



2017 ANNUAL REPORT



 **We make the cloud work.**


Enabling innovation and competitive edge.

Commvault is a global leader in enterprise backup, recovery, archive and cloud data management solutions, helping companies worldwide activate and drive more value and business insight out of their data and transform legacy infrastructures into modern data environments. With solutions and services delivered directly and through a worldwide network of partners and service providers, Commvault solutions comprise one of the industry's leading portfolios in data protection and recovery, cloud, virtualization, archive, file sync and share. Commvault has earned accolades from customers and third party influencers for its technology vision, innovation, and execution as an independent and trusted expert. Without the distraction of a hardware business or other business agenda, Commvault's sole focus on data management has led to adoption by companies of all sizes, in all industries, and for solutions deployed on premise, across mobile platforms, to and from the cloud, and provided as-a-service. Commvault employs more than 2,700 highly skilled individuals across markets worldwide, is publicly traded on NASDAQ (CVLT), and is headquartered in Tinton Falls, New Jersey in the United States.

Financial Highlights

In thousands, except headcount and customers	2013	2014	2015	2016	2017
INCOME STATEMENT					
Revenue	\$495,850	\$586,340	\$607,543	\$595,126	\$650,518
Non-GAAP operating income ¹	\$113,089	\$151,852	\$104,731	\$67,346	\$75,947
Non-GAAP operating income margin ¹	22.8%	25.9%	17.0%	11.3%	11.7%
BALANCE SHEET					
Cash, cash equivalents and short-term investments	\$435,912	\$482,709	\$387,609	\$387,179	\$450,184
Total assets	\$604,854	\$755,384	\$713,466	\$714,573	\$802,967
SELECTED ADDITIONAL INFORMATION					
Net cash provided by operating activities	\$112,683	\$119,137	\$123,847	\$84,413	\$100,039
Historical customers at March 31 (approx.)	18,200	20,000	21,200	22,500	25,000
Headcount at March 31	1,740	1,973	2,287	2,379	2,656

¹ Denotes Non-GAAP operating income, which excludes stock based compensation expense and FICA expense on stock option exercises and vesting in restricted stock awards. Fiscal 2015 non-GAAP results also exclude non-routine costs related to the company's move to a new corporate headquarters. GAAP results can be found in the accompanying Annual Report on Form 10-K. A reconciliation of GAAP to non-GAAP results can be found on our website at www.commvault.com.



A Message from the Chairman of the Board

Dear Stockholders,

Fiscal 2017 heralded a year of increasing business momentum as evidenced by a strong turnaround in license revenue growth which was a good market validation of our strategy. Increased business momentum was driven by strong execution and market-leading innovation that positioned Commvault to meet the needs of customers moving to the cloud. We have built the foundation for continued revenue and earnings growth improvement in fiscal 2018.

Fiscal Year 2017 Financial Overview

For the year, we achieved total reported revenues of \$650.5 million, up 9% over the prior year and 11% on a constant currency basis. Software revenue increased 15% on a year-over-year basis and 17% on a constant currency basis. Our services business grew 5% and 7% on a constant currency basis. Fiscal 2017 non-GAAP operating income was \$75.9 million. Fiscal 2017 non-GAAP earnings per share were \$1.03 versus \$0.91 for fiscal 2016.¹

We generated \$100 million of cash flow from operations for fiscal year 2017, ending the year with over \$450 million of cash and short-term investments and no debt.

During fiscal 2017, we made cumulative repurchases of approximately \$50 million, or 982,000 shares, of our common stock at an average cost of \$50.91 per share. We have \$125 million available under the existing stock repurchase program that currently expires on March 31, 2018.² We intend to remain opportunistic with stock repurchases.

These results validate the successful implementation of our strategy. Specifically, we achieved a good turnaround in annual license revenue growth from a negative 9% in fiscal 2016 to a positive 15% in fiscal 2017. Our much improved license revenue growth in fiscal year 2017 was due to a number of factors including:

- Our clearly defined leadership position as the data experts for larger enterprises as they journey to the cloud;
- Better execution from our sales teams as a result of improved sales leadership, structure and staffing, combined with our industry-leading software and services; and

N. ROBERT HAMMER
Chairman, President,
& Chief Executive Officer

¹ GAAP results can be found in the accompanying Annual Report on Form 10-K. A reconciliation of GAAP and non-GAAP results can be found on our website at www.commvault.com.

² Remaining amount under stock repurchase program is as of our Q4 fiscal 2017 earnings call that was held on May 3, 2017.

Leading the way in backup and recovery... in the cloud or on any infrastructure

We have launched substantial new initiatives to improve our execution, making it a lot simpler to do business with Commvault in regards to products, pricing, ordering, and channel capabilities; increasing distribution leverage with new strategic partners; and launching more focused, targeted sales and marketing efforts.



- Strong growth from our stand-alone solution sets driven by virtual, edge and archive.

All of these factors provide a foundation for growth as we enter fiscal year 2018. That foundation will be enhanced in fiscal year 2018 with a strong product cycle, compelling new pricing models, and improved distribution leverage. As a result, we enter fiscal 2018 with increased confidence to raise shareholder value through improved revenue and earnings growth.

Strategic Direction

The major elements of our strategy are to:

- Accelerate our growth rate and increase market share in our core Enterprise Data Management Business by helping customers' journey to the cloud. We can do this by making continued enhancements to our leading Commvault Data Platform including innovative software-defined storage and copy data management solutions;
- Broaden and strengthen our cloud related stand-alone data offerings with both new and upgraded solutions;
- Establish a stronger position in the healthcare vertical;
- Expand our cloud-based managed services business and our cloud-delivered SaaS solutions. These services were recently introduced and have received initial positive feedback; and

- Longer term, broaden our portfolio with products that address enterprise digitization such as business analytics, search and process automation.

In addition, we have launched substantial new initiatives to improve our execution, making it a lot simpler to do business with Commvault in regards to products, pricing, ordering, and channel capabilities; increasing distribution leverage with new strategic partners; and launching more focused, targeted sales and marketing efforts. We are also enhancing go-to-market capabilities to keep pace with our increasing rate of new product introductions.

Commvault continues to outpace the market with a robust pipeline of product innovations. We are bringing to market the largest new product cycle in our history. Our objective with all our new products is to provide best-in-class solutions that meet customers' demands to make complex tasks simple, and to help companies get greater value from their data for improved and faster decision making.

New products and enhancements planned for release in fiscal 2018 include³:

- An enhanced Commvault Data Platform for the cloud;
- New hyper-converged solutions for secondary storage infrastructure modernization;
- New solution set products and extensions;

³ Please note: the development and timing of any product release, as well as any of its features or functionality, remain at our sole discretion.

- New service offerings: Endpoint, Commvault managed services, and new solutions for service providers;
- Significant enhancements to our Platform for business analytics.

Concurrent with the launch of new products, we have introduced new subscription based pricing models for our Commvault Data Platform, which align with how customers consume both cloud infrastructures as well as the new hyper-converged on-premises storage infrastructures. Furthermore, our early adoption of ASC 606 (“Revenue from Contracts with Customers”) effective April 1, 2017, aligns well with such current market demands and planned gradual shift to new subscription-based software offerings.

The Journey to the Cloud is Fueling Commvault Growth

The move to the cloud has become a major factor contributing to our increased business momentum. IDC reports that public and hybrid cloud usage today exceeds 35% of all IT infrastructure spending and is projected to grow to almost 60% over the next three years.

Commvault solutions and services help customers solve a broad range of critical new problems that they are facing as they migrate to the cloud, look to holistically manage data across private, hybrid and public clouds, and deploy new IT infrastructures and applications.

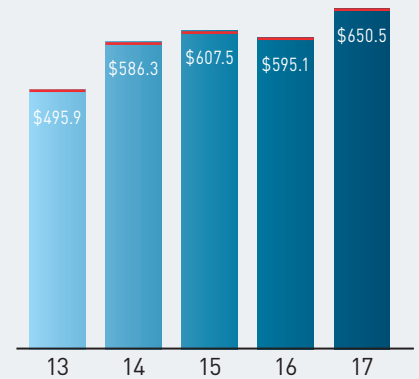
We believe that Commvault has clearly established a leadership position for modern data management with our ability to seamlessly and comprehensively manage data across customers’ on-premises, mobile, and cloud environments. This is a significant differentiator between Commvault and others in the market. We help customers migrate their data to the cloud providers of their choice, orchestrate data operations in the cloud, like disaster recovery and dev/test, and manage data generated by applications to the cloud. Commvault’s competitive advantage helps customers flexibly do this from a single software solution across the leading public cloud providers like AWS, Microsoft, and including leading managed service providers like Rackspace and Dimension Data. This broad range of cloud coverage distinguishes us from any competitor.

Commvault GO

We held our first ever user conference, Commvault GO, during the first week of October 2016 in Orlando, Florida—which was a huge success. Approximately 1,300 people attended the sold-out event, including customers, prospects, partners, analysts, reporters, and industry experts. Commvault GO featured keynote sessions with executives from Commvault and key partners Microsoft and Cisco, along with industry analysts from Gartner and ESG, and insights from many customers. The conference was sponsored by more than two dozen technology and distribution partners, and featured hands-on labs, 60+ breakout sessions on topics from cloud adoption to the latest techniques in application protection and technology refresh.

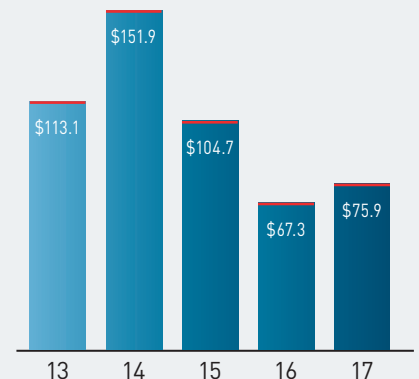
REVENUE

FYE March (\$mm)



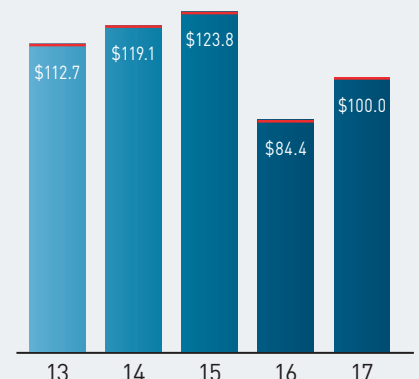
NON-GAAP OPERATING INCOME

FYE March (\$mm)



CASH FLOW FROM OPERATIONS

FYE March (\$mm)



Commvault returned to solid double-digit software growth in fiscal year 2017. Last fiscal year's momentum has carried into fiscal year 2018. We have demonstrated success in executing our fiscal year 2017 strategy. We are highly focused and committed to successfully implementing our fiscal 2018 game plan with the objective of improving on the gains we made in fiscal 2017.



At the conference, we talked about the confluence of a number of big factors driving customer agendas including: the move to the cloud; the explosion of data and applications; the increasing numbers of disconnected data silos—including mobile; new compliance and security demands; and significant new technology innovations, including ours.

In the Commvault keynotes, we made a strong case for the Commvault Data Platform as a differentiator because it is the only platform available in the market with the openness, ease of use, scalability, orchestration, and technology to meet customers' needs to address the increasing complexity of managing data—whether the data is in the cloud, on premises, in mobile, or as part of the Internet of Things.

There was extremely positive feedback from our attendees and sponsors; and great coverage among analysts, press, and in social media. We also heard from many customers that the event had a positive impact on their near-term buying decisions. I believe our first Commvault GO was a huge success, exceeding our expectations, and laying the groundwork for future events.

We are having our second annual customer conference, Commvault GO 2017, which will be held November 6-8,

2017, in Washington, D.C. Commvault GO is THE industry event dedicated to protecting and enabling digital business. Further details can be found on our website.

In Closing

Commvault returned to solid double-digit software growth in fiscal year 2017. Last fiscal year's momentum has carried into fiscal year 2018. We have demonstrated success in executing our fiscal year 2017 strategy. We are highly focused and committed to successfully implementing our fiscal 2018 game plan with the objective of improving on the gains we made in fiscal 2017.

In closing, I would like to thank the worldwide Commvault team, our customers, and our partners. We have become increasingly confident in our ability to create both short- and long-term stockholder value. To our stockholders, thank you for your support and the confidence you continue to show in our company.

A handwritten signature in black ink, reading "N. Robert Hammer".

N. Robert Hammer
Chairman, President and Chief Executive Officer

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

Form 10-K
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended March 31, 2017
Commission File Number: 1-33026



Commvault Systems, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)
22-3447504
(I.R.S. Employer Identification No.)
1 Commvault Way
Tinton Falls, New Jersey
07724
(Address of principal executive offices)
(Zip Code)
(732) 870-4000
(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Common Stock, \$0.01 par value	The NASDAQ Stock Market

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

Emerging growth company If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13 (a) of the Exchange Act

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

As of September 30, 2016, the last business day of the Registrant's most recently completed second fiscal quarter; the aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant (based upon the closing price of the common stock as reported by The NASDAQ Stock Market) was approximately \$2.2 billion.

As of April 27, 2017, there were 44,947,327 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 2017 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, 2017. 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, 2017
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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,” “potential,” “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.

PART I

Item 1. *Business*

Company Overview

Commvault is a leading provider of data 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. Key features of our software platform include:

- Data protection solutions supporting all major operating systems, applications, and databases on virtual and physical servers, network-attached storage, cloud-based infrastructures, and mobile devices;
- Management through a single console; view, manage, and access all functions and all data and information across the enterprise;
- Multiple protection methods including backup and archive, snapshot management, replication, and content indexing for eDiscovery;
- Efficient storage management using deduplication for disk, tape and cloud;
- Integration with the industry's top storage arrays to automate the creation of indexed, application-aware hardware snapshot copies across multi-vendor storage environments;
- Complete virtual infrastructure management supporting multiple hypervisors, including VMware and Hyper-V;
- Security capabilities to limit access to critical data, provide granular management capabilities, and provide single sign on access for Active Directory users;
- Policy based data management, allowing users to manage data based on business needs and not physical location; and
- An end-user experience that allows them to protect, find and recover their own data using common tools such as web browsers, Microsoft Outlook and File Explorer.

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.

Commvault software is built upon an innovative single platform architecture. We refer to the single, unified code base underlying each of our applications as our Single Platform. Our Single Platform is unique and differentiates us from our competitors, some of whom address market needs by offering multiple and disparate point products that have come together as a collection often as a result of acquisition strategies. 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.

We have established a worldwide, multi-channel distribution network to sell our software 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. As of March 31, 2017, we had licensed our data and information management software to approximately 25,000 registered customers.

Our internet address is www.commvault.com. On this website, we post the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the U.S. Securities and Exchange Commission (SEC): 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 Basel Accords"), the Dodd-Frank Wall Street Reform and Consumer Protection Act, 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. 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 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

Our software licenses typically provide for a perpetual right to use our software and are sold on a per terabyte capacity basis, per-copy, as site licenses or as a solution set. In recent years, the majority of our software revenue has been sold on a capacity basis and we expect this to remain true in the near future. Software licenses sold on a capacity basis provide the customer with unlimited licenses of specified software products based on a defined level of terabytes of data under management. As a result, when we sell our platform through a capacity license, certain of the various functionalities discussed below are bundled into one capacity based price. Site licenses give the customer the additional right to deploy the software on a limited basis during a specified term.

Our solution sets are generally sold on a per unit basis such as per virtual machine for our virtual machine backup, recovery and cloud management solution set; per mailbox for our email archive solution set, and per user for our endpoint data protection solution set. These solution sets are purpose-built offerings designed to accelerate private, public and hybrid cloud adoption that seamlessly integrate with our single platform software, offering a path towards holistic data management while allowing customers to utilize functionality that addresses the point solution requirements their business dictates. We primarily sell solution sets for virtual machine backup, recovery and cloud management; endpoint data protection; and email archive.

Historically, an insignificant amount of our revenue has been sold under subscription, or term based, license arrangements. In these arrangements the customer has the right to use the software over a designated period of time. We expect revenue from these types of arrangements to become a more significant portion of our total revenue.

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. Our primary software solutions are Data Protection, Backup and Recovery; Cloud and Infrastructure Management; and Retention and Compliance.

Data Protection, Backup and Recovery

Our Data Protection, Backup and Recovery software solutions provide enterprise-level backup and recovery from a single, centralized management console. It covers the full range of data sources, file types, storage media and backup modes - from snapshots to streaming. Our integrated, automated data protection approach provides a single, complete view of all stored data no matter where it is on premise or in the cloud. Our software solution allows for the backup of databases, files, applications, endpoints and virtual machines (VMs) with maximum efficiency according to data type and recovery profile. It also helps to optimize storage with deduplication, recover data rapidly and easily and leverage reports to continually improve backup and recovery processes.

Virtual Machines (VMs) and Cloud Platforms

Our software solution for VM backup, recovery and cloud management delivers a number of benefits such as: VM recovery with live recovery options; backup to and in the cloud; custom-fit data protection for SLAs; broad hardware snapshot management; and workload portability across physical, virtual and cloud platforms. We offer a cloud management solution across multiple VM and cloud platforms, including Amazon Web Services (AWS), Microsoft Azure, Google Cloud and VMware.

Databases

We provide a simple way to protect and recover business-critical databases through automatic discovery, push-button recovery, intuitive deduplication, cloning/replication, and by hardware snapshots through built-in application integration. We believe we eliminate the need for multiple, costly backup tools and complex scripting, while improving database performance. Our objective is to accelerate recovery and shrink backup windows, while providing granular, table-level recovery.

Email and Enterprise Applications

Email along with enterprise applications are critical to a business. We believe a significant portion of business-critical information is stored in email so reliable backup and recovery is essential. Commvault Data Protection, Backup and Recovery gives users self-service access to search and restore messages without IT intervention. Our solution provides an enterprise single solution to backup, restore and archive their important messaging applications. In addition, we provide our customers the ability to protect a wide range of applications, such as SharePoint, Exchange, Oracle, Office 365, and SAP enterprise software solutions.

File Protection and Recovery

Our software solution brings unstructured data into management. Our File Protection and Recovery solution make it easy to find, recover and restore lost or damaged files at any level of granularity, from single files to whole file systems. In addition, business files stored in third-party file sharing applications can be protected in a secure, searchable and centralized virtual repository. Our integrated snapshot management indexes snapshots to make them searchable, making file recovery an easy process.

Endpoint Data Protection

Our Endpoint Data Protection solution enables data created and stored on laptops and desktops to be accessible anytime with a self-service recovery portal accessible from any web browser or mobile device. Our solution covers endpoint data on laptops, desktops and other devices with source-side deduplication, opportunistic scheduling and bandwidth throttling.

Source-side Deduplication

Our software solutions integrate deduplication functionality directly into our software for a backup and recovery approach that is scalable and cost effective. Source-side deduplication can boost backup speeds while decreasing storage and network resource consumption whether protecting data in private or public clouds, remote office servers, laptops or critical applications in the data center.

Cloud and Infrastructure Management

Our Cloud and Infrastructure Management software solutions provide an efficient way to manage storage hardware and virtual infrastructure as data volumes grow and more applications move to the cloud.

VM and Cloud Management

Our holistic approach to cloud management allows companies to manage a virtual infrastructure across multiple hypervisors and cloud platforms. Our VM and Cloud Management solution can streamline operations over the entire VM lifecycle, from provisioning to protection to decommissioning. With our software solution, companies can manage VMware, Microsoft Hyper-V, Amazon Web Services EC2, Google Cloud and Microsoft Azure hypervisors through a single solution to get the most out of all their technologies.

Snapshot Management

Our software solutions can simplify snapshot management with a single console for many hardware storage vendors. Our built-in reporting and alerting lets users perform more detailed utilization and capacity planning for hardware snapshots. With our Snapshot Management software solution, hardware snapshots can be managed across a wide selection of vendors such as DataCore, Dell, EMC, Fujitsu, Hewlett Packard, Hitachi Data Systems, Huawei, IBM, INFINIDAT, NetApp, Nimble Storage, Nutanix, Oracle ZFS and Pure Storage. Our underlying IntelliSnap™ technology provides the multi-vendor flexibility.

Orchestration

Our software solutions automate repetitive or highly complex data management tasks by combining individual process sets in a specific order or decision tree. Configuring our software to meet company specific IT needs can be achieved whether using our pre-built workflows or design or a company's own with our graphical user interface.

Retention and Compliance

Our single virtual content repository makes it easier to index, archive and search managed data using our Retention and Compliance software solutions.

Content Based Retention

Our Content Based Retention solution provides for user-defined retention policies to automatically organize, classify and store information based on relevant and usable criteria, such as file name, type, content, tags and keywords which can reduce complexity and risk of storing massive volumes of data.

Enterprise Search and E-Discovery

Our Enterprise Search and E-Discovery solution allows users to find information needed to satisfy internal search requirements or respond to external eDiscovery requests. We believe our software solution can minimize risk and exposure by providing a single, integrated platform for enterprise search and eDiscovery across the full range of devices, apps and file types.

Email Archiving

Our single, unified data management platform supports detailed archiving policies for email environments, including cloud email solutions like Microsoft Office 365. Users can classify data by application and automate email data management, even as volumes continue to grow. We also streamline eDiscovery across data silos, making email data accessible via a single, comprehensive platform.

Data Loss Prevention

Our software solutions include a number of built-in endpoint data protection and security features to help prevent unauthorized access and, if necessary, quickly restore files or applications to a new device. We believe our comprehensive approach to data loss prevention makes it easy to minimize compliance and litigation risks associated with losing critical business data.

Secure File Sharing

Our enterprise file-sharing capabilities allow for anytime access to data through a private cloud that is more secure than email or consumer file-sharing services. End-users can collaborate and still remain compliant with data-governance requirements while reducing the risk of exposing sensitive corporate data to unauthorized access.

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; and Shanghai, China, which are complemented by regional support centers in other worldwide locations. 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 ensure 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. 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.

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, HP, Microsoft, Oracle, SAP, 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, 2017, 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 Data Systems. Hitachi Data Systems 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 agreements, accounted for 15% of our total revenues in fiscal 2017 and fiscal 2016.

Additionally, we have non-exclusive distribution agreements 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., and Avnet Technology Solutions (“Avnet”), a subsidiary of Avent Inc. Pursuant to these distribution agreements, these distributors' 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 36% of our total revenue in fiscal 2017 and 38% in fiscal 2016.

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, AWS, 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 original equipment manufacturer partners. As of March 31, 2017, we had licensed our software applications to approximately 25,000 registered 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 Single Platform serves as a major differentiator versus our competitors' data and information management software products. Our Single 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 original equipment manufacturer partners. As of March 31, 2017, we had 894 employees in sales and marketing. These employees are primarily located in North America, Europe, Australia and Asia.

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, 2017, we had 582 employees in our research and development group, of which 186 are located in our Hyderabad and Bangalore development centers in India. 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. We spent \$83.5 million on research and development activities in fiscal 2017, \$69.3 million in fiscal 2016 and \$64.1 million in fiscal 2015.

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 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.

The following are 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:

- Dell EMC
- IBM
- Veritas
- Veeam

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 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. We continue to expand our worldwide sales infrastructure and increase our distribution throughout the Americas, Europe, Middle East, Africa, Australia and Asia to meet the needs of our business.

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, 2017, we had 491 issued patents and 338 pending patent applications in the United States, as well as 69 issued patents in foreign countries and 27 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 entered into and may enter into agreements with additional third parties 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, the “C hexagon” logo & Commvault, the “CV” Logo & Commvault, the “C hexagon” logo, the “CV” logo, Commvault Systems, APSS, Commvault GO, Solving Forward, SIM, Singular Information Management, Simpana, Simpana (logo), Commvault Galaxy, Commvault Edge, Unified Data Management, Edge Drive, QiNetix, Quick Recovery, QR, CommNet, GridStor, Vault Tracker, InnerVault, Quick Snap, QSnap, IntelliSnap, Simpana OnePass, Recovery Director, CommServe, CommCell, ROMS, Distinctly Data and CommValue. We also have several other trademarks and have obtained or are actively pursuing trademark registrations in several foreign jurisdictions.

Employees

As of March 31, 2017, we had 2,656 employees worldwide, including 894 in sales and marketing, 582 in research and development, 913 in customer services and support and 267 in general and administration.

Executive Officers of the Registrant

The following table presents information with respect to our executive officers as of May 1, 2016:

<u>Name</u>	<u>Age</u>	<u>Position</u>
N. Robert Hammer	75	Chairman, President and Chief Executive Officer
Alan G. Bunte	63	Executive Vice President, Chief Operating Officer
Brian Carolan	46	Vice President, Chief Financial Officer
Ron Miiller	50	Senior Vice President of Worldwide Sales

N. Robert Hammer has served as our Chairman, President and Chief Executive Officer since March 1998. Mr. Hammer was also a venture partner from 1997 until December 2003 of the Sprout Group, the venture capital arm of Credit Suisse’s asset management business. Prior to joining the Sprout Group, Mr. Hammer served as the Chairman, President and Chief Executive Officer of Norand Corporation, a portable computer systems manufacturer, from 1988 until its acquisition by Western Atlas, Inc. in 1997. Mr. Hammer led Norand following its leveraged buy-out from Pioneer Hi-Bred International, Inc. and through its initial public offering in 1993. Prior to joining Norand, Mr. Hammer also served as Chairman, President and Chief Executive Officer of publicly-held Telequest Corporation from 1987 until 1988 and of privately-held Material Progress Corporation from 1982 until 1987. Prior to joining Material Progress Corporation, Mr. Hammer spent 15 years in various sales, marketing and management positions with Celanese Corporation, rising to the level of Vice President and General Manager of the structural composites materials business. Mr. Hammer obtained his bachelor’s degree and master’s degree in business administration from Columbia University.

Alan G. Bunte has served as our Executive Vice President and Chief Operating Officer since October 2003 and served as our Senior Vice President from December 1999 until October 2003. Since January 2008, Mr. Bunte has also served as a Director of Commvault. Prior to joining our company, Mr. Bunte was with Norand Corporation from 1986 to January 1998, serving as its Senior Vice President of planning and business development from 1991 to January 1998. Mr. Bunte obtained his bachelor’s and master’s degrees in business administration from the University of Iowa.

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 our company, 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.

Ron Miiller has served as our Senior Vice President of Worldwide Sales since April 2011. Prior to his current role, Mr. Miiller served as our Vice President of Sales, Americas from January 2005 to March 2011 and as our Central Region Sales Manager from March 2000 to December 2004. Prior to joining our company, Mr. Miiller served as Director, Central Region Sales for Softworks, Inc., an EMC company, from March 1997 through March 2000, and prior to that Mr. Miiller was with Moore Corporation, a diversified print and electronic communications company from 1989 through March 1997 in various leadership roles. Mr. Miiller received his bachelor of science degree in marketing from Ball State University.

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 occurs, 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

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 and Veeam.

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 original equipment manufacturers, 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 original equipment manufacturers, 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 distribution agreements covering our North American commercial markets and our U.S. Federal Government market with Arrow and Avnet Technology Solutions ("Avnet"). Pursuant to these distribution agreements, these distributors' 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 either Arrow or Avnet. Sales through our distribution agreement with Arrow accounted for approximately 36% of our total revenues for fiscal 2017 and approximately 38% for fiscal 2016. If Arrow or Avnet were to discontinue or reduce the sales of our products or if our agreement with Arrow or Avnet 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 or Avnet, then it could have a material adverse effect on our future revenues.

Our original equipment manufacturers 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 original equipment manufacturers 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 original equipment manufacturers 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 original equipment manufacturers that we do business with also compete with one another. If one of our original equipment manufacturer partners views our arrangement with another original equipment manufacturer as competing with its products, it may decide to stop doing business with us. Any material decrease in the volume of sales generated by original equipment manufacturers 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 original equipment manufacturer agreements accounted for approximately 15% of our total revenues for fiscal 2017 and fiscal 2016.

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 with our customers is not competitive in the market or 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.

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.

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.

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

On September 10, 2014, a purported class action complaint was filed in the United States District Court for the District of New Jersey against the Company, our Chief Executive Officer and our Chief Financial Officer. The case is captioned *In re Commvault Systems, Inc. Securities Litigation* (Master File No. 3:14-cv-05628-MAS-LHG). The suit alleges that we made materially false and misleading statements, or failed to disclose material facts, regarding our financial results, business, operations and prospects in violation of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder. The suit asserts claims covering an alleged class period from May 7, 2013 through April 24, 2014. It is purportedly brought on behalf of purchasers of our common stock during that period, and seeks compensatory damages, costs and expenses, as well as equitable or other relief. Lead plaintiff, the Arkansas Teachers Retirement System, was appointed on January 12, 2015, and on March 18, 2015, an amended complaint was filed by the plaintiffs. On December 17, 2015, the defendant's motion to dismiss the case was granted and the case dismissed; however, the plaintiffs were permitted to re-file their claim, which they did on February 5, 2016. Defendants filed another motion to dismiss on April 5, 2016, which was denied by the court on September 30, 2016. Discovery has commenced in this action and is ongoing. Due to the inherent uncertainties of litigation, we cannot accurately predict the ultimate outcome of this matter. We are unable at this time to determine whether the outcome of the litigation will have a material impact on our results of operations, financial condition or cash flows. As of March 31, 2017, we have not recorded an accrual for this matter as we have concluded that the probability of a loss is remote.

On April 12, 2017, a shareholder derivative complaint was filed in the United States District Court for the District of New Jersey against us (nominally), certain of its executive officers, and certain of its current and former members of the board of directors. The complaint is entitled *Murashko v. Hammer, et al.* (Civ. No. 3:17-cv-02533-PGS-TJB). The action alleges that certain of our executive officers and board members breached their fiduciary duties to us by causing, or allowing, us to manipulate its financial results and conceal the state of its business prospects. The suit also alleges that through these breaches, our executive officers and board members unjustly enriched themselves at the expense of the company. The suit asserts factual allegations similar to the allegations made in *In re Commvault Systems, Inc. Securities Litigation* (Master File No. 3:14-cv-05628-PGS-LHG), a securities litigation also pending in the United States District Court for the District of New Jersey. The allegations asserted in the shareholder derivative action purport to cover a period from 2013 through the present. As a derivative action, the complaint is brought nominally on behalf of the company, and seeks compensatory damages, restitution, costs and expenses, as well as equitable or other relief. Due to the inherent uncertainties of litigation, we cannot accurately predict the ultimate outcome of this matter. We are 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. As of March 31, 2017, we have not recorded an accrual for this matter as we have concluded the probability of a loss is remote.

In addition, 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 original equipment manufacturers 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 \$83.5 million, or 13% of our total revenues in fiscal 2017, \$69.3 million, or 12% of our total revenues in fiscal 2016 and \$64.1 million, or 11% of our total revenues in fiscal 2015. 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.

The loss of key personnel or the failure to attract and retain highly qualified personnel could have an adverse effect on our business.

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 two 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.

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 44% of our revenues from outside the United States in fiscal 2017 and 42% for fiscal 2016. International revenue increased 12% in fiscal 2017 compared to fiscal 2016. 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 qualified 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:

- 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 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. While management has taken steps to address these concerns by implementing sophisticated network security, internal control measures and developed certain disaster recovery plans, 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.

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.

On February 27, 2017, Realtime Data LLC d/b/a/ IXO (“Realtime”), a non-practicing entity, sued us and Spectra Logic Corporation in the Eastern District of Texas for alleged infringement of four patents: U.S. Patent Nos. 9,054,728, 7,415,530, 9,116,908, and 8,717,204. Realtime has sued numerous other companies for infringement of these and other patents. Realtime seeks monetary damages and an injunction. We have not yet answered the complaint. Due to the inherent uncertainties of litigation, we cannot accurately predict the ultimate outcome of this matter. We are unable at this time to determine whether the outcome of the litigation will have a material impact on our results of operations, financial condition or cash flows. We intend to defend ourselves vigorously. As of March 31, 2017, we have not recorded an accrual for this matter as we have concluded that the probability of a loss is remote.

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. As of March 31, 2017, we had net deferred tax assets of approximately \$61.0 million, which were primarily related to stock compensation, deferred revenue and tax credits. We expect our cash taxes to continue to align with our effective tax rate over the next several years.

Our cash and cash equivalents could be adversely affected if the financial institutions in which we hold our cash and cash equivalents fail.

Our cash and cash equivalents are highly liquid investments with original maturities of three months or less at the time of purchase. We maintain the cash and cash equivalents with major financial institutions. Deposits with these banks exceed the Federal Deposit Insurance Corporation (“FDIC”) insurance limits or similar limits in foreign jurisdictions. While we monitor daily the cash balances in the operating accounts and adjust the balances as appropriate, these balances could be impacted if one or more of the financial institutions with which we deposit fails or is subject to other adverse conditions in the financial or credit markets. To date, we have experienced no loss or lack of access to our invested cash or cash equivalents; however, we can provide no assurance that access to our invested cash and cash equivalents will not be impacted by adverse conditions in the financial and credit markets.

We cannot predict our future capital needs and we may be unable to obtain financing, which could have a material adverse effect on our business, results of operations and financial condition.

We may need to raise additional funds in the future in order to acquire complementary businesses, technologies, products or services. Any required financing may not be available on terms acceptable to us, or at all. If we raise additional funds by issuing equity securities, you may experience significant dilution of your ownership interest, and the newly-issued securities may have rights senior to those of the holders of our common stock. 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 additional financing is not available when required or is not available on acceptable terms, we may be unable to successfully develop or enhance our software and services through acquisitions in order to take advantage of business opportunities or respond to competitive pressures, which could have a material adverse effect on our software and services offerings, revenues, results of operations and financial condition.

We are subject to the risks of owning real property.

We own our corporate campus headquarters in Tinton Falls, New Jersey. We have limited experience in the ownership and management of real property. In addition, we are subject to the risks of owning real property including the possible need for structural improvements in order to comply with zoning and other legal or regulatory requirements. Furthermore, we are subject to adverse changes in the value of this property due to interest rate changes, changes in the market in which the property is located or other factors. Also, if we decide to sell our real property in the future and are not able to recover all capitalized costs, it could have a material adverse effect on our financial condition and operating results.

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.

If we were to borrow against our revolving credit facility, it could adversely affect our operations and financial results and prevent us from fulfilling our obligations.

We have a \$250 million revolving credit facility. If we were to borrow substantially against this facility the indebtedness could have adverse consequences, including:

- requiring us to dedicate a portion of our cash flow from operations to payments of indebtedness, which would reduce the availability of cash flow to fund working capital requirements, capital expenditures and other general corporate purposes;
- limiting our flexibility in planning for, or reacting to, general adverse economic conditions or changes in our business and the industry in which we operate;
- placing us at a competitive disadvantage compared to our competitors that have less debt; and
- limiting our ability to fund potential acquisitions.

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.

Future sales of our common stock, or the perception that such future sales may occur, may cause our stock price to decline and impair our ability to obtain capital through future stock offerings.

A substantial number of shares of our common stock are available for sale into the public market. The occurrence of such sales, or the perception that such sales could occur, could materially and adversely affect our stock price and could impair our ability to obtain capital through an offering of equity securities.

Certain provisions in our charter documents and agreements and Delaware law, as well as our stockholder rights plan, may inhibit potential acquisition bids for Commvault and prevent changes in our management.

Our certificate of incorporation and bylaws contain provisions that could depress the trading price of our common stock by acting to discourage, delay or prevent a change of control of our company or changes in management that our stockholders might deem advantageous. Specific provisions in our certificate of incorporation include:

- our ability to issue preferred stock with terms that the Board of Directors may determine, without stockholder approval;
- a classified board in which only a third of the total board members will be elected at each annual stockholder meeting;
- advance notice requirements for stockholder proposals and nominations; and
- limitations on convening stockholder meetings.

In addition to the provision described above, on November 13, 2008, our Board of Directors adopted a stockholders rights plan and declared a dividend distribution of one Right for each outstanding share of our common stock to shareholders of record on November 24, 2008. Each Right, when exercisable, entitles the registered holder to purchase from us one one-thousandth of a share of Series A Junior Participating Preferred Stock, par value \$0.01 per share, at a purchase price of \$80 per one one-thousandth of a share, subject to adjustment. The Rights may discourage a third-party from making an unsolicited proposal to acquire us, as exercise of the Rights would cause substantial dilution to such third-party attempting to acquire us.

As a result of the provisions in our certificate of incorporation and our stockholder rights plan, the price investors may be willing to pay in the future for shares of our common stock may be limited.

Also, we are subject to Section 203 of the Delaware General Corporation Law, which imposes certain restrictions on mergers and other business combinations between us and any holder of 15% or more of our common stock. Further, certain of our employment agreements and incentive plans provide for vesting of stock options and/or payments to be made to the employees thereunder if their employment is terminated in connection with a change of control, which could discourage, delay or prevent a merger or acquisition at a premium price.

We do not expect to pay any dividends in the foreseeable future.

We do not anticipate paying any cash dividends to holders of our common stock in the foreseeable future. Consequently, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. Investors seeking cash dividends should not purchase our common stock.

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 auditors cannot timely attest, 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, Colorado, Illinois, Massachusetts, Minnesota, New York, Oregon, Texas, and Virginia; and outside the United States in Australia, Brazil, Canada, China, France, Germany, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Poland, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Turkey, 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. Except as discussed below, 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.

On September 10, 2014, a purported class action complaint was filed in the United States District Court for the District of New Jersey against the Company, our Chief Executive Officer and our Chief Financial Officer. The case is captioned *In re Commvault Systems, Inc. Securities Litigation* (Master File No. 3:14-cv-05628-MAS-LHG). The suit alleges that we made materially false and misleading statements, or failed to disclose material facts, regarding our financial results, business, operations and prospects in violation of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder. The suit asserts claims covering an alleged class period from May 7, 2013 through April 24, 2014. It is purportedly brought on behalf of purchasers of our common stock during that period, and seeks compensatory damages, costs and expenses, as well as equitable or other relief. Lead plaintiff, the Arkansas Teachers Retirement System, was appointed on January 12, 2015, and on March 18, 2015, an amended complaint was filed by the plaintiffs. On December 17, 2015, the defendant’s motion to dismiss the case was granted and the case dismissed; however, the plaintiffs were permitted to re-file their claim, which they did on February 5, 2016. Defendants filed another motion to dismiss on April 5, 2016, which was denied by the court on September 30, 2016. Discovery has commenced in this action and is ongoing. Due to the inherent uncertainties of litigation, we cannot accurately predict the ultimate outcome of this matter. We are unable at this time to determine whether the outcome of the litigation will have a material impact on our results of operations, financial condition or cash flows. As of March 31, 2017, we have not recorded an accrual for this matter as we have concluded that the probability of a loss is remote.

On April 12, 2017, a shareholder derivative complaint was filed in the United States District Court for the District of New Jersey against us (nominally), certain of its executive officers, and certain of its current and former members of the board of directors. The complaint is entitled *Murashko v. Hammer, et al.* (Civ. No. 3:17-cv-02533-PGS-TJB). The action alleges that certain of our executive officers and board members breached their fiduciary duties to us by causing, or allowing, us to manipulate its financial results and conceal the state of its business prospects. The suit also alleges that through these breaches, our executive officers and board members unjustly enriched themselves at the expense of the company. The suit asserts factual allegations similar to the allegations made in *In re Commvault Systems, Inc. Securities Litigation* (Master File No. 3:14-cv-05628-PGS-LHG), a securities litigation also pending in the United States District Court for the District of New Jersey. The allegations asserted in the shareholder derivative action purport to cover a period from 2013 through the present. As a derivative action, the complaint is brought nominally on behalf of the company, and seeks compensatory damages, restitution, costs and expenses, as well as equitable or other relief. Due to the inherent uncertainties of litigation, we cannot accurately predict the ultimate outcome of this matter. We are 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. As of March 31, 2017, we have not recorded an accrual for this matter as we have concluded the probability of a loss is remote.

On February 27, 2017, Realtime Data LLC d/b/a/ IXO (“Realtime”), a non-practicing entity, sued us and Spectra Logic Corporation in the Eastern District of Texas for alleged infringement of four patents: U.S. Patent Nos. 9,054,728, 7,415,530, 9,116,908, and 8,717,204. Realtime has sued numerous other companies for infringement of these and other patents. Realtime seeks monetary damages and an injunction. We have not yet answered the complaint. Due to the inherent uncertainties of litigation, we cannot accurately predict the ultimate outcome of this matter. We are unable at this time to determine whether the outcome of the litigation will have a material impact on our results of operations, financial condition or cash flows. We intend to defend ourselves vigorously. As of March 31, 2017, we have not recorded an accrual for this matter as we have concluded that the probability of a loss is remote.

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." The following table sets forth, for the periods indicated, the high and the low closing sales prices of our common stock, as reported on The NASDAQ Global Market.

	Common Stock			
	2017		2016	
	High	Low	High	Low
First Quarter	\$ 47.25	\$ 41.15	\$ 47.46	\$ 42.41
Second Quarter	\$ 53.56	\$ 42.41	\$ 41.31	\$ 33.96
Third Quarter	\$ 57.20	\$ 51.05	\$ 42.91	\$ 34.54
Fourth Quarter	\$ 56.80	\$ 48.50	\$ 43.17	\$ 30.41

On April 27, 2017, the last reported sale price of our common stock as reported on The NASDAQ Global Market was \$50.70 per share.

Stockholders

As of April 27, 2017, there were approximately 53 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

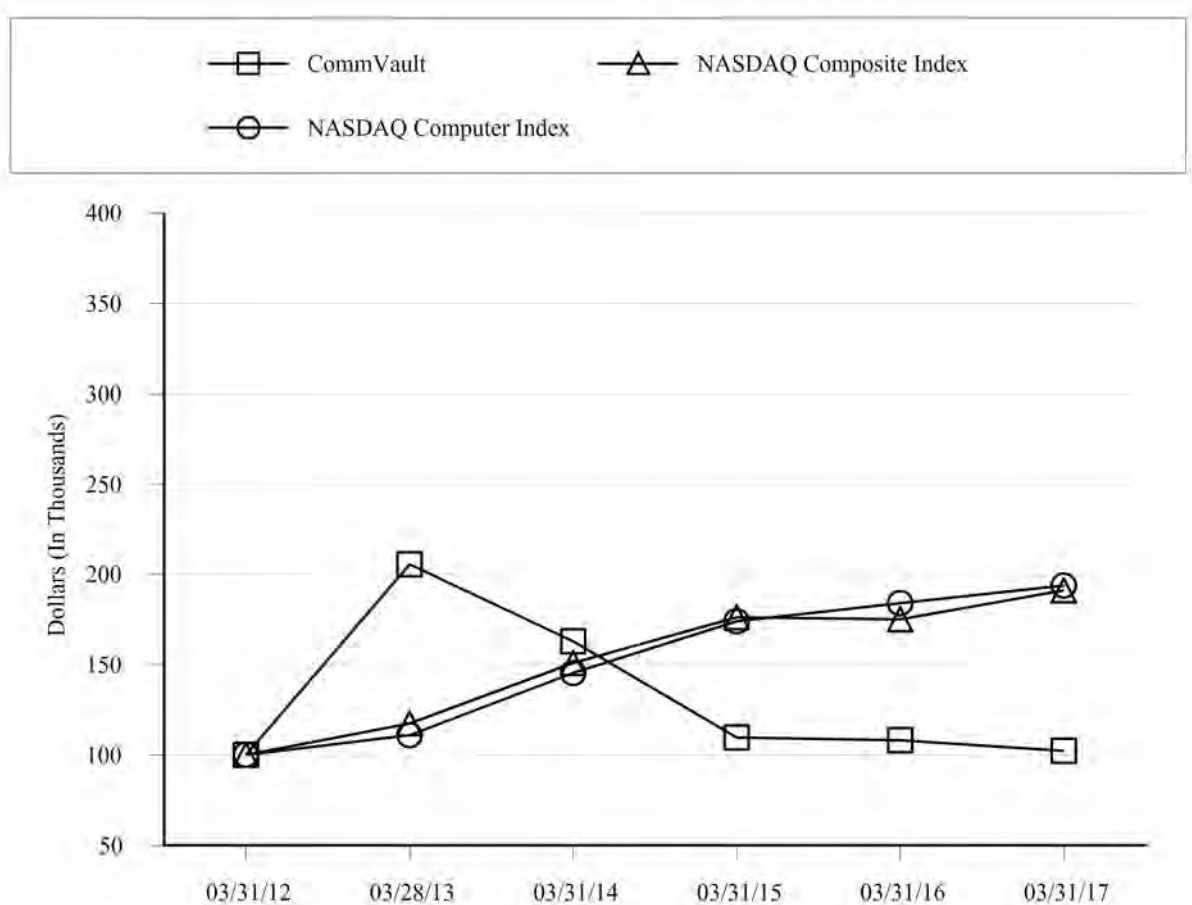
We have never paid cash dividends on our common stock, and we intend to retain our future earnings, if any, to fund the growth of our business. We therefore do not anticipate paying any cash dividends on our common stock in the foreseeable future. Our future decisions concerning the payment of dividends 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, 2012 and March 31, 2017, 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, 2012 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, 2012 was the closing sales price of \$49.64 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.



	3/31/2012	3/28/2013	3/31/2014	3/31/2015	3/31/2016	3/31/2017
Commvault	100.0	205.6	162.9	109.6	108.2	102.3
NASDAQ Composite Index	100.0	117.5	151.0	176.2	175.1	191.2
NASDAQ Computer Index	100.0	111.0	145.5	174.0	184.1	193.9

Issuer Purchases of Equity Securities

During the three months ended March 31, 2017, we repurchased \$25.0 million of common stock (0.5 million shares). During the year ended March 31, 2017, we repurchased \$50.0 million of common stock (1.0 million shares), under our share repurchase program. As of May 4, 2017, there is \$125.0 million remaining in the share repurchase program which expires on March 31, 2018.

Period	Total number of shares purchased as part of publicly announced programs	Average price paid per share	Total of Purchases	Approximate dollar value of shares that may yet be purchased under the program
January 2017	216,422	\$ 49.73	\$ 10,763,585	\$ 139,236,415
February 2017	288,254	\$ 49.39	\$ 14,237,263	\$ 124,999,152
March 2017	—	\$ —	—	\$ 124,999,152
Three months ended March 31, 2017	504,676	\$ 49.54	\$ 25,000,848	

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.

	Year Ended March 31,				
	2017	2016	2015	2014	2013
(In thousands, except per share data)					
Statement of Operations Data:					
Revenues:					
Software	\$ 296,421	\$ 258,793	\$ 283,254	\$ 294,411	\$ 251,508
Services	354,097	336,333	324,289	291,929	244,342
Total revenues	650,518	595,126	607,543	586,340	495,850
Cost of revenues:					
Software	3,045	2,385	2,442	2,588	2,863
Services	82,147	80,327	79,626	71,713	62,089
Total cost of revenues	85,192	82,712	82,068	74,301	64,952
Gross margin	565,326	512,414	525,475	512,039	430,898
Operating expenses:					
Sales and marketing	387,975	352,669	335,980	283,304	247,696
Research and development	83,543	69,287	64,143	55,134	47,356
General and administrative	84,944	78,848	78,063	67,106	50,119
Depreciation and amortization	8,635	9,611	8,505	6,075	4,832
Total operating expenses	565,097	510,415	486,691	411,619	350,003
Income from operations	229	1,999	38,784	100,420	80,895
Interest expense	(957)	(933)	(665)	—	—
Interest income	1,163	862	773	890	1,059
Equity in loss of affiliate	(958)	(83)	—	—	—
Income (loss) before income taxes	(523)	1,845	38,892	101,310	81,954
Income tax expense (benefit)	(1,063)	1,709	13,242	37,246	28,745
Net income	\$ 540	\$ 136	\$ 25,650	\$ 64,064	\$ 53,209
Net income per common share:					
Basic	\$ 0.01	\$ 0.00	\$ 0.56	\$ 1.36	\$ 1.17
Diluted	\$ 0.01	\$ 0.00	\$ 0.54	\$ 1.29	\$ 1.10
Weighted average shares used in computing per share amounts:					
Basic	44,700	45,159	45,464	46,976	45,463
Diluted	46,621	46,489	47,222	49,642	48,330

	As of March 31,				
	2017	2016	2015	2014	2013
	(In thousands)				
Balance Sheet Data:					
Cash and cash equivalents	\$ 329,491	\$ 288,107	\$ 337,673	\$ 457,733	\$ 433,964
Short-term investments	120,693	99,072	49,936	24,976	1,948
Working capital	313,141	252,413	267,480	387,004	343,094
Total assets	802,967	714,573	713,466	755,384	604,854
Deferred revenue	277,580	244,866	229,735	209,575	184,270
Total stockholders' equity	442,635	396,268	407,010	462,578	354,017

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 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. Key features of our software platform include:

- Data protection solutions supporting all major operating systems, applications, and databases on virtual and physical servers, network-attached storage, cloud-based infrastructures, and mobile devices;
- Management through a single console; view, manage, and access all functions and all data and information across the enterprise;
- Multiple protection methods including backup and archive, snapshot management, replication, and content indexing for eDiscovery;
- Efficient storage management using deduplication for disk, tape and cloud;
- Integration with the industry's top storage arrays to automate the creation of indexed, application-aware hardware snapshot copies across multi-vendor storage environments;
- Complete virtual infrastructure management supporting multiple hypervisors, including VMware and Hyper-V;
- Security capabilities to limit access to critical data, provide granular management capabilities, and provide single sign on access for Active Directory users;
- Policy based data management, allowing users to manage data based on business needs and not physical location; and
- An end-user experience that allows them to protect, find and recover their own data using common tools such as web browsers, Microsoft Outlook and File Explorer.

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. As of March 31, 2017 we had licensed our software applications to approximately 25,000 registered customers.

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, such as Hitachi Data Systems, Microsoft, Network Appliance, Fujitsu, Novell and Oracle, 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. In addition to Data Protection - Backup & Recovery, the subsequent release of our other software application technologies has increased our addressable market. Each software technology can be used individually or in combination with other technologies from our single platform suite.

Our software licenses typically provide for a perpetual right to use our software and are sold on a per terabyte capacity basis, on a per-copy basis, as site licenses or as a solution set. During the fiscal year ended March 31, 2017, approximately 69% of software license revenue was sold on a capacity basis. Capacity based software licenses provide our customers with unlimited licenses of specified software products based on a defined level of terabytes of data under management. As a result, when we sell our platform through a capacity license, certain of the various Commvault functionalities are bundled into one capacity based price. We anticipate that capacity based licenses will continue to account for the majority of our software license revenue for the near future. Site licenses give the customer the additional right to deploy the software on a limited basis during a specified term. Our primary solution sets in our software suite include virtual machine backup, recovery and cloud management; endpoint data protection; and email archive. These solution sets can be individually deployed or combined as part of a comprehensive data protection and information management solution. Our solution sets are generally sold on a per unit basis such as per virtual machine for our virtual machine backup, recovery and cloud management solution set; per mailbox for our email archive solution set and per user for our endpoint data protection solution set.

Historically, an insignificant amount of our revenue has been sold under subscription, or term based, license arrangements. In these arrangements, the customer generally has the right to use the software on either a capacity basis or per-copy or per-unit basis over a designated period of time. We expect revenue from these types of arrangements to become a more significant portion of our total revenue.

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 de-duplication, 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. As noted above, 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. 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. We do not customize our software for a specific end-user customer. We sell our software applications 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 revenue was 46% of our total revenues for fiscal 2017, 43% for fiscal 2016 and 47% for fiscal 2015.

In recent fiscal years, we generated approximately three-quarters of our software revenue from our existing customer base and approximately one-quarter of our software revenue from new customers. In addition, our total software revenue in any particular period is, to a certain extent, dependent upon our ability to generate revenues from large customer software deals, which we refer to as enterprise software transactions. Enterprise software transactions (transactions greater than \$0.1 million) represented approximately 56% of our software revenue in fiscal 2017, 53% for fiscal 2016 and 56% for fiscal 2015.

Software revenue generated through indirect distribution channels was 87% of total software revenue in fiscal 2017, 86% in fiscal 2016 and 82% in fiscal 2015. Software revenue generated through direct distribution channels was 13% of total software revenue in fiscal 2017, 14% in fiscal 2016 and 18% in fiscal 2015. The dollar value of software revenue generated through indirect distribution channels increased approximately \$34.8 million, or 16%, in fiscal 2017 compared to fiscal 2016. The dollar value of software revenue generated through direct distribution increased \$2.8 million, or 8%, in fiscal 2017 compared to fiscal 2016. 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 revenue generated through our direct distribution channels from time to time. We believe that the growth of our software 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.

Our primary original equipment manufacturer agreement is with Hitachi Data Systems (HDS) and allows them to market, sell and support our software applications and services on a stand-alone basis and/or incorporate our software applications into their own hardware products. Our OEM partners, including HDS, 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. Sales through our original equipment manufacturer agreements accounted for 15% of our total revenues for fiscal 2017 and fiscal 2016.

We also have non-exclusive distribution agreements 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., and Avnet Technology Solutions (“Avnet”), a subsidiary of Avnet, Inc. Pursuant to these distribution agreements, these distributors’ 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 36% of our total revenues through Arrow in fiscal 2017, approximately 38% of our total revenues in fiscal 2016 and approximately 36% of our total revenues in fiscal 2015. We generated approximately 10% of our total revenues through Avnet in fiscal 2017. If Arrow or Avnet were to discontinue or reduce the sales of our products or if our agreement with Arrow or Avnet 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 or Avnet, then it could have a material adverse effect on our future business.

Our services revenue was 54% of our total revenues for fiscal 2017, 57% for fiscal 2016 and 53% for fiscal 2015. 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.

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 77% for fiscal 2017, and 76% for fiscal 2016 and 75% for fiscal 2015. Overall, our services revenue has lower gross margins than our software revenue. The gross margin of our software revenue was 99% for fiscal 2017, fiscal 2016 and fiscal 2015. An increase in the percentage of total revenues represented by services revenue may adversely affect our overall gross margins.

Description of Costs and Expenses

Our cost of revenues is as follows:

- *Cost of Software Revenue*, consists primarily of 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.

Foreign Currency Exchange Rates' Impact on Results of Operations

Sales outside the United States were approximately 44% of our total revenue for fiscal 2017, 42% for fiscal 2016 and 43% for fiscal 2015. 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 2016, our software revenue would have been higher by \$5.4 million, our services revenue would have been higher by \$4.1 million, our cost of sales would have been higher by \$0.3 million and our operating expenses would have been higher by \$10.7 million from non-U.S. operations for fiscal 2017.

Using the average foreign currency exchange rates from fiscal 2015, our software revenue would have been higher by \$12.4 million, our services revenue would have been higher by \$16.3 million, our cost of sales would have been higher by \$4.2 million and our operating expenses would have been higher by \$17.3 million from non-U.S. operations for fiscal 2016.

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 \$0.6 million in fiscal 2017, \$0.2 million in fiscal 2016, and \$0.1 million in fiscal 2015.

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

The following discussion of our revenue recognition accounting policies is based on the accounting principles that were used to prepare the fiscal 2017 consolidated financial statements included in this annual report. On April 1, 2017, we adopted Financial Accounting Standards Board issued Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers." This standard replaces existing revenue recognition rules with a comprehensive revenue measurement and recognition standard and expanded disclosure requirements. See Note 2 of the consolidated financial statements for a discussion of recently issued accounting standards.

Our revenue recognition policy is based on complex rules that 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 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 sales of undelivered services when sold on a stand-alone basis, our pricing policies, the credit-worthiness of our customers and resellers, accounts receivable aging data 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.

Currently, we derive revenues from two primary sources: software licenses and services. Services include customer support, consulting, assessment and design services, installation services and training. A typical sales arrangement includes both of these sources.

For sales arrangements involving multiple elements, we recognize revenue using the residual method. Under the residual method, we allocate and defer revenue for the undelivered elements based on fair value and recognize the difference between the total arrangement fee and the amount deferred for the undelivered elements as revenue. The determination of fair value of the undelivered elements in multiple-element arrangements is based on the price charged when such elements are sold separately, which is commonly referred to as vendor-specific objective evidence ("VSOE").

Our software licenses typically provide for a perpetual right to use our software and are sold on a per-copy basis, on a per terabyte capacity basis as a solution set or as site licenses. Software licenses sold on a capacity basis provide the customer with unlimited licenses of specified software products based on a defined level of terabytes of data under management. Site licenses give the customer the additional right to deploy the software on a limited basis during a specified term. Our solution sets are generally sold on a per unit basis such as per virtual machine for our virtual machine backup, recovery and cloud management solution set; per mailbox for our email archive solution set, and per user for our endpoint data protection solution set. We recognize software revenue through direct sales channels upon receipt of a purchase order or other persuasive evidence and when the other three basic revenue recognition criteria are met as described in the revenue recognition section in Note 2 of our "Notes to Consolidated Financial Statements." We recognize software revenue through all indirect sales channels on a sell-through model. A sell-through model requires that we recognize revenue when the basic revenue recognition criteria are met and these channels complete the sale of our software products to the end-user. Revenue from software licenses sold through an original equipment manufacturer partner is recognized upon the receipt of a royalty report or purchase order from that original equipment manufacturer partner.

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. Customer support revenue is recognized ratably over the term of the customer support agreement, which is typically one year. To determine the price for the customer support element when sold separately, we primarily use historical renewal rates. Historical renewal rates are supported by a rolling 12-month VSOE analysis in which we segregate our customer support renewal contracts into different classes based on specific criteria including, but not limited to, dollar amount of software purchased, level of customer support being provided and distribution channel. The purpose of such an analysis is to determine if the customer support element that is deferred at the time of a software sale is consistent with how it is sold on a stand-alone renewal basis.

Our other professional services include consulting; implementation and post deployment services; and education services. Other professional services provided by us are not mandatory and can also be performed by the customer or a third-party. In addition to a signed purchase order, our consulting, assessment and design services and installation services are, in some cases, evidenced by a Statement of Work, which defines the specific scope of the services to be performed when sold and performed on a stand-alone basis or included in multiple-element sales arrangements. Revenues from consulting, assessment and design services and installation services are based upon a daily, weekly or monthly rate and are recognized when the services are completed. Training includes courses taught by our instructors or third-party contractors either at one of our facilities or at the customer's site. Training fees are recognized as revenue after the training course has been provided. Based on our analysis of such other professional services transactions sold on a stand-alone basis, we have concluded we have established VSOE for such other professional services when sold in connection with a multiple-element sales arrangement.

In summary, we have analyzed all of the undelivered elements included in our multiple-element sales arrangements and determined that we have VSOE of fair value to allocate revenues to services. Our analysis of the undelivered elements has provided us with results that are consistent with the estimates and assumptions used to determine the timing and amount of revenue recognized in our multiple-element sales arrangements. Accordingly, assuming all basic revenue recognition criteria are met, software revenue is recognized upon delivery of the software license using the residual method. We are not likely to materially change our pricing and discounting practices in the future.

Our sales arrangements generally do not include acceptance clauses. However, if an arrangement does include an acceptance clause, we defer the revenue for such an arrangement and recognize it upon acceptance. Acceptance occurs upon the earliest of receipt of a written customer acceptance, waiver of customer acceptance or expiration of the acceptance period.

Stock-Based Compensation

As of March 31, 2017, we maintain two stock incentive plans, which are described more fully in Note 8 of our "Notes to Consolidated Financial Statements." We account for our stock incentive plans based on the grant date fair value recognition provisions in accordance with ASC 718. Compensation for share-based payment awards is generally recognized on a straight-line basis over the requisite service period of the awards, which is generally the vesting period. However, awards granted to senior executives that include market or performance conditions are recognized using the accelerated method.

We estimated the fair value of stock options granted using the Black-Scholes formula. The fair value of restricted stock units awarded is determined based on the number of shares granted and the closing price of our common stock on the date of grant. We expect in the future that we will no longer grant stock options and all awards will be granted as restricted stock units.

We incorporate our historical data into the expected term calculation for stock options granted. As a result, our calculation of expected term includes a combination of actual exercise data and an assumption on when the remaining outstanding options with similar characteristics will be exercised based on our historical data. In determining expected life, we separate employees into groups that have historically exhibited similar behavior with regard to option exercises. Expected volatility is calculated based on a blended approach that includes the implied volatility of our traded options with a remaining maturity greater than six months and the historical realized volatility of our common stock. The risk-free interest rate is determined by reference to U.S. Treasury yield curve rates with a remaining term that is approximately the expected life assumed at the date of grant. Forfeitures are estimated based on our historical analysis of actual stock option forfeitures.

No options were granted during the fiscal year ended March 31, 2017. The weighted average fair value of stock options granted was \$15.20 per option during the year ended March 31, 2016. In addition, the weighted average fair value of restricted stock units awarded was \$50.66 per share during the year ended March 31, 2017 and \$37.27 per share during the year ended March 31, 2016.

In fiscal 2017, we granted 115,000 performance restricted stock units ("PSU") to certain executives. Vesting of these awards is contingent upon i) the Company meeting certain company-wide revenue and non-GAAP performance goals (performance-based) in fiscal 2017 and ii) the Company's customary service periods. The awards vest in three annual tranches and have a maximum potential to vest at 200% (230 shares) based on actual fiscal 2017 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 the interim financial periods, we estimate the probable number of PSU's that would vest until the ultimate achievement of the performance goals is known.

In fiscal 2017, we granted 123,000 market performance stock units to certain executives. The vesting of these awards is contingent upon 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% (246,000 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 was calculated using a Monte Carlo simulation model. The weighted average fair value of the awards granted during the year was \$57.28.

Accounting for Income Taxes

As part of the process of preparing our financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves estimating our actual current tax exposure, including assessing the risks associated with tax audits, and assessing temporary differences resulting from different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. As of March 31, 2017, we had net deferred tax assets of approximately \$61.0 million, which were primarily related to stock-based compensation, deferred revenue and tax credits. We assess the likelihood that our deferred tax assets will be recovered from future taxable income, and to the extent that we believe recovery is not likely, we establish a valuation allowance. During the year ended March 31, 2017, we decreased the valuation allowance by \$1.0 million against our deferred tax assets which now totals \$1.8 million. All of the valuation allowance we have recorded at March 31, 2017 is related to New Jersey state research tax credits due to uncertainties related to the ability to utilize such state research tax credits before they expire. We based our valuation allowance on our estimates of taxable income by legal entity and the period over which our state research tax credits will be recoverable.

At March 31, 2017, we have federal and state research tax credit ("R&D") carryforwards of approximately \$3.3 million and \$3.2 million, respectively. The federal research tax credit carryforwards expire from 2025 through 2036, and the state research tax credit carryforwards expire from 2017 through 2023. At March 31, 2017, we have federal Alternative Minimum Tax credit carryforwards of \$1.1 million.

As of March 31, 2017, we had unrecognized tax benefits of \$2.1 million, all of which, if recognized, would favorably affect the effective tax rate. In addition, we have accrued interest and penalties of \$0.4 million related to the unrecognized tax benefits. Interest and penalties, if any, related to unrecognized tax benefits are recorded in income tax expense.

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. There are currently active audits in the United Kingdom, India, and New Jersey. The following table summarizes the tax years in the major tax jurisdictions that remain subject to income tax examinations by tax authorities as of March 31, 2017. The years subject to income tax examination in our foreign jurisdictions cover the maximum time period with respect to these jurisdictions. Due to NOL carryforwards, 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	2013 - Present
New Jersey	2012 - Present
Foreign jurisdictions	2012 - Present

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.

Results of Operations

The following table sets forth each of our sources of revenues and costs of revenues for the specified periods as a percentage of our total revenues for those periods (due to rounding numbers in column may not sum to totals):

	Year Ended March 31,		
	2017	2016	2015
Revenues:			
Software	46%	43%	47%
Services	54%	57%	53%
Total revenues	100%	100%	100%
Cost of revenues:			
Software	—%	—%	—%
Services	13%	13%	13%
Total cost of revenues	13%	14%	14%
Gross margin	87%	86%	86%

Fiscal year ended March 31, 2017 compared to fiscal year ended March 31, 2016

Revenues

Total revenues increased \$55.4 million, or 9%, from \$595.1 million in fiscal 2016 to \$650.5 million in fiscal 2017.

Software Revenue. Software revenue increased \$37.6 million, or 15%, from \$258.8 million in fiscal 2016 to \$296.4 million in fiscal 2017. Software revenue represented 46% of our total revenues in fiscal 2017 compared to 43% in fiscal 2016.

The overall increase in software revenue was primarily driven by an increase in the number of enterprise software transactions (transactions greater than \$0.1 million), which increased by \$29.3 million, or 21% in fiscal 2017 compared to fiscal 2016. Enterprise software transactions represented approximately 56% and 53% of our software revenue in fiscal 2017 and fiscal 2016, respectively. The increase in enterprise software transactions is due to a 23% increase in the number of transactions of this type which was partially offset by a 2% decrease in the average dollar amount of such transactions. The average dollar amount of enterprise transactions was approximately \$264,000 in fiscal 2017 and approximately \$268,000 in fiscal 2016. Software revenue derived from transactions less than \$0.1 million increased \$8.3 million, or 7%, in fiscal 2017 compared to fiscal 2016.

We track software 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 APAC (Australia, New Zealand, Southeast Asia, China). Americas, EMEA and APAC represented 57%, 29% and 14% of total software revenue, respectively, for the fiscal year ended March 31, 2017. The year over year increase of Software Revenue in the Americas, EMEA and APAC was 10%, 14% and 38%, respectively.

- The increase in Americas software revenue for the fiscal year ended March 31, 2017 was primarily the result of an increase in the number of enterprise revenue transactions and to a lesser extent due to an increase in the average dollar amount of enterprise revenue transactions.
- The increase in EMEA software revenue was also primarily the result of an increase in the number of enterprise transactions. This increase was partially offset by the impact of changes in foreign exchange rates as the U.S. dollar strengthened against the Euro and British pound sterling. Using average foreign exchange rates from fiscal 2016, fiscal 2017 EMEA software revenue would have increased 21% compared to an actual reported EMEA software revenue increase of 14%.
- The increase in APAC software revenue was the result of a significant increase in the number of enterprise revenue transactions and to a lesser extent due to an increase in the average dollar amount of enterprise revenue transactions and revenue related to revenue derived from transactions less than \$0.1 million.

Our software revenue in EMEA and APAC 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.

Software revenue derived from our indirect distribution channel (resellers and original equipment manufacturers) increased \$34.8 million, or 16% in fiscal 2017 compared to fiscal 2016, and software revenue through our direct sales force increased \$2.8 million, or 8% in fiscal 2017 compared to fiscal 2016. For additional discussion on software revenue derived from our direct sales force see the “*Sources of Revenue*” section.

Services Revenue. Services revenue increased \$17.8 million, or 5%, from \$336.3 million in fiscal 2016 to \$354.1 million in fiscal 2017. Services revenue represented 54% of our total revenues in fiscal 2017 compared to 57% in fiscal 2016. The net increase in services revenue is due to a \$20.7 million increase in revenue from customer support agreements as a result of software sales to new customers and renewal agreements with our installed software base.

Cost of Revenues

Total cost of revenues increased \$2.5 million, or 3%, from \$82.7 million in fiscal 2016 to \$85.2 million in fiscal 2017. Total cost of revenues represented 13% of our total revenues in fiscal 2017 compared to 14% in fiscal 2016. The increase in software revenue as a percentage of total revenues has a favorable impact on gross margin percentage.

Cost of Software Revenue. Cost of software revenue was \$3.0 million in fiscal 2017 and \$2.4 million in fiscal 2016, representing approximately 1% of software revenue.

Cost of Services Revenue. Cost of services revenue increased \$1.8 million, or 2%, from \$80.3 million in fiscal 2016 to \$82.1 million in fiscal 2017. Cost of services revenue represented 23% and 24% of our services revenue in fiscal 2017 and fiscal 2016, respectively.

Operating Expenses

Sales and Marketing. Sales and marketing expenses increased \$35.3 million, or 10%, from \$352.7 million in fiscal 2016 to \$388.0 million in fiscal 2017. The increase is primarily due to a \$21.1 million increase in employee compensation and related expenses attributable to the expansion of our sales force from the prior year, a \$5.4 million increase in stock-based compensation, and \$4.3 million in incremental marketing expense which included the cost of our inaugural customer conference as well as our first worldwide sales meeting in several years held during the first quarter. Sales and marketing expenses as a percentage of total revenues increased to 60% in fiscal 2017 compared to 59% in fiscal 2016.

Research and Development. Research and development expenses increased \$14.3 million, or 21%, from \$69.3 million in fiscal 2016 to \$83.5 million in fiscal 2017. The increase is primarily due to an increase in employee compensation and related expenses attributable to the expansion of our engineering group from the prior year. Research and development expenses as a percentage of total revenues increased to 13% in fiscal 2017 compared to 12% in fiscal 2016. 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. General and administrative expenses increased \$6.1 million, or 8%, from \$78.8 million in fiscal 2016 to \$84.9 million in fiscal 2017. This increase is primarily due to a \$3.5 million increase in employee and related compensation and a \$2.9 million increase in stock-based compensation. General and administrative expenses in fiscal 2017 includes \$0.6 million of net foreign currency transaction gains compared to \$0.2 million of net foreign currency transaction gains recognized in general and administrative expenses in fiscal 2016. General and administrative expenses as a percentage of total revenues was 13% in both fiscal 2017 and fiscal 2016.

Depreciation and Amortization. Depreciation expense decreased \$1.0 million, from \$9.6 million in fiscal 2016 to \$8.6 million in fiscal 2017.

Interest Expense

Interest expense of \$1.0 million in fiscal 2017 was related to the amortization of debt issuance costs and commitment fees related to our Revolving Credit Facility. If we were to borrow against the facility in the future we would incur additional interest expense.

Interest Income

Interest income increased \$0.3 million, from \$0.9 million in fiscal 2016 to \$1.2 million in fiscal 2017. The increase was the result of an increase in short term investments and increased yield on those investments. Our short term investments are in U.S. Treasury Bills.

Income Tax Expense

Income tax benefit was \$1.1 million in fiscal 2017 compared to expense of \$1.7 million in fiscal 2016. The decline in income tax expense is the result of a decline in income before taxes. In fiscal 2017, the effective tax rate is higher than the statutory rate due to the benefit related to research credits slightly offset by unfavorable differences, both on a nominal pre-tax loss.

Fiscal year ended March 31, 2016 compared to fiscal year ended March 31, 2015

Revenues

Total revenues decreased \$12.4 million, or 2%, from \$607.5 million in fiscal 2015 to \$595.1 million in fiscal 2016.

Software Revenue. Software revenue decreased \$24.5 million, or 9%, from \$283.3 million in fiscal 2015 to \$258.8 million in fiscal 2016. Software revenue represented 43% of our total revenues in fiscal 2016 compared to 47% in fiscal 2015.

The overall decrease in software revenue was primarily driven by a decline in the number of enterprise software transactions (transactions greater than \$0.1 million), which decreased by \$22.8 million, or 14% in fiscal 2016 compared to fiscal 2015. Enterprise software transactions represented approximately 53% and 56% of our software revenue in fiscal 2016 and fiscal 2015, respectively. The decrease in enterprise software transactions is due to a 10% decrease in the number of transactions of this type and a 4% decrease in the average dollar amount of such transactions. The average dollar amount of enterprise transactions was approximately \$268,000 in fiscal 2016 and approximately \$281,000 in fiscal 2015. Software revenue derived from transactions less than \$0.1 million decreased \$1.6 million, or 1%, in fiscal 2016 compared to fiscal 2015.

We track software 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 APAC (Australia, New Zealand, Southeast Asia, China). Americas, EMEA and APAC represented 60%, 29% and 11% of total software revenue, respectively, for the fiscal year ended March 31, 2016. The year over year decline of Software Revenue in the Americas, EMEA and APAC was 11%, 1% and 11%, respectively.

- Software revenue for the fiscal year ended March 31, 2016 in the Americas was impacted by lower productivity in our Americas sales organization which resulted in a decline in both enterprise transactions and non-enterprise transactions during fiscal 2016 compared to fiscal 2015. The decrease in enterprise transactions was primarily a result of a decline in the number of enterprise transactions.
- The decline in EMEA software revenue was the result of changes in foreign exchange rates as the U.S. dollar strengthened significantly against the Euro and British pound sterling. Using average foreign exchange rates from fiscal 2015, fiscal 2016 EMEA software revenue increased 8% compared to an actual reported EMEA software revenue decline of 1%.
- APAC software revenue was also impacted by the strengthening of the U.S. dollar. Using average foreign exchange rates from fiscal 2015, fiscal 2016 APAC software revenue decreased 1% compared to an actual reported APAC software revenue decrease of 11%. APAC software revenue was also adversely impacted by a decline in enterprise transactions.

Our software revenue in EMEA and APAC 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.

Software revenue derived from our indirect distribution channel (resellers and original equipment manufacturers) decreased \$11.4 million, or 5% in fiscal 2016 compared to fiscal 2015, and software revenue through our direct sales force decreased \$13.1 million, or 26% in fiscal 2016 compared to fiscal 2015. For additional discussion on software revenue derived from our direct sales force see the “*Sources of Revenue*” section.

Services Revenue. Services revenue increased \$12.0 million, or 4%, from \$324.3 million in fiscal 2015 to \$336.3 million in fiscal 2016. Services revenue represented 57% of our total revenues in fiscal 2016 compared to 53% in fiscal 2015. The net increase in services revenue is due to a \$15.2 million increase in revenue from customer support agreements as a result of software sales to new customers and renewal agreements with our installed software base.

Cost of Revenues

Total cost of revenues increased \$0.6 million, or 1%, from \$82.1 million in fiscal 2015 to \$82.7 million in fiscal 2016. Total cost of revenues represented 14% of our total revenues in both fiscal 2016 and fiscal 2015.

Cost of Software Revenue. Cost of software revenue was \$2.4 million in both fiscal 2016 and 2015, representing approximately 1% of software revenue.

Cost of Services Revenue. Cost of services revenue increased \$0.7 million, or 1%, from \$79.6 million in fiscal 2015 to \$80.3 million in fiscal 2016. Cost of services revenue represented 24% and 25% of our services revenue in fiscal 2016 and fiscal 2015, respectively.

Operating Expenses

Sales and Marketing. Sales and marketing expenses increased \$16.7 million, or 5%, from \$336.0 million in fiscal 2015 to \$352.7 million in fiscal 2016. The increase is primarily due to a \$16.3 million increase in employee compensation and related expenses attributable to the expansion of our sales force from the prior year. Sales and marketing expenses as a percentage of total revenues increased to 59% in fiscal 2016 compared to 55% in fiscal 2015, primarily due to higher compensation costs as a percentage of total revenues related to our field sales teams.

Research and Development. Research and development expenses increased \$5.1 million, or 8%, from \$64.1 million in fiscal 2015 to \$69.3 million in fiscal 2016. The increase is primarily due to a \$4.8 million increase in employee compensation and related expenses attributable to the expansion of our engineering group from the prior year. Research and development expenses as a percentage of total revenues increased to 12% in fiscal 2016 compared to 11% in fiscal 2015. 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. General and administrative expenses increased \$0.8 million, or 1%, from \$78.1 million in fiscal 2015 to \$78.8 million in fiscal 2016. This increase is primarily due to a \$4.5 million increase in employee and related compensation due to higher headcount which is partially offset by a \$3.6 million decline in expenses related to our move to a new corporate headquarters in fiscal 2015. General and administrative expenses in fiscal 2016 also includes \$0.2 million of net foreign currency transaction gains compared to \$0.1 million of net foreign currency transaction gains recognized in general and administrative expenses in fiscal 2015. General and administrative expenses as a percentage of total revenues was 13% in both fiscal 2016 and fiscal 2015.

Depreciation and Amortization. Depreciation expense increased \$1.1 million, from \$8.5 million in fiscal 2015 to \$9.6 million in fiscal 2016. The increase in depreciation expense is the result of the move to our new corporate campus headquarters in the third quarter of fiscal 2015.

Interest Expense

Interest expense of \$0.9 million in fiscal 2016 was related to the amortization of debt issuance costs and commitment fees related to our Revolving Credit Facility. If we were to borrow against the facility in the future we would incur additional interest expense.

Interest Income

Interest income increased \$0.1 million, from \$0.8 million in fiscal 2015 to \$0.9 million in fiscal 2016.

Income Tax Expense

Income tax expense was \$1.7 million in fiscal 2016 compared to \$13.2 million in fiscal 2015. The decline in income tax expense is the result of a decline in income before taxes. The effective tax rate in fiscal 2016 was 93% as compared to 34% in fiscal 2015. In fiscal 2016, the effective tax rate is higher than the statutory rate due to the amount of unfavorable permanent differences and an increase to the valuation allowance for New Jersey research tax credits. The Company increased the valuation allowance \$1.4 million in fiscal 2016 due to lower estimates of forecasted New Jersey taxable income in the periods prior to the research tax credits expiration.

In fiscal 2015, the effective tax rate is lower than the statutory rate due to the impact of domestic production deduction, foreign tax credits and release of reserves, partially offset by state income taxes and permanent differences in both the United States and foreign jurisdictions.

Liquidity and Capital Resources

As of March 31, 2017, our cash and cash equivalents balance was \$329.5 million. Our \$70.2 million of cash equivalents consisted of money market funds. In addition, we have approximately \$120.7 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, 2017, the amount of cash and cash equivalents held outside of the United States by our foreign legal entities was approximately \$179.3 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 addition, it is our intention to indefinitely reinvest undistributed earnings 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 or U.S. income taxes. It is not currently practical to estimate the legal restrictions or tax liability that would arise from such repatriations.

On June 30, 2014, we entered into a five-year \$250 million revolving credit facility (the "Credit Facility"). The Credit Facility is available for share repurchases, general corporate purposes, and letters of credit. The Credit Facility contains financial maintenance covenants including a leverage ratio and interest coverage ratio. The Credit Facility also contains certain customary events of default which would permit the lenders to, among other things, declare all loans then outstanding to be immediately due and payable if such default is not cured within applicable grace periods. The Credit Facility also limits our ability to incur certain additional indebtedness, create or permit liens on assets, make acquisitions, make investments, loans or advances, sell or transfer assets, pay dividends or distributions, and engage in certain transactions with foreign affiliates. Outstanding borrowings under the Credit Facility accrue interest at an annual rate equal to London Interbank Offered Rate plus 1.50% subject to increases based on the Company's actual leverage. The unused balance on the Credit Facility is also subject to a 0.25% annual interest charge subject to increases based on the Company's actual leverage. As of March 31, 2017, there were no borrowings under the Credit Facility and we believe we are in compliance with all covenants.

During the year ended March 31, 2017, we repurchased \$50.0 million of common stock (1.0 million shares) under our share repurchase program. In fiscal 2017, we bought back approximately 2% of our common stock that was outstanding at the beginning of the fiscal year. 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. Our stock repurchase program reduces the dilutive impact on our common shares outstanding associated with stock option exercises and our previous public and private stock offerings through the repurchase of common stock we believe is undervalued. As of May 4, 2017, there is \$125.0 million remaining in the share repurchase program which expires on March 31, 2018. Our stock repurchase program has been funded by our existing cash and cash equivalent balances as well as cash flows provided by our operations.

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

	Year Ended March 31,		
	2017	2016	2015
Net cash provided by operating activities	\$ 100,039	\$ 84,413	\$ 123,847
Net cash used in investing activities	(28,045)	(62,189)	(90,041)
Net cash used in financing activities	(22,435)	(69,970)	(133,640)
Effects of exchange rate — changes in cash	(8,175)	(1,820)	(20,226)
Net increase (decrease) in cash and cash equivalents	\$ 41,384	\$ (49,566)	\$ (120,060)

Net cash provided by operating activities was \$100.0 million in fiscal 2017, \$84.4 million in fiscal 2016 and \$123.8 million in fiscal 2015. In fiscal 2017, cash generated by operating activities was primarily due to net income 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 and an increase in accrued expenses, partially offset by an increase in accounts receivable. In fiscal 2016, cash generated by operating activities was primarily due to net income 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. In fiscal 2015, cash generated by operating activities was primarily due to net income adjusted for the impact of non-cash charges; an increase in deferred services revenue; and an increase in accrued liabilities. These increases were partially offset by an increase in accounts receivable and timing of cash receipts.

Net cash used in investing activities was \$28.0 million in fiscal 2017, \$62.2 million in fiscal 2016 and \$90.0 million in fiscal 2015. In fiscal 2017, cash used in investing activities was related to \$21.6 million of net purchases of short-term investments of U.S. Treasury Bills, and \$6.4 million of capital expenditures as we continue to invest in and enhance our global infrastructure. In fiscal 2016, cash used in investing activities was primarily related to \$49.1 million of net purchases of short-term investments of U.S. Treasury Bills, \$6.3 million of capital expenditures as we continue to invest in and enhance our global infrastructure and a \$4.7 million investment in Laitek, Inc (Laitek). Laitek develops solutions for acquiring, processing and presenting scientific and medical image information. We have an option to acquire the remaining ownership of Laitek at a fixed price until December 2017. In fiscal 2015, cash used in investing activities was due to the purchase of property and equipment in the amounts of \$59.3 million for purchases relating to our corporate campus headquarters and \$5.8 million of capital expenditures as we continue to invest in and enhance our global infrastructure. We also made net purchases of short-term investments of U.S. Treasury Bills of \$25.0 million.

Net cash used in financing activities was \$22.4 million in fiscal 2017, \$70.0 million in fiscal 2016 and \$133.6 million in fiscal 2015. The cash used in financing activities in fiscal 2017 was primarily due to \$50.0 million used to repurchase shares of our common stock under our repurchase program, partially offset by \$21.3 million of proceeds from the exercise of stock options and the employee stock purchase plan and \$6.2 million of excess tax benefits related to employee stock-based compensation. The cash used in financing activities in fiscal 2016 was primarily due to \$91.5 million used to repurchase shares of our common stock under our repurchase program, partially offset by \$14.8 million of proceeds from the exercise of stock options and the employee stock purchase plan and \$6.7 million of excess tax benefits related to employee stock-based compensation. The cash used in financing activities in fiscal 2015 was due to \$155.1 million used to repurchase shares of our common stock under our repurchase program, partially offset by \$17.7 million of proceeds from the exercise of stock options and the employee stock purchase plan and \$5.1 million of excess tax benefits related to employee stock-based compensation.

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

	Year Ended March 31,		
	2017	2016	2015
Cash used for repurchases (in thousands)	\$ 49,998	\$ 91,477	\$ 155,125
Shares repurchased (in thousands)	982	2,563	3,171
Average price per share	\$ 50.91	\$ 35.69	\$ 48.92

Working capital increased \$60.7 million from \$252.4 million as of March 31, 2016 to \$313.1 million as of March 31, 2017. The increase in working capital is primarily due to cash provided by operating activities partially offset by cash used for share repurchases 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, including borrowing under our revolving credit facility, 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. We recognize rent expense under leases on a straight-line basis. 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, 2017 (dollars in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	2-3 Years	4-5 Years	More Than 5 Years
Operating lease obligations	\$ 34,723	\$ 9,504	\$ 13,979	\$ 8,584	\$ 2,656
Purchase obligations	21,260	11,051	9,988	221	—
Total	\$ 55,983	\$ 20,555	\$ 23,967	\$ 8,805	\$ 2,656

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 \$2.5 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 revenues was \$2.6 million in fiscal 2017 and \$1.9 million in fiscal 2016.

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, 2017 and 2016, other than our operating leases, we do 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

On April 1, 2017, we adopted Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." This standard replaces existing revenue recognition rules with a comprehensive revenue measurement and recognition standard and expanded disclosure requirements. See Note 2 of the consolidated financial statements for a discussion of the impact of recently issued accounting standards.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

As of March 31, 2017, 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 44% of our sales were outside the United States in fiscal 2017 and 42% were outside the United States in fiscal 2016. 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 \$6.6 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 Income. We recognized net foreign currency transaction gains of \$0.6 million, \$0.2 million and \$0.1 million in fiscal 2017, fiscal 2016, and fiscal 2015 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.

To date, we have selectively hedged our exposure to foreign currency transaction gains and losses on the balance sheet through the use of forward contracts, which were not designated as hedging instruments. The duration of forward contracts utilized for hedging our balance sheet exposure is generally one to three months. As of March 31, 2017 and March 31, 2016, we did not have any forward contracts outstanding. We recorded net realized gains and losses in general and administrative of less than \$0.1 million in fiscal 2017, 2016 and 2015. 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.

Item 8. *Financial Statements and Supplementary Data*

**Commvault Systems, Inc.
Consolidated Financial Statements
Fiscal Years Ended March 31, 2017, 2016 and 2015
Index to Consolidated Financial Statements**

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Commvault Systems, Inc.

We have audited the accompanying consolidated balance sheets of Commvault Systems, Inc. as of March 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income (loss), shareholders' equity and cash flows for each of the three years in the period ended March 31, 2017. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of CommVault Systems, Inc. at March 31, 2017 and 2016, and the consolidated results of their operations and their cash flows for each of the three years in the period ended March 31, 2017, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects in the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Commvault Systems, Inc.'s internal control over financial reporting as of March 31, 2017, 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 5, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young
Iselin, New Jersey
May 5, 2017

Commvault Systems, Inc.
Consolidated Balance Sheets
(In thousands, except per share data)

	March 31,	
	2017	2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 329,491	\$ 288,107
Short-term investments	120,693	99,072
Trade accounts receivable, less allowance for doubtful accounts of \$103 and \$315 at March 31, 2017 and 2016, respectively	132,761	113,429
Prepaid expenses and other current assets	15,791	16,769
Total current assets	598,736	517,377
Deferred tax assets, net	61,018	49,976
Property and equipment, net	132,319	135,904
Equity method investment	3,621	4,579
Other assets	7,273	6,737
Total assets	\$ 802,967	\$ 714,573
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	\$ 117	\$ 309
Accrued liabilities	78,701	69,678
Deferred revenue	206,777	194,977
Total current liabilities	285,595	264,964
Deferred revenue, less current portion	70,803	49,889
Other liabilities	3,934	3,452
Commitments and contingencies (Note 5)		
Stockholders' equity:		
Preferred stock, \$0.01 par value: 50,000 shares authorized, no shares issued and outstanding at March 31, 2017 and 2016	—	—
Common stock, \$0.01 par value, 250,000 shares authorized, 44,816 shares and 44,134 shares issued and outstanding at March 31, 2017 and 2016, respectively	447	440
Additional paid-in capital	694,477	602,999
Accumulated deficit	(239,974)	(197,962)
Accumulated other comprehensive loss	(12,315)	(9,209)
Total stockholders' equity	442,635	396,268
Total liabilities and stockholders' equity	\$ 802,967	\$ 714,573

Commvault Systems, Inc.
Consolidated Statements of Income
(In thousands, except per share data)

	Year Ended March 31,		
	2017	2016	2015
Revenues:			
Software	\$ 296,421	\$ 258,793	\$ 283,254
Services	354,097	336,333	324,289
Total revenues	<u>650,518</u>	<u>595,126</u>	<u>607,543</u>
Cost of revenues:			
Software	3,045	2,385	2,442
Services	82,147	80,327	79,626
Total cost of revenues	<u>85,192</u>	<u>82,712</u>	<u>82,068</u>
Gross margin	<u>565,326</u>	<u>512,414</u>	<u>525,475</u>
Operating expenses:			
Sales and marketing	387,975	352,669	335,980
Research and development	83,543	69,287	64,143
General and administrative	84,944	78,848	78,063
Depreciation and amortization	8,635	9,611	8,505
Total operating expenses	<u>565,097</u>	<u>510,415</u>	<u>486,691</u>
Income from operations	229	1,999	38,784
Interest expense	(957)	(933)	(665)
Interest income	1,163	862	773
Equity in loss of affiliate	(958)	(83)	—
Income before income taxes	<u>(523)</u>	<u>1,845</u>	<u>38,892</u>
Income tax expense (benefit)	(1,063)	1,709	13,242
Net income	<u>\$ 540</u>	<u>\$ 136</u>	<u>\$ 25,650</u>
Net income per common share:			
Basic	<u>\$ 0.01</u>	<u>\$ 0.00</u>	<u>\$ 0.56</u>
Diluted	<u>\$ 0.01</u>	<u>\$ 0.00</u>	<u>\$ 0.54</u>
Weighted average common shares outstanding:			
Basic	<u>44,700</u>	<u>45,159</u>	<u>45,464</u>
Diluted	<u>46,621</u>	<u>46,489</u>	<u>47,222</u>

Commvault Systems, Inc.
Consolidated Statements of Comprehensive Income (Loss)
(In thousands, except per share data)

	Year Ended March 31,		
	2017	2016	2015
Net income	\$ 540	\$ 136	\$ 25,650
Other comprehensive loss:			
Foreign currency translation adjustment	(3,106)	(1,705)	(6,587)
Comprehensive income (loss)	\$ (2,566)	\$ (1,569)	19,063

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

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total
	Shares	Amount				
Balance at March 31, 2014	47,094	\$ 471	\$ 481,083	\$ (18,059)	\$ (917)	\$ 462,578
Stock-based compensation			60,663			60,663
Tax benefits relating to share-based payments			2,141			2,141
Share issuances related to stock-based compensation	1,199	12	17,678			17,690
Repurchase of common stock	(3,171)	(32)	(22,000)	(133,093)		(155,125)
Net income				25,650		25,650
Other comprehensive loss					(6,587)	(6,587)
Balance at March 31, 2015	45,122	451	539,565	(125,502)	(7,504)	407,010
Stock-based compensation			64,196			64,196
Tax benefits relating to share-based payments			3,265			3,265
Share issuances related to stock-based compensation	1,575	15	14,828			14,843
Repurchase of common stock	(2,563)	(26)	(18,855)	(72,596)		(91,477)
Net income				136		136
Other comprehensive loss					(1,705)	(1,705)
Balance at March 31, 2016	44,134	440	602,999	(197,962)	(9,209)	396,268
Stock-based compensation			73,928			73,928
Tax benefits relating to share-based payments			3,682			3,682
Share issuances related to stock-based compensation	1,664	17	21,304			21,321
Repurchase of common stock	(982)	(10)	(7,436)	(42,552)		(49,998)
Net income				540		540
Other comprehensive loss					(3,106)	(3,106)
Balance at March 31, 2017	<u>44,816</u>	<u>\$ 447</u>	<u>\$ 694,477</u>	<u>\$ (239,974)</u>	<u>\$ (12,315)</u>	<u>\$ 442,635</u>

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

	Year Ended March 31,		
	2017	2016	2015
Cash flows from operating activities			
Net income	\$ 540	\$ 136	\$ 25,650
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	10,232	11,179	9,046
Noncash stock-based compensation	73,928	64,196	60,663
Excess tax benefits from stock-based compensation	(6,242)	(6,664)	(5,057)
Deferred income taxes	(11,045)	(9,332)	4,072
Equity in loss of affiliate	958	83	—
Changes in operating assets and liabilities:			
Trade accounts receivable	(21,493)	3,879	(6,581)
Other current assets and Other assets	(55)	2,843	(10,678)
Accounts payable	(190)	(454)	(267)
Accrued liabilities	15,088	1,972	13,221
Deferred revenue	37,988	16,317	35,818
Other liabilities	330	258	(2,040)
Net cash provided by operating activities	<u>100,039</u>	<u>84,413</u>	<u>123,847</u>
Cash flows from investing activities			
Purchase of short-term investments	(96,306)	(99,071)	(68,933)
Proceeds from maturity of short-term investments	74,685	49,935	43,973
Purchase of equity method investment	—	(4,662)	—
Purchases for corporate campus headquarters	—	(2,111)	(59,297)
Purchase of property and equipment	(6,424)	(6,280)	(5,784)
Net cash used in investing activities	<u>(28,045)</u>	<u>(62,189)</u>	<u>(90,041)</u>
Cash flows from financing activities			
Repurchase of common stock	(49,998)	(91,477)	(155,125)
Debt issuance costs	—	—	(1,262)
Proceeds from stock-based compensation plans	21,321	14,843	17,690
Excess tax benefits from stock-based compensation	6,242	6,664	5,057
Net cash used in financing activities	<u>(22,435)</u>	<u>(69,970)</u>	<u>(133,640)</u>
Effects of exchange rate — changes in cash	(8,175)	(1,820)	(20,226)
Net increase (decrease) in cash and cash equivalents	41,384	(49,566)	(120,060)
Cash and cash equivalents at beginning of year	288,107	337,673	457,733
Cash and cash equivalents at end of year	<u>\$ 329,491</u>	<u>\$ 288,107</u>	<u>\$ 337,673</u>
Supplemental disclosures of cash flow information			
Interest paid	\$ 680	\$ 635	\$ 475
Income taxes paid, net	\$ 5,413	\$ 1,989	\$ 15,590
Purchases for corporate campus headquarters in accounts payable and accrued liabilities	\$ —	\$ —	\$ 2,111

Commvault Systems, Inc.
Notes to Consolidated Financial Statements
(In thousands, except per share data)

1. Nature of Business

Commvault Systems, Inc. and its subsidiaries (“Commvault” or the “Company”) is a leading provider of data and information management software applications and related services. The Company develops, markets and sells a suite of software applications and services, primarily in North America, Europe, Australia and Asia, that provides its customers with data protection solutions supporting all major operating systems, applications, and databases on virtual and physical servers, NAS shares, cloud-based infrastructures, and mobile devices; management through a single console; multiple protection methods including backup and archive, snapshot management, replication, and content indexing for eDiscovery; efficient storage management using deduplication for disk, tape and cloud; integration with the industry's top storage arrays; complete virtual infrastructure management supporting multiple hypervisors; security capabilities to limit access to critical data; policy based data management; and an end-user experience that allows them to protect, find and recover their own data using common tools such as web browsers, Microsoft Outlook and File Explorer. The Company also provides its 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 the Company. All intercompany transactions and balances have been eliminated.

Use of Estimates

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management to make judgments and estimates that affect the amounts reported in the Company’s consolidated financial statements and the accompanying notes. The Company bases its estimates and judgments on historical experience and on various other assumptions that it believes are reasonable under the circumstances. The amounts of assets and liabilities reported in the Company’s balance sheets and the amounts of revenues and expenses reported for each of its periods presented are affected by estimates and assumptions, which are used for, but not limited to, the accounting for revenue recognition, allowance for doubtful accounts, income taxes and related reserves, stock-based compensation and accounting for research and development costs. Actual results could differ from those estimates.

Revenue Recognition

The Company derives revenues from two primary sources: software licenses and services. Services include customer support, consulting, assessment and design services, installation services and training. A typical sales arrangement includes both licenses and services.

For sales arrangements involving multiple elements, the Company recognizes revenue using the residual method. Under the residual method, the Company allocates and defers revenue for the undelivered elements based on fair value and recognizes the difference between the total arrangement fee and the amount deferred for the undelivered elements as revenue. The determination of fair value of the undelivered elements in multiple-element arrangements is based on the price charged when such elements are sold separately, which is commonly referred to as vendor-specific objective-evidence, or VSOE.

The Company’s software licenses typically provide for a perpetual right to use the Company’s software and are sold on a per terabyte basis, on a per-copy basis, as site licenses or as a solution set. Software licenses sold on a capacity basis provide the customer with unlimited licenses of specified software products based on a defined level of terabytes of data under management. Site licenses give the customer the additional right to deploy the software on a limited basis during a specified term. Solution sets are generally sold on a per unit basis such as per virtual machine for our virtual machine backup, recovery and cloud management solution set; per mailbox for our email archive solution set and per user for our endpoint data protection solution set.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

The Company recognizes software revenue through direct sales channels upon receipt of a purchase order or other persuasive evidence and when all other basic revenue recognition criteria are met as described below. The Company recognizes software revenue through all indirect sales channels on a sell-through model. A sell-through model requires that the Company recognize revenue when the basic revenue recognition criteria are met as described below and these channels complete the sale of the Company's software products to the end-user. Revenue from software licenses sold through an original equipment manufacturer partner is recognized upon the receipt of a royalty report or purchase order from that original equipment manufacturer partner.

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. Customer support revenue is recognized ratably over the term of the customer support agreement, which is typically one year. To determine the price for the customer support element when sold separately, the Company primarily uses historical renewal rates. Historical renewal rates are supported by performing an analysis in which the Company segregates its customer support renewal contracts into different classes based on specific criteria including, but not limited to, the dollar amount of the software purchased, the level of customer support being provided and the distribution channel. As a result of this analysis, the Company has concluded that it has established VSOE for the different classes of customer support when the support is sold as part of a multiple-element sales arrangement. The Company's determination of fair value for customer support has not changed for the periods presented.

The Company's other professional services include consulting services, implementation and post-deployment services and education services. Other professional services provided by the Company are not mandatory and can also be performed by the customer or a third-party. In addition to a signed purchase order, the Company's consulting services and implementation and post-deployment services are, in some cases, evidenced by a Statement of Work, which defines the specific scope of such services to be performed when sold and performed on a stand-alone basis or included in multiple-element sales arrangements. Revenues from consulting services and implementation and post-deployment services are based upon a daily or weekly rate and are recognized when the services are completed. Education services include courses taught by the Company's instructors or third-party contractors either at one of the Company's facilities or at the customer's site. Education services fees are recognized as revenue after the course has been provided. Based on the Company's analysis of such other professional services transactions sold on a stand-alone basis, the Company has concluded it has established VSOE for such other professional services when sold in connection with a multiple-element sales arrangement. The Company generally performs its other professional services within 90 days of entering into an agreement. The Company's determination of fair value for other professional services has not changed for the periods presented.

The Company has analyzed all of the undelivered elements included in its multiple-element sales arrangements and determined that VSOE of fair value exists to allocate revenues to services. Accordingly, assuming all basic revenue recognition criteria are met, software revenue is recognized upon delivery of the software license using the residual method.

The Company considers the four basic revenue recognition criteria for each of the elements as follows:

- *Persuasive evidence of an arrangement with the customer exists.* The Company's customary practice is to require a purchase order and, in some cases, a written contract signed by both the customer and the Company, or other persuasive evidence that an arrangement exists prior to recognizing revenue related to an arrangement.
- *Delivery or performance has occurred.* The Company's software applications are either physically or electronically delivered to customers with standard transfer terms such as FOB shipping point. Software and/or software license keys for add-on orders or software updates are typically delivered in an electronic format. If products that are essential to the functionality of the delivered software in an arrangement have not been delivered, the Company does not consider delivery to have occurred. Services revenue is recognized when the services are completed, except for customer support, which is recognized ratably over the term of the customer support agreement, which is typically one year.
- *Vendor's fee is fixed or determinable.* The fee customers pay for software applications, customer support and other professional services is negotiated at the outset of a sales arrangement. The fees are therefore considered to be fixed or determinable at the inception of the arrangement. The Company evaluates instances when extended payment terms are granted to determine if revenue should be deferred until payment becomes due.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

- *Collection is probable.* Probability of collection is assessed on a customer-by-customer basis. Each new customer undergoes a credit review process to evaluate its financial position and ability to pay. If the Company determines from the outset of an arrangement that collection is not probable based upon the review process, revenue is recognized at the earlier of when cash is collected or when sufficient credit becomes available, assuming all of the other basic revenue recognition criteria are met.

The Company's sales arrangements generally do not include acceptance clauses. However, if an arrangement does include an acceptance clause, revenue for such an arrangement is deferred and recognized upon acceptance. Acceptance occurs upon the earliest of receipt of a written customer acceptance, waiver of customer acceptance or expiration of the acceptance period.

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 computation of basic and diluted net income per common share:

	Year Ended March 31,		
	2017	2016	2015
Net income	\$ 540	\$ 136	\$ 25,650
Basic net income per common share:			
Basic weighted average shares outstanding	44,700	45,159	45,464
Basic net income per common share	\$ 0.01	\$ 0.00	\$ 0.56
Diluted net income per common share:			
Basic weighted average shares outstanding	44,700	45,159	45,464
Dilutive effect of stock options, restricted stock units, and employee stock purchase plan	1,921	1,330	1,758
Diluted weighted average shares outstanding	46,621	46,489	47,222
Diluted net income per common share	\$ 0.01	\$ 0.00	\$ 0.54

The following table summarizes the potential outstanding common stock equivalents of the Company 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,		
	2017	2016	2015
Stock options, restricted stock units, and shares under the employee stock purchase plan	2,492	4,183	3,136

Software Development Costs

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

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable consist of amounts due to the Company from normal business activities. The Company maintains an allowance for estimated losses resulting from the inability of its customers to make required payments. The Company estimates uncollectible amounts based upon historical bad debts, evaluation of current customer receivable balances, age of customer receivable balances, the customer's financial condition and current economic trends.

Accounting for Income Taxes

As part of the process of preparing financial statements, the Company is required to estimate its income taxes in each of the jurisdictions in which it operates. This process involves estimating actual current tax exposure, including assessing the risks associated with tax audits, and assessing temporary differences resulting from different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. As of March 31, 2017, the Company had net deferred tax assets of approximately \$61,018, which were primarily related to stock-based compensation, deferred revenue, and tax credits. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income, and to the extent that the Company believes recovery is not likely, the Company establishes a valuation allowance. As of March 31, 2017, the Company maintains a valuation allowance related to its deferred tax assets totaling \$1,796 primarily related to the uncertainty of the Company's ability to utilize New Jersey state research tax credits before expiration. The Company based its valuation allowance on its estimates of taxable income and the period over which its state research tax credits will be recoverable.

The calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations in each of its 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. The Company applies the guidance issued to address the accounting for uncertain tax positions. This guidance clarifies the accounting for income taxes, by prescribing a minimum recognition threshold a tax position is required to meet before being recognized in the financial statements as well as provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition.

As of March 31, 2017, the Company had unrecognized tax benefits of \$2,098, all of which, if recognized, would favorably affect the effective tax rate. In addition, the Company had accrued interest and penalties of \$400 related to the unrecognized tax benefits. Interest and penalties, if any, related to unrecognized tax benefits are recorded in income tax expense. Components of the reserve are classified as either current or long-term in the Consolidated Balance Sheet based on when we expect each of the items to be settled. However, unrecognized tax benefits which are related to a Deferred Tax Asset recorded in the Consolidated Balance Sheet are presented as a reduction against the related Deferred Tax Asset.

Cash and Cash Equivalents

The Company considers 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, 2017, the Company's cash and cash equivalents balance consisted primarily of money market funds.

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. The company determines classification of the investment as trading, available-for-sale or held-to-maturity at the time of purchase and reevaluates classification whenever changes in circumstances indicate changes in classification may be necessary. The Company's current short-term investments are classified as held-to-maturity. Held-to-maturity investments consist of securities that the Company has 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 Statement of Income. Cash inflows and outflows related to the sale, maturity and purchase of investments are classified as investing activities in the Company's Consolidated Statements of Cash Flows.

Concentration of Credit Risk

The Company grants credit to customers in a wide variety of industries worldwide and generally does not require collateral. Credit losses relating to these customers have been minimal.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

Sales through the Company's distribution agreement with Arrow Enterprise Computing Solutions, Inc. ("Arrow") totaled approximately 36%, 38% and 36% of total revenues for the years ended March 31, 2017, 2016 and 2015, respectively. Arrow accounted for approximately 40% and 43% of total accounts receivable as of March 31, 2017 and 2016, respectively.

Sales through the Company's distribution agreement with Avnet Technology Solutions ("Avnet") totaled 10% of total revenues for the year ended March 31, 2017. Avnet accounted for approximately 12% of total accounts receivable as of March 31, 2017.

Fair Value of Financial Instruments

The carrying amounts of the Company's cash and cash equivalents, accounts receivable and accounts payable approximate their fair values due to the short-term maturity of these instruments. As of March 31, 2017 and 2016, the Company's short-term investments balance consisted of U.S. Treasury Bills.

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, the Company uses 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 the Company's financial assets measured at fair value on a recurring basis at March 31, 2017 and March 31, 2016:

March 31, 2017	Level 1	Level 2	Level 3	Total
Cash equivalents	\$ 70,190	—	—	\$ 70,190
Short-term investments	—	\$ 120,989	—	\$ 120,989
March 31, 2016	Level 1	Level 2	Level 3	Total
Cash equivalents	\$ 95,735	—	—	\$ 95,735
Short-term investments	—	\$ 99,215	—	\$ 99,215

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation and amortization. Land is not depreciated. The Company provides for depreciation on a straight-line basis over the estimated useful lives of the assets. The depreciable assets that comprise the Company's 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.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

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. The Company maintains certain office space for which the lease agreement requires that the Company return the office space to its original condition upon vacating the premises. Accordingly, the balance of the asset retirement obligation was \$1,204 as of March 31, 2017 and \$1,071 as of March 31, 2016.

Long-Lived Assets

The Company reviews its 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 its long-lived assets, the Company evaluates 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, 2017, 2016 and 2015.

Equity Method Investment

In fiscal 2016, the Company acquired a 34% ownership in Laitek, Inc. ("Laitek"). The Company also has an option to acquire the remaining ownership of Laitek at a fixed price until December 2017. Laitek develops solutions for acquiring, processing and presenting scientific and medical image information. The Company uses the equity method to account for its investment. In the event that management identifies an other than temporary decline in the estimated fair value of an equity method investment to an amount below its carrying value, such investment is written down to its estimated fair value. The Company also has development and original equipment manufacturing agreements with Laitek to jointly develop healthcare related software products. Certain employees of Laitek were also provided restricted stock units in exchange for consultative services provided to the Company. The awards are included in the information in Note 8.

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 the Company and receipt of license fees that are deferred due to one or more of the revenue recognition criteria not being met. The value of deferred revenues will increase or decrease based on the timing of invoices and recognition of revenue. The Company expenses internal direct and incremental costs related to contract acquisition and origination as incurred.

Deferred revenue consists of the following:

	March 31,	
	2017	2016
Current:		
Deferred software revenue	\$ 2,793	\$ 1,578
Deferred services revenue	203,984	193,399
	206,777	194,977
Non-current:		
Deferred services revenue	70,803	49,889
Total Deferred Revenue	\$ 277,580	\$ 244,866

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

Accounting for Stock-Based Compensation

The Company utilizes 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. The Company recognizes stock-based compensation using the straight-line method for all stock awards that don't include a market or performance condition.

The Company has granted certain executive officers and other senior employees performance stock units that vest over three years based upon the Company's stock performance versus the Russell 3000 Index. The performance of the stock versus the index is a market condition performance criteria so the Company used a Monte Carlo simulation model to determine the fair value of the restricted stock units. Expense related to stock based compensation that includes market or performance conditions is recognized using the accelerated method.

Share Repurchases

The Company considers 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 the Company's common stock repurchased is reflected as a reduction to Stockholders' Equity. The Company accounts 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.

Sales Tax

The Company records revenue net of sales tax.

Advertising Costs

The Company expenses advertising costs as incurred. Advertising expenses were \$7,816, \$5,083, and \$5,401 for the years ended March 31, 2017, 2016 and 2015, respectively.

Shipping and Handling Costs

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

Foreign Currency Translation

The functional currencies of the Company's foreign operations are deemed to be the local country's currency. Assets and liabilities of the Company's 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 Income. The Company recognized net foreign currency transaction gains of \$644, \$195 and \$127 in the years ended March 31, 2017, 2016, and 2015, respectively. The net foreign currency transaction gains recorded in "General and administrative expenses" include settlement gains and losses on forward contracts disclosed below.

To date, the Company has selectively hedged its exposure to foreign currency transaction gains and losses on the balance sheet through the use of forward contracts, which were not designated as hedging instruments. The duration of forward contracts utilized for hedging the Company's balance sheet exposure is generally one month to three months. As of March 31, 2017 and March 31, 2016, the Company did not have any forward contracts outstanding. The Company recorded net realized gains in general and administrative expenses of \$15 in fiscal 2017, losses of \$53 in fiscal 2016 and gains of \$33 in fiscal 2015 related to the settlement of a forward exchange contracts. In the future, the Company may enter into additional foreign currency-based hedging contracts to reduce its exposure to significant fluctuations in currency exchange rates on the balance sheet.

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.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

Recently Issued Accounting Standards

Revenue Recognition

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." This standard replaces existing revenue recognition rules with a comprehensive revenue measurement and recognition standard and expanded disclosure requirements. The ASU also includes guidance regarding the accounting for contract acquisition costs, which includes sales commissions. The Company has early adopted the new standard as of April 1, 2017 using the full retrospective method which will require each prior reporting period presented to be recast in future issuances of the Company's financial statements.

Over the last two years the Company has worked to assess all potential impacts of the new standard and prepare for adoption. As part of this process the Company closely monitored FASB activity, as well as working with non-authoritative groups to conclude on specific interpretative issues. As part of the adoption process, findings and progress of the project were regularly reported to senior management and the Audit Committee. The most significant impacts of the new standard upon adoption relate to the accounting for commissions costs and the timing of revenue recognition of certain perpetual software license arrangements. Specifically, under the new standard:

- A portion of sales commissions cost will be recorded as an asset and recognized as an operating expense over the time period that the Company expects to recover the costs. Currently, the Company expenses commissions cost as incurred.
- The software revenue associated with certain sales of perpetual licenses is recognized sooner due to the updated revenue recognition guidance which amended certain policies previously adopted by the Company. These policies related primarily to the requirement to obtain certain documentation from an end user in an indirect transaction, the elimination of the requirement to establish vendor specific objective evidence of fair value in a multiple element arrangement, and the previous practice of recognizing revenue on a cash basis in certain geographies.

Select recast unaudited financial statement information, which reflect the adoption of the ASU is below. The Company's historical net cash flows are not impacted by this accounting change.

	Year Ended March 31, 2016		
	Unaudited		
	As Reported	Adjustments	Recast for Adoption of ASC 606
Revenues:			
Software	\$ 258,793	\$ (702)	\$ 258,091
Services	336,333	(657)	335,676
Total revenues	595,126	(1,359)	593,767
Total cost of revenues	82,712	—	82,712
Gross margin	512,414	(1,359)	511,055
Total operating expenses	510,415	(3,470)	506,945
Income from operations	1,999	2,111	4,110
Interest expense	(933)	—	(933)
Interest income	862	—	862
Equity in loss of affiliate	(83)	—	(83)
Income before income taxes	1,845	2,111	3,956
Income tax expense	1,709	527	2,236
Net income	\$ 136	\$ 1,584	\$ 1,720

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

	Year Ended March 31, 2017		
	Unaudited		
	As Reported	Adjustments	Recast for Adoption of ASC 606
Revenues:			
Software	\$ 296,421	\$ (5,753)	\$ 290,668
Services	354,097	240	354,337
Total revenues	650,518	(5,513)	645,005
Total cost of revenues	85,192	—	85,192
Gross margin	565,326	(5,513)	559,813
Total operating expenses	565,097	(4,042)	561,055
Income (loss) from operations	229	(1,471)	(1,242)
Interest expense	(957)	—	(957)
Interest income	1,163	—	1,163
Equity in loss of affiliate	(958)	—	(958)
Loss before income taxes	(523)	(1,471)	(1,994)
Income tax benefit	(1,063)	(423)	(1,486)
Net income (loss)	\$ 540	\$ (1,048)	\$ (508)

	March 31, 2017		
	Unaudited Balance Sheet Data		
	As Reported	Adjustments	Recast for Adoption of ASC 606
Current assets:			
Trade accounts receivable	\$ 132,761	\$ 1,789	\$ 134,550
Unbilled receivables	\$ —	\$ 1,211	\$ 1,211
Total current assets	\$ 598,736	\$ 3,000	\$ 601,736
Deferred commissions	\$ —	\$ 30,378	\$ 30,378
Deferred tax assets, net	\$ 61,018	\$ (10,790)	\$ 50,228
Total assets	\$ 802,967	\$ 22,588	\$ 825,555
Current Liabilities:			
Deferred revenue	\$ 206,777	\$ (2,001)	\$ 204,776
Total current liabilities	\$ 285,595	\$ (2,001)	\$ 283,594
Other liabilities	\$ 3,934	\$ 292	\$ 4,226
Accumulated deficit	\$ (239,974)	\$ 24,297	\$ (215,677)
Total stockholders' equity	\$ 442,635	\$ 24,297	\$ 466,932
Total liabilities and stockholders' equity	\$ 802,967	\$ 22,588	\$ 825,555

Stock-based Compensation

In March 2016, the FASB issued ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting," which simplifies several aspects of the accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. The Company will adopt this standard in the first quarter of fiscal 2018. The Company is in the process of evaluating the transition and disclosure requirements of the standard.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

Statement of Cash Flows

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows, Restricted Cash (Topic 230), which requires the inclusion of restricted cash with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The guidance is effective for the fiscal 2019. Early adoption is permitted. The amendments will be applied using a retrospective transition method to each period presented. The Company is in the process of evaluating the transition and disclosure requirements of the standard and anticipates the adoption will not have a significant impact on the consolidated statements of cash flows.

Leases

In February 2016, the FASB issued ASU 2016-02 “Leases (Topic 842)” (“ASU 2016-02”). Under ASU 2016-02, a lessee will recognize in the balance sheet a liability to make lease payments (the lease liability) and a right-to-use asset representing its right to use the underlying asset for the lease term. The amendments of this ASU are effective for the Company’s fiscal 2020, with early adoption permitted. A company will be required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The Company is currently assessing the impact the adoption of ASU 2016-02 will have on the financial statements.

There have been no other accounting pronouncements issued but not yet adopted by the Company which are expected to have a material impact on the Company’s financial position, results of operations or cash flows.

3. Property and Equipment

Property and equipment consist of the following:

	March 31,	
	2017	2016
Land	\$ 9,445	\$ 9,445
Buildings	103,244	103,193
Computers, servers and other equipment	35,274	33,120
Furniture and fixtures	14,912	14,458
Leasehold improvements	7,040	6,948
Purchased software	1,335	1,279
Construction in process	1,147	165
	172,397	168,608
Less: Accumulated depreciation and amortization	(40,078)	(32,704)
	<u>\$ 132,319</u>	<u>\$ 135,904</u>

The Company recorded depreciation and amortization expense of \$9,980, \$10,927, and \$8,856 for the years ended March 31, 2017, 2016 and 2015, respectively.

4. Accrued Liabilities

Accrued liabilities consist of the following:

	March 31,	
	2017	2016
Compensation and related payroll taxes	\$ 45,149	\$ 36,789
Other	33,552	32,889
	<u>\$ 78,701</u>	<u>\$ 69,678</u>

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

5. Commitments and Contingencies

Leases

The Company leases various office facilities under non-cancelable leases, which expire on various dates through April 2022. Future minimum lease payments under all operating leases at March 31, 2017 are as follows:

Year Ending March 31,		
2018	\$	9,504
2019		7,588
2020		6,391
2021		5,238
2022 and thereafter		6,002
	<u>\$</u>	<u>34,723</u>

Rent expenses were \$10,377, \$9,856, and \$10,845 for the years ended March 31, 2017, 2016 and 2015, respectively.

Rent expense is calculated by amortizing total rental payments (net of any rental abatements, allowances and other rental concessions), on a straight-line basis, over the lease term. Accordingly, rent expense charged to operations differs from rent paid resulting in the Company recording deferred rent.

Purchase Commitments

The Company, in the normal course of business, enters into various purchase commitments for goods or services. Total non-cancellable purchase commitments as of March 31, 2017 are approximately \$11,051 for fiscal 2018, \$6,615 for fiscal 2019, \$3,373 for fiscal 2020 and \$221 for fiscal 2021, totaling \$21,260 for all periods through fiscal 2021. These purchase commitments relate primarily to marketing and IT services.

The Company has 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 revenues, was \$2,646 in fiscal 2017, \$1,933 in fiscal 2016 and \$1,768 in fiscal 2015.

Warranties and Indemnifications

The Company offers a 90-day limited product warranty for its software. To date, costs related to this product warranty have not been material.

The Company provides certain provisions within its software licensing agreements to indemnify its customers from any claim, suit or proceeding arising from alleged or actual intellectual property infringement. These provisions continue in perpetuity, along with the Company's software licensing agreements. The Company has 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, the Company has not recorded a liability during any period for these indemnification provisions.

Legal Proceedings

In the normal course of its business, the Company may be involved in various claims, negotiations and legal actions. As of March 31, 2017, the Company is not aware of any asserted or unasserted claims, negotiations and legal actions for which a loss is considered reasonably possible of occurring and would require disclosure under the guidance.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

On September 10, 2014, a purported class action complaint was filed in the United States District Court for the District of New Jersey against the Company, its Chief Executive Officer and its Chief Financial Officer. The case is captioned *In re Commvault Systems, Inc. Securities Litigation* (Master File No. 3:14-cv-05628-MAS-LHG). The suit alleges that the Company made materially false and misleading statements, or failed to disclose material facts, regarding the Company's financial results, business, operations and prospects in violation of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder. The suit asserts claims covering an alleged class period from May 7, 2013 through April 24, 2014. It is purportedly brought on behalf of purchasers of the Company's common stock during that period, and seeks compensatory damages, costs and expenses, as well as equitable or other relief. Lead plaintiff, the Arkansas Teachers Retirement System, was appointed on January 12, 2015, and on March 18, 2015, an amended complaint was filed by the plaintiffs. On December 17, 2015, the defendant's motion to dismiss the case was granted and the case dismissed; however, the plaintiffs were permitted to re-file their claim, which they did on February 5, 2016. Defendants filed another motion to dismiss on April 5, 2016, which remains was denied by the court on September 30, 2016. Discovery has commenced in this action and is ongoing. Due to the inherent uncertainties of litigation, the Company cannot accurately predict the ultimate outcome of this matter. The Company are unable at this time to determine whether the outcome of the litigation will have a material impact on our results of operations, financial condition or cash flows. As of March 31, 2017, the Company has not recorded an accrual for this matter as it has concluded the probability of a loss is remote.

On April 12, 2017, a shareholder derivative complaint was filed in the United States District Court for the District of New Jersey against the Company (nominally), certain of its executive officers, and certain of its current and former members of the board of directors. The complaint is entitled *Murashko v. Hammer, et al.* (Civ. No. 3:17-cv-02533-PGS-TJB). The action alleges that certain of the Company's executive officers and board members breached their fiduciary duties to the Company by causing, or allowing, the Company to manipulate its financial results and conceal the state of its business prospects. The suit also alleges that through these breaches, the Company's executive officers and board members unjustly enriched themselves at the expense of the Company. The suit asserts factual allegations similar to the allegations made in *In re Commvault Systems, Inc. Securities Litigation* (Master File No. 3:14-cv-05628-PGS-LHG), a securities litigation also pending in the United States District Court for the District of New Jersey. The allegations asserted in the shareholder derivative action purport to cover a period from 2013 through the present. As a derivative action, the complaint is brought nominally on behalf of the Company, and seeks compensatory damages, restitution, costs and expenses, as well as equitable or other relief. Due to the inherent uncertainties of litigation, the Company cannot accurately predict the ultimate 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. As of March 31, 2017, the Company has not recorded an accrual for this matter as it has concluded the probability of a loss is remote.

On February 27, 2017, Realtime Data LLC d/b/a/ IXO ("Realtime"), a non-practicing entity, sued the Company and Spectra Logic Corporation in the Eastern District of Texas for alleged infringement of four patents: U.S. Patent Nos. 9,054,728, 7,415,530, 9,116,908, and 8,717,204. Realtime has sued numerous other companies for infringement of these and other patents. Realtime seeks monetary damages and an injunction. The Company has not yet answered the complaint. Due to the inherent uncertainties of litigation, the Company cannot accurately predict the ultimate 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. The Company intends to defend itself vigorously. As of March 31, 2017, the Company has not recorded an accrual for this matter as it has concluded the probability of a loss is remote.

6. Revolving Credit Facility

On June 30, 2014, the Company entered into a five-year \$250,000 revolving credit facility (the "Credit Facility"). The Credit Facility is available for share repurchases, general corporate purposes, and letters of credit. The Credit Facility contains financial maintenance covenants including a leverage ratio and interest coverage ratio. The Credit Facility also contains certain customary events of default which would permit the lenders to, among other things, declare all loans then outstanding to be immediately due and payable if such default is not cured within applicable grace periods. The Credit Facility also limits the Company's ability to incur certain additional indebtedness, create or permit liens on assets, make acquisitions, make investments, loans or advances, sell or transfer assets, pay dividends or distributions, and engage in certain transactions with foreign affiliates. Outstanding borrowings under the Credit Facility accrue interest at an annual rate equal to London Interbank Offered Rate plus 1.50% subject to increases based on the Company's actual leverage. The unused balance on the Credit Facility is also subject to a 0.25% annual interest charge subject to increases based on the Company's actual leverage. As of March 31, 2017, there were no borrowings under the Credit Facility and the Company was in compliance with all covenants.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

The Company has deferred the expense related to debt issuance costs, which are classified as Other Assets, and will amortize the costs into interest expense over the term of the Credit Facility. Unamortized amounts at March 31, 2017 were \$568 and \$820 as of March 31, 2016. The amortization of debt issuance costs was \$252 for years ended March 31, 2017 and 2016. Amortization of debt issuances costs is included in Interest expense.

7. Capitalization

As of March 31, 2017 and 2016, the Company had 250,000 shares of common stock and 50,000 shares of preferred stock authorized. As of March 31, 2017 and 2016 there were no shares of preferred stock outstanding.

On November 13, 2008, the Board of Directors of the Company adopted a Rights Plan and declared a dividend distribution of one Right for each outstanding share of common stock to shareholders of record on November 24, 2008. Each Right, when exercisable, entitles the registered holder to purchase one one-thousandth of a share of Series A Junior Participating Preferred Stock, par value \$0.01 per share, at a purchase price of eighty dollars per one one thousandth of a share, subject to adjustment. Of the 50,000 shares of preferred stock authorized under the Company's certificate of incorporation, 150 have been designated as Series A Junior Participating Preferred.

The Rights will become exercisable following the tenth business day after (i) a person or group announces the acquisition of 15% or more of the Company's common stock or (ii) commencement of a tender or exchange offer, the consummation of which would result in ownership by the person or group of 15% or more of the Company's common stock. The Company is also entitled to redeem the Rights at \$0.001 per right under certain circumstances. The Rights expire on November 14, 2018, if not exercised or redeemed.

Common Stock

The Company had 44,816 and 44,134 shares of common stock, par value \$0.01, outstanding at March 31, 2017 and March 31, 2016, respectively.

During fiscal 2017, the Company repurchased \$49,998 of common stock, or 982 shares, under its share repurchase program. As of March 31, 2017, \$125,000 remained in the current stock repurchase authorization which expires on March 31, 2018.

Shares Reserved for Issuance

The Company has reserved 4,478 shares in connection with its Stock Plans discussed in Note 8 at March 31, 2017.

8. Stock Plans

As of March 31, 2017, the Company maintains one stock incentive plan for purposes of granting awards, the Omnibus Incentive Plan (the "2016 Incentive Plan"). The Company has one additional plan, the 2006 Long-Term Stock Incentive Plan (the "LTIP"), with outstanding options and awards but 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 the Company's common stock. As of March 31, 2017, approximately 2,078 shares were available for future issuance under the 2016 Incentive Plan.

As of March 31, 2017, the Company has granted non-qualified stock options, restricted stock units and performance stock awards under its stock incentive plans. Historically, equity awards granted by the Company under its stock incentive plans generally vest quarterly over a four-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. Beginning in October of 2015, the Company began granting its equity awards with a three-year vest period, and retained the practice that shares that would otherwise vest quarterly over the first twelve months do not vest until the first anniversary of the grant. However, from time to time the company grants equity awards that vest between one and three years. The Company anticipates that future grants under its stock incentive plans will be restricted stock units and performance stock awards and does not anticipate that it will grant stock options.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

As of March 31, 2017, there was approximately \$95,364 of unrecognized stock-based compensation expense related to all of the Company's employee stock plans, net of estimated forfeitures, that is expected to be recognized over a weighted average period of 1.51 years. To the extent the actual forfeiture rate is different from what the Company has anticipated, stock-based compensation related to these awards will be different from the Company's expectations.

The Company estimated the fair value of stock options granted using the Black-Scholes formula. The Company's calculation of expected term includes a combination of actual exercise data and an assumption on when the remaining outstanding options with similar characteristics would be exercised based on the Company's historical data. In determining expected life, the Company separates employees into groups that have historically exhibited similar behavior with regard to option exercises. Expected volatility is calculated based on a blended approach that included the implied volatility of the Company's traded options with a remaining maturity greater than six months and the historical realized volatility of the Company's common stock. The risk-free interest rate is determined by reference to U.S. Treasury yield curve rates with a remaining term that is approximately the expected life assumed at the date of grant. Forfeitures are estimated based on the Company's historical analysis of actual stock option forfeitures.

The assumptions used in the Black-Scholes option-pricing model are as follows:

	Year Ended March 31,	
	2016	2015
Dividend yield	None	None
Expected volatility	39% - 43%	41% - 47%
Weighted average expected volatility	41%	46%
Risk-free interest rates	1.29% - 1.75%	1.22% - 2.18%
Weighted average expected life (in years)	4.6	5.7

The following summarizes the activity for the Company's stock incentive plans from March 31, 2014 to March 31, 2017:

Options	Number of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at March 31, 2014	6,388	\$ 39.03		
Options granted	1,155	46.08		
Options exercised	(504)	19.44		
Options forfeited	(159)	65.93		
Options expired	(27)	68.84		
Outstanding at March 31, 2015	6,853	40.91		
Options granted	148	41.84		
Options exercised	(764)	8.80		
Options forfeited	(172)	59.79		
Options expired	(126)	61.81		
Outstanding at March 31, 2016	5,939	44.07		
Options granted	—	—		
Options exercised	(446)	28.44		
Options forfeited	(77)	51.55		
Options expired	(116)	68.98		
Outstanding at March 31, 2017	5,300	\$ 44.74	4.81	\$ 70,743
Vested or expected to vest at March 31, 2017	5,287	\$ 44.73	4.80	\$ 70,667
Exercisable at March 31, 2017	4,686	\$ 43.42	4.46	\$ 68,022

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

The weighted average fair value of stock options granted was \$15.20 per share and \$20.16 per share during the years ended March 31, 2016, and 2015, respectively. The total intrinsic value of options exercised was \$9,896, \$23,391, and \$15,069 in the years ended March 31, 2017, 2016 and 2015, respectively. The Company's policy is to issue new shares upon exercise of options as the Company does not hold shares in treasury.

The following table summarizes information on stock options outstanding at March 31, 2017:

Range of Exercise Prices	Options Outstanding at March 31, 2017	Weighted-Average		Options Exercisable at March 31, 2017	Weighted-Average Exercise Price
		Remaining Contractual Life	Exercise Price		
\$11.12 - 13.81	864	1.36	\$ 12.36	864	\$ 12.36
15.88 - 23.88	395	2.13	20.79	395	20.79
26.83	533	3.54	26.83	533	26.83
27.02 - 41.31	144	5.99	36.02	93	34.51
41.55	670	4.54	41.55	670	41.55
43.30 - 45.39	65	7.96	44.47	32	44.40
45.44	689	7.54	45.44	363	45.44
46.59 - 55.58	250	6.76	49.89	192	50.31
56.57	650	5.53	56.57	650	56.57
58.25 - 87.20	1,040	6.42	84.11	894	83.80
\$11.12 - 87.20	5,300	4.81	\$ 44.74	4,686	\$ 43.42

Restricted stock unit activity is as follows:

	Number of Awards	Weighted Average Grant Date Fair Value
Non-Vested Restricted Stock Units		
Non-vested as of March 31, 2014	1,202	\$ 65.63
Granted	815	46.62
Vested	(491)	59.22
Forfeited	(114)	63.70
Non-vested as of March 31, 2015	1,412	56.82
Granted	1,543	37.27
Vested	(547)	38.38
Forfeited	(196)	49.24
Non-vested as of March 31, 2016	2,212	43.43
Granted	1,333	50.66
Vested	(975)	51.35
Forfeited	(174)	43.56
Non-vested as of March 31, 2017	2,396	\$ 45.53

The total fair value of the restricted stock units that vested during the years ended March 31, 2017, 2016 and 2015 was \$50,051, \$20,981 and \$24,592, respectively.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

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, 2017, 2016 and 2015.

	Year Ended March 31,		
	2017	2016	2015
Cost of services revenue	\$ 3,925	\$ 3,106	\$ 2,930
Sales and marketing	34,005	28,557	26,853
Research and development	7,335	6,722	5,908
General and administrative	28,663	25,811	24,972
Stock-based compensation expense	<u>\$ 73,928</u>	<u>\$ 64,196</u>	<u>\$ 60,663</u>

The Company recognized a tax benefit related to stock-based compensation of \$23,473 in the year ended March 31, 2017, \$17,010 in the year ended March 31, 2016 and \$18,570 in the year ended March 31, 2015.

Performance Based Awards

In fiscal 2017, the Company granted 115 performance restricted stock units ("PSU") to certain executives. Vesting of these awards is contingent upon i) the Company meeting certain company-wide revenue and non-GAAP performance goals (performance-based) in fiscal 2017 and ii) the Company's customary service periods. The awards vest in three annual tranches and have a maximum potential to vest at 200% (230 shares) based on actual fiscal 2017 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 PSU's that would vest until the ultimate achievement of the performance goals is known. The Company currently estimates that the PSU's will vest at 132%. The awards are included in the restricted stock units table.

Awards with a Market Condition

In fiscal 2017, the Company granted 123 market performance stock units to certain executives. The vesting of these awards is contingent upon the Company 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% (246 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 was calculated using a Monte Carlo simulation model. The weighted average fair value of the awards granted during the year was \$57.28. 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 the Company's 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 243 shares in exchange for \$8,634 of proceeds in fiscal 2017 and 263 shares in exchange for \$8,116 of proceeds in fiscal 2016. 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 2017, 2016 and 2015 was \$2,620, \$2,418 and \$2,960, respectively. As of March 31, 2017, there was approximately \$1,014 of unrecognized cost related to the current purchase period of our Employee Stock Purchase Plan.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

9. Income Taxes

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

	Year Ended March 31,		
	2017	2016	2015
Domestic	\$ (7,698)	\$ (6,869)	\$ 28,048
Foreign	7,175	8,714	10,844
	<u>\$ (523)</u>	<u>\$ 1,845</u>	<u>\$ 38,892</u>

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

	Year Ended March 31,		
	2017	2016	2015
Current:			
Federal	\$ 6,360	\$ 4,983	\$ 1,777
State	(958)	1,076	2,533
Foreign	4,818	4,982	4,791
Deferred:			
Federal	(11,366)	(9,171)	4,237
State	(75)	324	(24)
Foreign	158	(485)	(72)
	<u>\$ (1,063)</u>	<u>\$ 1,709</u>	<u>\$ 13,242</u>

A reconciliation of the statutory tax rates and the effective tax rates for the years ended March 31, 2017, 2016 and 2015 are as follows:

	Year Ended March 31,		
	2017	2016	2015
Statutory federal income tax expense (benefit) rate	(35.0)%	35.0 %	35.0 %
State and local income tax expense, net of federal income tax effect	11.2 %	11.2 %	3.0 %
Impact of limit on executive compensation	— %	— %	3.2 %
Foreign earnings taxed at different rates	501.2 %	67.9 %	1.0 %
Domestic permanent differences	368.4 %	116.8 %	4.1 %
Foreign tax credits	(258.2)%	(54.1)%	(2.8)%
Research credits	(622.2)%	(141.2)%	(4.9)%
Tax reserves	15.6 %	8.7 %	(5.3)%
Valuation allowance	(121.4)%	50.1 %	— %
Statutory tax rate changes	60.8 %	(20.1)%	— %
Other differences, net	(123.7)%	18.3 %	0.7 %
Effective income tax expense (benefit)	<u>(203.3)%</u>	<u>92.6 %</u>	<u>34.0 %</u>

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

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. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income, and to the extent that the Company believes recovery is not likely, the Company establishes a valuation allowance. The significant components of the Company's deferred tax assets are as follows:

	March 31,	
	2017	2016
Deferred tax assets:		
Stock-based compensation	\$ 45,867	\$ 40,033
Deferred revenue	11,810	12,496
Tax credits	12,810	6,970
Accrued expenses	1,249	1,155
Allowance for doubtful accounts and other reserves	601	753
Less: valuation allowance	(1,796)	(2,772)
Total deferred tax assets	70,541	58,635
Deferred tax liabilities:		
Depreciation and amortization	(9,523)	(8,659)
Net deferred tax asset	\$ 61,018	\$ 49,976

At March 31, 2017 the Company maintained valuation allowances totaling \$1,796 against New Jersey state research tax credits due to uncertainties related to the ability to utilize such state research tax credits before they expire. The Company decreased the valuation allowance \$976 in fiscal 2017 due to the expiration of a portion of the NJ research tax credits and higher estimates of forecasted New Jersey taxable income. The Company based its valuation allowance on its estimates of taxable income and the period over which its state research tax credits will be recoverable.

It is the Company's intention to reinvest undistributed earnings of its foreign subsidiaries and thereby infinitely postpone their remittance. As a result, deferred U.S. income taxes have not been provided on undistributed earnings of foreign subsidiaries of the Company. 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 or U.S. income taxes. It is not currently practical to estimate the legal restrictions or tax liability that would arise from such repatriations. The cumulative amount of unremitted earnings from the foreign subsidiaries that is expected to be permanently reinvested was approximately \$26,176 on March 31, 2017.

Excess tax benefits related to share-based payments are credited to equity. When determining this excess tax benefit, the Company elected to follow the tax law approach. As a result, the Company's excess tax benefit which was recorded to equity was approximately \$3,682 and \$3,265 for the years ended March 31, 2017 and 2016, respectively.

At March 31, 2017, the Company has federal and state research tax credit (R&D credits) carryforwards of approximately \$3,253 and \$3,175, respectively. The federal research tax credit carryforwards expire from 2025 through 2036, and the state research tax credit carryforwards expire from 2017 through 2023. At March 31, 2017, the Company has federal Alternative Minimum Tax credit carryforwards of \$1,149.

The Company conducts business globally and as a result, files income tax returns in the United States and in various state and foreign jurisdictions. In the normal course of business, the Company is subject to examination by taxing authorities throughout the world, including such major jurisdictions are the United States, Australia, Canada, Germany, Netherlands and United Kingdom. The Company is currently under audit in the United Kingdom, India, and New Jersey. The following table summarizes the tax years in the Company's major tax jurisdictions that remain subject to income tax examinations by tax authorities as of March 31, 2017. The years subject to income tax examination in the Company's foreign jurisdictions cover the maximum time period with respect to these jurisdictions. Due to NOL carryforwards, in some cases the tax years continue to remain subject to examination with respect to such NOLs.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

Tax Jurisdiction	Years Subject to Income Tax Examination
U.S. Federal	2013 - Present
New Jersey	2012 - Present
Foreign jurisdictions	2012 - Present

The calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations in each of its 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, 2014	\$	4,113
Additions for tax positions related to fiscal 2015		490
Additions for tax positions related to prior years		252
Settlements and effective settlements with tax authorities and remeasurements		(2,838)
Reductions related to the expiration of statutes of limitations		—
Foreign currency translation adjustment		(12)
Balance at March 31, 2015		2,005
Additions for tax positions related to fiscal 2016		—
Additions for tax positions related to prior years		170
Settlements and effective settlements with tax authorities and remeasurements		(171)
Reductions related to the expiration of statutes of limitations		(64)
Foreign currency translation adjustment		12
Balance at March 31, 2016		1,952
Additions for tax positions related to fiscal 2017		—
Additions for tax positions related to prior years		179
Settlements and effective settlements with tax authorities and remeasurements		—
Reductions related to the expiration of statutes of limitations		—
Foreign currency translation adjustment		(33)
Balance at March 31, 2017	\$	2,098

All of the Company's unrecognized tax benefits at March 31, 2017 of \$2,098, if recognized, would favorably affect the effective tax rate. Components of the reserve are classified as either current or long-term in the Consolidated Balance Sheet based on when the Company expects each of the items to be settled. Unrecognized tax benefits and the related accrued interest and penalties totaling \$1,950 are recorded as Other Liabilities on the Consolidated Balance Sheet, of which \$287 represents interest and penalties. The Company also has unrecognized tax benefits and related accrued interest and penalties totaling \$548 as a reduction of Deferred Tax Assets on the Consolidated Balance Sheet, of which \$113 represents interest and penalties.

The Company estimates that no remaining unrecognized tax benefits will be realized during the fiscal year ending March 31, 2018. Interest and penalties related to unrecognized tax benefits are recorded in income tax expense. In the years ended March 31, 2017, 2016 and 2015, the Company recognized \$61, \$52 and \$224, respectively, of interest and penalties in the Consolidated Statement of Income.

10. Employee Benefit Plan

The Company has a defined contribution plan, as allowed under Section 401(k) of the Internal Revenue Code, covering substantially all employees. Effective January 1, 2012, the Company makes contributions equal to a discretionary percentage of the employee's contributions determined by the Company. During the years ended March 31, 2017, 2016 and 2015, the Company made contributions of \$2,998, \$2,047, and \$1,955, respectively.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

11. Segment Information

The Company operates in one segment. The Company's products and services are sold throughout the world, through direct and indirect sales channels. The Company's 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,		
	2017	2016	2015
Revenue:			
United States	\$ 367,423	\$ 343,015	\$ 344,931
Other	283,095	252,111	262,612
	<u>\$ 650,518</u>	<u>\$ 595,126</u>	<u>\$ 607,543</u>

No individual country other than the United States accounts for 10% or more of revenues in the years ended March 31, 2017, 2016 and 2015. Revenue included in the "Other" caption above primarily relates to the Company's operations in Europe, Australia, Canada and Asia.

	March 31,	
	2017	2016
Long-lived assets:		
United States	\$ 131,083	\$ 135,562
Other	8,509	7,079
	<u>\$ 139,592</u>	<u>\$ 142,641</u>

At March 31, 2017 and 2016 no other individual country, other than the United States, accounts for 10% or more of long-lived assets.

Commvault Systems, Inc.
Notes to Consolidated Financial Statements — (Continued)
(In thousands, except per share data)

12. Selected Quarterly Financial Data (unaudited)

	Quarter Ended			
	June 30	September 30	December 31	March 31
Fiscal 2017				
Total revenue	\$ 152,413	\$ 159,333	\$ 165,841	\$ 172,931
Gross margin	131,418	137,676	144,675	151,557
Net income (loss)	(2,044)	(562)	(42)	3,188
Net income (loss) per common share:				
Basic (1)	\$ (0.05)	\$ (0.01)	\$ (0.00)	\$ 0.07
Diluted (1)	\$ (0.05)	\$ (0.01)	\$ (0.00)	\$ 0.07
	Quarter Ended			
	June 30	September 30	December 31	March 31
Fiscal 2016				
Total revenue	\$ 139,123	\$ 140,742	\$ 155,696	\$ 159,565
Gross margin	118,576	119,803	135,267	138,768
Net income (loss)	(1,300)	(9,236)	4,878	5,794
Net income (loss) per common share:				
Basic (1)	\$ (0.03)	\$ (0.20)	\$ 0.11	\$ 0.13
Diluted (1)	\$ (0.03)	\$ (0.20)	\$ 0.10	\$ 0.13

- (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.

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

Not applicable

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, 2017. 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, 2017.

(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, 2017. 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, 2017, our internal control over financial reporting was effective. The effectiveness of our internal control over financial reporting as of March 31, 2017 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 2017 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

The adoption of ASC 606, Revenue from Contracts with Customers, required the implementation of new accounting processes, which changed the Company's internal controls over revenue recognition, contract acquisition costs and financial reporting. The Company has completed the design of these controls and they have been implemented as of April 1, 2017.

Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting

The Board of Directors and Stockholders of Commvault Systems, Inc.

We have audited Commvault System, Inc.'s internal control over financial reporting as of March 31, 2017 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). Commvault Systems, Inc.'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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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.

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 and correct 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.

In our opinion, Commvault Systems, Inc. maintained, in all material respects, effective internal control over financial reporting as of March 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Commvault Systems, Inc. as of March 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended March 31, 2017 of Commvault Systems, Inc. and our report dated May 5, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young
Iselin, New Jersey
May 5, 2017

Item 9B. Other Information

Not applicable

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, 2017. Information with respect to this Item is incorporated herein by reference from our 2017 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 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 2017 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 2017 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, 2017 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, 2017:

	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)(2)
Equity compensation plans approved by security holders(1)	7,696,000	\$ 44.99	2,078,000
Equity compensation plans not approved by security holder	—	—	—
Totals	7,696,000	\$ 44.99	2,078,000

- (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. The company has reserved 2,400,000 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 2017 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 2017 Proxy Statement, including in the sections 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, 2015, 2016 and 2017.

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	Deductions	Balance at End of Year
	(In thousands)			
Year Ended March 31, 2015				
Allowance for doubtful accounts	\$ 111	\$ 1	\$ 8	\$ 104
Valuation allowance for deferred taxes	\$ 1,382	\$ (39)	\$ —	\$ 1,343
Year Ended March 31, 2016				
Allowance for doubtful accounts	\$ 104	\$ 247	\$ 36	\$ 315
Valuation allowance for deferred taxes	\$ 1,343	\$ 1,429	\$ —	\$ 2,772
Year Ended March 31, 2017				
Allowance for doubtful accounts	\$ 315	\$ (161)	\$ 51	\$ 103
Valuation allowance for deferred taxes	\$ 2,772	\$ (976)	\$ —	\$ 1,796

Exhibits

The following exhibits are incorporated by reference or filed herewith.

<u>Exhibit No.</u>	<u>Description</u>
3.1	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).
9.1	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).
10.2*	Form of Commvault Systems, Inc. 2006 Long-Term Stock Incentive Plan (Incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1, Commission File No. 333-132550).
10.3*	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).
10.4*	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).
10.5*	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).
10.6*	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).
10.7*	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).
10.8*	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).
10.9*	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).
10.10*	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).
10.11	Revolving Credit Agreement dated June 30, 2014 among Commvault Systems, Inc. as the Borrower, certain subsidiaries of the Borrower Party hereto, as the Guarantors, Bank of America, N.A., as Administrative Agent, Swingline Lender and L/C Issuer, and the Lenders Party hereto (Incorporated by reference to Exhibit 10.10 to the Registrant's Annual Report on Form 10-Q for the quarter ended June 30, 2014).
10.12*	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).

* Management contract or compensatory plan or arrangement.

<u>Exhibit No.</u>	<u>Description</u>
21.1	List of Subsidiaries of Commvault Systems, Inc.
23.1	Consent of Ernst & Young LLP
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	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

Item 16. Form 10-K Summary

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 5, 2017.

COMMVault SYSTEMS, INC.

By: /s/ N. ROBERT HAMMER

N. Robert Hammer

Chairman, 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 5, 2017.

<u>Signature</u>	<u>Title</u>
<u>/s/ N. ROBERT HAMMER</u> N. Robert Hammer	Chairman, President and Chief Executive Officer
<u>/s/ BRIAN CAROLAN</u> Brian Carolan	Vice President, Chief Financial Officer
<u>/s/ GARY MERRILL</u> Gary Merrill	Vice President, Chief Accounting Officer
<u>/s/ ALAN G. BUNTE</u> Alan G. Bunte	Director
<u>/s/ JOSEPH F. EAZOR</u> Joseph F. Eazor	Director
<u>/s/ FRANK J. FANZILLI, JR.</u> Frank J. Fanzilli, Jr.	Director
<u>/s/ ARMANDO GEDAY</u> Armando Geday	Director
<u>/s/ KEITH GEESLIN</u> Keith Geeslin	Director
<u>/s/ F. ROBERT KURIMSKY</u> F. Robert Kurimsky	Director
<u>/s/ DANIEL PULVER</u> Daniel Pulver	Director
<u>/s/ GARY SMITH</u> Gary Smith	Director
<u>/s/ DAVID F. WALKER</u> David F. Walker	Director

Investor Information

Annual Meeting

The annual meeting of stockholders will be held on Thursday, August 24, 2017 at 9:00 a.m. (EDT) at:
Worldwide Headquarters
1 Commvault Way
Tinton Falls, NJ 07724
732-870-4000

Stock Exchange Listing

Commvault's common stock is traded on the NASDAQ Global Select Market under the symbol "CVLT".

Transfer Agent

Computershare Investor Services
PO BOX 505000
Louisville, KY, 40233-5000
www.computershare.com
800-368-5948

Investor Relations

Investor inquiries may be directed to:
Michael Picariello, Investor Relations
1 Commvault Way
Tinton Falls, NJ 07724
732-728-5380
ir@commvault.com
www.commvault.com

Annual Report on Form 10-K and

Other Investor Information

A copy of our Form 10-K, filed with the Securities and Exchange Commission, is included in this report. Additional copies or other financial information can be accessed at: www.commvault.com.

Outside Counsel

Mayer Brown LLP
71 South Wacker Drive
Chicago, IL 60606
312-782-0600

Independent Auditors

Ernst & Young LLP
99 Wood Avenue South
Iselin, NJ 08830
732-516-4200

Officers and Directors

N. Robert Hammer

Chairman, President and Chief Executive Officer

Alan G. Bunte

Director, Executive Vice President and Chief Operating Officer

Brian Carolan

Vice President, Chief Financial Officer

Ron Müller

Senior Vice President of Worldwide Sales

Jesper Helt

Vice President, Chief Human Resources Officer

Gary Merrill

Vice President, Finance and Chief Accounting Officer

Warren H. Mondschein

Vice President, General Counsel and Secretary
Chief Compliance Officer

Chris Powell

Vice President, Chief Marketing Officer

Joseph Eazor

Director

Frank J. Fanzilli, Jr.

Director

Armando Geday

Director

Keith Geeslin

Director

F. Robert Kurimsky

Director

Daniel Pulver

Director

Gary B. Smith

Director

David F. Walker

Director

