UNITED STA	TES SECURITIES AND E Washington, D.C.	XCHANGE COMMISSION 20549
	Form 10-K O SECTION 13 OR 15(d) For the fiscal year ended M OR	OF THE SECURITIES EXCHANGE ACT OF 1934 March 31, 2020
☐ TRANSITION REPORT PURSUANT	TTO SECTION 13 OR 15(Commission File Numb	d) OF THE SECURITIES EXCHANGE ACT OF 1934 er: 1-33026
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(E	Commvault Syste	
Delaware		22-3447504
(State or other jurisdiction of incorporation or organ	nization)	(I.R.S. Employer Identification No.)
(R	1 Commvault W Tinton Falls, New J 07724 (Address of principal exect (Zip Code) (732) 870-4000 egistrant's telephone number, in	Jersey utive offices)
Sec	urities registered pursuant to Sec	ction 12(b) of the Act:
Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.01 par value	CVLT	The NASDAQ Stock Market
Preferred Stock Purchase Rights		The NASDAQ Stock Market
$_{\!$	ursuant to Section 13 or Section 15 required to be filed by the Section 1	curities Act. Yes No (d) of the Act. Yes No (2) No (3) or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months
chook mark whether the registrant has submitted electronic	cally overy Interactive Data File red	uired to be submitted pursuant to Pule 405 of Regulation S.T (8232 405 of this cha

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Indicate by check mark if the registrant is a well-known seas	soned issuer, as defined in Rule 405	of the Securities Act. Yes 🗵	No □
Indicate by check mark if the registrant is not required to file	e reports pursuant to Section 13 or S	Section 15(d) of the Act. Yes	No ☑
Indicate by check mark whether the registrant (1) has filed al such shorter period that the Registrant was required to file su	1 1	· /	es Exchange Act of 1934 during the preceding 12 months (or for past 90 days. Yes \square No \square
Indicate by check mark whether the registrant has submitted during the preceding 12 months (or for such shorter period the	3 3		suant to Rule 405 of Regulation S-T (§232.405 of this chapter)
Indicate by check mark whether the registrant is a definition of "large accelerated filer," "accelerated filer," "sm			maller reporting company or an emerging growth company. Second the Exchange Act.
Large accelerated filer	Accelerated filer	□ Non-accelerated filer	\square Smaller reporting company \square
Emerging growth company]		
If an emerging growth company, indicate by checaccounting standards provided pursuant to Section 13 (a) of t	<u> </u>	not to use the extended transition pe	eriod for complying with any new or revised financial
Indicate by check mark whether the registrant is a shell comp	pany (as defined in Rule 12b-2 of t	he Exchange Act). Yes \square No	
As of September 30, 2019, the last business day of held by non-affiliates of the registrant (based upon the closin			ggregate market value of voting and non-voting common stock set) was approximately \$2.0 billion.

As of May 14, 2020, there were 46,170,350 shares of the registrant's common stock (\$0.01 par value) outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Information required by Part III (Items 10, 11, 12, 13 and 14) is incorporated by reference to portions of the registrant's definitive Proxy Statement for its 2020 Annual Meeting of Stockholders (the "Proxy Statement"), which is expected to be filed not later than 120 days after the registrant's fiscal year ended March 31, 2020. Except as expressly incorporated by reference, the Proxy Statement shall not be deemed to be part of this report on Form 10-K.

COMMVAULT SYSTEMS, INC.

FORM 10-K

FISCAL YEAR ENDED MARCH 31, 2020

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FORWARD-LOOKING STATEMENTS

The discussion throughout this Annual Report on Form 10-K contains forward-looking statements. In some cases, you can identify these statements by our use of forward-looking words such as "may," "will," "should," "anticipate," "estimate," "expect," "plan," "believe," "predict," "protential," "project," "intend," "could" or similar expressions. In particular, statements regarding our plans, strategies, prospects and expectations regarding our business are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). You should be aware that these statements and any other forward-looking statements in this document reflect only our expectations and are not guarantees of performance. These statements involve risks, uncertainties and assumptions. Many of these risks, uncertainties and assumptions are beyond our control and may cause actual results and performance to differ materially from our expectations. Important factors that could cause our actual results to be materially different from our expectations include the risks and uncertainties set forth under the heading "Risk Factors." Accordingly, you should not place undue reliance on the forward-looking statements contained in this Annual Report on Form 10-K. These forward-looking statements speak only as of the date on which the statements were made. We undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

PARTI

Item 1. Business

Company Overview

Commvault is a leading provider of data protection and information management software applications and related services. Commvault was incorporated in 1996 as a Delaware corporation. The Commvault software platform is an enterprise level, intelligent data management solution, built from the ground up on a single platform and unified code base. All software functionality shares the same backend technologies to deliver the benefits of a holistic approach to protecting, managing, and accessing data. The software addresses many aspects of storage and data management in the enterprise, while providing scalability and control of data and information. We also provide our customers with a broad range of professional services that are delivered by our worldwide support and field operations.

Commvault software is built upon an innovative single platform architecture. Our software platform is unique and differentiates us from our competitors, some of whom address market needs by offering multiple and disparate point products with disparate user interfaces. We believe that the disparate and point product approach forces users to install and maintain separate products requiring their own infrastructure, training, maintenance and management which can result in a complex and costly environment for customers who are looking for a single solution that will improve operations, minimize risk and reduce overall costs.

Commvault software enables customers to simply, and cost effectively, protect and manage their enterprise data throughout its lifecycle, from the mobile worker to the remote office, to the data center, covering the leading operating systems, relational databases, virtualized environments and applications. In addition to addressing today's data and information management challenges, our customers can realize lower capital costs through more efficient use of their enterprise-wide storage infrastructure assets. This includes the automated movement of data from higher cost to lower cost storage devices, including cloud storage, and through sharing and better utilization of storage resources across the enterprise. We can also provide our customers with reduced operating costs through a variety of methods, including fast application deployment, reduced training time, lower cost of storage media consumables, proactive monitoring and analysis, and lower administrative overhead.

In the third quarter of fiscal 2020 Commvault completed the acquisition of Hedvig Inc., a California-based developer of software-defined storage solutions. The primary reason for the business combination is the complementary nature of Hedvig's technology, with our other technology, which will expand our addressable market. Hedvig software allows customers to tailor their storage environment to their application and data demands through a software-defined storage platform. This transaction supports Commvault's intelligent data management strategy of unified storage and data management. Hedvig's technology enables a scalable, distributed software defined storage solution that is already multi-cloud enabled.

We have established a worldwide, multi-channel distribution network to sell our software and products, and services to large global enterprises, small and medium sized businesses and government agencies, both directly through our sales force and indirectly through our global network of value-added reseller partners, systems integrators, corporate resellers and original equipment manufacturers.

Our internet address is www.commvault.com. On the investor relations section of this website, we post the filings as soon as reasonably practicable after they are electronically filed with or furnished to the U.S. Securities and Exchange Commission ("SEC") including: our Annual Reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K, our proxy statements related to our annual stockholders' meetings and any amendment to those reports or statements filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. All such filings are available on the Investors Relations portion of our web site free of charge. The contents of our web site are not incorporated by reference into this Form 10-K or in any other report, statement or document we file with the SEC.

Industry Background

The driving force behind the growth of the data and information management software industry is the rapid growth of data, coupled with the need to reliably protect and quickly access that data, while maintaining the ability to effectively manage the emerging regulations around compliance and e-discovery.

The increasing reliance on critical enterprise software applications such as e-mail, relational databases, enterprise resource planning, customer relationship management and workgroup collaboration tools is resulting in the rapid growth of data across all enterprises. This data is widely considered to be one of an organization's most valued and strategic assets. Given the need for actionable and intelligent insights into data sets and file systems, organizations increasingly must scale and store information at unprecedented levels. Big data initiatives leverage new approaches and technologies to store, index and analyze huge data sets, while minimizing storage requirements and driving faster outcomes.

Ensuring the security, availability and integrity of the data has become a critical task as regulatory compliance and corporate governance objectives affecting many organizations mandate the creation of multiple copies of data with longer and more complex retention requirements. Government regulations, such as those issued under the Sarbanes-Oxley Act, the Health Insurance Portability and Accountability Act ("HIPAA"), Government Paper Elimination Act ("GPEA"), Homeland Security, the Patriot Act, Freedom of Information Act ("FOIA"), the Basel Committee on Banking Supervision, the Dodd-Frank Wall Street Reform and Consumer Protection Act, General Data Protection Regulation ("GDPR"), as well as company policies requiring data access, protection and preservation, are expanding the proportion of data that must be archived and easily accessible for future use.

In addition to rapid data growth, data storage has transitioned from being server-attached to becoming widely distributed across local and global networked storage systems and leading to mass data fragmentation. Data previously stored on primary disk and backed up on tape is increasingly being backed up, managed and stored on a broader array of storage tiers ranging from high-cost, high-performance disk systems, to lower-cost mid-range and low-end disk systems, to tape libraries and both public and private cloud storage services. This transition has been driven by the growth of data, the pervasive use of distributed critical enterprise software applications, the decrease in disk cost, and the demand for 24/7 business continuity.

The innovations in storage and networking technologies, coupled with the rapid growth of data, have caused information technology managers to redesign their data and storage infrastructures to deliver greater efficiency, broaden access to data and reduce costs. The result has been the wide adoption of virtualized environments with larger and more complex networked data and storage solutions. We also believe the cloud will continue to significantly impact the way that applications are delivered, data is stored and information is retrieved.

The rapid growth of data and the need to securely protect, manage and access this data is driving substantial opportunities for managed service providers ("MSPs") to help organizations deploy and manage solutions that deliver data management capabilities. The result is reduced long-term management costs with increased offerings to customers, which we believe represents a long-term industry trend in the way that services are offered.

We believe that these trends are increasing the demand for software applications and services that can simplify data and information management, provide secure and reliable access to all data across a broad spectrum of tiered storage and computing systems and seamlessly scale to accommodate growth, while reducing the total cost of ownership to the customer.

Our Software and Products

Historically, the vast majority of our software licenses provided for a perpetual right to use our software and are sold on a per terabyte capacity basis, as site licenses or via instance based packaging. Software licenses sold on a per terabyte capacity basis provide the customer with unlimited install licenses of specified software products based on a defined level of terabytes of data under management. As a result, when we sell our software via a capacity license, certain of the various functionalities discussed below are bundled into one capacity based price. Increasingly, we also sell our customers instance based licensing. We primarily sell instance based licenses for virtual machine backup, recovery and cloud management, endpoint data protection, and email archive. These instance based licenses also include various functionalities bundled into one capacity based price.

Prior to fiscal 2018, an insignificant amount of our revenue was sold under subscription, or term-based, license arrangements. Any of our licensing models (capacity, instance, etc.) can be sold via a subscription arrangement. In these arrangements the customer has the right to use the software over a designated period of time. The capacity of the license is fixed and the customer has made an unconditional commitment to pay. Software revenue in these arrangements is generally recognized when the software is delivered. In fiscal 2018, we started to introduce more subscription arrangements into the market. We expect revenue from these types of arrangements as a percentage of our total revenue to continue to increase in the next few years. Beginning in fiscal 2021, we also expect to generate material revenue from renewals of subscription licenses sold in prior years.

We also sell to some customers, primarily managed service providers, via utility, or pay-as-you-go models. In these arrangements actual usage is regularly measured and billed. Revenue in these utility arrangements is recognized as the software is used over time.

Commvault Software Solutions

The Commvault software suite contains solutions that are all built on a single unified code base and platform to protect, manage and access data and information. Within the platform, tightly integrated, powerful software features deliver functionality throughout physical and virtual environments to help protect and recover data, manage costs and complexity and gain better insight into information.

In fiscal 2019, we simplified our product set to bring together comprehensive backup and recovery and data management, including storage infrastructure, service delivery orchestration and data governance. The packaging portfolio is suited to address the rapidly evolving business needs of today's digital organizations, helping to make managing backup simple. Commvault's newly-packaged product set combines new innovations and capabilities into four primary products:



Commvault Complete™ Backup & Recovery – Backup and recovery for the enterprise with one solution. Commvault Complete Backup & Recovery, is a fully featured and comprehensive backup and recovery solution. Designed to meet the needs of any size business, it covers workloads across all locations: hybrid environments include on-premises and multiple cloud providers; physical servers; virtual machines; applications and databases; endpoint devices; cloud applications and more. Commvault Complete also includes disaster recovery capabilities, snapshot management, endpoint user protection, mailbox protection for on-premises, and SaaS offerings, replication, disaster recovery, reporting and integrated archiving. Historically, the vast majority of our licensing revenue has been generated by sales of our core backup and recovery products.



Commvault HyperScale™ Technology – Commvault HyperScale™ Technology delivers an on-premises, cloud-like infrastructure to support scale-out secondary storage with integrated data protection. This is available in two form factors: 1) a Commvault-branded integrated appliance, or 2) as a software solution that can be used with a customer's preferred hardware provider.



Commvault Orchestrate™ – Automated service delivery technology that enables users to provision, sync and validate data in any environment for important IT needs such as disaster recovery ("DR") testing, development testing ("Dev/Test") operations and workload migrations. Commvault Orchestrate™ allows customers to extend the value of their data sitting in secondary storage. Secondary copies of data can now be used for activities like accelerating Dev/Test routines or performing application migrations. Operations that were previously manual can now be orchestrated and automated, saving customers time and money.



Commvault Activate™ – Discover and extract new business insights from data under management to better meet governance requirements like GDPR and deliver data to the business for analysis. Commvault Activate™ allows customers to comply with privacy regulations by detecting and taking action on data risks, use data insights to drive file efficiencies and accountability and gives an enterprise the tools to reveal and extend the value of data across the enterprise.



A Commvault Venture - Hedvig ® - Allows customers to tailor their storage environment to their application and data demands through a software-defined storage platform. Built on x86 servers, the Distributed Storage Platform provides the multi-protocol support required across block, file, and object storage with native application, hypervisor, container, and cloud integration to consolidation storage silos – eliminating data fragmentation issues.



A Commvault Venture - Metallic™ - A new offering launched in fiscal 2020, Metallic brings software-as-a-service ("SaaS") data protection to the market, delivering Commvault's powerful core technology simply through the cloud. Metallic offers a growing portfolio of SaaS backup and recovery solutions to help today's companies keep their data protected, compliant and safe from deletion, corruption and attack. Metallic revenue is recognized as Services revenue in the Consolidated Statements of Operations and was immaterial in fiscal 2020.

Services

A comprehensive global offering of customer support and other professional services is critical to the successful marketing, sale and deployment of our software. From planning, to deployment, to operations, we offer a complete set of technical services, training and support options that maximize the operational benefits of our suite of software applications. Our commitment to superior customer support is reflected in the breadth and depth of our service offerings as well as in our ongoing initiatives to engineer resiliency, automation and serviceability features directly into our products.

We have established a global customer support organization built specifically to handle our expanding customer base. We offer multiple levels of customer support that can be tailored to the customer's response needs and business sensitivities.

Our customer support services consist of:

Real-Time Support. Our support staff is available 24/7 by telephone to provide first response and manage the resolution of
customer issues. In addition to phone support, our customers have access to an online product support database for help with
troubleshooting and operational questions. Innovative use of web-based diagnostic tools provides problem analysis and
resolution. Our software design is also an important element in our comprehensive customer support, including "root cause"
problem analysis, intelligent alerting and troubleshooting assistance. Our software is directly linked to our online

- support database allowing customers to analyze problems without engaging our technical support personnel.
- Significant Network and Hardware Expertise. Our support engineers have extensive knowledge of complex applications, servers and networks. We proactively take ownership of the customer's problem, regardless of whether the issue is directly related to our products or to those of another vendor. We have also developed and maintain a knowledge library of storage systems and software products to further enable our support organization to quickly and effectively resolve customer problems.
- Global Operations. Our global customer support headquarters is located at our state-of-the-art technical support center in Tinton Falls, New Jersey. We also have established support operations in Reading, United Kingdom; Sydney, Australia; Bangalore, India; and Shanghai, China, which are complemented by regional support centers. Our cloud-based support system creates a virtual global support center combining these locations to allow for the fastest possible resolution times for customer incidents. We have designed our support infrastructure to be able to scale with the increasing globalization of our customers.
- Enhanced Support Options. We offer several enhanced customer support services such as Enterprise Support. Our Enterprise Support service is for customers with critical support needs and builds on our 24/7 real-time support deliverables and includes various levels of enhanced services to ensure dedicated support and customized reporting. Enterprise Support adds a specialized team of technical support engineers, an assigned support account manager and innovative tools to achieve our customers' mission.

Our technology consultants ensure that our customers' software environment is designed for optimal results and will continue to deliver over the long term. This same team of experts can install, configure, personalize and validate that environment so customers can achieve a better return on investment, faster and with more confidence.

- Technology Consulting Services. Our technology consulting ensures that a customer's software environment is designed for optimal results and will continue to deliver over the long term. We offer services such as architecture design; implementation; personalization; data migration; and health assessment. In addition, our residency services offer customers staff-augmentation options to assist with the rapid expert deployment of the Commvault software suite.
- Business Consulting Services. Our business consultants provide transformational insights that align to how specific businesses gather, retain and employ data. We offer services such as disaster recovery readiness and policy implementation; private cloud services design; data classification and archive policy implementation; and operational efficiency assessment.
- Education Services. We provide global onsite training, offsite training and self-paced online alternatives for our products. Packaged or customized customer training courses are available in instructor-led or computer-based formats. We offer in-depth training and certification for our resellers in pre- and post-sales support methodologies, including web access to customizable documentation and training materials. In addition, we offer a Commvault Certification Program that validates expertise and advanced knowledge in topics, including Commvault Core Fundamentals, Implementation and Maintenance. We also offer more advanced Specialist, Engineer and Master technologies certifications. We believe certified personnel can increase a company's productivity and reduce operating costs.
- Remote Managed Services. Commvault Remote Managed Services provides remote monitoring and management of the Commvault data management platform deployed on a customer's environment. Our engineers configure, maintain and optimize a customer's Commvault software environment remotely via a secure connection.
- Commvault Software-as-a-Service (Metallic). In fiscal 2020, we launched Metallic. Metallic brings SaaS data protection to the market, delivering Commvault's powerful core technology simply through the cloud. Metallic revenue, which was immaterial in fiscal 2020, is recognized as Services revenue in the Consolidated Statements of Operations.

Strategic Relationships

An important element of Commvault's strategy is to establish relationships with third parties that assist us in developing, marketing, selling and implementing our software and services. We believe that strategic and technology-based relationships with industry leaders are fundamental to our success. We have forged numerous relationships with software application and hardware vendors to enhance our combined capabilities and to create the optimal combination of data and information management applications. This approach enhances our ability to expand our product offerings and customer base and to enter new markets. We have established the following types of strategic relationships:

Technology Alliance Partners. We maintain strategic product and technology relationships with major industry leaders to ensure that our software applications are integrated with, supported by and add value to our partners' hardware and software products. Collaboration with these market leaders allows us to provide applications that enable our customers to improve data and information management efficiency. Our significant strategic relationships include Atos, Cisco, Citrix, Fujitsu, Hewlett Packard Enterprise ("HPE"), Microsoft, Oracle, SAP, Netapp, AWS and VMware. In addition to these relationships, we maintain relationships with a broad range of industry operating system, application and infrastructure vendors to verify and demonstrate the interoperability of our software applications with their equipment and technologies.

Distributors, Value-Added Reseller, Systems Integrator, Corporate Reseller and Original Equipment Manufacturer Relationships. Our corporate resellers bundle or sell our software applications together with their own products, and our value-added resellers resell our software applications independently. As of March 31, 2020, we had more than 500 reseller partners and systems integrators that have distributed our software worldwide.

In order to broaden our market coverage, we work closely with our Global Original Equipment Manufacturer ("OEM") Partners, investing significant time and resources to deliver unique, joint solutions incorporating Commvault software. These partners team with our technical, engineering, marketing and sales force on helping to enhance integration, tuning, operational management, implementation and vision for solutions that are designed to meet current and future data and information management needs. Our alliance managers work directly with Global OEM Partners to design, deliver and support field activities that make it easier for customers to locate, learn about, and purchase these differentiated solutions. Our most significant OEM partner is Hitachi Vantara ("Hitachi"). Hitachi has no obligation to recommend or offer our software applications exclusively or at all, and they have no minimum sales requirements and can terminate our relationship at any time. Sales through our original equipment manufacturer agreement, accounted for 10% of our total revenues in fiscal 2020 and 11% of our total revenues for fiscal 2019.

Additionally, we have a non-exclusive distribution agreement covering our North American commercial markets and our U.S. Federal Government markets with Arrow Enterprise Computing Solutions, Inc. ("Arrow"), a subsidiary of Arrow Electronics, Inc. Pursuant to this distribution agreement, Arrow's primary role is to enable a more efficient and effective distribution channel for our products and services by managing our reseller partners and leveraging their own industry experience. Sales generated through our distribution agreement with Arrow accounted for approximately 37% of our total revenue in fiscal 2020 and 38% of our total revenue in fiscal 2019.

Service Provider Partners. Our software is the data protection platform for over 200 service providers, which provide cloud-based solutions to client systems worldwide. As companies of all sizes and markets rapidly adopt cloud infrastructures for improved costs, speed and agility, we remain committed to these strategic relationships to address this growing trend. Customers looking to move IT operations into the cloud depend on service providers to help them migrate, manage and protect their cloud infrastructures. We have partnered with a broad ecosystem of managed service provider and cloud partners so they can effectively deliver data management-as-a-service solutions based on Commvault software across geographies, vertical markets and offerings. Leading providers who have integrated Commvault software into their solution portfolios include Microsoft Windows Azure, Amazon Web Services ("AWS"), Google Cloud, Dimension Data, NetApp, and Rackspace.

Customers

We sell Commvault software applications and related services directly to large global enterprises, small and medium sized businesses and government agencies, and indirectly through value-added resellers, systems integrators, corporate resellers and OEM partners. We license our software applications to customers in a broad range of industries, including banking, insurance and financial services, government, healthcare, pharmaceuticals and medical services, technology, legal, manufacturing, utilities and energy.

Technology

We believe our software platform serves as a major differentiator versus our competitors' data and information management software products. Our platform's unique indexing, cataloging, data movement, media management and policy technologies are the source of the performance, scale, management, cost of ownership benefits and seamless interoperability inherent in all of our data and information management software applications. Additional options enable content search, data encryption and auditing features to support data discovery and compliance requirements. Each of these solutions share a common architecture consisting of three core components: intelligent agent software, data movement software and command and control software. These components may be installed on a single host server, or each may be distributed over many servers in a global network. Additionally, the modularity of our software provides deployment flexibility. The ability to share storage resources across multiple data and information management applications provides easier data and information management and lower total cost of ownership. We participate in industry standards groups and activities that we believe will have a direct bearing on the data and information management software market.

Sales and Marketing

We sell our data and information management software applications and related services to large global enterprises, small and medium sized businesses, and government agencies. We sell through our worldwide direct sales force and our global network of distributors, value-added resellers, systems integrators, corporate resellers and OEM partners. As of March 31, 2020, we had 653 employees in sales and marketing located worldwide.

We have a variety of marketing programs designed to create brand awareness and market recognition for our product offerings and for sales lead generation. Our marketing efforts include active participation at trade shows, technical conferences and technology seminars; advertising; content development and distribution; public relations; social media; industry analyst relations; publication of technical and educational articles in industry journals; sales training; and preparation of competitive analyses. In addition, our strategic partners augment our marketing and sales campaigns through seminars, trade shows and joint public relations and advertising campaigns. Our customers and strategic partners provide references and recommendations that we often feature in external marketing activities.

Research and Development

Our research and development organization is responsible for the design, development, testing and certification of our data and information management software applications. As of March 31, 2020, we had 615 employees in our research and development group, more than half of which are located in New Jersey. Our engineering efforts support product development across all major operating systems, databases, applications and network storage devices. A substantial amount of our development effort goes into certification, integration and support of our applications to ensure interoperability with our strategic partners' hardware and software products. We have also made substantial investments in the automation of our product test and quality assurance laboratories.

Competition

The data storage management market is intensely competitive, highly fragmented and characterized by rapidly changing technology and evolving standards. We currently compete with other providers of data and information management software as well as large and emerging storage hardware manufacturers that have developed or acquired their own data and information management software products. These manufacturers have the resources and capabilities to develop their own data and information management software applications, and many have been making acquisitions and broadening their efforts to include broader data and information management and storage products. These manufacturers and/or our other current and potential competitors may establish cooperative relationships among themselves or with third parties, creating new competitors or alliances. Large operating system and application vendors have introduced products or functionality that includes some of the same functions offered by our software applications. In the future, further development by these vendors could cause some features of our software applications to become redundant.

Our primary competitors in the data and information management software applications market, each of which has one or more products that compete with a part of or our entire software suite, are Dell-EMC, IBM, Veritas, Veeam, Rubrik and Cohesity.

The principal competitive factors in our industry include product functionality, product performance, product integration, platform coverage, ability to scale, price, worldwide sales infrastructure, global technical support, name recognition and reputation. The ability of major system vendors to bundle hardware and software solutions is also a significant competitive factor in our industry. Although some of our competitors have greater resources, a larger installed customer base and greater name recognition, we believe we compete favorably on the basis of these competitive factors.

Our unique product architecture is one of the primary reasons why we compete so successfully. Whereas many other competitive solutions in the market are based on multiple, disparate products, our modular offering is based on a single, unified, underlying code base resulting in favorable efficiencies in functionality, integration, scalability and support. Our focused approach to data and information management and our ability to respond to customer feedback also drives the functionality and features of our products, which we believe lead the industry in terms of performance and usability, as evidenced by numerous industry awards we have received.

From a customer perspective, highly integrated products such as ours, which are based on a single, unified, underlying code base, are easier and less expensive to deploy, operate and manage. This flexibility, in turn, makes it significantly easier to scale our products over a customer's entire IT environment. Supporting and enhancing our products is made more efficient due to this single, unified, underlying code base, unlike our competitors who are required to support and enhance multiple, disparate products, most of which are based on differing underlying software code. Supporting multiple, disparate products places more onerous and costly demands on our competitors' internal human and operational capital. We believe that Commvault software, because of its unique architecture, creates a compelling functional, integration, scalability and support advantage.

Some of our competitors have greater financial resources and may have the ability to offer their products at lower prices than ours. In addition, some of our competitors have greater name recognition than us, which could provide them a competitive advantage with some customers. Some of our competitors also have longer operating histories, have substantially greater technical, sales, marketing and other global resources than we do, as well as a larger installed customer base and broader product offerings, including hardware. As a result, these competitors can devote greater resources to the development, promotion, sale and support of their products than we can.

Intellectual Property and Proprietary Rights

Our success and ability to compete depend on our continued development and protection of our proprietary software and other technologies. We rely primarily on a combination of trade secret, patent, copyright and trademark laws, as well as contractual provisions, to establish and protect our intellectual property rights. We provide our software to customers pursuant to license agreements that impose certain restrictions on use. These license agreements are primarily in the form of shrink-wrap or click-wrap licenses, which are not negotiated with or signed by our end-user customers. These measures may afford only limited protection of our intellectual property and proprietary rights associated with our software. We also enter into confidentiality agreements with employees and consultants involved in product development. We routinely require our employees, customers and potential business partners to enter into confidentiality agreements before we disclose any sensitive aspects of our software, technology or business plans.

As of March 31, 2020, we had 778 issued patents and 367 pending patent applications in the United States, as well as 115 issued patents in foreign countries and 22 pending foreign patent applications. No single patent, copyright, trademark, license, or other intellectual property right is solely responsible for protecting our products or services. Moreover, we may lack adequate patent or other intellectual property protection for certain innovations that later turn out to be important to our business. Pending patent applications may receive unfavorable examination and are not guaranteed allowance as issued patents. We may elect to abandon or otherwise not pursue prosecution of certain pending patent applications due to patent examination results, economic considerations, strategic concerns or other factors. We will continue to assess appropriate occasions to seek patent and other intellectual property protection for innovative aspects of our technology that we believe provide us a significant competitive advantage.

Changes to patent laws or regulations in the U.S. and other foreign jurisdictions, or new interpretations of these laws and regulations, could also diminish the value of our patents and patent applications or narrow the scope of our patent protection. For example, changes in patent laws and regulations in the U.S. and new patent laws in Europe may affect the ability of companies, including Commvault, to protect innovations, bring patent infringement claims, and defend against claims of patent infringement. The costs of compliance with these laws and regulations are high and are likely to increase in the future.

Despite our efforts to protect our trade secrets and proprietary rights through patents and license and confidentiality agreements, unauthorized parties may still attempt to copy or otherwise obtain and use our software and technology. In addition, we intend to expand our international operations but effective patent, copyright, trademark and trade secret protection may not be available or may be limited in foreign countries. If we fail to protect our intellectual property and other proprietary rights, our business could be negatively impacted.

We currently resell certain software from Microsoft, including Microsoft SQL Server, used in conjunction with our software applications pursuant to an independent software vendor royalty license and distribution agreement that we have and plan to continue renewing annually. We have also entered into and may enter into agreements with additional third parties, including RedHat, to license their technology for use with our software applications.

Some of the products or technologies acquired, licensed or developed by us may incorporate so-called "open source" software and we may incorporate open source software into other products in the future. The use of such open source software may ultimately subject some products to unintended conditions, such as royalty-free licensing of proprietary portions of our products, disclosing proprietary parts of our source code, or commencing costly product redesigns that could result in a loss of intellectual property rights, product performance degradation, or a delay in shipping products to customers, and which may negatively affect our business, financial condition, operating results, cash flow and ability to commercialize our products or technologies.

From time to time, we are participants or members of various industry standard-setting organizations or other industry technical organizations. Our participation or membership in such organizations may, in some circumstances, require us to enter into royalty or licensing agreements with third parties regarding our intellectual property under terms established by those organizations, which we may find unfavorable.

In the United States, we own federal registrations for or have common law trademark rights in the following marks: Commvault, Commvault and logo, the "C hexagon" logo, Commvault Systems, Commvault HyperScale, ScaleProtect, Commvault OnePass, Unified Data Management, Quick Recovery, QR, CommNet, GridStor, Vault Tracker, InnerVault, Quick Snap, QSnap, IntelliSnap, Recovery Director, CommServe, CommCell, APSS, Commvault Edge, Commvault GO, Commvault Advantage, Commvault Complete, Commvault Activate, Commvault Orchestrate, Commvault Command Center, Hedvig, Universal Data Plane, the "Cube" logo, Metallic, the "M Wave" logo, Be Ready and CommValue are trademarks or registered trademarks of Commvault Systems, Inc.

Employees

As of March 31, 2020, we had 2,533 employees worldwide, including 653 in sales and marketing, 615 in research and development, 912 in customer services and support and 353 in general and administration.

Information about our Executive Officers

The following table presents information with respect to our executive officers as of May 14, 2020:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Sanjay Mirchandani	55	President and Chief Executive Officer
Brian Carolan	48	Vice President, Chief Financial Officer
Riccardo Di Blasio	48	Vice President, Chief Revenue Officer

Sanjay Mirchandani, has served as our President and Chief Executive Officer since February 2019. Prior to joining Commvault, Mr. Mirchandani served from September 2016 to January 2019 as the Chief Executive Officer of Puppet, Inc. ("Puppet"), an Oregon-based IT automation company. Mr. Mirchandani joined Puppet in May 2016 as President and Chief Operating Officer. Mr. Mirchandani brings a wealth of international business experience through his diverse well-rounded career in technology. Before joining Puppet, from October 2013 to April 2016, Mr. Mirchandani served as Corporate Senior Vice President and General Manager of Asia Pacific and Japan at VMware, Inc. and, from June 2006 to October 2013, Mr. Mirchandani held various senior leadership positions at EMC Corporation, including Chief Information Officer and leader of the Global Centers of Excellence. Prior to that, Mr. Mirchandani held various positions at Microsoft Corporation and Arthur Andersen LLP. Mr. Mirchandani has a Master of Business Administration degree from the University of Pittsburgh and a bachelor's degree in mathematics from Drew University.

Brian Carolan has served as our Vice President, Finance and Chief Financial Officer since October 2012. Prior to his current role, Mr. Carolan served as our Vice President, Finance and Chief Accounting Officer from July 2006 until September 2012. He also held the position of Controller from February 2001 until June 2006. Prior to joining Commvault, Mr. Carolan was with Ernst & Young LLP in its Technology, Communications and Entertainment audit practice from 1993 until January 2001. Mr. Carolan obtained his bachelor's degree in accounting from Villanova University, his master's degree in business administration from New York University and is a certified public accountant in the State of New Jersey.

Riccardo Di Blasio has served as our Vice President, Chief Revenue Officer since May 2019. Prior to joining Commvault, Mr. Di Blasio led DXC Technology as Global Head of Sales for VMware Cloud Platform Services. Prior to that role, he was Chief Executive Officer at Globetouch, Inc., leading the company growth in the IoT and connected cars industry from January 2017 until April 2018. He also served as Chief Operating Officer at Cohesity from October 2015 until November 2016, where he significantly grew the sales and support organizations while expanding global operations and achieving double digit growth in sales. Previous to those positions, he served in various leadership roles for more than a decade across US and EMEA, as Senior Vice President of Sales and Marketing at VMware and EMC Corporation.

Item 1A. Risk Factors

You should consider each of the following factors as well as the other information in this Annual Report in evaluating our business and our prospects. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also impair our business operations. If any of the following risks actually occur, our business and financial results could be harmed. In that case, the trading price of our common stock could decline. You should also refer to the other information set forth in this Annual Report, including our financial statements and the related notes.

Risks Related to Our Business

The novel coronavirus (COVID-19) pandemic could adversely affect our business in a material way.

As a global company, with customers located around the world in a variety of industries, our performance may be impacted by global economic and other conditions, including the COVID-19 pandemic which has caused global economic uncertainty. Efforts to combat this pandemic to date include a range of travel restrictions, shelter in place orders, and mandatory business and other closure, each of which may cause significant disruption to our customers and cause them to curtail or limit spending. As a software company, our ability to support our customers has not been significantly impacted by work-from-home orders or travel restrictions. However, these measures have caused disruptions to our sales efforts and decreased customer spending, which may negatively impact our performance. The extent to which COVID-19 will impact our business is difficult to predict as it depends on factors outside of our control, including the duration of the pandemic and the impact on our customers' businesses. We have taken precautionary measures to protect the health and safety of our employees and to preserve our cash position and we continue to monitor events.

Our business could be materially and adversely affected as a result of natural disasters, terrorism or other catastrophic events.

Any economic failure or other material disruption caused by natural disasters, including fires, floods, hurricanes, earthquakes, and tornadoes; power loss or shortages; environmental disasters; telecommunications or business information systems failures or break-ins and similar events could also adversely affect our ability to conduct business. If such disruptions result in cancellations of customer orders or contribute to a general decrease in economic activity or corporate spending on IT, or impair our ability to meet our customer demands, our operating results and financial condition could be materially adversely affected.

In addition, our business has been and will likely be adversely affected by the impact of a widespread outbreak of contagious diseases, including the recent outbreak of COVID-19. This, or any other outbreak of contagious diseases, and other adverse public health developments, may cause us or our customers to temporarily suspend operations. Further, a significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn that could affect demand for our products, our ability to collect against existing trade receivables and our operating results.

We have engaged, and may continue to engage, in strategic acquisitions or transactions, which could have a material adverse effect on our business, results of operations, financial condition and cash flows.

On October 1, 2019, Commvault completed the acquisition of Hedvig, Inc., a California-based developer of software-defined storage ("SDS").

Acquisitions involve a number of risks, including diversion of management's attention, ability to finance the acquisition on attractive terms, failure to retain key personnel or valuable customers, legal liabilities and the need to amortize acquired intangible assets, any of which could have a material adverse effect on our business, results of operations, financial condition and cash flows. Any additional future acquisitions may also result in the incurrence of indebtedness or the issuance of additional equity securities.

The intellectual property of an acquired business may be an important component of the value that we agree to pay for such a business. Although we conduct due diligence in connection with each of our acquisitions, such acquisitions are subject to the risks that the acquired business may not own the intellectual property that we

believe we are acquiring, that the intellectual property is dependent upon licenses from third parties, that the acquired business infringes upon the intellectual property rights of others or that the technology does not have the acceptance in the marketplace that we anticipated.

We could also experience financial or other setbacks if transactions encounter unanticipated problems, including problems related to execution, integration or underperformance relative to prior expectations. Our management may not be able to successfully integrate any acquired business into our operations or maintain our standards, controls and policies, which could have a material adverse effect on our business, results of operations and financial condition. Consequently, any acquisition we complete may not result in long-term benefits to us or we may not be able to further develop the acquired business in the manner we anticipated.

Following the completion of acquisitions, we may have to rely on the seller to provide administrative and other support, including financial reporting and internal controls, and other transition services to the acquired business for a period of time. There can be no assurance that the seller will do so in a manner that is acceptable to us.

Certain provisions of our certificate of formation and our amended and restated bylaws, Delaware law, and our short-term shareholder rights plan could prevent or delay a potential acquisition of control of our Company, which could decrease the trading price of our common stock.

Our certificate of formation, amended and restated bylaws and the laws in the State of Delaware contain provisions that are intended to deter coercive takeover practices and inadequate takeover bids by making such practices or bids unacceptably expensive to the prospective acquirer and to encourage prospective acquirers to negotiate with our Board of Directors rather than to attempt a hostile takeover. Delaware law also imposes restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock. On April 3, 2020, the Board of Directors adopted a 364-day duration shareholder rights plan, which may cause substantial dilution to a person or group that attempts to acquire control of the Company on terms not approved by our Board of Directors.

We believe that these provisions protect our shareholders from coercive or otherwise unfair takeover tactics by effectively requiring those who seek to obtain control of the Company to negotiate with our Board of Directors and by providing our Board of Directors with more time to assess any acquisition of control. However, these provisions could apply even if an acquisition of control of the Company may be considered beneficial by some shareholders and could delay or prevent an acquisition of control that our Board of Directors determines is not in the best interests of our Company and our shareholders.

Our industry is intensely competitive, and many of our competitors have greater financial, technical and sales and marketing resources and larger installed customer bases than we do, which could enable them to compete more effectively than we do.

The data and information management software market is intensely competitive, highly fragmented and characterized by rapidly changing technology and evolving standards, changing customer requirements and frequent new product introductions. Competitors vary in size and in the scope and breadth of the products and services offered. Our primary competitors include Dell-EMC, IBM, Veritas, Veeam, Rubrik and Cohesity.

The principal competitive factors in our industry include product functionality, product integration, platform coverage, ability to scale, price, worldwide sales infrastructure, global technical support, name recognition and reputation. The ability of major system vendors to bundle hardware and software solutions is also a significant competitive factor in our industry. If we are unable to address these factors, our competitive position could weaken and we could experience a decline in revenues that could adversely affect our business.

Many of our current and potential competitors have longer operating histories and have substantially greater financial, technical, sales, marketing and other resources than we do, as well as larger installed customer bases, greater name recognition and broader product offerings, including hardware. Some of these competitors can devote greater resources to the development, promotion, sale and support of their products than we can and have the ability to bundle their hardware and software products in a combined offering. As a result, these competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements.

It is also costly and time-consuming to change data and information management systems. Most of our new customers have installed data and information management software, which gives an incumbent competitor an

advantage in retaining a customer because it already understands the network infrastructure, user demands and information technology needs of the customer, and also because some customers are reluctant to invest the time and money necessary to change vendors.

Our current and potential competitors may establish cooperative relationships among themselves or with third parties. If so, new competitors or alliances that include our competitors may emerge that could acquire significant market share. In addition, large operating system and application vendors, as well as some hardware manufacturers, have introduced products or functionality that includes some of the same functions offered by our software applications. In the future, further development by these vendors could cause our software applications and services to become redundant, which could seriously harm our sales, results of operations and financial condition.

New competitors entering our markets can have a negative impact on our competitive positioning. In addition, we expect to encounter new competitors as we enter new markets. Furthermore, many of our existing competitors are broadening their operating systems platform coverage. We also expect increased competition from OEMs, including those we partner with, and from systems and network management companies, especially those that have historically focused on the mainframe computer market and have been making acquisitions and broadening their efforts to include data and information management and storage products. We expect that competition will increase as a result of future software industry consolidation. Increased competition could harm our business by causing, among other things, price reductions of our products, reduced profitability and loss of market share.

We rely on indirect sales channels, such as value-added resellers, systems integrators, corporate resellers, distributors, and OEMs, for the distribution of our software applications, and the failure of these channels to effectively sell our software applications could have a material adverse effect on our revenues and results of operations.

We rely significantly on our value-added resellers, systems integrators and corporate resellers, which we collectively refer to as resellers, for the marketing and distribution of our software applications and services. Resellers are our most significant distribution channel. However, our agreements with resellers are generally not exclusive, are generally renewable annually, typically do not contain minimum sales requirements and in many cases may be terminated by either party without cause. Many of our resellers carry software applications that compete with ours. These resellers may give a higher priority to other software applications, including those of our competitors, or may not continue to carry our software applications at all. If a number of resellers were to discontinue or reduce the sales of our products, or were to promote our competitors' products in lieu of our own, it could have a material adverse effect on our future revenues. Events or occurrences of this nature could seriously harm our sales and results of operations. If we fail to manage our resellers successfully, there may be conflicts between resellers or they could fail to perform as we anticipate, including required compliance with the terms and obligations of our reseller agreement, either of which could reduce our sales or impact our reputation in the market. In addition, we expect that a portion of our sales growth will depend upon our ability to identify and attract new reseller partners. Our competitors also use reseller arrangements and may be more successful in attracting reseller partners and could enter into exclusive relationships with resellers that make it difficult to expand our reseller network. Any failure on our part to maintain and/or expand our network of resellers could impair our ability to grow revenues in the future.

Some of our resellers possess significant resources and advanced technical abilities. These resellers, particularly our corporate resellers, may, either independently or jointly with our competitors, develop and market products and related services that compete with our offerings. If this were to occur, these resellers might discontinue marketing and distributing our software applications and services. In addition, these resellers would have an advantage over us when marketing their competing products and related services because of their existing customer relationships. The occurrence of any of these events could have a material adverse effect on our revenues and results of operations.

In addition, we have a distribution agreement covering our North American commercial markets and our U.S. Federal Government market with Arrow. Pursuant to this distribution agreement, Arrow's primary role is to enable a more efficient and effective distribution channel for our products and services by managing our reseller partners and leveraging their own industry experience. Many of our North American resellers buy from Arrow. Sales through our distribution agreement with Arrow accounted for approximately 37% of our total revenues for fiscal 2020 and 38% of our total revenues for fiscal 2019. If Arrow was to discontinue or reduce the sales of our products or if our agreement with Arrow was terminated, and if we were unable to take back the management of our reseller

channel or find another North American distributor to replace Arrow, then it could have a material adverse effect on our future revenues.

Our OEMs sell our software applications and in some cases incorporate our data and information management software into systems that they sell. A material portion of our revenues is generated through these arrangements. However, we have no control over the shipping dates or volumes of systems these OEMs ship and they have no obligation to ship systems incorporating our software applications. They also have no obligation to recommend or offer our software applications exclusively or at all, and they have no minimum sales requirements and can terminate our relationship at any time. These OEMs also could choose to develop their own data and information management software internally and incorporate those products into their systems instead of our software applications. The OEMs that we do business with also compete with one another. If one of our OEM partners views our arrangement with another OEM as competing with its products, it may decide to stop doing business with us. Any material decrease in the volume of sales generated by OEMs we do business with, as a result of these factors or otherwise, could have a material adverse effect on our revenues and results of operations in future periods. Sales through our OEM agreements accounted for approximately 10% of our total revenues for fiscal 2020 and 11% of our total revenues for fiscal 2019.

We may not be able to respond to rapid technological changes with new software applications and services offerings, which could have a material adverse effect on our sales and profitability.

The markets for our software applications are characterized by rapid technological changes, changing customer needs, frequent new product introductions and evolving industry standards. The introduction of software applications embodying new technologies and the emergence of new industry standards could make our existing and future software applications obsolete and unmarketable. As a result, we may not be able to accurately predict the lifecycle of our software applications, and they may become obsolete before we receive the amount of revenues that we anticipate from them. If any of the foregoing events were to occur, our ability to retain or increase market share in the data and information management software market could be materially adversely affected.

We devote significant resources to the development of new products and the enhancement of existing products. To be successful, we need to anticipate, develop and introduce new software applications and services on a timely and cost-effective basis that keep pace with technological developments and emerging industry standards and that address the increasingly sophisticated needs of our customers. We may fail to develop and market software applications and services that respond to technological changes or evolving industry standards, experience difficulties that could delay or prevent the successful development, introduction and marketing of these applications and services or fail to develop applications and services that adequately meet the requirements of the marketplace or achieve market acceptance. Our failure to develop and market such applications and services on a timely basis, or at all, could have a material adverse effect on our sales and profitability.

If the cost for annual maintenance and support agreements, or our term-based subscription licenses, with our customers is not competitive in the market or if our customers do not renew their agreements either at all, or on terms that are less favorable to us, our business and financial performance might be adversely impacted.

Most of our maintenance agreements are for a one-year term. As the end of the annual period approaches, we pursue the renewal of the agreement with the customer. Historically, maintenance renewals have represented a significant portion of our total revenue. Because of this characteristic of our business, if our customers do not renew their annual maintenance and support agreements either at all, or on terms that are less favorable to us, our business and financial performance might be adversely impacted.

Additionally, beginning in fiscal 2018 we began to increase a significant amount of our sales to term-based, or subscription, license arrangements. The arrangements are typically three years in duration. If at the end of the initial term, customers elect to not renew their licenses, or they renew them on terms that are less favorable to us, our business and financial performance might be adversely impacted.

Volatility in the global economy could adversely impact our continued growth, results of operations and our ability to forecast future business.

As our business has expanded globally, we have become increasingly subject to the risks arising from adverse changes in domestic and global economic and political conditions. Uncertainty in the macroeconomic environment and associated global economic conditions have resulted in volatility in credit, equity, debt and foreign currency markets as well as government budgets worldwide.

These global economic conditions can result in slower economic activity, decreased consumer confidence, reduced corporate profits and capital spending, adverse business conditions and liquidity concerns. There has also been increased volatility in foreign exchange markets. These factors make it difficult for our customers, our vendors and us to accurately forecast and plan future business activities. In addition, these factors could cause customers to slow or defer spending on our software products and services, which would delay and lengthen sales cycles and negatively affect our results of operations. If such conditions deteriorate or if the pace of economic recovery is slower or more uneven, our results of operations could be adversely affected, we may not be able to sustain the growth rates we have experienced recently, and we could fail to meet the expectations of stock analysts and investors, which could cause the price of our common stock to decline.

We continue to invest in our business in the Asia-Pacific and Europe, Middle East, and Africa regions. There are significant risks with overseas investments and growth prospects in these regions. Increased volatility or declines in the credit, equity, debt and foreign currency markets in these regions could cause delays in or cancellations of orders. Deterioration of economic conditions in the countries in which we do business could also cause slower or impaired collections on accounts receivable. In addition, we could experience delays in the payment obligations of our worldwide resellers if they experience weakness in the end-user market, which would increase our credit risk exposure and harm our financial condition.

In periods of volatile economic conditions, our exposure to credit risk and payment delinquencies on our accounts receivable significantly increases.

Our outstanding accounts receivables are generally not secured. Our standard terms and conditions permit payment within a specified number of days following the receipt of our product. Volatile economic conditions, including those related to the recent COVID-19 pandemic, could result in our customers and resellers facing liquidity concerns leading to them not being able to satisfy their payment obligations to us, which would have a material adverse effect on our financial condition, operating results and cash flows.

In addition, in the future we may transition a more significant percentage of our revenue to subscription, or term based, arrangements. In these arrangements, our customers may pay for software and related services over a period of several years. Due to the potential for extended period of collection, we may be exposed to more significant credit risk.

We develop software applications that interoperate with certain software, operating systems and hardware developed by others, and if the developers of those operating systems and hardware do not cooperate with us or we are unable to devote the necessary resources so that our applications interoperate with those systems, our software development efforts may be delayed or foreclosed and our business and results of operations may be adversely affected.

Our software applications operate primarily on the Windows, UNIX, Linux and Novell Netware operating systems; used in conjunction with Microsoft SQL; and on hardware devices of numerous manufacturers. When new or updated versions of these operating systems, software applications, and hardware devices are introduced, it is often necessary for us to develop updated versions of our software applications so that they interoperate properly with these systems and devices. We may not accomplish these development efforts quickly or cost-effectively, and it is not clear what the relative growth rates of these operating systems and hardware will be. These development efforts require the cooperation of the developers of the operating systems, software applications, and hardware, substantial capital investment and the devotion of substantial employee or financial resources. For some operating systems, we must obtain some proprietary application program interfaces from the owner in order to develop software applications that interoperate with the operating system. Operating system and software owners have no obligation to assist in these development efforts. If they do not provide us with assistance, the contractual right, or the necessary proprietary application program interfaces on a timely basis, we may experience delays or be unable to expand our software applications into other areas.

We have started selling a backup appliance which integrates our software with hardware. If we fail to accurately predict our manufacturing requirements and manage our supply chain we could incur additional costs or experience manufacturing delays that could harm our business.

We generally provide forecasts of our requirements to our supply chain partners on a rolling basis. If our forecast exceeds our actual requirements, a supply chain partner may assess additional charges or we may incur costs for excess inventory, each of which could negatively affect our gross margins. If our forecast is less than our actual requirements, the applicable supply chain partner may have insufficient time or components to produce or fulfill our product requirements, which could delay or interrupt manufacturing of our products or fulfillment of orders for our products, and result in delays in shipments, customer dissatisfaction, and deferral or loss of revenue. Further, we may be required to purchase sufficient inventory to satisfy our future needs in situations where a component or product is being discontinued. If we fail to accurately predict our requirements, we may be unable to fulfill those orders or we may be required to record charges for excess inventory. Any of the foregoing could adversely affect our business, financial condition or results of operations.

We are, and may in the future become, involved in litigation that may have a material adverse effect on our business.

From time to time, we may become involved in various other legal proceedings relating to matters incidental to the ordinary course of our business, including patent, commercial, product liability, employment, class action, whistleblower and other litigation and claims, and governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. Furthermore, because litigation is inherently uncertain, there can be no assurance that the results of any of these actions will not have a material adverse effect on our business, results of operations or financial condition.

We may experience a decline in revenues or volatility in our quarterly operating results, which may adversely affect the market price of our common stock.

We cannot predict our future quarterly revenues or operating results with certainty because of many factors outside of our control. A significant revenue or profit decline, lowered forecasts or volatility in our operating results could cause the market price of our common stock to decline substantially. Factors that could affect our revenues and operating results include the following:

- the unpredictability of the timing and magnitude of orders for our software applications, particularly software transactions greater than \$100,000 — in recent fiscal years, a majority of our quarterly revenues were earned and recorded near the end of each quarter;
- the possibility that our customers may cancel, defer or limit purchases as a result of reduced information technology budgets;
- the possibility that our customers may defer purchases of our software applications in anticipation of new software applications or updates from us or our competitors;
- the ability of our OEMs and resellers to meet their sales objectives;
- market acceptance of our new applications and enhancements;
- · our ability to control expenses;
- · changes in our pricing, packaging and distribution terms or those of our competitors; and
- the demands on our management, sales force and services infrastructure as a result of the introduction of new software applications or updates.

Our expense levels are relatively fixed and are based, in part, on our expectations of future revenues. If revenue levels fall below our expectations and we are profitable at the time, our net income would decrease because only a small portion of our expenses varies with our revenues. Therefore, any significant decline in revenues for any period could have an immediate adverse impact on our results of operations for that period. We believe that period-to-period comparisons of our results of operations should not be relied upon as an indication of future performance. In addition, our results of operations could be below expectations of public market analysts and investors in future periods, which would likely cause the market price of our common stock to decline.

We encounter long sales and implementation cycles, particularly for our larger customers, which could have an adverse effect on the size, timing and predictability of our revenues.

Potential or existing customers, particularly larger enterprise customers, generally commit significant resources to an evaluation of available software and require us to expend substantial time, effort and money educating them as to the value of our software and services. Sales of our core software products to these larger customers often require an extensive education and marketing effort.

We could expend significant funds and resources during a sales cycle and ultimately fail to win the customer. Our sales cycle for all of our products and services is subject to significant risks and delays over which we have little or no control, including:

- · our customers' budgetary constraints;
- the timing of our customers' budget cycles and approval processes;
- our customers' willingness to replace their current software solutions;
- our need to educate potential customers about the uses and benefits of our products and services; and
- the timing of the expiration of our customers' current license agreements or outsourcing agreements for similar services.

If our sales cycles lengthen unexpectedly, they could adversely affect the timing of our revenues or increase costs, which may cause fluctuations in our quarterly revenues and results of operations. Finally, if we are unsuccessful in closing sales of our products after spending significant funds and management resources, our operating margins and results of operations could be adversely impacted, and the price of our common stock could decline.

We depend on growth in the data and information management software market, and lack of growth or contraction in this market could have a material adverse effect on our sales and financial condition.

Demand for data and information management software is linked to growth in the amount of data generated and stored, demand for data retention and management (whether as a result of regulatory requirements or otherwise) and demand for and adoption of new storage devices and networking technologies. Because our software applications are concentrated within the data and information management software market, if the demand for storage devices, storage software applications, storage capacity or storage networking devices declines, our sales, profitability and financial condition would be materially adversely affected. Segments of the computer and software industry have in the past experienced significant economic downturns. The occurrence of any of these factors in the data and information management software market could materially adversely affect our sales, profitability and financial condition.

Furthermore, the data and information management software market is dynamic and evolving. Our future financial performance will depend in large part on continued growth in the number of organizations adopting data and information management software for their computing environments. The market for data and information management software may not continue to grow at historic rates, or at all. If this market fails to grow or grows more slowly than we currently anticipate, our sales and profitability could be adversely affected.

Our software applications are complex and may contain undetected errors, which could adversely affect not only our software applications' performance but also our reputation and the acceptance of our software applications in the market.

Software applications as complex as those we offer contain undetected errors or failures, especially when products are first introduced or new versions are released. Despite extensive testing by us and by our customers, we have in the past discovered errors in our software applications and will do so in the future. As a result of past discovered errors, we experienced delays and lost revenues while we corrected those software applications. In addition, customers in the past have brought to our attention "bugs" in our software created by the customers' unique operating environments, which are often characterized by a wide variety of both standard and non-standard configurations that make pre-release testing very difficult and time consuming. Although we have been able to fix these software bugs in the past, we may not always be able to do so. Our software products may also be subject to intentional attacks by viruses that seek to take advantage of these bugs, errors or other weaknesses. Any of these events may result in the loss of, or delay in, market acceptance of our software applications and services, which would seriously harm our sales, results of operations and financial condition.

Furthermore, we believe that our reputation and name recognition are critical factors in our ability to compete and generate additional sales. Promotion and enhancement of our name will depend largely on our success in continuing to provide effective software applications and services. The occurrence of errors in our software applications or the detection of bugs by our customers may damage our reputation in the market and our relationships with our existing customers, and as a result, we may be unable to attract or retain customers.

In addition, because our software applications are used to manage data that is often critical to our customers, they may have a greater sensitivity to defects in our products than to defects in other, less critical, applications. As a result, the licensing and support of our software applications involve the risk of product liability claims. Our license agreements with our customers typically contain provisions designed to limit our exposure to potential product liability claims. However, the limitation of liability provisions contained in our license agreements vary and may not be effective as a result of existing or future national, federal, state, or local laws or ordinances or unfavorable judicial decisions. Although we have not experienced any material product liability claims to date, the sale and support of our products entail the risk of such claims, which could be substantial in light of the use of our products in enterprise-wide environments. In addition, our insurance against product liability may not be adequate to cover all potential claims.

We may not receive significant revenues from our current research and development efforts for several years, if at all.

Developing software is expensive, and the investment in product development may involve a long payback cycle. Our research and development expenses were \$110.0 million, or 16% of our total revenues in fiscal 2020, \$92.6 million, or 13% of our total revenues in fiscal 2019 and \$91.0 million, or 13% of our total revenues in fiscal 2018. Our future plans include significant investments in software research and development and related product opportunities. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position. However, we may not recognize significant revenues from these investments for several years, if at all.

Our international sales and operations are subject to factors that could have an adverse effect on our results of operations.

We have significant sales and services operations outside the United States and derive a substantial portion of our revenues from these operations. We also plan to continue to expand our international operations. We generated approximately 49% of our revenues from outside the United States in fiscal 2020 and 47% were outside the United States in fiscal 2019. International revenue decreased 1% in fiscal 2020 compared to fiscal 2019. Expansion of our international operations will require a significant amount of attention from our management and substantial financial resources and might require us to add gualified management in these markets.

In addition to facing risks similar to the risks faced by our domestic operations, our international operations are also subject to risks related to the differing legal, political, social and regulatory requirements and economic conditions of many countries, including:

- adverse effects in economic conditions in the countries in which we operate related specifically to the COVID-19 outbreak and
 the governmental regulations put in place as a result of the virus;
- difficulties in staffing and managing our international operations;
- foreign countries may impose additional withholding taxes or otherwise tax our foreign income, impose tariffs or adopt other restrictions on foreign trade or investment, including currency exchange controls;
- difficulties in coordinating the activities of our geographically dispersed and culturally diverse operations;
- general economic conditions in the countries in which we operate, including seasonal reductions in business activity in the summer months in Europe and in other periods in other countries, could have an adverse effect on our earnings from operations in those countries;
- imposition of, or unexpected adverse changes in, foreign laws or regulatory requirements may occur, including those pertaining to export restrictions, privacy and data protection, trade and employment restrictions and intellectual property protections;
- longer payment cycles for sales in foreign countries and difficulties in collecting accounts receivable;

- competition from local suppliers;
- greater risk of a failure of our employees and partners to comply with both U.S. and foreign laws, including antitrust regulations, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act of 2010, and any trade regulations ensuring fair trade practices;
- · costs and delays associated with developing software in multiple languages; and
- political unrest, war or acts of terrorism.

Our business in emerging markets requires us to respond to rapid changes in market conditions in those markets. Our overall success in international markets depends, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions. We may not continue to succeed in developing and implementing policies and strategies that will be effective in each location where we do business. Furthermore, the occurrence of any of the foregoing factors may have a material adverse effect on our business and results of operations.

We implemented a restructuring program in fiscal 2019, which we cannot guarantee will achieve its intended result.

In fiscal 2019 we initiated a restructuring plan to increase efficiency in our sales, marketing and distribution functions while reducing costs across all functional areas. We cannot guarantee the restructuring program will achieve its intended result. Risks associated with this restructuring program also include additional unexpected costs, adverse effects on employee morale and the failure to meet operational and growth targets due to the loss of key employees, any of which may impair our ability to achieve anticipated results of operations or otherwise harm our business.

We may experience fluctuations in foreign currency exchange rates that could adversely impact our results of operations.

Our international sales are generally denominated in foreign currencies, and this revenue could be materially affected by currency fluctuations. Our primary exposure is to fluctuations in exchange rates for the U.S. dollar versus the Euro and, to a lesser extent, the Australian dollar, British pound sterling, Canadian dollar, Chinese yuan, Indian rupee, Korean won and Singapore dollar. Changes in currency exchange rates could adversely affect our reported revenues and could require us to reduce our prices to remain competitive in foreign markets, which could also have a material adverse effect on our results of operations. An unfavorable change in the exchange rate of foreign currencies against the U.S. dollar would result in lower revenues when translated into U.S. dollars, although operating expenditures would be lower as well.

In recent fiscal years, we have selectively hedged our exposure to changes in foreign currency exchange rates on the balance sheet. In the future, we may enter into additional foreign currency-based hedging contracts to reduce our exposure to significant fluctuations in currency exchange rates on the balance sheet, although there can be no assurances that we will do so. However, as our international operations grow, or if dramatic fluctuations in foreign currency exchange rates continue or increase or if our hedging strategies become ineffective, the effect of changes in the foreign currency exchange rates could become material to revenue, operating expenses, and income.

Our ability to sell our software applications is highly dependent on the quality of our service offerings, and our failure to offer high quality support and professional services would have a material adverse effect on our sales of software applications and results of operations.

Our services include the assessment and design of solutions to meet our customers' storage management requirements and the efficient installation and deployment of our software applications based on specified business objectives. Further, once our software applications are deployed, our customers depend on us to resolve issues relating to our software applications. A high level of service is critical for the successful marketing and sale of our software. If we or our partners do not effectively install or deploy our applications, or succeed in helping our customers quickly resolve post-deployment issues, it would adversely affect our ability to sell software products to existing customers and could harm our reputation with prospective customers. As a result, our failure to maintain high quality support and professional services would have a material adverse effect on our sales of software applications and results of operations.

A portion of our revenue is generated by sales to government entities, which are subject to a number of challenges and risks.

Sales to U.S. and foreign federal, state, and local governmental agency end-customers have accounted for a portion of our revenue, and we may in the future increase sales to government entities. However, government entities have recently announced reductions in, or experienced increased pressure to reduce spending. In particular, such measures have adversely affected European public sector transactions, and U.S. debt issues and budget concerns may adversely impact future U.S. public sector transactions. Such budgetary constraints or shifts in spending priorities of government entities may adversely affect sales of our products and services to such entities. In addition, sales to government entities are subject to a number of risks. Selling to government entities can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that we will successfully sell our products to such governmental entity. Government entities may require contract terms that differ from our standard arrangements. Government contracts may require the maintenance of certain security clearances for facilities and employees which can entail administrative time and effort possibly resulting in additional costs and delays. In addition, government demand for our products may be more volatile as they are affected by public sector budgetary cycles, funding authorizations, and the potential for funding reductions or delays, making the time to close such transactions more difficult to predict. This risk is enhanced as the size of such sales to the government entities increases. If the use of our products expands to more sensitive, secure or mission critical uses by our government customers, we may be subject to increased scrutiny, potential reputational risk, or potential liability should our products fail to perform as expected or should we not comply with the terms of our government contracts or government contracting requirements.

Most of our sales to government entities have been made indirectly through providers that sell our products. Government entities may have contractual or other legal rights to terminate contracts with our providers for convenience or due to a default, and any such termination may adversely impact our future results of operations. Governments routinely audit and investigate government contractors, and we may be subject to such audits and investigations. If an audit or investigation uncovers improper or illegal activities, including any misuse of confidential or classified information by our employees, we may be subject to civil or criminal penalties and administrative sanctions.

We may be subject to information technology system failures, network disruptions and breaches in data security.

Information technology system failures, network disruptions and breaches of data security could disrupt our operations by causing delays or cancellation of customer orders, impeding the shipment of software products, negatively affecting our service offerings, preventing the processing of transactions and reporting of financial results. Information technology system failures, network disruptions and breaches of data security could also result in the unintentional disclosure of customer or our information as well as damage our reputation. There can be no assurance that a system failure, network disruption or data security breach will not have a material adverse effect on our financial condition and operating results.

Protection of our intellectual property is limited, and any misuse of our intellectual property by others could materially adversely affect our sales and results of operations.

Our success depends significantly upon proprietary technology in our software, documentation and other written materials. To protect our proprietary rights, we rely on a combination of:

- patents
- copyright and trademark laws;
- trade secrets;
- · confidentiality procedures; and
- · contractual provisions.

These methods afford only limited protection. Despite this limited protection, any issued patent may not provide us with any competitive advantages or may be challenged by third parties, and the patents of others may seriously impede our ability to conduct our business. Further, our pending patent applications may not result in the issuance of patents, and any patents issued to us may not be timely or broad enough to protect our proprietary rights. We may also develop proprietary products or technologies that cannot be protected under patent law. We also seek to maintain certain intellectual property as trade secrets. The secrecy could be compromised by outside

parties, or by our employees, which would cause us to lose the competitive advantage resulting from these trade secrets.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our software applications or to obtain and use information that we regard as proprietary. Policing unauthorized use of our software applications is difficult, and we expect software piracy to continue to be a persistent problem. In licensing our software applications, we typically rely on "shrink wrap" or "click wrap" licenses that are not signed by licensees. We may have difficulty enforcing these licenses in some jurisdictions. In addition, the laws of some foreign countries do not protect our proprietary rights to as great an extent as do the laws of the United States. Our attempts to protect our proprietary rights may not be adequate. Our competitors may independently develop similar technology, duplicate our software applications or design around patents issued to us or other intellectual property rights of ours. Litigation may be necessary in the future to enforce our intellectual property rights, protect our trade secrets or determine the validity and scope of the proprietary rights of others. Litigation could result in substantial costs and diversion of resources and management attention. In addition, from time to time we are participants or members of various industry standard-setting organizations or other industry technical organizations. Our participation or membership in such organizations may, in some circumstances, require us to enter into royalty or licensing agreements with third parties regarding our intellectual property under terms established by those organizations, which we may not find favorable. In addition, many of our agreements with our customers and partners require us to indemnify them for certain intellectual property infringement claims against them, which would increase our costs as a result of defending such claims, and may require that we pay significant damages if there were an adverse ruling in any such claims. Furthermore, such customers and partners may discontinue the use of our products, services, and technologies, as a result of injunctions or otherwise, which could result in loss of revenues and adversely impact our business.

On April 21, 2020, the Company filed suit against Cohesity, Inc. ("Cohesity") in the District of Delaware alleging that Cohesity has infringed and continues to infringe at least one claim of each of U.S. Patent Nos. 7,725,671, 7,840,533, 8,762,335, 9,740,723, 10,210,048, and 10,248,657. Due to the inherent uncertainties of litigation, the Company cannot accurately predict the ultimate timing or outcome of this matter. The Company is unable at this time to determine whether the outcome of the litigation will have a material impact on its results of operations, financial condition, or cash flows.

On April 21, 2020, the Company filed suit against Rubrik, Inc. ("Rubrik") in the District of Delaware alleging that Rubrik has infringed and continues to infringe at least one claim of each of U.S. Patent Nos. 7,725,671, 7,840,533, 8,447,728, 9,740,723, 10,210,048, and 10,248,657. Due to the inherent uncertainties of litigation, the Company cannot accurately predict the ultimate timing or outcome of this matter. The Company is unable at this time to determine whether the outcome of the litigation will have a material impact on its results of operations, financial condition, or cash flows.

Change in senior management could cause disruption in the Company and have a material effect on our business. Furthermore, the loss of key personnel or the failure to attract and retain highly qualified personnel could have an adverse effect on our business.

We have had, and could have, changes in senior management which could be disruptive to management and operations of the Company and could have a material effect on our business, operating results and financial conditions. Turnover at the senior management level may create instability within the Company, which could impede the Company's day to day operations. Such instability could impede our ability to fully implement our business plan and growth strategy, which would harm our business and prospects.

Our future performance depends on the continued service of our key technical, sales, services and management personnel. We rely on our executive officers and senior management to execute our existing business operations and identify and pursue new growth opportunities. The loss of key employees could result in significant disruptions to our business, and the integration and training of replacement personnel could be time consuming, cause additional disruptions to our business and be unsuccessful. We do not carry key person life insurance covering any of our employees.

Our future success also depends on our continued ability to attract and retain highly qualified technical, sales, services and management personnel. Competition for such personnel is intense, and we may fail to retain our key technical, sales, services and management employees or attract or retain other highly qualified technical, sales, services and management personnel in the future.

Furthermore, in the past, we have experienced higher levels of turnover in our sales force compared to other employee groups in our company. Increases in the turnover rate of our sales force may affect our ability to generate license revenue growth. Although we have hired replacements in our sales force and are continuing to hire additional sales personnel to grow our business, we sometimes experience lower productivity from newly hired sales personnel for a period up to twelve months. In addition, we periodically make adjustments to our sales organization in response to a variety of internal and external factors, such as market opportunities, competitive threats, product introductions or enhancements and sales performance. Such adjustments could be temporarily disruptive and result in reduced productivity.

The volatility of our stock price may from time to time adversely affect our ability to attract or retain employees. If we are unable to hire or retain qualified employees across our organization, or conversely, if we fail to manage employee performance or reduce staffing levels when required by market conditions, our personnel costs would be excessive and our business and profitability could be adversely affected.

Our Omnibus Plan has approximately 2.1 million shares left available for grant until we will be required to ask our shareholders for additional shares. If our shareholders do not approve additional shares it could make it difficult to attract, retain and motivate our key personnel.

Claims that we misuse the intellectual property of others could subject us to significant liability and disrupt our business, which could have a material adverse effect on our results of operations and financial condition.

Due to the nature of our business, we may become subject to material claims of infringement by competitors and other third parties with respect to current or future software applications, trademarks or other proprietary rights. We expect that software developers will increasingly be subject to infringement claims as the number of software applications and competitors in our industry segment grows and the functionality of software applications in different industry segments overlaps. Future litigation may also involve third parties such as individuals, non-practicing entities, patent holding companies, and/or patent assertion entities that have no relevant product offerings or revenue in the marketplace, and against whom our own patents may provide little or no deterrence or protection. Such parties may purchase or otherwise obtain intellectual property assets for the purpose of monetizing these assets; they often make broad and sweeping claims of infringement against product manufacturing companies such as Commvault and its customers, seeking a percentage of sales as license fees, seeking injunctions to pressure us into taking a license, or a combination thereof. Claims such as these have increased in recent years and may continue to do so. Any such claims, whether meritorious or not, could be time-consuming, result in costly litigation, cause shipment delays or require us to enter into royalty or licensing agreements with third parties, which may not be available on terms that we deem acceptable, if at all. In addition, we may decide to settle a claim or action against us, which settlement could be costly. We may also be liable for any past infringement. If there is an adverse ruling against us in an infringement lawsuit, an injunction could be issued barring production or sale of any infringing product. It could also result in a damage award equal to a reasonable royalty or lost profits or, if there is a finding of willful infringement, treble damages. Any of these claims could disrupt our business and have a material adverse effect on our results of operations and financial condition.

In addition, we license and use software from third parties in our business. These third-party software licenses may not continue to be available to us on acceptable terms or at all, and may expose us to additional liability. This liability, or our inability to use any of this third-party software, could result in shipment delays or other disruptions in our business that could materially and adversely affect our operating results.

Our use of "open source" software could negatively affect our business and subjects us to possible litigation.

Some of the products or technologies acquired, licensed or developed by us may incorporate so-called "open source" software, and we may incorporate open source software into other products in the future. Such open source software is generally licensed by its authors or other third parties under open source licenses, including, for example, the GNU General Public License, the GNU Lesser General Public License, the Common Public License, "Apache-style" licenses, "Berkley Software Distribution or BSD-style" licenses and other open source licenses. We monitor our use of open source software to avoid subjecting our products to conditions we do not intend, but these efforts may not be successful. Although we believe that we have complied with our obligations under the various applicable licenses for open source software that we use, there is little or no legal precedent governing the interpretation of many of the terms of certain of these licenses, and therefore the potential impact of these terms on our business is somewhat unknown and may result in unanticipated obligations regarding our products and technologies. The use of such open source software may ultimately subject some of our products to unintended conditions, which may negatively affect our business, financial condition, operating results, cash flow and ability to commercialize our products or technologies.

Some of these open source licenses may subject us to certain conditions, including requirements that we offer our products that use the open source software for no cost, that we make available source code for modifications or derivative works we create based upon, incorporating or using the open source software and/or that we license such modifications or derivative works under the terms of the particular open source license. If an author or other third-party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations. If our defenses were not successful, we could be enjoined from the distribution of our products that contained the open source software and required to make the source code for the open source software available to others, to grant third parties certain rights of further use of our software or to remove the open source software from our products, which could disrupt the distribution and sale of some of our products. In addition, if we combine our proprietary software with open source software in a certain manner, under some open source licenses we could be required to release the source code of our proprietary software. If an author or other third-party that distributes open source software were to obtain a judgment against us based on allegations that we had not complied with the terms of any such open source licenses, we could also be subject to liability for copyright infringement damages and breach of contract for our past distribution of such open source software.

Our effective tax rate is difficult to project, and changes in such tax rate or adverse results of tax examinations could adversely affect our operating results.

We are a U.S.-based multinational company subject to tax in multiple U.S. and foreign tax jurisdictions. Our results of operations would be adversely affected to the extent that our geographical mix of income becomes more weighted toward jurisdictions with higher tax rates and would be favorably affected to the extent the relative geographic mix shifts to lower tax jurisdictions. Any change in our mix of earnings is dependent upon many factors and is therefore difficult to predict.

The process of determining our anticipated tax liabilities involves many calculations and estimates that are inherently complex and make the ultimate tax obligation determination uncertain. As part of the process of preparing our consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate prior to the completion and filing of tax returns for such periods. These estimates involve complex issues, require extended periods of time to resolve, and require us to make judgments, such as anticipating the outcomes of audits with tax authorities and the positions that we will take on tax returns prior to our actually preparing the returns.

Furthermore, our overall effective income tax rate and tax expenses may be affected by various factors in our business, including changes in our legal structure, changes in the geographic mix of income and expenses, changes in tax laws and applicable accounting pronouncements and variations in the estimated and actual level of annual profits before income tax.

We also determine the need to record deferred tax liabilities and the recoverability of deferred tax assets. A valuation allowance is established to the extent recovery of deferred tax assets is not likely based on our estimation of future taxable income and other factors in each jurisdiction. In assessing the need for a valuation allowance in fiscal 2018, we considered all available objective and verifiable evidence both positive and negative, including historical levels of pre-tax income (loss) both on a consolidated basis and tax reporting entity basis, legislative developments, expectations and risks associated with estimates of future pre-tax income, and prudent and feasible tax planning strategies. As a result of this analysis, we determined that it is more likely than not that we will not realize the benefits of our gross deferred tax assets and therefore have recorded a valuation allowance to reduce the carrying value of these gross deferred tax assets, net of the impact of the reversal of taxable temporary differences, to zero.

The 2017 Tax Cuts and Jobs Act (the "Act") was enacted on December 22, 2017, and significantly affected U.S. tax law by changing how the U.S. imposes income tax on multinational corporations. The U.S. Department of Treasury has broad authority to issue regulations and interpretative guidance that significantly impacted how we will apply the law and impact our results of operations in the period issued. The Tax Act required complex computations not previously provided in U.S. tax law.

Many of our key financial systems used for internal purposes are cloud-based solutions provided by third parties.

Our enterprise resource planning system as well as certain other stand-alone internal financial systems are cloud-based solutions provided by third parties. The use of cloud-based systems provided by third parties exposes us to certain risks of those third parties. If a disruption of services by these third party cloud financial system providers were to occur it could have a material adverse effect on our financial position, results of operations and cash flows.

Our reported financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

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

Risks from investing in growth opportunities could impact our business.

We may invest in growth opportunities, such as high-value market segments of enterprise computing, managed services and cloud computing. Even though we believe cloud computing, in its various forms, represents a long term industry trend in the way that applications are delivered, data is stored and information is retrieved, there can be no assurance that our investment in cloud, and related managed services and infrastructure management will be validated in the marketplace. Similarly, there is no assurance that our investments in high-value market segments will drive revenue growth or market share gains. Customer adoption rates and viable economic models are less certain in high-value and rapidly-growing segments, and new product and services offerings may unfavorably impact demand for our other products or services.

Risks Relating to Ownership of Our Common Stock

The price of our common stock may be highly volatile and may decline regardless of our operating performance.

The market price of our common stock could be subject to significant fluctuations in response to:

- variations in our quarterly or annual operating results;
- changes in financial estimates, treatment of our tax assets or liabilities or investment recommendations by securities analysts following our business or our competitors;
- the public's response to our press releases, rumors, our other public announcements and our filings with the SEC;
- changes in accounting standards, policies, guidance or interpretations or principles;
- sales of common stock by our directors, officers and significant stockholders;
- announcements of technological innovations or enhanced or new products by us or our competitors;
- our failure to achieve operating results consistent with securities analysts' projections;
- the operating and stock price performance of other companies that investors may deem comparable to us;
- · broad market and industry factors; and
- other events or factors, including those resulting from war, incidents of terrorism or responses to such events.

The market prices of software companies have been extremely volatile. Stock prices of many software companies have often fluctuated in a manner unrelated or disproportionate to the operating performance of such companies. In the past, following periods of market volatility, stockholders have often instituted securities class action litigation. Securities litigation could have a substantial cost and divert resources and the attention of management from our business.

Although we believe we currently have adequate internal control over financial reporting, we are required to assess our internal control over financial reporting on an annual basis, and any future adverse results from such assessment could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX 404"), and the rules and regulations promulgated by the SEC to implement SOX 404, we are required to furnish a report in our Form 10-K regarding the effectiveness of our internal control over financial reporting. The report's assessment of our internal control over financial reporting as of the end of our fiscal year must include disclosure of any material weaknesses in our internal control over financial reporting identified by management. Management's assessment of internal control over financial reporting requires management to make subjective judgments and some of our judgments will be in areas that may be open to interpretation.

Although we currently believe our internal control over financial reporting is effective, the effectiveness of our internal controls in future periods is subject to the risk that our controls may become inadequate or may not operate effectively. In future years, if we fail to timely complete this assessment, or if our independent auditors are unable to express an opinion on the effectiveness of our internal controls, there may be a loss of public confidence in our internal controls, the market price of our stock could decline and we could be subject to regulatory sanctions or investigations by the NASDAQ Stock Market, the Securities and Exchange Commission or other regulatory authorities, which would require additional financial and management resources. In addition, any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to timely meet our regulatory reporting obligations.

During the past several years, our organizational structure has increased in complexity due to compliance with tax regulations and tax accounting requirements and other regulatory and compliance requirements, including compliance with anti-corruption and anti-bribery laws such as the U.S. Foreign Corrupt Practices Act (the "FCPA") and the UK Bribery Act of 2010 (the "UK Bribery Act"). Further, we have expanded our presence in the Asia-Pacific region, where business practices can differ from those in other regions of the world and can create internal control risks. We provide business practices training to our employees worldwide. Overall, the combination of increased structural complexity and the ever-increasing regulatory complexity make it more critical for us to attract and retain qualified and technically competent employees.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal administrative, sales, marketing, customer support and research and development facility is located at our owned corporate headquarters in Tinton Falls, New Jersey.

In addition, we have offices in the United States in California, Illinois, Minnesota, New York, Texas, and Virginia; and outside the United States in Australia, Austria, Belgium, Brazil, Canada, China, Denmark, France, Hong Kong, India, Israel, Italy, Japan, Netherlands, New Zealand, Poland, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, United Arab Emirates, and United Kingdom.

Item 3. Legal Proceedings

From time to time, we are subject to claims in legal proceedings arising in the normal course of our business. We do not believe that we are currently party to any pending legal action that could reasonably be expected to have a material adverse effect on our business or operating results.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities Market for our Common Stock

Our common stock is listed and traded on The NASDAQ Global Market under the symbol "CVLT".

Stockholders

As of May 14, 2020, there were approximately 49 holders of our common stock. The number of record holders does not represent the actual number of beneficial owners of shares of our common stock because shares are frequently held in street name by securities dealers and others for the benefit of individual owners who have the right to vote their shares.

Dividend Policy

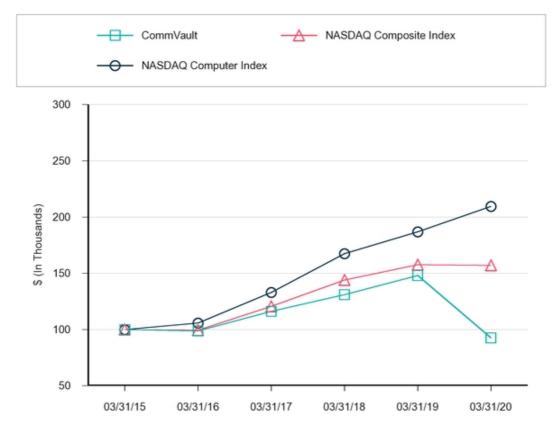
We have never paid cash dividends on our common stock, and we intend to retain our future earnings, if any, to fund the growth of our business. We therefore do not anticipate paying any cash dividends on our common stock in the foreseeable future. Our future decisions concerning the payment of dividends on our common stock will depend upon our results of operations, financial condition and capital expenditure plans, as well as any other factors that the Board of Directors, in its sole discretion, may consider relevant.

Stock Performance Graph

The graph set forth below compares the cumulative total stockholder return on our common stock between March 31, 2015 and March 31, 2020, with the cumulative total return of (i) The NASDAQ Computer Index and (ii) The NASDAQ Composite Index, over the same period. This graph assumes the investment of \$100,000 on March 31, 2015 in our common stock, The NASDAQ Composite Index and The NASDAQ Computer Index, and assumes the reinvestment of dividends, if any. The graph assumes the initial value of our common stock on March 31, 2015 was the closing sales price of \$43.70 per share.

The comparisons shown in the graph below are based upon historical data. The stock price performance shown in the graph below is not necessarily indicative of, nor is it intended to forecast, the future performance of our common stock. Information used in the graph was obtained from NASDAQ, a source we believe to be reliable, but we are not responsible for any errors or omissions in such information.

The performance graph shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Commvault under the Securities Act or the Exchange Act.



	3/31/2015	3/31/2016	3/31/2017	3/31/2018	3/31/2019	3/31/2020
Commvault	100.0	98.8	116.2	130.9	148.1	92.6
NASDAQ Composite Index	100.0	99.4	120.6	144.1	157.7	157.1
NASDAQ Computer Index	100.0	105.8	132.9	167.5	186.8	209.5

Issuer Purchases of Equity Securities

During the three months ended March 31, 2020, we repurchased \$37.2 million of common stock (0.9 million shares), under our repurchase program. During the year ended March 31, 2020, we repurchased \$77.2 million of common stock (1.7 million shares), under our repurchase program.

Total number of shares purchased as part of publicly announced programs	A	verage price paid per share	То	tal of Purchases	Approximate dollar value of shares that may yet be purchased under the program			
17,786	\$	43.96	\$	781,791	\$	199,218,209		
361,100	\$	45.91	\$	16,577,950	\$	182,640,259		
492,800	\$	40.20	\$	19,811,466	\$	162,828,793		
871,686	\$	42.64	\$	37,171,207				
	part of publicly announced programs 17,786 361,100 492,800	shares purchased as part of publicly announced programs Available of the publicly announced programs 17,786 \$ 361,100 \$ 492,800 \$	shares purchased as part of publicly announced programs Average price paid per share 17,786 \$ 43.96 361,100 \$ 45.91 492,800 \$ 40.20	shares purchased as part of publicly announced programs Average price paid per share To 17,786 \$ 43.96 \$ 361,100 \$ 45.91 \$ 492,800 \$ 40.20	shares purchased as part of publicly announced programs Average price paid per share Total of Purchases 17,786 \$ 43.96 \$ 781,791 361,100 \$ 45.91 \$ 16,577,950 492,800 \$ 40.20 \$ 19,811,466	Shares purchased as part of publicly announced programs Average price paid per share Total of Purchases Volume of Purchases 17,786 \$ 43.96 \$ 781,791 \$ 361,100 \$ 45.91 \$ 16,577,950 \$ 492,800 \$ 40.20 \$ 19,811,466 \$ 19,811,466 \$ 10,811,466		

Item 6. Selected Financial Data

The following selected financial data should be read in conjunction with our financial statements and related notes, "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K. The selected statements of operations and the selected balance sheet data are derived from our audited financial statements. The historical results presented below are not necessarily indicative of the results to be expected in any future period.

Statement of Operations Data	Year Ended March 31,											
		2020 2019 2018 2017								2016		
				(In thou	usand	s, except per sha	are d	ata)				
Revenues:												
Software and products	\$	275,308	\$	309,899	\$	311,745	\$	290,668	\$	258,091		
Services		395,577		401,058		387,648		354,337		335,676		
Total revenues		670,885		710,957		699,393		645,005		593,767		
Cost of revenues:												
Software and products		28,082		25,691		7,223		3,045		2,385		
Services		88,996		91,315		90,929		82,147		80,327		
Total cost of revenues	'	117,078		117,006		98,152		85,192		82,712		
Gross margin	'	553,807		593,951		601,241		559,813		511,055		
Operating expenses:												
Sales and marketing		335,785		370,088		410,727		383,933		349,199		
Research and development		110,020		92,647		91,030		79,558		66,936		
General and administrative		92,130		100,946		90,709		88,929		81,199		
Net change in contingent consideration		(3,783)		_								
Restructuring		21,348		14,765		_		_		_		
Depreciation and amortization		15,815		10,597		9,721		8,635		9,611		
Total operating expenses	'	571,315		589,043		602,187		561,055		506,945		
Income (loss) from operations	·	(17,508)		4,908		(946)		(1,242)		4,110		
Other income and expenses:												
Interest income		4,962		5,519		2,228		1,163		862		
Interest expense		_		_		(1,161)		(957)		(933)		
Equity in loss of affiliate		_		_		(3,621)		(958)		(83)		
Income (loss) before income taxes		(12,546)		10,427		(3,500)		(1,994)		3,956		
Income tax expense (benefit)		(6,901)		6,866		58,400		(1,486)		2,236		
Net income (loss)	\$	(5,645)	\$	3,561	\$	(61,900)	\$	(508)	\$	1,720		
Net income (loss) per common share:												
Basic	\$	(0.12)	\$	0.08	\$	(1.37)	\$	(0.01)	\$	0.04		
Diluted	\$	(0.12)	\$	0.07	\$	(1.37)	\$	(0.01)	\$	0.04		
Weighted average shares used in computing per share amounts:						, ,		· · · ·				
Basic		45,793		45,827		45,242		44,700		45,159		
Diluted		45,793		47,601		45,242		44,700		46,489		
							_					

Note: Commvault adopted Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers, in fiscal 2018 using the full retrospective method. As a result, all financial information in fiscal 2016 and fiscal 2017 were restated.

Balance Sheet Data

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	 2020	2019		2018	2017	2016
			(In	thousands)		
Cash, cash equivalents and restricted cash (1)	\$ 296,082	\$ 327,992	\$	330,784	\$ 329,491	\$ 288,107
Short-term investments	43,645	130,338		131,637	120,693	99,072
Working capital	185,132	328,656		322,615	318,142	252,413
Total assets	845,076	822,453		818,642	829,878	714,573
Deferred revenue	326,220	337,696		325,774	279,902	244,866

⁽¹⁾ Cash, cash equivalents and restricted cash as of March 31, 2020 includes \$8,000 of restricted cash.

Note: Commvault adopted Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers, in fiscal 2018 using the full retrospective method and as a result restated balance sheet information beginning with fiscal 2017. Previously reported information for 2016 has not been restated and is, therefore, not comparable to the other periods.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis along with our consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K. The statements in this discussion regarding our expectations of our future performance, liquidity and capital resources, and other non-historical statements are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described under "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Our actual results may differ materially from those contained in or implied by any forward-looking statements.

Overview

Commvault is a leading provider of data protection and information management software applications and related services. Commvault was incorporated in 1996 as a Delaware corporation. The Commvault software platform is an enterprise level, integrated data and information management solution, built from the ground up on a single platform and unified code base. All software functionality share the same back-end technologies to deliver the benefits of a holistic approach to protecting, managing, and accessing data. The software addresses many aspects of data management in the enterprise, while providing scalability and control of data and information. We also sell appliances that integrate the Commvault software with hardware and address a wide-range of business needs and use cases, ranging from support for remote or branch offices with limited IT staff up to large corporate data centers. Commvault also provides customers with a broad range of professional services that are delivered by our worldwide support and field operations.

Commvault software enables our customers to simply and cost effectively protect and manage their enterprise data throughout its lifecycle, from the mobile worker to the remote office, to the data center, covering the leading operating systems, relational databases, virtualized environments and applications. In addition to addressing today's data and information management challenges, our customers can realize lower capital costs through more efficient use of their enterprise-wide storage infrastructure assets. This includes the automated movement of data from higher cost to lower cost storage devices throughout its lifecycle, and through sharing and better utilization of storage resources across the enterprise. We can also provide our customers with reduced operating costs through a variety of methods, including fast application deployment, reduced training time, lower cost of storage media consumables, proactive monitoring and analysis, and lower administrative overhead. We also provide our customers with a broad range of professional services that are delivered by our worldwide support and field operations.

History and Background

In early 2000, we launched Commvault Galaxy for backup and recovery, a storage industry award winner. In the years since, Commvault has forged numerous alliances with top software application and hardware vendors to enhance capabilities and to create a premiere suite of data and information management solutions. In 2002, we launched our single-platform technology that provides the foundation of our information management approach to storing, managing, and accessing data. Since that time we have continued to innovate and have been recognized by industry analysts as having the most comprehensive and powerful data management solution.

In the third quarter of fiscal 2020 Commvault completed the acquisition of Hedvig Inc., a California-based developer of software-defined storage solutions. The primary reason for the business combination is the complementary nature of Hedvig's technology, with our other technology, which will expand our addressable market. Hedvig software allows customers to tailor their storage environment to their application and data demands through a software-defined storage platform. This transaction supports Commvault's strategy of unified storage and data management. Hedvig's technology enables a scalable, distributed software defined storage solution that is already multicloud enabled.

The industry in which we currently operate continues to go through accelerating changes as the result of compounding data growth and the introduction of new technologies. We are continuing to pursue an aggressive product development program in both data and information management solutions. Our data management solutions include not only traditional backup, but also new innovations in deduplication, data movement, virtualization, snap-based backups and enterprise reporting. Our information management innovations are primarily in the areas of archiving, eDiscovery, records management, governance, operational reporting and compliance. We remain focused on both the data and information management trends in the marketplace and, in fact, a material portion of our existing research and development expenses are utilized toward the development of such new technologies discussed above. While we are confident in our ability to meet these changing industry demands with our Commvault suite and potential future releases, the development, release and timing of any features or functionality remain at our sole discretion and our solutions or other technologies may not be widely adopted.

Given the nature of the industry in which we operate, our software applications are subject to obsolescence. We continually develop and introduce updates to our existing software applications in order to keep pace with evolving industry technologies. In addition, we must address evolving industry standards, changing customer requirements and competitive software applications that may render our existing software applications obsolete. We also sell a backup appliance which integrates our software with hardware. If our forecast exceeds our actual requirements, a supply chain partner may assess additional charges or we may incur costs related to excess inventory, each of which could negatively affect our gross margins.

For each of our software applications, we provide full support for the current generally available release and one prior release. When we declare a product release obsolete, a customer notice is delivered twelve months prior to the effective date of obsolescence announcing continuation of full product support for the first six months. We provide an additional six months of extended assistance support in which we only provide existing workarounds or fixes that do not require additional development activity. We do not have existing plans to make any of our software products permanently obsolete.

Sources of Revenues

We derive a significant portion of our total revenues from sales of licenses of our software applications and related appliance products. We do not customize our software or products for a specific end-user customer. We sell our software applications and products to end-user customers both directly through our sales force and indirectly through our global network of value-added reseller partners, systems integrators, corporate resellers and original equipment manufacturers. Our software and products revenue was 41% of our total revenues for fiscal 2020, 44% in fiscal 2019 and 45% in fiscal 2018.

During fiscal 2020, we continued to focus on subscription and other repeatable revenue arrangements. Any of our licensing models (capacity, instance based, etc.) can be sold via a subscription arrangement. In these arrangements the customer has the right to use the software over a designated period of time. The capacity of the license is fixed and the customer has made an unconditional commitment to pay. Software revenue in these arrangements is generally recognized when the software is delivered. During the fiscal year ended March 31, 2020, approximately 41% of software license revenue was sold under a subscription model. We expect revenue from these types of arrangements as a percentage of our total revenue to continue to increase in the next few years. Beginning in fiscal 2021, we also expect to generate material revenue from renewals of subscription licenses sold in prior years. We also sell to some customers, primarily managed service providers, via utility, or pay-as-you-go models. In these arrangements actual usage is regularly measured and billed. Revenue in these utility arrangements is recognized as the software is used.

In recent fiscal years, we generated approximately three-quarters of our software and products revenue from our existing customer base and approximately one-quarter of our software and products revenue from new customers. In addition, our total software and products revenue in any particular period is, to a certain extent, dependent upon our ability to generate revenues from large customer software and products deals, which we refer to as enterprise transactions. Enterprise transactions (transactions greater than \$0.1 million) represented approximately 65% of our software and products revenue in both fiscal 2020 and fiscal 2019 and 59% for fiscal 2018.

Software and products revenue generated through indirect distribution channels was 92% of total software and products revenue in fiscal 2020, 93% in fiscal 2019 and 86% in fiscal 2018. Software and products revenue generated through direct distribution channels was 8% of total software and products revenue in fiscal 2020, 7% in fiscal 2019 and 14% in fiscal 2018. The dollar value of software and products revenue generated through indirect distribution channels decreased \$33.6 million, or 12%, in fiscal 2020 compared to fiscal 2019. The dollar value of software and products revenue generated through direct distribution decreased \$1.0 million, or 4%, in fiscal 2020 compared to fiscal 2019. Deals initiated by our direct sales force are sometimes transacted through indirect channels based on end-user customer requirements, which are not always in our control and can cause this overall percentage split to vary from fiscal year to fiscal year. As such, there may be fluctuations in the dollars and percentage of software and products revenue generated through our direct distribution channels from time to time. We believe that the growth of our software and products revenue, derived from both our indirect channel partners and direct sales force, are key attributes to our long-term growth strategy. We will continue to invest in both our channel relationships and direct sales force in the future, but we continue to expect more revenue to be generated through indirect distribution channels over the long term. The failure of our indirect distribution channels or our direct sales force to effectively sell our software applications could have a material adverse effect on our revenues and results of operations.

We have a non-exclusive distribution agreement covering our North American commercial markets and our U.S. Federal Government market with Arrow Enterprise Computing Solutions, Inc. ("Arrow"), a subsidiary of Arrow Electronics, Inc. Pursuant to this distribution agreement, Arrow's primary role is to enable a more efficient and effective distribution channel for our products and services by managing our reseller partners and leveraging their own industry experience. We generated approximately 37% of our total revenues through Arrow in fiscal 2020, approximately 38% of our total revenues in fiscal 2019 and approximately 36% of our total revenues in fiscal 2018. If Arrow was to discontinue or reduce the sales of our products or if our agreement with Arrow was terminated, and if we were unable to take back the management of our reseller channel or find another North American distributor to replace Arrow, then it could have a material adverse effect on our future business.

Our services revenue was 59% of our total revenues for fiscal 2020, 56% in fiscal 2019 and 55% in fiscal 2018. Our services revenue is made up of fees from the delivery of customer support and other professional services, which are typically sold in connection with the sale of our software applications. Customer support agreements provide technical support and unspecified software updates on a when-and-if-available basis for an annual fee based on licenses purchased and the level of service subscribed. Other professional services include consulting, assessment and design services, implementation and post-deployment services and training, all of which to date have predominantly been sold in connection with the sale of software applications. Our newly launched software-as-a-service solution, branded Metallic, is also included in services revenue. Revenue from Metallic, which has not been material to date, is recognized ratably over the contract period.

Most of our customer support agreements are for a one-year term. As the end of the annual period approaches, we pursue the renewal of the agreement with the customer. Historically, maintenance renewals have represented a significant portion of our total revenue. Because of this characteristic of our business, if our customers choose not to renew their maintenance and support agreements with us on beneficial terms, or at all, our business, operating results and financial condition could be harmed.

The gross margin of our services revenue was 78% for fiscal 2020 and 77% for both fiscal 2019 and fiscal 2018. Overall, our services revenue has lower gross margins than our software and products revenue. The gross margin of our software and products revenue was 90% for fiscal 2020, 92% for fiscal 2019 and 98% for fiscal 2018. The decrease in gross margin percentage of software and products is a result of the decrease in sales of our integrated appliance, which includes hardware.

Description of Costs and Expenses

Our cost of revenues is as follows:

- Cost of Software and Products Revenue, consists primarily of the cost of appliance hardware, third-party royalties and other
 costs such as media, manuals, translation and distribution costs; and
- Cost of Services Revenue, consists primarily of salary and employee benefit costs in providing customer support and other professional services.

Our operating expenses are as follows:

- Sales and Marketing, consists primarily of salaries, commissions, employee benefits, stock-based compensation and other direct and indirect business expenses, including travel and related expenses, sales promotion expenses, public relations expenses and costs for marketing materials and other marketing events (such as trade shows and advertising);
- Research and Development, which is primarily the expense of developing new software applications and modifying existing
 software applications, consists principally of salaries, stock-based compensation and benefits for research and development
 personnel and related expenses; contract labor expense and consulting fees as well as other expenses associated with the
 design, certification and testing of our software applications; and legal costs associated with the patent registration of such
 software applications;
- General and Administrative, consists primarily of salaries, stock-based compensation and benefits for our executive, accounting, human resources, legal, information systems and other administrative personnel. Also included in this category are other general corporate expenses, such as outside legal and accounting services, compliance costs and insurance; and
- Depreciation and Amortization, consists of depreciation expense primarily for our owned Corporate Campus Headquarters location and computer equipment we use for information services and in our development and test labs as well as amortization of intangible assets acquired through the purchase of Hedvig.

Foreign Currency Exchange Rates' Impact on Results of Operations

Sales outside the United States were approximately 49% of our total revenue for fiscal 2020, 47% of our total revenue for fiscal 2019 and 46% for fiscal 2018. The income statements of our non-U.S. operations are translated into U.S. dollars at the average exchange rates for each applicable month in a period. To the extent the U.S. dollar weakens against foreign currencies, the translation of these foreign currency denominated transactions generally results in increased revenue, operating expenses and income from operations for our non-U.S. operations. Similarly, our revenue, operating expenses and net income will generally decrease for our non-U.S. operations if the U.S. dollar strengthens against foreign currencies.

Using the average foreign currency exchange rates from fiscal 2019, our software and products revenue would have been higher by \$4.6 million, our services revenue would have been higher by \$5.9 million, our cost of sales would have been higher by \$1.6 million and our operating expenses would have been higher by \$5.8 million from non-U.S. operations for fiscal 2020.

In addition, we are exposed to risks of foreign currency fluctuation primarily from cash balances, accounts receivables and intercompany accounts denominated in foreign currencies and are subject to the resulting transaction gains and losses, which are recorded as a component of general and administrative expenses. We recognized net foreign currency transaction gains of \$0.4 million in fiscal 2020, \$1.0 million in fiscal 2019, and \$0.1 million in fiscal 2018.

Critical Accounting Policies

In presenting our consolidated financial statements in conformity with U.S. generally accepted accounting principles, we are required to make estimates and judgments that affect the amounts reported therein. Some of the estimates and assumptions we are required to make relate to matters that are inherently uncertain as they pertain to future events. We base these estimates on historical experience and on various other assumptions that we believe to be reasonable and appropriate. Actual results may differ significantly from these estimates. The following is a description of our accounting policies that we believe require subjective and complex judgments, which could potentially have a material effect on our reported financial condition or results of operations.

Revenue Recognition

We account for revenue in accordance with ASC 606, *Revenue from Contracts with Customers*. Our revenue recognition policies require us to make significant judgments and estimates. In applying our revenue recognition policy, we must determine which portions of our revenue are recognized currently (generally software and products revenue) and which portions must be deferred and recognized in future periods (generally services revenue). We analyze various factors including, but not limited to, the selling price of undelivered services when sold on a stand-alone basis, our pricing policies, the credit-worthiness of our customers, and contractual terms and conditions in helping us to make such judgments about revenue recognition. Changes in judgment on any of these factors could materially impact the timing and amount of revenue recognized in a given period.

We derive revenue from two primary sources: software and products, and services. Services include customer support (software updates and technical support), consulting, assessment and design services, installation services and customer education. A typical contract includes both licenses and services.

Our software licenses typically provide for a perpetual right to use our software. We also sell term-based software licenses that expire, which are referred to as subscription arrangements. We do not customize our software and installation services are not required. The software is delivered before related services are provided and is functional without professional services, updates and technical support. We have concluded that our software license is functional intellectual property that is distinct as the user can benefit from the software on its own. Software and product revenue is typically recognized when the software is delivered and/or made available for download as this is the point the user of the software can direct the use of, and obtain substantially all of the remaining benefits from the functional intellectual property. We do not recognize software revenue related to the renewal of subscription software licenses earlier than the beginning of the subscription period.

We also sell appliances that integrate our software with hardware and address a wide-range of business needs and use cases, ranging from support for remote or branch offices with limited IT staff up to large corporate data centers. Revenue related to appliances is recognized when control of the appliances passes to the customer; typically upon delivery.

Services revenue includes revenue from customer support and other professional services. Customer support includes software updates on a when-and-if-available basis, telephone support, integrated web-based support and bug fixes or patches. We sell our customer support contracts as a percentage of net software purchases the support is related to. Customer support revenue is recognized ratably over the term of the customer support agreement, which is typically one year.

Other professional services include consulting, assessment and design services, installation services and customer education. Customer education services include courses taught by our instructors or third-party contractors. Revenue related to other professional services and customer education services is typically recognized as the services are performed.

Most of our contracts with customers contain multiple performance obligations. For these contracts, we account for individual performance obligations separately if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. Standalone selling prices of software and products are typically estimated using the residual approach. Standalone selling prices of services are typically estimated based on observable transactions when these services are sold on a standalone basis.

Performance Obligation	on When Performance Obligation When Payment is is Typically Satisfied Typically Due		How Standalone Selling Price is Typically Estimated
Software and Products Reve	enue		
Software Licenses	Upon shipment or made available for download (point in time)	Within 90 days of shipment except for certain subscription licenses which are paid for over time	Residual approach
Appliances	when control of the appliances passes to the within 90 days of delivery customer; typically upon delivery		Residual approach
Customer Support Revenue			
Software Updates	Ratably over the course of the support contract (over time)	At the beginning of the contract period	Observable in renewal transactions
Customer Support	Ratably over the course of the support contract (over time)	At the beginning of the contract period	Observable in renewal transactions
Other Services Revenue			
Other Professional Services (except for education services)	As work is performed (over time)	Within 90 days of services being performed	Observable in transactions without multiple performance obligations
Education Services	When the class is taught (point in time)	Within 90 days of services being performed	Observable in transactions without multiple performance obligations
Software-as-a-service (Metallic)	Ratably over the course of the contract (over time)	Annual or monthly payments	Observable in transactions without multiple performance obligations

Accounting for Income Taxes

Under ASC 740, deferred income taxes arise from temporary differences between the tax basis of assets and liabilities and their reported amounts. Valuation allowances are established when, in our judgment, it is more likely than not that deferred tax assets will not be realized. In assessing the need for a valuation allowance, we weigh the available positive and negative evidence, including historical levels of pre-tax income, legislative developments, expectations and risks associated with estimates of future pre-tax income, and prudent and feasible tax planning strategies. During the year ended March 31, 2018, we concluded that based on the amount, and trend, of pre-tax loss in recent fiscal years it is more likely than not that we will not realize the benefits of its gross deferred tax assets and therefore have recorded a valuation allowance to reduce the carrying value of these gross deferred tax assets, net of the impact of the reversal of taxable temporary differences, to zero. The valuation allowance is material to our financial statements. In the future, changes to our estimates regarding the realizability of our gross deferred tax assets could materially impact our results of operations.

We conduct business globally and as a result, file income tax returns in the United States and in various state and foreign jurisdictions. In the normal course of business, we are subject to examination by taxing authorities throughout the world, including such major jurisdictions as the United States, Australia, Canada, Germany, Netherlands and United Kingdom.

Goodwill and Purchased Intangible Asset

We test goodwill and indefinite-lived intangible assets for impairment at least annually (January 1) by performing a quantitative assessment of whether the fair value of each reporting unit or asset exceeds its carrying amount. We have one reporting unit. Goodwill is tested at this reporting unit level and indefinite-lived intangible assets are tested at the individual asset level. This requires us to assess and make judgments regarding a variety of factors which impact the fair value of the reporting unit or asset being tested, including business plans, anticipated future cash flows, economic projections and other market data. Because there are inherent uncertainties involved in these factors, significant differences between these estimates and actual results could result in future impairment charges and could materially impact our future financial results. During the fourth quarter of 2020, we

completed the annual impairment test for goodwill and determined that these assets had not been impaired as of the test date, January 1, 2020. No other events or circumstances changed during the year ended March 31, 2020 that would indicate that the fair values of our reporting unit and indefinite-lived intangible asset are below their carrying values.

Intangible assets are recognized apart from goodwill whenever an acquired intangible asset arises from contractual or other legal rights, or whenever it is capable of being separated or divided from the acquired entity and sold, transferred, licensed, rented, or exchanged, either individually or in combination with a related contract, asset or liability. We determined the fair value of our intangible assets using the income method. This model utilizes certain unobservable inputs classified as Level 3 measurements as defined by ASC 820, *Fair Value Measurements and Disclosures*. The determination of fair value requires considerable judgment and is sensitive to changes in underlying assumptions, estimates and market factors. Estimating fair value requires us to make assumptions and estimates regarding our future plans, as well as industry and economic conditions. The fair values of the intangible assets will be amortized over their useful lives. Impairment losses are recognized if the carrying amounts of finite-lived intangible assets are both not recoverable and exceed the fair values.

Our purchased intangible assets were recently acquired in connection with the Hedvig Inc. transaction. The most material of these assets was developed technology. While our work to integrate this technology with our own is proceeding, the economic impact of COVID-19, or other factors, may delay our ability to meet the forecasts we used to estimate the fair value of this asset. If we were to identify an impairment indicator in the future, we may conclude that the carrying value of the asset is not recoverable within the remaining useful life of the asset and recognize a non-cash impairment charge. An impairment of this asset could have a material impact on our results of operations.

Results of Operations

Fiscal year ended March 31, 2020 compared to fiscal year ended March 31, 2019

Revenues (in millions)



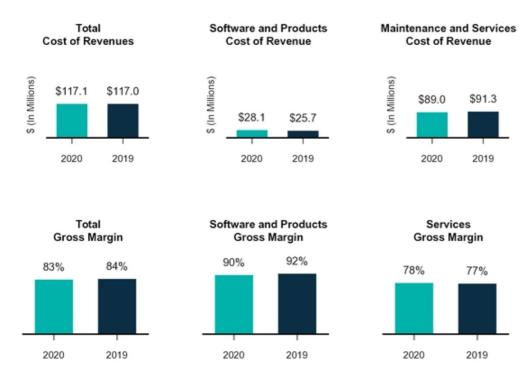
- Total revenues decreased \$40.1 million, or 6%
- Software and products revenue decreased \$34.6 million, or 11%, primarily due to the following:
 - Software and products revenue represented 41% of our total revenues in fiscal 2020 and 44% of our total revenues in fiscal 2019.
 - Enterprise transactions (deals greater than \$0.1 million) represented approximately 65% of our software and products revenue in both fiscal 2020 and fiscal 2019.
 - Decrease of \$22.4 million in enterprise transactions
 Decrease of 19% in the number of enterprise transactions, partially offset by an increase of 10% in the average dollar amount of such transactions
 - The average dollar amount of enterprise transactions was approximately \$298,000 in fiscal 2020 and approximately \$272,000 in fiscal 2019.
 - Decrease of \$12.2 million in transactions less than \$0.1 million

- Services revenue decreased \$5.5 million, or 1%, primarily due to the following:
 - Decrease of \$6.9 million in training and consulting service revenue
 - Partially offset by an increase of \$1.4 million in revenue from customer support agreements as a result of software sales to new customers and renewal agreements with our installed software base
 - Services revenue represented 59% of our total revenues in fiscal 2020 and 56% of our total revenues in fiscal 2019.

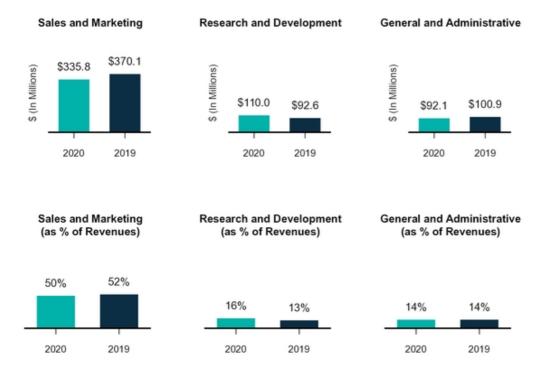
We track software and products revenue on a geographic basis. The geographic regions that are tracked are the Americas (United States, Canada, Latin America), EMEA (Europe, Middle East, Africa) and APJ (Australia, New Zealand, Southeast Asia, China). Americas, EMEA and APJ represented 51%, 35% and 14% of total software and products revenue, respectively, for the fiscal year ended March 31, 2020. The year over year decrease of Software and Products Revenue was 17% in the Americas, 1% in EMEA and 13% in APJ.

- The decrease in Americas software and products revenue was the result of a 28% decrease in the number of enterprise transactions partially offset by a 15% increase in the average deal size of enterprise revenue transactions.
- EMEA software and products revenue decreased as a result of a 2% decline in non-enterprise transaction revenue partially offset by an increase of 1% in enterprise transaction revenue. On a constant currency basis, EMEA software and products revenue would have increased 2% versus the prior year.
- The decrease in APJ was the result of a 23% decrease in revenue from non-enterprise revenue transactions that was partially offset by a 2% increase in enterprise revenue transactions. On a constant currency basis, APJ software and products revenue would have declined 9% compared to prior year.

Our software and products revenue in EMEA and APJ is subject to changes in foreign exchange rates as more fully discussed above in the "Foreign Currency Exchange Rates' Impact on Results of Operations" section.



- Total cost of revenues increased \$0.1 million, representing 17% of our total revenues in fiscal 2020 compared to 16% in fiscal 2019. The increase as a percentage of revenue is related to the cost of sales associated with our Hyperscale software and products.
- Cost of software and products revenue increased \$2.4 million, representing 10% of software and products revenue in fiscal 2020 compared to 8% in fiscal 2019. The increase is related to additional hardware and software royalty costs associated with our appliance and Hyperscale product offerings. As sales of our appliances and hyperscale products continue to ramp, we expect the cost of software and products as a percentage of software and products revenue will continue to increase.
- Cost of services revenue decreased \$2.3 million, representing 22% of our services revenue in fiscal 2020 and 23% in fiscal 2019.



- Sales and marketing expenses: decreased \$34.3 million, or 9%, primarily due to the following:
 - Decrease of \$33.6 million in employee compensation and related expenses mainly attributable to our restructuring initiatives
 - Decrease of \$6.2 million in travel and entertainment expenses
 - Increase of \$3.9 million in marketing expenses.
- Research and development expenses: increased \$17.4 million, or 19%, as a result of an increase in employee compensation and related expenses attributable to the expansion of our engineering group.
 - The increase is primarily due to an increase in employee-related costs resulting from additional headcount due to the
 acquisition of Hedvig.
 - Additionally, certain Hedvig shareholders will receive cash payments totaling \$14.1 million over the course of the 30 months
 following the date of acquisition, contingent on their continued employment with the Company. While these payments are
 proportionate to these shareholders' ownership of Hedvig, under GAAP they are accounted for as compensation expense
 over the course of the 30 month service period. Research and development expenses in 2020 includes \$2.8 million of
 expense related to this arrangement.
 - Investing in research and development has been a priority for Commvault, and we anticipate continued spending related to the development of our data and information management software applications.
- General and administrative expenses: decreased \$8.8 million, or 9%, primarily due to the following:
 - Decrease of \$16.6 million in stock compensation as a result of fiscal 2019 executive stock modifications partially offset by an increase in employee compensation and related expenses. Part of the increase is related to the restructuring and centralization of certain activities across the company.
 - Decrease of \$2.3 million of costs related to a non-routine shareholder matter. The costs are for professional fees related to our settlement agreement with the shareholder and consulting fees

- incurred with the operational review which was agreed to as part of the settlement. Further, there is a decrease of \$1.4 million related to a litigation settlement in fiscal year 2019, where no such charges were incurred in fiscal 2020.
- Increase of \$5.6 million in transaction costs related to the acquisition of Hedvig
- Restructuring: In fiscal 2019 we initiated a restructuring plan to increase efficiency in our sales, marketing and distribution functions as well as reduce costs across all functional areas. Restructuring expenses were \$21.3 million and \$14.8 million for the years ended March 31, 2020 and 2019, respectively. These restructuring charges relate primarily to severance and related costs associated with headcount reductions. These charges include \$1.8 million in fiscal 2020 and \$2.6 million in fiscal 2019 of stock-based compensation related to modifications of existing awards granted to certain employees included in the restructuring. We cannot guarantee the restructuring program will achieve its intended result. Risks associated with this restructuring program also include additional unexpected costs, adverse effects on employee morale and the failure to meet operational and growth targets due to the loss of key employees, any of which may impair our ability to achieve anticipated results of operations or otherwise harm our business.
- Depreciation and amortization expense: increased \$5.2 million, from \$10.6 million in fiscal 2019 to \$15.8 million in fiscal 2020, driven by the amortization of intangible assets acquired as a result of the Hedvig business combination. Depreciation and amortization expense will increase in fiscal 2021 as a result of a full year of Hedvig intangible asset amortization.

Interest Income

Interest income decreased \$0.6 million, from \$5.5 million in fiscal 2019 to \$5.0 million in fiscal 2020. The decrease was the result of a decrease in short term investments and decreased yield on those investments. Our short-term investments are in U.S. Treasury Bills.

Income Tax Expense

Income tax benefit was \$6.9 million in fiscal 2020 compared to expense of \$6.9 million in fiscal 2019. The income tax benefit for the year ended March 31, 2020 relates primarily to the impact of the U.S. CARES Act. As a result of the CARES act, we have estimated that we will receive an income tax refund of approximately \$10.0 million related to the ability to carryback net operating losses. This benefit was partially offset by current foreign taxes. The income tax expense for the year ended March 31, 2019 relates primarily to current foreign taxes.

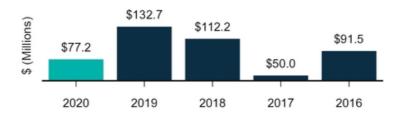
Liquidity and Capital Resources

As of March 31, 2020, our cash balance was \$296.1 million, which included \$8.0 million of restricted cash. In addition, we have approximately \$43.6 million of short-term investments invested in U.S. Treasury Bills. In recent fiscal years, our principal source of liquidity has been cash provided by operations.

As of March 31, 2020, the amount of cash and cash equivalents held outside of the United States by our foreign legal entities was approximately \$158.6 million. These balances are dispersed across many international locations around the world. We believe that such dispersion meets the current and anticipated future liquidity needs of our foreign legal entities. In the event we needed to repatriate funds from outside of the United States, such repatriation would likely be subject to restrictions by local laws and/or tax consequences including foreign withholding taxes.

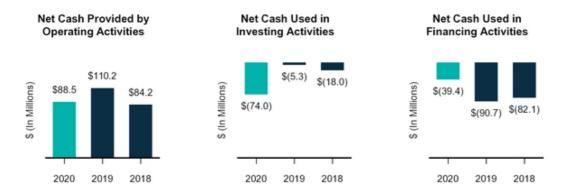
During the year ended March 31, 2020, we repurchased \$77.2 million of common stock (1.7 million shares) under our share repurchase program. Our future stock repurchase activity is subject to the business judgment of our management and Board of Directors, taking into consideration our historical and projected results of operations, financial condition, cash flows and other anticipated capital requirements or investment alternatives. As of May 11, 2020, there is \$162.8 million remaining in the share repurchase program which expires on March 31, 2021. Our stock repurchase program has been funded by our existing cash and cash equivalent balances as well as cash flows provided by our operations.

The following chart summarizes the cash used to repurchase shares of our common stock:



Our summarized annual cash flow information is as follows (in thousands):

	Year Ended March 31,						
		2020		2019		2018	
Net cash provided by operating activities	\$	88,464	\$	110,180	\$	84,169	
Net cash used in investing activities		(74,005)		(5,261)		(17,991)	
Net cash used in financing activities		(39,403)		(90,713)		(82,104)	
Effects of exchange rate — changes in cash		(6,966)		(16,998)		17,219	
Net increase (decrease) in cash, cash equivalents and restricted cash	\$	(31,910)	\$	(2,792)	\$	1,293	



- Net cash provided by operating activities was impacted by:
 - Fiscal 2020: net loss adjusted for the impact of non-cash charges and decreases in accounts receivable
 - Fiscal 2019: net income adjusted for the impact of non-cash charges and increases in deferred revenue and accrued expenses, partially offset by increase in accounts receivable
 - Fiscal 2018: net loss adjusted for the impact of non-cash charges and increases in deferred services revenue as a result of
 customer support agreements from new customers and renewal agreements with our installed customer base, partially offset
 by an increase in accounts receivable

- Net cash used in investing activities was impacted by:
 - Fiscal 2020: \$157.5 million used for the acquisition of Hedvig and \$3.2 million of capital expenditures, partially offset by \$86.7 million of net proceeds of short-term investments of U.S. Treasury Bills
 - Fiscal 2019: \$1.3 million of net proceeds of short-term investments of U.S. Treasury Bills and \$6.6 million of capital expenditures as we continue to invest in and enhance our global infrastructure. Included in this balance was a purchase of land adjacent to our global corporate headquarters.
 - Fiscal 2018: \$10.9 million of net purchases of short-term investments of U.S. Treasury Bills and \$7.0 million of capital expenditures as we continue to invest in and enhance our global infrastructure
- Net cash used in financing activities was impacted by:
 - Fiscal 2020: \$77.2 million used to repurchase shares of our common stock under our repurchase program, partially offset by \$37.8 million of proceeds from the exercise of stock options and the employee stock purchase plan.
 - Fiscal 2019: \$132.7 million used to repurchase shares of our common stock under our repurchase program, partially offset by \$42.0 million of proceeds from the exercise of stock options and the employee stock purchase plan.
 - Fiscal 2018: \$112.2 million used to repurchase shares of our common stock under our repurchase program, partially offset by \$30.1 million of proceeds from the exercise of stock options and the employee stock purchase plan.

A summary of the cash used for the stock repurchase program consists of the following:

		Year Ended March 31,								
	2020		2019 2018			2017	2016			
Cash used for repurchases (in thousands)	\$	77,198	\$	132,697	\$	112,218	\$	49,998	\$	91,477
Shares repurchased (in thousands)		1,701		2,115		2,098		982		2,563
Average price per share	\$	45.37	\$	62.74	\$	53.49	\$	50.91	\$	35.69

Working capital decreased \$143.6 million from \$328.7 million as of March 31, 2019 to \$185.1 million as of March 31, 2020. The decrease in working capital is primarily due to cash used to acquire the investment in Hedvig during the fiscal year.

We believe that our existing cash, cash equivalents and our cash from operations will be sufficient to meet our anticipated cash needs for working capital, capital expenditures and potential stock repurchases for at least the next 12 months. We may seek additional funding through public or private financings or other arrangements during this period. Adequate funds may not be available when needed or may not be available on terms favorable to us, or at all. If additional funds are raised by issuing equity securities, dilution to existing stockholders will result. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operational flexibility, and would also require us to fund additional interest expense. If funding is insufficient at any time in the future, we may be unable to develop or enhance our products or services, take advantage of business opportunities or respond to competitive pressures, any of which could have a material adverse effect on our business, financial condition and results of operations.

Summary Disclosures about Contractual Obligations and Commercial Commitments

Our material capital commitments consist of obligations under facilities and operating leases. Some of these leases have free or escalating rent payment provisions. Refer to Notes 2 and 15 of the notes to the consolidated financial statements for further discussion on operating leases. We anticipate that we will experience an increase in our capital expenditures and lease commitments as a result of our anticipated growth in operations, infrastructure, personnel and resources devoted to building our brand name.

The following table summarizes our obligations as of March 31, 2020:

	Payments Due by Period							
	Total	Less Than 1 Year	2-3 Years	4-5 Years	More Than 5 Years			
Operating lease obligations	17,818	7,520	7,230	2,393	675			
Purchase obligations	26,041	18,590	6,205	1,246	_			
Total	43,859	26,110	13,435	3,639	675			

We generally do not enter into binding purchase obligations. The purchase obligations above relate primarily to marketing and IT services. The contractual obligations table above excludes unrecognized tax benefits, plus related interest and penalties totaling \$1.7 million because we cannot reasonably estimate in which future periods these amounts will ultimately be settled.

We have certain software royalty commitments associated with the shipment and licensing of certain products. Royalty expense is generally based on a fixed cost per unit shipped or a fixed fee for unlimited units shipped over a designated period. Royalty expense, included in cost of software and products revenues, was \$12.5 million in fiscal 2020 and \$12.3 million in fiscal 2019.

We offer a 90-day limited product warranty for our software. To date, costs relating to this product warranty have not been material.

Off-Balance Sheet Arrangements

As of March 31, 2019, we had operating leases that were classified as off-balance sheet arrangements. Upon adoption of ASC 842, Leases on April 1, 2019, leases were classified as right of use assets and presented on the balance sheet as discussed in Note 15 of the consolidated financial statements. As such, as of March 31, 2020, we did not have off-balance sheet financing arrangements, including any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities.

Indemnifications

Certain of our software licensing agreements contain certain provisions that indemnify our customers from any claim, suit or proceeding arising from alleged or actual intellectual property infringement. These provisions continue in perpetuity along with our software licensing agreements. We have never incurred a liability relating to one of these indemnification provisions in the past and we believe that the likelihood of any future payout relating to these provisions is remote. Therefore, we have not recorded a liability during any period related to these indemnification provisions.

Impact of Recently Issued Accounting Standards

See Note 2 of the consolidated financial statements for a discussion of the impact of recently issued accounting standards.

Item 7A. Ouantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

As of March 31, 2020, our cash, cash equivalent and short-term investment balances consisted primarily of money market funds and U.S. Treasury Bills. Due to the short-term nature of these investments, we are not subject to any material interest rate risk on these balances.

Foreign Currency Risk

Economic Exposure

As a global company, we face exposure to adverse movements in foreign currency exchange rates. Our international sales are generally denominated in foreign currencies and this revenue could be materially affected by currency fluctuations. Approximately 49% of our sales were outside the United States in fiscal 2020 and 47% were outside the United States in fiscal 2019. Our primary exposures are to fluctuations in exchange rates for the U.S. dollar versus the Euro, and to a lesser extent, the Australian dollar, British pound sterling, Canadian dollar, Chinese yuan, Indian rupee, Korean won and Singapore dollar. Changes in currency exchange rates could adversely affect our reported revenues and require us to reduce our prices to remain competitive in foreign markets, which could also have a material adverse effect on our results of operations. Historically, we have periodically reviewed and revised the pricing of our products available to our customers in foreign countries and we have not maintained excess cash balances in foreign accounts.

We estimate that a 10% change in all foreign exchange rates would impact our reported operating profit by approximately \$9.6 million annually. This sensitivity analysis disregards the possibilities that rates can move in opposite directions and that losses from one geographic area may be offset by gains from another geographic area.

Transaction Exposure

Our exposure to foreign currency transaction gains and losses is primarily the result of certain net receivables due from our foreign subsidiaries and customers being denominated in currencies other than the functional currency of the subsidiary. Our foreign subsidiaries conduct their businesses in local currency and we generally do not maintain excess U.S. dollar cash balances in foreign accounts.

Foreign currency transaction gains and losses are recorded in General and administrative expenses in the Consolidated Statements of Operation. We recognized net foreign currency transaction gains of \$0.4 million, \$1.0 million and \$0.1 million in fiscal 2020, fiscal 2019, and fiscal 2018 respectively. The net foreign currency transaction gains and losses recorded in General and administrative expenses include settlement gains and losses on forward contracts disclosed below.

Item 8. Financial Statements and Supplementary Data

Commvault Systems, Inc. Consolidated Financial Statements Fiscal Years Ended March 31, 2020, 2019 and 2018 Index to Consolidated Financial Statements

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Report of Independent Registered Public Accounting Firm	<u>50</u>
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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Commvault Systems, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Commvault Systems, Inc. (the "Company") as of March 31, 2020 and 2019, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended March 31, 2020, and the related notes and financial statement schedule listed in the Index at Item 15 (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at March 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended March 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of March 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated May 15, 2020 expressed an unqualified opinion thereon.

Adoption of New Accounting Standard

As discussed in Note 2 to the consolidated financial statements, the Company changed its method for accounting for leases in 2020.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

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 consolidated 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.

Accounting for Revenue Recognition

Description of the Matter

How We Addressed the

Matter in Our Audit

As described in Note 3 to the consolidated financial statements, the Company derives revenues from two primary sources: software and services. Most of the Company's contracts with customers contain multiple performance obligations which are accounted for separately, if they are distinct. The transaction price is allocated to separate performance obligations on a relative standalone selling price basis. The standalone selling prices of software are typically estimated using the residual approach. Standalone selling prices of services are typically estimated based on observable transactions when those services are sold on a standalone basis.

Auditing the identification of performance obligations in a software contract requires significant judgment as it relates to the evaluation of the contractual terms of the arrangement. Auditing the allocation of the transaction price to performance obligations requires significant judgment in determining whether the use of the residual approach to estimate the standalone selling prices of software is appropriate.

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's revenue recognition process, including the evaluation of the contractual terms of the revenue arrangements and the Company's assessment of the appropriateness of the residual method for estimating the standalone selling prices of software.

To test the amount of revenue recognized, we performed audit procedures that included, among others, testing a sample of revenue transactions during the year and evaluating the identification of performance obligations based on analysis of the contractual terms and independent confirmations of the terms and conditions of the contract directly with customers. Our testing of the application of the residual method to estimate standalone selling prices of software included inquiries with management and analysis of the variability of actual software pricing during the year by customer class.

Accounting for the Acquisition of Hedvig

Description of the Matter

As discussed in Note 4 to the consolidated financial statements, on October 1, 2019, the Company completed its acquisition of Hedvig, Inc. ("Hedvig") for a total purchase price of \$163 million. The transaction was accounted for as a business combination and the assets acquired and liabilities assumed were recorded in the financial statements as of October 1, 2019.

Auditing the Company's accounting for its acquisition of Hedvig was significant to our audit due to the higher extent of audit effort and because the amounts are material to the consolidated financial statements and related disclosures. The Company's determination of the fair value of the developed technology asset involved significant estimation uncertainty, primarily due to projections of the acquired entity's future financial performance used in the calculation and the discount rate assumption.

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's process of accounting for business combinations. We tested controls over the estimation process supporting the recognition and measurement of the developed technology asset, including management's review of the valuation models and management's evaluation of the underlying assumptions and estimates used to determine its fair value.

To test the estimated fair value of the developed technology intangible asset, we performed audit procedures that included, among others, evaluating the Company's selection of the valuation methodology, evaluating the methods and significant assumptions applied and evaluating the completeness and accuracy of the underlying data supporting the significant assumptions and estimates. We involved our valuation specialists to assist with our evaluation of the methodology used by the Company, and we tested the significant assumptions, including the discount rate and the projected financial information used to estimate the fair value.

We have served as the Company's auditor since 1998.

/s/ Ernst & Young LLP Iselin, New Jersey May 15, 2020

How We Addressed the Matter in Our Audit

Consolidated Balance Sheets (In thousands, except per share data)

	March 31,			
		2020		2019
ASSETS				
Current assets:				
Cash and cash equivalents	\$	288,082	\$	327,992
Restricted cash		8,000		_
Short-term investments		43,645		130,338
Trade accounts receivable, net		146,990		176,836
Other current assets		26,969		19,836
Total current assets		513,686		655,002
Property and equipment, net		114,519		122,716
Operating lease assets		15,009		_
Deferred commissions cost		31,394		33,619
Intangible assets, net		46,350		_
Goodwill		112,435		_
Other assets		11,683		11,116
Total assets	\$	845,076	\$	822,453
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current Liabilities:				
Accounts payable	\$	307	\$	2,186
Accrued liabilities		87,051		85,721
Current portion of operating lease liabilities		7,699		_
Deferred revenue		233,497		238,439
Total current liabilities		328,554		326,346
Deferred revenue, less current portion		92,723		99,257
Deferred tax liabilities, net		849		2,594
Long-term operating lease liabilities		8,808		_
Other liabilities		2,238		2,953
Commitments and contingencies		,		,
Stockholders' equity:				
Preferred stock, \$0.01 par value: 50,000 shares authorized, no shares issued and outstanding		_		_
Common stock, \$0.01 par value, 250,000 shares authorized, 46,011 shares and 45,582 shares issued and outstanding at March 31, 2020 and 2019, respectively		458		454
Additional paid-in capital		978,659		887,907
Accumulated deficit		(553,790)		(485,490)
Accumulated other comprehensive loss		(13,423)		(11,568)
Total stockholders' equity		411,904		391,303
Total liabilities and stockholders' equity	\$	845,076	\$	822,453

Consolidated Statements of Operations (In thousands, except per share data)

	 Year Ended March 31,				
	2020		2019		2018
Revenues:	_				
Software and products	\$ 275,308	\$	309,899	\$	311,745
Services	395,577		401,058		387,648
Total revenues	670,885		710,957		699,393
Cost of revenues:					
Software and products	28,082		25,691		7,223
Services	88,996		91,315		90,929
Total cost of revenues	117,078		117,006		98,152
Gross margin	553,807		593,951		601,241
Operating expenses:					
Sales and marketing	335,785		370,088		410,727
Research and development	110,020		92,647		91,030
General and administrative	92,130		100,946		90,709
Net change in contingent consideration	(3,783)		_		_
Restructuring	21,348		14,765		_
Depreciation and amortization	15,815		10,597		9,721
Total operating expenses	571,315		589,043		602,187
Income (loss) from operations	(17,508)		4,908		(946)
Interest income	4,962		5,519		2,228
Interest expense	_		_		(1,161)
Equity in loss of affiliate	_		_		(3,621)
Income (loss) before income taxes	(12,546)		10,427		(3,500)
Income tax expense (benefit)	(6,901)		6,866		58,400
Net income (loss)	\$ (5,645)	\$	3,561	\$	(61,900)
Net income (loss) per common share:					
Basic	\$ (0.12)	\$	0.08	\$	(1.37)
Diluted	\$ (0.12)	\$	0.07	\$	(1.37)
Weighted average common shares outstanding:					
Basic	45,793		45,827		45,242
Diluted	 45,793		47,601		45,242

Consolidated Statements of Comprehensive Loss (In thousands)

		Year Ended March 31,						
		2020		2019	2018			
Net income (loss)	\$	(5,645)	\$	3,561	\$	(61,900)		
Other comprehensive income (loss):								
Foreign currency translation adjustment		(1,855)		(6,096)		6,843		
Comprehensive loss	\$	(7,500)	\$	(2,535)		(55,057)		

Commvault Systems, Inc. Consolidated Statements of Stockholders' Equity (In thousands)

	Commo	on Stock	Additional			
	Shares	Amount	Paid-In Capital	Accumulated Deficit	Comprehensive Loss	Total
Balance at March 31, 2017	44,816	\$ 447	\$ 694,477	\$ (215,677)	\$ (12,315)	\$ 466,932
Cumulative effect of adoption of ASU 2016-09			435	(271)		164
Stock-based compensation			74,129			74,129
Share issuances related to stock-based compensation	2,400	24	30,090			30,114
Repurchase of common stock	(2,098)	(21)	(16,367)	(95,830)		(112,218)
Net loss				(61,900)		(61,900)
Other comprehensive loss					6,843	6,843
Balance at March 31, 2018	45,118	450	782,764	(373,678)	(5,472)	404,064
Stock-based compensation			80,487			80,487
Share issuances related to stock-based compensation	2,579	25	41,959			41,984
Repurchase of common stock	(2,115)	(21)	(17,303)	(115,373)		(132,697)
Net income				3,561		3,561
Other comprehensive income					(6,096)	(6,096)
Balance at March 31, 2019	45,582	454	887,907	(485,490)	(11,568)	391,303
Stock-based compensation			65,888			65,888
Share issuances related to business combinations			1,616			1,616
Share issuances related to stock-based compensation	2,131	21	37,774			37,795
Repurchase of common stock	(1,702)	(17)	(14,526)	(62,655)		(77,198)
Net loss				(5,645)		(5,645)
Other comprehensive loss					(1,855)	(1,855)
Balance at March 31, 2020	46,011	\$ 458	\$ 978,659	\$ (553,790)	\$ (13,423)	\$ 411,904

Commvault Systems, Inc. Consolidated Statements of Cash Flows (In thousands)

		Year Ended March 31,				
		2020 2019				2018
Cash flows from operating activities						
Net income (loss)	\$	(5,645)	\$	3,561	\$	(61,900)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:						
Depreciation and amortization		17,065		12,060		11,785
Noncash stock-based compensation		65,888		80,487		74,129
Non-cash change in contingent consideration		(3,783)		_		_
Deferred income taxes		(1,783)		164		53,737
Equity in loss of affiliate		_		_		3,621
Amortization of deferred commissions cost		17,717		17,348		16,587
Impairment of operating lease assets		2,761		_		_
Changes in operating assets and liabilities:						
Trade accounts receivable		26,096		(24,092)		(25,082)
Operating lease assets and liabilities, net		(1,226)		_		_
Other current assets and Other assets		(1,246)		11,400		(6,876)
Deferred commissions cost		(16,063)		(18,967)		(17,984)
Accounts payable		(2,474)		1,485		618
Accrued liabilities		(1,997)		5,075		3,496
Deferred revenue		(6,230)		21,719		33,971
Other liabilities		(616)		(60)		(1,933
Net cash provided by operating activities		88,464		110,180		84,169
Cash flows from investing activities						
Purchase of short-term investments		(43,645)		(130,338)		(142,424)
Proceeds from maturity of short-term investments		130,338		131,637		131,480
Purchase of property and equipment		(3,203)		(6,560)		(7,047)
Business combination, net of cash acquired		(157,495)		_		_
Net cash used in investing activities		(74,005)		(5,261)		(17,991
Cash flows from financing activities						
Repurchase of common stock		(77,198)		(132,697)		(112,218)
Proceeds from stock-based compensation plans		37,795		41,984		30,114
Net cash used in financing activities		(39,403)		(90,713)		(82,104)
Effects of exchange rate — changes in cash		(6,966)		(16,998)		17,219
Net increase (decrease) in cash, cash equivalents and restricted cash	_	(31,910)	_	(2,792)	_	1,293
Cash, cash equivalents and restricted cash at beginning of year		327,992		330,784		329,491
Cash, cash equivalents and restricted cash at end of year	\$	296,082	\$	327,992	\$	330,784
Supplemental disclosures of cash flow information						
Interest paid	\$	_	\$	_	\$	592
Income taxes paid	\$	6,002	\$	11,491	\$	6,448

Notes to Consolidated Financial Statements (In thousands, except per share data)

Nature of Business

Commvault Systems, Inc. and its subsidiaries ("Commvault," "we," "us," or "our") is a provider of data protection and information management software applications and products. We develop, market and sell a suite of software applications and services, globally, that provides our customers with data protection solutions. We also provide our customers with a broad range of professional and customer support services.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements include the accounts of Commvault. All intercompany transactions and balances have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements and related disclosures in conformity with U.S. generally accepted accounting principles ("U.S. GAAP") requires management to make judgments and estimates that affect the amounts reported in our consolidated financial statements and the accompanying notes. We base our estimates and judgments on historical experience and on various other assumptions that we believe are reasonable under the circumstances. The amounts of assets and liabilities reported in our balance sheets and the amounts of revenues and expenses reported for each of the periods presented are affected by estimates and assumptions, which are used for, but not limited to, the accounting for revenue recognition, income taxes and related reserves, and goodwill and purchased intangible assets. Actual results could differ from those estimates.

Revenue

We account for revenue in accordance with Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers ("ASC 606"). For further discussion of our accounting policies related to revenue see Note 3 of the consolidated financial statements.

Shipping and Handling Costs

Shipping and handling costs are included in cost of revenues for all periods presented.

Sales Tax

We record revenue net of sales tax.

Accounting for Stock-Based Compensation

We utilize the Black-Scholes pricing model to determine the fair value of non-qualified stock options on the dates of grant. Restricted stock units without a market condition are measured based on the fair market values of the underlying stock on the date of grant. We recognize stock-based compensation using the straight-line method for all stock awards that do not include a market or performance condition.

Software Development Costs

Research and development expenditures are charged to operations as incurred. Based on our software development process, technological feasibility is established upon completion of a working model, which also requires certification and extensive testing. Costs incurred by us between completion of the working model and the point at which the product is ready for general release are immaterial.

Advertising Costs

We expense advertising costs as incurred. Advertising expenses were \$5,579, \$4,678, and \$5,704 for the years ended March 31, 2020, 2019 and 2018, respectively.

Accounting for Income Taxes

We account for income taxes in accordance with ASC Topic 740, *Income Taxes* ("ASC 740"). The provision for income taxes and effective tax rates are calculated by legal entity and jurisdiction and are based on a number of factors, including the level of pre-tax earnings, income tax planning strategies, differences between tax laws and accounting rules, statutory tax rates and credits, uncertain tax positions and valuation allowances. We use significant judgment and estimates in evaluating tax positions. The effective tax rate in a given financial statement period may be materially impacted by changes in the mix and level of earnings by taxing jurisdiction.

Under ASC 740, deferred income taxes arise from temporary differences between the tax basis of assets and liabilities and their reported amounts. Valuation allowances are established when, in our judgment, it is more likely than not that deferred tax assets will not be realized. In assessing the need for a valuation allowance, we weigh the available positive and negative evidence, including historical levels of pre-tax income, legislative developments, expectations and risks associated with estimates of future pre-tax income, and prudent and feasible tax planning strategies.

Foreign Currency Translation

The functional currencies of our foreign operations are deemed to be the local country's currency. Assets and liabilities of our international subsidiaries are translated at their respective period-end exchange rates, and revenues and expenses are translated at average currency exchange rates for the period. The resulting balance sheet translation adjustments are included in Other comprehensive loss and are reflected as a separate component of Stockholders' equity.

Foreign currency transaction gains and losses are recorded in General and administrative expenses in the Consolidated Statements of Operations. We recognized net foreign currency transaction gains of \$355, \$984 and \$109 in the years ended March 31, 2020, 2019, and 2018, respectively. The net foreign currency transaction gains recorded in General and administrative expenses include settlement gains and losses on forward contracts disclosed below.

Net Income per Common Share

Basic net income per common share is computed by dividing net income by the weighted average number of common shares during the period. Diluted net income per share is computed using the weighted average number of common shares and, if dilutive, potential common shares outstanding during the period. Potential common shares consist of the incremental common shares issuable upon the exercise of stock options, vesting of restricted stock units and shares to be purchased under the Employee Stock Purchase Plan. The dilutive effect of such potential common shares is reflected in diluted earnings per share by application of the treasury stock method.

The following table sets forth the reconciliation of basic and diluted common share:

	Year Ended March 31,					
	2020	2019	2018			
Basic weighted-average shares outstanding	45,793	45,827	45,242			
Dilutive effect of stock options, restricted stock units, and employee stock purchase plan	_	1,774	_			
Diluted weighted-average shares outstanding	45,793	47,601	45,242			

The following table summarizes our potential outstanding common stock equivalents at the end of each period, which have been excluded from the computation of diluted net income per common share, as its effect is anti-dilutive.

	Year Ended March 31,					
	2020 2019					
Stock options, restricted stock units, and shares under the employee stock purchase						
plan	4,933	998	7,312			

Cash, Cash Equivalents and Restricted Cash

We consider all highly liquid investments purchased with maturities of three months or less at the date of purchase to be cash equivalents. As of March 31, 2020, our cash and cash equivalents balance consisted primarily of money market funds. Amounts held in Restricted cash, and classified as such on the Consolidated Balance Sheets, relate to a contingent consideration arrangement which requires us to pay up to \$8,000 of cash, contingent on us receiving one or more bona fide and valid purchase orders from a specified customer, no later than April 30, 2020 (see Note 4).

Short-term Investments

Short-term investments consist of investments with maturities of twelve months or less that do not meet the criteria to be cash equivalents. We determine classification of the investment as trading, available-for-sale or held-to-maturity at the time of purchase and reevaluate classification whenever changes in circumstances indicate changes in classification may be necessary. Our current short-term investments are classified as held-to-maturity. Held-to-maturity investments consist of securities that we have the intent and ability to retain until maturity. Held-to-maturity investments are initially recorded at cost and adjusted for the amortization of discounts from the date of purchase through maturity. Income related to investments is recorded as interest income in the Consolidated Statements of Operations. Cash inflows and outflows related to the sale, maturity and purchase of investments are classified as investing activities in our Consolidated Statements of Cash Flows.

Trade and Other Receivables

Trade and other receivables are primarily comprised of trade receivables that are recorded at the invoice amount, net of an allowance for doubtful accounts, which is not material. Unbilled receivables represent amounts for which revenue has been recognized but which have not yet been invoiced to the customer. The current portion of unbilled receivables is included in Trade accounts receivable on the Consolidated Balance Sheets. Long-term unbilled receivables are included in Other assets.

Historically, we have not experienced material losses related to the inability to collect receivables from our customers. While there is presently no indication that we will not collect material amounts of accounts receivable as of March 31, 2020, we are closely monitoring the impact of COVID-19 on our customers. In these deteriorating economic conditions, payment from our customers may be delayed or receivables may become uncollectible. The inability to collect receivables could have a material impact on our results of operations.

Concentration of Credit Risk

We grant credit to customers in a wide variety of industries worldwide and generally do not require collateral. Credit losses relating to these customers have been minimal.

Sales through our distribution agreement with Arrow Enterprise Computing Solutions, Inc. ("Arrow") totaled approximately 37%, 38% and 36% of total revenues for the years ended March 31, 2020, 2019 and 2018, respectively. Arrow accounted for approximately 31% and 38% of total accounts receivable as of March 31, 2020 and 2019, respectively.

Fair Value of Financial Instruments

The carrying amounts of our cash, cash equivalents, restricted cash, accounts receivable, accounts payable and accrued expenses approximate their fair values due to the short-term maturity of these instruments. Our cash equivalents balance consists primarily of money market funds and our short-term investments balance consists of U.S. Treasury Bills with maturities of one year or less. We account for our short-term investments as held to maturity. The contingent consideration liability associated with the Hedvig acquisition as discussed further in Note 4 of the consolidated financial statements was valued based on the total bona fide and valid purchase orders received through April 30, 2020 from the specified customer.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for such asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value should maximize the use of observable inputs and minimize the use of unobservable inputs. To measure fair value, we use the following fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable:

Level 1 — Quoted prices in active markets for identical assets or liabilities.

Level 2 — Inputs other than Level 1 that are observable for the asset or liability, either directly or indirectly, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data by correlation or other means.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following table summarizes the composition of our financial assets measured at fair value on a recurring basis at March 31, 2020 and March 31, 2019:

	March 31, 2020	Level 1	Level 2	Level 3	Total
Assets:					
Short-term investments		_	\$ 44,484	_	\$ 44,484
Liabilities:					
Contingent consideration		_	_	\$ (217)	\$ (217)

	March 31, 2019	Level 1		Level 2 Level 3		Total	
Assets:							
Cash equivalents		\$	102,702	_	_	\$	102,702
Short-term investments			_	\$ 131,937	_	\$	131,937
Total assets			102,702	\$ 131,937		\$	234,639

Leases

Effective April 1, 2019, we adopted ASC 842, *Leases* ("ASC 842"). We determine if an arrangement contains a lease at inception. We generally lease our facilities under operating leases. Operating lease right-of-use ("ROU") assets are included in Operating lease assets, Current portion of operating lease liabilities and Long-term operating lease liabilities on our Consolidated Balance Sheets.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we generally use our incremental borrowing rate based on the estimated rate of interest for collateralized borrowing over a similar term of the lease payments at commencement date.

We recognize operating lease costs over the estimated term of the lease, which includes options to extend lease terms that are reasonably certain of being exercised, starting when possession of the property is taken from the landlord. When a lease contains a predetermined fixed escalation of the minimum rent, we recognize the related operating lease cost on a straight-line basis over the lease term. In addition, certain of our lease agreements include variable lease payments, such as estimated tax and maintenance charges. These variable lease payments are excluded from minimum lease payments and are included in the determination of lease cost when it is probable that the expense has been incurred and the amount can be reasonably estimated.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation and amortization. Land is not depreciated. We provide for depreciation on a straight-line basis over the estimated useful lives of the assets. The depreciable assets that comprise our owned headquarters classified as Buildings are being depreciated over lives ranging from ten to sixty years. Computer and related equipment is generally depreciated over eighteen months to three years and furniture and fixtures are generally depreciated over three to twelve years. Leasehold improvements are amortized over the shorter of the useful life of the improvement or the term of the related lease. Expenditures for routine maintenance and repairs are charged against operations. Major replacements, improvements and additions are capitalized.

Asset Retirement Obligation

A liability for the fair value of an asset retirement obligation and corresponding increase to the carrying value of the related leasehold improvements are recorded at the time leasehold improvements are acquired. We maintain certain office space for which the lease agreement requires that we return the office space to its original condition upon vacating the premises. Accordingly, the balance of the asset retirement obligation was \$1,420 as of March 31, 2020 and \$1,479 as of March 31, 2019.

Goodwill and Intangible Assets

Goodwill is recorded when the consideration paid for an acquisition exceeds the fair value of net tangible and intangible assets acquired. The carrying value of goodwill is tested for impairment on an annual basis on January 1, or more often if an event occurs or circumstances change that would more likely than not reduce the fair value of its carrying amount. For the purpose of impairment testing, we have a single reporting unit. The impairment test consists of comparing the fair value of the reporting unit with its carrying amount that includes goodwill. If the carrying amount of the reporting unit exceeds the fair value of the reporting unit, an impairment loss would be recognized to reduce the carrying amount to its fair value.

Purchased intangible assets with finite lives are valued using the income method and are amortized on a straight-line basis over their economic lives of five years for developed technology and two years for customer relationships as we believe this method most closely reflects the pattern in which the economic benefits of the assets will be consumed. Impairment losses are recognized if the carrying amount of an intangible is both not recoverable and exceeds its fair value.

Our purchased intangible assets were recently acquired in connection with the Hedvig Inc. transaction. The most material of these assets was developed technology. While our work to integrate this technology with our own is proceeding, the economic impact of COVID-19, or other factors, may delay our ability to meet the forecasts we used to estimate the fair value of this asset. If we were to identify an impairment indicator in the future, we may conclude that the carrying value of the asset is not recoverable within the remaining useful life of the asset and recognize a non-cash impairment charge. An impairment of this asset could have a material impact on our results of operations.

Long-Lived Assets

We review our long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be fully recoverable. To determine the recoverability of our long-lived assets, we evaluate the estimated future undiscounted cash flows that are directly associated with, and that are expected to arise as a direct result of, the use and eventual disposition of the long-lived asset. If the estimated future undiscounted cash flows demonstrate that recoverability is not probable, an impairment loss would be recognized. An impairment loss would be calculated based on the excess carrying amount of the long-lived asset over the long-lived asset's fair value. The fair value would be determined based on valuation techniques such as a comparison to fair values of similar assets. There were no impairment charges recognized during the years ended March 31, 2020, 2019 and 2018.

Deferred Commissions Cost

Sales commissions and related payroll taxes earned by our employees are considered incremental and recoverable costs of obtaining a contract with a customer. Our typical contracts include performance obligations related to software licenses, software updates, customer support and other professional services. In these contracts, incremental costs of obtaining a contract are allocated to the performance obligations based on the relative estimated standalone selling prices and then recognized on a systematic basis that is consistent with the transfer of the goods or services to which the asset relates. We do not pay commissions on annual renewals of contracts for software updates and customer support for perpetual licenses. The costs allocated to software and products are expensed at the time of sale, when revenue for the functional software license or appliance is recognized. The costs allocated to software updates and customer support for perpetual licenses are amortized ratably over a period of approximately five years, the expected period of benefit of the asset capitalized. We currently estimate a period of five years is appropriate based on consideration of historical average customer life and the estimated useful life of the underlying software or appliance sold as part of the transaction. The costs related to professional services are amortized within one quarter following the date of the related software or appliance sale, which is typically the period the related professional services are provided and revenue is recognized. Amortization expense related to these costs is included in Sales and marketing expenses in the accompanying Consolidated Statements of Operations.

Costs related to software updates and support for term-based, or subscription software licenses, are limited to the contractual period of the arrangement as we intend to pay a commensurate commission upon renewal of the subscription license and related updates and support.

Deferred Revenue

Deferred revenues represent amounts collected from, or invoiced to, customers in excess of revenues recognized. This results primarily from the billing of annual customer support agreements, and billings for other professional services fees that have not yet been performed by us. The value of deferred revenues will increase or decrease based on the timing of invoices and recognition of revenue.

Share Repurchases

We consider all shares repurchased as canceled shares restored to the status of authorized but unissued shares on the trade date. The aggregate purchase price of the shares of our common stock repurchased is reflected as a reduction to Stockholders' equity. We account for shares repurchased as an adjustment to common stock (at par value) with the excess repurchase price allocated between Additional paid-in capital and Accumulated deficit.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined to include all changes in equity, except those resulting from investments by stockholders and distribution to stockholders.

Recently Issued Accounting Standards

Standard	Description	Effective Date	Effect on the Consolidated Financial Statements (or Other Significant Matters)
Accounting Standards Update ("ASU") No. 2016-13 (Topic 326), Financial Instruments- Credit Losses	The standard amends guidance on the impairment of financial instruments. The ASU estimates credit losses based on expected losses and provides for a simplified accounting model for purchased financial assets with credit deterioration. The standard requires a modified retrospective basis adoption through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption.	First quarter of fiscal 2021	We will adopt the standard using a modified retrospective approach, on April 1, 2020. This standard is not expected to have a material impact on our consolidated financial statements.

3. Revenue

We account for revenue in accordance with ASC 606, which was adopted on April 1, 2017, using the full retrospective method.

We derive revenues from two primary sources: software and products, and services. Software and products revenue includes our software and integrated appliances that combine our software with hardware. Services include customer support (software updates and technical support), consulting, assessment and design services, installation services, customer education and Commvault software-as-aservice, which is branded as Metallic.

We sell both perpetual and term-based licenses to our software. We refer to our term-based software licenses as subscription arrangements. We do not customize our software and installation services are not required. The software is delivered before related services are provided and is functional without professional services, updates and technical support. We have concluded that our software licenses (both perpetual and subscription) are functional intellectual property that is distinct as the user can benefit from the software on its own. Software revenue for both perpetual and subscription licenses is typically recognized when the software is delivered and/or made available for download as this is the point the user of the software can direct the use of, and obtain substantially all of the remaining benefits from the functional intellectual property. We do not recognize software revenue related to the renewal of subscription software licenses earlier than the beginning of the new subscription period.

We also sell appliances that integrate our software with hardware and address a wide-range of business needs and use cases, ranging from support for remote or branch offices with limited IT staff up to large corporate data centers. Revenue related to appliances is recognized when control of the appliances passes to the customer; typically upon delivery.

Services revenue includes revenue from customer support and other professional services. Customer support includes software updates on a when-and-if-available basis, telephone support, integrated web-based support and bug fixes or patches. We sell our customer support contracts as a percentage of net software purchases the support is related to. Customer support revenue is recognized ratably over the term of the customer support agreement, which is typically one year.

Our other professional services include consulting, assessment and design services, installation services and customer education. Customer education services include courses taught by our instructors or third-party contractors. Revenue related to other professional services and customer education services is typically recognized as the services are performed. In fiscal 2020 Commvault launched Metallic, which is a Commvault software-as-a-service offering. Revenue from Metallic is recognized ratably as services revenue. Revenue to date from Metallic has not been material.

Most of our contracts with customers contain multiple performance obligations. For these contracts, we account for individual performance obligations separately if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. Standalone selling prices of software and appliances are typically estimated using the residual approach. Standalone selling prices of services are typically estimated based on observable transactions when these services are sold on a standalone basis.

Our typical performance obligations include the following:

Performance Obligation	When Performance Obligation When Payment is is Typically Satisfied Typically Due		How Standalone Selling Price is Typically Estimated
Software and Products Rev	enue		
(point in time) except		Within 90 days of shipment except for certain subscription licenses which are paid for over time	Residual approach
Appliances	When control of the appliances passes to the customer; typically upon delivery	Within 90 days of delivery	Residual approach
Customer Support Revenue			
Software Updates	Ratably over the course of the support contract (over time)	At the beginning of the contract period	Observable in renewal transactions
Customer Support	Ratably over the course of the support contract (over time)	At the beginning of the contract period	Observable in renewal transactions
Other Services Revenue			
Other Professional Services (except for education services)	As work is performed (over time)	Within 90 days of services being performed	Observable in transactions without multiple performance obligations
Education Services	When the class is taught (point in time)	Within 90 days of services being performed	Observable in transactions without multiple performance obligations
Software-as-a-service (Metallic)	Ratably over the course of the contract (over time)	Annual or monthly payments	Observable in transactions without multiple performance obligations

Disaggregation of Revenue

We disaggregate revenue from contracts with customers into the nature of the products and services and geographical regions. The geographic regions that are tracked are the Americas (United States, Canada, Latin America), EMEA (Europe, Middle East, Africa) and APJ (Australia, New Zealand, Southeast Asia, China). We operate in one segment.

	 Year Ended March 31, 2020								
	Americas		EMEA		APJ	Total			
Software and Products Revenue	\$ 141,856	\$	95,356	\$	38,096	\$ 275,308			
Customer Support Revenue	230,226		88,965		40,939	360,130			
Professional Services	18,778		10,459		6,210	35,447			
Total Revenue	\$ 390,860	\$	194,780	\$	85,245	\$ 670,885			

	-	Year Ended March 31, 2019							
		Americas	EMEA	APJ	Total				
Software and Products Revenue	\$	170,114 \$	95,913 \$	43,872 \$	309,899				
Customer Support Revenue		237,190	82,895	38,662	358,747				
Professional Services		23,076	12,380	6,855	42,311				
Total Revenue	\$	430,380 \$	191,188 \$	89,389 \$	710,957				

	 Year Ended March 31, 2018								
	Americas		EMEA		APJ		Total		
Software and Products Revenue	\$ 167,858	\$	100,452	\$	43,435	\$	311,745		
Customer Support Revenue	233,991		75,807		36,257		346,055		
Professional Services	23,453		11,289		6,851		41,593		
Total Revenue	\$ 425,302	\$	187,548	\$	86,543	\$	699,393		

Information about Contract Balances

Amounts collected in advance of services being provided are accounted for as deferred revenue. Nearly all of our deferred revenue balance is related to services revenue, primarily customer support contracts.

In some arrangements we allow customers to pay for term-based software licenses and products over the term of the software license. Amounts recognized as revenue in excess of amounts billed are recorded as unbilled receivables. Unbilled receivables, which are anticipated to be invoiced in the next twelve months, are included in Accounts receivable on the Consolidated Balance Sheets. Long-term unbilled receivables are included in Other assets. The opening and closing balances of our accounts receivable, unbilled receivables and deferred revenues are as follows:

	Accounts Receivable	Unbilled Receivable (current)	Unbilled Receivable (long-term)	Deferred Revenue (current)	Deferred Revenue (long-term)
Opening Balance as of March 31, 2019	\$ 161,570 \$	15,266	\$ 7,216	\$ 238,439	9 \$ 99,257
Increase/(decrease), net	(31,714)	1,868	641	(4,942	2) (6,534)
Ending Balance as of March 31, 2020	\$ 129,856 \$	17,134	\$ 7,857	\$ 233,49	7 \$ 92,723

The decrease in accounts receivable is primarily a result of a decrease in software and products revenue relative to the prior year. The decrease in deferred revenue is primarily the result of a decrease in deferred customer support revenue related to software and products revenue transactions and a weakening of the U.S. dollar.

The amount of revenue recognized in the period that was included in the opening deferred revenue balance was \$241,239 for the year ended March 31, 2020. The vast majority of this revenue consists of customer support arrangements. The amount of revenue recognized from performance obligations satisfied in prior periods was not material.

Remaining Performance Obligations

In addition to the amounts included in deferred revenue as of March 31, 2020, approximately \$40,504 of revenue may be recognized from remaining performance obligations, of which \$11,166 was related to software and products. We expect most of the software and products revenue to be recognized in fiscal 2021. The majority of the services revenue is related to other professional services which may be recognized over the next twelve months but is contingent upon a number of factors, including customers' needs and schedules.

4. Business Combination

On October 1, 2019, we completed the acquisition of Hedvig Inc., a Delaware corporation, ("Hedvig"), for a purchase price of \$163,205, which consisted of \$157,589 of cash, \$1,616 of restricted stock units and \$4,000 of contingent consideration. In the fourth quarter of fiscal 2020 we reduced our estimate of the contingent consideration to \$217. The decrease in this liability has been reflected as a gain in the Consolidated Statements of Operations.

We also entered into compensation arrangements with the employees of Hedvig. This included the issuance of restricted stock units that vest over the next three years (a portion of which is allocated to the purchase price). Refer to Note 10 of the consolidated financial statements for further discussion on stock awards. Additionally, certain Hedvig shareholders will receive cash payments totaling \$14,100 over the course of the 30 months following the date of acquisition, contingent on their continued employment with us. While these payments are proportionate to these shareholders' ownership of Hedvig, under U.S. GAAP they are accounted for as compensation expense over the course of the 30 month service period, and not included in the purchase price.

The following table summarizes the purchase price and purchase price allocation made as of the date of acquisition:

Purchase price allocation:	
Cash paid at closing	157,589
Fair value of restricted stock units included in purchase price	1,616
Fair value of contingent consideration	4,000
Total purchase price	\$ 163,205
Assets acquired and liabilities assumed:	
Cash	94
Trade accounts receivable	1,074
Other current assets	104
Property and equipment	202
Intangible assets	52,000
Other assets	682
Accounts payable and accrued liabilities	(1,060)
Deferred revenue	(2,231)
Operating lease liability, net of operating lease assets	(11)
Deferred tax liability	(84)
Total identifiable net assets acquired and liabilities assumed	50,770
Goodwill	112,435
Total purchase price	\$ 163,205

Contingent consideration

The contingent consideration arrangement requires us to pay up to \$8,000 of cash to the former owners of Hedvig, contingent on us receiving one or more bona fide and valid purchase orders from a specified customer, no later than April 30, 2020. At the time the acquisition was completed, the fair value of the contingent consideration was estimated to be \$4,000 based on a probability weighted-average approach and was included in the purchase price. As of March 31, 2020, we expect to receive one valid purchase order prior to April 30, 2020 from the specified customer; therefore, the fair value has been estimated to be \$217 with the revaluation of \$3,783 recorded in Net change in contingent consideration in the Consolidated Statements of Operations. The total \$8,000 will remain in Restricted cash on the Consolidated Balance Sheets until April 30, 2020 at which time the final valuation will be determined.

Subsequent Event

As of April 30, 2020, we received one valid purchase order from the specified customer of \$217 which will result in the release of \$7,783 of restricted cash.

Actual and Unaudited Pro Forma Information

We completed the acquisition of Hedvig on October 1, 2019, and accordingly, Hedvig's operations for the period from October 1, 2019 to March 31, 2020 are included in our Consolidated Statements of Operations. Hedvig contributed revenues of approximately \$450 and an estimated net loss of \$17,000 for the period from the completion of acquisition through March 31, 2020.

The following unaudited pro forma results of operations have been prepared using the acquisition method of accounting to give effect to the Hedvig acquisition as though it occurred on April 1, 2018. The pro forma amounts reflect certain adjustments, such as expenses related to the noncash amortization of intangible assets, compensation paid to Hedvig employees, restricted stock units granted to Hedvig employees and the cash payments being made to Hedvig shareholders over a 30 month service period as discussed above. The fiscal 2020 supplemental pro forma net loss was adjusted to exclude \$5,639 of acquisition-related costs incurred in fiscal 2020. The fiscal 2019 supplemental pro forma net loss was adjusted to include these charges. In addition to estimated operating expenses, both periods include noncash amortization expenses related to intangible assets as if the acquisition had taken place on April 1, 2018.

The unaudited pro forma financial information is presented for illustrative purposes only, is based on a preliminary purchase price allocation, and is not necessarily indicative of the results of operations that would have actually been reported had the acquisition occurred on April 1, 2018, nor is it necessarily indicative of the future results of operations of the combined company.

	Unaudited			
	Year Ended March 31,			
	2020		2019	
Revenue	\$ 672,533	\$	714,252	
Net loss	\$ (8,186)	\$	(20,035)	

5. Goodwill and Intangible Assets, Net

Goodwill

The goodwill of \$112,435 arising from the fiscal year 2020 acquisition of Hedvig represents the estimated value of potential expansion with new customers, the opportunity to further develop sales relationships with new customers and intangible assets that do not qualify for separate recognition. None of the goodwill recorded is expected to be deductible for income tax purposes.

Goodwill balances are as follows:

	Year End	led March 31, 2020
Beginning balance	\$	_
Acquisition		112,435
Ending balance	\$	112,435

We completed our annual goodwill impairment review as of January 1, 2020 and concluded there were no impairments to goodwill.

Intangible assets, net

Intangible assets, net of amortization as of March 31, 2020 are as follows:

	 Gross	cumulated nortization	Net C	arrying Value	Remaining Useful Life (months)
Developed technology	\$ 49,000	\$ (4,900)	\$	44,100	54
Customer relationships	3,000	(750)		2,250	18
Total intangible assets	\$ 52,000	\$ (5,650)	\$	46,350	

Amortization expense from acquired intangible assets was \$5,650 for the fiscal year ended March 31, 2020. There were no intangible assets subject to amortization in fiscal years 2019 or 2018.

Our purchased intangible assets were recently acquired in connection with the Hedvig Inc. transaction. The most material of these assets was developed technology. While our work to integrate this technology with our own is proceeding, the economic impact of COVID-19, or other factors, may delay our ability to meet the forecasts we used to estimate the fair value of this asset. If we were to identify an impairment indicator in the future, we may conclude that the carrying value of the asset is not recoverable within the remaining useful life of the asset and recognize a non-cash impairment charge. An impairment of this asset could have a material impact on our results of operations.

As of March 31, 2020, future amortization expense associated with intangible assets with finite lives is expected to be:

2021	\$ 11,300
2022	10,550
2023	9,800
2024	9,800
2025	4,900
	\$ 46,350

6. Property and Equipment

Property and equipment consist of the following:

	 March 31,			
	2020		2019	
Land	\$ 9,445	\$	9,445	
Buildings	103,244		103,244	
Computers, servers and other equipment	40,044		38,551	
Furniture and fixtures	14,919		15,184	
Leasehold improvements	9,252		10,251	
Purchased software	1,637		1,473	
Construction in process	2,021		2,091	
	180,562		180,239	
Less: Accumulated depreciation and amortization	(66,043)		(57,523)	
	\$ 114,519	\$	122,716	

We recorded depreciation and amortization expense of \$11,415, \$12,060, and \$11,217 for the years ended 2020, 2019 and 2018, respectively.

7. Accrued Liabilities

Accrued liabilities consist of the following:

	 March 31,			
	2020		2019	
Compensation and related payroll taxes	\$ 47,356	\$	48,332	
Other	39,695		37,389	
	\$ 87,051	\$	85,721	

8. Commitments and Contingencies

Purchase Commitments

We, in the normal course of business, enter into various purchase commitments for goods or services. Total non-cancellable purchase commitments as of March 31, 2020, which relate primarily to marketing and IT services are as follows:

	2021	2022	 2023	20	24 and beyond	Total
Purchase commitments	\$ 18,590	\$ 4,960	\$ 1,245	\$	1,246	\$ 26,041

We have certain software royalty commitments associated with the shipment and licensing of certain products. Royalty expense is generally based on a fixed cost per unit shipped or a fixed fee for unlimited units shipped over a designated period. Royalty expense, included in Cost of software and products revenues, was as follows:

	 Year Ended March 31,							
	2020		2019		2018			
Royalty expense	\$ 12,545	\$	12,319	\$	4,462			

Warranties and Indemnifications

We typically offer a 90-day limited product warranty for our software. To date, costs related to this product warranty have not been material.

We provide certain provisions within our software licensing agreements to indemnify our customers from any claim, suit or proceeding arising from alleged or actual intellectual property infringement. These provisions continue in perpetuity, along with our software licensing agreements. We have never incurred a liability relating to one of these indemnification provisions, and management believes that the likelihood of any future payout relating to these provisions is remote. Therefore, we have not recorded a liability during any period for these indemnification provisions.

Legal Proceedings

From time to time, we are subject to claims in legal proceedings arising in the normal course of business. We do not believe that we are currently party to any pending legal action that could reasonably be expected to have a material adverse effect on our business or operating results.

9. Capitalization

Common Stock

We have 46,011 and 45,582 shares of common stock, par value \$0.01, outstanding at March 31, 2020 and March 31, 2019, respectively.

During fiscal 2020, we repurchased \$77,198 of common stock, or 1,701 shares, under our share repurchase program. As of March 31, 2020, \$162,829 remained in our current stock repurchase authorization which expires on March 31, 2021.

Shares Reserved for Issuance

At March 31, 2020, we have reserved 4,462 shares in connection with our Stock Plans discussed in Note 10 of the notes to the consolidated financial statements.

Subsequent Event

Effective April 3, 2020, the Board of Directors adopted a 364-day duration shareholder rights plan (the "Rights Plan") and declared a dividend of one preferred share purchase right for each outstanding share of common stock to shareholders of record on April 13, 2020. Each share purchase right entitles the holder to purchase from the Company one one-ten thousandth of a share of Series A Junior Participating Preferred Stock, par value \$0.01 per share, of the Company for an exercise price of \$200.00, once the rights become exercisable, subject to adjustment as provided in the Rights Plan.

10. Stock Plans

We maintain the Omnibus Incentive Plan (the "2016 Incentive Plan") for granting awards to employees. On August 23, 2019, our shareholders approved an amendment to the 2016 Incentive Plan to increase the maximum number of shares of common stock that may be delivered under plan to 7,050, an increase of 1,500 shares. The 2016 Incentive Plan authorizes a broad range of awards including stock options, stock appreciation rights, full value awards (including restricted stock, restricted stock units, performance shares or units and other stock-based awards) and cash-based awards.

In consideration for the acquisition of Hedvig, we issued a total of 1,018 restricted stock units to Hedvig employees in the third quarter of fiscal 2020. These awards were granted at a fair value of \$44.49 per share. These awards were granted as inducement grants under our 2016 Omnibus Incentive Plan, and therefore are not counted against the equity available for grant under such plan.

We have one additional plan, the 2006 Long-Term Stock Incentive Plan (the "LTIP"), with outstanding options and awards but the LTIP cannot be used for future grants.

The 2016 Incentive Plan permits the grant of incentive stock options, non-qualified stock options, restricted stock awards, restricted stock units, stock appreciation rights, performance stock awards and stock unit awards based on, or related to, shares of our common stock. As of March 31, 2020, approximately 2,905 thousand shares were available for future issuance under the 2016 Incentive Plan.

As of March 31, 2020, we have granted non-qualified stock options, restricted stock units and performance stock awards under our stock incentive plans. Historically, most equity awards granted by us under our stock incentive plans generally vest quarterly over a three-year period, except that the shares that would otherwise vest quarterly over the first twelve months do not vest until the first anniversary of the grant. We anticipate that future grants under our stock incentive plans will be restricted stock units and performance stock awards and do not anticipate that it will grant stock options.

As of March 31, 2020, there was approximately \$123,820 of unrecognized stock-based compensation expense related to all of our employee stock plans that is expected to be recognized over a weighted-average period of 2.09 years. To the extent the actual forfeiture rate is different from what we have anticipated, stock-based compensation related to these awards will be different from our expectations.

The following summarizes the activity for our stock incentive plans from March 31, 2017 to March 31, 2020:

Options	Number of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at March 31, 2017	5,300	\$ 44.74		
Options granted	_	_		
Options exercised	(842)	23.57		
Options forfeited	(26)	43.30		
Options expired	(30)	68.27		
Outstanding at March 31, 2018	4,402	48.64		
Options granted	_	_		
Options exercised	(1,091)	28.92		
Options forfeited	(15)	44.55		
Options expired	(84)	80.02		
Outstanding at March 31, 2019	3,212	54.55		
Options granted	_	_		
Options exercised	(860)	32.73		
Options forfeited	_	_		
Options expired	(448)	73.15		
Outstanding at March 31, 2020	1,904	\$ 60.03	2.67	\$ 1,080
Exercisable at March 31, 2020	1,904	\$ 60.03	2.67	\$ 1,080

The total intrinsic value of options exercised was \$13,428, \$39,502, and \$26,547 in the years ended March 31, 2020, 2019 and 2018, respectively. Our policy is to issue new shares upon exercise of options as we do not hold shares in treasury.

Restricted stock unit activity is as follows:

Non-Vested Restricted Stock Units	Number of Awards	Weighted- Average Grant Date Fair Value
Non-vested as of March 31, 2017	2,396	\$ 45.53
Granted	1,235	59.71
Vested	(1,324)	46.74
Forfeited	(141)	48.24
Non-vested as of March 31, 2018	2,166	54.13
Granted	1,256	64.65
Vested	(1,276)	51.38
Forfeited	(315)	57.76
Non-vested as of March 31, 2019	1,831	62.58
Granted	2,654	46.54
Vested	(999)	60.10
Forfeited	(249)	59.03
Non-vested as of March 31, 2020	3,237	\$ 50.47

The total fair value of the restricted stock units that vested during the years ended March 31, 2020, 2019 and 2018 was \$48,221, \$82,957 and \$76,193, respectively.

The following table presents the stock-based compensation expense included in Cost of services revenue, Sales and marketing, Research and development and General and administrative expenses for the years ended March 31, 2020, 2019 and 2018.

	 Year Ended March 31,				
	2020		2019		2018
Cost of services revenue	\$ 2,604	\$	2,922	\$	3,182
Sales and marketing	31,779		34,874		36,917
Research and development	14,594		8,601		8,411
General and administrative	15,158		31,458		25,619
Stock-based compensation expense	\$ 64,135	\$	77,855	\$	74,129

In the years ended March 31, 2020 and 2019, the table above excludes \$1,753 and \$2,632, respectively, of stock-based compensation expense related to restructuring activities described in Note 14 of the consolidated financial statements.

Performance Based Awards

In May 2019, we granted 88 performance stock units ("PSUs") to certain executives and in November 2019, we granted an additional 17 PSUs to certain executives for a total of 105 granted PSUs for fiscal 2020. Vesting of these awards is contingent upon i) us meeting certain company-wide revenue and non-GAAP performance goals (performance-based) in fiscal 2020 and ii) our customary service periods. The awards vest in three annual tranches and have a maximum potential to vest at 200% (210 shares) based on actual fiscal 2020 performance. The related stock-based compensation expense is determined based on the value of the underlying shares on the date of grant and is recognized over the vesting term using the accelerated method. During each financial period, management estimates the probable number of PSUs that would vest until the ultimate achievement of the performance goals is known. Based on our results, the PSUs granted in May 2019 will be eligible to vest at 46%. The awards are included in the restricted stock units table.

Awards with a Market Condition

In fiscal 2020, we granted 95 market performance stock units to certain executives. The vesting of these awards is contingent upon us meeting certain total shareholder return ("TSR") levels as compared to a market index over the next three years. The awards vest in three annual tranches and have a maximum potential to vest at 200% (190 shares) based on TSR performance. The related stock-based compensation expense is determined based on the estimated fair value of the underlying shares on the date of grant and is recognized using the accelerated method over the vesting term. The estimated fair value is calculated using a Monte Carlo simulation model. The weighted-average fair value of the awards granted during the year was \$48.26 per share. The awards are included in the restricted stock unit table above.

Employee Stock Purchase Plan

The Employee Stock Purchase Plan (the "Purchase Plan") is a shareholder approved plan under which substantially all employees may purchase our common stock through payroll deductions at a price equal to 85% of the lower of the fair market values of the stock as of the beginning or the end of six-month offering periods. An employee's payroll deductions under the Purchase Plan are limited to 10% of the employee's salary and employees may not purchase more than \$25 of stock during any calendar year. Employees purchased 273 shares in exchange for \$9,670 of proceeds in fiscal 2020 and 211 shares in exchange for \$10,407 of proceeds in fiscal 2019. The Purchase Plan is considered compensatory and the fair value of the discount and look back provision are estimated using the Black-Scholes formula and recognized over the six-month withholding period prior to purchase. The total expense associated with the Purchase Plan for fiscal 2020, 2019 and 2018 was \$2,939, \$3,080 and \$2,848, respectively. As of March 31, 2020, there was approximately \$1,002 of unrecognized cost related to the current purchase period of our Purchase Plan.

Impact on Stock Compensation Expense for Changes in Senior Leadership

During fiscal 2019, Commvault's Chief Executive Officer, N. Robert Hammer, announced his retirement effective February 1, 2019. As part of his retirement, we modified his equity awards to allow for continued vesting of his restricted stock awards and performance based awards. We also increased the timeframe for which his stock options shall remain exercisable to their original ten years expiration date and not thirty days from his last date of employment. The expense related to these modifications was \$12,157 for the year ended March 31, 2019.

11. Income Taxes

Impact of U.S. CARES Act

In response to the COVID-19 Pandemic, many governments are implementing measures to provide aid and economic stimulus in the form of tax incentives. On March 27, 2020, President Trump signed into law the Coronavirus Aid, Relief, and Economic Security ("CARES") Act. The CARES Act includes several significant business tax provisions as well as relief for individual taxpayers. The CARES Act modified the tax rules related to net operating loss ("NOL") uses. Under the CARES Act, we will be able to carry back federal NOLs to offset prior year taxable income generated in the last five years. Currently, the Company estimates to receive approximately \$10,000 of cash refunds from carrying back NOLs. The benefit related to the carry back of these federal NOLs is included in income tax benefit for the fiscal year ended March 31, 2020.

Impact of U.S. Tax Reform

The Tax Cuts and Jobs Act (the "Act") was enacted on December 22, 2017. The Act reduces the US federal corporate tax rate from 35% to 21%, required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and created new taxes on certain foreign sourced earnings. The most significant impact of the legislation for the Company was the reduction of the value of the Company's net deferred tax assets (which represent future tax benefits) as a result of lowering the U.S. corporate income tax rate from 35% to 21%. The Act also included a requirement to pay a one-time transition tax on the cumulative value of earnings and profits that were previously not repatriated for U.S. income tax purposes. We have concluded that the one-time transition tax is zero. In addition, we no longer consider the undistributed earnings held outside of the U.S. by most of its foreign subsidiaries to be indefinitely reinvested.

The Act subjects a U.S. shareholder to tax on Global Intangible Low-Taxed Income ("GILTI") earned by certain foreign subsidiaries. The FASB Staff Q&A, Topic 740, No. 5, Accounting for GILTI, states that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred as a period expense only. Because the Company was evaluating the provisions of GILTI as of the fiscal year ended March 31, 2018, it recorded no GILTI-related deferred amounts in the financial statements for the year ended March 31, 2018. After further consideration, the Company has elected to account for GILTI in the year the tax is incurred, and has recorded an estimate of GILTI as a component of the projected tax provision for the fiscal year ending March 31, 2020 and March 31, 2019.

Valuation Allowance

Net deferred tax assets arise due to the recognition of income and expense items for tax purposes, which differ from those used for financial statement purposes. ASC 740, *Income Taxes*, provides for the recognition of deferred tax assets if realization of such assets is more likely than not. In assessing the need for a valuation allowance, we considered all available objective and verifiable evidence both positive and negative, including historical levels of pre-tax income (loss) both on a consolidated basis and tax reporting entity basis, legislative developments, expectations and risks associated with estimates of future pre-tax income, and prudent and feasible tax planning strategies. As a result of this analysis, we determined that it is more likely than not that we will not realize the benefits of our gross deferred tax assets and therefore have recorded a valuation allowance to reduce the carrying value of these gross deferred tax assets, net of the impact of the reversal of taxable temporary differences.

The components of income (loss) before income taxes were as follows:

	 Year Ended March 31,				
	2020		2019		2018
Domestic	\$ (16,670)	\$	(1,762)	\$	(18,159)
Foreign	4,124		12,189		14,659
	\$ (12,546)	\$	10,427	\$	(3,500)

The components of income tax expense (benefit) were as follows:

	Year Ended March 31,			
	2020	2019	2018	
Current:				
Federal	\$ (10,071) \$	(1,772)	\$ (1,036)	
State	(613)	103	(383)	
Foreign	5,566	8,371	7,307	
Deferred:				
Federal	284	144	57,582	
State	_	_	(4,601)	
Foreign	(2,067)	20	(469)	
	\$ (6,901) \$	6,866	\$ 58,400	

A reconciliation of the statutory tax rates and the effective tax rates for the years ended March 31, 2020, 2019 and 2018 are as follows:

		Year Ended March 31,	
	2020	2019	2018
Statutory federal income tax expense (benefit) rate	(21.0)%	21.0 %	(31.6)%
State and local income tax expense, net of federal income tax effect	(4.9)%	1.0 %	20.5 %
Foreign earnings taxed at different rates	12.3 %	25.5 %	63.0 %
U.S. tax on Global Intangible Low-Taxed Income	14.5 %	72.9 %	— %
Domestic permanent differences including acquisition items	7.7 %	7.8 %	65.6 %
Foreign tax credits	(19.3)%	(22.4)%	(39.2)%
Research credits	(32.9)%	(51.8)%	(83.2)%
Tax reserves	(0.6)%	(5.2)%	(7.0)%
Valuation allowance	64.0 %	(76.7)%	1,626.5 %
Enacted tax law changes	10.6 %	(7.8)%	451.9 %
Stock-based compensation	(43.1)%	97.2 %	(377.6)%
CARES Act Impact	(82.1)%	— %	— %
Reduction of NOL for carryback	59.2 %	— %	— %
Other differences, net	(19.4)%	4.3 %	(20.3)%
Effective income tax expense (benefit)	(55.0)%	65.8 %	1,668.6 %

The significant components of our deferred tax assets are as follows:

	 March 31,		
	2020		2019
Deferred tax assets:			
Net operating losses	\$ 16,075	\$	6,223
Equity investment	1,192		1,298
Stock-based compensation	20,792		13,926
Deferred revenue	16,027		15,144
Tax credits	24,936		23,632
Accrued expenses	4,675		2,138
Allowance for doubtful accounts and other reserves	546		661
Less: valuation allowance	(61,702)		(50,160)
Total deferred tax assets	22,541		12,862
Deferred tax liabilities:			
Depreciation and amortization	(16,349)		(6,673)
Deferred commissions and other	(7,041)		(8,783)
Total deferred tax liabilities	\$ (23,390)	\$	(15,456)
Net deferred tax liability	\$ (849)	\$	(2,594)

During fiscal 2019, the Company could no longer assert that it had the intent to indefinitely reinvest the earnings and profits of the foreign subsidiaries, with the exception of India. Accordingly, the Company was required to adjust its deferred tax liability for the effects of this change in assertion. This effect was not significant. Our position during fiscal 2020 remains unchanged.

At March 31, 2020, we had NOL carry forwards of \$58,705. There are \$36,059 NOLs that will expire between 2034 and 2036 and \$22,645 NOLs that will not expire. As of March 31, 2020, we had deferred tax assets related to state NOL carry forwards of \$2,642 which expire over various years beginning in 2030 depending on the jurisdiction.

We also had federal and state research tax credits ("R&D credit") carryforwards of approximately \$22,559 and \$1,476, respectively. The federal R&D credit carryforwards expire from 2026 through 2037, and the state R&D credit carryforwards expire from 2020 through 2024.

We conduct business globally and as a result, file income tax returns in the United States and in various state and foreign jurisdictions. In the normal course of business, we are subject to examination by taxing authorities throughout the world. The following table summarizes the tax years subject to income tax examinations by tax authorities as of March 31, 2020. The years subject to income tax examination in our foreign jurisdictions cover the maximum time period with respect to these jurisdictions. Due to NOLs, in some cases the tax years continue to remain subject to examination with respect to such NOLs.

Tax Jurisdiction	Years Subject to Income Tax Examination
U.S. Federal	2017 - Present
Foreign jurisdictions	2013 - Present

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations in each of our tax jurisdictions. The number of years with open tax audits varies depending on the tax jurisdiction. A number of years may lapse before a particular matter is audited and finally resolved. A reconciliation of the amounts of unrecognized tax benefits is as follows:

Balance at March 31, 2017	\$ 2,098
Additions for tax positions related to fiscal 2018	_
Additions for tax positions related to prior years	150
Settlements and effective settlements with tax authorities and remeasurements	_
Reductions related to the expiration of statutes of limitations	(397)
Foreign currency translation adjustment	(111)
Balance at March 31, 2018	 1,740
Additions for tax positions related to fiscal 2019	_
Additions for tax positions related to prior years	547
Settlements and effective settlements with tax authorities and remeasurements	_
Reductions related to the expiration of statutes of limitations	(695)
Foreign currency translation adjustment	_
Balance at March 31, 2019	1,592
Additions for tax positions related to fiscal 2020	170
Additions for tax positions related to prior years	_
Settlements and effective settlements with tax authorities and remeasurements	_
Reductions related to the expiration of statutes of limitations	(100)
Foreign currency translation adjustment	_
Balance at March 31, 2020	1,662

We estimate that no significant remaining unrecognized tax benefits will be realized during the fiscal year ending March 31, 2021. Interest and penalties related to unrecognized tax benefits are recorded in Income tax expense. In the years ended March 31, 2020, 2019 and 2018, we recognized \$6, \$40 and \$80, respectively, of net interest and penalties in the Consolidated Statements of Operations.

12. Employee Benefit Plan

We have a defined contribution plan, as allowed under Section 401(k) of the Internal Revenue Code, covering substantially all employees. Effective January 1, 2012, we make contributions equal to a discretionary percentage of the employee's contributions determined by us. During the years ended March 31, 2020, 2019 and 2018, we made contributions of \$2,487, \$2,786, and \$2,959, respectively.

13. Segment Information

We operate in one segment. Our products and services are sold throughout the world, through direct and indirect sales channels. Our chief operating decision maker (the "CODM") is the Chief Executive Officer. The CODM makes operating performance assessment and resource allocation decisions on a global basis. The CODM does not receive discrete financial information about asset allocation, expense allocation or profitability by product or geography.

Revenues by geography are based upon the billing address of the customer. All transfers between geographic regions have been eliminated from consolidated revenues. The following table sets forth revenue and long-lived assets by geographic area:

	 Year Ended March 31,				
	2020		2019		2018
Revenue:					
United States	\$ 342,660	\$	379,221	\$	377,934
Other	328,225		331,736		321,459
	\$ 670,885	\$	710,957	\$	699,393

No individual country other than the United States accounts for 10% or more of revenues in the years ended March 31, 2020, 2019 and 2018. Revenue included in the "Other" caption above primarily relates to our operations in Europe, Australia, Canada and Asia.

	 March 31,			
	2020		2019	
Long-lived assets:				
United States	\$ 300,662	\$	143,591	
Other	30,727		23,860	
	\$ 331,389	\$	167,451	

At March 31, 2020 and 2019 no other individual country, other than the United States, accounts for 10% or more of long-lived assets.

14. Restructuring

In fiscal 2019, we initiated a restructuring plan to increase efficiency in our sales, marketing and distribution functions as well as reduce costs across all functional areas. During the years ended March 31, 2020 and 2019, we incurred total restructuring charges of \$21,348 and \$14,765, respectively. These restructuring charges relate primarily to severance and related costs associated with headcount reductions and lease abandonment charges. These charges include \$1,753 and \$2,632 of stock-based compensation related to modifications of existing unvested awards granted to certain employees impacted by the restructuring plan for the years ended March 31, 2020 and 2019, respectively.

The activity in our restructuring accruals is summarized as follows:

	_	Year Ended March 31,				
	_	2020	2019			
Beginning balance	\$	1,089	\$	_		
Restructuring charges, net (1) (2)		18,587		13,731		
Payments		(17,145)		(12,642)		
Ending balance	\$	2,531	\$	1,089		

⁽¹⁾ Net restructuring charges of \$18,587 in the table above does not include restructuring charges for six of our leases in the amount of \$2,761 for the year ended March 31, 2020 and net restructuring charges of \$13,731 in the table does not include restructuring charges for two of our leases in the amount of \$1,034 for the year ended March 31, 2019. Under the new lease standard (ASC 842) we are now required to account for the impairment as a charge to the Consolidated Statements of Operations and a reduction in the carrying amount of the right-of-use asset.

(2) Restructuring charges in the table above of \$18,587 and \$13,731 are net of accrual reversals of \$1,006 and \$875 for the years ended March 31, 2020 and 2019, respectively.

As of March 31, 2020, the outstanding restructuring accruals primarily relate to future severance and lease payments.

15. Leases

In February 2016, the Financial Accounting Standards Board ("FASB") issued accounting standards update ASU No. 2016-02, Leases. Under the new guidance, we recognized lease liabilities and right-of-use assets for our long-term leases. We adopted the new guidance on April 1, 2019 using the optional transition method, which allows for the prospective application of the standard, and as a result, we did not record an adjustment to retained earnings. In addition, we elected the package of practical expedients, for all of its leases, permitted under the transition guidance within the standard, which allowed us to carry forward our historical lease classification, to not reassess prior conclusions related to initial direct costs and to not reassess whether any expired or existing contracts are or contain leases. We also elected the lessee practical expedient to combine lease and non-lease components for new leases and modified leases. We also made an accounting policy election in accordance with the new standard to apply accounting similar to ASC 840 to short-term leases, which are defined as leases that have a term of 12 months or less.

The adoption of ASC 842 resulted in the recording of operating lease assets and operating lease liabilities of approximately \$18,900 and \$19,300, respectively, as of April 1, 2019.

Our lease liabilities relate primarily to operating leases for our global office infrastructure. These operating leases expire at various dates through fiscal 2026.

As of March 31, 2020, we did not have any finance leases.

Net lease cost recognized on our Consolidated Statements of Operations is summarized as follows:

	 nded March 1, 2020
Operating Lease Cost	\$ 8,795
Short-term Lease Cost	410
Variable Lease Cost	2,088
Net Lease Cost	\$ 11,293

As of March 31, 2020, the maturities of lease liabilities based on the total minimum lease commitment amount including options to extend lease terms that are reasonably certain of being exercised are as follows:

2021	\$ 7,520
2022	5,070
2023	2,160
2024	1,369
2025	1,024
Thereafter	675
Total Minimum Lease Payments	\$ 17,818
Less: Imputed Interest	 (1,311)
Present value of operating lease liabilities	\$ 16,507
Less: Current Portion of operating lease liabilities	7,699
Long-term operating lease liabilities	\$ 8,808

For the year ended March 31, 2020, additions of operating lease assets were \$8,448. As of March 31, 2020, the minimum lease commitment amount for operating leases signed but not yet commenced, was immaterial.

Cash paid for operating lease liabilities for the year ended March 31, 2020 was \$9,476.

As of March 31, 2020, the weighted-average remaining operating lease term was 3.09 years and the weighted-average discount rate was 4% for operating leases recognized in the Consolidated Balance Sheets.

Disclosures related to periods prior to the adoption of the new lease standard

Rental expense was \$11,474 and \$12,215 for the years ended March 31, 2019 and 2018, respectively.

16. Selected Quarterly Financial Data (unaudited)

	Quarter Ended						
		June 30		September 30		December 31	March 31
Fiscal 2020		_					
Total revenue	\$	162,203	\$	167,582	\$	176,351	\$ 164,749
Gross margin		133,483		136,341		145,828	138,155
Net income (loss)		(6,846)		(7,084)		(650)	8,935
Net income (loss) per common share:							
Basic (1)	\$	(0.15)	\$	(0.16)	\$	(0.01)	\$ 0.19
Diluted (1)	\$	(0.15)	\$	(0.16)	\$	(0.01)	\$ 0.19
	Quarter Ended						
		June 30		September 30		December 31	March 31
Fiscal 2019							
Total revenue	\$	176,177	\$	169,078	\$	184,275	\$ 181,427
Gross margin		148,571		142,205		155,422	147,753
Net income (loss)		(8,567)		891		13,400	(2,163)
Net income (loss) Net income (loss) per common share:		(8,567)		891		13,400	(2,163)
• •	\$	(8,567)	\$	0.02	\$	13,400	\$ (2,163)

(1) Per common share amounts for the quarters and full year have been calculated separately. Accordingly, quarterly amounts do not add to the annual amount because of differences in the weighted-average common shares outstanding during each period used in the basic and diluted calculations.

17. Subsequent Events

On April 21, 2020, the Company filed suit against Cohesity, Inc. ("Cohesity") in the District of Delaware alleging that Cohesity has infringed and continues to infringe at least one claim of each of U.S. Patent Nos. 7,725,671, 7,840,533, 8,762,335, 9,740,723, 10,210,048, and 10,248,657. Due to the inherent uncertainties of litigation, the Company cannot accurately predict the ultimate timing or outcome of this matter. The Company is unable at this time to determine whether the outcome of the litigation will have a material impact on its results of operations, financial condition, or cash flows.

On April 21, 2020, the Company filed suit against Rubrik, Inc. ("Rubrik") in the District of Delaware alleging that Rubrik has infringed and continues to infringe at least one claim of each of U.S. Patent Nos. 7,725,671, 7,840,533, 8,447,728, 9,740,723, 10,210,048, and 10,248,657. Due to the inherent uncertainties of litigation, the Company cannot accurately predict the ultimate timing or outcome of this matter. The Company is unable at this time to determine whether the outcome of the litigation will have a material impact on its results of operations, financial condition, or cash flows.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

Our management, with the participation of the 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) of the Securities Exchange Act of 1934, as of March 31, 2020. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of March 31, 2020.

(b) Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting as defined in Rules 13a-15(f) of the Exchange Act. There are inherent limitations in the effectiveness of any internal control, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even an effective internal control can provide only reasonable assurance with respect to financial statement preparation. Further, because of changes in conditions, the effectiveness of any internal control may vary over time.

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our internal control over financial reporting as of March 31, 2020. In making this assessment, management used the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in the 2013 Internal Control—Integrated Framework.

Based on our assessment, using those criteria, our management concluded that, as of March 31, 2020, our internal control over financial reporting was effective. The effectiveness of our internal control over financial reporting as of March 31, 2020 has been audited by Ernst & Young LLP, our independent registered public accounting firm, as stated in their report, which is included below in this Annual Report on Form 10-K.

(c) Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the fourth quarter of fiscal 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Commvault Systems, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Commvault Systems, Inc.'s internal control over financial reporting as of March 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Commvault Systems, Inc. maintained, in all material respects, effective internal control over financial reporting as of March 31, 2020, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of March 31, 2020 and 2019, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended March 31, 2020, and the related notes and financial statement schedule listed in the Index at Item 15 and our report dated May 15, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible 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's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ Ernst & Young LLP Iselin, New Jersey May 15, 2020

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

We will furnish to the SEC a definitive Proxy Statement not later than 120 days after the close of the fiscal year ended March 31, 2020. Information with respect to this Item is incorporated herein by reference from our 2020 Proxy Statement, including in the sections captioned, "Our Board of Directors" and "Corporate Governance".

Our Board of Directors has adopted a code of business ethics and conduct, which applies to all of our employees. The code of business ethics and conduct is in addition to our code of ethics for senior financial officers. The full texts of our code of business ethics and conduct and our code of ethics for senior financial officers can be found on our website, www.commvault.com.

Item 11. Executive Compensation

Information with respect to this Item is incorporated herein by reference from our 2020 Proxy Statement, including in the section captioned "Compensation Discussion and Analysis".

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information with respect to this Item is incorporated herein by reference from our 2020 Proxy Statement, including in the section captioned "Security Ownership of Certain Beneficial Ownership and Management".

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information as of March 31, 2020 with respect to the shares of our common stock that may be issuable upon the exercise of options, warrants and rights under or existing equity compensation plans. The following information is as of March 31, 2020:

	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)		Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)	
Equity compensation plans approved by security holders (1)	5,140,865	\$	54.01	2,904,675	
Equity compensation plans not approved by security holder	_		_	_	
Totals	5,140,865	\$	54.01	2,904,675	

⁽¹⁾ Consists of shares of common stock to be issued upon exercise of outstanding options and vesting of restricted stock awards under our Omnibus Incentive Plan. These amounts do not include potentially issuable shares under the Employee Stock Purchase Plan. We have reserved 1,558 thousand shares for the future issuance of shares under the Employee Stock Purchase Plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information with respect to this Item is incorporated herein by reference from our 2020 Proxy Statement, including in the section captioned, "Transactions with Related Persons".

Item 14. Principal Accountant Fees and Services

Information with respect to this Item is incorporated herein by reference from our 2020 Proxy Statement, including in the section captioned "Audit, Audit-related, Tax and All Other Fees".

PART IV

Item 15. Exhibits and Financial Statement Schedules

Financial Statements

See "Index to Consolidated Financial Statements" set forth in Item 8 for a list of financial statements filed as part of this report.

Financial Statement Schedules

The following financial statement schedule should be read in conjunction with the Consolidated Financial Statements set forth in Item 8 and appears below:

Schedule II — Valuation and Qualifying Accounts for the years ended March 31, 2018, 2019 and 2020.

All other schedules are omitted because they are not required or the required information is shown in the financial statements or notes thereto.

Schedule II — Valuation and Qualifying Accounts

	 Balance at Beginning of Year	Charged (Credited) to Costs and Expenses	Wri	te-offs/Deductions	Balance at End of Year
		(In the	ousan	ds)	
Year Ended March 31, 2018					
Allowance for doubtful accounts	\$ 103	\$ 25	\$	24	\$ 104
Valuation allowance for deferred taxes	\$ 1,796	\$ 56,554	\$	_	\$ 58,350
Year Ended March 31, 2019					
Allowance for doubtful accounts	\$ 104	\$ 569	\$	184	\$ 489
Valuation allowance for deferred taxes	\$ 58,350	\$ (8,190)	\$	_	\$ 50,160
Year Ended March 31, 2020					
Allowance for doubtful accounts	\$ 489	\$ (246)	\$	121	\$ 122
Valuation allowance for deferred taxes	\$ 50,160	\$ 11,542	\$	<u> </u>	\$ 61,702

Exhibits

Description

The following exhibits are incorporated by reference or filed herewith.

Exhibit No.

<u>3.1</u>	Amended and Restated Certificate of Incorporation of Commvault Systems, Inc. (Incorporated by reference to Exhibit 3.1 to Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
3.2	Amended and Restated Bylaws of Commvault Systems, Inc. (Incorporated by reference to Exhibit 3.1 to the Registrant's Form 8-K dated April 25, 2014).
3.3	Certification of Designation of Series A Junior Participating Preferred Stock of Commvault Systems, Inc. (Incorporated by reference to Exhibit 3.1 to Registrant's Form 8-K dated November 14, 2008).
4.1	Form of Common Stock Certificate (Incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
4.2	Rights Agreement between Commvault Systems, Inc. and Registrar and Transfer Company (Incorporated by reference to Exhibit 4.1 to Registrant's Form 8-K dated November 14, 2008).
<u>4.3</u>	Amendment No. 1 to Rights Agreement, dated as of August 1, 2018, by and between Commvault Systems, Inc. and Computershare Trust Company, N.A. (as successor to Registrar and Transfer Company), as rights agent. (Incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K dated August 8, 2018)
<u>9.1</u>	Form of Voting Trust Agreement (Incorporated by reference to Exhibit 9.1 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
<u>10.3*</u>	Form of Non-Qualified Stock Option Agreement (Incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
<u>10.4*</u>	Form of Restricted Stock Unit Agreement (Incorporated by reference to Exhibit 10.5 to the Registrant's Annual Report on Form 10-K for the year ended March 31, 2007).
<u>10.5*</u>	Employment Agreement, dated as of February 1, 2004, between Commvault Systems, Inc. and N. Robert Hammer (Incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
<u>10.6*</u>	Form of Employment Agreement between Commvault Systems, Inc. and Alan G. Bunte and Louis F. Miceli (Incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
<u>10.7*</u>	Form of Corporate Change of Control Agreement between Commvault Systems, Inc. and Alan G. Bunte and Louis F. Miceli (Incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
<u>10.8*</u>	Form of Corporate Change of Control Agreement between Commvault Systems, Inc. and Brian Carolan, and Ron Miiller (Incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
<u>10.9*</u>	Form of Indemnity Agreement between Commvault Systems, Inc. and each of its current officers and directors (Incorporated by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
<u>10.10*</u>	Commvault Systems, Inc. Employee Stock Purchase Plan dated December 9, 2013 (Incorporated by reference to Exhibit 10.10 to the Registrant's Annual Report on Form 10-K for the year ended March 31, 2014).
<u>10.12*</u>	Commvault Systems, Inc. Omnibus Incentive Plan Commvault Systems, Inc. Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.12 to the Registrant's Registration Statement on Form S-8, Commission File No. 333-213211).
<u>10.13*</u>	The Commvault Systems, Inc. Omnibus Incentive Plan (As Amended Through the First Amendment Thereof) (Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K dated August 25, 2017)
<u>10.14</u>	Letter Agreement, by and among Commvault Systems, Inc., Elliott Associates, L.P., Elliott International, L.P. and Elliott International Capital Advisors Inc., dated April 30, 2018. (Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K dated April 30, 2018)
<u>10.15*</u>	Employment Agreement, dated January 8, 2019, between the Company and Sanjay Mirchandani. (Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K dated February 5, 2019)
<u>10.16*</u>	Agreement and General Release, dated February 1, 2019, between the Company and N. Robert Hammer. (Incorporated by reference to Exhibit 10.2 to the Registrant's Form 8-K dated February 5, 2019)
<u>10.17*</u>	Executive Retention and Severance Agreement, dated March 5, 2019, between Commvault Systems, Inc. and Alan Bunte (Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K dated February 1, 2019)
<u>10.18*</u>	Executive Retention and Severance Agreement, dated April 1, 2019, between Commvault Systems, Inc. and Jay Whalen (Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K dated March 31, 2019)

* Management contract or compensatory plan or arrangement.

<u>4.4</u>	Description of Securities
<u>21.1</u>	List of Subsidiaries of Commvault Systems, Inc.
<u>23.1</u>	Consent of Ernst & Young LLP
<u>31.1</u>	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
<u>31.2</u>	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
<u>32.1</u>	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
<u>32.2</u>	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

Exhibit No.

Description

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Tinton Falls, State of New Jersey, on May 15, 2020.

COMMVAULT SYSTEMS, INC.

/s/ SANJAY MIRCHANDANI By:

Sanjay Mirchandani

Director, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities indicated on May 15, 2020.

<u>Signature</u>	<u>Title</u>
/s/ SANJAY MIRCHANDANI	Director, President and Chief Executive Officer
Sanjay Mirchandani	
/s/ BRIAN CAROLAN	Vice President, Chief Financial Officer
Brian Carolan	
/s/ JAMES WHALEN	Vice President, Chief Accounting Officer
James Whalen	
/s/ NICHOLAS ADAMO	Chairman of the Board
Nicholas Adamo	
/s/ MARTHA H. BEJAR	Director
Martha H. Bejar	
/s/ ALAN G. BUNTE	Director
Alan G. Bunte	
/s/ FRANK J. FANZILLI, JR.	Director
Frank J. Fanzilli, Jr.	
/s/ KEITH GEESLIN	Director
Keith Geeslin	
/s/ VIVIE LEE	Director
Vivie Lee	
/s/ CHARLES E. MORAN	Director
Charles E. Moran	
/s/ DANIEL PULVER	Director
Daniel Pulver	
/s/ GARY SMITH	Director
Gary Smith	
/s/ DAVID F. WALKER	Director
David F. Walker	

DESCRIPTION OF SECURITIES

As of May 15, 2020, Commvault Systems, Inc. has two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): our Common Stock and our Preferred Stock Purchase Rights.

This summary does not purport to be a complete statement of the relevant provisions of our Amended and Restated Certificate of Incorporation ("Charter") or our Amended and Restated Bylaws ("Bylaws). This summary is subject to and qualified in its entirety by reference to our Charter and Bylaws, which are incorporated by reference as exhibits to the Annual Report on Form 10-K of which this Exhibit 4.1 is a part.

Description of Common Stock

<u>Shares Authorized</u>. The Company is authorized to issue up to 250,000,000 shares of common stock, par value \$0.01 per share (the "Common Stock").

<u>Voting Rights</u>. Each share of Common Stock is entitled to one vote on all matters submitted to a vote of stockholders, including the election of directors. Holders of shares of Common Stock do not have cumulative voting rights.

<u>Dividends</u>. Subject to the rights of holders of any outstanding shares of preferred stock, the holders of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the Board of Directors in its discretion out of funds legally available for the payment of dividends.

<u>Other Rights.</u> Subject to any preferential rights of holders of any outstanding shares of preferred stock, holders of Common Stock are entitled to share ratably in all assets legally available for distribution to stockholders in the event of dissolution. Our Common Stock has no sinking fund or redemption provisions or preemptive, conversion or exchange rights. Holders of shares of Common Stock are not currently entitled to pre-emptive rights.

Fully Paid. The issued and outstanding shares of Common Stock are fully paid and non-assessable.

Listing. The Common Stock is traded on The Nasdaq Stock Market LLC under the trading symbol "CVLT."

Description of Preferred Stock Purchase Rights and Preferred Stock

This description of Preferred Stock Purchase Rights and Series A Preferred Stock is subject to and qualified in its entirety by reference to the Rights Agreement, dated as of April 3, 2020, between Commvault Systems, Inc. and Computershare Trust Company, N.A. (the "Rights Agreement") as filed on Form 8-K dated April 6, 2020 and the Certificate of Designation of Series A Junior Participating Preferred Stock as filed on Form 8-K dated November 14, 2008.

<u>Shares Authorized</u>. The Company is authorized to issue up to 50,000,000 shares of preferred stock, par value \$0.01 per share, in one or more series and with rights and preferences that may be fixed or designated by our board of directors without any further action by our stockholders. 150,000 shares of preferred stock are designated as Series A Junior Participating Preferred Stock (the "Series A Preferred Stock").

On April 13, 2020, the Board of Directors issued a dividend of one preferred share purchase right ("Right") for each share of Common Stock to purchase one-thousandth of a share of Series A Preferred Stock, par value \$0.01 per share, at a price of \$200 per one-thousandth of a share of Series A Preferred Stock. As of the date hereof, the Rights have not been exercised and no Series A Preferred Stock has been issued or is outstanding.

<u>Voting Rights</u>. Until a Right is exercised or exchanged, the holder of such Rights will have no rights as a stockholder, including the right to vote. Thereafter, each one-thousandth share of Series A Preferred Stock is entitled to one vote on all matters submitted to a vote of stockholders, including the election of directors. Except as otherwise provided in the Rights Agreement, the holders of shares of Series A Preferred Stock and the holders of shares of Common Stock shall vote together as one class on all matters submitted for a vote of shareholders. These voting rights are subject to adjustment under certain circumstances.

<u>Dividends</u>. Until a Right is exercised or exchanged, the holder of such Rights will have no rights as a stockholder, including the right to receive dividends. Thereafter, subject to any prior and superior rights of holders of any outstanding series of preferred stock, the holders of Series A Preferred Stock are entitled to receive dividends, if any, as may be declared from time to time by the Board of Directors in its discretion out of funds legally available for the payment of dividends on the terms set forth in the Rights Agreement.

Anti-Takeover Effects of Provisions of our Certificate of Incorporation and Bylaws

Board of Directors

Our Charter and Bylaws provide:

- that the board of directors be divided into three classes, as nearly equal in size as possible, with staggered three-year terms;
- that directors may be removed only for cause by the affirmative vote of the holders of at least 66 2/3% of the shares of our capital stock entitled to vote; and
- that any vacancy on the board of directors, however occurring, including a vacancy resulting from an enlargement of the board, may
 only be filled by vote of a majority of the directors then in office.

These provisions could make it more difficult for a third party to acquire us or discourage a third party from acquiring us.

Stockholder Actions and Special Meetings

Our Charter and Bylaws also provide that:

- any action required or permitted to be taken by the stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting; and
- special meetings of the stockholders may only be called by the chairman of the board of directors, our chief executive officer, or by the board of directors.

Our Bylaws provide that in order for any matter to be considered "properly brought" before a meeting, a stockholder must comply with requirements regarding advance notice to us. These provisions could delay stockholder actions which are favored by the holders of a majority of our outstanding voting securities until the next stockholders meeting. These provisions may also discourage another person or entity from making a tender offer for our common stock because such person or entity, even if it acquired a majority of our outstanding voting securities, would be able to take action as a stockholder (such as electing new directors or approving a merger) only at a duly called stockholders meeting and not by written consent.

Board Consideration of Change of Control Transactions

Our Charter empowers our board of directors, when considering a tender offer or merger or acquisition proposal, to take into account, in addition to potential economic benefits to stockholders, factors such as:

- a comparison of the proposed consideration to be received by stockholders in relation to the then current market price of our capital stock; and
- the impact of the transaction on our employees, suppliers and customers and its effect on the communities in which we operate.

Amendment

Delaware law provides that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our Charter requires the affirmative vote of the holders of at least 662/3% of the shares of our capital stock entitled to vote to amend or repeal any of the foregoing provisions of our Charter. Our Bylaws may be amended or repealed by a majority vote of the board of directors or the holders of at least 66 2/3% of the shares of our capital stock issued and outstanding and entitled to vote. The stockholder vote would be in addition to any separate class vote that might in the future be required pursuant to the terms of any series preferred stock that might be outstanding at the time any such amendments are submitted to stockholders.

Preferred Stock

The authorization of undesignated preferred stock makes it possible for the board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change the control of our company.

These and other provisions may deter hostile takeovers or delay changes in control or management of our company.

Delaware Business Combination Statute

Section 203 of the Delaware General Corporation Law provides that, subject to exceptions set forth therein, an interested stockholder of a Delaware corporation shall not engage in any business combination, including mergers or consolidations or acquisitions of additional shares of the corporation, with the corporation for a three-year period following the date that the stockholder becomes an interested stockholder unless:

- prior to that date, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, other than statutorily excluded shares; or
- on or subsequent to such date, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Except as otherwise set forth in Section 203, an interested stockholder is defined to include:

- any person that is the owner of 15% or more of the outstanding voting stock of the corporation, or is an affiliate or associate of the
 corporation and was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years
 immediately prior to the date of determination; and
- the affiliates and associates of any such person.

Section 203 may make it more difficult for a person who would be an interested stockholder to effect various business combinations with a corporation for a three-year period. We have not elected to be exempt from the restrictions imposed under Section 203. The provisions of Section 203 may encourage persons interested in acquiring us to negotiate in advance with our board because the stockholder approval requirement would be avoided if a majority of the directors then in office approves either the business combination or the transaction which results in any such person becoming an interested stockholder. These provisions also may have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions which our stockholders may otherwise deem to be in their best interests.

Finland

Subsidiaries of Commvault Systems, Inc.

Subsidiary	Jurisdiction of Organization
Commvault Capital Inc.	Delaware
Advanced Data Life Cycle Management Inc.	Delaware
Hedvig, Inc.	Delaware
Commvault Systems (Canada) Inc.	Ontario, Canada
Commvault Systems Mexico S. de R.L. de C.V.	Mexico
Commvault Systems Mexico Administracion, S. de R.L. de C.V.	Mexico
Commvault Systems International B.V.	The Netherlands
Commvault Systems (India) Private Limited	India
Commvault Systems (Australia) Pty. Ltd.	Australia
Commvault Systems (New Zealand) Limited	New Zealand
Commvault Systems (Singapore) Private Limited	Singapore
Commvault Systems Limited	England
Commvault Systems GmbH	Germany
Commvault Systems (Japan) KK	Japan
Commvault Systems Ireland Limited	Ireland
Commvault Systems Italia Srl	Italy
Commvault Systems AB Srl	Sweden
Commvault Systems (Hong Kong) Limited	Hong Kong
Commvault Software Technology (Beijing) Co., Ltd	China
CV Simpana Software (Proprietary) Limited	South Africa
Commvault Systems (Israel) Ltd.	Israel
Commvault Tinton Falls Urban Renewal LLC	Delaware
Commvault Systems Belgium BVBA	Belgium, Netherlands
Commvault Systems (Thailand) Ltd.	Thailand
CommVault Istanbul Yaz⊠l⊠m Hizmetleri Limited Sirketi (Commvault Software Services Ltd.)	Turkey
Commvault Systems (Austria) GmbH	Austria
Commvault Systems (Switzerland) GmbH	Switzerland
Commvault Systems (Malaysia) Sdn. Bhd.	Malaysia
Commvault Systems (Poland) sp. zo.o.	Poland
Commvault System, S.L.U.	Spain

Commvault Systems (Finland) OY

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-138578) pertaining to the 1996 Stock Option Plan and the 2006 Long-Term Stock Incentive Plan of Commvault Systems, Inc.,
- (2) Registration Statement (Form S-8 No. 333-192014) pertaining to the Commvault Systems, Inc. Employee Stock Purchase Plan of Commvault Systems, Inc.,
- (3) Registration Statement (Form S-8 No. 333-213211) pertaining to the Commvault Systems, Inc. Omnibus Incentive Plan of Commvault Systems, Inc.,
- (4) Registration Statement (Form S-8 No. 333-221163) pertaining to the Commvault Systems, Inc. Omnibus Incentive Plan, as amended through the First Amendment, of Commvault Systems, Inc.,
- (5) Registration Statement (Form S-8 No. 333-228076) pertaining to the Commvault Systems, Inc. Omnibus Incentive Plan, as amended through the Second Amendment, of Commvault Systems, Inc., and
- (6) Registration Statement (Form S-8 No. 333-234384) pertaining to the Commvault Systems, Inc. Omnibus Incentive Plan, as amended through the Third Amendment, of Commvault Systems, Inc.;

of our reports dated May 15, 2020, with respect to the consolidated financial statements and schedule of Commvault Systems, Inc. and the effectiveness of internal control over financial reporting of Commvault Systems, Inc. included in this Annual Report (Form 10-K) of Commvault Systems, Inc. for the year ended

March 31, 2020, filed with the Securities and Exchange Commission.

/s/ Ernst & Young Iselin, New Jersey May 15, 2020

Certification of Chief Executive Officer Required by Rule 13a-14(a) (17 CFR 240.13a-14(a))

I, Sanjay Mirchandani, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Commvault Systems, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing 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.

/s/ SANJAY MIRCHANDANI

Sanjay Mirchandani Director, President and Chief Executive Officer

Date: May 15, 2020

Certification of Chief Financial Officer Required by Rule 13a-14(a) (17 CFR 240.13a-14(a))

I, Brian Carolan, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Commvault Systems, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing 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.

/s/ BRIAN CAROLAN

Brian Carolan Vice President, Chief Financial Officer

Date: May 15, 2020

Certification Pursuant To 18 U.S.C. Section 1350 As Adopted Pursuant To Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Commvault Systems, Inc. (the "Company") on Form 10-K for the period ended March 31, 2020 as filed with the Securities and Exchange Commission (the "Report"), I, Sanjay Mirchandani, Director, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ SANJAY MIRCHANDANI

Sanjay Mirchandani Director, President and Chief Executive Officer May 15, 2020

Certification Pursuant To 18 U.S.C. Section 1350 As Adopted Pursuant To Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Commvault Systems, Inc. (the "Company") on Form 10-K for the period ended March 31, 2020 as filed with the Securities and Exchange Commission (the "Report"), I, Brian Carolan, Vice President, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ BRIAN CAROLAN

Brian Carolan Vice President, Chief Financial Officer

May 15, 2020