SECURITIES & EXCHANGE COMMISSION EDGAR FILING

QUANTUM CORP /DE/

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

Form 10-Q

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

For the quarterly period ended September 30, 2017

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 1-13449

QUANTUM CORPORATION

Delaware	**94-2665054**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
224 Airport Parkway, Suite 550, San Jose, California	**95110**
(Address of principal executive offices)	(Zip Code)

(408) 944-4000
(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 ☑ No ❑

Indicate by checkmark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☑ No ❑

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

Large accelerated filer ❑	Accelerated filer ☑	Non-accelerated filer ❑	Smaller reporting company ❑
Emerging growth company ❑			

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards 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 ☑

As of the close of business on November 3, 2017, there were 34,673,884 shares of Quantum Corporation's common stock issued and outstanding.

QUANTUM CORPORATION
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PART I—FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

QUANTUM CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)
(Unaudited)

	September 30, 2017	March 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 9,504	$ 12,958
Restricted cash	1,969	1,832
Accounts receivable, net of allowance for doubtful accounts of $317 and $16, respectively	105,771	116,056
Manufacturing inventories	29,119	27,661
Service parts inventories	19,915	19,849
Other current assets	8,795	9,969
Total current assets	175,073	188,325
Long-term assets:		
Property and equipment, net of accumulated depreciation	10,745	11,186
Restricted cash	20,000	20,000
Other long-term assets	5,332	5,516
Total long-term assets	36,077	36,702
	$ 211,150	$ 225,027
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 48,488	$ 41,611
Accrued warranty	2,950	3,263
Deferred revenue	77,090	84,683
Accrued restructuring charges	1,743	869
Convertible subordinated debt, net	57,034	62,827
Accrued compensation	23,180	24,104
Other accrued liabilities	12,927	12,998
Total current liabilities	223,412	230,355
Long-term liabilities:		
Deferred revenue	35,906	37,642
Accrued restructuring charges	423	481
Long-term debt, net	70,631	65,028
Other long-term liabilities	5,112	7,520
Total long-term liabilities	112,072	110,671
Stockholders' deficit:		
Common stock, $0.01 par value; 125,000 shares authorized; 34,663 and 34,063 shares issued and outstanding at September 30, 2017 and March 31, 2017, respectively	347	341
Capital in excess of par	476,409	473,850
Accumulated deficit	(604,832)	(593,295)
Accumulated other comprehensive income	3,742	3,105
Total stockholders' deficit	(124,334)	(115,999)
	$ 211,150	$ 225,027

See accompanying Notes to Condensed Consolidated Financial Statements.

QUANTUM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)
(Unaudited)

	Three Months Ended		Six Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Product revenue	$ 63,606	$ 88,575	$ 135,224	$ 160,401
Service revenue	34,165	36,620	69,411	72,438
Royalty revenue	9,280	9,547	19,274	18,187
Total revenue	107,051	134,742	223,909	251,026
Cost of product revenue	48,561	64,352	99,510	114,484
Cost of service revenue	14,717	14,664	29,807	30,170
Total cost of revenue	63,278	79,016	129,317	144,654
Gross margin	43,773	55,726	94,592	106,372
Operating expenses:				
Research and development	10,190	11,401	20,795	22,459
Sales and marketing	26,179	26,146	54,003	52,513
General and administrative	12,158	12,572	24,667	25,532
Restructuring charges	31	15	2,366	2,067
Total operating expenses	48,558	50,134	101,831	102,571
Income (loss) from operations	(4,785)	5,592	(7,239)	3,801
Other income	77	10	175	166
Interest expense	(2,617)	(1,485)	(5,175)	(2,993)
Loss on debt extinguishment, net	(39)	—	(39)	—
Net income (loss) before income tax provision (benefit)	(7,364)	4,117	(12,278)	974
Income tax provision (benefit)	499	45	(741)	422
Net income (loss)	$ (7,863)	$ 4,072	$ (11,537)	$ 552
Earnings per share:				
Basic and Diluted	$ (0.23)	$ 0.12	$ (0.34)	$ 0.02
Weighted average shares:				
Basic	34,561	33,804	34,337	33,549
Diluted	34,561	34,048	34,337	33,699

See accompanying Notes to Condensed Consolidated Financial Statements.

QUANTUM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands)
(Unaudited)

	Three Months Ended		Six Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Net income (loss)	$ (7,863)	$ 4,072	$ (11,537)	$ 552
Other comprehensive income (loss), net of taxes:				
Foreign currency translation adjustments	673	206	828	(133)
Net unrealized gain (loss) on revaluation of long-term intercompany balances	(204)	(57)	(192)	(15)
Total other comprehensive income (loss)	469	149	636	(148)
Total comprehensive income (loss)	$ (7,394)	$ 4,221	$ (10,901)	$ 404

See accompanying Notes to Condensed Consolidated Financial Statements.

QUANTUM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands)

	Six Months Ended	
	September 30, 2017	September 30, 2016
Cash flows from operating activities:		
Net income (loss)	$ (11,537)	$ 552
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation	2,525	2,710
Amortization and write off of debt issuance costs	855	336
Service parts lower of cost or market adjustment	2,319	2,659
Tax benefit from settlement	(1,656)	—
Non-cash interest expense	621	—
Deferred income taxes	144	17
Share-based compensation	3,330	3,648
Non-cash loss on debt extinguishment	9	—
Changes in assets and liabilities:		
Accounts receivable	10,284	(1,951)
Manufacturing inventories	(1,752)	2,429
Service parts inventories	(2,737)	(766)
Accounts payable	6,537	4,875
Accrued warranty	(313)	(59)
Deferred revenue	(9,329)	(9,162)
Accrued restructuring charges	817	(219)
Accrued compensation	(1,236)	1,049
Other assets and liabilities	815	(3,737)
Net cash provided by (used in) operating activities	(304)	2,381
Cash flows from investing activities:		
Purchases of property and equipment	(1,156)	(1,249)
(Increase) decrease in restricted cash	6	(5)
Return of capital from investments	278	—
Net cash used in investing activities	(872)	(1,254)
Cash flows from financing activities:		
Borrowings of long-term debt	164,650	6,500
Repayments of long-term debt	(160,245)	(11,959)
Repayments of convertible subordinated debt	(6,000)	—
Payment of taxes due upon vesting of restricted stock	(1,775)	(673)
Proceeds from issuance of common stock	1,010	658
Net cash used in financing activities	(2,360)	(5,474)
Effect of exchange rate changes on cash and cash equivalents	82	5
Net decrease in cash and cash equivalents	(3,454)	(4,342)
Cash and cash equivalents at beginning of period	12,958	33,870
Cash and cash equivalents at end of period	$ 9,504	$ 29,528
Supplemental disclosure of cash flow information:		
Purchases of property and equipment included in accounts payable	$ 335	$ 217

See accompanying Notes to Condensed Consolidated Financial Statements.

QUANTUM CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1: BASIS OF PRESENTATION

Quantum Corporation ("Quantum", the "Company", "us" or "we"), founded in 1980 and reincorporated in Delaware in 1987, is a leading expert in scale-out storage, archive and data protection, providing solutions for capturing, sharing, managing and preserving digital assets over the entire data lifecycle. Our customers, ranging from small businesses to large/multi-national enterprises, trust us to address their most demanding data workflow challenges. Our end-to-end tiered storage solutions enable users to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. We work closely with a broad network of distributors, value-added resellers ("VARs"), direct marketing resellers ("DMRs"), original equipment manufacturers ("OEMs") and other suppliers to meet customers' evolving needs. Our stock is traded on the New York Stock Exchange under the symbol QTM.

The accompanying unaudited Condensed Consolidated Financial Statements include the accounts of Quantum and our wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated. The interim financial statements reflect all adjustments, consisting of normal recurring adjustments that, in the opinion of management, are necessary for a fair presentation of the results for the periods shown. The results of operations for such periods are not necessarily indicative of the results expected for the full fiscal year. The Condensed Consolidated Balance Sheet as of March 31, 2017 has been derived from the audited financial statements at that date, but it does not include all disclosures required by accounting principles generally accepted in the United States for complete financial statements. The accompanying financial statements should be read in conjunction with the audited Consolidated Financial Statements for the fiscal year ended March 31, 2017 included in our Annual Report on Form 10-K, filed with the Securities and Exchange Commission ("SEC") on May 31, 2017.

On April 18, 2017, we effected a 1-for-8 reverse stock split of our issued and outstanding common stock. Our stock began to trade on a post-split basis on April 19, 2017. All share and per share data for comparative periods included within our Condensed Consolidated Financial Statements and related footnotes have been adjusted to account for the effect of the reverse stock split.

Recently Adopted Accounting Pronouncements

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting ("ASU 2016-09"). ASU 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification of windfall tax benefits on the statement of cash flows. We adopted ASU 2016-09 in the first quarter of fiscal 2018 using multiple transition approaches in-line with the requirements. Our tax windfall benefits are reported in the statement of operations instead of equity to the extent we do not have an offsetting valuation allowance and such benefits are recorded within our deferred taxes. There were no other changes based upon the new guidance. The adoption of ASU 2016-09 did not impact our statements of financial condition, results of operations, cash flows or financial statement disclosures.

In July 2015, the FASB issued ASU No. 2015-11, Inventory (Topic 330) ("ASU 2015-11"). ASU 2015-11 requires that an entity measure all inventory at the lower of cost and net realizable value, except for inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. We adopted ASU 2015-11 prospectively in the first quarter of fiscal 2018 and adoption did not impact our statements of financial condition, results of operations, cash flows or financial statement disclosures.

Recent Accounting Pronouncements

In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments - Overall (Topic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities ("ASU 2016-01"). ASU 2016-01 addresses certain aspects of recognition, measurement, presentation and disclosures of financial instruments. ASU 2016-01 will become effective for us beginning April 1, 2018, or fiscal 2019. We must apply the provisions using a cumulative-effect adjustment to the balance sheet at the beginning of the year of adoption, or April 1, 2018. We are currently assessing what financial instruments are being impacted and the extent of the potential impact on our statements of financial condition, results of operations, cash flows and financial statement disclosures.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842) ("ASU 2016-02"). ASU 2016-02 provides a new comprehensive model for lease accounting. Under ASU 2016-02, lessees and lessors should apply a "right-of-use" model in accounting for all leases and eliminate the concept of operating leases and off-balance sheet leases. ASU 2016-02 will become effective for us beginning April 1, 2019, or fiscal 2020. ASU 2016-02 requires a modified retrospective transition approach with certain practical expedients available. We have identified all of our current leases subject to ASU 2016-02. We are in the process of evaluating these agreements to determine the impact on our statements of financial condition, results of operations, cash flows and financial statement disclosures.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Receipts and Cash Payments ("ASU 2016-15"). ASU 2016-15 provides guidance on the following eight specific cash flow issues: 1) debt prepayment or debt extinguishment costs, 2) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing, 3) contingent consideration payments made after a business combination, 4) proceeds from the settlement of insurance claims, 5) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies, 6) distributions received from equity method investees, 7) beneficial interests in securitization transactions and 8) separately identifiable cash flows and application of the predominance principle. ASU 2016-15 transition requires the use of the retrospective method for all periods presented and will become effective for us beginning April 1, 2018, or fiscal 2019. We have evaluated the types of transactions impacted by ASU 2016-15 and at this time, and anticipate the only impact is related to our debt extinguishment costs. As such, we do not anticipate the adoption of ASU 2016-15 will have a material impact on our statements of cash flows.

In October 2016, the FASB issued ASU No. 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory ("ASU 2016-16"). ASU 2016-16 requires that an entity recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. ASU 2016-16 will become effective for us beginning April 1, 2018, or fiscal 2019. ASU 2016-16 requires the modified retrospective transition approach with a cumulative-effect adjustment to retained earnings at the beginning of the period of adoption. We currently do not have any material intra-entity transfers of assets and therefore we do not anticipate that adoption will have a material impact on our statements of financial condition, results of operations, cash flows or financial statement disclosures.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash ("ASU 2016-18"). ASU 2016-18 requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. ASU 2016-18 will become effective for us beginning April 1, 2018, or fiscal 2019. ASU 2016-18 is required to be applied retrospectively. Upon the adoption, amounts described as restricted cash will be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period amounts shown on the statements of cash flows.

In May 2017, the FASB issued ASU No. 2017-09, Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting. The standard provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. ASU 2017-09 will become effective for us beginning April 1, 2018, or fiscal 2019 and interim and interim periods within those years and is to be applied prospectively to an award modified on or after the adoption date. As we currently do not have a practice of modifying our stock based awards and have no plans to do so in the future, we do not anticipate adoption will have a material impact on our statements of financial condition, results of operations, cash flows or financial statement disclosures.

In May 2014, the FASB, issued ASU 2014-09, Revenue from Contracts with Customers (Topic 606) ("ASU 2014-09"). The standard requires entities to recognize revenue through an evaluation that includes identification of the contract, identification of the performance obligations, determination of the transaction price, allocation of the transaction price to the performance obligations, and recognition of revenue as the entity satisfies the performance obligations. In August 2015, FASB issued ASU 2015-14, Revenue from Contracts with Customers: Deferral of the Effective Date, which defers the effective date of ASU 2014-09 to the Company's fiscal year beginning April 1, 2018. The FASB has continued to issue accounting standards updates to clarify and provide implementation guidance related to ASU 2014-09, including ASU 2016-08, Revenue from Contract with Customers; Principal versus Agent Considerations, ASU 2016-10, Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing, ASU 2016-12, Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients and ASU 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers. The new standards require more extensive disclosures related to revenue recognition, particularly in quarterly financial statements. The Company will adopt the standard on April 1, 2018 and intends to use the modified retrospective method of adoption. We have assessed the changes to our revenue recognition accounting policies for the new revenue standards. Our accounting for commission costs related to our service agreements will change from recognition in the period incurred to the deferral and recognition over the period the services are provided. Other costs such as warranty costs and our accounting for our rebate programs ("variable consideration") will not materially change. We have identified our performance obligations and have established the related standalone selling prices for the distinct goods and services underlying the obligations. We have configured our system to meet our business and reporting requirements and are currently testing our data interfaces. Our assessments of the standards impact may change based upon our ongoing evaluation. Upon completion we will process the Company’s historical revenue transactions which will enable us to assess the overall impact of the adoption of the standards on our financial condition, results of operations, cash flows and financial statement disclosures.

NOTE 2: FAIR VALUE

Our assets measured and recorded at fair value on a recurring basis may consist of money market funds which are included in cash and cash equivalents in our Condensed Consolidated Balance Sheets and are valued using quoted market prices (level 1 fair value measurements) at the respective balance sheet dates.

No impairments charges were recognized for non-financial assets in the second quarter or first six months of fiscal 2018 or fiscal 2017. We have no non-financial liabilities measured and recorded at fair value on a non-recurring basis.

Our financial liabilities were comprised primarily of convertible subordinated debt and long-term debt at September 30, 2017 and March 31, 2017. The carrying value and fair value of our convertible subordinated debt and long-term debt were as follows (in thousands):

	As of			
	September 30, 2017		March 31, 2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Convertible subordinated debt [1]	$ 57,034	$ 56,805	$ 62,827	$ 60,667
Long-term debt: [2]				
Revolving credit agreement	22,144	23,518	16,852	18,490
Term loan agreement	48,487	50,004	48,176	50,026
Total long-term debt	$ 70,631	$ 73,522	$ 65,028	$ 68,516

[1] Fair value based on quoted market prices in less active markets (level 2).

[2] Fair value based on outstanding borrowings and market interest rates (level 2).

NOTE 3: INVENTORIES

Manufacturing inventories and service parts inventories consisted of the following (in thousands):

	As of	
	September 30, 2017	March 31, 2017
Manufacturing inventories:		
Finished goods	$ 14,264	$ 15,070
Work in process	1,006	606
Materials and purchased parts	13,849	11,985
	$ 29,119	$ 27,661

	As of	
	September 30, 2017	March 31, 2017
Service parts inventories:		
Finished goods	$ 14,802	$ 14,851
Component parts	5,113	4,998
	$ 19,915	$ 19,849

NOTE 4: ACCRUED WARRANTY

The following table details the changes in the accrued warranty balance (in thousands):

	Three Months Ended		Six Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Beginning balance	$ 3,161	$ 3,444	$ 3,263	$ 3,430
Additional warranties	1,445	1,783	2,916	3,782
Adjustments for warranties in prior fiscal years	(75)	86	(79)	225
Settlements	(1,581)	(1,942)	(3,150)	(4,066)
Ending balance	$ 2,950	$ 3,371	$ 2,950	$ 3,371

We warrant our products against certain defects typically for a term of one to three years. A provision for estimated future costs and estimated returns for repair or replacement relating to warranty is recorded when products are shipped and revenue is recognized. Our estimate of future costs to satisfy warranty obligations is primarily based on historical trends and, if believed to be significantly different from historical trends, estimates of future failure rates and future costs of repair. Future costs of repair include related materials, labor and overhead. If we determine in a future period that either actual failure rates or actual costs of repair were to differ from our estimates, we record the impact of those differences in that future period.

NOTE 5: DEBT

Our debt consisted of the following (in thousands):

	As of	
	September 30, 2017	March 31, 2017
Convertible subordinated debt:		
4.50% convertible subordinated notes	$ 57,090	$ 63,090
Unamortized debt issuance costs	(56)	(263)
Convertible subordinated debt, net of unamortized debt issuance costs	$ 57,034	$ 62,827

	As of	
	September 30, 2017	March 31, 2017
Long-term debt:		
Revolving credit agreement	$ 23,525	$ 18,500
Term loan agreement	50,000	50,000
Unamortized discount and debt issuance costs	(2,894)	(3,472)
Long-term debt, net of unamortized discount and debt issuance costs	$ 70,631	$ 65,028

Convertible Subordinated Debt

In the third quarter of fiscal 2013, we issued $70 million aggregate principal amount of 4.50% convertible subordinated notes (4.50% Notes) due November 15, 2017. These notes are convertible into shares of our common stock until November 14, 2017 at the option of the holders at a conversion rate of 75.896 shares per $1,000 principal amount, a conversion price of approximately $13.20 per share. The 4.50% notes require semi-annual interest payments paid on May 15 and November 15 of each year and have no early call provisions.

In the second quarter of fiscal 2018, we entered into private transactions with note holders to purchase an aggregate principal amount of $6.0 million of the 4.50% notes for $6.0 million of cash. In connection with these transactions, we recorded a loss on debt extinguishment of less than $0.1 million, which included a write-off of unamortized debt issuance costs related to the purchased notes.

Long-term Debt

Our credit facility includes a revolving credit and security agreement entered into with PNC Bank, National Association ("revolving credit agreement") and a term loan credit and security agreement entered into with TCW Asset Management Company LLC ("term loan agreement").

Revolving credit agreement

Under the revolving credit agreement, we have the ability to borrow the lesser of $80 million or the amount of the monthly borrowing base, which is reduced by $1.0 million due to outstanding letters of credit. Our borrowing base is established monthly based on certain working capital asset balances. The revolving credit agreement also includes an uncommitted accordion in an amount up to $20 million. The revolving credit agreement matures on October 21, 2021. As of September 30, 2017, our excess availability under the revolving credit agreement was $19.8 million.

Borrowings under the revolving credit agreement bear interest at a rate per annum equal to, at our option, either (a) the greatest of (i) the base rate, (ii) the Federal funds rate plus 0.50% and (iii) the LIBOR rate based upon an interest period of one month plus 1.0%, plus an applicable margin of 1.50%, or (b) the LIBOR rate plus an applicable margin of 2.50%. The base rate is defined in the revolving credit agreement. We are required to pay a 0.375% commitment fee on undrawn amounts under the revolving credit agreement on a quarterly basis, which is recorded as interest expense in the period incurred. As of September 30, 2017, we had a $23.5 million outstanding balance on the revolving credit agreement at an interest rate of 5.39%.

Term loan agreement

The term loan agreement provides for a $50 million secured term loan which was drawn fully at the time we entered into the credit facility and $20 million of a senior secured delay draw term loan ("DDTL"). Borrowings under the DDTL are restricted to be used only to redeem our 4.50% convertible subordinated notes due November 15, 2017. The term loan agreement matures on October 21, 2021. The amount outstanding under the term loan is to be repaid on a quarterly basis in an amount equal to 1.25% of the original principal amount beginning on March 31, 2018, with any remaining principal balance due on the maturity of the term loan.

Borrowings under the term loan agreement bear interest at a rate per annum equal to, at our option, either (a) the greatest of (i) 3.00%, (ii) the Federal funds rate plus 0.50%, (iii) the LIBOR rate based upon an interest period of 1 month plus 1.0% and (iv) the "prime rate" last quoted by the Wall Street Journal, plus a margin ranging from 6.00% to 7.25% based on the applicable senior net leverage ratio, or (b) the LIBOR rate plus 7.00% to 8.25% based on the applicable senior net leverage ratio. The senior net leverage ratio is defined in the term loan agreement. As of September 30, 2017, our interest rate on the term loan was 8.74%.

The revolving credit agreement and the term loan agreement are collateralized by a pledge of substantially all of our assets and contain certain financial covenants and customary events of default for such securities. Financial covenants include a fixed charge coverage ratio, senior net leverage ratio and total leverage ratio. Additionally, the revolving credit agreement includes minimum liquidity requirements. There is a blanket lien on all of our assets under the revolving credit agreement and term loan agreement.

As of September 30, 2017, the Company was in violation of financial covenants applicable to the credit facility and, as a result, was in default under the terms of the related agreements. As further discussed in Note 12, on November 6, 2017, the Company and the lenders amended the terms of the credit facility agreements in order to, among other things, retroactively and prospectively modify the applicable financial covenants and, as a result, the covenant violations existing as of September 30, 2017 were cured. The amended credit facility agreements contains customary conditions to borrowings, events of default, restrictions, and positive and negative covenants, as more fully described in Note 12. Management's current projections indicate, and management considers it probable, that the Company will be in compliance with covenants applicable under the amended credit facility, and be able to meet its obligations as they become due, for more than twelve months from the date these financial statements were filed. In the event the Company is unable to meet its projected results of operations, it may violate applicable covenants and result in a default under the revised credit facility agreements, which could adversely impact the Company's ability to meet its obligations as they come due.

Debt Maturities

A summary of the scheduled maturities of principal for our outstanding debt as of September 30, 2017 is as follows (in thousands):

	Debt Maturity Due by Period													
	Less than 1 Year		1 Year		2 Years		3 Years		4 Years		More than 5 Years		Total	
4.50% convertible subordinated notes	$	57,090	$	—	$	—	$	—	$	—	$	—	$	57,090
Long-term debt:														
Revolving credit agreement		—		—		—		—		23,525		—		23,525
Term loan agreement		1,875		2,500		2,500		2,500		40,625		—		50,000
Total long-term debt	$	1,875	$	2,500	$	2,500	$	2,500	$	64,150	$	—	$	73,525
Total debt	$	58,965	$	2,500	$	2,500	$	2,500	$	64,150	$	—	$	130,615

NOTE 6: RESTRUCTURING CHARGES

Fiscal 2018 Restructuring Plan

During the first quarter of fiscal 2018, we approved a plan (“Fiscal 2018 Restructuring Plan”) to eliminate 49 positions in the U.S. and internationally to align our workforce within various functions of our business in order to meet the Company’s strategic plans. The costs associated with these actions consist of restructuring charges related to severance and benefits. During the first six months of fiscal 2018 we incurred $1.6 million of restructuring charges and paid $1.0 million under this plan with the remaining amounts to be paid during the second half of fiscal 2018.

Fiscal 2017 April Restructuring Plan

In April 2016, we approved a plan (“Fiscal 2017 April Restructuring Plan”) to eliminate 29 positions in the U.S. and internationally to reduce investments in various functions of our business to improve operational efficiencies. The costs associated with these actions consist of restructuring charges related to severance and benefits. These actions were completed by the second quarter of fiscal 2017. We incurred and paid $1.5 million of restructuring charges under this plan.

Fiscal 2016 Restructuring Plan

In November 2015, we approved a plan (“Fiscal 2016 Restructuring Plan”) to eliminate approximately 65 positions in the U.S. and internationally, primarily in research and development and sales and marketing functions, in order to improve our cost structure and align spending with continuing operations plans. These actions were completed by the first quarter of fiscal 2017, with the majority having occurred by December 31, 2015. The costs associated with these actions consist of restructuring charges related to severance and benefits. We incurred and paid $2.0 million of restructuring charges under this plan.

Summary of Restructuring Expense

The following summarizes the type of restructuring costs included in operating expense (in thousands):

	Three Months Ended				Six Months Ended			
	September 30, 2017		September 30, 2016		September 30, 2017		September 30, 2016	
Severance and benefits	$	29	$	(39)	$	1,599	$	1,450
Facilities		2		54	$	758		617
Other		—		—		9		—
	$	31	$	15	$	2,366	$	2,067

Restructuring charges for the first six months of fiscal 2018 included $1.6 million of severance and benefits costs incurred as a result of the Fiscal 2018 Restructuring Plan. Additionally, we incurred $0.8 million of facilities restructuring charges in the first six months of fiscal 2018 due to a change in estimate of sublease timing and related expenses for our facilities previously used in manufacturing.

Restructuring charges for the first six months of fiscal 2017 included $1.5 million of severance and benefits costs incurred as a result of the Fiscal 2017 Restructuring Plan. Additionally, we incurred $0.6 million of restructuring charges related to facilities costs primarily due to a change in estimate of sublease timing for our facilities previously used in manufacturing.

Accrued Restructuring

The following tables show the activity and the estimated timing of future payouts for accrued restructuring (in thousands):

	Three Months Ended September 30, 2017			Three Months Ended September 30, 2016		
	Severance and Benefits	Facilities	Total	Severance and Benefits	Facilities	Total
Beginning balance	$ 1,228	$ 1,565	$ 2,793	$ 814	$ 2,649	$ 3,463
Restructuring costs	—	—	—	—	54	54
Adjustment of prior estimates	(35)	20	(15)	(39)	—	(39)
Cash payments	(473)	(138)	(611)	(635)	(325)	(960)
Ending balance	$ 720	$ 1,447	$ 2,167	$ 140	$ 2,378	$ 2,518

	Six Months Ended September 30, 2017			Six Months Ended September 30, 2016		
	Severance and Benefits	Facilities	Total	Severance and Benefits	Facilities	Total
Beginning balance	$ 130	$ 1,220	$ 1,350	$ 354	$ 2,383	$ 2,737
Restructuring costs	1,570	—	1,570	1,489	480	1,969
Adjustment of prior estimates	(35)	776	741	(39)	179	140
Cash payments	(945)	(549)	(1,494)	(1,664)	(664)	(2,328)
Ending balance	$ 720	$ 1,447	$ 2,167	$ 140	$ 2,378	$ 2,518

	As of September 30, 2017		
	Severance and Benefits	Facilities	Total
Estimated timing of future payouts:			
Next twelve months	$ 720	$ 1,024	$ 1,744
October 2018 through Sept 2022	—	423	423
	$ 720	$ 1,447	$ 2,167

Facility restructuring accruals will be paid in accordance with the respective facility lease terms and the above amounts are net of estimated sublease amounts.

NOTE 7: EQUITY

On April 18, 2017, we effected a 1-for-8 reverse stock split of our issued and outstanding common stock (the "Reverse Stock Split"). Our stock began to trade on a post-split basis on April 19, 2017. Par value of the Company's common stock was unchanged as a result of the Reverse Stock Split, remaining at $0.01 per share, which resulted in reclassification of capital from par value to capital in excess of par value. All share and per share data for comparative periods included within our Condensed Consolidated Financial Statements and related footnotes have been adjusted to account for the effect of the Reverse Stock Split.

On August 23, 2017, shareholders of the Company approved a reduction in the number of authorized shares of the Company's common stock from one billion shares to 125.0 million shares which was in proportion to the ratio of the Reverse Stock Split.

NOTE 8: STOCK INCENTIVE PLANS AND SHARE-BASED COMPENSATION

During the first quarter of fiscal 2018, all restricted stock awards, restricted stock units and options to purchase our common stock outstanding under the Company's Stock Incentive Plans were adjusted to reflect the impact of the Reverse Stock Split. The Reverse Stock Split also reduced the number of shares of common stock issuable under the Company's 2012 Long Term Incentive Plan and Employee Stock Purchase Plan, as amended. The per share exercise price of all outstanding awards was increased and the number of shares of common stock issuable upon the exercise or settlement of all outstanding awards was reduced proportionately to the reverse split ratio.

Share-Based Compensation

The following table summarizes share-based compensation (in thousands):

	Three Months Ended		Six Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Share-based compensation:				
Cost of revenue	$ 201	$ 234	$ 418	$ 514
Research and development	245	333	531	736
Sales and marketing	633	606	1,153	1,218
General and administrative	638	477	1,228	1,180
	$ 1,717	$ 1,650	$ 3,330	$ 3,648
Share-based compensation by type of award:				
Restricted stock units	1,559	1,511	3,020	3,347
Stock purchase plan	158	139	310	301
	$ 1,717	$ 1,650	$ 3,330	$ 3,648

Restricted Stock Units

The fair value of restricted stock units (“RSUs”) granted is the intrinsic value as of the respective grant date. The weighted-average grant date fair values of RSUs granted during the second quarter and first six months of fiscal 2018 were $7.53 and $7.55, respectively, and $3.36 and $3.44 during the second quarter and first six months of fiscal 2017, respectively.

A summary of activity relating to our restricted stock units follows (shares in thousands):

	Shares	Weighted-Average Grant Date Fair Value Per Share
Nonvested at March 31, 2017	1,765	$ 6.75
Granted	1,242	7.55
Vested	(662)	7.71
Forfeited	(230)	6.92
Nonvested at September 30, 2017	2,115	$ 6.90

Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan, rights to purchase shares are typically granted during the second and fourth quarter of each fiscal year. The value of rights to purchase shares granted in the second quarter and first six months of fiscal 2018 and fiscal 2017, respectively, was estimated at the date of grant using the Black-Scholes option pricing model. The weighted-average grant date fair values and the assumptions used in calculating fair values for the three and six month periods ended September 30, 2017 and September 30, 2016 were as follows:

	Three and Six Months Ended	
	September 30, 2017	September 30, 2016
Option life (in years)	0.5	0.5
Risk-free interest rate	1.13%	0.40%
Stock price volatility	44.99%	81.88%
Weighted-average grant date fair value per share	$ 2.18	$ 0.23

NOTE 9: INCOME TAXES

Income taxes for the second quarter and first six months of fiscal 2018 were a provision of $0.5 million and a benefit of $0.7 million, respectively, as compared to an income tax provision of less than $0.1 million and $0.4 million for the second quarter and first six months of fiscal 2017, respectively. The tax benefit for the first six months of fiscal 2018 included the release of $1.7 million of an uncertain tax position liability upon the effective settlement with the German taxing authorities for tax audits of our German subsidiary.

Income tax provisions for each of these periods reflect expenses for foreign income taxes and state taxes. We have provided a full valuation allowance against our U.S. net deferred tax assets due to our history of net losses, difficulty in predicting future results and our conclusion that we cannot rely on projections of future taxable income to realize the deferred tax assets. Significant management judgment is required in determining our deferred tax assets and liabilities and valuation allowances for purposes of assessing our ability to realize any future benefit from our net deferred tax assets. We intend to maintain this valuation allowance until sufficient positive evidence exists to support a reversal or decrease in this allowance. Future income tax expense will be reduced to the extent that we have sufficient positive evidence to support a reversal of, or decrease in, our valuation allowance.

NOTE 10: NET INCOME (LOSS) PER SHARE

The following is the computation of basic and diluted net income (loss) per share (in thousands, except per share data):

	Three Months Ended		Six Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Numerator:				
Net income (loss)	$ (7,863)	$ 4,072	$ (11,537)	$ 552
Denominator:				
Weighted average shares:				
Basic	34,561	33,804	34,337	33,549
Dilutive shares from stock plans	—	244	—	150
Diluted	34,561	34,048	34,337	33,699
Basic and diluted net income (loss) per share	$ (0.23)	$ 0.12	$ (0.34)	$ 0.02

Dilutive and potentially dilutive common shares from the Stock Incentive Plans are determined by applying the treasury stock method to the assumed exercise of outstanding options and the assumed vesting of outstanding restricted stock units. The dilutive impact related to our convertible subordinated notes is determined by applying the if-converted method, which includes adding the related weighted average shares to the denominator and the related interest expense to net income.

The computations of diluted net income (loss) per share for the periods presented exclude the following because the effect would have been anti-dilutive (in millions):

	Three Months Ended		Six Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Weighted average shares excluded:				
4.50% convertible subordinated notes	4.3	5.3	4.3	5.1
Stock options	0.2	0.2	0.2	0.4
Unvested restricted stock units	2.0	0.4	1.8	0.8
Interest expense excluded:				
4.50% convertible subordinated notes	$ 0.6	$ 0.1	$ 1.4	$ 0.4

NOTE 11: COMMITMENTS AND CONTINGENCIES

Commitments to Purchase Inventory

We use contract manufacturers for our manufacturing operations. Under these arrangements, the contract manufacturer procures inventory to manufacture products based upon our forecast of customer demand. We have similar arrangements with certain other suppliers. We are responsible for the financial impact on the supplier or contract manufacturer of any reduction or product mix shift in the forecast relative to materials that the third party had already purchased under a prior forecast. Such a variance in forecasted demand could require a cash payment for inventory in excess of current customer demand or for costs of excess or obsolete inventory. As of September 30, 2017, we had issued non-cancelable commitments for $54.5 million to purchase inventory from our contract manufacturers and suppliers.

Legal Proceedings

Crossroads

On February 18, 2014, Crossroads Systems, Inc. (“Crossroads”) filed a patent infringement lawsuit against Quantum in the U.S. District Court for the Western District of Texas, alleging infringement of U.S. patents 6,425,035 and 7,934,041. An amended complaint filed on April 15, 2014 also alleged infringement of U.S. patent 7,051,147. Crossroads asserts that we have incorporated Crossroads' patented technology into our StorNext QX and Q-Series lines of disk array products and into our Scalar libraries. Crossroads seeks unspecified monetary damages and injunctive relief. Crossroads has already dismissed all claims of infringement with respect to the StorNext QX and Q-Series products. In July and September of 2014, we filed for inter partes review of all three asserted Crossroads patents before the Patent Trial and Appeal Board and a review has been initiated for all claims. On June 16, 2015, the U.S. District Court, Western District of Texas stayed the Crossroads trial proceedings pending resolution of the inter partes review proceedings. On January 29, 2016, the Patent Trial and Appeal Board issued decisions on the inter partes reviews for U.S. patents 6,425,035 and 7,051,147, ordering all claims of both patents to be unpatentable. On March 17, 2016, the Patent Trial and Appeal Board issued a decision on the inter partes review for U.S. patent 7,934,041, ordering all claims to be unpatentable. On March 31, 2016, Crossroads filed Notices of Appeal in each of the inter partes review decisions. On June 6, 2017, the U.S. Court of Appeals for the Federal Circuit affirmed the PTAB decision finding all claims of all patents to be unpatentable. On July 6, 2017, Crossroads filed a petition for a rehearing en banc before the Federal Circuit. On August 8, 2017, the Federal Circuit denied Crossroads' petition. We believe the probability that this lawsuit will have a material adverse effect on our business, operating results or financial condition is remote.

Realtime Data

On July, 22 2016, Realtime Data LLC d/b/a IXO(“Realtime Data”) filed a patent infringement lawsuit against Quantum in the U.S. District Court for the Eastern District of Texas, alleging infringement of U.S. Patents Nos. 7,161,506, 7,378,992, 7,415,530, 8,643,513, 9,054,728, and 9,116,908. The lawsuit has been transferred to the U.S. District Court for the Northern District of California for further proceedings. Realtime Data asserts that we have incorporated Realtime Data’s patented technology into our compression products and services. Realtime Data seeks unspecified monetary damages and other relief that the Court deems appropriate. On July 31, 2017, the District Court stayed proceedings in this litigation pending decision in Inter Partes Review proceedings currently before the Patent Trial and Appeal Board and relating to the Realtime patents. We believe the probability that this lawsuit will have a material adverse effect on our business, operating results or financial condition is remote.

NOTE 12: SUBSEQUENT EVENT

As of September 30, 2017, the Company was in violation of financial covenants applicable to the credit facility which constituted an event of default under the terms of the related agreements. On November 6, 2017, the Company entered into an amendment to our credit facility, including amendments to both the revolving credit agreement and the term loan agreement, to provide the Company with an additional $20.0 million through an incremental delayed draw term loan (“IDDTL”) and to retroactively and prospectively modify certain financial covenants. As a result, the covenant violations existing as of September 30, 2017 were cured. The amended credit facility agreements contains customary conditions to borrowings, events of default, restrictions, and positive and negative covenants, described below. Management’s current projections indicate, and management considers it probable, that the Company will be in compliance with covenants applicable under the amended credit facility, and be able to meet its obligations as they become due, for more than twelve months from the date these financial statements were filed. In the event the Company is unable to meet its projected results of operations, it may violate applicable covenants resulting in a default under the revised credit facility agreements, which could adversely impact the Company’s ability to meet its obligations as they come due.

Interest rates for borrowings under the amended revolving credit agreement were adjusted to increase the margin percentages by 0.50% for either option, and interest rates for borrowings under the term loan agreement increased from LIBOR plus 7.50% to LIBOR plus 8.25%.

Financial covenants for both the revolving credit agreement and term loan agreement, including the fixed charge coverage ratio, senior net leverage ratio and total leverage ratio, were amended. The fixed charge coverage ratio multiplier was decreased by 0.25 for all quarters through maturity. The senior net leverage ratio multiplier increases in each quarter from October 1, 2017 through September 30, 2018 ranging from 0.25 to 1.50, and remains unchanged for the subsequent periods through maturity. The total leverage ratio multiplier increases in each quarter from October 1, 2017 through September 30, 2018 ranging from 0.25 to 1.75, and remains unchanged for the subsequent periods through maturity.

The minimum restricted cash requirement under the revolving credit agreement was also amended. Minimum restricted cash set at initial closing remained unchanged at $20.0 million through November 15, 2017, the payment date of the convertible notes, and was decreased to $12.0 million from the convertible notes payment date through June 30, 2018. Subsequent to June 30, 2018 through maturity, the minimum restricted cash requirement will reset each quarter based upon achievement of certain EBITDA targets, to either $12.0 million or $20.0 million. In addition, the one-time minimum liquidity requirement at November 15, 2017 after payment of our 4.50% Notes decreased from $27.0 million to $20.0 million.

Principal outstanding under the IDDTL is payable in equal installments of $1.0 million in each quarter of fiscal 2019, $2.5 million in each quarter of fiscal 2020, with the remaining outstanding balance due on June 30, 2020. In addition, the amended agreement includes certain mandatory prepayment provisions triggered by the sale of indebtedness or issuance of equity securities with certain defined limits on the proceeds to be used to repay the term loans.

In connection with the amendment, the Company incurred aggregate closing and amendment fees of $0.8 million. Additionally, the Company issued warrants to the lenders to purchase 330,000 shares of the Company’s common stock at an exercise price of $0.01 per share. Under the terms of the warrant agreement, warrants to purchase 198,000 shares of the Company’s common stock were exercisable immediately upon issuance and the ability for the warrant holders to exercise the remaining warrants to purchase 132,000 shares of the common stock are contingent upon the occurrence of specified twelve month trailing EBITDA targets and if the IDDTL has not been repaid in full by March 31, 2019.

On November 8, 2017, the Company borrowed $20.0 million under the DDTL and $20.0 million under the IDDTL.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

FORWARD-LOOKING STATEMENT

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements in this report usually contain the words "will," "estimate," "anticipate," "expect," "believe," "project" or similar expressions and variations or negatives of these words. All such forward-looking statements including, but not limited to, (1) our goals, strategy and expectations for future operating performance including our goals for 2018 and our strategies for achieving those goals; (2) our expectations and beliefs regarding the storage market and the other markets in which we compete; (3) our belief that our existing cash and capital resources will be sufficient to meet all currently planned expenditures, debt service and sustain our operations for at least the next 12 months; (4) our expectations regarding our ongoing efforts to control our cost structure; (5) our expectations regarding the outcome of any litigation in which we are involved; and (6) our business goals, objectives, key focuses, opportunities and prospects, are inherently uncertain as they are based on management's expectations and assumptions concerning future events, and they are subject to numerous known and unknown risks and uncertainties. Readers are cautioned not to place undue reliance on these forward-looking statements, about which we speak only as of the date hereof. As a result, our actual results may differ materially from the forward-looking statements contained herein. Factors that could cause actual results to differ materially from those described herein include, but are not limited to those factors discussed under "Risk Factors" in Part II, Item 1A. Our forward-looking statements are not guarantees of future performance. We disclaim any obligation to update information in any forward-looking statement.

OVERVIEW

Quantum Corporation ("Quantum", the "Company", "us" or "we"), is a leading expert in scale-out storage, archive and data protection, providing solutions for capturing, sharing, managing and preserving digital assets over the entire data lifecycle. We believe our combination of expertise, innovation and platform independence enables us to solve scale-out storage and data protection challenges more easily, cost-effectively and securely than competitive offerings. We earn our revenue from the sale of products, systems and services through an array of channel partners and our sales force. Our products are sold under both the Quantum brand name and the names of various OEM customers. Our scale-out tiered storage solutions include StorNext software, StorNext appliances (which include StorNext disk storage and StorNext-related tape storage) and Lattus extended online storage systems. These products are designed to help customers manage large unstructured data sets in an information workflow, encompassing high-performance ingest, real-time collaboration, scalable processing, intelligent protection and high value monetization. Our data protection solutions include DXi deduplication backup systems and Scalar automated tape libraries that optimize backup and recovery, simplify management and lower cost. Our vmPRO virtual server backup and disaster recovery offerings protect virtual environments while minimizing the impact on servers and storage. In addition, we offer software for cloud backup and disaster recovery of physical and virtual servers. We have a full range of services and the global scale and scope to support our worldwide customer base.

Our goals for fiscal 2018 are driving profitable revenue growth and long-term shareholder value by capitalizing on new market opportunities, leveraging the strength of our technology, products and install base across scale-out tiered storage and data protection, continuing to expand our solutions portfolio and building new and enhanced channel and technology partnerships. In scale-out storage, we continue to focus on building our market presence beyond media and entertainment and expanding our presence in video surveillance, technical workflow and unstructured data archive use cases. Outside of scale-out storage, our strategy is to continue leveraging our technology leadership, our extensive customer base and our channel and technology partnerships to generate profits and cash from our offerings.

Results

We had total revenue of $107.1 million in the second quarter of fiscal 2018, a $27.7 million decrease from the second quarter of fiscal 2017. The change was primarily due to a decrease in our branded revenue of $25.3 million, or 22% and a decrease in revenue from OEM sales of $2.1 million, or 3%, in each case, as compared to the second quarter of fiscal 2017. Our gross margin percentage for the second quarter of fiscal 2018 was 40.9%, a decrease of 50 basis points from the second quarter of fiscal 2017 due to a shift in revenue mix. Higher margin service revenue decreased and lower margin products comprised a higher portion of our overall product revenue. In addition, we are experiencing overall pricing pressure in the storage market, which has resulted in increased discounting of our products.

We had total revenue of $223.9 million in the first six months of fiscal 2018, a $27.1 million decrease from the first six months of fiscal 2017. The change was primarily due to a decrease in our branded revenue of $22.8 million, or 11%, and a decrease from OEM sales of $5.4 million, or 28%, in each case, as compared to the first six months of fiscal 2017, resulting primarily from lower sales in the second quarter of fiscal 2018. Our gross margin percentage for the first six months of fiscal 2018 was 42.2%, a decrease of 20 basis points from the first six months of fiscal 2017 due to the changes in revenue mix in the second quarter of fiscal 2017 as previously discussed.

Operating expenses decreased $1.6 million, or 3%, from the second quarter of fiscal 2017 primarily relating to decreased research and development costs due to lower compensation and benefits as a result of headcount reductions. Our operating results declined by $10.3 million to a loss from operations of $4.8 million in the second quarter of fiscal 2018 mainly due to a decrease in revenue as compared to the second quarter of fiscal 2017. Operating expenses decreased $0.7 million, or 1%, from the first six months of fiscal 2017 due to lower compensation and benefits as a result of headcount reductions. Our operating results for the first six months of fiscal 2018 declined $11.0 million from the same period in fiscal 2017 mainly due to the decrease in revenue during the second quarter of fiscal 2018.

We used $0.3 million in cash from operations during the first six months of fiscal 2018 compared to $2.4 million of cash generated from operations during the first six months of fiscal 2017. The change was primarily due to $8.1 million in non-cash items, the largest of which were share-based compensation, depreciation and service parts lower of cost or market adjustment, and a $3.1 million change in assets and liabilities, including a $10.3 million decrease in accounts receivables, a $6.5 million increase in accounts payable, offset by a $9.3 million decrease in deferred revenue.

On November 6, 2017, the Company entered into an amendment to our credit facility, including amendments to both the revolving credit agreement and the term loan agreement, to provide the Company with an additional $20.0 million through an incremental delayed draw term loan ("IDDTL") and to retroactively and prospectively modify certain financial covenants. See Note 12, Subsequent Events, of the Notes to the Condensed Consolidated Financial Statements for details.

On November 9, 2017, we announced the departure of our Chief Executive Officer and the appointment of Adalio Sanchez, one of our directors, as interim CEO. Mr. Sanchez has agreed to serve as interim CEO while the Board undertakes a search for a new CEO.

RESULTS OF OPERATIONS

Revenue

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Product revenue	$ 63,606	59.4%	$ 88,575	65.7%	$ (24,969)	(28.2)%
Service revenue	34,165	31.9%	36,620	27.2%	(2,455)	(6.7)%
Royalty revenue	9,280	8.7%	9,547	7.1%	(267)	(2.8)%
Total revenue	$ 107,051	100.0%	$ 134,742	100.0%	$ (27,691)	(20.6)%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Product revenue	$ 135,224	60.4%	$ 160,401	63.9%	$ (25,177)	(15.7)%
Service revenue	69,411	31.0%	72,438	28.9%	$ (3,027)	(4.2)%
Royalty revenue	19,274	8.6%	18,187	7.2%	$ 1,087	6.0 %
Total revenue	$ 223,909	100.0%	$ 251,026	100.0%	$ (27,117)	(10.8)%

We believe changes in our product and service revenue continue to be driven by the changing storage environment, including market demand for scale-out tiered storage and changes in demand for data protection tape products. Revenue from scale-out tiered storage solutions services decreased $12.9 million, or 28% and $10.0 million, or 12% from the second quarter and first six months of fiscal 2017, respectfully, due to decreased sales of our scale-out storage related automation and media. Revenue from branded data protection products and services decreased $12.4 million, or 18% and $12.8, or 9% from the second quarter and first six months of fiscal 2017 due to decreased revenue from both disk backup and tape automation systems and media. OEM product and service revenue, which primarily is comprised of data protection automation systems, decreased $2.0 million, or 23% and $5.4 million, or 25% from the second quarter and first six months of fiscal 2017.

Product Revenue

Total product revenue, which includes sales of our hardware and software products sold through both our Quantum branded and OEM channels, decreased $25.0 million and $25.1 million in the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017, respectfully. Revenue from sales of branded products decreased 9% and 22% and revenue from sales of products to OEM customers decreased 6% and 23% in the second quarter and first six months of fiscal 2018 as compared to the second quarter and first six months of fiscal 2017, respectively.

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Tape automation systems	$ 18,580	17.4%	$ 23,844	17.7%	$ (5,264)	(22.1)%
Disk backup systems	3,679	3.4%	10,023	7.4%	(6,344)	(63.3)%
Devices and media	14,320	13.4%	14,564	10.8%	(244)	(1.7)%
Scale-out tiered storage*	27,027	25.2%	40,144	29.8%	(13,117)	(32.7)%
Total product revenue	$ 63,606	59.4%	$ 88,575	65.7%	$ (24,969)	(28.2)%

* Scale-out tiered storage was referred to as “scale-out storage solutions” in our previous filings.

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Tape automation systems	$ 42,161	18.8%	$ 45,282	18.0%	$ (3,121)	(6.9)%
Disk backup systems	10,358	4.6%	23,506	9.4%	(13,148)	(55.9)%
Devices and media	29,269	13.1%	27,318	10.9%	1,951	7.1 %
Scale-out tiered storage*	53,436	23.9%	64,295	25.6%	(10,859)	(16.9)%
Total product revenue	$ 135,224	60.4%	$ 160,401	63.9%	$ (25,177)	(15.7)%

* Scale-out tiered storage was referred to as “scale-out storage solutions” in our previous filings.

Product revenue from tape automation systems decreased in the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017 due to decreases in revenue from branded tape automation of $5.2 million and $1.1 million, respectively, as well as a decrease of $2.1 million and $1.1 million, respectively, in revenue from OEM tape automation systems.

Revenue from disk backup systems decreased in the second quarter and first six months of fiscal 2018 compared to the second quarter of fiscal 2017 primarily due to decreased sales of DXi 6900.

Product revenue from media and devices which includes tape drives and removable hard drives, and non-royalty media sales decreased during the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017 primarily due to lower sales of branded media.

Our scale-out tiered storage revenue decreased during the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017 primarily due to decreased sales of scale-out storage automation and media.

Service Revenue

Service revenue is primarily comprised of hardware service contracts, which are typically purchased by our customers to extend the warranty, or to provide faster service response times. Service revenue decreased during the second quarter and first six months of fiscal 2018 as compared to the second quarter and first six months of fiscal 2017 due to decreased service revenue from our data protection products.

Royalty Revenue

Royalty revenue increased during the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of 2017 due to a 7% decrease in media cartridge sales by our licensees due to changes in market demand since fiscal 2017.

Gross Margin

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	Gross margin %	September 30, 2016	Gross margin %	Change	Basis point change
Product gross margin	$ 15,045	23.7%	$ 24,223	27.3%	$ (9,178)	(360)
Service gross margin	19,448	56.9%	21,956	60.0%	(2,508)	(310)
Royalty gross margin	9,280	100.0%	9,547	100.0%	(267)	—
Gross margin	$ 43,773	40.9%	$ 55,726	41.4%	$ (11,953)	(50)

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	Gross margin %	September 30, 2016	Gross margin %	Change	Basis point change
Product gross margin	$ 35,714	26.4%	$ 45,917	28.6%	$ (10,203)	(220)
Service gross margin	39,604	57.1%	42,268	58.4%	(2,664)	(130)
Royalty gross margin	19,274	100.0%	18,187	100.0%	1,087	—
Gross margin	$ 94,592	42.2%	$ 106,372	42.4%	$ (11,780)	(20)

Product Margin

Product gross margin decreased 360 and 220 basis points, respectively, during the second quarter and first six months of fiscal 2018 as compared to the second quarter and first six months of fiscal 2017, primarily due to a shift in revenue mix from higher margin products to lower margin products.

Service Margin

Service gross margin decreased 310 and 130 basis points, respectively, in the second quarter and first six months of fiscal 2018 as compared to the second quarter and first six months of 2017, primarily due to decreased service revenue from our data protection products.

Royalty Margin

Royalties do not have related cost of sales and have a 100% gross margin. Therefore, royalty gross margin dollars vary directly with royalty revenue. Royalty revenue, and therefore related gross margin dollars, decreased in the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017.

Research and Development Expenses

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Research and development	$ 10,190	9.5%	$ 11,401	8.5%	$ (1,211)	(10.6)%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Research and development	$ 20,795	9.3%	$ 22,459	8.9%	$ (1,664)	(7.4)%

The decrease in research and development expense in the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017 was primarily due to the cost reduction actions taken in the first quarter of fiscal 2018, the benefits of which carried over into the second quarter of fiscal 2018, the largest of which was in compensation and benefits from lower staffing levels. Additionally, we had decreases of $0.2 million and $0.6 million in project materials in the second quarter and first six months of fiscal 2018, respectively, compared to the prior year periods.

Sales and Marketing Expenses

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Sales and marketing	$ 26,179	24.5%	$ 26,146	19.4%	$ 33	0.1%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Sales and marketing	$ 54,003	24.1%	$ 52,513	20.9%	$ 1,490	2.8%

The increase in sales and marketing expense in the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017 was primarily due to an increase in compensation and benefits of $0.8 million and $2.3 million, respectively, primarily related to a realignment of certain employees from general and administrative to sales and marketing roles. These increases were partially offset by decreased sales commission costs in the fiscal 2018 periods as compared to the same periods in fiscal 2017.

General and Administrative Expenses

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
General and administrative	$ 12,158	11.4%	$ 12,572	9.3%	$ (414)	(3.3)%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
General and administrative	$ 24,667	11.0%	$ 25,532	10.2%	$ (865)	(3.4)%

The decrease in general and administrative expense in the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017 was primarily due to the realignment of certain employees' roles to sales and marketing impacting compensation and benefits costs and a restructuring of our information technology group that reduced headcount and eliminated several software licenses. Additionally, a $0.3 million reduction in our asset retirement obligation liability reduced facilities operating expenses in the second quarter of fiscal 2018 as compared to the second quarter of fiscal 2017. These reductions were offset by $0.7 million of consulting fees incurred in connection with Board initiatives in the second quarter of fiscal 2018.

Restructuring Charges

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Restructuring charges	$ 31	0.0%	$ 15	0.0%	$ 16	106.7%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Restructuring charges	$ 2,366	1.1%	$ 2,067	0.8%	$ 299	14.5%

For the first six months of fiscal 2018, restructuring charges were due to $1.6 million of severance and benefits costs incurred as a result of our Fiscal 2018 Restructuring Plan and $0.8 million of facilities restructuring charges due to a change in estimate of sublease timing and related expenses for our facilities included in prior restructuring plans. The vast majority of which occurred in the first quarter of fiscal 2018.

For further information regarding our restructuring actions, refer to Note 6 “Restructuring Charges” of the Notes to the Condensed Consolidated Financial Statements.

Other Income (Expense)

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Other income (expense)	$ 77	0.1%	$ 10	0.0%	$ 67	670.0%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Other income (expense)	$ 175	0.1%	$ 166	0.1%	$ 9	5.4%

The increase in other income and expense in the second quarter and first six months in fiscal 2018 compared to the second quarter and first six months of fiscal 2017 was primarily due to an increase in interest income related to our long-term restricted cash balance which originated in the third quarter of fiscal 2017.

Interest Expense

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Interest expense	$ 2,617	2.4%	$ 1,485	1.1%	$ 1,132	76.2%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of revenue	September 30, 2016	% of revenue	Change	% Change
Interest expense	$ 5,175	2.3%	$ 2,993	1.2%	$ 2,182	72.9%

The increase in interest expense for the second quarter and first six months of fiscal 2018 compared to the second quarter and first six months of fiscal 2017 was primarily due to interest related to outstanding amounts under our credit facility which we entered into in the third quarter of fiscal 2017.

Income Taxes

(Dollars in thousands)	Three Months Ended					
	September 30, 2017	% of pre-tax loss	September 30, 2016	% of pre-tax income	Change	% Change
Income tax provision (benefit)	$ 499	(6.8)%	$ 45	1.1%	$ 454	1,008.9%

(Dollars in thousands)	Six Months Ended					
	September 30, 2017	% of pre-tax loss	September 30, 2016	% of pre-tax income	Change	% Change
Income tax provision (benefit)	$ (741)	6.0%	$ 422	43.3%	$ (1,163)	(275.6)%

The income tax provision (benefit) reflects expenses for foreign income taxes and state taxes. The income tax benefit for the second quarter and first six months of fiscal 2018 as compared to an income tax provision for the second quarter and first six months of fiscal 2017 was due to the release of $1.7 million of an uncertain tax position liability upon the effective settlement with the German taxing authorities of tax audits of our German subsidiary. We have provided a full valuation allowance against our U.S. net deferred tax assets due to our history of net losses, difficulty in predicting future results and our conclusion that we cannot rely on projections of future taxable income to realize the deferred tax assets.

Significant management judgment is required in determining our deferred tax assets and liabilities and valuation allowances for purposes of assessing our ability to realize any future benefit from our net deferred tax assets. We intend to maintain this valuation allowance until sufficient positive evidence exists to support a reversal or decrease in this allowance. Future income tax expense will be reduced to the extent that we have sufficient positive evidence to support a reversal of, or decrease in, our valuation allowance.

Share-based Compensation

The following table summarizes share-based compensation expense within our Condensed Consolidated Statements of Operations (dollars in thousands):

	Three Months Ended			
	September 30, 2017	September 30, 2016	Change	% Change
Cost of revenue	$ 201	$ 234	$ (33)	(14.1)%
Research and development	245	333	(88)	(26.4)%
Sales and marketing	633	606	27	4.5 %
General and administrative	638	477	161	33.8 %
	$ 1,717	$ 1,650	$ 67	4.1 %

	Six Months Ended			
	September 30, 2017	September 30, 2016	Change	% Change
Cost of revenue	$ 418	$ 514	$ (96)	(18.7)%
Research and development	531	736	(205)	(27.9)%
Sales and marketing	1,153	1,218	(65)	(5.3)%
General and administrative	1,228	1,180	48	4.1 %
	$ 3,330	$ 3,648	$ (318)	(8.7)%

The decrease in share-based compensation expense in the first six months of fiscal 2018 compared to the first six months of fiscal 2017 was primarily due to a decrease in compensation related to restricted stock units resulting from a decrease in the number of outstanding restricted stock units.

LIQUIDITY AND CAPITAL RESOURCES

Capital Resources and Financial Condition

As of September 30, 2017, we had $9.5 million of cash and cash equivalents, which is comprised of cash deposits.

We continue to focus on improving our operating performance, including efforts to increase revenue and to control costs in order to improve margins, return to consistent profitability and generate positive cash flows from operating activities. We believe that our existing cash balances, cash flow from operating activities, and available borrowing capacity will be sufficient to meet all currently planned expenditures, debt service and contractual and other obligations as they become due, and to sustain operations for at least the next 12 months. This belief is dependent upon our ability to achieve gross margin projections and to control operating expenses in order to provide positive cash flow from operating activities. Should we be unable to meet our gross margin or expense objectives, it would likely have a material negative effect on our liquidity and capital resources.

The following is a description of our existing capital resources including outstanding balances, funds available to borrow and primary repayment terms including interest rates. As of September 30, 2017, we had outstanding borrowings of $57.1 million in aggregate principal amount of the 4.50% notes, $50.0 million under the term loan and $23.5 million under the revolving credit agreement.

On October 21, 2016 ("closing date"), we entered into a credit facility which includes a revolving credit and security agreement entered into with PNC Bank, National Association ("revolving credit agreement") and a term loan credit and security agreement entered into with TCW Asset Management Company LLC ("term loan agreement").

Revolving credit agreement

Under the revolving credit agreement, we have the ability to borrow the lesser of $80 million or the amount of the monthly borrowing base, which is reduced by $1.0 million due to outstanding letters of credit. Our borrowing base is established monthly. The revolving credit agreement also includes an uncommitted accordion in an amount up to $20 million. The revolving credit agreement matures on October 21, 2021. As of September 30, 2017, our availability under the revolving credit agreement was $19.8 million.

Borrowings under the revolving credit agreement bear interest at a rate per annum equal to, at our option, either (a) the greatest of (i) the base rate, (ii) the Federal funds rate plus 0.50% and (iii) the LIBOR rate based upon an interest period of 1 month plus 1.0%, plus an applicable margin of 1.50%, or (b) the LIBOR rate plus an applicable margin of 2.50%. The base rate is defined in the revolving credit agreement. We are required to pay a 0.375% commitment fee on undrawn amounts under the revolving credit agreement on a quarterly basis, which is recorded as interest expense in the period incurred. As of September 30, 2017, the weighted average interest rate on our revolving credit agreement was 5.39% and we paid $0.6 million of interest during the first six months of fiscal 2018.

The terms of the revolving credit agreement also require us to establish a minimum cash reserve balance of $20.0 million, which we have classified as long-term restricted cash. Up to $8.0 million of this amount is available to repay our 4.50% notes at maturity on November 15, 2017, subject to any amount so utilized being reestablished by April 1, 2018.

Term loan agreement

The term loan agreement provides for a $50 million secured term loan which we drew fully on the closing date and $20 million of a senior secured delay draw term loan ("DDTL"). Borrowings under the DDTL are restricted to only be used to redeem our 4.50% convertible subordinated notes due November 15, 2017. The term loan agreement matures on October 21, 2021. The principal amount outstanding under the term loan is to be repaid on a quarterly basis in an amount equal to 1.25% of the original principal amount beginning on March 31, 2018, with any remaining principal balance due on the maturity of the term loan.

Borrowings under the term loan agreement bear interest at a rate per annum equal to, at our option, either (a) the greatest of (i) 3.00%, (ii) the Federal funds rate plus 0.50%, (iii) the LIBOR rate based upon an interest period of one month plus 1.0% and (iv) the "prime rate" last quoted by the Wall Street Journal, plus a margin ranging from 6.00% to 7.25% based on the applicable senior net leverage ratio, or (b) the LIBOR rate plus 7.00% to 8.25% based on the applicable senior net leverage ratio. The senior net leverage ratio is defined in the term loan agreement. As of September 30, 2017, our interest rate on the term loan was 8.74% and we paid $3.0 million of interest during the first six months of fiscal 2018.

The revolving credit agreement and the term loan agreement contain certain financial covenants and customary events of default for such securities. Financial covenants include a fixed charge coverage ratio, senior net leverage ratio, total leverage ratio and a minimum cash reserve balance. Additionally, the revolving credit agreement includes a one time liquidity assessment requiring a minimum liquidity of not less than $27.0 million immediately following repayment of our 4.50% convertible subordinated notes. There is a blanket lien on all of our assets under the revolving credit agreement and term loan agreement.

As of September 30, 2017, the Company was in violation of financial covenants applicable to the credit facility which constituted an event of default under the terms of the related agreements. On November 6, 2017, the Company entered into an amendment to our credit facility, including amendments to both the revolving credit agreement and the term loan agreement, to provide the Company with an additional $20.0 million through an incremental delayed draw term loan ("IDDTL") and to retroactively and prospectively modify certain financial covenants. As a result, the covenant violations existing as of September 30, 2017 were cured. The amended credit facility agreements contains customary conditions to borrowings, events of default, restrictions, and positive and negative covenants, described below. Management's current projections indicate, and management considers it probable, that the Company will be in compliance with covenants applicable under the amended credit facility, and be able to meet its obligations as they become due, for more than twelve months from the date these financial statements were filed. In the event the Company is unable to meet its projected results of operations, it may violate applicable covenants resulting in a default under the revised credit facility agreements, which could adversely impact the Company's ability to meet its obligations as they come due.

Interest rates for borrowings under the amended revolving credit agreement were adjusted to increase the margin percentages by 0.50% for either option, and interest rates for borrowings under the term loan agreement increased from LIBOR plus 7.50% to LIBOR plus 8.25%.

Principal outstanding under the IDDTL is payable in equal installments of $1.0 million in each quarter of fiscal 2019, $2.5 million in each quarter of fiscal 2020, with the remaining outstanding balance due on June 30, 2020. In addition, the amended agreement includes certain mandatory prepayment provisions triggered by the sale of indebtedness or issuance of equity securities with certain defined limits on the proceeds to be used to repay the terms loans.

Financial covenants for both the revolving credit agreement and term loan agreement, including the fixed charge coverage ratio, senior net leverage ratio and total leverage ratio were amended. The fixed charge coverage ratio multiplier was decreased by 0.25 for all quarters through maturity. The senior net leverage ratio multiplier increases in each quarter from October 1, 2017 through September 30, 2018 ranging from 0.25 to 1.50, and remains unchanged for the subsequent periods through maturity. The total leverage ratio multiplier increases in each quarter from October 1, 2017 through September 30, 2018 ranging from 0.25 to 1.75, and remains unchanged for the subsequent periods through maturity.

The minimum restricted cash requirement under the revolving credit agreement was also amended. Minimum restricted cash set at initial closing remained unchanged at $20.0 million through November 15, 2017, the payment date of the convertible notes, and was decreased to $12.0 million from the convertible notes payment date through June 30, 2018. Subsequent to June 30, 2018 through maturity, the minimum restricted cash requirement will reset each quarter based upon achievement of certain EBITDA targets, to either $12.0 million or $20.0 million. In addition, the one-time minimum liquidity requirement at November 15, 2017 after payment of our 4.50% Notes decreased from $27.0 million to $20.0 million.

On November 8, 2017, the Company borrowed $20.0 million under the DDTL and $20.0 million under the IDDTL, $20.0 million of which will be used to repay the convertible notes as described below.

Convertible subordinated debt

In the third quarter of fiscal 2013, we issued $70 million aggregate principal amount of 4.50% convertible subordinated notes (the "4.50% Notes") due November 15, 2017 of which $57.1 million was outstanding at September 30, 2017. These notes are convertible into shares of our common stock until November 14, 2017 at the option of the holders at a conversion rate of 75.896 shares per $1,000 principal amount, a conversion price of approximately $13.20 per share. The 4.50% Notes require semi-annual interest payments paid on May 15 and November 15 of each year and have no early call provisions. We paid $1.5 million of interest on the 4.50% Notes in the first six months of fiscal 2018. We plan to pay off our 4.50% Notes using $20.0 million of proceeds from the DDTL, up to $8.0 million of accessible restricted cash, capacity under our credit facility, each as described above, and, as needed, available cash balances. Accordingly, our cash interest expense is expected to increase following the repayment of the 4.50% Notes.

Generation of positive cash flow from operating activities has historically been, and will continue to be, an important source of cash to fund operating needs and meet our current and long-term obligations. We may choose to raise additional capital if strategically advantageous to the company. We can provide no assurance that such additional financing would be available to us on commercially acceptable terms or at all.

We have taken many actions in recent years and are continuing to take such actions to offset the negative impact of economic uncertainty and slow economic growth and their impact on the data protection and scale-out storage markets. We cannot provide assurance that the actions we have taken in the past or any actions we may take in the future will ensure a consistent, sustainable and sufficient level of cash flow from operating activities to fund, sustain or grow our business. Certain events that are beyond our control, including prevailing economic, competitive and industry conditions, shifts in customer purchasing behavior or risks inherent in our supply chain as well as various legal and other disputes, may prevent us from achieving these financial objectives. Any inability to achieve consistent and sustainable cash flow from operating activities could result in:

(i) Restrictions on our ability to manage or fund our existing operations, which could result in a material and adverse effect on our future results of operations and financial condition.

(ii) Unwillingness on the part of the lenders to:

- Provide a waiver or amendment for any covenant violations we may experience in future periods, thereby triggering a default under, or termination of, the credit facility, or
- Approve any amendments to the credit facility we may seek to obtain in the future.

Any lack of renewal, waiver or amendment, if needed, could result in the revolving credit line becoming unavailable to us and any amounts outstanding on the revolving credit agreement and term loan agreement becoming immediately due and payable.

(iii) Further impairment of our financial flexibility, which could require us to raise additional funding in the capital markets sooner than we otherwise would, and on terms less favorable to us, if available at all.

In addition, the credit facility is collateralized by a pledge of all of our assets. If we were to default and were unable to obtain a waiver for such default, the lenders would have the right to foreclose on our assets in order to satisfy our obligations under these agreements.

Any of the above mentioned items, individually or in combination, could have a material and adverse effect on our financial position, results of operations, cash flows, financial condition, and our ability to pay back our debt obligations as they become due.

Cash Flows

Following is a summary of cash flows from operating, investing and financing activities (in thousands):

	Six Months Ended	
	September 30, 2017	September 30, 2016
Net income (loss)	$ (11,537)	$ 552
Net cash provided by (used in) operating activities	(304)	2,381
Net cash used in investing activities	(872)	(1,254)
Net cash used in financing activities	$ (2,360)	$ (5,474)

Six Months Ended September 30, 2017

The $10.9 million difference between net loss and net cash used in operating activities during the six months ended September 30, 2017 was due to $8.1 million in non-cash items, the largest of which were share-based compensation, depreciation and service parts lower of cost or market adjustment, and a $3.1 million change in assets and liabilities, including a $10.6 million decrease in accounts receivable, a $6.5 million increase in accounts payable, offset by a $9.3 million decrease in deferred revenue. The changes in accounts receivable and accounts payable were due to timing of payments and receipts of trade receivables. The decrease in deferred revenue was largely due to a decrease in deferred service contracts, primarily driven by seasonality. The majority of our service contracts renew in our third and fourth fiscal quarters.

Cash used in investing activities was due to purchases of property and equipment offset by a return of capital on an investment.

Cash used in financing activities was primarily due to $4.2 million of net repayments on the revolving credit agreement.

Six Months Ended September 30, 2016

The $2.6 million difference between net income and net cash provided by operating activities during the six months ended September 30, 2016 was primarily due to $9.5 million in non-cash items, the largest of which were share-based compensation, depreciation and service parts lower of cost or market adjustment, and a $4.9 million increase in accounts payable. These were partially offset by a $9.2 million decrease in deferred revenue. The increase in accounts payable was primarily due to the timing of payments. The decrease in deferred revenue was largely due to a decrease in deferred service contracts revenue, primarily driven by seasonality. The majority of our service contracts renew in our third and fourth fiscal quarters.

Cash used in investing activities was primarily due to $ 1.2 million of property and equipment purchases. Equipment purchases were primarily for engineering equipment for additional IT infrastructure upgrades and equipment for product development.

Cash used in financing activities was primarily due to $5.5 million of net repayments of borrowings under the Wells Fargo credit agreement.

Off Balance Sheet Arrangements

Commitments to Purchase Inventory

We use contract manufacturers for our manufacturing operations. Under these arrangements, the contract manufacturer procures inventory to manufacture products based upon our forecast of customer demand. We have similar arrangements with certain other suppliers. We are responsible for the financial impact on the supplier or contract manufacturer of any reduction or product mix shift in the forecast relative to materials that the third party had already purchased under a prior forecast. Such a variance in forecasted demand could require a cash payment for inventory in excess of current customer demand or for costs of excess or obsolete inventory. As of September 30, 2017, we issued non-cancelable commitments for $54.5 million to purchase inventory from our contract manufacturers and suppliers.

Contractual obligations

The table below summarizes our contractual obligations as of September 30, 2017 (in thousands):

	Payments Due by Period				
	Less than 1 year	1 – 3 years	3 –5 years	More than 5 years	Total
Long-term debt	$ 7,458	$ 22,966	$ 64,518	$ —	$ 94,942
Convertible subordinated debt	57,411	—	—	—	57,411
Purchase obligations	54,501	—	—	—	54,501
Operating leases:					
Lease payments	9,019	13,726	4,833	1,706	29,284
Sublease rental income	(1,482)	(1,969)	(327)	—	(3,778)
Total operating leases	7,537	11,757	4,506	1,706	25,506
Total contractual cash obligations	$ 126,907	$ 34,723	$ 69,024	$ 1,706	$ 232,360

The contractual commitments shown above include $21.7 million in interest payments on our various debt obligations.

CRITICAL ACCOUNTING ESTIMATES AND POLICIES

Our discussion and analysis of the financial condition and results of operations are based on the accompanying unaudited Condensed Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these statements requires us to make significant estimates and judgments about future uncertainties that affect reported assets, liabilities, revenues and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions believed to be reasonable under the circumstances. In the event that estimates or assumptions prove to be different from actual results, adjustments are made in subsequent periods to reflect more current information. The accounting estimates requiring our most difficult, subjective or complex judgments because these matters are inherently uncertain are unchanged. These critical accounting estimates and policies have been disclosed in our Annual Report on Form 10-K for the year ended March 31, 2017 filed with the Securities and Exchange Commission (“SEC”) on May 31, 2017.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

RISK

Interest Rate Risk

Changes in interest rates affect interest income earned on our cash equivalents. During the first six months of fiscal 2018, interest rates on these funds were under 1.0%, and we earned negligible amounts in interest income, thus a hypothetical 100 basis point decrease in interest rates would have an insignificant impact on interest income.

In addition, changes in interest rates affect interest expense on our borrowings under the revolving loan agreement and the term loan agreement. Under the term loan agreement and the revolving loan agreement, we had $50.0 million and $23.5 million outstanding borrowings at an interest rate of 8.74% and 5.39%, respectively, as of September 30, 2017. A hypothetical 100 basis point would result in an approximate $0.7 million change in our annual interest expense on our outstanding borrowings as of September 30, 2017.

Our convertible subordinated notes have a fixed interest rate, thus a hypothetical 100 basis point have no impact on our interest expense. However, as discussed above, following repayment of these notes, our exposure to interest rate risk will likely increase as we have increased amounts outstanding under the term loan agreement and revolving credit agreement.

For a further description of our outstanding debt, see the section captioned “Liquidity and Capital Resources” in Part I, Item 2 “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Foreign Exchange Risk

We conduct business in certain international markets, primarily in the European Union. Because we operate in international markets, we have exposure to different economic climates, political arenas, tax systems and regulations that could affect foreign exchange rates. Our primary exposure to foreign currency risk relates to transacting in foreign currency and recording the activity in U.S. dollars. Changes in exchange rates between the U.S. dollar and these other currencies will result in transaction gains or losses, which we recognize in our Condensed Consolidated Statements of Operations.

To the extent practicable, we minimize our foreign currency exposures by maintaining natural hedges between our assets and liabilities and revenues and expenses denominated in foreign currencies. We have entered into foreign currency option contracts in the past and we may enter into foreign exchange derivative contracts or other economic hedges in the future. Our goal in managing our foreign exchange risk is to reduce to the extent practicable our potential exposure to the changes that exchange rates might have on our earnings. We make a number of estimates in conducting hedging. In the event those estimates differ significantly from actual results, we could experience greater volatility as a result of our hedges.

ITEM 4. CONTROLS AND PROCEDURES

(a) *Evaluation of disclosure controls and procedures.* We evaluated 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 Exchange Act as of the end of the period covered by the Quarterly Report on Form 10-Q. This control evaluation was performed under the supervision and with the participation of management, including our principal executive officer (‘PEO’) and our principal financial officer (‘PFO’). Disclosure controls and procedures are designed to ensure that information required to be disclosed in our reports filed under the Exchange Act, such as this Quarterly Report on Form 10-Q, is recorded, processed, summarized and reported within the time periods specified by the SEC. Disclosure controls are also designed to ensure that such information is accumulated and communicated to our management, including the PEO and PFO, as appropriate, to allow timely decisions regarding the required disclosure. Based on the controls evaluation, our PEO and PFO have concluded that as of the end of the period covered by this Quarterly Report on Form 10-Q, our disclosure controls were effective.

(b) *Changes in internal control over financial reporting.* There was no change in our internal control over financial reporting that occurred during the fiscal quarter covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Crossroads

On February 18, 2014, Crossroads Systems, Inc. (“Crossroads”) filed a patent infringement lawsuit against Quantum in the U.S. District Court for the Western District of Texas, alleging infringement of U.S. patents 6,425,035 and 7,934,041. An amended complaint filed on April 15, 2014 also alleged infringement of U.S. patent 7,051,147. Crossroads asserts that we have incorporated Crossroads' patented technology into our StorNext QX and Q-Series lines of disk array products and into our Scalar libraries. Crossroads seeks unspecified monetary damages and injunctive relief. Crossroads has already dismissed all claims of infringement with respect to the StorNext QX and Q-Series products. In July and September of 2014, we filed for inter partes review of all three asserted Crossroads patents before the Patent Trial and Appeal Board and a review has been initiated for all claims. On June 16, 2015, the U.S. District Court, Western District of Texas stayed the Crossroads trial proceedings pending resolution of the inter partes review proceedings. On January 29, 2016, the Patent Trial and Appeal Board issued decisions on the inter partes reviews for U.S. patents 6,425,035 and 7,051,147, ordering all claims of both patents to be unpatentable. On March 17, 2016, the Patent Trial and Appeal Board issued a decision on the inter partes review for U.S. patent 7,934,041, ordering all claims to be unpatentable. On March 31, 2016, Crossroads filed Notices of Appeal in each of the inter partes review decisions. On June 6, 2017, the U.S. Court of Appeals for the Federal Circuit affirmed the PTAB decision finding all claims of all patents to be unpatentable. On July 6, 2017, Crossroads filed a petition for a rehearing en banc before the

Federal Circuit. On August 8, 2017, the Federal Circuit denied Crossroads' petition. We believe the probability that this lawsuit will have a material adverse effect on our business, operating results or financial condition is remote.

Realtime Data

On July, 22 2016, Realtime Data LLC d/b/a IXO("Realtime Data") filed a patent infringement lawsuit against Quantum in the U.S. District Court for the Eastern District of Texas, alleging infringement of U.S. Patents Nos. 7,161,506, 7,378,992, 7,415,530, 8,643,513, 9,054,728, and 9,116,908. The lawsuit has been transferred to the U.S. District Court for the Northern District of California for further proceedings. Realtime Data asserts that we have incorporated Realtime Data's patented technology into our compression products and services. Realtime Data seeks unspecified monetary damages and other relief that the Court deems appropriate. On July 31, 2017, the District Court stayed proceedings in this litigation pending decision in Inter Partes Review proceedings currently before the Patent Trial and Appeal Board and relating to the Realtime patents. We believe the probability that this lawsuit will have a material adverse effect on our business, operating results or financial condition is remote.

ITEM 1A. RISK FACTORS

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED BELOW, TOGETHER WITH ALL OF THE OTHER INFORMATION INCLUDED IN THIS QUARTERLY REPORT ON FORM 10-Q. THE RISKS AND UNCERTAINTIES DESCRIBED BELOW ARE NOT THE ONLY ONES FACING QUANTUM. ADDITIONAL RISKS AND UNCERTAINTIES NOT PRESENTLY KNOWN TO US OR THAT ARE CURRENTLY DEEMED IMMATERIAL MAY ALSO IMPAIR OUR BUSINESS AND OPERATIONS. THIS QUARTERLY REPORT ON FORM 10-Q CONTAINS "FORWARD-LOOKING" STATEMENTS THAT INVOLVE RISKS AND UNCERTAINTIES. PLEASE SEE "MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS" FOR ADDITIONAL DISCUSSION OF THESE FORWARD-LOOKING STATEMENTS.

We derive significant revenue from products incorporating tape technology. Our future results of operations depend in part on continued market acceptance and use of products employing tape technology, and decreases in the market have materially and adversely impacted our business, financial condition and results of operations. In addition, if we are unable to compete with new or alternative storage technologies, our business, financial condition and results of operations could be materially and adversely affected.

We currently derive significant revenue from products that incorporate some form of tape technology, and we expect to continue to derive significant revenue from these products in the next several years. As a result, our future results of operations depend in part on continued market acceptance and use of products employing tape technology. We believe that the storage environment is changing, including reduced demand for tape products. Decreased market acceptance or use of products employing tape technology has materially and adversely impacted our business, financial condition and results of operations and we expect that our revenues from tape products will continue to decline, which could materially and adversely impact our business, financial condition and results of operations in the future.

Disk products as well as various software solutions and alternative technologies continue to gain broader market acceptance. We expect that, over time, many of our tape customers will continue to migrate toward these products and solutions and that revenue from these products and solutions will generate a greater proportion of our revenue. While we are making targeted investments in software, disk backup systems and other alternative technologies, these markets are characterized by rapid innovation, evolving customer demands and strong competition, including competition with several companies who are also significant customers. If we are not successful in our efforts, we may not be able to retain customers or attract new customers and our business, financial condition and results of operations could be materially and adversely affected.

We have significant indebtedness, which imposes upon us debt service obligations, and our credit facility contains various operating and financial covenants that limit our discretion in the operation of our business. If we are unable to generate sufficient cash flows from operations and overall results of operations to meet these debt obligations or remain in compliance with the covenants and fund our ongoing operations, our business, financial condition and results of operations could be materially and adversely affected.

Our level of indebtedness presents significant risks to our business and investors, both in terms of the constraints that it places on our ability to operate our business and because of the possibility that we may not generate sufficient cash and results of operations to remain in compliance with our covenants and pay the principal and interest on our indebtedness as it becomes due. For further description of our outstanding debt, see the section captioned "Liquidity and Capital Resources" in Part I, Item 2 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

As a result of our indebtedness:

- Our ability to invest in the growth areas of our business is constrained by the financial covenants contained in our credit facility, which require us to maintain a minimum fixed charge coverage ratio and liquidity levels;
- We must dedicate a portion of our cash flow from operations and other capital resources to debt service, thereby reducing our ability to fund working capital, capital expenditures, research and development and other cash requirements;
- Our flexibility in planning for, or reacting to, changes and opportunities in the markets in which we compete may be limited, including our ability to engage in mergers and acquisitions activity, which may place us at a competitive disadvantage;
- We are subject to mandatory field audits and control of cash receipts by the lenders if we do not maintain liquidity above certain thresholds;
- We may be more vulnerable to adverse economic and industry conditions; and
- We may be unable to make payments on other indebtedness or obligations.

Our credit facility contains restrictive covenants that require us to comply with and maintain certain liquidity levels and a minimum fixed charge coverage ratio, as well as restrict our ability, subject to certain thresholds, to:

- Incur debt;
- Incur liens;
- Make acquisitions of businesses or entities or sell certain assets;
- Make investments, including loans, guarantees and advances;
- Engage in transactions with affiliates;
- Pay dividends or engage in stock repurchases; and
- Enter into certain restrictive agreements.

The recent weakness we have seen in the general storage and backup market, and the resulting underperformance of our data protection business, which is the primary driver of our overall cash flow and operating income, has placed increased pressure on our ability to meet our liquidity and fixed charge coverage ratio covenants. If we are not successful in implementing planned changes to our business or our results turn out to be lower than expected, we may violate covenants in our credit facility agreements, which could result in a default under our credit facility agreements. For example, in the three months ended September 30, 2017, we violated certain covenants under our credit facility which resulted in an event of default. Although we retroactively and prospectively modified certain covenants to cure the covenant breach and reduce the risk of another breach, we cannot be sure that we will not breach our covenants or any other covenants or that our lenders will not seek to enforce any or all remedies against us, including accelerating our obligations under our credit facility.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the convertible notes, or to make cash payments in connection with our convertible notes or our credit facility, as well as our ability to fund our ongoing operations and invest in our business depends on our ability to generate cash in the future. Our ability to generate cash depends on future performance, which is subject to economic, among other things, financial, competitive and other factors beyond our control. Further, as our indebtedness reaches maturity, we will be required to make large cash payments or adopt one or more alternatives, such as restructuring indebtedness or obtaining additional debt or equity financing on terms that may be onerous or highly dilutive. We plan to pay off our 4.50% Notes using our excess capacity under our credit facility as well as cash generated from operations. Accordingly, our cash interest expense will increase following the repayment of the notes and we will be required to repay all amounts as scheduled under the terms of the credit facility.
Our ability to restructure or refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may be unable to incur additional debt or refinance our existing debt on acceptable terms, if at all.

Our credit facility is collateralized by a pledge of substantially all of our assets. If we were to default and were unable to obtain a waiver for such a default, the lenders would have a right to foreclose on our assets in order to satisfy our obligations under these agreements. Any such action on the part of the lenders against us could have a materially adverse impact on our business, financial condition and results of operations.

We rely on indirect sales channels to market and sell our branded products. Therefore, the loss of or deterioration in our relationship with one or more of our resellers or distributors, or our inability to establish new indirect sales channels to drive growth of our branded revenue, especially for disk backup systems and scale-out tiered storage, could negatively affect our results of operations.

We sell the majority of our branded products to distributors such as Ingram Micro, Inc. and others, value-added resellers ("VARs") and direct marketing resellers ("DMRs") such as CDW Corporation, who in turn sell our products to end users. The success of these sales channels is hard to predict, particularly over time, and we have no purchase commitments or long-term orders from them that assure us of any baseline sales through these channels. Several of our resellers carry competing product lines that they may promote over our products. A reseller might not continue to purchase our products or market them effectively, and each reseller determines the type and amount of our products that it will purchase from us and the pricing of the products that it sells to end user customers. Establishing new indirect sales channels is an important part of our strategy to drive growth of our branded revenue and as our business shifts toward our branded products, these indirect sales channels will have increasing importance to our business.

As we introduce new products and solutions, our relationship with channel partners that historically have sold other products and solutions that now compete with our new offerings could be adversely impacted. For example, we introduced QXS hybrid storage beginning in fiscal 2016 causing us to more directly compete for primary storage sales with channel partners that sold other primary storage products.

Certain of our contracts with customers contain "most favored nation" pricing provisions mandating that we offer our products to these customers at the lowest price offered to other similarly situated customers. In addition, sales of our enterprise products, and the revenue associated with the on-site service of those products, are somewhat concentrated in specific customers, including government agencies and government-related companies. Any failure of such customers and agencies to continue purchasing products in the same quantities and in the same time frames as they have in the past could affect our results of operations. Our results of operations could be adversely affected by any number of factors including:

- A change in competitive strategy that adversely affects a reseller's willingness or ability to distribute our products;
- The reduction, delay or cancellation of orders or the return of a significant amount of products;
- Our inability to gain traction in developing new indirect sales channels for our branded products;
- The loss of one or more of such distributors or resellers;
- Any financial difficulties of such distributors or resellers that result in their inability to pay amounts owed to us; or
- Changes in requirements or programs that allow our products to be sold by third parties to government customers.

If our products fail to meet our or our customers' specifications for quality and reliability, we may face liability and reputational or financial harm which may adversely impact our results of operations and our competitive position may suffer.

Although we place great emphasis on product quality, we may from time to time experience problems with the performance of our products, which could result in one or more of the following:

- Increased costs related to fulfillment of our warranty obligations;
- The reduction, delay or cancellation of orders or the return of a significant amount of products;
- Focused failure analysis causing distraction of the sales, operations and management teams; or
- The loss of reputation in the market and customer goodwill.

These factors could cause our business, financial condition and results of operations to be materially and adversely affected.

In addition, we face potential liability for performance problems of our products because our end users employ our storage technologies for the storage and backup of important data and to satisfy regulatory requirements. Loss of this data could cost our customers significant amounts of money, directly and indirectly as a result of lost revenues, intellectual property or proprietary business information or other harm to their business. We could also potentially face claims for product liability from our customers if our products cause property damage or bodily injury. Although we maintain technology errors and omissions liability and general liability insurance, our insurance may not cover potential claims of these types or may not be adequate to indemnify us for all liability that may be imposed. Any imposition of liability or litigation costs that are not covered by insurance or is in excess of our insurance coverage could harm our business.

A large percentage of our sales are to a few customers, some of which are also competitors, and these customers generally have no minimum or long-term purchase commitments. The loss of, or a significant reduction in demand from, one or more key customers could materially and adversely affect our business, financial condition and results of operations.

Our sales have been and continue to be concentrated among a few customers because under our business model, we sell to OEMs, distributors, VARs and DMRs to reach end user customers. Furthermore, customers are not obligated to purchase any minimum product volume, and our relationships with customers are terminable at will. Revenue from OEM customers has decreased in recent years. If we experience further declines in revenue from OEM customers or any of our other large customers, our business, financial condition and results of operations could be materially and adversely affected. In addition, certain of our large customers are also our competitors, and such customers could decide to reduce or terminate their purchases of our products for competitive reasons.

Some of our tape and disk products are incorporated into larger storage systems or solutions that are marketed and sold to end users by large OEM customers as well as VARs, channel partners and other distributors. Because of this, we have limited market access to these end users, limiting our ability to reach and influence their purchasing decisions. These market conditions further our reliance on these OEM and other large customers such as distributors and VARs. Thus if they were to significantly reduce, cancel or delay their orders with us, our results of operations could be materially and adversely affected.

A portion of our sales are to various agencies and departments of the U.S. federal government, and funding cuts to federal spending can adversely impact our revenue. The American Taxpayer Relief Act of 2012 implemented automatic spending cuts beginning March 1, 2013. Between October 1, 2013 and October 16, 2013, the U.S. government partial shutdown caused reductions, cancellations and delayed orders. Future spending cuts by the U.S. federal government or changes in its procurement processes or criteria or changes in government budget priorities could decrease revenue from sales to the federal government that could materially and adversely affect our results of operations.

Our results of operations depend on a limited number of products and on new product introductions, which may not be successful, in which case our business, financial condition and results of operations may be materially and adversely affected.

A limited number of products comprise a significant majority of our sales, and due to rapid technological change in the industry, our future results of operations depend on our ability to develop and successfully introduce new products. To compete effectively, we must continually improve existing products and introduce new ones. We have devoted and expect to continue to devote considerable management and financial resources to these efforts. We cannot provide assurance that:

- We will introduce new products in the time frame we are forecasting;
- We will not experience technical, quality, performance-related or other difficulties that could prevent or delay the introduction and market acceptance of new products;
- Our new products will achieve market acceptance and significant market share, or that the markets for these products will continue or grow as we have anticipated;
- Our new products will be successfully or timely qualified with our customers by meeting customer performance and quality specifications which must occur before customers will place large product orders; or
- We will achieve high volume production of these new products in a timely manner, if at all.

If we are not successful in timely completion of our new product qualifications and then ramping sales to our key customers, our revenue and results of operations could be adversely impacted. In addition, if the quality of our products is not acceptable to our customers, this could result in customer dissatisfaction, lost revenue and increased warranty and repair costs.

We continue to face risks related to economic uncertainty and slow economic growth.

Uncertainty about economic conditions poses a risk as businesses may further reduce or postpone spending in response to reduced budgets, tightening of credit markets, negative financial news and declines in income or asset values which could adversely affect our business, financial condition and results of operations. The slow economic growth in recent years along with periods of economic uncertainty in various countries around the world has had a material and adverse impact on our business and our financial condition.

In particular, we have experienced reduced demand for IT products and services overall and more specifically for products with tape technology in the data protection market. We continue to face risks related to economic conditions in Europe, including concerns about sovereign debt, and uncertainty related to the United Kingdom's exit from the European Union and related political matters, which could negatively impact the U.S. and global economies and adversely affect our financial results. In addition, as a result of market conditions or other factors our ability to access capital markets may be restricted, which could have an impact on our ability to react to changing economic and business conditions and could also materially and adversely affect our results of operations and financial condition.

Competition may intensify in the data protection market as a result of competitors introducing products based on new technology standards and merger and acquisition activity, which could materially and adversely affect our business, financial condition and results of operations.

Our competitors in the data protection market for disk backup systems and virtual machine solutions are aggressively trying to advance and develop new technologies and products to compete against our technologies and products and we face the risk that customers could choose competitor products over ours. Competition in our markets is characterized by technological innovation and advancement. As a result of competition and new technology standards, our sales or gross margins could decline, which could materially and adversely affect our business, financial condition and results of operations.

Technological developments and competition over the years in the tape automation market and in the storage market in general have resulted in decreased prices for tape automation products and product offerings. Pricing pressure is more pronounced in the tape automation market for entry-level products and less pronounced for enterprise products. Over time, the prices of our products and competitor products have decreased, but such products often incorporate new and/or different features and technologies than in prior years. We face risks that customers could choose competitor products over ours due to these features and technologies or due to pricing differences. We have managed pricing pressure by reducing production costs and/or adding features to increase value to maintain a certain level of gross margin for our tape automation systems. However, certain of our costs are fixed in the short term, so we may not be able to offset price decreases or reductions in demand sufficiently to maintain our profitability. In addition, if competition further intensifies, or if there is additional industry consolidation, our sales and gross margins for tape automation systems could decline, which could materially and adversely affect our business, financial condition and results of operations.

Industry consolidation and competing technologies with device products, which include tape drives and removable hard drives, have resulted in decreased prices and increasingly commoditized device products. We have exited certain portions of the device market and as a result have realized decreased sales of devices. We face risk of reduced shipments of our devices beyond our plans and could have reduced margins on these products, which could adversely impact our business, financial condition and results of operations.

Additionally, the competitive landscape could change due to merger and acquisition activity in the data protection market. Such transactions may impact us in a number of ways. For instance, they could result in:

- Competitors consolidating, having greater resources and becoming more competitive with us;
- Companies that we have not historically competed against entering into one or more of our primary markets and increasing competition in such market(s);
- Customers that are also competitors becoming more competitive with us and/or reducing their purchase of our products; and
- Competitors acquiring our current suppliers or business partners and negatively impacting our business model.

These transactions also create uncertainty and disruption in the market because whether a pending transaction will be completed, the timing of such a transaction and its degree of impact are often unknown. Given these factors and others, such merger and acquisition activity may materially and adversely impact our business, financial condition and results of operations.

Competition in the scale-out storage market is intense and introduction by competitors of products based on new technology standards and market consolidation could materially and adversely affect our business, financial condition and results of operations.

Competition in the scale-out storage market is characterized by technological innovation and advancement, including performance and scale features, and our competitors are aggressively trying to advance and develop new technologies and solutions. If we are unable to compete effectively in these markets and develop solutions that have features and technologies that our customers desire, including new technology standards, our sales from software solutions and appliances could decline, which could materially and adversely affect our business, financial condition and results of operations.

Additionally, the competitive landscape could change due to mergers and acquisitions among our competitors, customers and partners. Transactions such as these may impact us in a number of ways. For instance, they could result in:

- Competitors consolidating, having greater resources and becoming more competitive with us;
- Companies that we have not historically competed against entering into one or more of our primary markets and increasing competition in such market(s);
- Customers that are also competitors becoming more competitive with us and/or reducing their purchase of our products; and
- Competitors acquiring our current suppliers or business partners and negatively impacting our business model.

These transactions also create uncertainty and disruption in the market, because whether a pending transaction will be completed, the timing of such a transaction and its degree of impact are often unknown. Given these factors and others, such merger and acquisition activity may materially and adversely impact our business, financial condition and results of operations.

A significant decline in our media royalty or branded software revenues could materially and adversely affect our business, financial condition and results of operations.

Our media royalties or branded software revenues are relatively profitable and can significantly impact total company profitability. We receive media royalty revenue based on tape media cartridges sold by various tape media manufacturers and resellers. Under our license agreements with these companies, each of the licensees determines the pricing and number of units of tape media cartridges that it sells. Our media royalty revenue varies depending on the level of sales of the various media cartridge offerings sold by the licensees and other factors, including:

- The size of the installed base of devices and similar products that use tape media cartridges;
- The performance of our strategic licensing partners, which sell tape media cartridges;
- The relative growth in units of newer device products, since the associated media cartridges for newer products typically sell at higher prices than the media cartridges associated with older products;
- The media consumption habits and rates of end users;
- The pattern of device retirements; and
- The level of channel inventories.

Our media royalties depend on royalty rates and the quantity of media consumed in the market. We do not control licensee sales of these tape media cartridges. Reduced royalty rates, or a reduced installed device base using tape media cartridges, would result in further reductions in our media royalty revenue and could reduce gross margins. This could materially and adversely affect our business, financial condition and results of operations.

Our branded software revenues are also dependent on many factors, including the success of competitive offerings, our ability to execute on our product roadmap and our effectiveness at marketing and selling our branded software solutions directly or through our channel partners. Disruptions to any one of these factors could reduce our branded software revenues, which could materially and adversely affect our business, financial condition and results of operations.

Some of our products contain licensed, third-party technology that provides important product functionality and features. The loss or inability to obtain any such license could have a material adverse effect on our business.

Certain of our products contain technology licensed from third parties that provides important product functionality and features. We have contractual protections within our license agreements to help mitigate against the risks of incorporating this third-party technology into our products. However, there remains a risk that we may not have continued access to this technology, for instance, if the licensing company ceased to exist, either from bankruptcy, dissolution or purchase by a competitor. In some cases, we may seek to enforce our contractual protections via litigation against the licensing company itself, which may cause us to incur significant legal or other costs and may not be resolved in our favor. Other legal actions, such as intellectual property actions, brought against the licensing company could also impact our future access to the technology. We also have limited visibility or control of the technology roadmap at the licensing company and cannot ensure that the licensing company will advance the roadmap of the licensed technology in the manner best for Quantum. Any of these actions could negatively impact our technology licensing, thereby reducing the functionality and/or features of our products, and materially and adversely affect our business, financial condition and results of operations. We also face the risk of not being able to quickly implement a replacement technology or otherwise mitigate the risks associated with not having access to this licensed technology, which may materially and adversely affect our business, financial condition and results of operations.

We have taken considerable steps towards reducing our cost structure and may take further cost reduction actions. The steps we have taken and may take in the future may not reduce our cost structure to a level appropriate in relation to our future sales and therefore, these anticipated cost reductions may be insufficient to result in consistent profitability.

In the last several years, we have recorded significant restructuring charges and made cash payments in order to reduce our cost of sales and operating expenses to respond to adverse economic and industry conditions, from strategic management decisions and to rationalize our operations following acquisitions. In each of the last three fiscal years we implemented restructuring plans to eliminate certain positions in the U.S. and internationally. These restructuring plans may result in decreases to our revenues or adversely affect our ability to grow our business in the future. Workforce reductions may also adversely affect employee morale and our ability to retain our employees. As previously announced, we have engaged an outside consultant to help identify and deliver financial impairments in the business. Accordingly, we may take future steps to further reduce our operating costs, including future cost reduction steps or restructurings in response to strategic decisions, adverse changes in our business or industry or future acquisitions. We may be unable to reduce our cost of sales and operating expenses at a rate and to a level appropriate in relation to our future sales, which may materially and adversely affect our business, financial condition and results of operations.

In addition, our ability to achieve the anticipated cost savings and other benefits from these restructuring plans within the expected time frame is subject to many estimates and assumptions. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays, or if other unforeseen events occur, our business, financial condition and results of operations could be adversely affected.

If we are unable to attract and retain skilled employees, our business could be materially and adversely impacted.

We may be subject to increased turnover in our employee base or the inability to fill open headcount requisitions due to competition, concerns about our operational performance, business culture or other factors. In addition, we may need to rely on the performance of employees whose skill sets are not sufficiently developed to fulfill their expected job responsibilities. Either of these situations could impair or delay our ability to realize operational and strategic objectives and cause increased expenses and lost sales opportunities.

Additionally, over the last several years, we made certain changes in our strategic direction focusing on key technology segments. As part of this change in focus, we reduced costs of revenue and other operating expenses. Executing on this new strategic direction as well as the ongoing efficiency initiatives across the company, such as our restructuring plans in the last three years, could adversely affect our ability to retain and hire key personnel and may result in reduced productivity by our employees. Further, our stock price has declined in recent years, reducing the retentive value of our equity compensation. If employees and potential employees do not view our equity compensation as valuable, we may have difficulty retaining or hiring key personnel.

In addition, over the last several years, we have experienced significant changes in our Board of Directors and certain senior management, including most recently, the departure of our CEO in November 2017. These changes could cause uncertainty or instability among our employees which could also adversely affect our ability to retain and hire key personnel and may result in reduced productivity by our employees. Further, significant turnover could have an adverse effect on our relationships with third parties, including customers and suppliers.

The loss of the services of any of our key employees, the inability to attract or retain qualified talent in the future, or delays in hiring required talent, particularly sales and engineering talent, could delay the development and introduction of our products or services and/or negatively affect our ability to sell our products or services.

Third party intellectual property infringement claims could result in substantial liability and significant costs, and, as a result, our business, financial condition and result of operations may be materially and adversely affected.

From time to time, third parties allege our infringement of and need for a license under their patented or other proprietary technology, such as our current litigation with Crossroads Systems, Inc. and Realtime Data LLC d/b/a IXO described in Part II, Item 1 “Legal Proceedings.” While we currently believe the amount of ultimate liability, if any, with respect to any such actions will not materially affect our financial condition, results of operations or liquidity, the ultimate outcome of any license discussion or litigation is uncertain. Adverse resolution of any third party infringement claim could subject us to substantial liabilities and require us to refrain from manufacturing and selling certain products. In addition, the costs incurred in intellectual property litigation can be substantial, regardless of the outcome. As a result, our business, financial condition and results of operations could be materially and adversely affected.

We license certain of our software under "open source" licenses. Because of the characteristics of open source software licenses, it may be relatively easy for competitors, some of whom have greater resources than we have, to enter our markets and compete with us.

One of the characteristics of open source software is that the source code for our open source projects is publicly available, and anyone who obtains copies has a license under our intellectual property rights, which, depending on the license, may include our patents, to modify and redistribute the software and use it to compete in the marketplace. Such competition can develop without the degree of overhead and lead time required by traditional proprietary software companies. It is possible for competitors to use our open source project software to develop their own software, potentially reducing the demand for our solution and putting price pressure on our subscription offerings. We cannot guarantee that competitive pressure or the availability of new open source software will not result in price reductions, reduced operating margins and loss of market share, any one of which could harm our business, financial condition, results of operations and cash flows.

In addition, we use our own open source project software in our proprietary products. As a result, there is a risk that we may inadvertently release as open source certain code that was intended to be kept as proprietary, that reveals confidential information regarding the inner workings of our proprietary products, or that could enable competitors to more readily reverse engineer or replicate aspects of our proprietary technology that we would otherwise protect as trade secrets. We may also accept contributions from third parties to our open source projects, and it may be difficult for us to accurately determine the origin of the contributions and whether their use, including in our proprietary products, infringes, misappropriates or violates third party intellectual property or other rights. The availability of certain of our own software in source code form may also enable others to detect and exploit security vulnerabilities in our products.

Our products may contain "open source" software and failure to comply with the terms of the open source license could have a material adverse effect on our competitive positions and financial results.

Certain products or technologies acquired or developed by us may include “open source” software. Open source software is typically licensed for use at no initial charge. Certain open source software licenses, however, require users of the open source software to license to others any software that is based on, incorporates or interacts with, the open source software under the terms of the open source license. Although we endeavor to comply fully with such requirements, third parties could claim that we are required to license larger portions of our software than we believe we are required to license under open source software licenses. If such claims were successful, they could adversely impact our competitive position and financial results by providing our competitors with access to sensitive information that may help them develop competitive products. In addition, our use of open source software may harm our business and subject us to intellectual property claims, litigation or proceedings in the future because:

- Open source license terms may be ambiguous and may subject us to unanticipated obligations regarding our products, technologies and intellectual property;
- Open source software generally cannot be protected under trade secret law; and
- It may be difficult for us to accurately determine the origin of the open source code and whether the open source software infringes, misappropriates or violates third party intellectual property or other rights.

As a result of our global manufacturing and sales operations, we are subject to a variety of risks related to our business outside of the U.S., any of which could, individually or in the aggregate, have a material adverse effect on our business.

A significant portion of our manufacturing and sales operations and supply chain occurs in countries other than the U.S. We also have sales outside the U.S. We utilize contract manufacturers to produce and fulfill orders for our products that use service providers for repairs and have suppliers for various components, several of which have operations located in foreign countries including China, Hungary, Japan, Malaysia, Singapore, Mexico, the Philippines, Thailand, Taiwan, Switzerland, Germany, Czech Republic, and the United Kingdom.

Because of these operations, we are subject to a number of risks including:

- Reduced or limited protection of our intellectual property;
- Compliance with multiple and potentially conflicting regulatory requirements and practices;
- Commercial laws that favor local businesses;
- Exposure to economic fluctuations including inflationary risk and continuing sovereign debt risk;
- Shortages in component parts and raw materials;
- Import, export and trade regulation changes that could erode our profit margins or restrict our ability to transport our products;
- The burden and cost of complying with foreign and U.S. laws governing corporate conduct outside the U.S. including the Foreign Corrupt Practices Act, the United Kingdom Bribery Act and other similar regulations;

- Adverse movement of foreign currencies against the U.S. dollar (the currency in which our results are reported) and uncertain global economic conditions generally;
- Inflexible employee contracts and employment laws that may make it difficult to terminate or change the compensation structure for employees in some foreign countries in the event of business downturns;
- Recruiting employees in highly competitive markets and wage inflation in certain markets;
- Potential restrictions on the transfer of funds between countries;
- Political instability, military, social and infrastructure risks, especially in emerging or developing economies;
- Import and export duties and value-added taxes;
- Natural disasters and other potential effects of climate change, including earthquakes, flooding, typhoons and tsunamis; and
- Cultural differences that affect the way we do business.

Any or all of these risks could have a material adverse effect on our business.

Our quarterly results of operations have fluctuated significantly, and past quarterly results of operations should not be used to predict future performance.

Our quarterly results of operations have fluctuated significantly in the past and could fluctuate significantly in the future. As a result, our quarterly results of operations should not be used to predict future performance. Quarterly results of operations could be materially and adversely affected by a number of factors, including, but not limited to:

- Fluctuations in IT spending as a result of economic conditions or fluctuations in U.S. federal government spending;
- Failure by our contract manufacturers to complete shipments in the last month of a quarter during which a substantial portion of our products are typically shipped or other delays in shipping due to factors outside of our control;
- Changes in product and revenue mix;
- New product announcements by us or our competitors which may cause delays in purchasing;
- Customers canceling, reducing, deferring or rescheduling significant orders as a result of excess inventory levels, weak economic conditions or other factors;
- Seasonality, including customer fiscal year-ends and budget availability impacting customer demand for our products;
- Declines in large orders (defined as orders greater than $200,000);
- Declines in royalty or software revenues;
- Product development and ramp cycles and product performance or quality issues of ours or our competitors;
- Poor execution of and performance against expected sales and marketing plans and strategies;
- Reduced demand from our OEM or distribution, VAR, DMR and other large customers;
- Increased competition which may, among other things, increase pricing pressure or reduce sales;
- Restructuring actions or unexpected costs;
- Foreign exchange fluctuations; and
- Interruptions in deliveries of supplier and/or customer shipments due to natural disasters and other potential effects of climate change, including earthquakes, flooding, hurricanes, typhoons, tsunamis, and wildfires.

If we fail to meet our projected quarterly results, our business, financial condition and results of operations may be materially and adversely affected.

If we fail to protect our intellectual property or if others use our proprietary technology without authorization, our competitive position may suffer.

Our future success and ability to compete depends in part on our proprietary technology. We rely on a combination of copyright, patent, trademark and trade secrets laws and nondisclosure agreements to establish and protect our proprietary technology. However, we cannot provide assurance that patents will be issued with respect to pending or future patent applications that we have filed or plan to file or that our patents will be upheld as valid or will prevent the development of competitive products or that any actions we have taken will adequately protect our intellectual property rights. We generally enter into confidentiality agreements with our employees, consultants, customers, potential customers, contract manufacturers and others as required, in which we strictly limit access to, and distribution of, our software and further limit the disclosure and use of our proprietary information.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain or use our products or technology. Enforcing our intellectual property rights can sometimes only be accomplished through the use of litigation. Our competitors may also independently develop technologies that are substantially equivalent or superior to our technology. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the U.S.

Our facilities or business operations, or those of our suppliers or customers, may be subject to interruptions caused by natural disasters or other potential effects of climate change, including earthquakes, flooding, hurricanes, typhoons, tsunamis, and wildfires. As a result of these events, we or our suppliers or customers may be unable to:

- Receive shipments of inventory required to build products;
- Access, use, or ship previously built inventory;
- Ship finished products required to recognize revenue;
- Maintain sufficient availability of employees or third party resources required to build or ship product or perform other necessary operational or administrative duties;
- Maintain the technology infrastructure required to build or ship product, perform other necessary operational or administrative duties, or communicate effectively within or outside of the company; or
- Access key facilities.

Although we maintain business interruption insurance, it may not cover potential claims of these types or may not be adequate to reimburse related losses or expenses incurred. Any such losses or expenses that are not covered by insurance or in excess of our insurance coverage could have a material and adverse effect on our business.

Because we may order components from suppliers in advance of receipt of customer orders for our products that include these components, we could face a material inventory risk if we fail to accurately forecast demand for our products or manage production, which could have a material and adverse effect on our results of operations and cash flows.

Although we use third parties to manufacture our products, in some cases we may retain the responsibility to purchase component inventory to support third party manufacturing activities, which presents a number of risks that could materially and adversely affect our financial condition. For instance, as part of our component planning, we may place orders with or pay certain suppliers for components in advance of receipt of customer orders. We may occasionally enter into negotiated orders with vendors early in the manufacturing process of our products to ensure that we have sufficient components for our products to meet anticipated customer demand. Because the design and manufacturing process for these components can be complicated, it is possible that we could experience a design or manufacturing flaw that could delay or even prevent the production of the components for which we previously committed to pay. We also face the risk of ordering too many components, or conversely, not enough components, since supply orders are generally based on forecasts of customer orders rather than actual customer orders. In addition, in some cases, we may make non-cancelable order commitments to our suppliers for work-in-progress, supplier's finished goods, custom sub-assemblies, discontinued (end-of-life) components and Quantum-unique raw materials that are necessary to meet our lead times for finished goods. If we cannot change or be released from supply orders, we could incur costs from the purchase of unusable components, either due to a delay in the production of the components or other supplies or as a result of inaccurately predicting supply orders in advance of customer orders. These same risks exist with our third party contract manufacturing partners. Our business and results of operations could be materially and adversely affected if we incur increased costs or are unable to fulfill customer orders.

Our manufacturing, component production and service repair are outsourced to third party contract manufacturers, component suppliers and service providers. If we cannot obtain products, parts and services from these third parties in a cost effective and timely manner that meets our customers' expectations, this could materially and adversely impact our business, financial condition and results of operations.

Many aspects of our supply chain and operational results are dependent on the performance of third party business partners. We use third party contract manufacturers, service providers and/or product integrators in connection with our outsourced manufacturing model. We face a number of risks as a result of these relationships, including, among others:

- *Sole source of product supply*
  In many cases, our business partner may be the sole source of supply for the products or parts they manufacture, or the services they provide, for us. Because we are relying on one supplier, we are at greater risk of experiencing shortages, reduced production capacity or other delays in customer deliveries that could result in customer dissatisfaction, lost sales and increased expenses, each of which could materially damage customer relationships and result in lost revenue.

- *Cost and purchase commitments*
  We may not be able to control the costs for the products our business partners manufacture for us or the services they provide to us. They procure inventory to build our products based upon a forecast of customer demand that we provide. We could be responsible for the financial impact on the contract manufacturer, supplier or service provider of any reduction or product mix shift in the forecast relative to materials that they had already purchased under a prior forecast. Such a variance in forecasted demand could require us to pay them for finished goods in excess of current customer demand or for excess or obsolete inventory and generally incur higher costs. As a result, we could experience reduced gross margins and operating losses based on these purchase commitments. With respect to service providers, although we have contracts for most of our third party repair service vendors, the contract period may not be the same as the underlying service contract with our customer. In such cases, we face risks that the third party service provider may increase the cost of providing services over subsequent periods contracted with our customer.

- *Financial condition and stability*
  Our third party business partners may suffer adverse financial or operational results or may be negatively impacted by global and local economic conditions. Therefore, we may face interruptions in the supply of product components or service as a result of financial or other volatility affecting our supply chain. We could suffer production downtime or increased costs to procure alternate products or services as a result of the possible inadequate financial condition of one or more of our business partners.

- *Quality and supplier conduct*
  We have limited control over the quality of products and components produced and services provided by our supply chain and third party contract manufacturing and service business partners. Therefore, the quality of the products, parts or services may not be acceptable to our customers and could result in customer dissatisfaction, lost revenue and increased warranty costs. In addition, we have limited control over the manner in which our business partners conduct their business. Our third party business partners or sub-tier suppliers selected by the primary third party could have process control issues or could select components with latent defects that manifest over a longer period of time. We may face negative consequences or publicity as a result of a third party's failure to comply with applicable compliance, trade, environmental or employment regulations.

Any or all of these risks could have a material adverse effect on our business. In the past we have successfully transitioned products or component supply from one supplier or manufacturing location to another without significant financial or operational impact, but there is no guarantee of our continued ability to do so.

If we do not successfully manage the changes that we have made and may continue to make to our infrastructure and management, our business could be disrupted, and that could adversely impact our results of operations and financial condition.

Managing change is an important focus for us. In recent years, we have implemented several significant initiatives involving our sales and marketing, engineering and operations organizations, aimed at increasing our efficiency and better aligning these groups with our corporate strategy. In addition, we have reduced headcount to streamline and consolidate our supporting functions as appropriate in response to market or competitive conditions and following past acquisitions and have increased our reliance on certain third party business relationships. If we are unable to successfully manage the changes that we implement and detect and address issues as they arise, our business could be disrupted and our results of operations and financial condition could be materially and adversely impacted.

Because we rely heavily on distributors and other resellers to market and sell our products, if one or more distributors were to experience a significant deterioration in its financial condition or its relationship with us, this could disrupt the distribution of our products and reduce our revenue, which could materially and adversely affect our business, financial condition and results of operations.

We heavily utilize distributors and VARs to perform the functions necessary to market and sell our products in certain product and geographic segments. To fulfill this role, the distributor must maintain an acceptable level of financial stability, creditworthiness and the ability to successfully manage business relationships with the customers it serves directly. Under our distributor agreements with these companies, each of the distributors determines the type and amount of our products that it will purchase from us and the pricing of the products that it sells to its customers. If the distributor is unable to perform in an acceptable manner, we may be required to reduce the amount of sales of our product to the distributor or terminate the relationship. We may also incur financial losses for product returns from distributors or for the failure or refusal of distributors to pay obligations owed to us. Either scenario could result in fewer of our products being available to the affected market segments, reduced levels of customer satisfaction and/or increased expenses, which could in turn have a material and adverse impact on our business, results of operations and financial condition.

Our stock price has been volatile and such volatility could increase based on the trading activity of our institutional investors. In addition, there are other factors and events that could affect the trading prices of our common stock.

A small number of institutional investors have owned a significant portion of our common stock at various times in recent years. If any or all of these investors were to decide to purchase significant additional shares or to sell significant amounts or all of the common shares they currently own, or if there is a perception that those sales may occur, that may cause our stock price to be more volatile. For example, there have been instances in the past where a shareholder with a significant equity position began to sell shares, putting downward pressure on our stock price for the duration of their selling activity. In these situations, selling pressure outweighed buying demand and our stock price declined. In some cases, this situation has occurred due to our stock price falling below institutional investors' price thresholds and our volatility increasing beyond investors' volatility parameters, causing even greater selling pressure.

Trading prices of our common stock may fluctuate in response to a number of events and factors, such as:

- General economic conditions;
- Changes in interest rates;
- Fluctuations in the stock market in general and market prices for technology companies in particular;
- Large or sudden purchases or sales of stock by existing or new investors, including activist investors;
- Quarterly variations in our results of operations;
- Failure to meet our expectations or the expectations of securities analysts and investors;
- Failure to comply with applicable regulatory requirements or any investigations or enforcement actions related to a potential failure to comply with applicable regulations;
- Significant changes in our brand or reputations;
- New products, services, innovations and strategic developments by our competitors or us, or business combinations and investments by our competitors or us;
- Changes in financial estimates by us or securities analysts and recommendations by securities analysts;
- Changes in our capital structure, including issuance of additional debt or equity to the public or incurring additional debt;
- Changes in our Board or Senior Management; and
- Strategic acquisitions.

Any of these events and factors may cause our stock price to rise or fall and may adversely affect our business and financing opportunities.

Our operation and design processes are subject to safety and environmental regulations which could lead to increased costs, or otherwise adversely affect our business, financial condition and results of operations.

We are subject to a variety of laws and regulations relating to, among other things, the use, storage, discharge and disposal of materials and substances used in our facilities as well as the safety of our employees and the public. Current regulations in the U.S. and various international jurisdictions restrict the use of certain potentially hazardous materials used in electronic products and components (including lead and some flame retardants), impose a “take back” obligation on manufacturers for the financing of the collection, recovery and disposal of electrical and electronic equipment and require extensive investigation into and disclosure regarding certain minerals used in our supply chain. We have implemented procedures and will likely continue to introduce new processes to comply with current and future safety and environmental legislation. However, measures taken now or in the future to comply with such legislation may adversely affect our costs or product sales by requiring us to acquire costly equipment or materials, redesign processes or to incur other significant expenses in adapting our supply chain, waste disposal and emission management processes. Furthermore, safety or environmental claims or our failure to comply with present or future regulations could result in the assessment of damages or imposition of fines against us or the suspension of affected operations, which could have an adverse effect on our business, financial condition and results of operations.

We are subject to many laws and regulations, and violation of or changes in those requirements could materially and adversely affect our business.

We are subject to numerous U.S. and international laws and requirements regarding corporate conduct, fair competition, corruption prevention and import and export practices, including laws applicable to U.S. government contractors. In addition, the SEC has adopted disclosure rules related to the supply of certain minerals originating from the conflict zones of the Democratic Republic of Congo or adjoining countries, and we have incurred costs to comply with such regulations and may realize other costs relating to the sourcing and availability of minerals used in our products. While we maintain a rigorous corporate ethics and compliance program, we may be subject to increased regulatory scrutiny, significant monetary fines or penalties, suspension of business opportunities or loss of jurisdictional operating rights as a result of any failure to comply with those requirements or failure to adequately discover or disclose a violation of those requirements. If we were to be subject to a compliance investigation, we may incur increased personnel and legal costs. Our supply and distribution models may be reliant upon the actions of our third party business partners and we may also be exposed to potential liability resulting from their violation of these or other compliance requirements. Further, our U.S. and international business models are based on currently applicable regulatory requirements and exceptions. Changes in those requirements or exceptions could necessitate changes to our business model. Any of these consequences could materially and adversely impact our business and results of operations.

A cybersecurity breach could adversely affect our ability to conduct our business, harm our reputation, expose us to significant liability or otherwise damage our financial results.

A cybersecurity breach could negatively affect our reputation as a trusted provider of scale-out storage, archive and data protection products by adversely affecting the market's perception of the security or reliability of our products and services. Many of our customers and partners store sensitive data on our products, and a cybersecurity breach related to our products could harm our reputation and potentially expose us to significant liability.

We also maintain sensitive data related to our employees, strategic partners and customers, including intellectual property, proprietary business information and personally identifiable information on our own systems. We employ sophisticated security measures; however, we may face threats across our infrastructure including unauthorized access, security breaches and other system disruptions.

It is critical to our business that our employees', strategic partners' and customers' sensitive information remains secure and that our customers perceive that this information is secure. A cybersecurity breach could result in unauthorized access to, loss of, or unauthorized disclosure of such information. A cybersecurity breach could expose us to litigation, indemnity obligations, government investigations and other possible liabilities. Additionally, a cyber-attack, whether actual or perceived, could result in negative publicity which could harm our reputation and reduce our customers' confidence in the effectiveness of our solutions, which could materially and adversely affect our business and results of operations. A breach of our security systems could also expose us to increased costs including remediation costs, disruption of operations or increased cybersecurity protection costs that may have a material adverse effect on our business. Although we maintain technology errors and omissions liability insurance, our insurance may not cover potential claims of these types or may not be adequate to indemnify us for inability that may be imposed. Any imposition or or liability or litigation costs that are not covered by insurance or in excess of our insurance coverage could harm our business.

Our actual or perceived failure to adequately protect personal data could adversely affect our business, financial condition and results of operations.

A variety of state, national, foreign, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data. These privacy- and data protection-related laws and regulations are evolving, with new or modified laws and regulations proposed and implemented frequently and existing laws and regulations subject to new or different interpretations. Compliance with these laws and regulations can be costly and can delay or impede the development of new products.

For example, we historically relied upon adherence to the U.S. Department of Commerce's Safe Harbor Privacy Principles and compliance with the U.S.-EU Safe Harbor Framework agreed to by the U.S. Department of Commerce and the EU. The U.S.-EU Safe Harbor Framework, which established means for legitimizing the transfer of personal data by U.S. companies from the European Economic Area, or EEA, to the U.S., was invalidated in October 2015 by a decision of the European Court of Justice ("ECJ"). In light of the ECJ's decision, we have made certain changes to our personal data handling in an effort to cause our transfer and receipt of EEA residents' personal data to be legitimized under applicable European law. In February 2016, U.S. and EU authorities reached agreement on new means for legitimizing personal data transfers from the EU to the U.S., the EU-U.S. Privacy Shield. We have self-certified our compliance with its requirements. Additionally, the European Commission has adopted a general data protection regulation that, when effective in May 2018, will supersede current EU data protection legislation, impose more stringent EU data protection requirements and provide for greater penalties for noncompliance. Our actual or alleged failure to comply with applicable laws and regulations, or to protect personal data, could result in enforcement actions and significant penalties against us, which could result in negative publicity, increase our operating costs, subject us to claims or other remedies and have a material adverse effect on our business, financial condition, and results of operations.

We must maintain appropriate levels of service parts inventories. If we do not have sufficient service parts inventories, we may experience increased levels of customer dissatisfaction. If we hold excessive service parts inventories, we may incur financial losses.

We maintain levels of service parts inventories to satisfy future warranty obligations and also to earn service revenue by providing enhanced and extended warranty and repair service during and beyond the warranty period. We estimate the required amount of service parts inventories based on historical usage and forecasts of future warranty and extended warranty requirements, including estimates of failure rates and costs to repair, and out of warranty revenue. Given the significant levels of judgment inherently involved in the process, we cannot provide assurance that we will be able to maintain appropriate levels of service parts inventories to satisfy customer needs and to avoid financial losses from excess service parts inventories. If we are unable to maintain appropriate levels of service parts inventories, our business, financial condition and results of operations may be materially and adversely impacted.

From time to time we have made acquisitions. The failure to successfully integrate future acquisitions could harm our business, financial condition and results of operations.

As a part of our business strategy, we have in the past and may make acquisitions in the future, subject to certain debt covenants. We may also make significant investments in complementary companies, products or technologies. If we fail to successfully integrate such acquisitions or significant investments, it could harm our business, financial condition and results of operations. Risks that we may face in our efforts to integrate any recent or future acquisitions include, among others:

- Failure to realize anticipated synergies from the acquisition;
- Difficulties in assimilating and retaining employees;
- Potential incompatibility of business cultures or resistance to change;
- Coordinating geographically separate organizations;
- Diversion of management's attention from ongoing business concerns;
- Coordinating infrastructure operations in a rapid and efficient manner;
- The potential inability to maximize our financial and strategic position through the successful incorporation of acquired technology and rights into our products and services;
- Failure of acquired technology or products to provide anticipated revenue or margin contribution;
- Insufficient revenues to offset increased expenses associated with the acquisition;
- Costs and delays in implementing or integrating common systems and procedures;
- Reduction or loss of customer orders due to the potential for market confusion, hesitation and delay;
- Impairment of existing customer, supplier and strategic relationships of either company;
- Insufficient cash flows from operations to fund the working capital and investment requirements;
- Difficulties in entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;
- The possibility that we may not receive a favorable return on our investment, the original investment may become impaired, and/or we may incur losses from these investments;
- Dissatisfaction or performance problems with the acquired company;
- The assumption of risks of the acquired company that are difficult to quantify, such as litigation;
- The cost associated with the acquisition, including restructuring actions, which may require cash payments that, if large enough, could materially and adversely affect our liquidity; and
- Assumption of unknown liabilities or other unanticipated adverse events or circumstances.

Acquisitions present many risks, and we may not realize the financial and strategic goals that were contemplated at the time of any transaction. We cannot provide assurance that we will be able to successfully integrate any business, products, technologies or personnel that we may acquire in the future, and our failure to do so could negatively impact our business, financial condition and results of operations.

If the future outcomes related to the estimates used in recording tax liabilities to various taxing authorities result in higher tax liabilities than estimated, then we would have to record tax charges, which could be material.

We have provided amounts and recorded liabilities for probable and estimable tax adjustments that may be proposed by various taxing authorities in the U.S. and foreign jurisdictions. If events occur that indicate payments of these amounts will be less than estimated, then reversals of these liabilities would create tax benefits recognized in the periods when we determine the liabilities have reduced. Conversely, if events occur which indicate that payments of these amounts will be greater than estimated, then tax charges and additional liabilities would be recorded. In particular, various foreign jurisdictions could challenge the characterization or transfer pricing of certain intercompany transactions. In the event of an unfavorable outcome of such challenge, there exists the possibility of a material tax charge and adverse impact on the results of operations in the period in which the matter is resolved or an unfavorable outcome becomes probable and estimable.

Certain changes in stock ownership could result in a limitation on the amount of net operating loss and tax credit carryovers that can be utilized each year. Should we undergo such a change in stock ownership, it would severely limit the usage of these carryover tax attributes against future income, resulting in additional tax charges, which could be material.

We are exposed to fluctuations in foreign currency exchange rates, and an adverse change in foreign currency exchange rates relative to our position in such currencies could have a material adverse impact on our business, financial condition and results of operations.

We do not currently use derivative financial instruments for speculative purposes. We have used in the past, and may use in the future, foreign currency forward contracts and derivative instruments to hedge our exposure to foreign currency exchange rates. To the extent that we have assets or liabilities denominated in a foreign currency that are inadequately hedged or not hedged at all, we may be subject to foreign currency losses, which could be significant.

Our international operations can act as a natural hedge when both operating expenses and sales are denominated in local currencies. In these instances, although an unfavorable change in the exchange rate of a foreign currency against the U.S. dollar would result in lower sales when translated to U.S. dollars, operating expenses would also be lower in these circumstances. An increase in the rate at which a foreign currency is exchanged for U.S. dollars would require more of that particular foreign currency to equal a specified amount of U.S. dollars than before such rate increase. In such cases, and if we were to price our products and services in that particular foreign currency, we would receive fewer U.S. dollars than we would have received prior to such rate increase for the foreign currency. Likewise, if we were to price our products and services in U.S. dollars while competitors priced their products in a local currency, an increase in the relative strength of the U.S. dollar would result in our prices being uncompetitive in those markets. Such fluctuations in currency exchange rates could materially and adversely affect our business, financial condition and results of operations.

The Company faces various risks associated with activist stockholders, including potential proxy contests or other opposition to our Board and our nominees for the Board.

The Company faces various risks associated with activist stockholders, including potential proxy contests or other opposition to our Board and our nominees for the Board.

On March 2, 2017, we entered into an agreement (the “Settlement Agreement”) with VIEX Capital Advisors, LLC, and certain of its affiliates (collectively, “VIEX”), which beneficially owns approximately 10.9% of our outstanding common stock. As part of the settlement, the Company agreed to form a Search Committee and engaged a search firm to assist the Company in recruiting and appointing three highly qualified new, independent directors to replace three specified members of the Company’s Board which was completed in May 2017. The Company also agreed to hold its next annual meeting in August 2017.

Although the Settlement Agreement resolved matters between VIEX and the Company relating to the election of directors at the Company's annual meetings of stockholders held in March and August 2017, VIEX or other stockholders may pursue a proxy contest at future annual meetings or other plans or proposals with respect to the Company. These matters might require us to incur significant legal and other third party fees and expenses and require significant time and attention by management and the Board. Further, any perceived uncertainties as to our future direction and control could result in the loss of potential business opportunities and may make it more difficult to attract and retain qualified personnel and business partners, any of which could adversely affect our business, financial condition and results of operations.

Under certain circumstances arising out of or related to a proxy contest or threatened proxy contest or the nomination of directors by a stockholder, a change in the composition of the Board may result in a change of control under the severance and change of control agreements we have with our management. Pursuant to the severance and change in control agreements, certain severance payments may be triggered following a change of control, but only upon there being a qualifying termination that occurs within twelve months of any such change of control. The changes to the Board required by the Settlement Agreement constituted a change of control as defined in the Company's change of control agreements, effective as of May 4, 2017.

In addition, under certain circumstances arising out of or related to a proxy contest or threatened proxy contest or the nomination of directors by a stockholder, a change in the composition of the Board may also result in a change of control under certain contracts with third parties, including our directors’ and officers’ liability insurance, if we are unable to secure appropriate waivers or amendments to any such contracts. The occurrence of any of the foregoing events could adversely affect our business.

ITEM 5. OTHER INFORMATION

On November 6, 2017, the Company filed a Certificate of Amendment (the “Certificate of Amendment”) to its Amended and Restated Certificate of Incorporation, as amended (the “Certificate of Incorporation”) to effect a reduction in its authorized common stock from 1,000,000,000 to 125,000,000. The Certificate of Amendment was approved by stockholders at the Company’s annual meeting of stockholders held on August 23, 2017.

A copy of the Certificate of Amendment is filed as Exhibit 3.1 hereto.

ITEM 6. EXHIBITS

The Exhibit Index beginning on page 46 of this report sets forth a list of exhibits and is hereby incorporated by reference.

SIGNATURE

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.

QUANTUM CORPORATION

/s/ FUAD AHMAD

Fuad Ahmad
Chief Financial Officer
(Principal Financial and Principal Accounting Officer)
Date: November 9, 2017

EXHIBIT INDEX

Exhibit Number	Exhibit Description
3.1	Certificate of Amendment to the Amended Certificate of Incorporation of Quantum Corporation ‡
10.1	Offer letter, dated August 31, 2017, between registrant and Mr. Rau (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on September 5, 2017)*
10.2	Long-term incentive plan (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on August 24, 2017)*
10.3	Executive officer incentive plan (incorporated by reference to Exhibit 10.2 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on August 24, 2017)*
31.1	Certification of the Chief Executive Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002 ‡
31.2	Certification of the Chief Financial Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002 ‡
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley act of 2002 †
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley act of 2002 †
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema 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

‡ Filed herewith.

† Furnished herewith.

* Indicates management contract or compensatory plan, contract or arrangement.

CERTIFICATE OF AMENDMENT
TO THE AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF QUANTUM CORPORATION

A Delaware Corporation

Quantum Corporation, a corporation organized and existing under the laws of the State of Delaware (the " **Corporation**"), hereby certifies that:

1. The name of this Corporation is Quantum Corporation.

2. The date of filing of this Corporation's original Certificate of Incorporation with the Secretary of State of Delaware was January 28, 1987. The most recent Amended and Restated Certificate of Incorporation of the Corporation was filed with the Secretary of State of Delaware on August 8, 2007. An amendment to the Amended and Restated Certificate of Incorporation was filed with the Secretary of State of Delaware on April 17, 2017.

3. Pursuant to Section 242 of the Delaware General Corporation Law, this Certificate of Amendment hereby amends the provisions of the Corporation's Amended and Restated Certificate of Incorporation by deleting the first paragraph of Article IV and substituting therefor the paragraph set forth below:

   "This Corporation is authorized to issue two classes of shares to be designated, respectively, Common Stock and Preferred Stock. The total number of shares of Common Stock that this Corporation is authorized to issue is **125,000,000**, with a par value of $0.01 per share, and the total number of shares of Preferred Stock that this Corporation is authorized to issue is **20,000,000**, with a par value of $0.01 per share.

   The Board of Directors of the corporation, subject to any restrictions contained in Delaware law, the Bylaws, any preferences and relative, participating, optional or other special rights of any outstanding class or series of preferred stock of the Corporation and any qualification or restrictions on the Common Stock created thereby, may declare and pay dividends upon the shares of its capital stock. The directors of the Corporation may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve.

4. This Certificate of Amendment to the Amended and Restated Certificate of Incorporation has been duly adopted by the Board of Directors and the stockholders of the Corporation in accordance with the provisions of Section 242 of the Delaware General Corporation Law.

IN WITNESS WHEREOF, Quantum Corporation has caused this Certificate of Amendment to the Amended and Restated Certificate of Incorporation to be signed by Shawn D. Hall its Secretary and General Counsel, this 6th day of November, 2017.

QUANTUM CORPORATION

/s/ Shawn D. Hall

Shawn D. Hall
Secretary and General Counsel

Exhibit 31.1

CERTIFICATION PURSUANT TO SECTION 302(a)
OF THE SARBANES-OXLEY ACT OF 2002

I, Adalio Sanchez, certify that:

1) I have reviewed this quarterly report on Form 10-Q of Quantum Corporation;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5) The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 9, 2017

/s/ ADALIO SANCHEZ

Adalio Sanchez
Interim Chief Executive Officer and Director

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302(a)
OF THE SARBANES-OXLEY ACT OF 2002

I, Fuad Ahmad, certify that:

1) I have reviewed this quarterly report on Form 10-Q of Quantum Corporation;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5) The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: November 9, 2017

/s/ FUAD AHMAD

Fuad Ahmad
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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

I, Adalio Sanchez, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Quantum Corporation, on Form 10-Q for the quarterly period ended September 30, 2017 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of Quantum Corporation.

Date: November 9, 2017

QUANTUM CORPORATION

/s/ ADALIO SANCHEZ

Adalio Sanchez
Interim Chief Executive Officer and Director

Exhibit 32.2

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

I, Fuad Ahmad, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Quantum Corporation, on Form 10-Q for the quarterly period ended September 30, 2017, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of Quantum Corporation.

Date: November 9, 2017

QUANTUM CORPORATION

/s/ FUAD AHMAD

Fuad Ahmad
Chief Financial Officer
(Principal Financial Officer)