

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

FORM 10-K

(Mark One)

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

For the fiscal year ended **March 31, 2021**
or

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

For the transition period from ___ to ___

Commission File Number **001-13449**



Quantum Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

94-2665054

(I.R.S. Employer Identification No.)

224 Airport Parkway Suite 550
San Jose CA

(Address of Principal Executive Offices)

95110

(Zip Code)

(408) 944-4000

Registrant's telephone number, including area code

(Former name, former address, and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, \$0.01 par value per share	QMCO	Nasdaq Global Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

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

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

As of the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by its non-affiliates, computed by reference to the price at which the common stock was last sold, was \$88,226,482.

As of May 21, 2021, there were 57,086,961 shares of Quantum Corporation's common stock issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The portions of the registrant's proxy statement to be filed in connection with the Annual Meeting of Stockholders to be held in 2021 have been incorporated by reference into Part III of this Annual Report on Form 10-K.

QUANTUM CORPORATION
ANNUAL REPORT ON FORM 10-K
For the Year Ended March 31, 2021

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As used in this Annual Report on Form 10-K (this "Annual Report"), the terms "Quantum," "we," "us," and "our" refer to Quantum Corporation and its subsidiaries taken as a whole, unless otherwise noted or unless the context indicates otherwise.

Note Regarding Forward-Looking Statements

This Annual Report contains forward-looking statements. All statements contained in this report other than statements of historical fact, including statements regarding COVID-19's anticipated impacts on our business, our future operating results and financial position, our business strategy and plans, our market growth and trends, and our objectives for future operations, are forward-looking statements. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," "could," "would," "project," "plan," "potentially," "preliminary," "likely," and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described under Item 1A. Moreover, we operate in a competitive and changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the effect of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties, and assumptions, the future events and trends discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Accordingly, you should not rely on forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, performance, or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update any of these forward-looking statements for any reason after the date of this report or to conform these statements to actual results or revised expectations.

Summary of Risk Factors

Our business is subject to numerous risks and uncertainties, many of which are beyond our control. Some of the principal risks associated with our business include the following:

- The COVID-19 pandemic has affected our business and may continue to affect our business.
- If our products fail to meet our or our customers' specifications, we may face liability and reputational or financial harm which may adversely impact our results of operations and our competitive position.
- 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.
- Competition is intensifying in the data storage and 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.
- 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.
- 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.
- A cybersecurity breach into our products when used by our customers could adversely affect our ability to conduct our business, harm our reputation, expose us to significant liability or otherwise damage our financial results.
- 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.
- We have taken considerable steps towards reducing our cost structure. The steps we have taken may not reduce our cost structure to a level appropriate in relation to our future sales and therefore, these cost reductions may be insufficient to achieve profitability.

- 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.
- Third-party intellectual property infringement claims could result in substantial liability and significant costs, and, as a result, 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.
- 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.
- 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.
- 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.
- 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.
- We rely on a limited number of suppliers and, in some cases, on single-source suppliers, for several key components of our products, and we have not generally entered into agreements for the long-term purchase of these components. While we actively monitor and manage our supply chain, we cannot anticipate the potential impact that new or current restrictions due to COVID-19 may have on the manufacturing and shipment of our products.
- If we do not manage the supply of our products and their components efficiently, our results of operation could be adversely affected.
- 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
- 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.
- 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.
- 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 many laws and regulations, and violation of or changes in those requirements could materially and adversely affect our business.
- Our actual or perceived failure to adequately protect personal data could adversely affect our business, financial condition and results of operations.
- Our quarterly results of operations have fluctuated significantly, and past quarterly results of operations should not be used to predict future performance.
- Our results of operations depend on continuing and increasing market acceptance of our existing 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.
- We derive significant revenue from products incorporating tape technology, which a change in demand could adversely impact our business and results of operation.
- We continue to face risks related to economic uncertainty and slow economic growth.
- 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 stock price has experienced significant volatility in the recent past, and this significant volatility may continue to occur and could cause the trading price of our common stock to decline.

- We have previously identified deficiencies in our control environment and financial reporting process that resulted in material weaknesses in our internal control over financial reporting, which could negatively affect our business.
- 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 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 have significant indebtedness, which imposes upon us debt service obligations, and our term loan and credit facility contains various operating and financial covenants that limit our discretion in the operation of our business.
- We may not be entitled to forgiveness of our Paycheck Protection Program loan, and our application for the Paycheck Protection Program loan could in the future be determined to have been impermissible, which could result in the imposition on us of fines and other penalties, or could result in damage to our reputation.

PART I

ITEM 1. BUSINESS

Overview

Quantum is a technology company whose mission is to deliver innovative solutions to organizations around the world. We design, manufacture and sell technology and services that help customers capture, create and share digital content, and protect it for decades. We emphasize innovative technology in the design and manufacture of our products to help our customers unlock the value in their video and unstructured data in new ways to solve their most pressing business challenges.

Massive unstructured data growth may be the defining factor for industries and economies of the 21st century. This data lives everywhere – it is created and processed at the edge, moved to both the cloud and the core data center, and stored and protected in multiple locations. This accelerated data growth, along with the lack of visibility and control over the data, are contributing to organizations' challenges of managing unstructured data sprawl and harnessing the value that is in this unstructured data. Advancements in artificial intelligence and analytics are driving new lifecycle requirements, including the need to ensure data accessibility for decades and beyond, and protecting against data loss, disaster and cyber-attacks. By managing data across its lifecycle, Quantum is empowering customers to navigate the new data landscape and manage data and storage for greater productivity and efficiency.

Products and Services

High-Performance File System Software

At the core of our high-performance shared storage product line is our StorNext software that enables high-speed ingest, editing, processing and management of digital video and image datasets. Major broadcasters and studios, post-production companies including streaming services, sports franchises, and corporations around the world use StorNext.

Our StorNext software is both a shared file system and data management platform. StorNext provides fast streaming performance and data access, a shared file storage environment for macOS, Microsoft Windows, and Linux workstations, and intelligent data management to protect data across its lifecycle. StorNext is sold as software based on a subscription licensing model, runs on standard servers, and is sold with storage arrays that are used within the StorNext environment. These storage arrays include:

- The Quantum F-Series: A line of ultra-fast, highly available non-volatile memory express ("NVMe") storage servers for editing, rendering, and processing of video content and other large unstructured datasets.
- The Quantum H-Series: A line of high-performance storage arrays, offered with either hard disk drives ("HDDs"), solid state drives ("SSDs"), or some combination of the two.

- Quantum QXS-Series: A line of high performance, storage arrays, offered with either HDD, SSD, or some combination of the two.

Customers are now deploying our StorNext file system with a combination of NVMe storage and more traditional SSD and HDD storage to balance cost and performance. Our StorNext software can also manage data across different types, or pools, of storage, such as public cloud object stores and disk-based object storage systems. StorNext supports a broad range of both private and public object stores to meet customer needs. For customers that archive video and image data for years, StorNext is also integrated with our tape storage, and can assign infrequently used but important data to tape to create a large-scale active archive.

In addition, Quantum also offers the Quantum All-Terrain File System ("ATFS"), which is an easy-to-use Network Attached Storage ("NAS") platform with integrated data classification.

Object Storage Systems

With the acquisition of the ActiveScale object storage business from Western Digital that was completed in March of 2020, we now offer leading object storage systems for massive-scale, online content repositories such as media archives, genome sequencing data repositories, and big data lakes. Our ActiveScale object storage provides high levels of data durability and facilitates the management of many petabytes and billions of objects. ActiveScale object storage software is sold via a subscription licensing model, stores data in object format and uses patented erasure-encoding software to protect data across storage nodes and across multiple geographic sites.

CatDV Asset Management Platform

CatDV is an agile asset management and workflow orchestration platform that provides powerful asset management, automation, and collaboration tools for any organization that manages large volumes of digital media. The software application indexes and catalogs video files, digital images, audio files, and other types of files. CatDV helps organizations browse their content and streamline their workflows. CatDV can be used with StorNext file storage, with ActiveScale object storage, as well as third party storage.

Tape Storage

Our Scalar® tape systems are low-cost, long-term data storage used by large cloud providers and leading enterprises to archive and preserve digital content for decades. The product line scales from entry-level libraries for small backup environments up to massive petabyte and even exabyte scale archive libraries.

Our tape systems provide storage density, offline secure storage to protect against ransomware and malware, and an intelligent, advanced diagnostics engine designed to reduce downtime and operational expense relative to other tape systems. Our tape systems are used by thousands of enterprises around the world as well as by large cloud service providers. In addition to our tape systems, we also sell Linear Tape Open ("LTO") tape cartridges as well as standalone LTO tape drives for small business and desktop use.

Backup Storage Systems

Our DXi backup systems provide high-performance, scalable storage for backup and multi-site disaster recovery. Our variable-length de-duplication technology maximizes data reduction, our replication engine enables multi-site protection and data recovery, and our high-efficiency design enables customers to maximize backup performance while minimizing data center footprint.

Storage Systems for Surveillance and Physical Security

We offer a broad portfolio of products designed for the capture and analysis of video surveillance and security. These products include network video recording servers, as well as hyper-converged storage systems for video surveillance management and recording. In addition, we offer appliances designed for video surveillance analytics and to run different types of access control systems.

Our strategy is to offer the broadest physical security server and storage portfolio available from any single supplier, with solutions designed and optimized for surveillance and physical security workloads, providing high performance and density, resulting in cost-effective solutions.

In-Vehicle Storage Systems

Our R-Series is a line of ruggedized, removable storage systems for in-vehicle data capture, mobile surveillance, and military applications. Our R-Series includes a removable storage magazine which allows data generated in the vehicle to be easily uploaded to a shared storage environment, such as our StorNext file system, for processing and analytics.

Services

We offer a broad range of services to complement our systems and technology, including managed services, professional services, implementation and training services, and support services for our customers around the world. Our customers are increasingly looking to purchase our technology using an as-a-service model, or different forms of managed services, and we now offer a full line of these services to meet these needs.

Global Services and Warranty

Our global services strategy is an integral component of our total customer solution. Service is typically a significant purchase factor for customers considering long-term storage for archiving and retention or data protection storage solutions. Consequently, our ability to provide comprehensive installation and integration services as well as maintenance services can be a noteworthy competitive advantage to attract new customers and retain existing customers. In addition, we believe that our ability to retain long-term customer relationships and secure repeat business is frequently tied directly to our comprehensive service capabilities and performance.

Our extensive use of technology and innovative product intelligence allows us to scale our global services operations to meet the needs of our customers. We are currently able to provide service to customers in more than 100 countries, supported by 24-hour, multi-language technical support centers located in North America, Europe, and Asia. We provide our customers with warranty coverage on our products. Customers with high availability requirements may also purchase additional services to obtain faster response times on our high-performance shared storage systems, tape systems, and disk backup systems. We offer this additional support coverage at a variety of response levels up to 24-hours a day, seven-days-a-week, 365-days-a-year, for customers with stringent high-availability needs. We provide support ranging from repair and replacement to 24-hour rapid exchange to on-site service support for our midrange and enterprise-class products. In addition to these traditional installation and maintenance services, we also provide project management, managed services, and other value-added services to enhance our customer's experience and engagement. These incremental services create a deeper relationship with customers that enables them to maximize the value of our solution and better positions us to retain our customers through technology transitions.

We generally warrant our hardware products against defects for periods ranging from one to three years from the date of sale. We provide warranty and non-warranty repair services through our service team and third-party service providers. In addition, we utilize various other third-party service providers throughout the world to perform repair and warranty services for us to reach additional geographic areas and industries to provide quality services in a cost-effective manner.

Research and Development

We compete in an industry characterized by rapid technological change and evolving customer requirements. Our success depends, in part, on our ability to introduce new products and features to meet end user needs. Our research and development teams are focused on technology and services to make our storage systems smarter and easier to manage at scale; software enhancements to make our storage more searchable and accessible, software-defined hyperconverged storage technology, next generation solid-state and hard-drive storage system software, data deduplication and other data reduction technologies, and making tape even more efficient as a storage medium for long term archival storage.

Sales and Distribution Channels

Product Sales Channels

We utilize distributors, value-added resellers ("VARs") and direct market resellers ("DMRs") in our sales process. Our reseller program provides our channel partners the option of purchasing products directly or through distribution channels and provides them access to a more comprehensive product line. Additionally, we sell directly to multiple large corporate entities and government agencies.

OEM Relationships

We sell our products to several original equipment manufacturer ("OEM") customers that resell our hardware products under their own brand names and typically assume responsibility for product sales, end user service and support. We also license our software to certain OEM customers that include this software in their own brand name products. These OEM relationships enable us to reach end users not served by our branded distribution channels or our direct sales force. They also allow us to sell to select geographic or vertical markets where specific OEMs have exceptional strength.

Customers

Our customers vary across multiple industries worldwide ranging from small businesses to global enterprises. In addition, we sell to OEMs, distributors, VARs and DMRs to reach end user customers. Sales to our top five customers represented 16%, 23%, and 33% of revenue in fiscal 2021, fiscal 2020 and fiscal 2019, respectively, of which no customer represented 10% or more of our total revenue.

Competition

The markets in which we participate are highly competitive, characterized by rapid technological change and changing customer requirements. In some cases, our competitors in one market area are customers or suppliers in another. Our competitors often have greater financial, technical, manufacturing, marketing, or other resources than we do. Additionally, the competitive landscape continues to change due to merger and acquisition activity as well as new entrants into the market.

As our customers look to use more public cloud storage services, providers provide both a competitive threat and new platforms on which to run our software. We expect that the infrastructures of the future will be both hybrid-cloud and multi-cloud, meaning our customers will store their data in the various large public cloud environments, and also want to use services from multiple public cloud vendors.

Our high-performance shared storage systems and object storage systems primarily face competition from the EMC business unit of Dell Inc., ("Dell"), International Business Machines Corporation, ("IBM"), NetApp, Inc., ("NetApp"), and other enterprise storage vendors in the markets we serve.

Our tape storage systems primarily compete in the midrange and enterprise reseller and end user markets with IBM, Oracle Corporation and SpectraLogic Corporation as well as Hewlett-Packard Enterprise Company, ("HPE"), through its OEM relationship with other tape system suppliers. Competitors for entry-level and OEM tape systems include BDT Products, Inc. and several others that supply or manufacture similar products. In addition, disk backup products and cloud storage are an indirect competitive alternative to tape storage.

Our backup storage systems primarily compete with products sold by Dell, HPE and Veritas Technologies LLC. Additionally, several software companies that have traditionally been partners with us have deduplication features in their products and will, at times, compete with us.

Manufacturing and Supply Chain

We are constantly improving our supply chain and manufacturing operations to deliver a variable cost model while improving customer delivered quality and service. This process includes the transition to a multi-geographical manufacturing model using a configure-to-order methodology; a redesign of our service and supplier network; and talent acquisition and development. Our supply chain and manufacturing strategy minimizes geo-political and environmental causal risks and provides flexibility to support demand fluctuations by region, further enhancing our variable cost structure.

Manufacturing of our tape, backup, and shared storage systems is performed in the U.S. and Mexico using contract manufacturers, along with supporting third-party logistics companies in the Europe, Middle East, and Africa region, or (“EMEA”), and the Asia-Pacific region, or (“APAC”). The value of utilizing well-run logistics companies and supply chain solutions is that our product logistics is optimized for cost reductions with a competitive advantage allowing the physical flow and information flow to work together seamlessly.

Our tape media is manufactured in Japan and distributed globally.

Intellectual Property and Technology

We generally rely on patent, copyright, trademark and trade secret laws and contract rights to establish and maintain our proprietary rights in our technology and products. As of March 31, 2021, we hold approximately 319 U.S. patents and have 40 pending U.S. patent applications. In general, these patents have a 20-year term from the first effective filing date for each patent. We also hold multiple foreign patents and patent applications for certain of our products and technologies. Although we believe that our patents and applications have significant value, rapidly changing technology in our industry means that our future success may also depend heavily on the technical competence and creative skills of our employees.

From time to time, third parties have asserted that the manufacture and sale of our products have infringed on their patents. We are not knowingly infringing any third-party patents. Should it ultimately be determined that licenses for third-party patents are required, we will undertake best efforts to obtain such licenses on commercially reasonable terms. See Note 11 *Commitments and Contingencies* for additional disclosures regarding lawsuits alleging patent infringement.

On occasion, we have entered into various patent licensing and cross-licensing agreements with other companies. We may enter into patent cross-licensing agreements with other third parties in the future as part of our normal business activities. These agreements, when and if entered into, would enable these third parties to use certain patents we own and enable us to use certain patents owned by these third parties. We have also sold certain patents, retaining a royalty-free license for these patents.

We are a member of the consortium that develops, patents, and licenses Linear Tape-Open, (or “LTO® tape”) technology to media manufacturing companies. We receive royalty payments for LTO media technology sold under licensing agreements. We have also entered into various licensing agreements with respect to our technology, patents and similar intellectual property which provide licensing revenues in certain cases and may expand the market for products and solutions using these technologies.

Segment Information

We operate as a single reporting unit and operating segment for business and operating purposes. Information about revenue attributable to each of our product groups is included in *Item 7 Management’s Discussion and Analysis of Financial Condition and Results of Operations* and information about revenue and long-lived assets attributable to certain geographic regions is included in *Note 2, Revenue* and *Note 4, Balance Sheet Information*, respectively, to the consolidated financial statements and risks attendant to our foreign operations is set forth below in *Item 1A Risk Factors*.

Seasonality

As is typical in our industry, we generally have the greatest demand for our products and services in the fourth quarter of each calendar year, or our fiscal third quarter. We usually experience the lowest demand for our products and services in the first and second quarters of each calendar year, or our fiscal fourth quarter and fiscal first quarter, respectively.

Backlog

On a historical basis we do not believe that product backlog was a meaningful indicator of net revenue that can be expected for any period. Our products are manufactured based on forecasts of customer demand and we work with our manufacturers and suppliers to support increases and decreases in demand. Orders are generally placed by customers on an as-needed basis. Product orders are confirmed and, in most cases, shipped to customers within four to six weeks. More complex systems and product configurations often have longer lead times, sometimes as

much as 26 weeks. Much of the product backlog is from these more complex systems and typically increases at the end of each fiscal quarter, with these products typically being shipped in the following quarter. During the fourth quarter of fiscal year 2021, there were supply chain shortages experienced industry-wide which restricted our ability to fulfill all orders. These shortages combined with customer bookings have created a significant backlog entering the first quarter of fiscal year 2022.

Executive Officers and Management Team

Following are the names and positions of our management team as of May 18, 2021, including a brief account of the business experience of each.

Name	Position with Quantum
James J. Lerner	President, Chief Executive Officer and Chairman of the Board
J. Michael Dodson	Chief Financial Officer
Elizabeth King	Chief Revenue Officer
Lewis Moorehead	Chief Accounting Officer
Brian E. Cabrera	Chief Legal and Compliance Officer

James J. Lerner, 51, was appointed as President and CEO of the Company, effective July 1, 2018, and was appointed Chairman of the Board on August 7, 2018. Mr. Lerner has previously served as Vice President and Chief Operating Officer at Pivot3 Inc. from March 2017 to June 2018, and Chief Revenue Officer from November 2016 to March 2017. Prior to Pivot3, from March 2014 to August 2015, Mr. Lerner served as President of Cloud Systems and Solutions at Seagate Technology Public Limited Company. Prior to Seagate, Mr. Lerner served in various executive roles at Cisco Systems, Inc., including most recently as Senior Vice President and General Manager of the Cloud & Systems Management Technology Group. Before beginning his career as a technology company executive, Mr. Lerner was a Senior Consultant at Andersen Consulting. Since 2011, Mr. Lerner has served on the Board of Trustees of Astia, a global not-for-profit organization built on a community of men and women dedicated to the success of women-led, high-growth ventures, and is currently serving as the Chair of the Board of Trustees. Mr. Lerner earned a Bachelor of Arts in Quantitative Economics and Decision Sciences from U.C. San Diego.

J. Michael Dodson, 60, was appointed Chief Financial Officer effective May 31, 2018. He was also appointed interim Chief Executive Officer, a position in which he served until James J. Lerner joined the Company on July 1, 2018. From August 2017 to May 2018, Mr. Dodson served as the Chief Financial Officer of Greenwave Systems. Prior to joining Greenwave Systems, Mr. Dodson served as the Chief Operating Officer and Chief Financial Officer at Mattson Technology, Inc. from 2012 to 2017. He joined Mattson as Executive Vice President, Chief Financial Officer and Secretary in 2011. Prior to joining Mattson, Mr. Dodson served as Chief Financial Officer at four global public technology companies and Chief Accounting Officer for an S&P 500 company. Mr. Dodson started his career with Ernst & Young in San Jose, California. From 2013 through 2020, he served on the Board of Directors of Sigma Designs, Inc., a provider of system-on-chip solutions, including as Lead Independent Director starting in 2014 and Chairman of the Audit Committee starting in 2015. He has also served on Board of Directors of A10 Network from February 2020 until April 2021 and was named Chairman of their Audit Committee in June 2020. In addition, Mr. Dodson serves as a director of two private entities: a charitable organization and a privately held for-profit company. He holds a B.B.A. degree with dual majors in Accounting and Information Systems Analysis and Design from the University of Wisconsin-Madison.

Elizabeth King, 63, has served as Quantum's Chief Revenue Officer since March 2019. Prior to Quantum, from January 2017 to February 2019, she was Vice President, Go-to-Market & Enablement, HPC & AI at HPE. She joined HPE as part of HPE's acquisition of SGI, where she served as SVP of worldwide sales from January 2014 through December 2016. Prior to HPE/SGI, she was vice president of strategic alliances for IBM and global systems integrators at Juniper Networks from June 2010 to January 2014. Prior to Juniper, she was vice president and general manager of the Hitachi Server Group of Hitachi Data Systems. She also held key senior sales, business development and operations roles at Nokia (formerly Alcatel-Lucent), Oracle (formerly Sun Microsystems), Raytheon, and Texas Instruments. Ms. King holds an MBA with honors from the University of Dallas and a Bachelor of Science in mechanical engineering from Lehigh University.

Lewis Moorehead, 49, has served as our Chief Accounting Officer since October 2018. Prior to joining Quantum, Mr. Moorehead was the Director of Finance, Accounting and Tax at Carvana, Co., a publicly traded on-line retailer,

from November 2016 to October 2018. From September 2004 to October 2016, he served as Managing Partner at Quassey, an investment firm. While at Quassey, he also served as Vice President of Finance and Principal Accounting Officer at Limelight Networks, a NASDAQ-listed global content delivery network and SaaS provider, from March 2010 to August 2013. He has also held finance and accounting positions at eTelecare Global Solutions, Rivers and Moorehead PLLC, Intelligentias, Inc., American Express and PricewaterhouseCoopers. He holds a Bachelor of Business Administration (B.B.A.), in Accounting from the University of Wisconsin-Whitewater.

Brian E. Cabrera, 56, most recently served as the Assistant United States Attorney from October 2018 to April 2020 and as Special Assistant United States Attorney from October 2017 to October 2018 in the Office of the United States Attorney, Northern District of California. From May 2014 to June 2017, Mr. Cabrera served as Senior Vice President & General Counsel of NVIDIA Corporation. Prior to NVIDIA, Mr. Cabrera served as General Counsel and Corporate Secretary, Chief Ethics & Compliance Officer of Synopsys, Inc. from 2006 to 2014. From 1999 to 2006, Mr. Cabrera served as Senior Vice President, Operations, General Counsel and Corporate Secretary of Callidus Software, Inc. Prior to Callidus Software, Mr. Cabrera held various legal positions with PeopleSoft, Inc., Netscape Communications Corporation, Silicon Graphics and Bronson, Bronson & McKinnon.

Human Capital

Our Chief Human Resources Officer ("CHRO") leads our human capital initiatives which includes the design and execution of all people strategies. The CHRO partners directly with the Board of Directors, the Leadership and Compensation Committee, and Senior Management on the design, cost, and effectiveness of our people programs to ensure they are competitive and rewards our teams for driving company performance.

This past year we saw the evolution and pivot of our business strategy to cloud and data services which tested our organization's agility and overall effectiveness. This inflection point served as a springboard to drive additional improvements across our business, including as it relates to our people strategy.

Our workforce is distributed over 18 countries, with 827 employees globally as of March 31, 2021, with 509 in the U.S. and 318 internationally. We mobilize and engage our teams to support our cloud and data services strategy using the following objectives and measures.

Overall Employee Satisfaction

To measure employee engagement and satisfaction, we surveyed our employees four different times throughout fiscal year including (1) assessing their concerns when the pandemic first began, (2) conducted our annual Pulse Survey to measure our employees' opinions on leadership and business strategy, culture, work environment, management, career development, and rewards and recognition, (3) assessed our employees' thoughts on new people programs initiatives introduced in the year, and (4) our employees thoughts for what our work environment will look like beyond the pandemic.

Response to COVID-19 Pandemic

In February 2020, our CHRO addressed the rising concerns of the COVID-19 pandemic at the regular executive staff meeting. As the pandemic ensued, the CHRO with other leaders in the business formed the COVID-19 Task Force that met daily to determine employee safety protocols, build and communicate a workforce pandemic guide, produce regular communications about working from home and what to do if you test positive for the virus.

Highlights from fiscal year 2021 included:

- **Work-from-home:** To support the transition to working from home, we ensured all our team members were equipped with the online meeting and chat tools for each virtual collaboration. We allowed our employees to take home equipment from the office including chairs or monitors to make them more comfortable at home.
- **Benefits:** As the duration of the pandemic ensued, we communicated to our employees the importance of mental health and well-being. We encourage our teams to take advantage of our virtual mental health resources and utilize virtual health care when doctor's offices were closed. In addition, we implemented a Summer Hours program that allows people to take every other Friday off as a way to prevent employee burn out and spend time away from their workstations.

- **Essential worker safety:** For our essential workers that could not work remotely, we provided all personal protective equipment including hand sanitizing stations, masks, gloves, added cleaning services and ensured social distancing. We provide the employees with a mobile application to personally screen for symptoms before accessing our sites. The safety of our employees and work environments remain a top priority. We published our pandemic guide with all written safety policies and protocols.
- **Workforce of the future:** Following the results of our Post Pandemic survey, we will continue to offer a hybrid work-from-home policy and use of current office space as centers of collaboration where our employees will have larger dedicated spaces for team meetings, customer engagements, or other social gatherings. To ensure we offer our employees the best work environment for productivity and success that suits their needs, we will also have space designated for single day use workstations.

Culture of Excellence, Accountability, and Innovation

Our company goals and leadership attributes set the tone for our culture of excellence and accountability. Through our Code of Conduct, Culture of Compliance survey, and monthly compliance newsletter, employees are empowered to ask questions, use their voice and report concerns without fear of retaliation. Our company culture supports and inspires innovation. Employees are encouraged to seek out new projects or experiences even outside their own working group. The leadership team created regular “no internal meetings” days so employees can have more time to work on innovative projects, plan, take a training course, or use the uninterrupted time for personal development.

Talent Development

Our talent is our greatest asset. We are actively growing our employees from a skills and leadership perspective while also retaining our high potential and most critical talent. We offer a worldwide mentorship program that last six months in duration and is available to any interested employee. All of our senior leaders participate in the program and get paired with an employee on key developmental skills or behaviors. In addition, we focus our performance reviews on a semi-annual basis in order to closely monitor and discuss our talent successes, needs, and aspirations. Our managers and employees participate in semi-annual discussions that help facilitate conversations of employee contributions, goals and expectations.

Available Information

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on our website at <https://www.quantum.com> generally when such reports are available on the SEC website. The contents of our website are not incorporated into this Annual Report on Form 10-K.

The public may read and copy any materials we file with the SEC at the SEC’s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy, and information statements and other information regarding issuers that file electronically with the SEC at <http://www.sec.gov>.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below, together with all other information in this Annual Report, before investing in any of our securities. The occurrence of any single risk or any combination of risks could materially and adversely affect our business, operating results, financial condition, liquidity, or competitive position, and consequently, the value of our securities. The material adverse effects include, but are not limited to, not growing our revenue or market share at the pace that they have grown historically or at all, our revenue and market share fluctuating on a quarterly and annual basis, an extension of our history of losses and a failure to become profitable, not achieving the revenue and net income (loss) guidance that we provide, and harm to our reputation and brand.

Risks Related to Our Business and Industry

The COVID-19 pandemic has affected our business and may continue to affect our business.

The COVID-19 pandemic and efforts to control its spread have impacted and will continue to impact our workforce and operations, and those of our strategic partners, customers, suppliers and logistics providers. These impacts have included and may include under-absorbed overhead, increased logistics and other costs and decreased product output. While our third-party partners are all currently operational, in some cases with exemptions from government restrictions, this is subject to change based on evolving conditions related to the pandemic.

The effects of the pandemic are uncertain and difficult to predict, but may include:

- Further disruptions to our supply chain, our operations or those of our strategic partners, customers or suppliers caused by employees or others contracting COVID-19, or governmental orders to contain the spread of COVID-19 such as travel restrictions, quarantines, shelter in place orders, trade controls, and business shutdowns;
- A global economic downturn or a recession causing a decrease in short- or long-term demand for our products, resulting in industry oversupply and decreases of average selling prices (“ASPs”), which would negatively impact our sales and profitability;
- Deterioration of worldwide credit markets that may limit our ability or increase our cost to obtain external financing to fund our operations and capital expenditures and result in a higher rate of losses on our accounts receivables due to customer credit defaults;
- Extreme volatility in financial markets which has and may continue to adversely impact our stock price and our ability to access the financial markets on acceptable terms, or at all;
- Increased data security and technology risk as many employees transition to work from home arrangements, including possible outages to systems and technologies critical to remote work and increased data privacy risk with cybercriminals attempting to take advantage of the disruption; and
- Management’s ongoing commitment of significant time, attention and resources to respond to the pandemic.

The degree to which the pandemic ultimately impacts our business and results of operations will depend on future developments beyond our control which are highly uncertain and cannot be predicted at this time, including the severity and duration of the pandemic, the extent of actions to contain or treat COVID-19, the effectiveness of government stimulus programs, any possible resurgence of COVID-19 that may occur after the initial outbreak subsides, how quickly and to what extent normal economic and operating activity can resume, and the severity and duration of the global economic downturn that results from the pandemic. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in more detail in this “Risk Factors” section, such as those relating to adverse global or regional conditions, our highly competitive industry, supply chain disruption, customer demand conditions and our ability to forecast demand, cost saving initiatives, our indebtedness and liquidity, and cyber-attacks.

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.

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, proprietary business information or other harm to their business. In some cases, the failure of our products may have been caused by third-party technology that we incorporate into our products. Even if failures are caused by third-party technology, we may be required to expend resources to address the failure and work with our customers to preserve our relationship with them. We could also potentially face claims for product liability from our customers if our products cause property damage or bodily injury. Although there are limitations of liability in our commercial agreements and 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 limitation of liability or our insurance coverage could harm our business.

A certain 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 product sales have been and continue to be concentrated among a small number of our direct end-user customers and channel partners as a result of how we sell our products. Under our business model, we sell directly to end user customers, through distributors, VARs and DMRs (which we collectively call our "channel partners"), as well as to OEMs. We sell to many end-user customers and channel partners on purchase orders, not under the terms of a binding long-term procurement agreement. Accordingly, they generally are not obligated to purchase any minimum product volume, and our relationships with them are terminable at will. In addition, recently we have focused our direct-sales business on the largest users of hierarchical storage architectures, the so-called "Hyper-scalers"; there are very few of these extremely large storage customers. During the fiscal years ended March 31, 2021 and March 31, 2020 no single customers represented 10% or more of our total revenue. A significant reduction in orders from, or a loss of, one or more large customers would have a material adverse effect on our results of operations.

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 channel partners. Because of this, we have limited market access to the end users who purchase from the OEMs and channel partners, which limits our ability to influence the end users' purchasing decisions and to forecast their future purchases of our products. Revenue from OEM customers has decreased in recent years. Certain of our large OEM customers are also our competitors, and such customers could decide to reduce or terminate their purchases of our products for competitive reasons. These market conditions increase our reliance on these OEM and channel partners. Thus, a significant reduction, delay or cancellation of their orders with us would materially and adversely affect our results of operations.

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. In the past, we have experienced the impact of reduced government spending and temporary government shutdowns on our sales to government agencies. Future spending cuts by the U.S. federal government, temporary shutdowns of the U.S. federal government or changes in its procurement processes or criteria could decrease our sales to the federal government and could materially and adversely affect our results of operations.

Competition is intensifying in the data storage and 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 storage and protection market are aggressively trying to advance and develop new technologies and products to compete against our technologies and products. Consequently, 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. Some of those competitors, such as Dell, IBM, HPE, and others, are much larger and have more diverse product offerings, and aggressively compete based on their reputations and greater size.

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 our other 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 or different features and technologies from what we offered in prior years. We face risks that customers could choose competitors' products over ours due to these features and technologies or due to pricing differences. If competition further intensifies, 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. Additionally, the competitive landscape in the data storage and protection market could continue to change due to merger and acquisition activity. 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 the timing of such a transaction and its degree of impact, or whether it will happen at all, 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.

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, product 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.

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.

A cybersecurity breach into our products when used by our customers 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 into a system we have sold to a customer could negatively affect our reputation as a trusted provider of large-scale 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 liability or litigation costs that are not covered by insurance or in excess of our insurance coverage could harm our business.

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. For example, in December 2020, we acquired Square Box Systems Ltd. ("SBS"). 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.

We have taken considerable steps towards reducing our cost structure. The steps we have taken may not reduce our cost structure to a level appropriate in relation to our future sales and therefore, these cost reductions may be insufficient to achieve profitability.

In the last several years, we have recorded significant restructuring charges and made cash payments to reduce our cost of sales and operating expenses to respond to adverse economic and industry conditions, to execute strategic management decisions and to rationalize our operations following acquisitions. During fiscal years 2018 through 2021 we have implemented restructuring plans to eliminate certain positions in the U.S. and internationally and to exit certain locations. 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. 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.

Risks related to Intellectual Property

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 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 us. Any of these actions could negatively impact our technology licensing, thereby reducing the functionality or features of our products, and could 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 also materially and adversely affect our business, financial condition and results of operations.

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

From time to time, third parties allege that our products infringe their patented or proprietary technology and demand that we purchase a license from them. For example, we are currently in patent litigation with Realtime Data LLC d/b/a IXO, which has been stayed, described in *Note 11: Commitments and Contingencies*. The ultimate outcome of any license discussion or litigation, including the Realtime 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.

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.

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 litigation, which is expensive and can divert management's attention away from our business. 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.

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 certain of our intellectual property rights, which, depending on the license, may include certain of 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.

Risks related to our Supply Chain and Sales Strategy

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 and have suppliers for various components, several of which have operations located in foreign countries including China, Hungary, Japan, Malaysia, Singapore, Mexico, the Philippines and Thailand. Because of these operations, we are subject to a number of risks including:

- import and export duties and value-added taxes;
- import, export and trade regulation changes that could erode our profit margins or restrict our ability to transport our products;
- 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;
- 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;
- natural disasters, including earthquakes, flooding, typhoons and tsunamis;
- pandemics and epidemics, including the impact of COVID-19, and governmental restrictions on the operation of businesses, travel and other restrictions, which may vary from country-to-country; 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 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.

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 in these situations, 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. 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.

We rely on a limited number of suppliers and, in some cases, on single-source suppliers, for several key components of our products, and we have not generally entered into agreements for the long-term purchase of these components. While we actively monitor and manage our supply chain, we cannot anticipate the potential impact that new or current restrictions due to COVID-19 may have on the manufacturing and shipment of our products.

Our reliance on a limited number of suppliers and the lack of any guaranteed sources of supply exposes us to several risks, including:

- the inability to obtain an adequate supply of key components;
- price volatility for the components of our products;
- failure of a supplier to meet our quality or production requirements;
- failure of a supplier of key components to remain in business or adjust to market conditions; and
- consolidation among suppliers, resulting in some suppliers exiting the industry, discontinuing the manufacture of components or increasing the price of components.

Further, some of the components in our products are sourced from component suppliers outside the United States, including from China. The portion of our products that are sourced outside the United States may subject us to additional logistical risks or risks associated with complying with local rules and regulations in foreign countries. Significant changes to existing international trade agreements could lead to sourcing or logistics disruption resulting from import delays or the imposition of increased tariffs on our sourcing partners. For example, there have been discussions regarding potential significant changes to U.S. trade policies, legislation, treaties and tariffs, and the United States and Chinese governments have announced import tariffs by both countries. If any new legislation and/or regulations are implemented, if existing trade agreements are renegotiated or terminated, or if tariffs are imposed on foreign-sourced or U.S. goods, it may be inefficient and expensive for us to alter our business operations in order to adapt to or comply with such changes. Such operational changes could have a material adverse effect on our business, financial condition, results of operations or cash flows.

As a result of these risks, we cannot assure investors that we will be able to obtain a sufficient supply of these key components in the future or that the cost of these components will not increase. If our supply of components is disrupted or delayed, or if we need to replace our existing suppliers, there can be no assurance that additional components will be available when required or that components will be available on terms that are favorable to us, which could extend our lead times, increase the costs of our components and harm our business, operating results and financial condition. We may not be able to continue to procure components at reasonable prices, which may require us to enter into longer-term contracts with component suppliers to obtain components at competitive prices. Any of the foregoing disruptions could increase our costs and decrease our gross margins, harming our business, operating results and financial condition.

If we do not manage the supply of our products and their components efficiently, our results of operation could be adversely affected.

Managing the supply of our products and underlying components is complex. Our third-party contract manufacturers procure components and build our products based on our forecasts, and we generally do not hold inventory for a prolonged period of time. These forecasts are based on estimates of future demand for our products, which are in turn based on historical trends and analyses from our sales and marketing organizations, adjusted for overall market conditions. In order to reduce manufacturing lead times and plan for adequate component supply, from time to time we may issue orders for components and products that are non-cancelable and non-returnable. Our inventory management systems and related supply chain visibility tools may be inadequate to enable us to make accurate forecasts and effectively manage the supply of our products and components. If we ultimately determine that we have excess supply, we may have to reduce our prices and write down or write off excess or obsolete inventory, which in turn could result in lower gross margins. Alternatively, insufficient supply levels may lead to shortages that result in delayed revenue, reduced product margins or loss of sales opportunities altogether. The current overall supply shortage related to semiconductors is an example currently impacting us. If we are unable to effectively manage our supply and inventory, our results of operations could be adversely affected.

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.

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 most of our branded products to distributors such as Arrow Electronics, Inc. and other VARs and DMRs such as CDW Corporation, who in turn sell our products to end users. We use different distributors, VARs and DMRs in different countries and regions in the world. 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.

When we introduce new products and solutions, our relationship with channel partners that historically have sold other products and solutions and that now compete with our new offerings could be adversely impacted.

Our results of operations could be adversely affected by any number of factors related to our channel partners, 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.

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. 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 increased expenses, which could in turn have a material and adverse impact on our business, results of operations and financial condition.

Risks related to Regulatory Matters

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 the 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. If we were to be subject to a compliance investigation, we may incur increased personnel and legal costs. In addition, if we identify that we have fallen out of compliance, we may proactively take corrective actions, including the filing of voluntary self-disclosure statements with applicable agencies, which could cause us to incur additional expenses and subject us to penalties and other consequences that could adversely affect our business, operating results and financial condition. 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.

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 personally identifiable information. 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, in 2016, the European Parliament enacted the General Data Protection Regulation (or “GDPR”) which governs the collection, storage and use of personal information gathered in the European Union, regardless of where such information is stored. In 2018, California enacted the Consumer Privacy Act (“CCPA”), which regulates information stored by companies doing business in California. The regulations implementing the CCPA have not yet been published, and the implementation of standards for GDPR compliance continue to evolve. Our products’ and internal systems’ 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.

Risks Related to Our Operating Results or Financial Condition

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 a timely manner;
- changes in product 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;
- 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 distributors, VAR, DMR and other large customers;
- increased competition which may, among other things, increase pricing pressure or reduce sales;
- restructuring actions or unexpected costs; and
- foreign exchange fluctuations.

Our results of operations depend on continuing and increasing market acceptance of our existing 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.

When we introduce new products to the market, our new products may not achieve market acceptance or significant market share. In addition, the target markets for our new products may not continue or grow as we anticipate. Our new products may not be successfully or timely qualified by new customers, and if they are qualified, we may not achieve high volume production with these products in a timely manner, if at all. In addition, we may experience technical, quality, performance-related or other difficulties that could prevent or delay the introduction and market acceptance of new products.

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 derive significant revenue from products incorporating tape technology. Our future results of operations depend in part on continued market acceptance and use of products incorporating tape technology; in the past, decreases in the market have materially and adversely impacted our business, financial condition and results of operations.

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 certain types of tape products

could continue to decline, which could materially and adversely impact our business, financial condition and results of operations in the future.

Disk and solid-state products, as well as various software solutions and alternative technologies such as crystal and organic material-based storage have been announced by other companies. We expect that, over time, many of our tape customers could migrate toward our other products and solutions and that revenue from these other products and solutions will generate a greater proportion of our revenue in the future. 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 continue to face risks related to economic uncertainty and slow economic growth.

Uncertainty about economic conditions, particularly under the current circumstances caused by the COVID-19 pandemic, 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 volatile economic conditions in recent years along with periods of economic uncertainty in various countries around the world has made planning more difficult for us. We continue to face risks related to uncertain tariff levels between countries where our products are manufactured and where they are sold, unstable political and 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, we may not be able to access capital markets in the near-term or our ability to access capital markets may be restricted. Our inability to access capital markets in an effective and efficient manner could have an impact on our ability to react to changing economic and business conditions and could also materially and adversely affect our ability to sustain our operations at their current levels.

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 and branded software revenues generate relatively greater profit margins than some of our other products, and can significantly impact our overall profitability. We receive media royalty revenue based on tape media cartridges sold by various tape media manufacturers and resellers. Under our patent and technology 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 continued use by our customers of tape media for storage;
- 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;
- The level of channel inventories; and
- agreement on standards for newer generations of the tape media that generates our royalty revenue.

Our stock price has experienced significant volatility in the recent past, and this significant volatility may continue to occur and could cause the trading price of our common stock to decline.

Our stock price has been extremely volatile in the recent past. For example, the closing price of our common stock was \$8.35 on January 29, 2020 and was \$1.48 on March 18, 2020.

The trading price of our common stock may fluctuate in response to a number of events and factors, many of which are beyond our control, such as:

- 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 reputation;
- new products, services, innovations and strategic developments by our competitors or us, or business combinations and investments by our competitors or us;
- changes in our capital structure, including issuance of additional debt or equity to the public, and the issuance of common stock upon exercise of our outstanding warrants;
- large or sudden purchases or sales of stock by existing or new investors; and
- the result of any litigation or governmental investigation, which could result in liabilities and reputational harm.

Other macro-economic forces also could affect our stock price, including:

- changes in interest and exchange rates;
- a continued widespread decline in the U.S. or global economy as a result of the continued impact of COVID-19 or other pandemics or natural disasters;
- fluctuations in the stock market in general and market prices for technology companies in particular; and
- tariffs imposed by the U.S. Government on sales originating in or being shipped to countries with which we have on-going trade or other political conflicts.

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

We have previously identified deficiencies in our control environment and financial reporting process that resulted in material weaknesses in our internal control over financial reporting and previously concluded that our internal control over financial reporting and our disclosure controls and procedures were not effective as of March 31, 2019. As of March 31, 2020, we remediated these material weaknesses and have concluded that our internal control over financial reporting and our disclosure controls and procedures were effective. However, if we fail to maintain proper and effective internal controls, material misstatements in our financial statements could occur and impair our ability to produce accurate and timely financial statements and could adversely affect investor confidence in our financial reports, which could negatively affect our business.

We have concluded that our internal control over financial reporting and disclosure controls and procedures were effective as of March 31, 2021. However, in the past and as of March 31, 2019, we concluded that our internal control over financial reporting and disclosure controls and procedures were not effective due to the existence of material weaknesses in our control environment, financial reporting process and internal control over financial reporting. We restated our consolidated financial statements and related disclosures for the year ended March 31, 2017 and restated each of the quarterly periods related to the three months ended June 30, 2017 and the three- and six-month periods ended September 30, 2017, following the identification of misstatements as a result of an internal investigation that we concluded in fiscal 2020. This prior restatement and our ineffective internal control over financial reporting damaged our reputation, caused us to incur a significant amount of costs and resulted in the distraction of our management team from the operation of our business. We cannot provide assurance that the material weaknesses and deficiencies that we identified as of March 31, 2019 will not reoccur, or that additional material weaknesses in our internal control over financial reporting will not arise or be identified in the future. We intend to continue to monitor the tone at the top of our organization, our financial reporting process, and our operational, information technology, financial systems, compliance and infrastructure procedures and controls. We also intend to continue to expand, train, retain and manage our personnel who are essential to effective internal control and compliance. In doing so, we will continue to incur expenses and expend management time.

If we fail to maintain proper and effective internal controls, our consolidated financial statements may contain material misstatements and we could be required to restate our financial results in the future. Moreover, because of the inherent limitations of any control system, material misstatements due to error or fraud may not be prevented or detected on a timely basis, or at all. If we are unable to provide reliable and timely financial reports in the future, our

business and reputation may be further harmed. Restated financial statements and failures in internal control may also cause us to fail to meet reporting obligations or debt covenants, negatively affect investor confidence in our management and the accuracy of our financial statements and disclosures, or result in adverse publicity and concerns from investors, any of which could have a negative effect on the price of our common stock, subject us to further regulatory investigations and penalties or stockholder litigation, and materially and adversely impact our business and financial condition.

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 required 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. 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.

Risks Related to our Indebtedness

We have significant indebtedness, which imposes upon us debt service obligations, and our term loan and 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, 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. As recently as June 2020 we failed to meet certain financial covenants in our debt agreements, which could have resulted in a default under these agreements if we had not

obtained a waiver of noncompliance from our lenders. For further description of our outstanding debt, see the section captioned "Liquidity and Capital Resources" in Part II, *Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations*.

As a result of our indebtedness:

- Our ability to invest in growing 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 significant 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 weakness we experienced for several years in the market for our storage, back up and data protection solutions, which is the primary driver of our overall cash flow and operating income, placed increased pressure on our ability to meet our liquidity and fixed charge coverage ratio covenants. In recent periods, our business has declined due, in part, to the negative impact of the COVID-19 pandemic. As a result, we fell out of compliance with certain financial covenants, including, for example, the total net leverage ratio and total leverage ratio covenants for the fourth fiscal quarter period ending March 31, 2020. We received a waiver from our lenders for the noncompliance of these covenants. In June 2020, we amended our debt agreements to revise our financial covenants in light of currently expected business levels under current market conditions, including the negative impact of COVID-19. These amendments required us to make significant payments to our lenders, including approximately \$1.0 million and to issue 3,400,000 warrants that are exercisable for shares of our common stock, which when exercised will result in significant dilution to our stockholders and could cause our stock price to decline. In addition, we also incurred significant costs related to advisors, attorneys and accountants. We believe we will be able to meet these covenants in the future, but if our financial results turn out to be lower than expected, we may breach a covenant, which could result in a default under our credit facility agreements.

Our ability to make scheduled payments of the principal, to pay interest on, or to refinance our indebtedness, or to make cash payments in connection with our credit facility, depends on our future performance, which is subject to economic, 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. 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 all 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 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.

In connection with entering into our credit facilities and certain amendments to our prior credit facilities, we were required to issue warrants to purchase our common stock to our lenders. When exercised, these warrants will result

in significant dilution to our stockholders. As a result, the issuance of common stock upon the exercise of our outstanding warrants may cause our stock price to decline.

We may not be entitled to forgiveness of our Paycheck Protection Program loan, and our application for the Paycheck Protection Program loan could in the future be determined to have been impermissible, which could result in the imposition on us of fines and other penalties, or could result in damage to our reputation.

On April 13, 2020, we entered into a Paycheck Protection Term Note for a principal amount of \$10,000,000, or the PPP Loan, under the Paycheck Protection Program, or PPP, of the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act. We used all of the proceeds from the PPP Loan to maintain our employees and their current salaries in the United States. The PPP Loan has a two-year term and bears annual interest at a rate of 1.0%. Payments of principal and interest on the PPP Loan will be deferred for no longer than ten months from loan origination. Thereafter, we are required to pay the lender equal monthly payments of principal and interest.

We have applied for forgiveness of the full amount of our PPP Loan. However, we may not be granted forgiveness for all or any portion of our PPP Loan. On April 29, 2020, the U.S. Department of the Treasury indicated its intention to audit all loans obtained under the PPP that exceeded \$2.0 million. As a result of our PPP Loan amount, we fall under this heightened review standard. If our PPP Loan is not forgiven, we will be required to repay any portion of the outstanding principal that is not forgiven, along with accrued interest, in accordance with the amortization schedule described above.

In order to apply for the PPP Loan, we were required to certify, among other things, that the current economic uncertainty made the PPP Loan request necessary to support our ongoing operations. We made this certification in good faith after analyzing, among other things, our financial situation and access to alternative forms of capital, and believe that we satisfied all eligibility criteria for the PPP Loan, and that our receipt of the PPP Loan is consistent with the spirit and broad objectives of the PPP and of the CARES Act. The certification described above does not contain any objective criteria and is subject to interpretation. On April 23, 2020, the SBA issued guidance stating that it is unlikely that a public company with substantial market value and access to capital markets will be able to make the required certification in good faith. In addition, the SBA stated its intent to audit the PPP Loan application of any company, like us, that received proceeds under the PPP of more than \$2 million. Additionally, on May 8, 2020, we were one of five publicly traded companies to receive a letter from the United States House of Representatives' Select Subcommittee on the Coronavirus Crisis, or the Subcommittee, requesting that we return the PPP Loan proceeds, and if we did not return the proceeds, requiring us to produce to the Subcommittee specified documentation related to our PPP Loan. We have cooperated fully with the Subcommittee's review of our PPP Loan and intend to cooperate fully with any additional requests for information or additional review. If we are later determined to have violated any of the laws or governmental regulations that apply to us in connection with the PPP Loan, such as the False Claims Act, or it is otherwise determined that we were ineligible to receive the PPP Loan, we may be subject to penalties, including significant civil, criminal and administrative penalties and could be required to repay the PPP Loan in its entirety. Any review or audit by the SBA or other government entity or claims under the False Claims Act, could consume additional significant financial and management resources. Any of these events could have a material adverse effect on our business, results of operations and financial condition.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our headquarters are located in San Jose, California. We lease facilities in North America, Europe, and Asia Pacific. We believe our facilities are adequate for our current needs. The following is a summary of the significant locations and primary functions of those facilities as of March 31, 2021:

Location	Function
North America	
San Jose, CA	Corporate headquarters, administration, research and development
Irvine, CA	Administration, research and development, sales, service
Englewood, CO	Administration, research and development, sales, service, operations
Mendota Heights, MN	Research and development
Bellevue, WA	Administration and sales
Europe	
Munich, Germany	Sales, service
Bracknell, UK	Sales, service
London, UK	Sales
Ghent, Belgium	Research and development
Asia Pacific	
Adelaide, Australia	Research and development
Kuala Lumpur, Malaysia	Administration, customer service, sales support, operations, research and development
Seoul, Korea	Sales, service
Singapore City, Singapore	Sales, administration, operations
Tokyo, Japan	Sales

ITEM 3. LEGAL PROCEEDINGS

See Item 8 of Part II, "Financial Statements and Supplementary Data — Note 11 — *Commitments and Contingencies.*"

ITEM 4. MINE SAFETY DISCLOSURE

None.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information, Holders of Record, and Dividends

Our common stock was traded on the New York Stock Exchange ("NYSE") under the symbol "QTM." On January 15, 2019, we were delisted from the NYSE.

On January 16, 2019, we started trading under the symbol "QMCO" on the OTC Pink, which is operated by OTC Markets Group Inc.

On February 4, 2020, we started trading on the Nasdaq Global Market under the symbol "QMCO".

The per share prices reflected in the following table represent the range of high and low sales prices of our common stock for the quarters indicated. The OTC Pink quotations do not reflect retail markup, markdown or commission and may not necessarily represent the prices of actual transactions during these quarterly periods.

	High	Low
Fiscal 2021		
First quarter ended June 30, 2020	\$4.82	\$2.67
Second quarter ended September 30, 2020	5.78	3.77
Third quarter ended December 31, 2020	5.30	4.18
Fourth quarter ended March 31, 2021	9.45	6.36
Fiscal 2020		
First quarter ended June 30, 2019	\$2.81	\$2.31
Second quarter ended September 30, 2019	6.26	2.63
Third quarter ended December 31, 2019	7.42	5.30
Fourth quarter ended March 31, 2020	8.35	1.48

As of May 21, 2021, we had 236 holders of record of our common stock.

We have no intention of paying cash dividends in the foreseeable future. Our ability to pay dividends is restricted by the covenants in our senior secured term loan and amended credit facility agreements with PNC Bank, National Association ("PNC"). See the section captioned "Liquidity and Capital Resources" in *Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations* and Note 5: *Debt* to the consolidated financial statements.

Recent Sales of Unregistered Securities

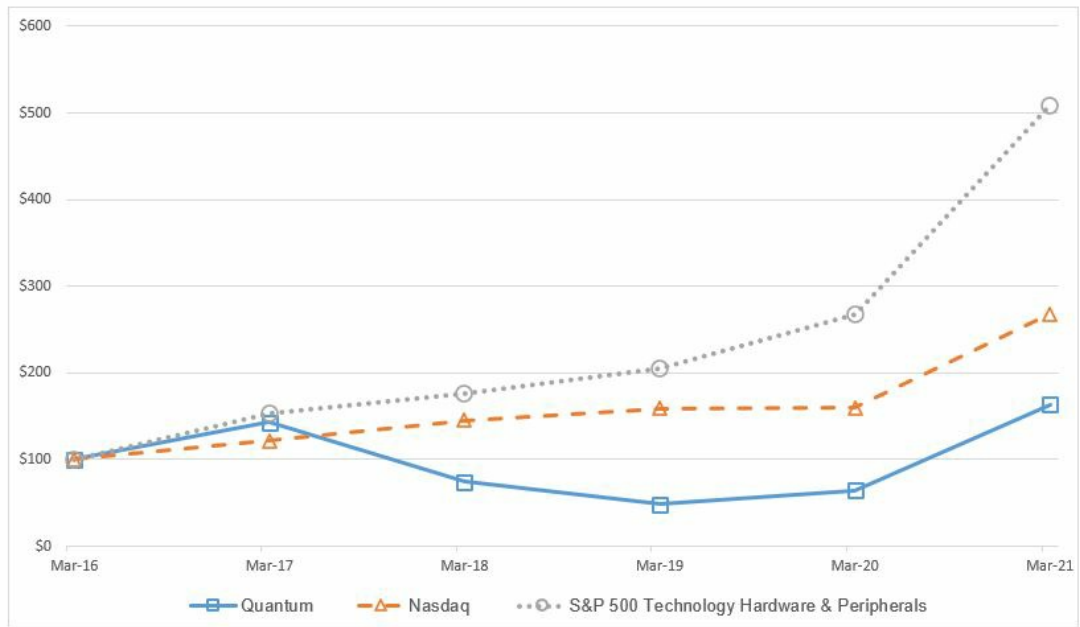
None.

Issuer Purchases of Equity Securities

During the year ended March 31, 2021, there were no purchases of our common stock by or on behalf of us or any of our affiliated purchasers, as such term is defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934, as amended ("the "Exchange Act").

Stock Performance Graph

The graph below compares the cumulative total return of a \$100 investment in our common stock with the cumulative total return of the same investment in the Nasdaq and the S&P 500 Index from March 31, 2016 through March 31, 2021.



ITEM 6. SELECTED FINANCIAL DATA

Not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements, the accompanying notes, and other information included in this Annual Report. In particular, the risk factors contained in Item 1A may reflect trends, demands, commitments, events, or uncertainties that could materially impact our results of operations and liquidity and capital resources.

The following discussion contains forward-looking statements, such as statements regarding COVID-19's anticipated impacts on our business, our future operating results and financial position, our business strategy and plans, our market growth and trends, and our objectives for future operations. Please see "Note Regarding Forward-Looking Statements" for more information about relying on these forward-looking statements.

Overview and Fiscal Year 2021 Highlights

We are a technology company whose mission is to deliver innovative solutions to forward-thinking organizations across the world. We design, manufacture and sell technology and services that help customers capture, create and share digital content, and protect it for decades. We emphasize innovative technology in the design and manufacture of our products to help our customers unlock the value in their video and unstructured data in new ways to solve their most pressing business challenges.

We generate revenue by designing, manufacturing, and selling technology and services. Our most significant expenses are related to compensating employees; designing, manufacturing, marketing, and selling our products and services; data center costs in support of our cloud-based services; and income taxes.

Highlights from fiscal year 2021 compared with fiscal year 2020 included:

- We ended fiscal 2021 with \$27.4 million in cash and cash equivalents, representing an increase of \$21.0 million from the end of fiscal 2020. Our cash flows used in operating activities during 2021 was \$0.8 million, compared to \$1.2 million during 2020.
- We completed an equity offering which generated \$96.8 million in net proceeds and reduced our total outstanding debt by approximately 50%.
- We fully integrated our Active Scale acquisition to expand our footprint in the object storage space, and completed the acquisition of SBS and their CatDV Media Asset Manager to continue to broaden our solutions and leadership position in video and unstructured data.
- We increased research and development investment 15% as we released several new product lines including StorNext 7, ATFS, and our H-Series platform.
- We began a project to replace and modernize our IT infrastructure and most notably our ERP system which will significantly enhance our operational capabilities and efficiency.
- We hired new leadership with expertise across multiple industries to drive innovation and fuel our next growth phase.

Square Box Systems Acquisition

In December 2020, we expanded our portfolio that classifies, manages, and protects data across its lifecycle by adding technology advancements to further enrich video, digital images and other forms of unstructured data with the acquisition of SBS, a specialist in data cataloging, user collaboration, and digital asset management software. This acquisition will strengthen our ability to provide software solutions to help companies unlock the business value contained in their data, both on-premises and in the cloud.

Impact of COVID-19 Pandemic

Since the beginning of March 2020, COVID-19 has led governments and other authorities around the world, including federal, state and local authorities in the United States, to impose measures intended to reduce its spread, including restrictions on freedom of movement and business operations such as travel bans, border closings, business limitations and closures (subject to exceptions for essential operations and businesses), quarantines and shelter-in-place orders. These measures may remain in place for a significant period of time.

In light of these events, we have taken actions to protect the health and safety of our employees while continuing to serve our global customers as an essential business. We have implemented more thorough sanitation practices as outlined by health organizations and instituted social distancing policies at our locations around the world, including working from home, limiting the number of employees attending meetings, reducing the number of people in our sites at any one time, and suspending employee travel. This was then followed by a gradual stabilization in our business during the second half of fiscal 2021 as customers increasingly adapted to the COVID-19 environment. Partially offsetting the headwinds from COVID-19 were reduced operating expenses in the areas of travel and marketing costs. In addition, we effected certain restructuring activities to streamline our operations, such as limited workforce realignments and vacating certain office leases.

We continue to actively monitor the situation and may take further actions altering our business operations that we determine are in the best interests of our employees, customers, partners, suppliers, and stakeholders, or as required by federal, state, or local authorities. See "The COVID-19 pandemic could adversely affect our business, results of operations and financial condition" in Part II, Item 1A, Risk Factors, of this Annual Report on Form 10-K for more information regarding the risks we face as a result of the COVID-19 pandemic.

RESULTS OF OPERATIONS

(in thousands)	Year Ended March 31,		
	2021	2020	2019
Total revenue	\$ 349,576	\$ 402,949	\$ 402,680
Total cost of revenue ⁽¹⁾	198,823	230,441	235,066
Gross profit	150,753	172,508	167,614
Operating expenses			
Research and development ⁽¹⁾	41,703	36,301	32,113
Sales and marketing ⁽¹⁾	54,945	59,524	69,400
General and administrative ⁽¹⁾	42,001	54,457	65,277
Restructuring charges	3,701	1,022	5,570
Total operating expenses	142,350	151,304	172,360
Income (loss) from operations	8,403	21,204	(4,746)
Other income (expense)	(1,312)	(261)	2,878
Interest expense	(27,522)	(25,350)	(21,095)
Loss on debt extinguishment, net	(14,789)	—	(17,458)
Loss before income taxes	(35,220)	(4,407)	(40,421)
Income tax provision	239	803	2,376
Net loss	\$ (35,459)	\$ (5,210)	\$ (42,797)

⁽¹⁾ Includes stock-based compensation as follows:

(in thousands)	Year Ended March 31,		
	2021	2020	2019
Cost of revenue	\$ 672	\$ 452	\$ 334
Research and development	2,881	984	440
Sales and marketing	1,757	1,165	179
General and administrative	4,314	4,147	2,456
Total	\$ 9,624	\$ 6,748	\$ 3,409

Comparison of the Years Ended March 31, 2021 and 2020

Revenue

(in thousands)	Year Ended March 31,					
	2021	% of revenue	2020 ¹	% of revenue	\$ Change	% Change
Product revenue						
Secondary storage systems	\$ 89,000	25 %	\$ 111,672	28 %	\$ (22,672)	(20) %
Primary storage systems	69,644	20 %	77,152	19 %	(7,508)	(10) %
Devices and media	51,164	15 %	62,344	15 %	(11,180)	(18) %
Total product revenue	\$ 209,808	60 %	\$ 251,168	62 %	\$ (41,360)	(16) %
Service revenue	124,904	36 %	131,050	33 %	(6,146)	(5) %
Royalty revenue	14,864	4 %	20,731	5 %	(5,867)	(28) %
Total revenue	\$ 349,576	100 %	\$ 402,949	100 %	\$ (53,373)	(13) %

¹ Primary and Secondary storage system revenue has been adjusted for fiscal year 2020 due to certain reclassifications from Primary to Secondary storage systems.

Product Revenue

In fiscal 2021, product revenue decreased \$41.4 million, or 16%, as compared to fiscal 2020. Secondary storage systems decreased by 20%, driven by fluctuating purchase cycles with our hyperscale customers. Primary storage systems decreased 10%, driven by early disruption in the media and entertainment market as COVID-19 significantly decreased major television and film production. We have since returned much closer to our pre-COVID quarterly run rate in this vertical as we closed out the fiscal year. Devices and media decreased \$11.2 million driven partially by unusually high demand in fiscal 2020 following the resolution of a legal dispute, which had caused a constraint on LTO tape supply between the two principal suppliers in the market.

Service Revenue

Service revenue decreased \$6.1 million, or 5%, in fiscal 2021 compared to fiscal 2020. This decrease was due to reduced support renewals from our legacy backup customers, partially offset by new customer support agreements and installations.

Royalty Revenue

We receive royalties from third parties that license our LTO media patents through our membership in the LTO consortium. Royalty revenue decreased \$5.9 million, or 28%, in fiscal 2021, as compared to fiscal 2020, related to overall declines in market unit volumes as the primary use of tape transitions from backup to archive workflows.

Gross Profit and Margin

(in thousands)	Year Ended March 31,					
	2021	Gross margin %	2020	Gross margin %	\$ Change	Basis point change
Product gross profit	\$ 59,551	28.4 %	\$ 71,408	28.4 %	\$ (11,857)	—
Service gross profit	76,338	61.1 %	80,369	61.3 %	(4,031)	(20)
Royalty gross profit	14,864	100.0 %	20,731	100.0 %	(5,867)	—
Gross profit	\$ 150,753	43.1 %	\$ 172,508	42.8 %	\$ (21,755)	30

Product Gross Margin

Product gross margin was flat comparing fiscal 2021 to fiscal 2020.

Service Gross Margin

Service gross margin decreased 20 basis points for fiscal 2021, as compared with the same period in 2020. This decrease was due primarily to reduced service revenues from some of our legacy backup customers, partially offset by a reduction in service costs.

Royalty Gross Margin

Royalties do not have significant related cost of sales.

Operating expenses

(in thousands)	Year Ended March 31,					
	2021	% of revenue	2020	% of revenue	\$ Change	% Change
Research and development	\$ 41,703	12 %	\$ 36,301	9 %	\$ 5,402	15 %
Sales and marketing	54,945	16 %	59,524	15 %	(4,579)	(8) %
General and administrative	42,001	12 %	54,457	14 %	(12,456)	(23) %
Restructuring charges	3,701	1 %	1,022	— %	2,679	262 %
Total operating expenses	\$ 142,350	41 %	\$ 151,304	38 %	\$ (8,954)	(6) %

In fiscal 2021, research and development expense increased \$5.4 million, or 15%, as compared with fiscal 2020. This increase was partially attributable to an increase in research and development headcount and professional services cost related to new product development. Most notably this includes headcount related to business acquisitions and integration of the associated development teams.

In fiscal 2021, sales and marketing expenses decreased \$4.6 million, or 8%, as compared with fiscal 2020. This decrease was driven by a decrease in compensation as the result of lower sales performance and a decrease in marketing programs and professional services costs. Travel expenses were also significantly reduced during the fiscal year due to restrictions from the COVID-19 pandemic.

In fiscal 2021, general and administrative expenses decreased \$12.5 million, or 23%, as compared with fiscal 2020. This decrease was driven primarily by lower costs related to our prior financial restatement and related activities, which we primarily incurred during fiscal 2019 and fiscal 2020 and decreased facilities expenses as we consolidate our physical footprint. These decreases were partially offset by increases to software expense as we modernize our existing IT infrastructure.

In fiscal 2021, restructuring expenses increased \$2.7 million, or 262%, as compared with fiscal 2020. This increase was primarily due to footprint and associated headcount reductions that occurred in fiscal 2021, as well as changes in key leadership positions.

Other Income (Expense)

(in thousands)	Year Ended March 31,					
	2021	% of revenue	2020	% of revenue	\$ Change	% Change
Other income (expense)	\$ (1,312)	0 %	\$ (261)	0 %	\$ 1,051	403 %
Interest expense	(27,522)	(8) %	(25,350)	(6) %	2,172	9 %
Loss on debt extinguishment	(14,789)	— %	—	— %	14,789	100 %

In fiscal 2021, other (income) expense, net increased \$1.1 million or 403%, compared to fiscal 2020. The increase was primarily related to differences in foreign currency gains and losses during each period.

In fiscal 2021, interest expense increased \$2.2 million, or 9%, as compared to fiscal 2020. This increase was primarily due to a higher average principal balance of our outstanding debt.

In fiscal 2021, we incurred a loss on debt extinguishment related to our Senior Secured Term Loan.

(in thousands)	Year Ended March 31,					
	2021	% of revenue	2020	% of revenue	\$ Change	% Change
Income tax provision	\$ 239	— %	\$ 803	— %	\$ (564)	(70) %

Our income tax provision is primarily influenced by foreign and state income taxes. In fiscal 2021, the income tax provision decreased \$0.6 million or 70%, compared to fiscal 2020, related primarily to an unfavorable \$1.4 million valuation allowance recorded in fiscal 2020 for certain foreign deferred tax assets.

Due to our history of net losses in the U.S., the protracted period for utilizing tax attributes in certain foreign jurisdictions, and the difficulty in predicting future results, we believe that we cannot rely on projections of future taxable income to realize most of our deferred tax assets. Accordingly, we have established a full valuation allowance against our U.S. and certain foreign net deferred tax assets. Significant management judgement is required in 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 its reversal. Our income tax expense recorded in the future will be reduced to the extent that sufficient positive evidence materializes to support a reversal of, or decrease in, our valuation allowance.

Comparison of the Years Ended March 31, 2020 and 2019

Revenue

(in thousands)	Year Ended March 31,					
	2020	% of revenue	2019 ¹	% of revenue	\$ Change	% Change
Product revenue						
Primary storage systems	\$ 77,152	19 %	\$ 58,811	15 %	\$ 18,341	31 %
Secondary storage systems	111,672	28 %	126,528	31 %	(14,856)	(12) %
Devices and media	62,344	15 %	59,315	15 %	3,029	5 %
Total product revenue	\$ 251,168	62 %	\$ 244,654	61 %	\$ 6,514	3 %
Service revenue	131,050	33 %	134,696	33 %	(3,646)	(3) %
Royalty revenue	20,731	5 %	23,330	6 %	(2,599)	(11) %
Total revenue	\$ 402,949	100 %	\$ 402,680	100 %	\$ 269	— %

¹ Primary and Secondary storage system revenue has been adjusted for fiscal years 2019 due to certain reclassifications from Primary to Secondary storage systems.

Product Revenue

In fiscal 2020, product revenue increased \$6.5 million, or 3%, as compared to fiscal 2019. Primary storage systems represented \$18.3 million of the increase driven by growth across both our Media & Entertainment and government vertical markets. Devices and media increased \$3.0 million driven by the resolution of a legal dispute, which had caused a constraint on LTO tape supply between the two principal suppliers in the market. This was offset in part by a \$14.9 million decrease in Secondary storage systems due to declines in our legacy enterprise backup business for both branded and OEM products.

Service Revenue

Service revenue decreased \$3.6 million, or 3%, in fiscal 2020 compared to fiscal 2019. This decrease was due to reduced support renewals from our legacy backup customers, partially offset by new customer support agreements and installations.

Royalty Revenue

We receive royalties from third parties that license our LTO media patents through our membership in the LTO consortium. Royalty revenue decreased \$2.6 million, or 11%, in fiscal 2020, as compared to fiscal 2019, related to overall declines in market unit volumes as the primary use of tape transitions from backup to archive workflows.

Gross Profit and Margin

(in thousands)	Year Ended March 31,					
	2020	Gross margin %	2019	Gross margin %	\$ Change	Basis point change
Product gross profit	\$ 71,408	28.4 %	\$ 64,808	26.5 %	\$ 6,600	190
Service gross profit	80,369	61.3 %	79,476	59.0 %	893	230
Royalty gross profit	20,731	100.0 %	23,330	100.0 %	(2,599)	—
Gross profit	<u>\$ 172,508</u>	42.8 %	<u>\$ 167,614</u>	41.6 %	<u>\$ 4,894</u>	120

Product Gross Margin

Product gross margin increased 190 basis points in fiscal 2020, as compared with fiscal 2019. This increase was due primarily to cost reductions across a wide range of product offerings, and a mix weighted towards more profitable products.

Service Gross Margin

Service gross margin increased 230 basis points for fiscal 2020, as compared with the same period in 2019. This increase was due primarily to reductions in cost of service.

Royalty Gross Margin

Royalties do not have significant related cost of sales.

Operating expenses

(in thousands)	Year Ended March 31,					
	2020	% of revenue	2019	% of revenue	\$ Change	% Change
Research and development	\$ 36,301	9 %	\$ 32,113	8 %	\$ 4,188	13 %
Sales and marketing	59,524	15 %	69,400	17 %	(9,876)	(14) %
General and administrative	54,457	14 %	65,277	16 %	(10,820)	(17) %
Restructuring charges	1,022	— %	5,570	1 %	(4,548)	(82) %
Total operating expenses	<u>\$ 151,304</u>	38 %	<u>\$ 172,360</u>	43 %	<u>\$ (21,056)</u>	(12) %

In fiscal 2020, research and development expense increased \$4.2 million, or 13%, as compared with fiscal 2019. This increase was partially attributable to an increase in research and development headcount and professional services cost related to new product development.

In fiscal 2020, sales and marketing expenses decreased \$9.9 million, or 14%, as compared with fiscal 2019. This decrease was driven by a decrease in compensation and benefits as the result of lower headcount and a decrease in marketing programs and professional services costs.

In fiscal 2020, general and administrative expenses decreased \$10.8 million, or 17%, as compared with fiscal 2019. This decrease was driven primarily by lower costs related to our prior financial restatement and related activities, which we primarily incurred in fiscal 2019 compared to fiscal 2020, lower software expenses as we streamline our processes and tools throughout the company, decreased facilities expenses as we consolidate our physical footprint, and decreased bank fees. These decreases were partially offset by increases to stock compensation expense.

In fiscal 2020, restructuring expenses decreased \$4.5 million, or 82%, as compared with fiscal 2019. This decrease was primarily due to the higher level of headcount reductions that occurred during fiscal 2019.

Other Income (Expense)

(in thousands)	Year Ended March 31,					
	2020	% of revenue	2019	% of revenue	\$ Change	% Change
Other income (expense)	\$ (261)	0 %	\$ 2,878	1 %	3,139	(109) %
Interest expense	(25,350)	(6) %	(21,095)	(5) %	4,255	20 %
Loss on debt extinguishment	—	— %	(17,458)	(4) %	(17,458)	100 %

In fiscal 2020, other income (expense), net increased \$3.1 million or 109%, compared to fiscal 2019. The increase was primarily related to a gain on the disposal of an investment that occurred in fiscal 2019, and differences in foreign currency gains and losses during each period.

In fiscal 2020, interest expense increased \$4.3 million, or 20%, as compared to fiscal 2019. This increase was primarily due to a higher average principal balance of our outstanding debt.

In fiscal 2019, we incurred a loss on debt extinguishment related to our Term Loan.

Income Tax Provision

(in thousands)	Year Ended March 31,					
	2020	% of revenue	2019	% of revenue	\$ Change	% Change
Income tax provision	\$ 803	— %	\$ 2,376	1 %	(1,573)	(66) %

Our income tax provision is primarily influenced by foreign and state income taxes. In fiscal 2020, the income tax provision decreased \$1.6 million or 66%, compared to fiscal 2019, related primarily to an income tax benefit of \$0.6 million recorded in fiscal 2021 for foreign currency related gains recognized in other comprehensive income.

Due to our history of net losses in the U.S., the protracted period for utilizing tax attributes in certain foreign jurisdictions, and the difficulty in predicting future results, we believe that we cannot rely on projections of future taxable income to realize most of our deferred tax assets. Accordingly, we have established a full valuation allowance against our U.S. and certain foreign net deferred tax assets. Significant management judgement is required in 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 its reversal. Our income tax expense recorded in the future will be reduced to the extent that sufficient positive evidence materializes to support a reversal of, or decrease in, our valuation allowance.

Liquidity and Capital Resources

We consider liquidity in terms of the sufficiency of internal and external cash resources to fund our operating, investing and financing activities. Our principal sources of liquidity include cash from operating activities, cash and cash equivalents on our balance sheet and amounts available under our Amended PNC Credit Facility (as defined below). We require significant cash resources to meet obligations to pay principal and interest on our outstanding debt, provide for our research and development activities, fund our working capital needs, and make capital expenditures. Our future liquidity requirements will depend on multiple factors, including our research and development plans and capital asset needs. We are subject to the risks arising from COVID-19 which have caused substantial financial market volatility and have adversely affected both the U.S. and the global economy. We believe that these social and economic impacts have had a negative effect on sales due to the decline in our customers' ability or willingness to purchase our products and services. The extent of the impact will depend, in part, on how long the negative trends in customer demand and supply chain levels will continue. We expect the impact of COVID-19 to continue to have a significant impact on our liquidity and capital resources.

We had cash and cash equivalents of \$27.4 million as of March 31, 2021, compared to \$6.4 million as of March 31, 2020. These amounts exclude, as of both dates, \$5.0 million in restricted cash that we are required to maintain under our Amended PNC Credit Agreement and \$0.7 million and \$0.8 million of short-term restricted cash, respectively. As of March 31, 2021 we had \$32.7 million available to borrow under the Amended PNC Credit Agreement.

We believe that our existing sources of liquidity including the Amended PNC Credit Facility will be sufficient to fund our cash flow requirements for at least the next 12 months. We may need or decide to seek additional funding through equity or debt financings but cannot guarantee that additional funds would be available on terms acceptable to us, if at all. We believe we were in compliance with all covenants under the Credit Agreements as of the date of filing of this Annual Report on Form 10-K.

Our outstanding long-term debt amounted to \$90.9 million as of March 31, 2021, net of \$9.7 million in unamortized debt issuance costs and \$1.9 million in current portion of long-term debt, and \$146.8 million as of March 31, 2020 net of \$13.7 million in unamortized debt issuance costs and \$7.3 million in current portion of long-term debt.

We are subject to various debt covenants under our debt agreements. Our failure to comply with our debt covenants could materially and adversely affect our financial condition and ability to service our obligations. See "Risks Related to our Indebtedness" section of Item 1A *Risk Factors*.

Cash Flows

The following table summarizes our consolidated cash flows for the periods indicated.

(in thousands)	Year Ended March 31,		
	2021	2020	2019
Cash provided by (used in):			
Operating activities	(767)	(1,181)	(16,859)
Investing activities	(9,586)	(4,599)	235
Financing activities	31,328	1,211	16,210
Effect of exchange rate changes	(108)	(16)	62
Net change in cash, cash equivalents, and restricted cash	<u>\$ 20,867</u>	<u>\$ (4,585)</u>	<u>\$ (352)</u>

Net Cash Used In Operating Activities

Net cash used in operating activities was \$0.8 million for the year ended March 31, 2021, primarily attributable to greater net loss, offset in part by a \$10.1 million non-cash adjustment pertaining to the debt refinancing.

Net cash used in operating activities was \$1.2 million for the year ended March 31, 2020, primarily attributable \$20.9 million of changes in assets and liabilities due primarily to lower deferred revenue and manufacturing inventories, offset in part by certain non-cash items.

Net cash used in operating activities was \$16.9 million in fiscal 2019, mainly reflecting changes in working capital accounts including inventories and accounts payable.

Net Cash Provided by (Used in) Investing Activities

Net cash used in investing activities was \$9.6 million for the year ended March 31, 2021, primarily attributable to \$6.9 million of capital expenditures and \$2.7 million for the acquisition of SBS.

Net cash used in investing activities was \$4.6 million for the year ended March 31, 2020, primarily attributable to \$2.6 million of capital expenditures and \$2.0 million for the purchase of the ActiveScale business.

Net cash provided by investing activities was \$0.2 million in fiscal 2019, reflecting investment income of \$2.9 million related to an investment in an equity fund that was liquidated during the period, which more than offset \$2.7 million in capital expenditures.

Net Cash Provided by (Used in) Financing Activities

Net cash provided by financing activities was \$31.3 million for the year ended March 31, 2021 due primarily to a secondary equity offering which generated net proceeds of \$96.8 million, Senior Secured Term Loan borrowings of \$19.4 million (net of lender fees of \$0.6 million), \$10.0 million in borrowings under the Paycheck Protection Program, offset in part by the prepayment of \$92.3 million of our Senior Secured Term Loan.

Net cash provided by (used in) financing activities was \$1.2 million and \$16.2 million for the years ended March 31, 2020 and 2019, respectively. Net cash provided by financing activities during the year ended March 31, 2020 related primarily to net borrowings under the Amended PNC Credit Facility. Activity during the year ended March 31, 2019 related primarily to our debt refinancing activities.

Commitments and Contingencies

Our contingent liabilities consist primarily of certain financial guarantees, both express and implied, related to product liability and potential infringement of intellectual property. We have little history of costs associated with such indemnification requirements and contingent liabilities associated with product liability may be mitigated by our insurance coverage. In the normal course of business to facilitate transactions of our services and products, we indemnify certain parties with respect to certain matters, such as intellectual property infringement or other claims. We also have indemnification agreements with our current and former officers and directors. It is not possible to determine the maximum potential amount under these indemnification agreements due to the limited history of our indemnification claims, and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under these agreements have not had a material impact on our operating results, financial position or cash flows.

We are also subject to ordinary course of business litigation, See Note 11, *Commitments and Contingencies*, to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Contractual Obligations

Contractual obligations are cash amounts that we are obligated to pay as part of certain contracts that we have entered into during the normal course of business. Below is a table that shows our contractual obligations as of March 31, 2021 (in thousands):

(in thousands)	Payments Due by Period				
	Total	1 year or less	1 – 3 Years	3 – 5 Years	More than 5 years
Long-term debt ⁽¹⁾	\$ 92,426	\$ 1,850	\$ 90,576	\$ —	\$ —
Interest on long-term debt ⁽²⁾	27,390	10,154	17,236	—	—
Operating leases ⁽³⁾	14,408	3,818	5,368	4,220	1,002
Purchase obligations ⁽⁴⁾	39,615	39,615	—	—	—
Total	\$ 173,839	\$ 55,437	\$ 113,180	\$ 4,220	\$ 1,002

⁽¹⁾ Represents nominal principal amount of debt outstanding under the Senior Secured Term Loan as of March 31, 2021. See Note 5: *Debt*, to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

⁽²⁾ Estimated interest payment obligations have been calculated for all periods assuming an interest rate of 12.0%, which was the rate applicable to outstanding amounts under the Senior Secured Term Loan as of March 31, 2021.

⁽³⁾ Operating leases include leases of certain facilities under non-cancelable lease agreements and equipment leases for various types of office equipment. Some of the leases have renewal options ranging from one to ten years and others contain escalation clauses.

⁽⁴⁾ Includes primarily contractual commitments to purchase inventory from contract manufacturers and other suppliers.

See Note 5: *Debt*, to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Off-Balance Sheet Arrangements

We do not currently have any other off-balance sheet arrangements and do not have any holdings in variable interest entities.

CRITICAL ACCOUNTING ESTIMATES AND POLICIES

The preparation of our consolidated financial statements in accordance with U.S. GAAP requires management to make judgments, estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes included elsewhere in this Annual Report on Form 10-K. On an ongoing basis, we evaluate estimates, which are based on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. We consider the following accounting policies to be critical to understanding our financial statements because the application of these policies requires significant judgment on the part of management, which could have a material impact on our financial statements if actual performance should differ from historical experience or if our assumptions were to change. The following accounting policies include estimates that require management's subjective or complex judgments about the effects of matters that are inherently uncertain. For information on our significant accounting policies, including the policies discussed below, see Note 1: *Description of Business and Significant Accounting Policies*, to our consolidated financial statements.

Revenue Recognition

Our revenue is derived from three main sources: (1) Products, (2) Professional services and (3) Royalties. Our performance obligations are satisfied at a point in time or over time as stand ready obligations. The majority of our revenue is recognized at a point in time when products are accepted, installed or delivered. Product revenue is recognized at the point in time when the customer takes control of the product, which typically occurs at the point of shipment. Professional services revenue primarily consists of installation, consulting and training and hardware and software support. Installation services are typically completed within a short period of time and revenue from these services is recognized upon completion, while revenue from support plans is recognized ratably over the contractual term of the service contract. We license certain products under royalty arrangements, pursuant to which our licensees periodically provide us with reports containing units sold to end users subject to the royalties. The reports substantiate that our performance obligation has been satisfied and we recognize royalty revenue based on the reports or when amounts can be reasonably estimated.

There are significant judgements used when applying ASC Topic 606 to contracts with customers. Most of our contracts contain multiple goods and services designed to meet each customers' unique storage needs. For contracts with multiple performance obligations, we allocate the transaction price to each performance obligation based on the relative standalone selling price of the good or service underlying each performance obligation. Where standalone selling price may not be directly observable (e.g., the performance obligation is not sold separately), we maximize the use of observable inputs by using information including reviewing discounting practices, performance obligations with similar customers and product groupings. We determined that invoice price is the best representation of what we expect to receive from the delivery of each performance obligation. This judgment is based on the fact that each storage solution is customizable to meet an individual customer's needs and every product's transaction price can vary depending on the mix of other products included in the same purchase order and there are no identifiable trends that provide a good representation of expected margin for each product. Product revenue may be impacted by a variety of price adjustments or other factors, including rebates, returns and stock rotation. We use the expected value method to estimate the net consideration expected to be returned by the customer. We use historical data and current trends to drive our estimates. We record a reduction to revenue to account for these items that may result in variable consideration. We initially measure a returned asset at the carrying amount of the inventory, less any expected costs to recover the goods including potential decreases in value of the returned goods.

Income Taxes

Deferred tax assets and liabilities are recognized based on temporary differences between the financial reporting and tax bases of assets and liabilities, measured at the enacted tax rates expected to apply to taxable income in the

years in which those tax assets or liabilities are expected to be realized or settled. Based on the evaluation of available evidence, both positive and negative, we recognize future tax benefits, such as net operating loss carryforwards and tax credit carryforwards, to the extent that realizing these benefits is considered to be more likely than not.

A valuation allowance is provided if we believe it is more likely than not that all or some portion of the deferred tax asset will not be realized. An increase or decrease in the valuation allowance, if any, that results from a change in circumstances, and which causes a change in our judgment about the realizability of the related deferred tax asset, is included in the tax provision.

We recognize the financial statement effects of an uncertain income tax position when it is more likely than not, based on technical merits, that the position will be sustained upon examination. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances and changes in tax law. We recognize penalties and tax-related interest expense as a component of income tax expense in our consolidated statements of operations. See Note 10: *Income Taxes*, to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Inventories

Manufacturing Inventories

Our manufacturing inventory is recorded at the lower of cost or net realizable value, with cost being determined on a first-in, first-out ("FIFO") basis. Costs include material, direct labor, and an allocation of overhead in the case of work in process. Adjustments to reduce the cost of manufacturing inventory to its net realizable value, if required, are made for estimated excess, obsolete or impaired balances. Factors influencing these adjustments include declines in demand, rapid technological changes, product life cycle and development plans, component cost trends, product pricing, physical deterioration and quality issues. Revisions to these adjustments would be required if these factors differ from our estimates.

Service Parts Inventories

Our service parts inventories are recorded at the lower of cost or net realizable value, with cost being determined on a FIFO basis. Service parts inventories consist of both component parts, which are primarily used to repair defective units, and finished units, which are provided for customer use permanently or on a temporary basis while the defective unit is being repaired. We record adjustments to reduce the carrying value of service parts inventory to its net realizable value and dispose of parts with no use and a net realizable value of zero. Factors influencing these adjustments include product life cycles, end of service life plans and the volume of enhanced or extended warranty service contracts. Estimates of net realizable value involve significant estimates and judgments about the future, and revisions would be required if these factors differ from our estimates.

Business Acquisitions, Goodwill and Acquisition-Related Intangible Assets

We allocate the purchase price to the intangible and tangible assets acquired and liabilities assumed in a business combination at their estimated fair values on the date of acquisition, with the excess recorded to goodwill. We use our best estimates and assumptions to assign fair value to the assets acquired and liabilities assumed as well as the useful lives of the acquired intangible assets. Examples of critical estimates in valuing certain intangible assets we have acquired include, but are not limited to, future expected cash flows, expected technology life cycle, attrition rates of customers, and discount rates. We estimate the useful lives of each intangible asset based on the expected period over which we anticipate generating economic benefit from the asset. The amounts and useful lives assigned to acquired intangible assets impact the amount and timing of future amortization expense.

While we use our best estimates and assumptions as part of the purchase price allocation process to value assets acquired and liabilities assumed, these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the estimated fair value of the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to the consolidated statements of operations.

Recently Issued and Adopted Accounting Pronouncements

For recently issued and adopted accounting pronouncements, see Note 1 : *Business Description and Significant Accounting Policies* , to our consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of exposure due to potential changes in inflation or interest rates. We do not hold financial instruments for trading purposes.

Interest Rate Risk

Our primary interest rate risk exposure is changing interest rates on our long-term debt. We had total outstanding debt of \$92.4 million under our variable interest Senior Secured Term Loan as of March 31, 2021. Borrowings under the Senior Secured Term Loan bear interest at a rate per annum, at the Company's option, equal to (a) the greater 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 1.00%, and (iv) the Prime Rate as quoted by the Wall Street Journal, plus an applicable margin of 9.00% or (b) LIBOR Rate plus an applicable margin of 10.00%. Interest on the Senior Secured Term Loan is payable quarterly beginning in the fiscal quarter ended March 31, 2021 under the terms of our amended Senior Secured Term Loan. As of March 31, 2021, we did not have any borrowings on our Amended PNC Credit Facility. Based on the amount outstanding, a 100-basis point increase or decrease in market interest rates as of March 31, 2021 would not result in a change to our annual interest expense. Our other long-term debt related to lease obligations have fixed interest rates and terms, and as such, we consider the associated risk to our results of operations from changes in market rates of interest applied to our lease obligations to be minimal.

Foreign Exchange Risk

We conduct business in certain international markets. 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 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 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.

Inflation Risk

Based on our analysis of the periods presented, we believe that inflation has not had a material effect on our operating results. There can be no assurance that future inflation will not have an adverse impact on our operating results and financial condition.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Quantum Corporation
San Jose, California

Opinions on the Consolidated Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Quantum Corporation and its subsidiaries (the Company) as of March 31, 2021 and 2020 and the related consolidated statements of operations and comprehensive loss, stockholders' deficit, and cash flows for each of the years in the three year period ended March 31, 2021, and the related notes (collectively referred to as the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of March 31, 2021, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of March 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three year period ended March 31, 2021 in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of March 31, 2021, based on the criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable

assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition — Refer to Note 1 to the Consolidated Financial Statements

Critical Audit Matter Description

The Company recognizes revenue from sales of products as control is transferred to customers, which generally occurs at the point of shipment or upon delivery, unless customer acceptance is uncertain. Revenue from distributors is recognized when the customer obtains control of the product, which generally occurs at the point of shipment or upon delivery, unless customer acceptance is uncertain. Net sales for the fiscal year ended March 31, 2021 was \$349.6 million, which principally consist of product sales.

We identified the timing of revenue recognition for product sales (i.e., whether the Company recorded product sales in the appropriate fiscal year) as a critical audit matter because of the significant judgments used when applying Accounting Standards Codification Topic 606 – Revenue from Contracts with Customers – to contracts with customers. The Company utilizes a broad network of distributors, value-added resellers (“VARs”), direct marketing resellers (“DMRs”), original equipment manufacturers (“OEMs”) and other suppliers ship products and fulfill performance obligations. This made auditing the timing of revenue recognition for product sales challenging and required significant audit effort to validate the timing of revenue recognition.

How the Critical Audit Matter Was Addressed in the Audit

Our principal audit procedures related to the timing of revenue recognition for product sales included the following, among others:

- We tested the effectiveness of internal controls over the timing of revenue recognition.
- We selected a sample of product sales obtained the invoice, purchase order, customer contract or agreement, packing list, bill of lading, proof of delivery, and evidence of cash collection, to validate revenue was recognized in the appropriate fiscal year.
- We selected a sample of product sales for the year and examined the related contract to validate no customer acceptance clauses existed that would preclude revenue recognition.
- We selected a sample of credit memos from the period immediately subsequent to the Company's fiscal year end and the related invoice, return merchandise authorization form, and shipping documents, to and validated revenue was recognized in the fiscal year ended March 31, 2021 only when control was transferred to the customer and if applicable, customer acceptance had occurred.
- We obtained and evaluated internal certifications provided by the Company's sales employees to validate no side agreements existed that could impact the timing of revenue recognition.

Inventories – Excess and Obsolescence Reserve — Refer to Note 1 to the Consolidated Financial Statements

Critical Audit Matter Description

The Company's manufacturing and service parts inventories are recorded on a first-in, first-out ("FIFO") basis, subject to the lower of cost or net realizable value, and as necessary, the Company writes down the valuation of inventories for excess and obsolescence. Provision for manufacturing and service inventories for the fiscal year ended March 31, 2021 was \$12.8 million.

We identified the excess and obsolescence write-down as a critical audit matter because of the judgment's management makes to estimate the excess and obsolescence write-downs. This required a high degree of auditor judgment and significant effort to validate the methodology and the reasonableness of the excess and obsolescence write-downs.

How the Critical Audit Matter Was Addressed in the Audit

Our principal audit procedures related to the Company's excess and obsolescence write-down included the following procedures, among others:

- We tested the effectiveness of internal controls over inventory valuation.
- We gained an understanding and evaluated the Company's methodology for determining inventory that is excess or obsolete and the key assumptions and judgments made as part of the process.
- We evaluated the assumptions used by the Company to define what is considered aged inventory by assessing historical trends in the Company's product life cycle as well as evaluating the underlying calculations applied to the aged inventory.
- We evaluated the inventory valuation utilizing the methodology above to assess the inventory write-down rate applied to different products.

/s/ Armanino^{LLP}

San Ramon, California

May 26, 2021

We have served as the Company's auditor since 2019.

QUANTUM CORPORATION
CONSOLIDATED BALANCE SHEETS
(in thousands, except per share amounts)

	March 31,	
	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 27,430	\$ 6,440
Restricted cash	707	830
Accounts receivable, net of allowance for doubtful accounts of \$406 and \$1,247, respectively	73,102	70,370
Manufacturing inventories	24,467	29,196
Service parts inventories	23,421	20,502
Other current assets	6,939	8,489
Total current assets	156,066	135,827
Property and equipment, net	10,051	9,046
Intangible assets, net	5,037	—
Goodwill	3,466	—
Restricted cash	5,000	5,000
Right-of-use assets, net	9,383	12,689
Other long-term assets	5,921	3,433
Total assets	\$ 194,924	\$ 165,995
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable	\$ 35,245	\$ 36,949
Deferred revenue	84,027	81,492
Accrued restructuring charges	580	—
Long-term debt, current portion	1,850	7,321
Accrued compensation	19,214	14,957
Other accrued liabilities	18,174	17,535
Total current liabilities	159,090	158,254
Deferred revenue	36,126	37,443
Long-term debt, net of current portion	90,890	146,847
Operating lease liabilities	8,005	10,822
Other long-term liabilities	13,058	11,154
Total liabilities	307,169	364,520
Commitments and Contingencies (Note 11)		
Stockholders' deficit		
Preferred stock:		
Preferred stock, 20,000 shares authorized; no shares issued as of March 31, 2021 and 2020	—	—
Common stock:		
Common stock, \$0.01 par value; 125,000 shares authorized; 56,915 and 39,905 shares issued and outstanding at March 31, 2021 and 2020, respectively	570	399
Additional paid-in capital	626,664	505,762
Accumulated deficit	(738,623)	(703,164)
Accumulated other comprehensive loss	(856)	(1,522)
Total stockholders' deficit	(112,245)	(198,525)
Total liabilities and stockholders' deficit	\$ 194,924	\$ 165,995

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

QUANTUM CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except per share amounts)

	Year Ended March 31,		
	2021	2020	2019
Revenue:			
Product	\$ 209,808	\$ 251,168	\$ 244,654
Service	124,904	131,050	134,696
Royalty	14,864	20,731	23,330
Total revenue	<u>349,576</u>	<u>402,949</u>	<u>402,680</u>
Cost of revenue:			
Product	150,257	179,760	179,846
Service	48,566	50,681	55,220
Total cost of revenue	<u>198,823</u>	<u>230,441</u>	<u>235,066</u>
Gross profit	<u>150,753</u>	<u>172,508</u>	<u>167,614</u>
Operating expenses:			
Research and development	41,703	36,301	32,113
Sales and marketing	54,945	59,524	69,400
General and administrative	42,001	54,457	65,277
Restructuring charges	3,701	1,022	5,570
Total operating expenses	<u>142,350</u>	<u>151,304</u>	<u>172,360</u>
Income (loss) from operations	8,403	21,204	(4,746)
Other income (expense), net	(1,312)	(261)	2,878
Interest expense	(27,522)	(25,350)	(21,095)
Loss on debt extinguishment, net	(14,789)	—	(17,458)
Net loss before income taxes	<u>(35,220)</u>	<u>(4,407)</u>	<u>(40,421)</u>
Income tax provision	239	803	2,376
Net loss	<u>\$ (35,459)</u>	<u>\$ (5,210)</u>	<u>\$ (42,797)</u>
Net loss per share - basic and diluted	\$ (0.83)	\$ (0.14)	\$ (1.20)
Weighted average shares - basic and diluted	42,852	37,593	35,551
Net loss	\$ (35,459)	\$ (5,210)	\$ (42,797)
Foreign currency translation adjustments, net	666	(112)	(1,136)
Total comprehensive loss	<u>\$ (34,793)</u>	<u>\$ (5,322)</u>	<u>\$ (43,933)</u>

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

QUANTUM CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended March 31,		
	2021	2020	2019
Operating activities			
Net loss	\$ (35,459)	\$ (5,210)	\$ (42,797)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	5,697	4,287	4,266
Amortization of debt issuance costs	6,301	4,017	2,825
Long-term debt related costs	167	—	—
Paid-in-kind interest	—	1,858	—
Provision for manufacturing and service inventories	6,334	6,255	8,851
Non-cash income tax benefit	(577)	—	—
Stock-based compensation	9,624	6,748	3,409
Deferred income taxes	34	458	2,356
Bad debt expense	(573)	1,221	315
Unrealized foreign exchange (gain) loss, net of income taxes	1,243	128	(224)
Non-cash loss on debt extinguishment	10,087	—	17,851
Gain on investment	—	—	(2,729)
Other non-cash	—	—	1,795
Changes in assets and liabilities, net of effect of acquisition:			
Accounts receivable	(1,625)	15,237	8,054
Manufacturing inventories	924	(11,092)	13,054
Service parts inventories	(5,879)	(3,817)	(3,506)
Accounts payable	(1,994)	(768)	(25,356)
Deferred revenue	418	(11,334)	(8,367)
Accrued restructuring charges	580	(2,876)	(2,943)
Accrued compensation	4,257	(2,161)	(2,342)
Other assets and liabilities	(326)	(4,132)	8,629
Net cash used in operating activities	(767)	(1,181)	(16,859)
Investing activities			
Purchases of property and equipment	(6,931)	(2,633)	(2,708)
Cash distributions from investments	—	—	2,943
Business acquisitions	(2,655)	(1,966)	—
Net cash provided by (used in) investing activities	(9,586)	(4,599)	235
Financing activities			
Borrowings of long-term debt	19,400	—	186,780
Repayments of long-term debt	(92,782)	(1,238)	(121,807)
Borrowings of credit facility	309,920	331,632	320,927
Repayments of credit facility	(313,065)	(329,012)	(369,336)
Borrowings of paycheck protection program	10,000	—	—
Proceeds from secondary offering, net	96,756	—	—
Payment of taxes due upon vesting of restricted stock	(236)	(171)	(354)
Proceeds from issuance of common stock	1,335	—	—
Net cash provided by financing activities	31,328	1,211	16,210
Effect of exchange rate changes on cash and cash equivalents	(108)	(16)	62
Net change in cash, cash equivalents, and restricted cash	20,867	(4,585)	(352)
Cash, cash equivalents, and restricted cash at beginning of period	12,270	16,855	17,207
Cash, cash equivalents, and restricted cash at end of period	\$ 33,137	\$ 12,270	\$ 16,855
Supplemental disclosure of cash flow information			
Cash paid for interest	\$ 24,324	\$ 16,488	\$ 17,677
Cash paid for income taxes, net of refunds	\$ (2,283)	\$ (490)	\$ 68
Non-cash transactions			
Purchases of property and equipment included in accounts payable	\$ 258	\$ 368	\$ 105
Purchases of property and equipment included in accrued liabilities	\$ 1,212	\$ —	\$ —
Transfer of inventory to property and equipment	\$ 429	\$ 400	\$ 408
Payment of litigation settlements with insurance proceeds	\$ —	\$ 8,950	\$ —
The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total of the same such amounts shown in the statement of cash flows:			
Cash and cash equivalents	\$ 27,430	\$ 6,440	\$ 10,790
Restricted cash, current	707	830	1,065
Restricted cash, long-term	5,000	5,000	5,000
Total cash, cash equivalents and restricted cash at the end of period	\$ 33,137	\$ 12,270	\$ 16,855

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

QUANTUM CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT
(in thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Deficit
	Shares	Amount				
Balance, March 31, 2018	35,443	354	481,610	(655,157)	(274)	(173,467)
Net loss	—	—	—	(42,797)	—	(42,797)
Foreign currency translation adjustments, net	—	—	—	—	(1,136)	(1,136)
Shares issued under employee incentive plans, net	597	6	(360)	—	—	(354)
Stock-based compensation	—	—	3,409	—	—	3,409
Reclassifications of liability classified warrants to equity	—	—	14,565	—	—	14,565
Balance, March 31, 2019	36,040	360	499,224	(697,954)	(1,410)	(199,780)
Net loss	—	—	—	(5,210)	—	(5,210)
Foreign currency translation adjustments, net	—	—	—	—	(112)	(112)
Shares issued under employee incentive plans, net	1,082	11	(182)	—	—	(171)
Shares issued from warrants exercised, net	2,783	28	(28)	—	—	—
Stock-based compensation	—	—	6,748	—	—	6,748
Balance, March 31, 2020	39,905	\$ 399	\$ 505,762	\$ (703,164)	\$ (1,522)	\$ (198,525)
Net loss	—	—	—	(35,459)	—	(35,459)
Foreign currency translation adjustments, net of income taxes	—	—	—	—	666	666
Shares issued under employee stock purchase plan	320	4	1,331	—	—	1,335
Shares issued under employee incentive plans, net	1,264	13	(13)	—	—	—
Shares surrendered for employees' tax liability upon settlement of restricted stock units	(44)	—	(236)	—	—	(236)
Shares issued in connection with business acquisition	361	3	2,077	—	—	2,080
Shares issued in connection with secondary equity offering, net	15,109	151	96,604	—	—	96,755
Warrants issued related to long-term debt	—	—	11,515	—	—	11,515
Stock-based compensation	—	—	9,624	—	—	9,624
Balance, March 31, 2021	56,915	\$ 570	\$ 626,664	\$ (738,623)	\$ (856)	\$ (112,245)

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

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**NOTE 1: DESCRIPTION OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES****Description of Business**

Quantum Corporation, together with its consolidated subsidiaries (“Quantum” or the “Company”), is a leader in storing and managing digital video and other forms of unstructured data, delivering top streaming performance for video and rich media applications, along with low-cost, long-term storage systems for data protection and archiving. The Company helps customers around the world capture, create and share digital data and preserve and protect it for decades. The Company’s software-defined, hyperconverged storage solutions span from non-volatile memory express (“NVMe”), to solid state drives, (“SSD”), hard disk drives, (“HDD”), tape and the cloud and are tied together leveraging a single namespace view of the entire data environment. The Company works 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.

Basis of Presentation

The consolidated financial statements and accompanying notes have been prepared in accordance with generally accepted accounting principles in the United States of America (“GAAP”). All intercompany balances and transactions have been eliminated. The Company reviews subsidiaries and affiliates, as well as other entities, to determine if they should be considered variable interest entities (“VIE”), and whether it should change the consolidation determinations based on changes in their characteristics. The Company considers an entity a VIE if its equity investors own an interest therein that lacks the characteristics of a controlling financial interest or if such investors do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support or if the entity is structured with non-substantive voting interests. To determine whether or not the entity is consolidated with the Company’s results, the Company also evaluates which interests are variable interests in the VIE and which party is the primary beneficiary of the VIE.

Principles of Consolidation

The consolidated financial statements include the accounts of Quantum and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported and disclosed in the financial statements and accompanying notes.

Actual results could differ from these estimates and assumptions due to risks and uncertainties, including uncertainty in the current economic environment from the ongoing COVID-19 pandemic. Such estimates include, but are not limited to, the determination of standalone selling price for revenue arrangements with multiple performance obligations, useful lives of intangible assets and property and equipment, stock-based compensation and provision for income taxes including related reserves. Management bases its estimates on historical experience and on various other assumptions which management believes to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities.

Cash and Cash Equivalents

The Company has cash deposits and cash equivalents deposited in or managed by major financial institutions. Cash equivalents include all highly liquid investment instruments with an original maturity of three months or less and consist primarily of money market accounts. At times the related amounts are in excess of amounts insured by the Federal Deposit Insurance Corporation. The Company has not experienced any losses with these financial institutions and does not believe such balances are exposed to significant credit risk.

Restricted Cash

Restricted cash is primarily attributable to minimum cash reserve requirements under the Company's revolving credit agreements. The remaining restricted cash is comprised of bank guarantees and similar required minimum balances that serve as cash collateral in connection with various items including insurance requirements, value added taxes, ongoing tax audits and leases in certain countries.

Allowance for Doubtful Accounts

The Company maintains an allowance for doubtful accounts for estimated losses based on historical experience and expected collectability of outstanding accounts receivable. The Company performs ongoing credit evaluations of its customers' financial condition, and for the majority of its customers require no collateral. For customers that do not meet the Company's credit standards, the Company often requires a form of collateral, such as cash deposits or letters of credit, prior to the completion of a transaction. These credit evaluations require significant judgment and are based on multiple sources of information. The Company analyzes such factors as its historical bad debt experience, industry and geographic concentrations of credit risk, current economic trends and changes in customer payment terms. The Company will write-off customer balances in full to the reserve when it has determined that the balance is not recoverable. Changes in the allowance for doubtful accounts are recorded in general and administrative expenses.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. To increase the comparability of fair value measures, the following hierarchy prioritizes the inputs to valuation methodologies used to measure fair value:

- Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2: Other than quoted prices that are observable in the market for the asset or liability, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or model-derived valuations or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Inputs are unobservable and reflect management's estimates of assumptions that market participants would use in pricing the asset or liability.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The Company's financial instruments consist of Level 3 liabilities.

Manufacturing Inventories

Manufacturing inventory is recorded at the lower of cost or net realizable value, with cost being determined on a first-in, first-out ("FIFO") basis. Costs include material, direct labor, and an allocation of overhead in the case of work in process. Adjustments to reduce the cost of manufacturing inventory to its net realizable value, if required, are made for estimated excess, obsolete or impaired balances. Factors influencing these adjustments include declines in demand, rapid technological changes, product life cycle and development plans, component cost trends,

product pricing, physical deterioration and quality issues. Revisions to these adjustments would be required if these factors differ from the Company's estimates.

Service Parts Inventories

Service parts inventories are recorded at the lower of cost or net realizable value, with cost being determined on a FIFO basis. The Company carries service parts because it generally provides product warranty for one to three years and earns revenue by providing enhanced and extended warranty and repair services during and beyond this warranty period. Service parts inventories consist of both component parts, which are primarily used to repair defective units, and finished units, which are provided for customer use permanently or on a temporary basis while the defective unit is being repaired. The Company records adjustments to reduce the carrying value of service parts inventory to its net realizable value and disposes of parts with no use and a net realizable value of zero. Factors influencing these adjustments include product life cycles, end of service life plans and volume of enhanced or extended warranty service contracts. Estimates of net realizable value involve significant estimates and judgments about the future, and revisions would be required if these factors differ from the Company's estimates.

Property and Equipment

Property and equipment are carried at cost, less accumulated depreciation and amortization, computed on a straight-line basis over the estimated useful lives of the assets as follows:

Machinery and equipment	3 to 5 years
Computer equipment	3 to 5 years
Enterprise resource planning software (1)	10 years
Other software	3 years
Furniture and fixtures	5 years
Other office equipment	5 years
Leasehold improvements	Shorter of useful life or life of lease

(1) Included in other long-term assets in the accompanying consolidated balance sheets.

When assets are retired or otherwise disposed of, the related costs and accumulated depreciation are removed from the balance sheet and any resulting gain or loss is reflected in the consolidated statements of operations and comprehensive income (loss) in the period realized.

The Company evaluates the recoverability of the carrying amount of its property and equipment whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be fully recoverable. A potential impairment charge is evaluated when the undiscounted expected cash flows derived from an asset group are less than its carrying amount. Impairment losses, if applicable, are measured as the amount by which the carrying value of an asset group exceeds its fair value and are recognized in operating results. Judgment is used when applying these impairment rules to determine the timing of impairment testing, the undiscounted cash flows used to assess impairments and the fair value of the asset group.

Business Combinations

The Company allocates the purchase price to the assets acquired and liabilities assumed based on their estimated fair values. The excess of the purchase price over the fair values of the assets acquired and liabilities assumed is recorded as goodwill. During the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the estimated fair value of the assets acquired and liabilities assumed, with the corresponding offset to goodwill. The results of operations of an acquired business is included in its consolidated financial statements from the date of acquisition. Acquisition-related expenses are expensed as incurred.

Goodwill

Goodwill represents the excess of the purchase price consideration over the estimated fair value of the tangible and intangible assets acquired and liabilities assumed in a business combination. Goodwill is evaluated for impairment annually in the third quarter of its fiscal year as a single reporting unit, and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable. The Company may elect to

qualitatively assess whether it is more likely than not that the fair value of its reporting unit is less than its carrying value. If the Company opts not to qualitatively assess, a quantitative goodwill impairment test is performed. The quantitative test compares its reporting unit's carrying amount, including goodwill, to its fair value calculated based on its enterprise value. If the carrying amount exceeds its fair value, an impairment loss is recognized for the excess. The Company did not recognize any impairment of goodwill in any of the periods presented in the consolidated financial statements.

Purchased Intangible Assets

Purchased intangible assets with finite lives are stated at cost, net of accumulated amortization. The Company amortizes its intangible assets on a straight-line basis over an estimated useful life of three to seven years.

Impairment of Long-Lived Assets

We review our long-lived assets, including property and equipment and finite-lived intangible assets, for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. We measure the recoverability of these assets by comparing the carrying amounts to the future undiscounted cash flows the assets are expected to generate. If the total of the future undiscounted cash flows is less than the carrying amount of an asset, we record an impairment charge for the amount by which the carrying amount of the asset exceeds its fair market value.

Operating Leases

The Company determines if an arrangement contains a lease at inception. Lease liabilities are recognized at the present value of the future lease payments at commencement date. The interest rate implicit in the Company's operating leases is not readily determinable, and therefore an incremental borrowing rate is estimated to determine the present value of future payments. The estimated incremental borrowing rate factors in a hypothetical interest rate on a collateralized basis with similar terms, payments, and economic environments. The operating lease right-of-use ("ROU") asset is determined based on the lease liability initially established and reduced for any prepaid lease payments and any lease incentives. The Company accounts for the lease and non-lease components of operating lease contract consideration as a single lease component.

Certain of the operating lease agreements contain rent concession, rent escalation, and option to renew provisions. Rent concession and rent escalation provisions are considered in determining the lease cost. Lease cost is recognized on a straight-line basis over the lease term commencing on the date the Company has the right to use the leased property. The Company generally uses the base, non-cancelable, lease term when recognizing the lease assets and liabilities, unless it is reasonably certain that an extension or termination option will be exercised.

In addition, certain operating lease agreements contain tenant improvement allowances from the Company's landlords. These allowances are accounted for as lease incentives and reduce its ROU asset and lease cost over the lease term.

For short-term leases with lease term no longer than twelve months, and do not include an option to purchase the underlying asset that is reasonably certain to be exercised, the Company recognizes rent expense in the Company's consolidated statements of operations on a straight-line basis over the lease term and record variable lease payments as incurred.

Deferred Revenue

Deferred revenue primarily consists of amounts that have been invoiced but have not yet been recognized as revenue and performance obligations pertaining to subscription services. The current portion of deferred revenue represents the amounts that are expected to be recognized as revenue within one year of the consolidated balance sheet dates.

Revenue recognition

The Company generates revenue from three main sources: (1) product, (2) professional services, and (3) royalties. Sales tax collected on sales is netted against government remittances and thus, recorded on a net basis. The

Company's performance obligations are satisfied at a point in time or over time as stand ready obligations. The majority of revenue is recognized at a point in time when products are accepted, installed or delivered.

Product Revenue

The Company's product revenue is comprised of multiple storage solution hardware and software offerings targeted towards consumer and enterprise customers. Revenue from product sales is recognized at the point in time when the customer takes control of the product. If there are significant post-delivery obligations, the related revenue is deferred until such obligations are fulfilled. Revenue from contracts with customer acceptance criteria are recognized upon end user acceptance.

Service Revenue

Service revenue primarily consists of three components: (1) post-contract customer support agreements, (2) installation, and (3) consulting & training.

Customers have the option to choose between different levels of hardware and software support. The Company's support plans include various stand-ready obligations such as technical assistance hot-lines, replacement parts maintenance, and remote monitoring that are delivered whenever called upon by its customers. Support plans provide additional services and assurance outside the scope of the Company's primary product warranties. Revenue from support plans are recognized ratably over the contractual term of the service contract.

The Company offers installation services on all its products. Customers can opt to either have Quantum or a Quantum-approved third-party service provider install its products. Installation services are typically completed within a short period of time and revenue from these services are recognized at the point when installation is complete. A majority of the Company's consulting and training revenue does not take significant time to complete therefore these obligations are satisfied upon completion of such services at a point in time.

Royalty Revenue

The Company licenses certain intellectual property to third party manufacturers which gives the manufacturers rights to intellectual property including the right to either manufacture or include the intellectual property in their products for resale. Licensees pay the Company a per-unit royalty for sales of their products that incorporate its intellectual property. On a periodic and timely basis, the licensees provide us with reports containing units sold to end users subject to the royalties. The reports substantiate that the performance obligation has been satisfied therefore revenue is recognized based on the reports or when amounts can be reasonably estimated.

Significant Judgements

The Company generally enters into contracts with customers to provide storage solutions to meet their individual needs. Most of the Company's contracts contain multiple goods and services designed to meet each customers' unique storage needs. Contracts with multiple goods and services have multiple distinct performance obligations as the promise to transfer hardware, installation services, and support services are capable of being distinct and provide economic benefit to customers on their own.

Stand-alone selling price

For contracts with multiple performance obligations, the Company allocates the transaction price to each performance obligation based on the relative standalone selling price ("SSP") of the good or service underlying each performance obligation. The SSP represents the amount for which the Company would sell the good or service to a customer on a standalone basis (i.e., not sold as a bundle with any other products or services). Where SSP may not be directly observable (e.g., the performance obligation is not sold separately), the Company maximized the use of observable inputs by using information including reviewing discounting practices, performance obligations with similar customers and product groupings. The Company evaluated all methods included in ASC 606 to determine SSP and concluded that invoice price is the best representation of what the Company expects to receive from the delivery of each performance obligation.

Variable consideration

Product revenue includes multiple types of variable consideration, such as rebates, returns, or stock rotations. All contracts with variable consideration require payment upon satisfaction of the performance obligation typically with net 45-day payment terms. The Company does not include significant financing components in its contracts. The Company constrains estimates of variable consideration to amounts that are not expected to result in a significant revenue reversal in the future, primarily based on the most likely level of consideration to be returned to the customer under the specific terms of the underlying programs.

The expected value method is used to estimate the consideration expected to be returned to the customer. The Company uses historical data and current trends to drive the estimates. The Company records a reduction to revenue to account for these programs. The Company initially measures this asset at the carrying amount of the inventory, less any expected costs to recover the goods including potential decreases in the value of the returned goods.

Cost of Service Revenue

The Company classifies expenses as service cost of revenue by estimating the portion of its total cost of revenue that relates to providing field support to its customers under contract. These estimates are based upon a variety of factors, including the nature of the support activity and the level of infrastructure required to support the activities from which it earns service revenue. In the event its service business changes, its estimates of cost of service revenue may be impacted.

Research and Development Costs

Expenditures relating to the development of new products and processes are expensed as incurred. These costs include expenditures for employee compensation, materials used in the development effort, other internal costs, as well as expenditures for third party professional services. The Company has determined that technological feasibility for its software products is reached shortly before the products are released to manufacturing. Costs incurred after technological feasibility is established have not been material. The Company expenses software-related research and development costs as incurred.

Advertising Expense

Advertising expense is recorded as incurred and was \$ 1.5 million, \$3.4 million, and \$4.5 million in fiscal 2021, 2020 and 2019, respectively.

Shipping and Handling Fees

Shipping and handling fees are included in cost of revenue and were \$ 9.4 million, \$9.4 million, and \$9.1 million in fiscal 2021, 2020 and 2019, respectively.

Restructuring Reserves

Restructuring reserves include charges related to the realignment and restructuring of the Company's business operations. These charges represent judgments and estimates of the Company's costs of severance, closure and consolidation of facilities and settlement of contractual obligations under its operating leases, including sublease rental rates, asset write-offs and other related costs. The Company reassesses the reserve requirements to complete each individual plan under the restructuring programs at the end of each reporting period. If these estimates change in the future or actual results differ from the Company's estimates, additional charges may be required.

Foreign Currency Translation

The Company's international operations generally use their local currency as their functional currency. Assets and liabilities are translated at exchange rates in effect at the balance sheet date. Income and expense accounts are translated at the average monthly exchange rates during the year. Resulting translation adjustments are reported as a component of other comprehensive income (loss) and recorded in accumulated other comprehensive loss on its consolidated balance sheets.

Income Taxes

The Company accounts for income taxes in accordance with ASC Topic 740, *Income Taxes* in which deferred tax asset and liabilities are recognized based on differences between the financial reporting carrying values of assets

and liabilities and the tax basis of those assets and liabilities, measured at the enacted tax rates expected to apply to taxable income in the years in which those tax assets or liabilities are expected to be realized or settled.

A valuation allowance is provided if the Company believes it is more likely than not that all or some portion of the deferred tax asset will not be realized. An increase or decrease in the valuation allowance, if any, that results from a change in circumstances, and which causes a change in the Company's judgment about the realizability of the related deferred tax asset, is included in the tax provision.

The Company assesses whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. The Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The tax benefit to be recognized in the financial statements from such a position is measured as the largest amount of benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. The Company reevaluates these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances and changes in tax law. The Company recognizes penalties and tax-related interest expense as a component of income tax expense in the consolidated statements of operations.

Asset Retirement Obligations

The Company records an asset retirement obligation for the fair value of legal obligations associated with the retirement of tangible long-lived assets and a corresponding increase in the carrying amount of the related asset in the period in which the obligation is incurred. In periods subsequent to initial measurement, the Company recognizes changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate. Over time, the liability is accreted to its present value and the capitalized cost is depreciated over the estimated useful life of the asset. The Company's obligations relate primarily to certain legal obligations to remediate leased property on which certain assets are located.

Warranty Expense

The Company warrants its products against certain defects and the terms range from one to three years. The Company provides for the estimated costs of fulfilling its obligations under hardware warranties at the time the related revenue is recognized. The Company estimates the provision based on historical and projected product failure rates, historical and projected repair costs, and knowledge of specific product failures (if any). The Company regularly reassesses its estimates to determine the adequacy of the recorded warranty liability and adjusts the provision, as necessary.

Debt Issuance Costs

Debt issuance costs for revolving credit agreements are capitalized and amortized over the term of the underlying agreements on a straight-line basis. Amortization of these debt issuance costs is included in interest expense while the unamortized debt issuance cost balance is included in other current assets or other assets. Debt issuance costs for the Company's term loans are recorded as a reduction to the carrying amount and are amortized over their terms using the effective interest method. Amortization of these debt issuance costs is included in interest expense.

Stock-Based Compensation

The Company classifies stock-based awards granted in exchange for services as either equity awards or liability awards. The classification of an award as either an equity award or a liability award is generally based upon cash settlement options. Equity awards are measured based on the fair value of the award at the grant date. Liability awards are re-measured to fair value each reporting period. Each reporting period, the Company recognizes the change in fair value of awards issued to non-employees as expense. The Company recognizes stock-based compensation on a straight-line basis over the award's requisite service period, which is generally the vesting period of the award, less actual forfeitures. No compensation expense is recognized for awards for which participants do not render the requisite services. For equity and liability awards earned based on performance or upon occurrence of a contingent event, when and if the awards will be earned is estimated. If an award is not considered probable of being earned, no amount of stock-based compensation is recognized. If the award is deemed probable of being earned, related compensation expense is recorded over the estimated service period. To the extent the estimate of

awards considered probable of being earned changes, the amount of stock-based compensation recognized will also change.

Concentration of Credit Risk

The Company sells products to customers in a wide variety of industries on a worldwide basis. In countries or industries where the Company is exposed to material credit risk, the Company may require collateral, including cash deposits and letters of credit, prior to the completion of a transaction. The Company does not believe it has significant credit risk beyond that provided for in the consolidated financial statements in the ordinary course of business. During the fiscal years ended March 31, 2021, 2020 and 2019 no customers represented 10% or more of the Company's total revenue. Two customers comprised approximately 22% of accounts receivable as of March 31, 2021. No customers comprised more than 10% of accounts receivable as of March 31, 2020. One customer comprised approximately 21% of accounts receivable as of March 31, 2019.

If the Company is unable to obtain adequate quantities of the inventory needed to sell its products, the Company could face costs increases or delays or discontinuations in product shipments, which could have a material adverse effect on the Company's results of operations. In many cases, the Company's chosen vendor may be the sole source of supply for the products or parts they manufacture, or services they provide, for the Company. Some of the products the Company purchases from these sources are proprietary or complex in nature, and therefore cannot be readily or easily replaced by alternative sources.

Segment Reporting

Business segments are defined as components of an enterprise about which discrete financial information is available and is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing operating performance. Based on the way the Company manages its business, the Company has determined that it currently operates with one reportable segment. The chief operating decision maker focuses on consolidated results in assessing operating performance and allocating resources. Furthermore, the Company offers similar products and services and uses similar processes to sell those products and services to similar classes of customers.

The Company's chief operating decision-maker is its Chief Executive Officer who makes resource allocation decisions and assesses performance based on financial information presented on a consolidated basis. There are no segment managers who are held accountable by the chief operating decision-maker, or anyone else, for operations, operating results, and planning for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reportable segment and operating segment structure.

Based on how the Company manages its business, the Company has determined that it currently operates in one reportable segment. The Company operates in three geographic regions: (a) Americas; (b) Europe, Middle East, and Africa ("EMEA"); and (c) Asia Pacific ("APAC").

The following table summarizes property and equipment, net by geographic region (in thousands):

	For the year ended March 31,	
	2021	2020
United States	\$ 9,787	\$ 8,488
International	264	558
Total	\$ 10,051	\$ 9,046

Defined Contribution Plan

The Company sponsors a qualified 401(k) retirement plan for its U.S employees. The plan covers substantially all employees who have attained the age of 18. Participants may voluntarily contribute to the plan up to the maximum limits established by Internal Revenue Service regulations. For the year ended March 31, 2021, the Company incurred \$1.2 million in matching contributions. No matching contributions were made in the fiscal years ended March 31, 2020 and 2019.

Recently Adopted Accounting Pronouncements

The Company adopted the guidance in ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326) - Measurement of Credit Losses of Financial Instruments* ("CECL") on April 1, 2020. The ASU requires entities to measure credit losses for financial assets measured at amortized cost based on expected losses over the lifetime of the asset rather than incurred losses. The adoption of ASU 2016-13 did not have a material impact on the condensed consolidated financial statements.

The Company adopted the guidance in ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software: Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract* on April 1, 2020. The ASU requires implementation costs incurred by customers in cloud computing arrangements (i.e., hosting arrangements) to be capitalized under the same premises as authoritative guidance for internal-use software and deferred over the noncancelable term of the cloud computing arrangements plus any option renewal periods that are reasonably certain to be exercised by the customer or for which the exercise is controlled by the service provider. The adoption of ASU 2018-15 did not have a material impact on the condensed consolidated financial statements.

Recently Issued Accounting Pronouncements Not Yet Adopted

In August 2020, the FASB issued ASU 2020-06, *Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*, which simplifies the accounting for certain convertible instruments, amends guidance on derivative scope exceptions for contracts in an entity's own equity, and modifies the guidance on diluted earnings per share (EPS) calculations as a result of these changes. This pronouncement is effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2021. The Company plans to adopt this pronouncement for our fiscal year ending March 31, 2022, and does not expect it to have a material effect on its consolidated financial statements.

NOTE 2: REVENUE

In the following table, revenue is disaggregated by major product offering and geographies (in thousands):

	Year Ended March 31,		
	2021	2020	2019 ¹
Americas²			
Primary storage systems	\$ 52,295	\$ 54,211	\$ 33,789
Secondary storage systems	41,948	57,192	72,696
Device and media	24,410	31,228	34,079
Service	76,039	82,607	87,040
Total revenue	194,692	225,238	227,604
EMEA			
Primary storage systems	12,940	16,078	18,902
Secondary storage systems	33,688	40,008	40,666
Device and media	20,881	25,484	19,064
Service	41,261	39,467	37,216
Total revenue	108,770	121,037	115,848
APAC			
Primary storage systems	4,409	6,863	6,120
Secondary storage systems	13,364	14,472	13,166
Device and media	5,873	5,632	6,172
Service	7,604	8,976	10,440
Total revenue	31,250	35,943	35,898
Consolidated			
Primary storage systems	69,644	77,152	58,811
Secondary storage systems	89,000	111,672	126,528
Device and media	51,164	62,344	59,315
Service	124,904	131,050	134,696
Royalty ³	14,864	20,731	23,330
Total revenue	\$ 349,576	\$ 402,949	\$ 402,680

¹ Primary and Secondary storage system revenue has been adjusted for fiscal year 2019 due to certain reclassifications from Primary to Secondary storage systems.

² Revenue for Americas geographic region outside of the United States is not significant.

³ Royalty revenue is not allocable to geographic regions.

Contract Balances

The following table presents the Company's contract liabilities and certain information related to this balance as of March 31, 2021 (in thousands):

	March 31, 2021	
Deferred revenue	\$	120,153
Revenue recognized in the period from amounts included in contract liabilities at the beginning of the period	\$	79,921

Remaining Performance Obligations

Remaining performance obligations consisted of the following (in thousands):

	Current	Non-Current	Total
As of March 31, 2021	\$ 102,468	\$ 38,771	\$ 141,239

The Company expects to recognize approximately 72.5% of the remaining performance obligations within the next 12 months. The majority of the Company's noncurrent remaining performance obligations is expected to be recognized in the next 13 to 60 months.

NOTE 3: BUSINESS ACQUISITION

On December 12, 2020, the Company entered into a Stock Purchase Agreement to acquire all of the issued and outstanding shares of Square Box Systems Limited ("SBS").

The purchase price of approximately \$7.7 million was comprised of (a) \$2.6 million cash (net of cash acquired); (b) approximately 0.4 million shares of the Company's common stock, with a fair value of \$2.1 million; (c) \$2.0 million cash payable at the first anniversary of the Closing date; and (d) \$ 1.0 million cash payable at the second anniversary of the Closing Date.

Contingently issuable restricted stock units in the amount of \$ 5.3 million, which is subject to continuous employment, are being recognized as stock-based compensation over the related two years vesting period.

The purchase price was allocated to tangible assets of approximately \$ 0.8 million, intangible assets of approximately \$ 5.6 million based on their fair values on the acquisition date, liabilities of approximately \$1.0 million, and a net deferred tax liability of \$1.1 million. The excess of the purchase price over the amounts allocated to assets acquired and liabilities assumed was approximately \$3.4 million, which has been recorded as goodwill.

The historical results of operations for SBS were not significant to the Company's consolidated results of operations for the periods presented.

The following table summarizes intangible assets related to the SBS acquisition as of March 31, 2021:

Intangible assets, net	March 31, 2021		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Amount
Developed technology	\$ 4,700	\$ (473)	\$ 4,227
Customer lists	900	(90)	810
Intangible assets, net	\$ 5,600	\$ (563)	\$ 5,037

There was no intangible amortization expense for fiscal years 2020 and 2019. At the end of fiscal 2021, the weighted-average remaining amortization period was 2.7 years for developed technology and customer lists. The Company recorded amortization of developed technology in cost of product revenue, and customer lists in sales and marketing expenses in the consolidated statements of operations.

As of March 31, 2021, the future expected amortization expense for intangible assets is as follows (in thousands):

Fiscal year ending	Estimated future amortization expense
2022	1,867
2023	1,867
2024	1,303
2025	—
Thereafter	—
Total	<u>\$ 5,037</u>

Goodwill	Amount
Balance at March 31, 2020	\$ —
Goodwill acquired	3,466
Balance at March 31, 2021	<u>\$ 3,466</u>

NOTE 4: BALANCE SHEET INFORMATION

Certain significant amounts included in the Company's consolidated balance sheets consist of the following (in thousands):

Manufacturing inventories	March 31,	
	2021	2020
Finished goods		
Manufactured finished goods	\$ 12,452	\$ 15,790
Distributor inventory	238	504
Total finished goods	12,690	16,294
Work in progress	2,074	1,001
Raw materials	9,703	11,901
Total manufacturing inventories	\$ 24,467	\$ 29,196

Service inventories	March 31,	
	2021	2020
Finished goods	\$ 18,773	\$ 15,845
Component parts	4,648	4,657
Total service inventories	\$ 23,421	\$ 20,502

Property and equipment, net	March 31,	
	2021	2020
Machinery and equipment	\$ 38,027	\$ 33,804
Leasehold improvements	7,080	6,733
Furniture and fixtures	847	1,862
Software	300	—
	46,254	42,399
Less: accumulated depreciation	(36,203)	(33,353)
Total property, plant and equipment, net	\$ 10,051	\$ 9,046

Depreciation and amortization expense for property and equipment amounted to \$ 5.7 million, \$4.3 million, and \$4.3 million for the years ended March 31, 2021, 2020, and 2019, respectively.

Other accrued liabilities	March 31,	
	2021	2020
Accrued expenses	\$ 6,799	\$ 3,338
Asset retirement obligation	2,906	1,655
Accrued warranty	2,383	2,668
Accrued interest	57	3,192
Other	6,029	6,682
Total other accrued liabilities	\$ 18,174	\$ 17,535

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

	Year Ended March 31,		
	2021	2020	2019
Balance as of April 1	\$ 2,668	\$ 3,456	2,422
Current period accruals	4,699	3,516	5,766
Adjustments to prior estimates	(472)	(114)	326
Charges incurred	(4,512)	(4,190)	(5,058)
Balance as of March 31	\$ 2,383	\$ 2,668	\$ 3,456

NOTE 5: DEBT

The following table summarizes the Company's borrowing as of the dates presented (in thousands):

	Year Ended March 31,	
	2021	2020
Senior Secured Term Loan	\$ 92,426	\$ 165,208
Amended PNC Credit Facility	—	2,620
Paycheck Protection Program	10,000	—
Less: current portion	(1,850)	(7,321)
Less unamortized debt issuance costs ⁽¹⁾	(9,686)	(13,660)
Long-term debt, net	\$ 90,890	\$ 146,847

⁽¹⁾ The unamortized debt issuance costs related to the Senior Secured Term Loan are presented as a reduction of the carrying amount of the corresponding debt balance on the accompanying consolidated balance sheets. Unamortized debt issuance costs related to the PNC Credit Facility are presented within other assets on the accompanying consolidated balance sheets.

TCW Term Loan and PNC Credit Facility

On October 21, 2016 (the "Closing Date"), the Company entered into a term loan and security agreement (the "TCW Term Loan") with TCW Asset Management Company LLC ("TCW") and a revolving credit and security agreement (the "PNC Credit Facility" and together with the TCW Term Loan, the "Credit Agreements") with PNC Bank, National Association ("PNC").

In August 2018, the Company amended the Credit Agreements issued TCW warrants to purchase 1,099,533 of the Company's common stock at an exercise price of \$2.11 per share. To the extent that the Company did not repay the entire TCW Term Loan by September 30, 2018, October 31, 2018, November 30, 2018 and December 31, 2018, then on each such date the Company was required to issue additional warrants to purchase 3% of the then outstanding common stock of the Company with an exercise price equal to the closing price of the Company's common stock on the business day immediately prior to the date of issuance of the warrants. A total of 4,398,132 warrants to purchase the Company's common stock were issued related to the amendment (the "August 2018 Amendment Warrants") with warrants to purchase 1,099,533 shares issued on each of September 30, 2018, October 31, 2018 and November 30, 2018 with exercise prices of \$2.40 per share, \$2.39 per share and \$2.40 per share, respectively.

The August 2018 Amendment Warrants were not exercisable until February 1, 2019, on which date, the exercise price of each of the warrants that were issued was reset to the lower of: (a) the applicable existing exercise price for such warrant or (b) the lowest of the 5-day volume-weighted average closing prices of the Company's common stock for the last five trading days in the months of September 2018, October 2018, November 2018, December 2018 and January 2019. The exercise price for all of the August 2018 Amendment Warrants was adjusted to \$1.62 per share on February 1, 2019.

Due to the exercise price reset provision in the August 2018 Amendment Warrants, the Company initially recorded the value of the warrants as a liability with changes in fair value recorded as other income (expense) in the accompanying consolidated statements of operations. The Company reclassified the fair value of the warrants of \$5.6 million to additional paid in capital on February 1, 2019, the exercise price reset date. A loss of approximately \$ 0.4 million was recorded to other income (expense) during fiscal year 2019 before the reclassification to equity.

The August 2018 Amendment provided a repurchase right allowing the Company to repurchase 50% of the August 2018 Amendment Warrants issued within 30 days of repayment of amounts due under the TCW Term Loan for \$0.001 per warrant. The Company repaid the TCW Term Loan on December 27, 2018 and repurchased 549,766 warrants for \$550 which resulted in a reduction in the fair value of the August 2018 Amendment Warrants liability of \$ 0.4 million which was recorded as other income (expense) in the accompanying consolidated statements of operations and comprehensive income. On November 18, 2019, the 3.8 million outstanding August 2018 Amendment Warrants were exercised on a cashless basis, resulting in the issuance of 2.8 million shares of common stock.

The Company accounted for the August 2018 Amendment related to the TCW Term Loan as a debt extinguishment. Accordingly, a \$ 14.9 million loss on debt extinguishment was recorded during the year ended March 31, 2019 related primarily to fees paid to TCW (including \$5.7 million related to the value of the August 2018 Amendment Warrants). The Company also accounted for the August 2018 Amendment related to the PNC Credit Facility as a debt extinguishment and recorded a loss on debt extinguishment of approximately \$1.8 million related to a portion of the unamortized debt issuance costs. The Company paid PNC an amendment fee of \$1.7 million which was included into other current assets and amortized to interest expense over the original term of the PNC Credit Facility.

Senior Secured Term Loan and Amended PNC Credit Facility

On December 27, 2018 (the "Closing Date"), the Company entered into a senior secured term loan of \$ 150.0 million with U.S. Bank, National Association ("U.S. Bank"), drawn on the Closing Date, and a senior secured delayed draw term loan of \$15.0 million (collectively, "the Senior Secured Term Loan") which was drawn in January 2019. In connection with the Senior Secured Term Loan, the Company amended its existing PNC Credit Facility providing for borrowings up to a maximum principal amount of the lesser of: (a) \$45.0 million or (b) the amount of the borrowing base, as defined in the PNC Credit Facility agreement. Borrowings under the Senior Secured Term Loan and Amended PNC Credit Facility (collectively, the "December 2018 Credit Agreements") mature on December 27, 2023.

A portion of the proceeds from the Senior Secured Term Loan was used to repay all outstanding borrowings under the TCW Term Loan. The Company recorded a loss on debt extinguishment of \$0.8 million related to repayment of the TCW Term Loan including unamortized debt issuance costs of \$ 0.1 million and costs paid to TCW of \$0.7 million. The Company accounted for the Amended PNC Credit Facility as a modification. The Company incurred \$ 1.4 million in costs related to the amendment which was recorded to other assets and is being recognized as interest expense over the term of the Amended PNC Credit Facility.

Borrowings under the Senior Secured Term Loan bear interest at a rate per annum, at the Company's option, equal to (a) the greater 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 as quoted by the Wall Street Journal, plus an applicable margin of 9.00% or (b) LIBOR Rate plus an applicable margin of 10.00%. Interest on the Senior Secured Term Loan is payable quarterly. Principal payments of 0.25% of the original balance of the Senior Secured Term Loan are due quarterly with the remaining principal balance due at maturity. Additionally, on an annual basis the Company is required to perform a calculation of excess cash flow, as defined in the Senior Secured Term Loan agreement, which may require an additional payment of the principal in certain circumstances (the "ECF Payment").

Borrowings under the Amended PNC Credit Facility bear interest, at the Company's option, equal to, (a) the greater of (i) the base rate, as defined in the PNC Credit Facility, (ii) the daily Overnight Bank Funding Rate plus 0.5% and (iii) the daily LIBOR rate plus 1.0%, plus an applicable margin of (a) 4.50% for the period from the Amendment Date until the date quarterly financial statements are delivered to PNC for the fiscal quarter ending June 30, 2021 and (b) thereafter, ranging from 3.50% to 4.50% based on the Company's applicable Total Leverage Ratio, as defined, or (b) the LIBOR Rate plus an applicable margin of (a) 5.00% for the period from the Amendment Date until the date quarterly financial statements are delivered to PNC for the fiscal quarter ending June 30, 2021 and (b) thereafter,

ranging from 4.50% to 5.00% based on the Company's applicable total leverage ratio, as defined in the Amended PNC Credit Facility agreement. Interest on the Amended PNC Credit Facility is payable quarterly.

In connection with the Senior Secured Term Loan agreement, the Company issued warrants to purchase 7,110,616 shares of the Company's common stock, at an exercise price of \$1.33 per share (the "2018 Term Loan Warrants"). The exercise price and the number of shares underlying the 2018 Term Loan Warrants are subject to adjustment in the event of specified events, including dilutive issuances of common stock linked equity instruments at a price lower than the exercise price of the warrants ("Down Round Feature"), a subdivision or combination of the Company's common stock, a reclassification of the Company's common stock or specified dividend payments. The 2018 Term Loan Warrants are exercisable until December 27, 2028. Upon exercise, the aggregate exercise price may be paid, at each warrant holder's election, in cash or on a net issuance basis, based upon the fair market value of the Company's common stock at the time of exercise.

In accordance with ASU No. 2017-11, *Earnings Per Share (Topic 260)*; *Distinguishing Liabilities from Equity (Topic 480)*; *Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features*; *(Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception ("ASU 2017-11")*, the presence of the Down Round Feature does not preclude the Term Loan Warrants from being classified in stockholders' deficit. Accordingly, the Company determined that the fair value of the warrants of \$8.8 million should be classified within stockholders' deficit upon issuance. The Company incurred \$18.3 million in costs related to the Senior Secured Term Loan (including \$8.8 million related to the value of the Term Loan Warrants). These debt issuance costs are reflected as a reduction of the carrying amount of the Senior Secured Term Loan and are being recognized as interest expense over the term of the Senior Secured Term Loan.

The December 2018 Credit Agreements contain certain covenants, including requirements to prepay the loans in an amount equal to 100% of the net cash proceeds from certain assets dispositions, subject to certain reinvestment rights and other exceptions and equity issuances. Amounts outstanding under the December 2018 Credit Agreements may become due and payable upon the occurrence of specified events, which among other things include (subject to certain exceptions and cure periods) (i) failure to pay principal, interest, or any fees when due, (ii) breach of any representation or warranty, covenant, or other agreement, (iii) the occurrence of a bankruptcy or insolvency proceeding with respect to the Company or any of its subsidiaries, (iv) any event of default with respect to other indebtedness involving an aggregate amount of \$1.0 million or more, (v) any lien created by the December 2018 Credit Agreements or any related security documents ceasing to be valid and perfected; (vi) the December 2018 Credit Agreements or any related security documents or guarantees ceasing to be legal, valid, and binding upon the parties thereto; or a change of control shall occur. The December 2018 Credit Agreements contain financial covenants relating to a fixed charge coverage ratio, total net leverage ratio, minimum EBITDA, and minimum liquidity. The Amended PNC Credit Facility also includes a total leverage ratio covenant. As of March 31, 2021, the Company was in compliance with all covenants.

The Senior Secured Term Loan contains a prepayment penalty which is calculated based on (i) if prepayment occurs prior to 30-month anniversary of the Closing Date, the prepayment penalty is the present value of all required interest payments due on the Senior Secured Term Loan that are prepaid from the date of prepayment through and including the 30-month anniversary of the Closing Date calculated based on the 3 month LIBOR Rate plus 10%, plus 5.0% of the amount of principal prepaid, (ii) if prepayment occurs between the 30-month anniversary of Closing Date through the third anniversary of the Closing Date, the prepayment penalty is 5.0% of the principal prepaid and (iii) if prepayment occurs between the third anniversary of the Closing Date through the fourth anniversary of Closing Date, the prepayment penalty is 2.0% of the principal prepaid (the "Prepayment Penalty"). There is no Prepayment Penalty after the fourth anniversary of the Closing Date. In the event of a change in control, as defined in the Senior Secured Term Loan agreement, the Company is required to make a change in control premium payment equal to the greater of the Prepayment Penalty or 1.0% of the principal amount being repaid. The Company is permitted to prepay up to 50% of the aggregate principal amount of the outstanding Senior Secured Term Loan balance with cash proceeds of a public offering of the Company's common stock at a prepayment premium of 5% of the principal amount being repaid (the "Equity Clawback"). In addition to the Prepayment Penalty, the Company is required to pay an exit fee of 2% of the aggregate principal amount repaid excluding amounts repaid that are subject to the Equity Clawback.

On March 30, 2020, March 31, 2020 and April 3, 2020, the Company entered into amendments to the December 2018 Credit Agreements which, among other things, included (a) payment deferral of the scheduled amortization payment of \$0.4 million due on April 1, 2020 to June 30, 2020; payment of \$ 1.9 million of the interest due on April 1,

2020 in-kind rather than in cash, and (b) the waiver of compliance with the total net leverage ratio covenant, as defined in the Senior Secured Term Loan agreement, for the quarter ended March 31, 2020.

On June 16, 2020, the Company entered into an amendment to the December 2018 Credit Agreements (the "June 2020 Amendment" and collectively with the March 30, 2020, March 31, 2020 and April 3, 2020 amendment, (the "2020 Amendments"). The June 2020 Amendment provided an additional borrowing of \$20.0 million which was immediately drawn in full. The amendment also (a) waived the ECF Payment of \$ 5.3 million for the year ended March 31, 2020; (b) deferred payment of the scheduled amortization payments due on June 30, 2020, September 30, 2020, and December 31, 2020 until the maturity date; (c) amended the definition of "EBITDA" to, among other things, add an add-back for certain costs, expenses and fees incurred in connection with the transactions contemplated by the amendment; (d) waived compliance with the total net leverage ratio, fixed charge coverage ratio, minimum liquidity and minimum EBITDA financial covenants for the quarters ending on June 30, 2020, September 30, 2020, December 31, 2020, and March 31, 2021; (e) added a financial covenant that requires a minimum monthly average undrawn availability of \$7.0 million under the Amended PNC Credit Facility during the period from June 30, 2020 through and including May 31, 2021; and (f) amended the covenant levels for the total net leverage ratio, fixed charge coverage ratio, and minimum EBITDA financial covenants, commencing with the quarter ending June 30, 2021.

In connection with the June 2020 Amendment, the Company issued to the lenders warrants (the "2020 Term Loan Warrants") to purchase 3,400,000 shares of the Company's common stock, at an exercise price of \$3.00 per share. The exercise price and the number of shares underlying the 2020 Term Loan Warrants are subject to adjustment in the event of specified events, including dilutive issuances of common stock linked equity instruments at a price lower than the exercise price of the warrants, a subdivision or combination of the Company's common stock, a reclassification of the Company's common stock or specified dividend payments. The 2020 Term Loan Warrants are exercisable until June 16, 2030. Upon exercise, the aggregate exercise price may be paid, at each warrant holder's election, in cash or on a net issuance basis, based upon the fair market value of the Company's common stock at the time of exercise.

The 2020 Amendments related to the Senior Secured Term Loan were accounted for as modifications. In connection with the modifications, the Company incurred \$11.9 million in costs including \$11.3 million related to the value of the 2020 Term Loan Warrants and \$ 0.6 million in fees paid to the lenders. These debt issuance costs are reflected as a reduction to the carrying amount of the Senior Secured Term Loan and are amortized to interest expense over the remaining loan term. The 2020 Amendments related to the Amended PNC Credit Facility were accounted for as modifications. Fees paid to PNC of approximately \$0.5 million were recorded to other assets and are amortized to interest expense over the remaining term of the agreement. Approximately \$0.8 million in third party costs were expensed related to the 2020 Amendments.

As of March 31, 2021, the interest rates on the Senior Secured Term Loan and the Amended PNC Credit Facility were 12.0% and 7.75%, respectively, and the Amended PNC Credit Facility had a borrowing base of \$32.7 million, all of which was available at that date. The Company is required to maintain a \$ 5.0 million restricted cash reserve as part of the Amended PNC Credit Facility, which is presented as long-term restricted cash within the accompanying consolidated balance sheet as of March 31, 2021

Senior Secured Term Debt Prepayment

On February 11, 2021 (the "Prepayment Date"), the Company prepaid \$ 92.3 million of its outstanding Senior Secured Term Loan utilizing the proceeds of the secondary public offering discussed in *Note 8: Common Stock*. The Company utilized the Equity Clawback which allowed prepayment of up to 50% of the aggregate principal amount of the outstanding Senior Secured Term Loan with net cash proceeds from a public equity offering at a prepayment penalty of 5%. The Company recognized a loss on debt extinguishment of \$14.8 million which included the write-off of debt issuance costs of \$ 10.1 million, a prepayment penalty of \$4.6 million and other costs of \$ 0.1 million.

Registration Rights Agreement

In connection with the June 2020 Term Loan Amendment, the Company entered into an amended and restated registration rights agreement (the "Amended Registration Rights Agreement") with the holders of the warrants previously issued to the Senior Secured Term Loan lenders in December 2018 and the 2020 Term Loan Warrants (collectively, the "Term Loan Warrants"). The Amended Registration Rights Agreement grants the holders of the Term Loan Warrants certain registration rights for the shares of common stock issuable upon the exercise of the

applicable Term Loan Warrants, including (a) the ability of a holder to request that the Company file a Form S-1 registration statement with respect to at least 40% of the registrable securities held by such holder as of the issuance date of the applicable Term Loan Warrants; (b) the ability of a holder to request that the Company file a Form S-3 registration statement with respect to outstanding registrable securities if at any time the Company is eligible to use a Form S-3 registration statement; and (c) certain piggyback registration rights related to potential future equity offerings of the Company, subject to certain limitations.

Paycheck Protection Program Loan

On April 13, 2020, the Company entered into a Paycheck Protection Program (“PPP”) Term Loan (“PPP Loan”) effective April 11, 2020 with PNC in an aggregate principal amount of \$10.0 million pursuant to the Paycheck Protection Program under the Coronavirus Aid, Relief, and Economic Security (“CARES”) Act. The PPP Loan bears interest at a fixed rate of 1% per annum. The PPP Loan has an initial term of two years and is unsecured and guaranteed by the Small Business Administration. The Company used the proceeds from the PPP Loan for qualifying expenses as defined in the PPP Loan and has applied for forgiveness of the PPP Loan in accordance with the terms of the CARES Act. However, the Company cannot assure at this time that the PPP Loan will be forgiven partially or in full. To the extent that all or a portion of the PPP Loan is not forgiven, payment of the outstanding balance will be required on April 11, 2022.

NOTE 6: LEASES

Supplemental balance sheet information related to leases is as follows (in thousands):

Operating leases	March 31, 2021		March 31, 2020	
Operating lease right-of-use assets	\$	9,383	\$	12,689
Other current liabilities	\$	2,581	\$	3,065
Operating lease liability		8,005		10,822
Total operating lease liabilities	\$	10,586	\$	13,887

The components of lease expense were as follows (in thousands):

Lease expense	Year Ended March 31,	
	2021	2020
Operating lease expense	\$ 4,718	\$ 4,901
Variable lease expense	820	277
Short-term lease expense	132	102
Total lease expense	\$ 5,670	\$ 5,280

Maturity of Lease Liabilities	Operating Leases	
2022	\$	3,818
2023		2,766
2024		2,602
2025		2,310
2026		1,910
Thereafter		1,002
Total lease payments	\$	14,408
Less: Imputed interest		(3,822)
Present value of lease liabilities	\$	10,586

Lease Term and Discount Rate	March 31,	
	2021	2020
Weighted average remaining operating lease term (years)	4.53	4.99
Weighted average discount rate for operating leases	13.96 %	13.91 %

Operating cash outflows related to operating leases totaled \$ 4.9 million and \$ 4.5 million for the fiscal years ended March 31, 2021 and March 31, 2020, respectively.

NOTE 7: RESTRUCTURING CHARGES

During fiscal years 2021, 2020 and 2019, the Company approved certain restructuring plans to improve operational efficiencies and rationalize its cost structure.

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

	Severance and benefits	Facilities	Total
Balance as of March 31, 2018	\$ 1,430	\$ 4,389	\$ 5,819
Restructuring costs	4,708	862	5,570
Cash payments	(6,138)	(2,375)	(8,513)
Balance as of March 31, 2019	—	2,876	2,876
Adjustments of prior estimates	—	1,022	1,022
Cash payments	—	(3,961)	(3,961)
Other non-cash	—	63	63
Balance as of March 31, 2020	—	—	—
Restructuring costs	3,701	—	3,701
Cash payments	(3,121)	—	(3,121)
Balance as of March 31, 2021	\$ 580	\$ —	\$ 580

Facility restructuring accruals were paid in accordance with the respective facility lease terms and amounts in the table above were recorded net of estimated sublease amounts.

NOTE 8: COMMON STOCK

Secondary Public Offering

On February 8, 2021, the Company closed a secondary public offering of 15,109,489 shares of its common stock for gross proceeds of \$ 103.5 million. The Company received net proceeds of \$96.8 million after deducting underwriters' discounts and other offering related expenses.

Amended and Restated 2012 Long-Term Incentive Plan

The Company has a stockholder-approved 2012 Long-Term Incentive Plan (the "Plan") which has 5.2 million shares authorized for issuance of new shares at March 31, 2021. There were 4.4 million performance shares and restricted shares outstanding, and 0.8 million shares available for future issuance under the Plan as of March 31, 2021.

Stock options under the Plan are granted at prices determined by the Board of Directors, but at not less than the fair market value of the Company's common stock on the date of grant. The majority of performance share units, restricted stock units and stock options granted to employees vest over three to four years. Stock options, performance shares and restricted stock grants to non-employee directors typically vest over one year. The term of

each stock option under the Plan will not exceed seven years. Stock options, performance share units and restricted stock units granted under the Plan are subject to forfeiture if employment terminates. The Company accounts for all forfeitures of stock-based awards when they occur.

2021 Inducement Plan

The Company's 2021 Inducement Plan became effective on February 1, 2021 and provides for issuance of inducement equity awards to individuals who were not previously an employee or non-employee director of the Company as an inducement material to such individual's entering into employment with the Company. The number of shares of common stock reserved for issuance under the 2021 Inducement Plan was 0.8 million. The term of each stock option and restricted stock unit under the plan will not exceed seven years, and each award generally vests between two and four years. The Company accounts for all forfeitures of stock-based awards when they occur.

The Company have reserved shares of common stock for future issuance under its 2021 Inducement Plan as follows (in thousands):

	March 31, 2021
Shares available for issuance at beginning of period	—
Shares authorized during the period	770
Shares issued during the period	(520)
Total shares available for future issuance at end of period	<u>250</u>

Employee Stock Purchase Plan

The Company's Employee Stock Purchase Plan (the "ESPP") has 9.7 million shares authorized at March 31, 2021. The plan enables eligible employees to purchase shares of its common stock at a discount. Purchases will be accomplished through participation in discrete offering periods. On each purchase date, eligible employees will purchase the Company's common stock at a price per share equal to 85% of the lesser of (i) the fair market value of the Company's common stock on the first trading day of the offering period, and (ii) the fair market value of the Company's common stock on the purchase date.

The Company has reserved shares of common stock for future issuance under its ESPP as follows (in thousands):

	March 31,	
	2021	2020
Shares available for issuance at beginning of period	1,397	497
Additional shares authorized during the period	—	900
Shares issued during the period	(320)	—
Total shares available for future issuance at end of period	<u>1,077</u>	<u>1,397</u>

The Company uses the Black-Scholes-Merton option-pricing model ("Black-Scholes") to determine the fair value for stock options, shares forecasted to be issued pursuant to its ESPP, and warrants. This requires the use of assumptions about expected life, stock price, volatility, risk-free interest rates and expected dividends.

Expected Life—The expected term was based on historical experience with similar awards, giving consideration to the contractual terms, exercise patterns and post-vesting forfeitures.

Volatility—The expected stock price volatility for the Company's common stock was based on the historical volatility of its common stock over the most recent period corresponding with the estimated expected life of the award.

Risk-Free Rate—The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options for each option group.

Dividend Yield—The Company has never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, an expected dividend yield of zero was used.

The weighted-average grant date fair value and the assumptions used in calculating fair values of shares forecasted to be issued pursuant to the Company's ESPP are as follows:

	Year Ended March 31,		
	2021	2020	2019
Expected life	0.5 years	0.5 years	n/a
Volatility	55% - 133%	49.81%	n/a
Risk-free interest rate	0.05% - 0.11%	0.41%	n/a
Dividend yield	—%	—%	n/a
Fair value of common stock	\$4.99 - \$8.05	\$4.78	n/a

Performance Stock Units

The Company granted 0.9 million, 1.5 million and 0.7 million of performance share units with market conditions (“Market PSUs”) in fiscal 2021, 2020, and 2019, respectively. Market PSUs vest one to three years from the issuance date and become eligible for vesting based on the Company achieving certain stock price targets and are contingent upon continued service of the holder of the award during the vesting period. The estimated fair value of these Market PSUs is determined at the issuance date using a Monte Carlo simulation model.

Assumptions used in the Monte Carlo model to calculate fair values of market PSU's during each fiscal period are as follows:

Weighted-Average	2021	2020	2019
Discount period (years)	2.54	3.00	1.95
Risk-free interest rate	0.31%	1.45%	2.63%
Stock price volatility	82.00%	72.00%	69.35%
Grant date fair value	\$3.77	\$5.92	\$1.70

The Company granted 0.5 million, 0.3 million and 0.0 million of performance share units with financial performance conditions (“Performance PSUs”) in the fiscal years ended March 31, 2021, 2020 and 2019, respectively. Performance PSUs become eligible for vesting based on the Company achieving certain financial performance targets through the end of the fiscal year when the performance PSUs were granted, and are contingent upon continued service of the holder of the award during the vesting period. Performance PSUs are valued at the market closing share price on the date of grant and compensation expense for Performance PSUs is recognized when it is probable that the performance conditions will be achieved. Compensation expense recognized related to Performance PSUs is reversed if the Company determines that it is no longer probable that the performance conditions will be achieved.

The following table summarizes activity for Market PSUs and Performance PSUs for the year ended March 31, 2021 (shares in thousands):

	Shares	Weighted-Average Grant Date Fair Value per Share
Outstanding as of March 31, 2020	1,944	\$ 4.09
Granted	1,346	\$ 3.67
Vested	(745)	\$ 3.94
Forfeited or cancelled	(190)	\$ 4.66
Outstanding as of March 31, 2021	2,355	\$ 3.85

As of March 31, 2021, there was \$4.1 million and \$1.8 million of unrecognized stock-based compensation related to Market PSUs and Performance PSUs, respectively, which is expected to be recognized over a weighted-average period of one year. The total fair value of shares vested during fiscal years ended March 31, 2021, 2020, and 2019 was \$2.9 million, \$0.6 million, and \$0.1 million, respectively.

Restricted Stock Units

The Company granted 2.4 million, 0.6 million, and 1.0 million of service-based restricted stock units (“RSUs”) in the fiscal years ended March 31, 2021, 2020 and 2019, respectively, which generally vest ratably over a three-year service period. RSUs are valued at the market closing share price on the date of grant and compensation expense for RSUs is recognized ratably over the applicable vesting period.

The following table summarizes activity for restricted stock units for the year ended March 31, 2021 (shares in thousands):

	Shares	Weighted-Average Grant Date Fair Value per Share
Outstanding as of March 31, 2020	986	\$ 3.42
Granted	2,440	\$ 4.41
Vested	(518)	\$ 3.99
Forfeited or cancelled	(198)	\$ 3.78
Outstanding as of March 31, 2021	<u>2,710</u>	<u>\$ 4.17</u>

As of March 31, 2021, there was \$11.7 million of total unrecognized stock-based compensation related to RSUs, which is expected to be recognized over a weighted-average period of two years. The total fair value of RSUs vested during fiscal years ended March 31, 2021, 2020, and 2019 was \$2.1 million, \$4.0 million, and \$5.1 million, respectively.

Compensation Expense

The following table details the Company's stock-based compensation expense, net of forfeitures (in thousands):

	Year Ended March 31,		
	2021	2020	2019
Cost of revenue	\$ 672	\$ 452	\$ 334
Research and development	2,881	984	440
Sales and marketing	1,757	1,165	179
General and administrative	4,314	4,147	2,456
Total share-based compensation	<u>\$ 9,624</u>	<u>\$ 6,748</u>	<u>\$ 3,409</u>

	Year Ended March 31,		
	2021	2020	2019
Restricted stock units	\$ 4,041	\$ 3,610	\$ 3,178
Performance share units	4,904	3,103	231
Employee stock purchase plan	679	35	—
Total stock-based compensation	<u>\$ 9,624</u>	<u>\$ 6,748</u>	<u>\$ 3,409</u>

NOTE 9: NET LOSS PER SHARE

Equity Instruments Outstanding

The Company has stock options, performance share units, restricted stock units and options to purchase shares under its ESPP, granted under various stock incentive plans that, upon exercise and vesting, respectively, would increase shares outstanding. The Company has also issued warrants to purchase shares of the Company's stock.

The following table sets forth the computation of basic and diluted net loss per share (in thousands, except per-share data):

	Year Ended March 31,		
	2021	2020	2019
Numerator:			
Net loss	\$ (35,459)	\$ (5,210)	\$ (42,797)
Denominator:			
Weighted average shares - basic and diluted	42,852	37,593	35,551
Net loss per share - basic and diluted	\$ (0.83)	\$ (0.14)	\$ (1.20)

The following outstanding shares of common stock equivalents were excluded from the computation of the diluted net loss per share attributable to common stock for the periods presented because their effect would have been anti-dilutive (in thousands):

	Year Ended March 31,		
	2021	2020	2019
Stock awards	1,818	931	307
Warrants	6,573	6,312	4,657
ESPP	11	223	—
Total	8,402	7,466	4,964

The dilutive impact related to common shares from stock incentive plans and outstanding warrants is determined by applying the treasury stock method to the assumed vesting of outstanding performance share units and restricted stock units and the exercise of outstanding options and warrants. The dilutive impact related to common shares from contingently issuable performance share units is determined by applying a two-step approach using both the contingently issuable share guidance and the treasury stock method.

The Company has outstanding market based restricted stock units as of March 31, 2021 that were eligible to vest into shares of common stock subject to the achievement of certain stock price targets in addition to a time-based vesting period. These contingently issuable shares are excluded from the computation of diluted earnings per share if, based on current period results, the shares would not be issuable if the end of the reporting period were the end of the contingency period. There were 0.5 million shares of contingently issuable market-based restricted stock units that were excluded from the table above as the market conditions were not satisfied as of March 31, 2021.

NOTE 10: INCOME TAXES

Pre-tax loss reflected in the consolidated statements of operations for the years ended March 31, 2021, 2020 and 2019 is as follows (in thousands):

	Year Ended March 31,		
	2021	2020	2019
U.S.	\$ (36,648)	\$ (6,318)	\$ (40,935)
Foreign	1,428	1,911	514
Total	\$ (35,220)	\$ (4,407)	\$ (40,421)

Income tax provision consists of the following (in thousands):

	Year Ended March 31,		
	2021	2020	2019
Current tax expense			
Federal	\$ (76)	\$ (115)	\$ (217)
State	339	106	31
Foreign	747	1,271	1,103
Total current tax expense	1,010	1,262	917
Deferred tax expense			
Federal	(577)	—	—
State	9	33	32
Foreign	(203)	(492)	1,427
Total deferred tax expense (benefit)	(771)	(459)	1,459
Income tax provision	\$ 239	\$ 803	\$ 2,376

The income tax provision differs from the amount computed by applying the federal statutory rate of 21% to loss before income taxes as follows (in thousands):

	For the year ended March 31,		
	2021	2020	2019
Expiration of attributes	\$ 9,862	\$ 11,679	\$ 12,268
Valuation allowance	5,444	(2,639)	10,913
Permanent items	1,295	914	359
Equity compensation	345	280	905
Tax reform	—	—	(207)
Credit monetization	—	—	—
Foreign taxes	(129)	1,612	(2,133)
State income taxes	(969)	(20)	(997)
Research and development credits	(1,829)	(1,566)	(879)
Uncertain tax positions	(6,695)	(8,654)	(9,278)
Expense at the federal statutory rate	(7396)	(925)	(8488)
Other	311	122	(87)
Income tax provision	\$ 239	\$ 803	\$ 2,376

Significant components of deferred tax assets and liabilities are as follows (in thousands):

	As of March 31,	
	2021	2020
Deferred tax assets		
Loss carryforwards	\$ 76,153	\$ 85,638
Deferred revenue	21,839	17,043
Tax credits	16,574	17,416
Disallowed interest	12,132	8,958
Other accruals and reserves not currently deductible for tax purposes	8,192	16,339
Capitalized research and development	7,811	—
Lease obligations	1,747	3,413
Inventory	1,374	924
Accrued warranty expense	569	650
Acquired intangibles	454	2,660
Gross deferred tax assets	146,845	153,041
Valuation allowance	(143,263)	(137,814)
Total deferred tax assets, net of valuation allowance	\$ 3,582	\$ 15,227
Deferred tax liabilities		
Depreciation	\$ (1,440)	\$ (1,440)
Lease assets	(1,670)	(3,413)
Other	(1,013)	(967)
Total deferred tax liabilities	\$ (4,123)	\$ (5,820)
Net deferred tax assets (liabilities)	\$ (541)	\$ 9,407

The valuation allowance increased by \$5,449 during the year ended March 31, 2021, decreased by \$2,545 during the year ended March 31, 2020, and increased by \$10,311 during the year ended March 31, 2019.

A reconciliation of the gross unrecognized tax benefits is as follows (in thousands):

	For the year ended March 31,		
	2021	2020	2019
Beginning Balance	\$ 107,282	\$ 116,032	\$ 150,559
Increase in balances related to tax positions in current period	2,560	2,275	1,718
Increase in balances related to tax positions in prior period	—	144	—
Increase in balances related to acquisitions	511	—	—
Decrease in balances related to tax positions in prior period	(522)	(4)	(25,095)
Decrease in balances due to lapse in statute of limitations	(8,712)	(11,165)	(11,150)
Ending balance	\$ 101,119	\$ 107,282	\$ 116,032

During fiscal 2021, excluding interest and penalties, there was a \$6.2 million change in the Company's unrecognized tax benefits. Including interest and penalties, the total unrecognized tax benefit at March 31, 2021 was \$102.2 million, of which \$83.9 million, if recognized, would favorably affect the effective tax rate. At March 31, 2021, accrued interest and penalties totaled \$1.2 million. The Company's practice is to recognize interest and penalties related to income tax matters in the income tax provision in the consolidated statements of operations. As of March 31, 2021, \$95.5 million of unrecognized tax benefits were recorded as a contra deferred tax asset in other long-term assets in the consolidated balance sheets and \$6.7 million (including interest and penalties) were included in other long-term liabilities in the consolidated balance sheets.

The Company files its tax returns as prescribed by the laws of the jurisdictions in which it operates. The Company's U.S. tax returns have been audited for years through 2002 by the Internal Revenue Service. In other major jurisdictions, the Company is generally open to examination for the most recent three to five fiscal years. During the next 12 months, it is reasonably possible that approximately \$9.1 million of tax benefits, inclusive of interest and penalties, that are currently unrecognized could be recognized as a result of the expiration of applicable statutes of limitations.

As of March 31, 2021, the Company had federal net operating loss and tax credit carryforwards of approximately \$ 293.2 million and \$59.5 million, respectively. The net operating loss and tax credit carryforwards expire in varying amounts beginning in fiscal year 2022 if not previously utilized, and \$12.8 million are indefinite-lived net operating loss carryforwards. These carryforwards include \$11.1 million of acquired net operating losses and \$ 8.0 million of acquired credits, the utilization of which is subject to various limitations due to prior changes in ownership.

Certain changes in stock ownership could result in a limitation on the amount of both acquired and self-generated net operating loss and tax credit carryovers that can be utilized each year. If the Company has previously undergone, or should it experience in the future, such a change in stock ownership, it could severely limit the usage of these carryover tax attributes against future income, resulting in additional tax charges.

Due to its history of net losses and the difficulty in predicting future results, Quantum believes that it cannot rely on projections of future taxable income to realize the deferred tax assets. Accordingly, it has established a full valuation allowance against its U.S. and certain foreign net deferred tax assets. Significant management judgement is required in determining the Company's deferred tax assets and liabilities and valuation allowances for purposes of assessing its ability to realize any future benefit from its net deferred tax assets. The Company intends to maintain this valuation allowance until sufficient positive evidence exists to support the reversal of the valuation allowance. The Company's income tax expense recorded in the future will be reduced to the extent that sufficient positive evidence materializes to support a reversal of, or decrease in, its valuation allowance.

The Company recorded an income tax benefit in the fiscal year ended March 31, 2021 of \$ 0.6 million related to foreign currency-related gains recognized in other comprehensive income on U.S. taxes previously imposed on certain income of its foreign subsidiaries. Pursuant to an exception to the incremental method of intraperiod-tax allocation applicable for fiscal years beginning on or before December 15, 2020, tax benefit is recognized on a loss from continuing operations to the extent of income from other comprehensive income. A commensurate amount of tax expense is charged to other comprehensive income for this gain.

NOTE 11: COMMITMENTS AND CONTINGENCIES

Commitments to Purchase Inventory

The Company uses contract manufacturers for its manufacturing operations. Under these arrangements, the contract manufacturer procures inventory to manufacture products based upon its forecast of customer demand. The Company has similar arrangements with certain other suppliers. The Company is 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 March 31, 2021, the Company had issued non-cancelable commitments for \$39.6 million to purchase inventory from its contract manufacturers and suppliers.

Legal Proceedings

On July 22, 2016, Realtime Data LLC d/b/a IXO ("Realtime Data") filed a patent infringement lawsuit against the Company 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 the Company has incorporated Realtime Data's patented technology into its 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 before the Patent Trial and Appeal Board relating to the Realtime patents. In those proceedings the asserted claims of the '506 patent, the '992 patent, and the '513 patent were found unpatentable. In addition, on July 19, 2019, the United States District Court for the District of Delaware issued a decision finding that all claims of the '728 patent, the '530 patent, and the '908 patent are not eligible for patent protection under 35 U.S.C. § 101 (the "Delaware

Action”). On appeal, the Federal Circuit vacated the decision in the Delaware Action and remanded for the Court to “elaborate on its ruling.” The case pending against Quantum in the Northern District of California remains stayed pending the final outcome in the Delaware Action. On May 4, 2021, the Court in the Delaware Action reaffirmed its earlier ruling and granted defendants’ motions to dismiss under Section 101. The Court also granted Realtime Data 14 days to file amended complaints in certain of the Delaware Actions where they sought leave to do so. On May 19, 2021, Realtime Data filed amended complaints including revised bases for claims of infringement of the same patents. Quantum is currently preparing its response to the amended complaints to be filed in the coming weeks. The Company believes the probability that this lawsuit will have a material adverse effect on our business, operating results or financial condition is remote.

On July 14, 2020, Starboard Value LP, Starboard Value and Opportunity Master Fund Ltd., Starboard Value and Opportunity S LLC, and Starboard Value and Opportunity C LP (collectively, “Starboard”) filed a lawsuit against Quantum Corporation, Quantum’s former CEO and board member Jon Gacek, and former Quantum board member Paul Auvil in the California Superior Court in Santa Clara County. The complaint alleges that between 2012 and 2014, Starboard purchased a large number of shares of Quantum’s common stock, obtained three seats on Quantum’s board of directors and then, in July 2014, entered into an agreement with Quantum whereby Starboard would not seek control of Quantum’s board but would instead support Quantum’s slate of board nominees so long as Quantum met certain performance objectives by the end of fiscal 2015. The complaint further alleges that Quantum did not meet those performance objectives but hid that by improperly recognizing revenue in fiscal 2015, with the alleged objective of entrenching Messrs. Gacek and Auvil and then-current management. Mr. Gacek resigned from the board effective May 1, 2017 and as CEO effective November 7, 2017; Mr. Auvil resigned from the board effective November 8, 2017. The complaint’s accounting allegations largely repeat allegations made in now-concluded shareholder class actions, shareholder derivative actions and SEC investigation, the settlement of which we previously reported in the Company’s Form 10-Q filed with the SEC on January 29, 2020 and Form 10-K filed with the SEC on August 6, 2019 (among other SEC filings). On September 14, 2020, all defendants filed a joint motion to dismiss this action in California on grounds of forum non conveniens and the mandatory Delaware forum selection clauses set forth in the contracts between Starboard and Quantum. On November 19, 2020, Starboard filed a first amended complaint, in which Quantum was not named as a defendant and therefore, in effect Quantum had been dismissed from the California action. The first amended complaint reasserts with only minor modifications the existing claims against Messrs. Gacek and Auvil, and adds a new claim against Messrs. Gacek and Auvil, alleging that they aided and abetted Quantum in committing a fraud on plaintiffs. The amended complaint sought no relief from Quantum. On January 8, 2021, Messrs. Gacek and Auvil moved to dismiss the amended complaint in California on grounds of forum non conveniens and the mandatory Delaware forum selection clauses set forth in the contracts between Starboard and Quantum. On March 11, 2021, the California Superior Court stayed the California action.

On April 14, 2021, Starboard filed a new action in the Delaware Court of Chancery, naming as defendants Messrs. Gacek and Auvil and Quantum. The new action largely repeats the allegations of the California action, alleging claims for fraud against all defendants, fraudulent concealment against all defendants, negligent misrepresentation against all defendants, breach of contract against Quantum, breach of the implied covenant of good faith and fair dealing against Quantum, and breach of fiduciary duty against Messrs. Gacek and Auvil. The complaint prays for unspecified damages in an amount to be determined at trial, costs and attorneys’ fees, and any other relief deemed just or appropriate by the court. On May 10, 2021, Quantum filed a motion to dismiss this Delaware action, as did Messrs. Gacek and Auvil. At this time, Quantum is unable to estimate the range of possible outcomes with respect to this matter.

Indemnifications

The Company has certain financial guarantees, both express and implied, related to product liability and potential infringement of intellectual property. Other than certain product warranty liabilities recorded as of March 31, 2021 and 2020, the Company did not record a liability associated with these guarantees, as the Company has little, or no history of costs associated with such indemnification requirements. Contingent liabilities associated with product liability may be mitigated by insurance coverage that the Company maintains.

In the normal course of business to facilitate transactions of the Company's services and products, the Company indemnifies certain parties with respect to certain matters. The Company has agreed to hold certain parties harmless against losses arising from a breach of representations or covenants, or out of intellectual property infringement or other claims made against certain parties. These agreements may limit the time within which an indemnification claim can be made and the amount of the claim. In addition, the Company has entered into indemnification agreements with its officers and directors, and the Company's bylaws contains similar indemnification obligations to its agents. It is not possible to determine the maximum potential amount under these indemnification agreements due to the limited history of the Company's indemnification claims, and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the Company under these agreements have not had a material impact on its operating results, financial position, or cash flows.

NOTE 12: FAIR VALUE OF FINANCIAL INSTRUMENTS

The Company has certain non-financial assets that are measured at fair value on a non-recurring basis when there is an indicator of impairment, and they are recorded at fair value only when an impairment is recognized. These assets include property and equipment and amortizable intangible assets. The Company did not record impairments to any non-financial assets in the fiscal years ended March 31, 2021, 2020 and 2019. The Company does not have any non-financial liabilities measured and recorded at fair value on a non-recurring basis. The carrying amounts reported in the accompanying consolidated financial statements for cash and cash equivalents, restricted cash, accounts receivable, accounts payable, accrued expenses and other current liabilities approximate their respective fair values because of the short-term nature of these accounts.

Debt

The table below represents the carrying value and total estimated fair value of long-term debt as of March 31, 2021 and March 31, 2020, respectively. The fair value has been classified as Level 2 within the fair value hierarchy.

	March 31,			
	2021		2020	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Senior Secured Term Loan	\$ 92,426	\$ 97,047	\$ 165,208	\$ 151,678
Amended PNC Credit Facility	—	—	2,620	2,226

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES**Limitations on Effectiveness of Controls and Procedures**

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that

there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under Exchange Act as of the end of the period covered by this Annual Report on Form 10-K.

Based on this evaluation, our chief executive officer and chief financial officer concluded that, as of March 31, 2021, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) under the Exchange Act. Our management, with the participation of our principal executive and principal financial officers, evaluated the effectiveness of our internal control over financial reporting using the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control—Integrated Framework (2013)*. Based on this assessment, management concluded that Quantum Corporation maintained effective internal control over financial reporting as of the end of the period covered by this Annual Report. Armanino LLP, our independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting, and this attestation report appears in Item 8.

Changes in Internal Controls over Financial Reporting

There were no changes in our internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) identified in connection with the evaluation of our internal control performed during the fiscal quarter ended March 31, 2021, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 is incorporated by reference from the sections entitled "Election of Directors", "Board of Directors and Committees", "Security Ownership of Certain Beneficial Owners and Management" and "Audit Committee Report" in our definitive Proxy Statement for our 2021 annual stockholders' meeting.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated by reference from the sections entitled "Election of Directors", "Director Compensation", "Corporate Governance", "Director Compensation", "Compensation Discussion and Analysis", "Compensation Committee Report", "Compensation Committee Interlocks and Insider Participation", and "Executive Compensation" in our definitive Proxy Statement for our 2021 annual stockholders' meeting.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Item 12 is incorporated by reference from the section entitled “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information” in our definitive Proxy Statement for our 2021 annual stockholders’ meeting.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated by reference from the section entitled “Board of Directors and Committees” , “Corporate Governance” and “Transactions with Related Persons” in our definitive Proxy Statement for our 2021 annual stockholders’ meeting.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by Item 14 is incorporated by reference from the section entitled “Audit and Audit-Related Fees” in our definitive Proxy Statement for our 2021 annual stockholders’ meeting.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

The financial statements and financial statement schedules required to be filed as part of this Annual Report are included under Item 8. The exhibits required to be filed as part of this Annual Report are listed below. Exhibits 10.1 through 10.40 constitute management contracts or compensatory plans or arrangements. Notwithstanding any language to the contrary, Exhibits 32.1, 32.2, 101, and 104 shall not be deemed to be filed as part of this Annual Report for purposes of Section 18 of the Securities Exchange Act of 1934.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed or Furnished Herewith
		Form	Filing Date	Exhibit	
2.1	Stock Purchase Agreement between Quantum Corporation and the securityholders of Square Box Systems Limited, a company incorporated in England and Wales, dated December 12, 2020.	8-K	12/14/20	2.1	
3.1	Amended and Restated Certificate Of Incorporation Of Quantum	8-K	8/16/07	3.1	
3.2	Amended and Restated By-Laws Of Quantum, As Amended	8-K	12/5/08	3.1	
3.3	Certification Of Amendment To The Bylaws Of Quantum Corporation, As Adopted On January 20, 2010	8-K	1/26/10	3.1	
3.4	Certification Of Amendment To The Bylaws Of Quantum Corporation, As Adopted On February 3, 2016	8-K	2/8/16	3.5	
3.5	Certificate Of Amendment To The Amended Articles Of Incorporation Of Quantum Corporation	10-Q	11/9/17	3.1	
4.1	Certificate Of Designation Of Rights, Preferences and Privileges Of Series B Junior Participating Preferred Stock.	S-3	10/9/03	4.7	
4.2	Warrant to Purchase Common Stock dated December 27, 2018 issued to OC II FIE V LP	8-K	12/28/18	4.1	
4.3	Warrant to Purchase Common Stock dated December 27, 2018 issued to BTC Holdings Fund I, LLC	8-K	12/28/18	4.2	
4.4	Registration Rights Agreement, dated December 27, 2018 between the Company, OC II FIE V LP and BTC Holdings Fund I, LLC	8-K	12/28/18	4.3	
4.5	Warrant to Purchase Common Stock, dated June 16, 2020, Warrant No. B-1	8-K	6/17/20	4.1	
4.6	Warrant to Purchase Common Stock, dated June 16, 2020, Warrant No. B-2	8-K	6/17/20	4.2	
4.7	Warrant to Purchase Common Stock, dated June 16, 2020, Warrant No. B-3	8-K	6/17/20	4.3	
4.8	Warrant Agreement, dated June 16, 2020	8-K	6/17/20	4.4	
4.9	Amended and Restated Registration Rights Agreement, dated June 16, 2020, between the Company, OC II FIE V LP, Blue Torch Credit Opportunities Fund I LP and BTC Holdings SC Fund LLC	8-K	6/17/20	4.5	
4.10	Description of Common Stock	10-K	6/24/20	4.1	
4.11	Registration Rights Agreement between the Company and the securityholders of Square Box Systems Limited, a company incorporated in England and Wales, dated December 12, 2020.	8-K	12/14/20	4.1	
10.1	Lease Agreement, Dated February 6, 2006, between the Company and CS/Federal Drive AB LLC (For Building A)	8-K	2/10/06	10.2	
10.2	Lease Agreement, Dated February 6, 2006, between the Company and Cs/Federal Drive AB LLC (For Building B)	8-K	2/10/06	10.3	
10.3	Form Of Indemnification Agreement between the Company and The Named Executive Officers and Directors	8-K	4/4/07	10.4	
10.4	Form Of Amended and Restated Director Change Of Control Agreement between the Company and the Directors (other than the CEO)	8-K	5/10/11	10.3	
10.5	Form Of Agreement To Advance Legal Fees between the Company and Certain Of Its Executive Officers	10-K	6/12/15	10.25	
10.6	Form Of Amended and Restated Change Of Control Agreement between the Company and Each Of Registrant's Executive Officers	10-Q	11/6/15	10.2	
10.7	Revolving Credit and Security Agreement, Dated October 21, 2016, among Quantum Corporation, PNC Bank, National Association, As Agent, and The Lender Party Thereto	8-K	10/21/16	10.2	
10.8	Offer Letter, Dated May 1, 2017, between the Company and Marc Rothman	8-K	5/4/17	10.1	
10.9	Quantum Corporation Executive Officer Incentive Plan, Restated As Of August 23, 2017	8-K	8/24/17	10.2	
10.10	Offer Letter with Raghu Rau, Dated August 31, 2017	8-K	9/5/17	10.1	

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10.11	Second Amendment To Revolving Loan Credit and Security Agreement, Dated November 6, 2017, by and among the Company, PNC Bank, National Association, As Agent, and The Lender Parties Thereto	8-K	11/9/17	10.2
10.12	Third Amendment To Revolving Credit and Security Agreement, Dated As Of February 14, 2018, between the Company and PNC Bank, National Association, As Agent	8-K	2/20/18	10.1
10.13	Offer Letter between the Company and J. Michael Dodson, Dated May 29, 2018	8-K	5/30/18	10.1
10.14	Change Of Control Agreement between the Company and J. Michael Dodson, Dated May 29, 2018	8-K	5/30/18	10.2
10.15	Offer Letter between the Company and James J. Lerner, Dated June 22, 2018	8-K	6/27/18	10.1
10.16	Change Of Control Agreement between the Company and James J. Lerner, Dated June 22, 2018	8-K	6/27/18	10.2
10.17	Term Loan Credit and Security Agreement, dated December 27, 2018, between the Company, Quantum LTO, the lenders party thereto, and U.S. Bank, National Association	8-K	12/28/18	10.1
10.18	Amended and Restated Revolving Credit and Security Agreement, dated December 27, 2018, between the Company, Quantum LTO, the lenders party thereto, and PNC Bank, National Association	8-K	12/28/18	10.2
10.19	Stipulation and Agreement Of Settlement Entered Into April 11, 2019	8-K	5/31/19	99.2
10.20	Joinder and Fourth Amendment To Term Loan Credit and Security Agreement Dated August 23, 2018	10-K	8/6/19	10.68
10.21	Offer Letter between the Company and Lewis W. Moorehead, Dated October 3, 2018	10-K	8/6/19	10.75
10.22	Offer Letter between the Company and John Fichthorn, Dated April 4, 2019	10-K	8/6/19	10.76
10.23	Amended and Restated Long-term Incentive Plan Agreement (As amended and restated through November 13, 2019)	8-K	11/13/2019	10.1
10.24	Amended and Restated Employee Stock Purchase Plan Agreement (As amended and restated through November 13, 2019)	8-K	11/13/2019	10.2
10.25	Offer letter between the Company and Rebecca Jacoby, dated December 16, 2019	10-Q	1/29/2020	10.1
10.26	Amendment Number 2 to Term Loan Credit and Security Agreement, dated as of December 27, 2018, as amended on March 31, 2020, among the Company, Quantum LTO Holdings, LLC, the lenders from time to time party thereto, and U.S. Bank National Association	8-K	4/6/20	10.1
10.27	First Amendment to Amended and Restated Revolving Credit and Security Agreement, dated as of December 27, 2018, as amended on April 3, 2020 among the Company, Quantum LTO Holdings, LLC, the lenders from time to time party thereto, and PNC Bank, National Association, as administrative agent for such lenders	8-K	4/6/20	10.2
10.28	Payment Protection Program Term Note, effective as of April 11, 2020, in favor of PNC Bank, National Association	8-K	4/16/20	10.1
10.29	Amendment Number 3 to the Term Loan Credit and Security Agreement, dated as of December 27, 2018, as amended on April 13, 2020, among the Company, Quantum LTO Holdings, LLC, the lenders from time to time party thereto, and U.S. Bank National Association, as disbursing and collateral agent for such lenders	8-K	4/16/20	10.2
10.30	Second Amendment to the Amended and Restated Revolving Credit and Security Agreement, dated as of December 27, 2018, amended as of April 11, 2020 among the Company, Quantum LTO Holdings, LLC, the lenders from time to time party thereto, and PNC Bank, National Association, as administrative agent for such lenders	8-K	4/16/20	10.3
10.31	Amendment No. 4 To Term Loan Credit and Security Agreement, dated June 16, 2020, between the Company, Quantum LTO Holdings, LLC, the lenders party thereto, and U.S. Bank National Association, as disbursing and collateral agent	8-K	6/17/20	10.1
10.32	Amendment No. 5 to Term Loan Credit and Security Agreement, dated as of December 10, 2020, among the Company, Quantum LTO Holdings, LLC, and the lenders party thereto,	8-K	12/14/20	10.1
10.33	Third Amendment to Amended and Restated Revolving Credit and Security Agreement, Dated June 16, 2020, between the Company, Quantum LTO Holdings, LLC, the lenders party thereto, and PNC Bank, National Association, as administrative agent	8-K	6/17/20	10.2
10.34	Fourth Amendment to Amended and Restated Revolving Credit and Security Agreement, dated as of December 10, 2020, among the Company, Quantum LTO Holdings, LLC, the lenders party thereto, and PNC Bank, National Association, as administrative agent for such lenders.	8-K	12/14/20	10.2
10.35	Offer letter between the Company and Elizabeth King, dated January 14, 2019	10-K	6/24/20	10.1
10.36	Form of Restricted Stock Unit Agreement (US Employees) under the Quantum Corporation 2012 Long Term Incentive Plan	10-K	6/24/20	10.2

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10.37	Form of Market-Based Restricted Stock Unit Agreement (US Employees) under the Quantum Corporation 2012 Long Term Incentive Plan	10-K	6/24/20	10.3	
10.38	Form of Restricted Stock Unit Agreement (Non-US Employees) under the Quantum Corporation 2012 Long Term Incentive Plan	10-K	6/24/20	10.4	
10.39	Form of Restricted Stock (PSU) Unit Agreement (Non-US Employees) under the Quantum Corporation 2012 Long Term Incentive Plan	10-K	6/24/20	10.5	
10.40	Form of Restricted Stock Unit Agreement (Directors) under the Quantum Corporation 2012 Long Term Incentive Plan	10-K	6/24/20	10.6	
21.1	List of Subsidiaries	10-K	6/24/20	21.1	
23.1	Consent of Armanino, LLP				X
24.1	Power of Attorney				X
31.1	Certification of the Principal Executive Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002				X
31.2	Certification of the Principal Financial Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002				X
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley act of 2002				X
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley act of 2002				X
101	Interactive Data Files				X
104	Cover page interactive data file, submitted using XBRL (contained in Exhibit 101)				X

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURE

Pursuant to the requirements of Section 13 or 15(d) 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
(Registrant)

May 26, 2021
(Date)

/s/ J. Michael Dodson
J. Michael Dodson
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints James Lerner and Michael Dodson, jointly and severally, his attorneys-in-fact, each with the power of substitution, for him in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons in the capacities on May 26, 2021.

Signature	Title
<u>/s/ James J. Lerner</u> James J. Lerner	President, Chief Executive Officer and Chairman of the Board (Principal Executive Officer)
<u>/s/ J. Michael Dodson</u> J. Michael Dodson	Chief Financial Officer (Principal Financial Officer)
<u>/s/ Lewis Moorehead</u> Lewis Moorehead	Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ Raghavendra Rau</u> Raghavendra Rau	Director
<u>/s/ Marc E. Rothman</u> Marc E. Rothman	Director
<u>/s/ John A. Fichthorn</u> John A. Fichthorn	Director
<u>/s/ Rebecca J. Jacoby</u> Rebecca J. Jacoby	Director

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-147621, 333-175208, 333-184854, 333-200052, 333-218576, 333-221476, 333-234046, 333-236270, and 333-252601) and Registration Statements on Form S-3 (333-250976 and 333-252609) of Quantum Corporation of our report dated May 26, 2021 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K for the year ended March 31, 2021.

/s/ Armanino^{LLP}
San Ramon, California

May 26, 2021

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

I, James J. Lerner, certify that:

- 1) I have reviewed this annual report on Form 10-K 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 May 26, 2021

/s/ James J. Lerner

James J. Lerner

President, Chief Executive Officer and Chairman of the Board
(Principal Executive Officer)

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

I, J. Michael Dodson, certify that:

- 1) I have reviewed this annual report on Form 10-K 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 May 26, 2021

/s/ J. Michael Dodson

J. Michael Dodson
Chief Financial Officer
(Principal Financial Officer)

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, James J. Lerner, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Quantum Corporation, on Form 10-K for the year ended March 31, 2021 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 Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of Quantum Corporation.

Date May 26, 2021

/s/ James J. Lerner

James J. Lerner
President, Chief Executive Officer and Chairman of the Board
(Principal Executive Officer)

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, J. Michael Dodson, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Quantum Corporation, on Form 10-K for the year ended March 31, 2021 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 Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of Quantum Corporation.

Date May 26, 2021

/s/ J. Michael Dodson

J. Michael Dodson
Chief Financial Officer
(Principal Financial Officer)