. The Company also considers the historical margins of the product or service on previous contracts and several other factors including any changes to pricing methodologies, competitiveness of products and services, and cost drivers that would cause future margins to differ from historical margins.

The Company sometimes offers discounts to its customers. As these discounts are offered on bundles of goods and services, the discounts are applied to all performance obligations in the contract on a pro-rata basis.

The following table provides information about contract receivables, contract assets, and contract liabilities from contracts with customers (in thousands) and includes both short-term and long-term portions:

	September 30, 2018	December 31, 2017	Change
Contract receivables	$ 70,927	$ 167,346	$ (96,419)
Contract assets	3,801	9,321	(5,520)
Contract liabilities	88,951	118,741	(29,790)

Contract receivables consist of amounts billed to customers and include the Company's investment in a sales type lease, a portion of which is due beyond one year. Generally, billing occurs subsequent to product revenue recognition and payment is expected within 30 days. Contract assets primarily relate to the Company's rights to consideration for work completed but not billed where right to payment is not just subject to the passage of time. Contract assets become contract receivables when the rights become unconditional. The Company sometimes receives advances or deposits from customers before revenue is recognized, resulting in customer contract liabilities (formerly deferred revenue). These assets and liabilities are reported on the Condensed Consolidated Balance Sheet on a contract-by-contract basis at the end of each reporting period. The Company's payment terms vary from contract to contract. Contracts may require payment before, at or after the Company's performance obligations have been satisfied. The decrease in the Company's contract asset balance for the nine months ended September 30, 2018 is primarily due to the transfer from contract assets to contract receivables that were included in the contract asset balance at the beginning of the period, partially offset by the addition of new contract assets.

For the nine month period ended September 30, 2018, the Company recognized $64.1 million in revenues from the contract liability balance at the beginning of the period.

The Company's incremental direct costs of obtaining a contract come primarily from sales commissions, a portion of which are paid upon contract signing. These commissions are generally capitalized upon payment and expensed at the time of revenue recognition. These deferred commissions are included in prepaid expenses in the Condensed Consolidated Balance Sheet. As of September 30, 2018 and December 31, 2017, the Company had $2.5 million and $1.3 million, respectively, of deferred commissions. For the three and nine months ended September 30, 2018, the Company recognized $1.1 million and $3.7 million, respectively, in commissions expense. For the three and nine months ended September 30, 2017, the Company recognized $0.6 million and $2.2 million, respectively, in commissions expense.

The following data presents the Company's operating segment revenues disaggregated by primary geographic market, which is determined based on a customer's geographic location (in thousands). Regions represent Europe, the Middle East, and Africa (EMEA); Asia-Pacific and Japan; and the United States, Canada, and Latin America (Americas). Revenues were increased by $0.5 million for the three months ended September 30, 2018 and reduced by $0.6 million for the nine months ended September 30, 2018 related to hedging gains and losses which do not represent revenues recognized from contracts with customers.

	Americas	EMEA	Asia Pacific & Japan	Total
Three Months Ended September 30, 2018				
Supercomputing	$45,263	$16,251	$11,101	$72,615
Storage and Data Management	8,897	2,368	998	12,263
Maintenance and Support	20,567	7,329	5,453	33,349
Engineering Services and Other	3,832	494	3,592	7,918
Elimination of inter-segment revenue	(20,567)	(7,329)	(5,453)	(33,349)
Total revenue	$57,992	$19,113	$15,691	$92,796

	Americas	EMEA	Asia Pacific & Japan	Total
Nine Months Ended September 30, 2018				
Supercomputing	$110,189	$39,057	$81,006	$230,252
Storage and Data Management	23,810	9,813	12,354	45,977
Maintenance and Support	62,229	22,571	15,677	100,477
Engineering Services and Other	11,742	612	4,010	16,364
Elimination of inter-segment revenue	(62,229)	(22,571)	(15,677)	(100,477)
Total revenue	$145,741	$49,482	$97,370	$292,593

The Company’s remaining performance obligations reflect the deliverables within contracts with customers that will have revenue recognized in a future period (this may also be referred to as backlog). Due to the nature of the Company’s business and the size of individual transactions, forecasting the timing and total amount of revenue recognition is subject to significant uncertainties. As of September 30, 2018, the Company has an aggregate of $615 million in remaining performance obligations stemming from a mixture of system contracts with their related service obligations and other service obligations. Included in this balance are $0.6 million in losses resulting from hedged foreign currency transactions, which offset the related increase in revenue from currency fluctuations. These gains will be reclassified from accumulated other comprehensive income to revenue in the period the related transactions are recognized as revenue. These obligations are anticipated to be recognized as revenue over approximately the next six years. The Company estimates that about 60% of these obligations are expected to be recognized as revenue in the next 18 months, with the remainder thereafter.

Note 2— New Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers: Topic 606 (ASU 2014-09) to supersede nearly all existing revenue recognition guidance under GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under prior GAAP, including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. The new guidance also requires additional disclosures and several terminology changes, such as amounts previously referred to as deferred revenue now being referred to as customer contract liabilities. The

Company adopted ASU 2014-09 at the beginning of the first quarter of 2018 using the modified retrospective method. No cumulative effect adjustment was required to be recorded for this change in accounting as the Company determined the impact of the change to not be material. The comparative information for the three and nine months ended September 30, 2017, and as of December 31, 2017 has not been restated and continues to be reported under the accounting standards in effect for those periods. The effect of initially applying the new revenue standard had an immaterial effect on the Company's financial statements. Adoption of the new standard did not have a material impact on the Company's net loss during the first nine months of 2018. The Company expects the impact of the adoption of the new standard to be immaterial to its net income on an ongoing basis.

In January 2016, FASB issued Accounting Standards Update No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities: Topic 825 (ASU 2016-01). The updated guidance enhances the reporting model for financial instruments, which includes amendments to address aspects of recognition, measurement, presentation and disclosure. The Company adopted ASU 2016-01 at the beginning of the first quarter of 2018. Adoption of ASU 2016-01 did not have a material impact on the Company's consolidated financial statements.

In February 2016, FASB issued Accounting Standards Update No. 2016-02, Leases: Topic 842 (ASU 2016-02), that replaces existing lease guidance. The new standard is intended to provide enhanced transparency and comparability by requiring lessees to record right-of-use assets and corresponding lease liabilities on the balance sheet. Under the new guidance, leases will continue to be classified as either finance or operating, with classification affecting the pattern of expense recognition in the Consolidated Statements of Operations. Lessor accounting is largely unchanged under ASU 2016-02. Adoption of ASU 2016-02 is required for fiscal reporting periods beginning after December 15, 2018, including interim reporting periods within those fiscal years with early adoption being permitted. The new standard initially required application with a modified retrospective approach to each prior reporting period presented with various optional practical expedients. In July 2018, this requirement was amended with the issuance of Accounting Standards Update No. 2018-11, Leases: Topic 842: Targeted Improvements (ASU 2018-11), which permits an additional (and optional) transition method to adopt the new leases standard. Under this new transition method, an entity initially applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Consequently, an entity's reporting for the comparative periods presented in the financial statements in which it adopts the new leases standard will continue to be in accordance with current GAAP (Topic 840, Leases). An entity that elects this additional (and optional) transition method must provide the required Topic 840 disclosures for all periods that continue to be in accordance with Topic 840. The amendments do not change the existing disclosure requirements in Topic 840. While the Company expects adoption of ASU 2016-02 to lead to a material increase in the assets and liabilities recorded on its Consolidated Balance Sheet, the Company is still evaluating the overall impact on its consolidated financial statements.

In August 2016, FASB issued Accounting Standards Update No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (ASU 2016-15). The updated guidance clarifies how companies present and classify certain cash receipts and cash payments in the statement of cash flows. The Company adopted ASU 2016-15 at the beginning of the first quarter of 2018. Adoption of ASU 2016-15 did not have a material impact on the Company's consolidated financial statements.

In November 2016, FASB issued Accounting Standards Update No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (ASU 2016-18), which amends ASC 230 to add or clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. The amended guidance requires that amounts that are deemed to be restricted cash and restricted cash equivalents be included in the cash and cash-equivalent balances in the statement of cash flows. A reconciliation between the consolidated balance sheet and the statement of cash flows must be disclosed when the consolidated balance sheet includes more than one line item for cash, cash equivalents, restricted cash, and restricted cash equivalents. The guidance also requires that changes in restricted cash and restricted cash equivalents that result from transfers between cash, cash equivalents, and restricted cash and restricted cash equivalents should not be presented as cash flow activities in the statement of cash flows. An entity with a material balance of amounts generally described as restricted cash and restricted cash equivalents must disclose information about the nature of the restrictions. The Company adopted ASU 2016-18 at the beginning of the first quarter of 2018. Restricted cash amounts have been combined with the cash and cash equivalent balances in the Condensed Consolidated Statement of Cash Flows for each period presented. Adoption of ASU 2016-18 did not have a material impact on the Company's consolidated financial statements.

In August 2017, FASB issued Accounting Standards Update No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities (ASU 2017-12). The new standard simplifies and expands the eligible hedging strategies for financial and nonfinancial risks. It also enhances the transparency of how hedging results are presented and disclosed. Further, the new standard provides partial relief on the timing of certain aspects of hedge documentation and eliminates the requirement to recognize hedge ineffectiveness separately in earnings. Adoption of ASU 2017-12 is required for fiscal reporting periods beginning after December 15, 2018,

including interim reporting periods within those fiscal years with early adoption being permitted. The Company does not expect the adoption of ASU 2017-12 to have a material impact on its consolidated financial statements.

In February 2018, FASB issued Accounting Standards Update No. 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (ASU 2018-02). The new standard amends ASC 220 to allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the "Tax Cuts and Jobs Act" and requires entities to provide certain disclosures regarding stranded tax effects. Adoption of ASU 2018-02 is required for fiscal reporting periods beginning after December 15, 2018, including interim reporting periods within those fiscal years with early adoption being permitted. The Company does not expect the adoption of ASU 2018-02 to have a material impact on its consolidated financial statements.

In August 2018, FASB issued Accounting Standards Update No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement (ASU 2018-13). The new standard makes various modifications to the disclosure requirements on fair value measurement in Topic 820. Adoption of ASU 2018-13 is required for fiscal reporting periods beginning after December 15, 2019, including interim reporting periods within those fiscal years with early adoption being permitted. The Company does not expect the adoption of ASU 2018-13 to have a material impact on its consolidated financial statements.

Note 3— Fair Value Measurement

Based on the observability of the inputs used in the valuation techniques used to determine the fair value of certain financial assets and liabilities, the Company is required to provide the following information according to the fair value hierarchy. The fair value hierarchy ranks the quality and reliability of the information used to determine fair values.

In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities. Fair values determined by Level 3 inputs are unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability. The following table presents information about the Company's financial assets and liabilities that have been measured at fair value as of September 30, 2018, and indicates the level within the fair value hierarchy of the valuation inputs utilized to determine such fair value (in thousands):

Description	Fair Value as of September 30, 2018	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)
Assets:			
Cash, cash equivalents and restricted cash	$ 184,181	$ 184,181	$ —
Foreign currency exchange contracts (1)	2,876	—	2,876
Assets measured at fair value at September 30, 2018	$ 187,057	$ 184,181	$ 2,876
Liabilities:			
Foreign currency exchange contracts (2)	789	—	789
Liabilities measured at fair value at September 30, 2018	$ 789	$—	$ 789

(1) Included in "Prepaid expenses and other current assets" and "Other non-current assets" on the Company's Condensed Consolidated Balance Sheets.

(2) Included in "Other accrued liabilities" and "Other non-current liabilities" on the Company's Condensed Consolidated Balance Sheets.

Foreign Currency Derivatives

The Company may enter into foreign currency derivatives to hedge future cash receipts on certain sales transactions that are payable in foreign currencies.

As of September 30, 2018 and December 31, 2017, the Company had outstanding foreign currency exchange contracts that were designated and accounted for as cash flow hedges of anticipated future cash receipts on sales contracts payable in foreign currencies. The outstanding notional amounts were approximately (in millions):

	September 30, 2018	December 31, 2017
Canadian Dollars (CAD)	54.4	56.0
Singapore Dollars (SGD)	2.0	—
Euros (EUR)	—	2.1
Japanese Yen (JPY)	—	4,345.6
New Zealand Dollars (NZD)	—	16.2

The Company had hedged foreign currency exposure related to these designated cash flow hedges of approximately $43.1 million and $96.3 million as of September 30, 2018 and December 31, 2017, respectively.

As of September 30, 2018 and December 31, 2017, the Company had outstanding foreign currency exchange contracts that had been dedesignated for the purposes of hedge accounting treatment. The Company dedesignates cash flow hedges when the receivable related to the hedged cash flow is recorded. The outstanding notional amounts were approximately (in millions):

	September 30, 2018	December 31, 2017
British Pounds (GBP)	20.2	26.1
Euros (EUR)	0.8	4.7
Swiss Francs (CHF)	—	2.6
Canadian Dollars (CAD)	—	0.3

The foreign currency exposure related to these contracts was approximately $30.7 million as of September 30, 2018 and $46.9 million as of December 31, 2017. Unrealized gains or losses related to these dedesignated contracts are recorded in other income (loss) in the Condensed Consolidated Statements of Operations and are generally offset by foreign currency adjustments on related receivables. These foreign currency exchange contracts are considered to be economic hedges.

Cash receipts associated with the foreign currency exchange contracts are expected to be received from 2018 through 2022, during which time the revenue on the associated sales contracts is expected to be recognized, or in the case of receivables denominated in a foreign currency, the receivables balances will be collected. Any gain or loss on hedged foreign currency will be recognized at the time of customer acceptance, or in the case of receivables denominated in a foreign currency, over the period during which hedged receivables denominated in a foreign currency are outstanding.

Fair values of derivative instruments designated as cash flow hedges (in thousands):

Balance Sheet Location	Fair Value as of September 30, 2018	Fair Value as of December 31, 2017
Prepaid expenses and other current assets	$ —	$ 546
Other accrued liabilities	(672)	(129)
Other non-current liabilities	(117)	(1,907)
Total fair value of derivative instruments designated as cash flow hedges	$ (789)	$ (1,490)

Fair values of derivative instruments not designated as cash flow hedges (in thousands):

Balance Sheet Location	Fair Value as of September 30, 2018	Fair Value as of December 31, 2017
Prepaid expenses and other current assets	$ 1,591	$ 1,252
Other non-current assets	1,285	1,453
Other accrued liabilities	—	(395)
Total fair value of derivative instruments not designated as cash flow hedges	$ 2,876	$ 2,310

Note 4— Accumulated Other Comprehensive Income

The following table shows the impact on product revenue of reclassification adjustments from accumulated other comprehensive income resulting from hedged foreign currency transactions recorded by the Company for the three and nine months ended September 30, 2018 and 2017 (in thousands). The reclassification adjustments increased product revenue for the three months ended September 30, 2018 and decreased product revenue for the nine months ended September 30, 2018 and the three and nine months ended September 30, 2017.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Gross of tax reclassifications	$ 462	$ (93)	$ (647)	$ (157)
Net of tax reclassifications	$ 462	$ (56)	$ (647)	$ (94)

The following tables show the changes in accumulated other comprehensive income by component for the three and nine months ended September 30, 2018 and 2017 (in thousands):

Three Months Ended September 30, 2018

	Unrealized Gain on Investments	Foreign Currency Translation Adjustments	Unrealized Gain on Cash Flow Hedges	Accumulated Other Comprehensive Income
Beginning balance	$ —	$ 452	$ 1,494	$ 1,946
Current-period change, net of tax	—	(126)	(1,113)	(1,239)
Ending balance	$ —	$ 326	$ 381	$ 707
Income tax expense (benefit) associated with current-period change	$ —	$ —	$ —	$ —

Three Months Ended September 30, 2017

	Unrealized Gain (Loss) on Investments	Foreign Currency Translation Adjustments	Unrealized Loss on Cash Flow Hedges	Accumulated Other Comprehensive Income
Beginning balance	$ 94	$ 2,541	$ (455)	$ 2,180
Current-period change, net of tax	(98)	(118)	(948)	(1,164)
Ending balance	$ (4)	$ 2,423	$ (1,403)	$ 1,016
Income tax expense (benefit) associated with current-period change	$ (66)	$ 148	$ (632)	$ (550)

Nine Months Ended September 30, 2018

	Unrealized Loss on Investments	Foreign Currency Translation Adjustments	Unrealized Gain (Loss) on Cash Flow Hedges	Accumulated Other Comprehensive Income
Beginning balance	$ (7)	$ 1,611	$ (689)	$ 915
Current-period change, net of tax	7	(1,285)	1,070	(208)
Ending balance	$ —	$ 326	$ 381	$ 707
Income tax expense (benefit) associated with current-period change	$ —	$ —	$ —	$ —

Nine Months Ended September 30, 2017

	Unrealized Loss on Investments	Foreign Currency Translation Adjustments	Unrealized Gain (Loss) on Cash Flow Hedges	Accumulated Other Comprehensive Income
Beginning balance	$ —	$ 2,101	$ 681	$ 2,782
Current-period change, net of tax	(4)	322	(2,084)	(1,766)
Ending balance	$ (4)	$ 2,423	$ (1,403)	$ 1,016
	$ (3)	$ 343	$ (1,389)	$ (1,049)

Income tax expense (benefit) associated with current-period
change

Note 5— Loss Per Share ("EPS")

Basic EPS is computed by dividing net loss available to common shareholders by the weighted average number of common shares, excluding unvested restricted stock, outstanding during the period. Diluted EPS is computed by dividing net loss available to common shareholders by the weighted average number of common and potential common shares outstanding during the period, which includes the additional dilution related to conversion of stock options, unvested restricted stock and unvested restricted stock units as computed under the treasury stock method. For the three and nine months ended September 30, 2018 and 2017, outstanding stock options, unvested restricted stock and unvested restricted stock units were antidilutive because of the net losses and, as such, their effect has not been included in the

16

calculation of basic or diluted net loss per share. For the three and nine months ended September 30, 2018 and 2017, potential gross common shares of 3.2 million were antidilutive and not included in computing diluted EPS. An additional 0.5 million and 0.6 million performance vesting restricted stock and performance vesting restricted stock units were excluded from the computation of potential common shares for the three and nine months ended September 30, 2018 and 2017, respectively, because the conditions for vesting had not been met as of the balance sheet date.

Note 6— Investments

The Company's investments in debt securities with maturities at purchase greater than three months are classified as "available-for-sale." Changes in fair value are reflected in other comprehensive loss. The Company had no investments in available-for-sale securities as of September 30, 2018. The carrying amounts of the Company's investments in available-for-sale securities as of December 31, 2017 are shown in the table below (in thousands):

	Cost	Unrealized Loss	Fair Value
Short-term available-for-sale securities	$7,007	$ (10)	$6,997

Note 7— Accounts and Other Receivables, Net

Net accounts and other receivables consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Trade accounts receivable	$ 46,132	$ 131,151
Current contract assets	3,801	9,321
Advance billings	5,208	3,569
Short-term investment in sales-type lease	12,642	10,684
Other receivables	7,203	7,337
	74,986	162,062
Allowance for doubtful accounts	(25)	(28)
Accounts and other receivables, net	$ 74,961	$ 162,034

Contract assets represent amounts where the Company has recognized revenue in advance of the contractual billing terms. Advance billings represent billings made based on contractual terms for which revenue has not been recognized.

As of September 30, 2018 and December 31, 2017, accounts receivable included $24.6 million and $45.3 million, respectively, that resulted from sales to the U.S. government and system acquisitions primarily funded by the U.S. government ("U.S. Government"). Of these amounts, $1.1 million and $2.1 million were unbilled and included in contract assets as of September 30, 2018 and December 31, 2017, respectively, based upon contractual billing arrangements with these customers. As of September 30, 2018, one non-U.S. Government customer accounted for 17% of total accounts and other receivables. As of December 31, 2017, two non-U.S. Government customers accounted for 38% of total accounts and other receivables.

Note 8— Sales-type Lease

The Company has a sales-type lease with one non-U.S. Government customer, under which it will receive quarterly payments over the term of the lease, which expires in September 2020. The lease is denominated in British Pounds and the Company has entered into certain foreign currency exchange contracts that act as an economic hedge for the foreign currency exposure associated with this arrangement.

The following table shows the components of the net investment in the sales-type lease as of September 30, 2018 and December 31, 2017 (in thousands):

	September 30, 2018	December 31, 2017
Total minimum lease payments to be received	$ 29,849	$ 42,268
Less: executory costs	(3,487)	(6,831)
Net minimum lease payments receivable	26,362	35,437
Less: unearned income	(696)	(1,386)
Net investment in sales-type lease	25,666	34,051
Less: long-term investment in sales-type lease	(13,024)	(23,367)
Investment in sales-type lease included in accounts and other receivables	$ 12,642	$ 10,684

As of September 30, 2018, minimum lease payments for each of the succeeding three fiscal years are as follows (in thousands):

2018 (less than 1 year)	$3,733
2019	14,932
2020	11,184
Total minimum lease payments to be received	$29,849

Note 9— Inventory

Inventory consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Components and subassemblies	$ 47,384	$37,219
Work in process	47,908	59,456
Finished goods	46,269	89,632
Total	$ 141,561	$186,307

Finished goods inventory of $45.7 million and $48.1 million was located at customer sites pending acceptance as of September 30, 2018 and December 31, 2017, respectively. At September 30, 2018, one customer accounted for $38.3 million of finished goods inventory, and at December 31, 2017, two customers accounted for $67.7 million of finished goods inventory.

The Company wrote off $0.3 million of excess and obsolete inventory during the three and nine months ended September 30, 2018. The Company did not write off any inventory during the three and nine months ended September 30, 2017.

Note 10— Customer Contract Liabilities

Liabilities from contracts with customers consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Contract liability - product	$ 9,315	$ 22,245
Contract liability - service	79,636	96,496
Total contract liabilities	88,951	118,741
Less: long-term contract liabilities	(31,661)	(38,622)
Current contract liabilities	$ 57,290	$ 80,119

As of September 30, 2018 and December 31, 2017, the U.S. Government accounted for $30.1 million and $32.5 million, respectively, of total customer contract liabilities. As of September 30, 2018, one non-U.S. Government customer accounted for 10% of total customer contract liabilities. As of December 31, 2017, no non-U.S. Government customers accounted for more than 10% of total customer contract liabilities.

Note 11— Contingencies

The Company is subject to patent lawsuits brought by Raytheon Company, or Raytheon. The first suit was brought by Raytheon on September 25, 2015 in the Eastern District of Texas (Civil Action No. 2:15-cv-1554) asserting infringement of four

18

patents owned by Raytheon. Two of the originally asserted patents relate to computer hardware alleged to be encompassed by Cray's current and past products (the "Hardware Patents"), and the two remaining asserted patents relate to features alleged to be performed by certain third-party software that Cray optionally includes as part of its product offerings (the "Software Patents"). A second suit was brought by Raytheon on April 22, 2016 in the Eastern District of Texas (Civil Action No. 2:16-cv-423) asserting infringement of five patents owned by Raytheon. In this second suit, all five asserted patents relate to features alleged to be performed by certain third-party software that Cray optionally includes as part of its product offerings. On September 21, 2017, the United States Court of Appeals for the Federal Circuit granted Cray's petition for writ of mandamus and overturned the trial court's determination that venue in the first action was proper in the Eastern District of Texas, and accordingly on April 5, 2018, the trial court ordered that the first action should be transferred to the Western District of Wisconsin as had been requested by Cray, which was effective on April 30, 2018 (Civil Action No. 3:18-cv-00318-wmc). After transfer, Raytheon indicated its desire to withdraw its claims for infringement of the Hardware Patents. Accordingly, the Wisconsin court, upon joint motion of the parties, has dismissed with prejudice the counts related to the Hardware Patents, and Raytheon has served on the Company and filed with the court covenants not to sue for infringement of the Hardware Patents. The Wisconsin court has also scheduled summary judgment proceedings on the remaining two counts, relating to the Software Patents, and trial has been set for June 3, 2019. The Texas court, upon joint motion of the parties, has also transferred the second action to the Northern District of California (Civil Action No. 3:18-cv-03388-RS). Per joint motion of the parties, the California court has stayed the second action pending resolution of the first action. The Company is vigorously defending these actions. The probable outcome of either litigation cannot be determined, nor can the Company estimate a range of potential loss. Based on its review of the matters to date, the Company believes that it has valid defenses and claims in each of the two lawsuits. As a result, the Company considers the likelihood of a material loss related to these matters to be remote.

Note 12— Share-Based Compensation

The Company accounts for its share-based compensation based on an estimate of fair value of the grant on the date of grant.

In determining the fair value of stock options, the Company uses the Black-Scholes option pricing model. The following key weighted average assumptions were employed in the calculation for the three month period ended September 30, 2018 and the nine month periods ended September 30, 2018 and September 30, 2017. There were no option grants during the three month period ended September 30, 2017:

	Three Months Ended September 30,	Nine Months Ended September 30,	
	2018	2018	2017
Risk-free interest rate	2.68%	2.84%	1.61%
Expected dividend yield	—%	—%	—%
Volatility	48.67%	48.92%	54.20%
Expected life	4.0 years	4.0 years	4.0 years
Weighted average Black-Scholes value of options granted	$10.31	$11.12	$7.75

The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The Company does not anticipate declaring dividends in the foreseeable future. Volatility is based on historical data. The expected life of an option is based on the assumption that options will be exercised, on average, about two years after vesting occurs. The Company recognizes compensation expense for only the portion of options that are expected to vest. Therefore, management applies an estimated forfeiture rate that is derived from historical employee termination data and adjusted for expected future employee turnover rates. The estimated forfeiture rate applied to the Company's stock option grants during the three and nine months ended September 30, 2018 and 2017 was 8.0%. If the actual number of forfeitures differs from those estimated by management, additional adjustments to compensation expense may be required in future periods. The Company's stock price volatility, option lives and expected forfeiture rates involve management's best estimates at the time of such determination, which impact the fair value of the option calculated under the Black-Scholes methodology and, ultimately, the expense that will be recognized over the vesting period or requisite service period of the option. The Company typically issues stock options with a four year vesting period (the requisite

service period) and amortizes the fair value of stock options (stock compensation cost) ratably over the requisite service period.

A summary of the Company's year-to-date stock option activity and related information follows:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding at December 31, 2017	2,034,474	$ 17.26	
Grants	170,053	$ 27.09	
Exercises	(194,954)	$ 9.24	
Canceled and forfeited	(69,952)	$ 26.76	
Outstanding at September 30, 2018	1,939,621	$ 18.58	5.4
Exercisable at September 30, 2018	1,467,362	$ 16.79	4.4
Available for grant at September 30, 2018	2,329,513		

As of September 30, 2018, there was $11.2 million of aggregate intrinsic value of outstanding stock options, including $10.5 million of aggregate intrinsic value of exercisable stock options. Intrinsic value represents the total pretax intrinsic value for all "in-the-money" options (i.e., the difference between the Company's closing stock price on the last trading day of its third quarter of 2018 and the exercise price, multiplied by the number of shares of common stock underlying the stock options) that would have been received by the option holders had all option holders exercised their options on September 30, 2018. During the three and nine months ended September 30, 2018, stock options covering 2,140 and 194,954 shares of common stock, respectively, with a total intrinsic value of $37 thousand and $2.7 million, respectively, were exercised. During the three and nine months ended September 30, 2017, stock options covering 67,234 and 80,757 shares of common stock, respectively, with a total intrinsic value of $0.7 million and $0.9 million, respectively, were exercised.

The fair value of unvested restricted stock and unvested restricted stock units is based on the market price of a share of the Company's common stock on the date of grant and is amortized over the vesting period.

A summary of the Company's unvested restricted stock grants and changes during the nine months ended September 30, 2018 is as follows:

	Service Vesting Restricted Shares	
	Shares	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2017	112,325	$ 24.09
Granted	28,469	$ 27.10
Forfeited	(680)	$ 26.26
Vested	(105,595)	$ 23.58
Outstanding at September 30, 2018	34,519	$ 27.68

The estimated forfeiture rate applied to the Company's restricted stock grants during the three and nine months ended September 30, 2018 and 2017, was 8.0%. The aggregate fair value of restricted stock vested during the three and nine months ended September 30, 2018, was $0.5 million and $2.5 million, respectively. The aggregate fair value of restricted stock vested during the three and nine months ended September 30, 2017, was $0.5 million and $2.8 million, respectively.

A summary of the Company's unvested restricted stock unit grants and changes during the nine months ended September 30, 2018 is as follows:

	Service Vesting Restricted Stock Units		Performance Vesting Restricted Stock Units		Total Restricted Stock Units	
	Units	Weighted Average Grant Date Fair Value	Units	Weighted Average Grant Date Fair Value	Units	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2017	988,023	$ 21.29	482,485	$ 30.13	1,470,508	$ 24.19
Granted	499,681	$ 26.00	—	$ —	499,681	$ 26.00
Forfeited	(57,412)	$ 21.44	—	$ —	(57,412)	$ 21.44
Vested	(252,813)	$ 22.57	—	$ —	(252,813)	$ 22.57
Outstanding at September 30, 2018	1,177,479	$ 23.00	482,485	$ 30.13	1,659,964	$ 25.07

The estimated forfeiture rate applied to the Company's service vesting restricted stock unit grants during the three and nine months ended September 30, 2018 and 2017, was 8.0%. The aggregate fair value of restricted stock units vested during the three and nine months ended September 30, 2018, was $0.6 million and $5.7 million, respectively. The aggregate fair value of restricted stock units vested during the three and nine months ended September 30, 2017, was $0.6 million and $2.2 million, respectively. Restricted stock units are not outstanding shares and do not have any voting or dividend rights. At the time of vesting, a share of common stock representing each restricted stock unit vested will be issued by the Company. The performance vesting restricted stock units are subject to performance measures that are currently not considered "probable" of attainment and as such, no compensation cost has been recorded for these units. The performance measures are based on Company performance for fiscal years 2018 and 2019.

Including performance-based equity awards, the Company had $37.6 million of total unrecognized compensation cost related to unvested stock options, unvested restricted stock and unvested restricted stock units as of September 30, 2018. Excluding the $14.5 million of unrecognized compensation cost related to unvested restricted stock units that are subject to performance measures that are currently not considered "probable" of attainment, unrecognized compensation cost is $23.1 million. No compensation expense is recognized for unvested restricted stock units subject to performance measures that are not considered "probable" of attainment. Unrecognized compensation cost related to unvested stock options and unvested non-performance-based restricted stock is expected to be recognized over a weighted average period of 3.0 years.

The following table sets forth the gross share-based compensation cost resulting from stock options, unvested restricted stock and unvested restricted stock units that were recorded in the Company's Condensed Consolidated Statements of Operations for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of product revenue	$ 88	$ 73	$ 304	$ 189
Cost of service revenue	112	59	312	194
Research and development, net	1,139	798	3,100	2,596
Sales and marketing	937	650	2,415	1,850
General and administrative	1,238	1,005	3,517	2,814
Total	$ 3,514	$ 2,585	$ 9,648	$ 7,643

Note 13— Taxes

The Company's effective tax rates for the three and nine months ended September 30, 2018 and 2017 were as follows:

Three Months Ended September 30,	Nine Months Ended September 30,

	2018	2017	2018	2017
Effective tax rates	(1)%	39%	(1)%	37%

The difference between the expected statutory tax rate of 21% and the actual tax rate of (1)% for the three and nine months ended September 30, 2018 was attributable to the Company’s decision to continue to provide a full valuation allowance against the Company’s U.S. federal deferred tax assets offset, in part, by foreign taxes. The primary reason for the difference between the

expected statutory tax rate of 35% and the actual tax rates of 39% and 37% for the three and nine months ended September 30, 2017, respectively, was the Company's research and development tax credit and other permanent items. One of the permanent items for the three and nine months ended September 30, 2017 was the $4.4 million gain from the strategic transaction which was not taxable under Federal income tax law.

On December 22, 2017, the President of the United States signed into law 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" (the "Tax Cuts and Jobs Act"). ASC Topic 740, Accounting for Income Taxes, requires companies to recognize the effect of tax law changes in the period of enactment. The Tax Cuts and Jobs Act made significant changes to existing U.S. tax law, including, but not limited to, a permanent reduction to the U.S. federal corporate income tax rate from 35% to 21% and the imposition of a one-time tax on deferred foreign income ("Repatriation Transition Tax"). Given the significance of the Tax Cuts and Jobs Act, the FASB issued Accounting Standards Update No. 2018-05, Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118 that recognized that a company's review of the income tax effects attributable to the enactment of the Tax Cuts and Jobs Act may be incomplete at the time financial statements were issued for the reporting period that included the date of enactment and allowed a company to record provisional amounts during a one year measurement period. During the measurement period, income tax effects attributable to the enactment of the Tax Cuts and Jobs Act can be adjusted and recognized, as a discreet item in the applicable reporting period, as information becomes available, prepared or analyzed. The measurement period is deemed to have ended when the company has obtained, prepared and analyzed the information necessary to finalize its accounting. During the year ended December 31, 2017 the Company recorded provisional tax expense, in the amount of $0.3 million, attributable to the Repatriation Transition Tax and provisional tax expense, in the amount of $0.3 million, as a result of the Company's decision to no longer consider the undistributed earnings of its foreign subsidiaries to be permanently reinvested outside of the U.S. During the third quarter of 2018, the Company finalized its accounting with respect to the items for which provisional tax expense was recorded. No significant adjustments were made to the provisional amounts recorded by the Company.

As of September 30, 2018, the Company continued to provide a full valuation allowance against its U.S. federal deferred tax assets and against the majority of its deferred tax assets arising in state and foreign jurisdictions as the realization of such assets is not considered to be more likely than not at this time. In a future period, the Company's assessment of the realizability of its deferred tax assets and therefore the appropriateness of the valuation allowance could change based on an assessment of all available evidence, both positive and negative in that future period. If the Company's conclusion about the realizability of its deferred tax assets and therefore the appropriateness of the valuation allowance changes in a future period, the Company could record a substantial tax benefit in its Condensed Consolidated Statements of Operations when that occurs.

Note 14— Segment Information

The Company has the following reportable segments: Supercomputing, Storage and Data Management, Maintenance and Support, and Engineering Services and Other. The Company's reportable segments represent components of the Company for which separate financial information is available that is utilized on a regular basis by the Chief Executive Officer, who is the Chief Operating Decision Maker, in determining how to allocate the Company's resources and evaluate performance. The segments are determined based on several factors, including the Company's internal operating structure, the manner in which the Company's operations are managed, client base, similar economic characteristics and the availability of separate financial information.

Supercomputing

Supercomputing includes a suite of highly advanced, tightly integrated and cluster supercomputer systems which are used by large research and engineering centers in universities, government laboratories, and commercial institutions. Supercomputing also includes the ongoing maintenance of these systems as well as system analysts.

Storage and Data Management

Storage and Data Management offers Cray DataWarp and ClusterStor (formerly branded Sonexion), as well as other third-party storage products and their ongoing maintenance as well as system analysts.

Maintenance and Support

Maintenance and Support provides ongoing maintenance of Cray supercomputers, big data storage and analytics systems, as well as system analysts.

Engineering Services and Other

Included within Engineering Services and Other are the Company’s analytics and artificial intelligence businesses and Custom Engineering.

The following table presents revenues and gross margins for the Company's operating segments for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenue:				
Supercomputing	$72,615	$47,918	$230,252	$142,933
Storage and Data Management	12,263	11,046	45,977	42,335
Maintenance and Support	33,349	31,701	100,477	92,483
Engineering Services and Other	7,918	20,736	16,364	40,598
Elimination of inter-segment revenue	(33,349)	(31,701)	(100,477)	(92,483)
Total revenue	$92,796	$79,700	$292,593	$225,866
Gross Profit:				
Supercomputing	$18,163	$18,807	$65,335	$50,630
Storage and Data Management	5,192	3,345	17,541	15,564
Maintenance and Support	15,024	16,501	47,970	45,078
Engineering Services and Other	1,456	6,340	6,694	14,450
Elimination of inter-segment gross profit	(15,024)	(16,501)	(47,970)	(45,078)
Total gross profit	$24,811	$28,492	$89,570	$80,644

Revenue and cost of revenue is the only discrete financial information the Company prepares for its segments. Other financial results or assets are not separated by segment.

The Company's geographic operations outside the United States include sales and service offices in Europe and the Middle East, South America, Asia Pacific and Canada. Service revenue includes engineering services which can vary significantly from period to period. The following data represents the Company's revenue for the United States and all other countries, which is determined based upon a customer's geographic location (in thousands):

	United States		Other Countries		Total	
	2018	2017	2018	2017	2018	2017
Three months ended September 30,						
Product revenue	$35,968	$38,007	$22,022	$7,273	$57,990	$45,280
Service revenue	20,936	23,298	13,870	11,122	34,806	34,420
Total revenue	$56,904	$61,305	$35,892	$18,395	$92,796	$79,700

	United States		Other Countries		Total	
	2018	2017	2018	2017	2018	2017
Nine months ended September 30,						
Product revenue	$74,140	$90,148	$111,683	$27,791	$185,823	$117,939
Service revenue	65,166	74,500	41,604	33,427	106,770	107,927
Total revenue	$139,306	$164,648	$153,287	$61,218	$292,593	$225,866

Sales to the U.S. Government totaled approximately $38.5 million and $99.9 million for the three and nine months ended September 30, 2018, respectively, compared to approximately $53.7 million and $145.3 million for the three and nine months ended September 30, 2017, respectively. For the nine months ended September 30, 2018, one non-U.S. Government customer in Japan accounted for 12% of total revenue. For the nine months ended September 30, 2018, total revenue in Japan accounted for 21% of total revenue. For the nine months ended September 30, 2017, no non-U.S. Government or international customer accounted for more than 10% of total revenue.

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

Preliminary Note Regarding Forward-Looking Statements

This quarterly report on Form 10-Q contains forward-looking statements that involve risks and uncertainties, as well as assumptions that, if they never materialize or if they prove incorrect, could cause our actual results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to them. In some cases you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expect," "plans," "antici "believes," "continue," "estimates," "projects," "predicts" and "potential" and similar expressions, but the absence of these wor does not mean that a statement is not forward-looking. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, and examples of forward-looking statements include any projections of earnings, revenue or other results of operations or financial results; any statements of the plans, strategies, objectives and beliefs of our management; any statements concerning proposed new products, technologies or services such as our next generation "Shasta" system; any statements regarding potential new markets or applications for our products or our ability to sell into any market or to any customer; any statements regarding technological developments or trends; any statements regarding future research and development or co-funding for such efforts; any statements regarding future market and economic conditions; any statements regarding the expected vesting of our performance-based equity awards; and any statements of assumptions underlying any of the foregoing. These forward-looking statements are subject to the safe harbor created by Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the risks faced by us and described in Item 1A. Risk Factors in Part II and other sections of this report and our other filings with the U.S. Securities and Exchange Commission, or SEC. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this report. You should read this report completely and with the understanding that our actual future results may be materially different from what we expect. We assume no obligation to update these forward-looking statements, whether as a result of new information, future events, or otherwise, except as otherwise required by law.

Overview

We focus on designing, developing, manufacturing, marketing and servicing computing products that magnify and enhance human capital, foster innovation and create competitive advantages. That means our products are aimed primarily at the upper-end of the high performance computing (HPC), data analytics and artificial intelligence (AI) markets - the segments populated by the pioneers, executives and entrepreneurs leading their industries in both the private and public sectors. These products include compute systems commonly known as supercomputers, and storage, data analytics and AI solutions. We offer them individually, integrated into a complete solution or hosted in the cloud, depending on a customer's need. We also provide related software and system maintenance, support, and engineering services. Our customers include domestic and foreign government and government-funded entities, academic institutions and commercial companies. We currently provide customer-focused solutions based on four main models: (1) tightly integrated supercomputing designed throughout for scalability and sustained performance; (2) customizable cluster supercomputing based on highest-performance industry-standard components; (3) robust high-performance storage solutions; and (4) integrated solutions for large-scale analytics and AI applications. All of our solutions also emphasize total cost of ownership, scalable performance and data center flexibility as key features.

Our continuing strategy is to gain market share by extending our technology leadership and differentiation and expanding our share and addressable market in areas where we can leverage our experience and technology, such as in AI applications and data analytics. We also meet diverse customer requirements by combining supercomputing, cluster supercomputing, and data analytics and AI into unique offerings that work in a workflow-driven datacenter environment.

Summary of First Nine Months of 2018 Results

Total revenue increased by $66.7 million for the first nine months of 2018 compared to the first nine months of 2017, from $225.9 million to $292.6 million, due to higher product revenue. Product revenue was $67.9 million higher in the first nine months of 2018 compared to the first nine months of 2017, driven by improvement in the market in which

we operate during the first nine months of 2018.

Net loss for the first nine months of 2018 was $58.4 million compared to net loss of $36.3 million for the same period in 2017. The increase in net loss was primarily driven by a decrease of $21.6 million in income tax benefit for the first nine months of 2018 compared to the first nine months of 2017.

Net cash provided by operating activities was $40.4 million for the first nine months of 2018 compared to net cash used in operating activities of $38.7 million for the first nine months of 2017. Net cash provided by operating activities for the first nine months of 2018 was primarily driven by collections from customers that resulted in a decrease of $84.6 million in accounts and other receivables, and a decrease of $38.1 million in inventory due to customer acceptances of systems that were delivered during the first nine months of 2018. These amounts were largely offset by the net loss, adjusted for non-cash expenses, of $36.9 million,

a decrease in our accounts payable balance of $28.0 million due to the timing of payments to vendors, largely in connection with inventory purchases in the fourth quarter of 2017, and a decrease in customer contract liabilities of $29.3 million.

Market Overview and Challenges

Significant trends in the HPC industry include:

- convergence of traditional supercomputing modeling simulation with big data analytics and AI;
- supercomputing with many-core commodity processors driving increasing scalability requirements;
- increased micro-architectural diversity, including increased usage of many-core processors and accelerators (such as graphics processors or GPU's), as the rate of increases in per-core performance slows;
- data I/O and storage capacity needs growing as fast as computational needs;
- the rise of AI along with machine learning and deep learning algorithms that utilize HPC technologies for performance and scale;
- technology innovations in memory and storage allowing for faster data access such as high bandwidth memory, non-volatile memory and storage, solid state and flash devices;
- the increasing commoditization of HPC hardware, particularly processors and system interconnects;
- the growing concentration of very large suppliers of key computing, memory and storage components in the industry;
- the growing commoditization of software, including more capable open source software;
- electrical power and system cooling requirements becoming a design constraint and driver in total cost of ownership determinations;
- increasing use of AI and analytics technologies in both the HPC and big data markets;
- increased adoption of cloud computing as a solution for loosely-coupled HPC applications;
- much higher memory costs during the past year; and
- significant variability in market demand for high-end supercomputers from quarter-to-quarter and year-to-year.

Several of these trends have recently impacted the growth rate and related improvements in price-performance of products in the industry and has contributed to the expansion and acceptance of loosely-coupled cluster systems using processors manufactured by Intel, AMD and others combined with commercially available, commodity networking and other components, particularly in the middle and lower portions of the supercomputing market. These systems may offer higher theoretical peak performance for equivalent cost, and "price/peak performance" is sometimes the dominant factor in HPC procurements. Vendors of such systems often put pricing pressure on us, resulting in lower margins in competitive procurements.

In the market for the largest, and most scalable systems, those often costing in excess of $10 million, the use of generally available network components can result in increasing data transfer bottlenecks as these components do not balance processor power with network communication and system software capability. With increasing processor core counts due to new many-core processors, these unbalanced systems will typically have lower productivity, especially in larger systems running more complex applications. We and others augment standard microprocessors with other processor types, such as graphics processing units, in order to increase computational power, further complicating programming models. In addition, with increasing scale, bandwidth and processor core counts, large computer systems use progressively higher amounts of power to operate and require special cooling capabilities.

To position ourselves to meet the market's demanding needs, we concentrate our research and development efforts on technologies that enable our supercomputers to perform at scale - that is, to continue to increase actual performance as systems and applications grow ever larger in size - and in areas where we can leverage our core expertise in other markets whose applications demand these tightly coupled architectures. We also invest relatively significantly in next-generation technology to successfully and uniquely address the challenges of "Exascale computing" (systems with exaflops-levels of performance, one to two orders of magnitude faster than current supercomputers). In addition, we have industry leadership in developing an integrated supercomputing software stack with demonstrated expertise in system and performance software for several processor architectures. We expect to be in a comparatively advantageous position as larger many-core processors become available and as multiple processing technologies become integrated into single systems in heterogeneous environments. In addition, we have continued to expand our

25

addressable market by leveraging our technologies, customer base, the Cray brand and by introducing complementary products and services to new and existing customers, as demonstrated by our emphasis on strategic initiatives, such as big data analytics, AI and storage.

In analytics and AI, we are developing and delivering high performance data discovery, advanced analytics, machine learning and deep learning solutions. These solutions use both Cray developed and open source software, delivering faster time-to-solution and advanced capabilities that are key drivers for many of our data analytics and AI customers. We support open source technologies such as Hadoop, Spark and Jupyter Notebook to design large-scale data analytics stacks that simplify analyses of scientific and commercial application and Python and R, distributed Dask, BigDL, TensorFlow and TensorBoard for advanced AI solutions, as well as many others.

In storage, we are developing and delivering high value products for the high performance parallel storage market. Our 2017 transaction with Seagate enhances our capabilities in storage and data management. Our storage products are primarily positioned to enable tight integration of storage with computing solutions and/or utilize parallel file processing technologies and facilitate storage across multiple data tiers. We support open source parallel file systems and protocols such as Lustre.

We have also expanded our addressable market by providing cluster systems and solutions to the supercomputing market that allow us to offer flexible platforms to incorporate best of breed components to allow customers to optimize the system to fit their unique requirements.

Key Performance Indicators

Our management monitors and analyzes several key performance indicators in order to manage our business and evaluate our financial and operating performance, including:

Revenue. Product revenue generally constitutes the major portion of our revenue in any reporting period and, for the reasons discussed in this quarterly report on Form 10-Q or in our annual report on Form 10-K for the year ended December 31, 2017, is subject to significant variability from period to period and is very difficult to forecast. In the short term, we closely review the status of customer proposals, customer contracts, product shipments, installations and acceptances in order to forecast revenue and cash receipts. In the longer-term, we monitor the status of the pipeline of product sales opportunities and product development cycles. We believe product revenue growth measured over several quarters is a better indicator of whether we are achieving our objective of growth and increased market share in the supercomputing market. The Cray XC and Cray CS products, along with our longer-term product roadmap are efforts to increase product revenue. We have increased our business and product development efforts in big data analytics, AI and storage and data management. Service revenue related to our maintenance offerings is subject to less variations in the short term and may assist, in part, to offset the impact that the variability in product revenue has on total revenue.

Gross profit margin. Gross profit margin is impacted by the level of revenue, different customer requirements, competitive considerations, product type and our anticipated and actual cost to build and deliver our products and services. Our services tend to carry higher gross profit margins than our products. We often bid contracts and commit to future system performance where certain key components are not available in the market at the time of bid and/or whose price might change from what was expected. While we have significant experience doing so, such actions are inherently risky and can impact our gross profit margin significantly in any period. For example, memory prices have more than doubled in less than a year which has had a significant impact on our reported product gross profit margin. Our costs are also currently being impacted by tariffs on certain parts we buy from suppliers. To mitigate this and other similar risks, we monitor the cost of components, manufacturing, and installation of our products. In assessing our service gross profit margin, we monitor headcount levels and third-party costs.

Operating expenses. Our operating expenses are driven primarily by headcount and compensation expense, including variable incentive compensation and contracted third-party research and development services. As part of our ongoing expense management efforts, we continue to monitor headcount levels in specific geographic and operational areas. With the recent reduction in revenue levels, we reduced the size of our workforce in 2017. However, the 2017 transaction with Seagate has partially offset this reduction but should help increase revenue and improve storage gross profit.

Liquidity and cash flows. Due to the variability in product revenue, new contracts, acceptance and payment terms, our cash position also varies significantly from quarter-to-quarter and within a quarter. We monitor our expected cash levels, particularly in light of increased inventory purchases for large system installations and the risk of delays in product shipments, customer acceptances and, in the long-term, product development. Cash receipts generally lag customer acceptances.

Results of Operations

We adopted Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers : Topic 606 (ASU 2014-09) at the beginning of the first quarter of 2018. Adoption of ASU 2014-09 did not have a material impact on our results of operations or the comparability of the current and prior periods presented below.

Our revenue, results of operations and cash balances fluctuate significantly from period-to-period. These fluctuations are due to such factors as the strength or weakness of the HPC market, high average sales prices and limited number of sales of our products with variable gross margin levels, the timing of purchase orders and product deliveries, the availability of components, the revenue recognition accounting policy of generally not recognizing product revenue until customer acceptance and other contractual provisions have been fulfilled, the timing of payments for product sales, maintenance services, government research and development funding, the impact of the timing of new products on customer orders, and purchases of inventory during periods of inventory build-up. As a result of these factors, revenue, gross margin, expenses, cash, receivables, inventory and other related financial statement items have in the past varied, and are expected to continue to vary, significantly from quarter-to-quarter and year-to-year.

Revenue and Gross Profit Margins

Our revenue, cost of revenue and gross profit margin for the three and nine months ended September 30, 2018 and 2017, respectively, were (in thousands, except for percentages):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Product revenue	$57,990	$45,280	$185,823	$117,939
Less: Cost of product revenue	49,053	35,090	148,372	89,356
Product gross profit	$8,937	$10,190	$37,451	$28,583
Product gross profit margin	15 %	23 %	20 %	24 %
Service revenue	$34,806	$34,420	$106,770	$107,927
Less: Cost of service revenue	18,932	16,118	54,651	55,866
Service gross profit	$15,874	$18,302	$52,119	$52,061
Service gross profit margin	46 %	53 %	49 %	48 %
Total revenue	$92,796	$79,700	$292,593	$225,866
Less: Total cost of revenue	67,985	51,208	203,023	145,222
Total gross profit	$24,811	$28,492	$89,570	$80,644
Total gross profit margin	27 %	36 %	31 %	36 %

Product Revenue

Product revenue for the three and nine months ended September 30, 2018 and 2017 was primarily from sales of our Cray XC and Cray CS supercomputing systems, and ClusterStor storage systems. Product revenue was $12.7 million higher for the three months ended September 30, 2018, compared to the three months ended September 30, 2017 and $67.9 million higher for the nine months ended September 30, 2018, compared to the nine months ended September 30, 2017, driven by an improvement in the market in which we operate during the first nine months of 2018.

Service Revenue

Service revenue was $0.4 million higher for the three months ended September 30, 2018, compared to the three months ended September 30, 2017 and $1.2 million lower for the nine months ended September 30, 2018, compared to the nine months ended September 30, 2017. Our maintenance revenue increased by $1.6 million and $8.0 million, respectively, over the prior year periods, driven by our larger installed system base, including the benefit from longer lifetimes of installed systems due to the slowdown in acquisitions of new replacement systems. Over the same periods, engineering services revenue, which varies significantly from period to period, decreased by $1.3 million and $9.2 million, respectively, driven by the completion of several engineering services contracts that we recognized revenue on during the first nine months of 2017.

Cost of Product Revenue and Product Gross Profit

Cost of product revenue increased by $14.0 million for the three months ended September 30, 2018 compared to the three months ended September 30, 2017, and increased by $59.0 million for the nine months ended September 30,

2018 compared to the nine months ended September 30, 2017, due mainly to higher product revenue. For the three months ended September 30,

2018, product gross profit margin decreased 8 percentage points to 15% from 23% in the same period in 2017. For the nine months ended September 30, 2018, product gross profit margin decreased 4 percentage points to 20% from 24% in the same period in 2017. Product gross profit margins for the three and nine months ended September 30, 2018 and 2017 were below our target margins. In the third quarter of 2017, it was determined that a large contract with product deliveries scheduled in the first and second quarters of 2018 would be performed at a loss of $4.1 million. The loss was attributable in part to higher component costs, predominantly for memory, changes in the configuration of the system from the time of bid, and changes in the exchange rate. We recorded the full amount of the loss in the third quarter of 2017 and no material gross profit on the accepted systems and related services in the first and second quarters of 2018, which negatively impacted gross profit margins for those periods. The decrease in gross profit margins for the three and nine months ended September 30, 3018, compared to the same periods in 2017, also resulted from a higher mix of cluster sales, which typically carry a lower margin, including one relatively large lower margin cluster sale to a U.S. Government customer in the third quarter of 2018. Product gross profit margin in any one period may not be indicative of future results as product gross profit margin can vary significantly between contracts for many reasons.

Cost of Service Revenue and Service Gross Profit

For the three months ended September 30, 2018, cost of service revenue increased by $2.8 million compared to the same period in 2017, primarily due to higher compensation, including incentive compensation, and increased charges for spares. For the nine months ended September 30, 2018, cost of service revenue was largely in line with the same period in 2017. Service gross profit margin for the three months ended September 30, 2018 decreased 7 percentage points to 46% compared to 53% in the same period in 2017, primarily due to higher compensation, including incentive compensation, and increased charges for spares. Service gross profit margin for the nine months ended September 30, 2018 increased 1 percentage point to 49% compared to 48% in the same period in 2017.

Research and Development Expenses

Research and development expenses for the three and nine months ended September 30, 2018 and 2017, respectively, were (in thousands, except for percentages):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Gross research and development expenses	$39,346	$32,836	$113,626	$104,637
Less: Amounts included in cost of revenue	(615)	(927)	(2,170)	(8,486)
Less: Reimbursed research and development (excludes amounts in cost of revenue)	(12,569)	(5,283)	(26,020)	(19,560)
Net research and development expenses	$26,162	$26,626	$85,436	$76,591
Percentage of total revenue	28%	33%	29%	34%

Gross research and development expenses in the table above reflect all research and development expenditures. Research and development expenses include personnel expenses, depreciation, allocations for certain overhead expenses, software, prototype materials and third party contract engineering expenses.

For the three and nine months ended September 30, 2018, gross research and development expenses increased by $6.5 million and $9.0 million, respectively, over the prior year comparative periods, driven by higher compensation and third party costs. For the three and nine months ended September 30, 2018, compensation, including incentive and share-based compensation costs increased by $3.6 million and $6.9 million, respectively, over the prior year comparative period due to increased average headcount and higher compensation costs. For the three and nine months ended September 30, 2018, third party costs increased by $2.2 million and $1.8 million, respectively, over the prior year comparative periods, driven primarily by expenditures under co-funding arrangements for which we will be partially reimbursed.

Net research and development expenses decreased by $0.5 million for the three months ended September 30, 2018 compared to the same period in 2017 as the increase in gross research and development discussed above was offset by an increase in reimbursements for research and development related to new development projects, primarily our next generation “Shasta” system. Net research and development expense increased by $8.8 million for the nine months ended

September 30, 2018 compared to the same period in 2017, primarily driven by the increase in gross research and development expenses and a decrease in amounts reclassified to cost of revenue due to the completion of several engineering services contracts, partially offset by higher reimbursements. The amount and timing of research and development costs related to engineering development contracts and the level of reimbursement from third parties for research and development projects varies significantly from period to period, often due to the timing of milestone acceptances, and can have a significant impact on net reported research and development expense in any period. We anticipate that reimbursed research and development will remain at relatively high levels over the next couple of years as a result of these projects.

Sales and Marketing and General and Administrative Expenses

Our sales and marketing and general and administrative expenses for the three and nine months ended September 30, 2018 and 2017, respectively, were (in thousands, except for percentages):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Sales and marketing	$15,282	$13,392	$46,165	$43,292
Percentage of total revenue	16 %	17 %	16 %	19 %
General and administrative	$6,580	$7,022	$17,983	$23,024
Percentage of total revenue	7 %	9 %	6 %	10 %

Sales and Marketing. Sales and marketing expense for the three and nine months ended September 30, 2018 increased by $1.9 million and $2.9 million, respectively, compared to the same periods in 2017, primarily driven by an increase in commissions and incentive compensation.

General and Administrative. General and administrative expense for the three and nine months ended September 30, 2018 decreased by $0.4 million and $5.0 million, respectively, compared to the same periods in 2017. The decrease in general and administrative expense for the three and nine months ended September 30, 2018 was primarily attributable to a decrease in legal costs compared to the same periods in 2017, related to our ongoing litigation with Raytheon, which is described in Note 11, “Contingencies” in the Notes to our Condensed Consolidated Financial Statements in this quarterly report on Form 10-Q. Due to our ongoing litigation with Raytheon, legal expenses may vary over the next several quarters.

Restructuring

In the third quarter of 2017, we implemented a restructuring plan to reduce our operating costs and better align our workforce with long-term business strategies. The restructuring plan reduced our workforce by approximately 190 employees, with the vast majority of such terminations effective in July 2017. For the nine months ended September 30, 2018, we recorded $0.5 million in expense in connection with the restructuring plan. For the three and nine months ended September 30, 2017, we recorded $7.7 million in expense in connection with the restructuring plan. The restructuring expenses primarily related to employee severance.

Other Income (Expense), net

For the three and nine months ended September 30, 2018, we recognized net other income of $0.2 million, compared to net other income of $4.2 million and $5.4 million, respectively, for the same periods in 2017. Net other income and expense for the three and nine months ended September 30, 2018 and 2017 included gains and losses from foreign currency transactions, investments and disposals of assets. Net other income for the three and nine months ended September 30, 2017, included a $3.3 million gain from the sale of an investment in a private company.

Interest Income, net

Our interest income and interest expense for the three and nine months ended September 30, 2018 and 2017, respectively, were (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Interest income	$ 910	$ 941	$ 2,279	$ 2,732
Interest expense	(2)	(61)	9	(77)
Interest income, net	$ 908	$ 880	$ 2,288	$ 2,655

Interest income is earned on cash and cash equivalents, investment balances and the investment in sales-type lease.

Gain on Strategic Transaction

In the third quarter of 2017, we completed a strategic transaction with Seagate Cloud Systems Inc. centered around the addition of Seagate’s ClusterStor high-performance storage business. As part of the transaction, we assumed customer support obligations associated with the ClusterStor product line and added more than 125 employees and contractors. For the three and nine months ended September 30, 2017, we recognized a gain of approximately $4.4 million associated with the transaction.

Taxes

Our effective tax rate was approximately (1)% for the three and nine months ended September 30, 2018, compared to 39% and 37% for the three and nine months ended September 30, 2017, respectively. The difference between the expected statutory tax rate of 21% and the actual tax rate of (1)% for the three and nine months ended September 30, 2018, was attributable to our decision to continue to provide a full valuation allowance against our U.S. federal deferred tax assets offset, in part, by foreign taxes. The primary reason for the difference between the expected statutory tax rate of 35% and the actual tax rates of 39% and 37% for the three and nine months ended September 30, 2017, respectively, was our research and development tax credit and other permanent items. One of the permanent items for the three and nine months ended September 30, 2017 was the $4.4 million gain from the strategic transaction which was not taxable under Federal income tax law.

New Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers: Topic 606 (ASU 2014-09) to supersede nearly all existing revenue recognition guidance under GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under prior GAAP, including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. The new guidance also requires additional disclosures and several terminology changes, such as amounts previously referred to as deferred revenue now being referred to as customer contract liabilities. We adopted ASU 2014-09 at the beginning of the first quarter of 2018 using the modified retrospective method. The comparative information for the three and nine months ended September 30, 2017, and as of December 31, 2017 has not been restated and continues to be reported under the accounting standards in effect for those periods. The effect of initially applying the new revenue standard had an immaterial effect on our financial statements. Adoption of the new standard did not have a material impact on our net loss during the first nine months of 2018. We expect the impact of the adoption of the new standard to be immaterial to our net income on an ongoing basis.

In January 2016, FASB issued Accounting Standards Update No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities: Topic 825 (ASU 2016-01). The updated guidance enhances the reporting model for financial instruments, which includes amendments to address aspects of recognition, measurement, presentation and disclosure. We adopted ASU 2016-01 at the beginning of the first quarter of 2018. Adoption of ASU 2016-01 did not have a material impact on our consolidated financial statements.

In February 2016, FASB issued Accounting Standards Update No. 2016-02, Leases: Topic 842 (ASU 2016-02), that replaces existing lease guidance. The new standard is intended to provide enhanced transparency and comparability by requiring lessees to record right-of-use assets and corresponding lease liabilities on the balance sheet. Under the new guidance, leases will continue to be classified as either finance or operating, with classification affecting the pattern of expense recognition in the Consolidated Statements of Operations. Lessor accounting is largely unchanged under ASU 2016-02. Adoption of ASU 2016-02 is required for fiscal reporting periods beginning after December 15, 2018, including interim reporting periods within those fiscal years with early adoption being permitted. The new standard initially required application with a modified retrospective approach to each prior reporting period presented with various optional practical expedients. In July 2018, this requirement was amended with the issuance of Accounting Standards Update No. 2018-11, Leases: Topic 842: Targeted Improvements (ASU 2018-11), which permits an additional (and optional) transition method to adopt the new leases standard. Under this new transition method, an entity initially applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Consequently, an entity’s reporting for the comparative periods presented in the financial statements in which it adopts the new leases standard will continue to be in accordance with current GAAP (Topic 840, Leases). An entity that elects this additional (and optional) transition method must provide the required Topic 840 disclosures for all periods that continue to be in accordance with Topic 840. The amendments do not change the existing disclosure requirements in Topic 840. While we expect adoption of

ASU 2016-02 to lead to a material increase in the assets and liabilities recorded on our Consolidated Balance Sheet, we are still evaluating the overall impact on our consolidated financial statements.

In August 2016, FASB issued Accounting Standards Update No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (ASU 2016-15). The updated guidance clarifies how companies present and classify certain cash receipts and cash payments in the statement of cash flows. We adopted ASU 2016-15 at the beginning of the first quarter of 2018. Adoption of ASU 2016-15 did not have a material impact on our consolidated financial statements.

In November 2016, FASB issued Accounting Standards Update No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (ASU 2016-18), which amends ASC 230 to add or clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. The amended guidance requires that amounts that are deemed to be restricted cash and restricted cash equivalents be included in the cash and cash-equivalent balances in the statement of cash flows. A reconciliation between

the consolidated balance sheet and the statement of cash flows must be disclosed when the consolidated balance sheet includes more than one line item for cash, cash equivalents, restricted cash, and restricted cash equivalents. The guidance also requires that changes in restricted cash and restricted cash equivalents that result from transfers between cash, cash equivalents, and restricted cash and restricted cash equivalents should not be presented as cash flow activities in the statement of cash flows. An entity with a material balance of amounts generally described as restricted cash and restricted cash equivalents must disclose information about the nature of the restrictions. We adopted ASU 2016-18 at the beginning of the first quarter of 2018. Restricted cash amounts have been combined with the cash and cash equivalent balances in the Condensed Consolidated Statement of Cash Flows for each period presented. Adoption of ASU 2016-18 did not have a material impact on our consolidated financial statements.

In August 2017, FASB issued Accounting Standards Update No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities (ASU 2017-12). The new standard simplifies and expands the eligible hedging strategies for financial and nonfinancial risks. It also enhances the transparency of how hedging results are presented and disclosed. Further, the new standard provides partial relief on the timing of certain aspects of hedge documentation and eliminates the requirement to recognize hedge ineffectiveness separately in earnings. Adoption of ASU 2017-12 is required for fiscal reporting periods beginning after December 15, 2018, including interim reporting periods within those fiscal years with early adoption being permitted. We do not expect the adoption of ASU 2017-12 to have a material impact on our consolidated financial statements.

In February 2018, FASB issued Accounting Standards Update No. 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (ASU 2018-02). The new standard amends ASC 220 to allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the “Tax Cuts and Jobs Act” and requires entities to provide certain disclosures regarding stranded tax effects. Adoption of ASU 2018-02 is required for fiscal reporting periods beginning after December 15, 2018, including interim reporting periods within those fiscal years with early adoption being permitted. We do not expect the adoption of ASU 2018-02 to have a material impact on our consolidated financial statements.

In August 2018, FASB issued Accounting Standards Update No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement (ASU 2018-13). The new standard makes various modifications to the disclosure requirements on fair value measurement in Topic 820. Adoption of ASU 2018-13 is required for fiscal reporting periods beginning after December 15, 2019, including interim reporting periods within those fiscal years with early adoption being permitted. We do not expect the adoption of ASU 2018-13 to have a material impact on our consolidated financial statements.

Liquidity and Capital Resources

We generate cash from operations predominantly from the sale of supercomputing systems and related services. We typically have a small number of significant contracts that make up the majority of total revenue. We have also entered into a sales-type lease agreement with a customer, under which we will receive quarterly payments over the term of the lease, which expires in September 2020. Material changes in certain of our balance sheet accounts were due to the level and timing of: product deliveries and customer acceptances, contractually determined billings, cash collections of receivables, inventory purchased for future deliveries, and incentive compensation. Working capital requirements, including inventory purchases and normal capital expenditures, are generally funded with cash from operations.

Cash, cash equivalents and restricted cash increased by $43.9 million, from $140.3 million at December 31, 2017 to $184.2 million at September 30, 2018. As of September 30, 2018, we had working capital of $294.2 million compared to $354.3 million as of December 31, 2017.

Cash flow information included the following (in thousands):

	Nine Months Ended September 30,	
	2018	2017
Cash provided by (used in):		
Operating Activities	$40,421	$(38,684)

Investing Activities	$5,200	$(31,458)
Financing Activities	$(1,133)	$(811)

Operating Activities. Net cash provided by operating activities was $40.4 million for the first nine months of 2018 compared to net cash used in operating activities of $38.7 million for the first nine months of 2017. Net cash provided by operating activities in the first nine months of 2018 was primarily driven by collections from customers that resulted in a decrease of $84.6 million in accounts and other receivables and a decrease of $38.1 million in inventory due to customer acceptances of systems that were delivered during the first nine months of 2018. These amounts were largely offset by the net loss, adjusted for non-cash expenses,

of $36.9 million, a decrease in our accounts payable balance of $28.0 million due to the timing of payments to vendors, largely in connection with inventory purchases in the fourth quarter of 2017, and a decrease in customer contract liabilities of $29.3 million.

Net cash used in operating activities in the first nine months of 2017 was primarily driven by an increase of $107.6 million in inventory as a result of system builds for future deliveries and the net loss, adjusted for non-cash items, of $44.9 million. These amounts were partially offset by collections from customers that resulted in a decrease of $137.6 million in accounts and other receivables.

Investing Activities. Net cash provided by investing activities was $5.2 million for the nine months ended September 30, 2018, compared to $31.5 million net cash used in investing activities for the same period in 2017. Net cash provided by investing activities for the nine months ended September 30, 2018 was primarily due to sales and maturities of debt securities of $7.0 million and $1.6 million in additional cash received from the strategic transaction with Seagate. These amounts were partially offset by purchases of property and equipment of $3.8 million. Net cash used in investing activities for the nine months ended September 30, 2017 was primarily due to purchases of debt securities of $94.9 million and purchases of property and equipment of $15.6 million, mostly related to leasehold improvements for our new facilities in Bloomington, Minnesota. These amounts were partially offset by sales and maturities of debt securities of $66.6 million.

Financing Activities. Net cash used in financing activities for the nine months ended September 30, 2018 was $1.1 million compared to $0.8 million for the same period in 2017. Net cash flows from financing activities for both periods resulted primarily from statutory tax withholding amounts made in exchange for the forfeiture of common stock by holders of vesting restricted stock awards, offset by cash received from the issuance of common stock from the exercise of options. Net cash used in financing activities for the nine months ended September 30, 2017 was also impacted by the issuance of stock through our employee stock purchase plan.

In addition, we lease certain equipment and facilities used in our operations under operating leases in the normal course of business and have contractual commitments under certain development arrangements. The following table summarizes our contractual obligations as of September 30, 2018 (in thousands):

	Amounts Committed by Year				
Contractual Obligations	Total	2018 (Less than 1 Year)	2019-2020	2021-2022	Thereafter
Development agreements	$15,047	$8,544	$ 6,503	$ —	$ —
Operating leases	63,046	1,898	13,737	12,825	34,586
Total contractual cash obligations	$78,093	$10,442	$ 20,240	$ 12,825	$ 34,586

On April 20, 2018 we amended our Credit Facility with Wells Fargo. Pursuant to the amendment, the Credit Facility was reduced from $50.0 million to $15.0 million. The Credit Facility is designed to be used for general corporate purposes, including working capital requirements and to support the issuance of letters of credit. The Credit Facility is secured by a first priority lien on up to $15.0 million of the Company's investments account held with Wells Fargo Bank. The amended Credit Facility expires on March 1, 2020.

We made no draws and had no outstanding cash borrowings on the line of credit as of September 30, 2018.

As of September 30, 2018, we had $13.8 million in USD equivalent value in outstanding letters of credit and $17.3 million in restricted cash, primarily associated with certain letters of credit to secure customer prepayments and other customer related obligations.

In our normal course of operations, we have development arrangements under which we engage third-party engineering resources to work on our research and development projects. For the nine months ended September 30, 2018, we incurred $15.5 million for such arrangements.

At any particular time, our cash position is affected by the timing of cash receipts for product sales, maintenance contracts, government co-funding for research and development activities and our payments for inventory, resulting in significant fluctuations in our cash balance from quarter-to-quarter and within a quarter. Our principal sources of liquidity are our cash and cash equivalents, short-term investments and cash from operations. We expect our cash

resources to be adequate for at least the next twelve months.

Critical Accounting Policies and Estimates

This discussion, as well as disclosures included elsewhere in this quarterly report on Form 10-Q, are based upon our Condensed Consolidated Financial Statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingencies. In preparing our financial statements in accordance with GAAP, there are

certain accounting policies that are particularly important. These include revenue recognition, inventory valuation, accounting for income taxes, research and development expenses and share-based compensation. Our significant accounting policies are set forth in Note 2 to the Consolidated Financial Statements included in our annual report on Form 10-K for the year ended December 31, 2017 and should be reviewed in conjunction with the accompanying Condensed Consolidated Financial Statements and notes thereto as of September 30, 2018 in this quarterly report on Form 10-Q, as they are integral to understanding our results of operations and financial condition in this interim period. In some cases, these policies represent required accounting. In other cases, they may represent a choice among acceptable accounting methods or may require substantial judgment or estimation.

Additionally, we consider certain judgments and estimates to be significant, including those relating to the allocation of transaction price to each performance obligation in revenue recognition, progress towards completion for satisfied over time performance obligations, collectibility of receivables, determination of inventory at the lower of cost or net realizable value, the value of used equipment returned or to be returned associated with customer contracts, useful lives for depreciation and amortization, determination of future cash flows associated with impairment testing of long-lived assets, including goodwill and other intangibles, determination of the implicit interest rate used in the sales-type lease calculation, estimated warranty liabilities, determination of the fair value of stock options and other assessments of fair value, evaluation of the probability of vesting of performance-based restricted stock and restricted stock units, calculation of deferred income tax assets, including estimates of future financial performance in the determination of the likely recovery of deferred income tax assets, our ability to utilize such assets, potential income tax assessments, the outcome of any legal proceedings and other contingencies. We base our estimates on historical experience, current conditions and on other assumptions that we believe to be reasonable under the circumstances. Actual results may differ materially from these estimates and assumptions.

Our management has discussed the selection of significant accounting policies and the effect of judgments and estimates with the Audit Committee of our Board of Directors.

Revenue Recognition

On January 1, 2018, we adopted the new accounting standard ASC 606, Revenue from Contracts with Customers, which superseded nearly all existing revenue recognition guidance under GAAP, to all contracts using the modified retrospective method. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. Adoption of the new standard did not have a material impact on our net loss during the first nine months of 2018. We expect the impact of the adoption of the new standard to be immaterial to our net income on an ongoing basis.

Our performance obligations are satisfied over time as work is performed or at a point in time. The majority of our revenue is recognized at a point in time when products are accepted, installed or delivered. Most of our revenue is derived from long-term contracts that can span several years. Revenue is recognized when performance obligations under the terms of a contract with the customer are satisfied; generally, this occurs with the transfer of control of our systems or services. In general, this does not occur until the products have been shipped or services provided to the customer, risk of loss has transferred to the customer, and, where applicable, a customer acceptance has been obtained. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. Sales, value add, and other taxes that we collect concurrent with revenue-producing activities are excluded from revenue. Incidental items that are immaterial in the context of the contract are recognized as expense.

To determine the proper revenue recognition method for contracts, we evaluate whether two or more contracts should be combined and accounted for as one single contract and whether the combined or single contract should be accounted for as more than one performance obligation. Contracts are often modified to account for changes in contract specifications and requirements. To determine the proper revenue recognition method for contract modifications, we evaluate whether the contract modification should be accounted for as a separate contract, part of an existing contract, or termination of an existing contract and the creation of a new contract. This evaluation requires significant judgment and the decision to combine a group of contracts or separate the combined or single contract into multiple performance obligations could change the amount of revenue and profit recorded in a given period. For contracts with multiple performance obligations, we allocate the contract’s transaction price to each performance obligation using our estimate of the standalone selling price of each distinct good or service in the contract.

We determine the transaction price by reviewing the established contractual terms and other relevant information. Contracts can include penalty clauses and contracts with government customers may not be fully funded, both of which represent variable consideration. Generally, we include both the funded and unfunded portions of a contract with a government customer in the transaction price, as most often it is deemed the contract will become fully funded. We also assess the likelihood of certain penalties that would result in contract price reductions and, if deemed probable, the transaction price is adjusted.

The majority of our contracts include multiple promised goods and services, which are assessed at contract inception. Each distinct good or service is identified as a performance obligation, which may be an individual good or service or a bundle of goods or services. In order to determine whether the promises are distinct, we assess the use of our products and services by customers

to determine whether the customer can benefit from the good or service on its own or from other readily available resources, and whether the promised transfer of goods or services is separately identifiable from other promises in the contract.

The majority of our revenues are from product solutions which include supercomputers, storage, and data analytics systems, each of which are usually separate performance obligations. Revenue is recognized when obligations under the terms of a contract with a customer are satisfied. Product revenue is typically recognized upon customer acceptance, or upon installation or delivery if formal acceptance is not required. Service revenue is typically recognized over time and consists mainly of system maintenance, analyst services, and engineering services, each of which are usually separate performance obligations. System maintenance commences upon customer acceptance or installation, depending on the contract terms, and revenue is recognized ratably over the remaining term of the maintenance contract. On-site analysts provide specialized services to customers, the revenue for which is recognized ratably over the contract period. Service revenue is recognized on a straight-line basis over the service period as the services are available continuously to the customer. Revenue from engineering services can be recognized as services are performed or as milestones are achieved, depending on the terms of the contract and nature of services performed. If, in a contract, the customer has an option to acquire additional goods or services, that option gives rise to a performance obligation if the option provides a material right to the customer that it would not receive without entering into that contract. Revenue from purchase options can be recognized as those future goods or services are transferred or when the option expires.

Generally, billing occurs subsequent to product revenue recognition and payment is expected within 30 days, resulting in contract assets. However, we sometimes receive advances or deposits from customers before revenue is recognized, resulting in customer contract liabilities (formerly deferred revenue). These assets and liabilities are reported on the Condensed Consolidated Balance Sheet on a contract-by-contract basis at the end of each reporting period. Our payment terms vary from contract to contract. Contracts may require payment before, at or after our performance obligations have been satisfied.

We perform an assessment to determine whether a significant financing component is present in a contract. If a contract is determined to include a significant financing component, the interest rate used in the calculation is based on the prevailing interest rates at contract inception and the entity's creditworthiness. When the period between providing a good or service to the customer is expected to be less than one year from payment, we apply the practical expedient and do not adjust the consideration for the effects of a significant financing component.

Occasionally, our contracts include noncash consideration. This typically consists of returned parts when a system is upgraded or de-installed. Noncash consideration is measured at contract inception at estimated fair value.

The total transaction price is allocated to each performance obligation identified in the contract based on its relative standalone selling price. We do not have directly observable standalone selling prices for the majority of our performance obligations due to a relatively small number of customer contracts that differ in system size and contract terms which can be due to infrequently selling each performance obligation separately, not pricing products within a narrow range, or only having a limited sales history, such as in the case of certain advanced and emerging technologies. When a directly observable standalone selling price is not available, we estimate the standalone selling price. In determining the estimated standalone selling price, we use the cost to provide the product or service plus a margin, or considers other factors. When using cost plus a margin, we consider the total cost of the product or service, including customer-specific and geographic factors as appropriate. We also consider the historical margins of the product or service on previous contracts and several other factors including any changes to pricing methodologies, competitiveness of products and services, and cost drivers that would cause future margins to differ from historical margins.

We occasionally offer discounts to our customers. As these discounts are offered on bundles of goods and services, the discounts are applied to all performance obligations in the contract on a pro-rata basis.

Our incremental direct costs of obtaining a contract come primarily from sales commissions, a portion of which are paid upon contract signing. These commissions are generally capitalized upon payment and expensed at the time of revenue recognition. These deferred commissions are included in prepaid expenses in the Condensed Consolidated Balance Sheet. As of September 30, 2018 and December 31, 2017, we had $2.5 million and $1.3 million, respectively,

of deferred commissions. For the three and nine months ended September 30, 2018, we recognized $1.1 million and $3.7 million, respectively, in commissions expense. For the three and nine months ended September 30, 2017, we recognized $0.6 million and $2.2 million, respectively, in commissions expense.

Our remaining performance obligations reflect the deliverables within contracts with customers that will have revenue recognized in a future period (this may also be referred to as backlog). Due to the nature of our business and the size of individual transactions, forecasting the timing and total amount of revenue recognition is subject to significant uncertainties. As of September 30, 2018, we had an aggregate of $615 million in remaining performance obligations stemming from a mixture of system contracts with their related service obligations and other service obligations. Included in this balance are $0.6 million in losses resulting from hedged foreign currency transactions, which offset the related increase in revenue from currency fluctuations. These gains will be reclassified from accumulated other comprehensive income to revenue in the period the related transactions are recognized as revenue. These obligations are anticipated to be recognized as revenue over approximately the next six years.

We estimate that about 60% of these obligations are expected to be recognized as revenue in the next 18 months, with the remainder thereafter.

Inventory Valuation

We record our inventory at the lower of cost or net realizable value, with cost computed on a first-in, first-out basis (FIFO). We regularly evaluate the technological usefulness and anticipated future demand for our inventory components. Due to rapid changes in technology and the increasing demands of our customers, we are continually developing new products. Additionally, during periods of product or inventory component upgrades or transitions, we may acquire significant quantities of inventory to support estimated current and future production and service requirements. As a result, it is possible that older inventory items we have purchased may become obsolete, be sold below cost or be deemed in excess of quantities required for production or service requirements. When we determine it is not likely we will recover the cost of inventory items through future sales, we write-down the related inventory to our estimate of its net realizable value.

Because the products we sell have high average sales prices and because a high number of our prospective customers receive funding from U.S. or foreign governments, it is difficult to estimate future sales of our products and the timing of such sales. It also is difficult to determine whether the cost of our inventories will ultimately be recovered through future sales. While we believe our inventory is stated at the lower of cost or net realizable value and that our estimates and assumptions to determine any adjustments to the cost of our inventories are reasonable, our estimates may prove to be inaccurate. We have sold inventory previously reduced in part or in whole to zero, and we may have future sales of previously written-down inventory. We also may incur additional expenses to write-down inventory to its estimated net realizable value. Adjustments to these estimates in the future may materially impact our operating results.

Accounting for Income Taxes

Deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and operating loss and tax credit carryforwards and are measured using the enacted tax rates and laws that will be in effect when the differences and carryforwards are expected to be recovered or settled.

A valuation allowance for deferred tax assets is provided when we estimate that it is more likely than not that all or a portion of the deferred tax assets will not be realized through future operations. This assessment is based upon consideration of all available positive and negative evidence, which includes, among other things, our recent results of operations, forecasted domestic and international earnings over a number of years, all known business risks and industry trends, and applicable tax planning strategies that should, if implemented, enable us to utilize our deferred tax assets before they expire. We consider our actual historical results over several years to have stronger weight than other more subjective indicators, including forecasts, when considering whether to establish or reduce a valuation allowance on deferred tax assets. We have significant difficulty projecting future results due to the nature of the business and the industry in which we operate.

As of September 30, 2018, we continued to provide a full valuation allowance against our U.S. federal deferred tax assets and against the majority of our state and foreign deferred tax assets as the realization of such assets is not considered to be more likely than not at this time. In a future period our assessment of the realizability of our deferred tax assets and therefore the appropriateness of the valuation allowance could change based on an assessment of all available evidence, both positive and negative in that future period. If our conclusion about the realizability of our deferred tax assets and therefore the appropriateness of the valuation allowance changes in a future period we could record a substantial tax benefit in our Condensed Consolidated Statement of Operations when that occurs. We recognize the income tax benefit from a tax position only if it is more likely than not that the tax position will be sustained on examination by the applicable taxing authorities, based on the technical merits of our position. The tax benefit recognized in the financial statements from such a position is measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

As of September 30, 2018, we had approximately $96.7 million of net deferred tax assets before application of a valuation allowance. As of September 30, 2018, net deferred tax assets after reduction by the valuation allowance of $95.6 million were $1.1 million.

Estimated interest and penalties are recorded as a component of interest expense and other expense, respectively.

Research and Development Expenses

Research and development expenses include costs incurred in the development and production of our hardware and software, costs incurred to enhance and support existing product features, costs incurred to support and improve our development processes, and costs related to future product development. Research and development costs are expensed as incurred, and may be offset by co-funding from third parties. We may also enter into arrangements whereby we make advance, non-refundable payments to a

35

vendor to perform certain research and development services. These payments are deferred and recognized over the vendor's estimated performance period.

Amounts to be received under co-funding arrangements with the U.S. government, other customers or suppliers are based on either contractual milestones or costs incurred. These co-funding milestone payments are recognized in operations as performance is estimated to be completed and are measured as milestone achievements occur or as costs are incurred. These estimates are reviewed on a periodic basis and are subject to change, including in the near term. If an estimate is changed, net research and development expense could be impacted significantly.

We do not record a receivable from the U.S. government prior to completing the requirements necessary to bill for a milestone or cost reimbursement. Funding from the U.S. government is subject to certain budget restrictions and milestones may be subject to completion risk, and as a result, there may be periods in which research and development costs are expensed as incurred for which no reimbursement is recorded, as milestones have not been completed or the U.S. government has not funded an agreement. Accordingly, there can be substantial variability in the amount of net research and development expenses from quarter to quarter and year to year.

We classify amounts to be received from funded research and development projects as either revenue or a reduction to research and development expense based on the specific facts and circumstances of the contractual arrangement, considering total costs expected to be incurred compared to total expected funding and the nature of the research and development contractual arrangement. In the event that a particular arrangement is determined to represent revenue, the corresponding costs are classified as cost of revenue.

Share-based Compensation

We measure compensation cost for share-based payment awards at fair value and recognize it as compensation expense over the service period for awards expected to vest. We recognize share-based compensation expense for all share-based payment awards, net of an estimated forfeiture rate. We recognize compensation cost for only those shares expected to vest on a straight-line basis over the requisite service period of the award.

Determining the appropriate fair value model and calculating the fair value of share-based payment awards requires subjective assumptions, including the expected life of the share-based payment awards and stock price volatility. We utilize the Black-Scholes options pricing model to value the stock options granted under our options plans. In this model, we utilize assumptions related to stock price volatility, stock option term and forfeiture rates that are based upon both historical factors as well as management's judgment.

The fair value of restricted stock and restricted stock units is determined based on the number of shares or units granted and the quoted price of our common stock at the date of grant.

We have granted performance vesting restricted stock units to executives as one of the ways to align compensation with shareholder interests. Vesting of these awards is contingent upon achievement of certain performance conditions. Compensation expense for these awards is only recognized when vesting is deemed to be "probable". Awards are evaluated for probability of vesting during each reporting period. We do not currently believe that any of our performance vesting restricted stock units are "probable" of vesting.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to financial market risks, including changes in interest rates and equity price fluctuations.

Interest Rate Risk: We invest our available cash in money market mutual funds whose underlying investments include investment-grade debt instruments of corporate issuers and in debt instruments of the U.S. government and its agencies. We do not have any derivative instruments or auction rate securities in our investment portfolio. We protect and preserve invested funds by limiting default, market and reinvestment risk. Investments in both fixed-rate and floating-rate interest earning instruments carry a degree of interest rate risks. Fixed-rate securities may have their fair market value adversely affected due to a rise in interest rates, while floating-rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fall short of expectations due to changes in interest rates or we may suffer losses in principal if forced to sell securities which have declined in market value due to changes in interest rates. Although we are subject to the above noted risks, we believe that a 0.5% change in interest rates would not be material.

Foreign Currency Risk: We sell our products primarily in North America, Asia and Europe. As a result, our financial results could be affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets. Our products are generally priced based on U.S. dollars, and a strengthening of the U.S. dollar could make our products less competitive in foreign markets. While we often sell products with payments in U.S. dollars, our product sales contracts may call for payment in foreign currencies and to the extent we do so, or engage with our foreign subsidiaries in transactions deemed to be either short-term or long-term in nature, we are subject to foreign currency exchange risks.

As of September 30, 2018, we had entered into foreign currency exchange contracts that were designated as cash flow hedges that hedge approximately $43.1 million of anticipated cash receipts on specific foreign currency denominated sales contracts. These foreign currency exchange contracts hedge the risk of foreign exchange rate changes between the time that the related contracts were signed and when the cash receipts are expected to be received. As of September 30, 2018, we had entered into foreign currency exchange contracts that had been dedesignated for the purposes of hedge accounting treatment totaling $30.7 million. Unrealized gains or losses recorded in the Condensed Consolidated Statement of Operations related to these contracts are generally offset by foreign currency adjustments on related receivables. These foreign currency exchange contracts are considered to be economic hedges.

Our foreign maintenance contracts are typically paid in local currencies and provide a partial natural hedge against foreign exchange exposure. To the extent that we wish to repatriate any of these funds to the United States, however, we are subject to foreign exchange risks. We do not hold or purchase any currency forward exchange contracts for trading purposes. As of September 30, 2018, a hypothetical 10% unfavorable change in foreign currency exchange rates would impact our annual operating results by approximately $0.5 million.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures. Under the supervision and with the participation of our senior management, including our chief executive officer and chief financial officer, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, as of the end of the period covered by this quarterly report on Form 10-Q. Based on this evaluation, our chief executive officer and chief financial officer concluded as of September 30, 2018 that our disclosure controls and procedures were effective such that the information required to be disclosed in our SEC reports (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in internal control over financial reporting. There have been no changes in our internal control over financial reporting that occurred during the quarter ended September 30, 2018 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Limitations on effectiveness of control. Our management, including our chief executive officer and chief financial officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our Company have been detected.

Part II. OTHER INFORMATION

Item 1. Legal Proceedings

For a discussion of legal proceedings, see “Note 11-Contingencies” in the Notes to Condensed Consolidated Financial Statements in this quarterly report on Form 10-Q.

Item 1A.
Risk
Factors

You should carefully consider the risks described below together with all of the other information in this quarterly report on Form 10-Q and in our annual report on Form 10-K for the year ended December 31, 2017, filed with the SEC on February 15, 2018. If any of these risks actually occur, our business, financial condition or operating results could be materially adversely affected and the trading price of our common stock could decline.

Our operating results fluctuate significantly and we may not achieve profitability in any given period. Our operating results are subject to significant fluctuations which make predicting revenue and operating results for any specific period very difficult, particularly because a material portion of product revenue recognized in any given quarter or year typically depends on a limited number of system sales expected for that quarter or year and product revenue generally depends on the timing of product acceptances by customers and contractual provisions affecting revenue recognition. Receiving less than anticipated customer orders, delays in achieving customer acceptances of installed systems and recognizing revenue from a product transaction or transactions due to development or product delivery delays, customer site readiness delays, unexpected manufacturing delays or defects, not receiving components on time or at competitive prices, not receiving components with anticipated quality and performance, the inability of a system to meet performance requirements or targets or other contractual obligations, among other factors, could have a material adverse effect on our operating results in any specific quarter or year, such as by reducing or delaying associated revenue, gross profit and cash receipts from one quarter to another, or even from one year to another, particularly in the case of revenue expected to be realized in the fourth quarter of any year, as has happened in the past. In addition, because our revenue can be concentrated in particular quarters, often the fourth quarter, we generally do not expect to sustain profitability over successive quarters even if we are profitable for the year.

Although we recorded positive annual net income between 2010 and 2016, we recorded a net loss in 2017 and we expect to report a net loss in 2018 and may well experience a net loss in any future year in addition to quarterly losses. Net income may fluctuate significantly as a result of many factors, including as a result of reduced revenue, gross margins or significant investments we may make to grow our business which often require many years to come to fruition and may not be realized when expected, if at all. For example, we have incurred and anticipate continuing to incur significant expenditures in connection with ongoing investments in research and development. Due to the inherent difficulty in estimating costs associated with projects of this scale and nature, certain of the costs associated with these potential projects may be higher than estimated and it may take longer than expected to complete, if at all. In addition, while we were profitable in 2016, our revenue and profitability declined year over year in both 2016 and 2017, substantially driven by a slow-down in the segments of the high-end of the supercomputing market that we target. It is uncertain whether or when we will realize any significant benefit from a rebound in the segments of the high-end of the supercomputing market that we target or how strong or long-lived such a rebound will be.

Whether we will be able to increase our revenue and achieve and sustain profitability on a quarterly and annual basis depends on a number of factors, including:

- our ability to secure sufficient orders at high enough gross margins for our Cray XC and Cray CS systems as well as upgrades and successor systems, such as our next generation “Shasta” system;
- successfully delivering and obtaining sufficient customer acceptances of ordered systems, including attached storage systems;
- delays in delivery of upgraded or new systems, such as our next generation “Shasta” system, longer than expected customer acceptance cycles or penalties resulting from system acceptance issues;
- revenue delays or losses due to customers postponing purchases as a result of delays in available budgets or waiting for the availability of future processors or upgraded or new systems, such as our next generation Shasta systems;
-

our ability to successfully integrate the ClusterStor product line, business and associated sales channel and our ability to successfully generate revenue and profitability from sales of our storage, data analytics and AI solutions;

- our ability to successfully and timely design for, procure and integrate competitive processors for our Cray XC and Cray CS systems and upgrades and successor systems, such as our next generation "Shasta" system;

- our expense levels, including research and development expense;
- our ability to secure additional government funding for future development projects;
- our ability to efficiently scale our internal processes to meet necessary peak requirements and growth in our business;
- the level of revenue recognized in any given period, which is affected by the very high average sales prices and limited number of significant system sales and resulting potential acceptances in any quarter, the timing of product orders and acceptances by customers and contractual provisions affecting the timing and amount of revenue recognition;
- our ability to continue to broaden our customer base beyond our traditional customers;
- the level of product gross profit contribution in any given period due to volume, competition or product mix, particularly with the introduction of flexible commodity-based supercomputers, competitive factors, strategic transactions, product life cycle, currency fluctuations, acceptance penalties and component costs;
- our ability to resolve and the costs incurred in connection with any actual or alleged issues with our products, including third-party components of such products, such as those that relate to product defects, such as the current "Meltdown" and "Spectre" processor vulnerabilities or intellectual property rights;
- the competitiveness of our products, services and prices;
- maintaining and successfully completing our product development projects on schedule and within budgetary limitations;
- the level and timing of maintenance contract renewals with existing customers; and
- the terms and conditions of sale or lease for our products and services.

The receipt of orders and the timing of shipments and acceptances impacts our quarterly and annual results, including cash flows, and is affected by events outside our control, such as:

- whether or when we will realize any significant benefit from a rebound in the segments of the high-end of the supercomputing market that we target or how strong or long-lived such a rebound will be;
- the timely availability of acceptable components, including, but not limited to, processors and memory, in sufficient quantities to meet customer delivery schedules and other customer commitments at a competitive cost and the identification of issues with already-delivered components, including processors, that require remediation and/or impact the performance of our products;
- the timing and level of government funding and resources available for product acquisitions and research and development contracts, which have been, and may continue to be, adversely affected by the current global economic and fiscal uncertainties, increased governmental budgetary limitations and disruptions in the operations of the United States and other governments;
- competitor and supplier pricing strategies;
- new tariffs or taxes or other limitations on our access to components or products imposed by the United States on components and products sourced or manufactured outside of the United States, or by foreign governments on U.S.-manufactured or U.S.-designed products and services, or related trade disputes, which have recently been imposed and may continue to increase in the future;
- declining U.S. relations with foreign entities, including between the U.S. government and foreign governments, may make it more difficult to sell U.S.-manufactured or U.S.-designed systems to those entities of governments, or in those countries;
- currency fluctuations, international conflicts or economic crises, and fluctuations in oil prices that can affect the resources available to potential customers to purchase products;
- the introduction or announcement of competitive or key industry supplier products;
- price fluctuations or product shortages in the processors and other commodity electronics and memory markets;

- the availability of adequate customer facilities to install and operate new Cray systems;
- general economic trends, including changes in levels of customer capital spending; and
- our customers' ability to make future payments in accordance with contractual terms of their purchase or sales-type lease agreements.

Because of the numerous factors affecting our operating results, we may not achieve profitability on a quarterly or annual basis in the future. We anticipate that our quarterly results will fluctuate significantly, and include losses, even in years where we expect or achieve positive annual net income. Delays in the availability of acceptable third-party components, product development, receipt of orders, product acceptances, issues with third-party component performance or reliability, reductions in outside funding for our research and development efforts, a reduction in the size in the segments of the high-end of the supercomputing market that we target, the level and timing of approved government fiscal budgets and achieving contractual development milestones have had a substantial adverse effect on our past results and are expected to continue to have such an effect on our operating results in 2018 and in future years.

Our business could be adversely affected by conditions affecting the HPC market. A substantial portion of our business depends on the demand for HPC products by large enterprise, the U.S. Government and foreign government customers, and we are dependent upon the overall economic health of the high-end of the supercomputing market. Demand for our products and services depends substantially upon the general demand for supercomputers and associated services, as well as technological needs in the data analytics, AI and storage markets, which fluctuate based on numerous factors, including capital spending levels and growth of our current and prospective customers. Moreover, the purchase of our products is often discretionary and may involve a significant commitment of capital and other resources. As a result, spending priorities for our current and future customers may vary and demand for our products and services may also fluctuate. For instance, while we were profitable in 2016, our revenue and profitability declined year over year in both 2016 and 2017, substantially driven by a slow-down in the segments of the high-end of the supercomputing market that we target, and while we believe that we have seen early signs of a recovery in the market, we believe that these segments of the market continue to be down from past years in 2018. It is uncertain whether or when these segments will recover fully from this downturn. While we believe that the market's long-term growth drivers remain intact, there is no assurance that these markets will continue to rebound or if any rebound will last. A failure of these markets to recover strongly enough or in a sustained fashion could continue to harm our financial condition and results of operations.

If we are unable to sell and deliver our Cray XC systems and successfully develop, sell and deliver successor systems, such as our next generation Shasta system, our operating results will be adversely affected. We expect that a substantial portion of our revenue in the foreseeable future will come from the sale of Cray XC systems and successor systems, such as our next generation Shasta system, including systems integrating future processors and accelerators where we are dependent upon third-party suppliers to deliver according to expected plans. The development efforts related to these systems are lengthy and technically challenging processes, and require a significant investment of capital, engineering and other resources often years ahead of the time when we can be assured that they will result in competitive products. We may invest significant resources that may prove ultimately unsuccessful. The development process for our next generation "Shasta" system is particularly complex and challenging, and we are implementing new development techniques as part of our efforts to complete this significant project. Our efforts could be unsuccessful, the changes we are implementing could cause disruption to our development efforts, and unanticipated performance and/or development issues may require more engineers, time or testing resources than are currently available. Given the breadth of our engineering challenges, changes in the market and technology and our limited engineering and technical personnel resources, we periodically review the anticipated contributions and expense of our product programs to determine their long-term viability, and we may substantially modify or terminate one or more development programs. We may not be successful in meeting our development schedules for technical reasons, including those related to our dependence on third-party suppliers of components such as processors and accelerators, and/or because of insufficient engineering resources, which could result in an uncompetitive product or cause a lack of confidence in our capabilities among our key customers. To the extent that we incur delays in completing the design, development and production of hardware components, delays in development of requisite system software,

cancellation of or changes to programs due to technical or economic infeasibility, inability to source acceptable third-party components such as processors and accelerators or investment in unproductive development efforts, our revenue, results of operations and cash flows, and the reputation of such systems in the market, could be adversely affected.

In addition, many factors affect our ability to successfully sell and recognize revenue for these systems, including the following:

- the level of product differentiation in our Cray XC systems and successor systems, such as our next generation Shasta system. We need to compete successfully against HPC systems from both large, established companies and smaller companies and demonstrate the value of our balanced, tightly integrated systems to our customers in a variety of markets;

- our ability to meet all customer requirements for acceptance. Even after a system has been delivered, we sometimes do not meet all of the contract requirements for customer acceptance and ongoing reliability of our systems within the provided-for acceptance period, which has resulted in contract penalties and delays in our ability to recognize revenue from system deliveries. Most often these penalties have adversely affected revenue and gross profit through the provision of additional equipment and services and/or service credits to satisfy delivery delays and performance shortfalls. The risk of contract penalties is increased when we bid for new business prior to us or our suppliers completing development of new products and when we must estimate future system performance and costs, such as has been and will be required with our Cray XC systems, ClusterStor storage systems and our next generation "Shasta" systems;
- our ability to source competitive, key components in appropriate quantities (to have enough to sell without ending up with excess inventory that can lead to obsolescence charges), in a timely fashion and with reasonable costs and terms and conditions and that meet the performance criteria required; and
- whether potential customers delay purchases of our products because they decide to wait for successor systems or upgrades that we or our suppliers have announced or they believe will be available in the future.

Failure to successfully develop and sell our Cray XC systems and successor systems, such as our next generation Shasta system, will adversely affect our operating results.

If our current and future products targeting markets outside of our traditional markets, primarily products targeting the data analytics, AI and commercial markets, are not successful, our ability to grow or even maintain our revenues and achieve and sustain profitability will be adversely affected. Our ability to materially grow or even maintain our revenues and achieve and sustain profitability will be adversely affected if we are unable to generate sufficient revenue from products targeting markets outside of our traditional markets, including if those market segments do not grow significantly. We are currently focusing on data analytics, AI and storage opportunities as well as the commercial market for all of our products. To grow outside our primary markets, we must successfully and in a cost-effective manner design and develop products utilizing technologies different from our traditional supercomputing products, compete successfully with many established companies and new entrants in these markets, win awards for new contracts, timely perform on existing contracts, develop our capability for broader market sales and business development and successfully develop and introduce new solution-oriented offerings, notwithstanding that these are relatively new businesses for us and we do not have significant experience targeting these markets. Data analytics, AI and storage and data management opportunities require significant monetary investments ahead of revenue, including product development efforts, adding experienced personnel and initiating new marketing and sales efforts and therefore may reduce net income in the short term even if ultimately successful in the longer term. In addition, if we do not successfully integrate the ClusterStor product line and related business, including its more than 125 employees and contractors, our ability to generate revenue from our storage business may be adversely affected.

Our reliance on third-party suppliers poses significant risks to our operating results, business and prospects. We rely upon third-party vendors, such as Intel, to supply processors including graphics processing units and memory, and for most of the products, we sell and use service providers to co-develop key technologies. We purchase or subcontract the manufacturing of a majority of the hardware components for our high-end products, including integrated circuits, printed circuit boards, memory parts, hard disk drives and storage product enclosures, cables and power supplies, on a sole or limited source basis to third-party suppliers, including suppliers located in China. We use contract manufacturers to assemble certain important components for all of our systems. We also rely on third parties to supply important software and hardware capabilities, such as file systems, solution-specific servers, disk drives and storage subsystems. Because specific components must be designed into our systems well in advance of initial deliveries of those systems, we are particularly reliant on our processor vendors, such as Intel, to deliver on the capabilities and pricing expected at the time we design key elements of the system and make binding bids to customers. We are subject to substantial risks because of our reliance on these and other limited or sole source suppliers, including the following risks:

- if a supplier does not provide components or systems that meet specifications in sufficient quantities and with acceptable performance, price or quality on time or deliver when required, or delays future components or systems beyond anticipated delivery dates, then sales, production, delivery, acceptance and revenue from our systems could be

delayed and/or reduced and we could be subject to costly repair and/or delay costs and penalties even once delivered and accepted, which is currently happening and has happened multiple times in the past and has at times significantly lowered our revenue for a particular quarter or year;

- if a supplier plans future processors that are made available in a way that encourages customers to delay purchases of our products because they decide to wait for successor systems or upgrades they believe will be available in the

future or to purchase products with future processors from our competitors who are willing to take greater risk on delivery, our operating results will be adversely affected;

- if a supplier provides us with hardware or software that contains bugs or other errors, defects or security vulnerabilities, such as the "Meltdown" and "Spectre" processor vulnerabilities, or in products or components we source from suppliers in China, or is different from what we expected, our development projects and production systems may be adversely affected through reduced performance or capabilities, additional design testing and verification efforts, including of required patches, re-spins of integrated circuits and/or development of replacement components, and the production and sales of our systems could be delayed and systems installed at customer sites could require significant, expensive field component replacements or other remediation, we might be required to pay penalties or the trust customers and potential customers place in our products might be negatively affected;
- if our relationship with a key supplier is adversely affected for any reason, such as due to competitive pressures or changes in company strategies and priorities, our ability to obtain components on competitive financial terms could be adversely affected;
- if a supplier cannot provide a competitive key component, for example, due to inadequate performance or a prohibitive price, or eliminates key features from components, such as with the processors we design into our systems, our systems may be less competitive than systems using components with greater capabilities;
- if an interruption of supply of our components, services or capabilities occurs because a supplier changes its technology roadmap, suffers damage to its manufacturing facilities, decides to no longer provide those products or services, increases the price of those products or services significantly or imposes reduced delivery allocations on its customers, it could take us a considerable period of time to identify and qualify alternative suppliers, to redesign our products as necessary and to begin to manufacture the redesigned components or otherwise obtain those services or capabilities. In some cases, such as with key integrated circuits and memory parts or processors, we may not be able to redesign such components or find alternate sources that we could use in any realistic timeframe, if at all;
- if Cray systems at customer sites develop significant issues with third-party components, as has occurred in the past, the cost to Cray to repair or replace the components or otherwise address such issue may be material. If we are unable to effectively address such problem or a problem causes customer disruption, our relationship with our customers may also be harmed;
- if a supplier of a component is subject to a claim that the component infringes a third-party's intellectual property rights, as has happened with multiple suppliers, we may not be able to obtain necessary components or our cost to obtain such components could increase significantly;
- if a key supplier is acquired or undergoes a significant business change, as has occurred in the past, the production and sales of our systems and services may be delayed or adversely affected, or our development programs may be delayed or may be impossible to complete;
- if a supplier providing us with key research and development and design services or core technology components with respect to integrated circuit design, network communication capabilities or software is late, fails to provide us with effective functionality or loses key internal talent, our development programs may be delayed or prove to be impossible to complete; and
- some of our key component and service suppliers are small companies with limited financial and other resources, and consequently may be more likely to experience financial and operational difficulties than larger, well-established companies, which increases the risk that they will be unable to deliver products as needed.

Delays in the availability of components with acceptable performance, features and reliability, or our inability to obtain such acceptable components in the quantities we need or at all, the discovery of issues with components after delivery and introduction into our products and increases in prices and order lead times for certain components, have occurred in the past. We have also experienced increased prices and/or delivery timelines of memory and other key components and the "Meltdown" and "Spectre" security vulnerabilities in processors included in our products. These types of issues have adversely affected our revenue and operating results in multiple prior periods, in some cases significantly, and could result in significant costs and/or effort to address.

If we are unable to compete successfully in the highly competitive HPC market, our business will not be successful. The market for HPC systems is very competitive. An increase in competitive pressures in our market or

our failure to compete effectively may result in pricing reductions, reduced gross margins and loss of market share and revenue. Many of our competitors are established well-known companies in the HPC market, including IBM, HPE, Lenovo, Dell/EMC, Huawei, NEC, Hitachi, Fujitsu

and Atos-Bull. Most of these competitors have substantially greater research, engineering, manufacturing, marketing and financial resources than we do. In addition, certain Chinese companies are investing significantly in HPC and are becoming more aggressive and more competitive in the HPC global arena.

We also compete with systems builders and resellers of systems that are constructed from commodity components using processors manufactured and/or designed by Intel, ARM, AMD, NVIDIA and others. These competitors include the companies named above, as well as smaller companies that benefit from the low research and development costs needed to assemble systems from commercially available commodity products. Such companies, because they can offer high peak performance per dollar, can put pricing pressure on us in certain competitive procurements. In addition, to the extent that Intel, AMD, NVIDIA, IBM and other processor suppliers develop processors with greater capabilities or at a lower cost than the processors we currently use, our Cray XC systems may be at a competitive disadvantage to systems utilizing such other processors until we can design in, integrate and secure competitive processors, if at all. Also, to the extent any component supplier successfully adds differentiating capabilities to their HPC products that compete with what we provide, such as Intel, we may experience greater competitive pressures.

Our growth initiatives in the data analytics, AI and storage markets must also compete successfully with many established companies and new entrants, many of whom have significantly greater resources and brand recognition in these markets than we do.

Periodic announcements by our competitors of new HPC, storage or data analytics systems or plans for future systems and price adjustments may reduce customer demand for our products. Many of our potential customers already own or lease high performance computer, storage or data analytics systems. Some of our competitors have offered substantial discounts to potential customers. We have in the past been and may again be required to provide substantial discounts to make strategic sales, which may reduce or eliminate any gross profit on such transactions, or we may be required to provide lease financing for our products, which could result in a multi-year deferral of our receipt of cash and revenue for these systems. These developments limit our revenue and financial resources and reduce our ability to be profitable and grow.

The continuing commoditization of HPC hardware and software has resulted in increased pricing pressure and may adversely affect our operating results. The continuing commoditization of HPC hardware, such as processors, interconnects, storage and other infrastructure, and the growing commoditization of software, including plentiful building blocks and more capable open source software, as well as the potential for integration of differentiated technology into already-commoditized components, has resulted in, and may result in increased pricing pressure that may cause us to reduce our pricing in order to remain competitive, which can negatively impact our gross margins and adversely affect our operating results.

If the U.S. Government and other governments purchase, or fund the purchase of, fewer supercomputers or delay such purchases, our revenue would be reduced and our operating results would be adversely affected. Historically, sales to the U.S. Government have represented the largest single market segment for supercomputer sales worldwide, including our products and services. In 2015, 2016, 2017 and the first nine months of 2018, approximately 47%, 47%, 53% and 34%, respectively, of our total revenue was derived from such sales. Our plans for the foreseeable future contemplate significant sales to the U.S. Government. Sales to the U.S. Government and other governments, including further sales pursuant to existing contracts, have been, and may continue to be, adversely affected by factors outside our control, such as by:

- uncertainties relating to priorities of the current administration or adverse decisions by the current administration to reduce or eliminate budgets for governmental agencies or departments that purchase or fund the purchase of our products and services;
- Congressional and executive branch decisions in addressing budget concerns and current policy;
- disruptions in the operations of the U.S. Government, including impacts of the current administration and government "shutdowns" such as recently occurred;
- "sequestration";
- the downgrading of U.S. Government debt or the possibility of such action;
- the political climate in the United States focusing on cutting or limiting budgets and its effect on government budgets;

- the limits on federal borrowing capacity;
- changes in procurement policies;
- budgetary considerations, including Congressional delays in completing appropriation bills as has occurred in the past;

- domestic crises, such as costs of addressing the damage associated with natural disasters;
- international political developments, such as the downgrading of European debt or the United Kingdom's departure from the European Union; or
- political efforts to limit the activities of U.S. intelligence community agencies, including proposed state legislation that would limit or even criminalize doing business with the U.S. National Security Agency for certain companies doing business with state governments.

In particular, the U.S. government has announced plans to procure multiple, large "exascale" systems for delivery in future years and provide funding for certain research and development efforts associated with those system deliveries. If we are unable to secure a sufficient portion of that development funding for those systems sales, our ability to grow in future years and our ability to offset research and development expenses leading up to those deliveries may be adversely affected. In addition, if agencies and departments of the United States or other governments were to stop, reduce or delay their use and purchases of supercomputers, our revenue and operating results would be adversely affected.

If we cannot retain, attract and motivate key personnel, we may be unable to effectively implement our business plan. Our success depends in large part upon our ability to retain, attract and motivate highly skilled management, development, marketing, sales and service personnel. The loss of and failure to replace key technical management and personnel could adversely affect multiple development efforts, including those related to our next generation "Shasta" system. Recruitment and retention of senior management and skilled technical, sales and other personnel is very competitive, and we may not be successful in either attracting or retaining such personnel. We have lost key personnel to other high technology companies, and many larger companies with significantly greater resources than us have aggressively recruited, and continue to aggressively recruit, key personnel. As part of our strategy to attract and retain key personnel, we may offer equity compensation through grants of stock options, restricted stock awards or restricted stock units. Potential employees, however, may not perceive our equity incentives as attractive enough. In addition, due to the intense competition for qualified employees, we may be required to, and have had to, increase the level of compensation paid to existing and new employees, which could materially increase our operating expenses. In July 2017, we implemented a restructuring plan that included a reduction of our workforce and as a result we may have lost important talent and skill sets and may have a more difficult time retaining and motivating those employees not directly impacted by the restructuring as well as attracting new employees.

Customers and other third parties may make statements speculating about or announcing the purchase, acceptance or intention to complete purchases or acceptances of our products, or the selection or award of government procurements, before such purchases, acceptances or selection or awards are substantially certain, and these proposed purchases, acceptances or selections or awards may not be completed when or as expected, if at all. From time to time, customers and other third parties may make statements speculating about or announcing a potential purchase of our products, or the selection or award of government procurements, before we have been selected or awarded a procurement, obtained an order for such purchases or completed negotiations and signed a contract for the purchase of such products or relating to such procurement. In some instances, government and government-funded customers may announce possible purchases even before they have obtained the necessary budget to procure the products. As a result, these statements, postings or announcements do not mean that we will ultimately be able to secure the sale when or as expected or at all, or will be selected or awarded a procurement, for a number of reasons, including that, it is not certain that the contract or order negotiations will be completed successfully or as expected or that the customer will be able to obtain the budget they hope for or expect. In addition, from time to time, customers and other third parties may make statements speculating about or announcing the completion of an acceptance process of a delivery system before such acceptance is completed or certain. As a result, these statements or announcements do not mean that we will ultimately be able to obtain the acceptance when or as expected or recognize revenue.

We may infringe or be subject to claims that we infringe the intellectual property rights of others. We are and may in the future be subject to patent infringement and other intellectual property claims and lawsuits in various jurisdictions, and we cannot be certain that our products or activities do not violate the patents, trademarks, or other intellectual property rights of third-parties. Companies in the technology industry, and other patent, copyright, and trademark holders seeking to profit from royalties, own large numbers of patents, copyrights, trademarks, domain names, and

trade secrets and frequently commence litigation based on allegations of infringement, misappropriation, or other violations of intellectual property or other rights. As we face increasing competition and gain an increasingly high profile, the intellectual property rights claims against us have grown and will likely continue to grow. For example, we are currently involved in litigation with Raytheon Company (Raytheon) which is described in Note 11 - Contingencies in the Notes to our Condensed Consolidated Financial Statements in this quarterly report on Form 10-Q.
We intend to vigorously defend and prosecute these litigation matters and, based on our reviews to date, we believe we have valid defenses with respect to each of these matters. However, litigation is inherently uncertain, and any judgment or injunctive relief entered against us or any adverse settlement could materially and adversely impact our business, financial condition, operating

45

results, and prospects. As a result of these or other intellectual property infringement claims, we could be required or otherwise decide that it is appropriate to:

- pay third-party infringement claims;
- discontinue manufacturing, using or selling particular products subject to infringement claims;
- discontinue using the technology or processes subject to infringement claims;
- develop other technology not subject to infringement claims, which could be time-consuming and costly or may not be possible; and/or
- license technology from third-parties, which license may not be available on commercially reasonable terms, or at all.

In addition, litigation can involve significant management time and attention and be expensive, as it has been with Raytheon, regardless of outcome. During the course of these litigation matters, there may be announcements of the results of hearings and motions, and other interim developments related to the litigation matters. If securities analysts or investors regard these announcements as negative, the market price of our common stock may decline.

If our cluster systems are not successful, our operating results could be adversely affected. Our cluster products were first introduced in late 2012. Cluster-based solutions face intense competition in the marketplace with buying decisions often driven by price, and if we cannot successfully sell these solutions with acceptable margins, our operating results will be adversely affected.

We have made and entered into in the past, and may make and enter into in the future, acquisitions or strategic transactions which could require significant management attention, disrupt our business, result in dilution to our shareholders, deplete our cash reserves, increase our business risks and adversely affect our financial results. Acquisitions and strategic transactions, such as our 2017 acquisition of the ClusterStor business from Seagate, involve numerous risks, including the following:

- difficulties in successfully integrating the operations, systems, technologies, products, sales channels, manufacturing processes, offerings and personnel of the acquired company or companies, assets and/or business;
- insufficient revenue, margin or other benefits to offset increased expenses or other negative impacts associated with acquisitions or strategic transactions;
- diversion of management's attention from normal daily operations of the business and the challenges of managing larger and more widespread operations resulting from acquisitions or strategic transactions, including other customers of an acquired business;
- potential difficulties in completing projects associated with in-process research and development intangibles;
- difficulties in entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;
- initial dependence on unfamiliar supply chains or relatively small supply partners;
- the potential loss of key employees, customers, distributors, vendors and other business partners of the companies or businesses we acquire following and continuing after announcement of any transaction; and
- the potential to invest significant time and resources into a potential acquisition or strategic transaction that does not ultimately complete or close.

Acquisitions or strategic transactions may also cause us to:

- use a substantial portion of our cash reserves or incur debt;
- issue equity securities or grant equity incentives to acquired employees that would dilute our current shareholders' percentage ownership;
- assume or incur liabilities, including potentially unknown or underestimated liabilities;

- record goodwill and non-amortizable intangible assets that are subject to impairment testing on a regular basis and potential periodic impairment charges;
- incur amortization expenses related to certain intangible assets;
- incur large and immediate write-offs and restructuring and other related expenses; or
- become subject to intellectual property litigation or other litigation.

Acquisitions of high-technology companies, assets and/or businesses are inherently risky and subject to many factors outside of our control, and no assurance can be given that our previously completed, currently planned or future acquisitions or strategic transactions will be successful and will not materially adversely affect our business, operating results, or financial condition. Failure to manage and successfully integrate acquisitions could materially harm our business and operating results.

We maintain confidential and proprietary information on our computer networks and employ security measures designed to protect this information from unauthorized access. If our security measures are breached, we could lose proprietary data and may suffer economic losses. We maintain confidential information on our computer networks, including information and data that are proprietary to our customers and third parties, as well as to us. Although we have designed and employed and continue to enhance a multitude of security measures to protect this information from unauthorized access, security breaches may occur, and in the past have occurred, as a result of third-party action, including computer hackers, employee error, inherent hardware or software vulnerabilities (including in products or components sourced from suppliers in China), malfeasance or otherwise. Security breaches can result in someone obtaining unauthorized access to our data or our customers' data, including our intellectual property and other confidential business information. Because the techniques employed by hackers to obtain unauthorized access or to sabotage systems change frequently, we may be unable to anticipate these techniques or to implement adequate preventative measures. A security breach could result in disclosure of our trade secrets or disclosure of confidential customer, supplier or employee data. If this should happen, we could be exposed to potentially significant legal liability, remediation expense, harm to our reputation and other harm to our business.

We may not be able to protect our proprietary information and rights adequately. We rely on a combination of patent, copyright, trademark and trade secret protection, nondisclosure agreements and licensing arrangements to establish, protect and enforce our proprietary information and rights. We have a number of patents and have additional applications pending. There can be no assurance, however, that patents will be issued from the pending applications or that any issued patents will adequately protect those aspects of our technology to which such patents will relate. Despite our efforts to safeguard and maintain our proprietary rights, we cannot be certain that we will succeed in doing so or that our competitors will not independently develop or patent technologies that are substantially equivalent or superior to our technologies. The laws of some countries do not protect intellectual property rights to the same extent or in the same manner as do the laws of the United States. Additionally, under certain conditions, the U.S. government might obtain non-exclusive rights to certain of our intellectual property. Although we continue to implement protective measures and intend to defend our proprietary rights vigorously, these efforts may not be successful.

We are subject to market and financial risks due to our international operations that could adversely affect those operations or our profitability and operating results. Our international operations include sales and service offices in Europe, the Middle East, South America, Asia, Australia and Canada. Our operations in countries outside of the United States, which accounted for approximately 52% of our total revenue for the nine months ended September 30, 2018, expose us to greater risks associated with international sales and operations. Our profitability and international operations are, and will continue to be, subject to a number of risks and potential costs, including:

- supporting multiple languages;
- recruiting sales and technical support personnel internationally with the skills to sell and support our products and the potentially high cost related to employee separations;
- complying with governmental regulations, including obtaining required import or export approval for our products;
- additional tariffs, taxes and penalties;
- increased complexity and costs of managing international operations;
- increased exposure to foreign currency exchange rate fluctuations;

- trade protection measures and business practices that favor local competition, including as a result of recent measures and threats by the United States to levy tariffs on certain products;

- risks and costs associated with employee-favorable labor laws in many foreign jurisdictions;
- longer sales cycles and manufacturing lead times;
- financial risks such as longer payment cycles and difficulties in collecting accounts receivable;
- difficulties associated with repatriating cash generated or held abroad in a tax-efficient manner;
- ineffective legal protection of intellectual property rights;
- more complicated logistics and distribution arrangements;
- inadequate local infrastructure that could result in business disruptions;
- global political and economic instability; and
- other factors beyond our control such as natural disasters, terrorism, civil unrest, war and infectious disease.

Our global operations are also subject to numerous U.S. and foreign laws and regulations, including those related to anti-corruption, tax, corporate governance, imports and exports, privacy and data security, financial and other disclosures and labor relations. These laws and regulations are complex and may have differing, conflicting and evolving legal standards, making compliance difficult and costly. If we or our employees, contractors or agents violate these laws and regulations, we could be subject to fines, penalties or criminal sanctions and may be prohibited from conducting business in one or more countries. Any violations, individually or in the aggregate, could have a material adverse effect on our operations and financial condition.

In addition, the United Kingdom gave formal notice of withdrawal from the European Union in March 2017. Consequently, the British government is currently negotiating the terms of the United Kingdom's future relationship with the European Union. The negotiated measures could potentially disrupt some of our target markets and jurisdictions in which we operate, including the United Kingdom and Germany, such as by adversely affecting tax benefits or liabilities in these or other jurisdictions or by restricting the movement of employees between the United Kingdom and other countries. Any such changes may adversely affect our operations and financial results.

We are subject to increasing government regulations and other requirements due to the nature of our business, which may adversely affect our business operations. In 2015, 2016, 2017 and the first nine months of 2018, approximately 47%, 47%, 53% and 34%, respectively, of our total revenue was derived from U.S. Government sales. In addition to normal business risks, our contracts with the U.S. government are subject to unique risks, some of which are beyond our control. Our contracts with the U.S. government are subject to particular risks, including:

The funding of U.S. government programs is subject to Congressional appropriations. Many of the U.S. government programs in which we participate may extend for several years; however, these programs are normally funded annually. Changes in U.S. strategy and priorities may affect our future procurement opportunities and existing programs. Long-term government contracts and related orders are subject to cancellation, or delay, if appropriations for subsequent performance periods are not made. The termination of funding for existing or new U.S. government programs could result in a material adverse effect on our results of operations and financial condition.

The U.S. government may modify, curtail or terminate its contracts with us. The U.S. government may modify, curtail or terminate its contracts and subcontracts with us, without prior notice at its convenience upon payment for work done and commitments made at the time of termination. Modification, curtailment or termination of our major programs or contracts could have a material adverse effect on our results of operations and financial condition.

Our U.S. government contract costs are subject to audits by U.S. government agencies. U.S. government representatives may audit the costs we incur on certain U.S. government contracts, including allocated indirect costs. Such audits could result in adjustments to our contract costs. Any costs found to be improperly allocated to a specific contract will not be reimbursed, and such costs already reimbursed must be refunded. If any audit uncovers improper or illegal activities or non-compliance with the terms of a specific contract, we may be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. government.

Our business is subject to potential U.S. government inquiries and investigations. We may be subject to U.S. government inquiries and investigations of our business practices due to our participation in government contracts. Any such inquiry or investigation could potentially result in a material adverse effect on our results of operations and financial condition.

48

Our U.S. government business is also subject to specific procurement regulations and other requirements. These requirements, although customary in U.S. government contracts, increase our performance and compliance costs. These costs might increase in the future, reducing our margins, which could have a negative effect on our financial condition. Failure to comply with these regulations and requirements could lead to suspension or debarment, for cause, from U.S. government contracting or subcontracting for a period of time or the inability to participate in certain procurements and could have a negative effect on our reputation and ability to secure future U.S. government contracts.
U.S. export controls could hinder our ability to make sales to foreign customers and our future prospects. The U.S. government regulates the export of HPC systems such as our products. We have experienced delays for up to several months in receiving appropriate approvals necessary for certain sales, which have delayed the shipment of our products. Delay or denial in the granting of any required licenses could make it more difficult to make sales to certain foreign customers, eliminating an important source of potential revenue. Restrictions on the export of information needed to manufacture our products has in the past impacted and could in the future impact our ability to have certain products and components made in certain lower cost jurisdictions.
Our stock price is volatile. The trading price of our common stock is subject to significant fluctuations in response to many factors, including stock market trends and shareholder profile, our quarterly operating results, changes in analysts' estimates or our outlook, our capital raising activities, announcements of technological innovations and customer contracts by us or our competitors, others in the industry or our customers, a significant aggressive seller or buyer, litigation activities, general economic conditions and conditions in our industry. From January 1, 2017 through September 30, 2018, the closing sales price of our common stock on The Nasdaq Global Market ranged from $16.35 to $28.00 per share. Because our stock price has been volatile, investing in our common stock is risky.
We incorporate software licensed from third parties into the operating systems for our products as well as in our tools to design products and any significant interruption in the availability of these third-party software products or defects in these products could reduce the demand for our products or cause delay in development. The operating system as well as other software we develop for our supercomputers contains components that are licensed to us under open source software licenses. Our business could be disrupted if this software, or functional equivalents of this software, were either no longer available to us or no longer offered to us on commercially reasonable terms. In either case we would be required to redesign our operating system software to function with alternative third-party software, or develop these components ourselves, which would result in increased costs and could result in delays in product shipments. Our supercomputer systems utilize software system variants that incorporate Linux technology. The open source licenses under which we have obtained certain components of our operating system software may not be enforceable. Any ruling by a court that these licenses are not enforceable, or that Linux-based operating systems, or significant portions of them, may not be copied, modified or distributed as provided in those licenses, would adversely affect our ability to sell our systems. In addition, as a result of concerns about the risks of litigation and open source software generally, we may be forced to protect our customers from potential claims of infringement. In any such event, our financial condition and results of operations may be adversely affected.
We also incorporate proprietary software from third parties, such as for file systems, job scheduling and storage subsystems. We have experienced functional issues in the past with implementing such software with our supercomputer systems. In addition, we may not be able to secure needed software systems on acceptable terms, or at all, which may make our systems less attractive to potential customers. These issues may result in lost revenue, additional expense by us and/or loss of customer confidence.
The "conflict minerals" rule of the SEC, has caused us to incur additional expenses, could limit the supply and increase the cost of certain metals used in manufacturing our products, and could make us less competitive in our target markets. The SEC requires public companies to disclose the origin, source and chain of custody of specified minerals, known as conflict minerals, that are necessary to the functionality or production of products manufactured or contracted to be manufactured by us. Companies must obtain sourcing data from suppliers, engage in supply chain due diligence, and file annually with the SEC a specialized disclosure report on Form SD covering the prior calendar year. Implementation of our conflict minerals policy could limit our ability to source at competitive prices and to secure sufficient quantities of certain minerals used in the manufacture of our products, specifically tantalum, tin, gold and

tungsten, as the number of suppliers that provide conflict-free minerals may be limited. In addition, we have incurred, and may continue to incur, material costs associated with complying with the conflict minerals rule, such as costs related to the determination of the origin, source and chain of custody of the minerals used in our products, the adoption of conflict minerals-related governance policies, processes and controls, and possible changes to products or sources of supply as a result of such activities. Within our supply chain, we may not be able to sufficiently verify the origins of the relevant minerals used in our products through the data collection and due diligence procedures that we implement, which may harm our reputation. Furthermore, we may encounter challenges in satisfying those customers that require that all of the components of our products be certified as conflict free, and if we cannot satisfy these customers, they may choose a competitor's products. We continue to investigate the presence of conflict materials within our supply chain.

We are required to evaluate our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002 at the end of each fiscal year, and any adverse results from such future evaluations could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price. Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we are required to furnish a report by our management and a report by our independent registered public accounting firm on our internal control over financial reporting in our annual reports on Form 10-K as to whether we have any material weaknesses in our internal controls over financial reporting. Depending on their nature and severity, any future material weaknesses could result in our having to restate financial statements, could make it difficult or impossible for us to obtain an audit of our annual financial statements or could result in a qualification of any such audit. In such events, we could experience a number of adverse consequences, including our inability to comply with applicable reporting and listing requirements, a loss of market confidence in our publicly available information, delisting from The Nasdaq Global Market, an inability to complete a financing, loss of other financing sources such as our line of credit, and litigation based on the events themselves or their consequences.

Our reported financial results may be adversely affected by changes in accounting principles generally accepted in the United States. Generally accepted accounting principles in the United States are subject to interpretation by the Financial Accounting Standards Board, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results, and could affect the reporting of transactions completed before the announcement of a change.

U.S. federal income tax reform could adversely affect us. On December 22, 2017, the Tax Cuts and Jobs Act was signed into law, enacting a broad range of changes to the U.S. Internal Revenue Code. The Tax Cuts and Jobs Act, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of interest and net operating losses, allows for the expensing of certain capital expenditures and puts into effect a number of changes impacting operations outside of the United States. In the fourth quarter of 2017, we reduced our deferred tax asset by approximately $28.9 million as a result. The Company will continue to assess the impact of the new tax legislation on its net deferred tax assets and liabilities and will continue to examine the impact this tax legislation may have on our business.

Provisions of our Restated Articles of Incorporation and Amended and Restated Bylaws could make a proposed acquisition of our business that is not approved by our Board of Directors more difficult. Provisions of our Restated Articles of Incorporation and Amended and Restated Bylaws could make it more difficult for a third-party to acquire us. These provisions could limit the price that investors might be willing to pay in the future for our common stock. For example, our Restated Articles of Incorporation and Amended and Restated Bylaws provide for:

- removal of a director only in limited circumstances and only upon the affirmative vote of not less than two-thirds of the shares entitled to vote to elect directors;
- the ability of our Board of Directors to issue up to 5,000,000 shares of preferred stock, without shareholder approval, with rights senior to those of the common stock;
- no cumulative voting of shares;
- the right of shareholders to call a special meeting of the shareholders only upon demand by the holders of not less than 30% of the shares entitled to vote at such a meeting;
- the affirmative vote of not less than two-thirds of the outstanding shares entitled to vote on an amendment, unless the amendment was approved by a majority of our continuing directors, who are defined as directors who have either served as a director since August 31, 1995, or were nominated to be a director by the continuing directors;
- special voting requirements for mergers and other business combinations, unless the proposed transaction was approved by a majority of continuing directors;
- special procedures to bring matters before our shareholders at our annual shareholders' meeting; and
- special procedures to nominate members for election to our Board of Directors.

These provisions could delay, defer or prevent a merger, consolidation, takeover or other business transaction between us and a third-party that is not approved by our Board of Directors.

50

Item 6. Exhibits

Exhibit	Exhibit Description	Incorporated by Reference				
		Form	File No.	Filing Date	Exhibit/Annex	Filed Herewith
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1*	Certificate pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
101.INS	XBRL Instance Document					
101.SCH	XBRL Taxonomy Extension Schema Document					
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					

*This certification is deemed not filed for purposes of section 18 of the Exchange Act of 1934, as amended, or the Exchange Act, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Act.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

		CRAY INC.
Date:	October 30, 2018	/S/ PETER J. UNGARO
		Peter J. Ungaro
		President and Chief Executive Officer
Date:	October 30, 2018	/S/ BRIAN C. HENRY
		Brian C. Henry
		Executive Vice President and Chief Financial Officer
Date:	October 30, 2018	/S/ CHARLES D. FAIRCHILD
		Charles D. Fairchild
		Vice President, Corporate Controller and Chief Accounting Officer