

NETAPP, INC.

FORM 10-K (Annual Report)

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended April 27, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission File Number 000-27130



NetApp™

NetApp, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

77-0307520
(I.R.S. Employer
Identification No.)

1395 Crossman Avenue,
Sunnyvale, California 94089
(Address of principal executive offices, including zip code)
(408) 822-6000

(Registrant's telephone number, including area code)
Securities registered pursuant to Section 12(b) of the Act:

Title of each class
Common Stock, \$0.001 Par Value

Name of exchange on which registered
The NASDAQ Stock Market LLC

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

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

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

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

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

Indicate by a check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

The aggregate market value of voting stock held by non-affiliates of the registrant, as of October 27, 2017, the last business day of the registrant's most recently completed second fiscal quarter, was \$8,052,133,635 (based on the closing price for shares of the registrant's common stock as reported by the NASDAQ Global Select Market on that date). Shares of common stock held by each executive officer, director, and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of possible affiliate status is not a conclusive determination for other purposes.

On June 8, 2018, 263,480,598 shares of the registrant's common stock, \$0.001 par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The information called for by Part III of this Form 10-K is hereby incorporated by reference from the definitive Proxy Statement for our annual meeting of stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after April 27, 2018.

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Cautionary Note on Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). Forward-looking statements are all statements (and their underlying assumptions) included in this document that refer, directly or indirectly, to future events or outcomes and, as such, are inherently not factual, but rather reflect only our current projections for the future. Consequently, forward-looking statements usually include words such as “estimate,” “intend,” “plan,” “predict,” “seek,” “may,” “will,” “should,” “would,” “could,” “anticipate,” “expect,” “believe,” or similar words, in each case, intended to refer to future events or circumstances. A non-comprehensive list of the topics including forward-looking statements in this document includes:

- our future financial and operating results;
- our strategy;
- our beliefs and objectives for future operations, research and development;
- expectations regarding future product releases, growth and performance;
- political, economic and industry trends;
- expected timing of, customer acceptance of and benefits from, product introductions, developments and enhancements;
- expected benefits from acquisitions, including our acquisition of SolidFire, Inc. and joint ventures, growth opportunities and investments;
- expected outcomes from legal, regulatory and administrative proceedings;
- our competitive position;
- our short-term and long-term cash requirements, including, without limitation, anticipated capital expenditures;
- our anticipated tax rate;
- the repayment of our indebtedness; and
- future uses of our cash, including, without limitation, the continuation of our stock repurchase and cash dividend programs.

All forward-looking statements included in this document are inherently uncertain as they are based on management’s current expectations and assumptions concerning future events, and are subject to numerous known and unknown risks and uncertainties. Therefore, actual events and results may differ materially from these forward-looking statements. Factors that could cause actual results to differ materially from those described herein include, but are not limited to:

- the overall growth, structure and changes in the networked storage hardware market;
- our ability to expand our total available market and grow our portfolio of products;
- our ability to introduce new and differentiated products and services without disruption;
- our ability to successfully execute new business models;
- general global political, macroeconomic and market conditions;
- our ability to accurately forecast demand for our products and services, and future financial performance;
- our ability to successfully manage our backlog;
- our ability to successfully execute on our Data Fabric strategy to generate profitable growth and stockholder return;
- disruptions in our supply chain, which could limit our ability to ship products to our customers in the amounts and at the prices forecasted;
- our ability to maintain our customer, partner, supplier and contract manufacturer relationships on favorable terms and conditions;
- our ability to maintain our gross profit margins;
- our ability to timely and successfully introduce and increase volumes of new products and services and to forecast demand and pricing for the same;
- changes in U.S. government spending;

- the actions of our competitors including, without limitation, their ability to introduce competitive products and to acquire businesses and technologies that negatively impact our strategy, operations or customer demand for our products;
- the impact of industry consolidation affecting our suppliers, competitors, partners and customers;
- our ability to grow direct and indirect sales and to efficiently provide global service and support;
- our ability to design, manufacture and market products meeting global environmental standards;
- failure of our products and services to meet our customers' quality requirements, including, without limitation, any epidemic failure event relating to our systems installed by our customers in their IT infrastructures;
- our ability to resolve ongoing litigation, tax audits, government audits, inquiries and investigations in line with our expectations;
- the availability of acceptable financing to support our future cash requirements;
- our ability to effectively integrate acquired businesses, products and technologies;
- valuation and liquidity of our investment portfolio;
- foreign exchange rate impacts;
- our ability to successfully recruit and retain critical employees and to manage our investment in people, process and systems;
- our ability to anticipate techniques used to obtain unauthorized access or to sabotage systems and to implement adequate preventative measures against cybersecurity and other security breaches; and
- those factors discussed under the heading "Risk Factors" elsewhere in this Annual Report on Form 10-K.

Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this document and are based upon information available to us at this time. These statements are not guarantees of future performance. Except as required by law, we disclaim any obligation to update information in any forward-looking statement. Actual results could vary from our forward-looking statements due to the foregoing factors as well as other important factors.

Item 1. Business**Overview**

NetApp, Inc. (NetApp, we, or us) is the data authority for the hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments. Together with our partners, we empower global organizations to unleash the full potential of their data. We were incorporated in 1992 and are headquartered in Sunnyvale, California.

Customer Business and IT Needs

In a world where technology is changing our everyday lives, digital transformation remains top of mind for executives. When successful in their digital transformation, organizations use technology to create new customer touchpoints, reinventing customer experiences and relationships through business-oriented approaches to data. Additionally, organizations are able to create innovative business opportunities, taking advantage of emerging market opportunities by rapidly deploying new technologies, and to optimize operations, adopting an operating model that provides efficiencies and funds new innovation.

In order to successfully digitally transform, data must become the lifeblood of an organization and be used as a business accelerator. Data-driven digital transformations accelerate business outcomes.

Leaders are under enormous pressure to harness today's volume of data and apply it to create new value across the entire organization, all with limited time, skills, and budget. Building a data-driven organization is challenging. Data is becoming increasingly:

- **Distributed.** Generated and consumed from multiple clouds and on-premises, from organic and partner sources
- **Dynamic.** Constantly changing and increasingly cloud-streamed from multiple clouds
- **Diverse.** Including analytics, artificial intelligence (AI), and machine learning capabilities from multiple clouds and on-premises

Thriving in this environment requires a holistic approach to data insight, access and control that is secure, efficient, and future-proof and provides freedom of choice.

To help our customers and partners manage and share their data across on-premises, and private and public clouds, we are:

- Focusing on the customer by delivering an exceptional customer experience and becoming their preferred data partner, and
- Extending our cloud integration and hybrid cloud leadership through the NetApp Data Fabric and expanding our consumption model offerings to match customer needs across cloud and on-premises offerings.

The NetApp Data Fabric

NetApp delivers a Data Fabric built for the data-driven world. Our Data Fabric simplifies and integrates data management across clouds and on-premises to accelerate digital transformation, enabling our customers to manage, secure, and protect their data at the scale needed to accommodate the exponential data growth of the digital world. The Data Fabric delivers integrated data management services and applications for data visibility and insights, data access and control, and data protection and security.

The NetApp Data Fabric gives customers freedom of choice, enabling the movement of data between clouds and on-premises as business conditions dictate. Customers can easily incorporate new capabilities—AI, machine learning, blockchain, Internet of Things—from any cloud provider to speed innovation and achieve higher levels of operational efficiency to shift resources from maintenance to digital transformation. Secure by design, the Data Fabric helps customers realize new business opportunities while minimizing risk.

Built for the challenges and opportunities of the data-driven world, NetApp products and solutions are designed for simplicity and optimized to manage, protect and secure data. Because the Data Fabric is open by design, we can constantly fuel innovation and flexibility.

Our products, solutions, and services portfolio focuses on customers' top IT imperatives as they undertake digital transformations. NetApp's unique approach to managing data holistically enables organizations to inspire innovation with the cloud, build clouds to accelerate new services, and modernize IT architecture with cloud-connected flash.

Product, Solutions and Services Portfolio**Cloud Data Services**

NetApp believes that the hybrid cloud will be the dominant model for enterprise IT. Customers are attracted by the speed and scale benefits of the public cloud but need new data management capabilities to keep control of data as it moves beyond the walls of the enterprise. The NetApp Data Fabric enables our customers to manage, secure, and protect their data from on-premises to public to

hybrid clouds, all at the scale needed to accommodate the exponential data growth of the digital world. The NetApp Cloud Data Services portfolio is focused on helping customers inspire innovation with public and multicloud solutions, enabling modern data management applications and services.

NetApp Cloud Volumes ONTAP

The Cloud Volumes ONTAP storage data management service is based on the familiar and reliable ONTAP data management software, bringing data protection and storage efficiency features to cloud-based storage. Cloud Volumes ONTAP allows customers to build an enterprise storage service on Amazon Web Services (AWS) or Microsoft Azure with the flexibility to pay for only what a customer needs, when it needs it. Whether customers want to move traditional database applications or legacy NAS applications to the cloud, Cloud Volumes ONTAP provides the data access, insights, and control along the way.

NetApp Cloud Sync Data Synchronization

NetApp Cloud Sync Data Synchronization provides secure, fast, and automated data synchronization. Whether organizations need to transfer files between on-premises NFS or CIFS file shares, Amazon S3 object format, another cloud provider object store, or NetApp StorageGRID® Webscale appliances, Cloud Sync Data Synchronization moves the files where they are needed quickly and securely.

NetApp SaaS Backup for Microsoft Office 365

SaaS Backup for Microsoft Office 365 service is a complete software-as-a-service (SaaS) offering that enables organizations to protect Office 365 data in the event of accidental deletion, data corruption, or malicious intent. Using SaaS Backup for Microsoft Office 365, customers can back up, find, and recover email, calendars, contacts, tasks, site collections, sites, lists, and file data.

NetApp Cloud Backup

Cloud Backup is NetApp's solution for backing up and archiving data to the public or private cloud of the customer's choice. Based on NetApp AltaVault™ technology, Cloud Backup streamlines backups while reducing cloud storage costs. Supporting backup and archive to AWS, Microsoft Azure Blob Storage, Google Cloud Platform, StorageGRID Webscale, or another cloud, Cloud Backup protects data quickly and securely. Cloud Backup ingests data from the customer's backup software, deduplicates and compresses the data to save on transmission and cloud storage costs, caches the most recent backups for fast recoveries, and vaults all of the data to the cloud quickly and efficiently.

OnCommand Management Software and Management Integration Tools

The NetApp OnCommand® storage management software portfolio incorporates a broad range of data management tools for NetApp and multivendor storage. These products enable customers to maintain control of their data regardless of where it resides in a hybrid cloud environment, to drive efficiency using software management tools designed to work together, and to gain flexibility.

NetApp OnCommand Insight management software delivers consistent insight across the data center, so organizations can monitor, manage, and optimize hybrid IT multivendor storage, compute, and switching infrastructures.

NetApp Private Storage for Cloud

NetApp Private Storage for Cloud is a family of enterprise storage solutions that lets customers use multiple industry-leading clouds and maintain complete control over their data on dedicated storage systems from NetApp while achieving the flexibility of the cloud for application and compute resources. In this approach, customer data resides on NetApp storage "next to" rather than "in" the cloud provider's environment. The customer-owned NetApp system is co-located in data centers managed by our partner Equinix, which has data centers located next to major networks and in close proximity to major cloud providers, including AWS, Microsoft Azure, and IBM SoftLayer.

Cloud Infrastructure

NetApp Cloud Infrastructure is a portfolio of offerings that helps customers build cloud-architected data centers to deliver cloud services for innovative applications in either private or service provider models. To accelerate digital transformations, customers are building clouds to accelerate new services and developing innovative, cloud-architected infrastructures that manage data and services as one integrated resource, supporting both public and private clouds.

FlexPod

Backed by one of the most successful alliances in the industry, FlexPod® has become the converged infrastructure of choice for many of the largest enterprises around the globe. FlexPod is a portfolio of pre-validated designs and integration that combine the

Cisco Unified Computing System integrated infrastructure and NetApp storage components to reduce risk and accelerate the deployment of data center infrastructure. Today, customers and partners can choose from more than 100 validated application and infrastructure designs. The portfolio is validated with leading hypervisors, operating systems, systems management tools, and cloud management platforms for major enterprise workloads such as Oracle, SAP, Microsoft, Openstack, and Docker.

NetApp Converged Systems Advisor

NetApp Converged Systems Advisor (CSA) targets key challenges in the data center operations lifecycle. An on-premises agent combines with cloud analytics to validate, monitor, and optimize the deployment of FlexPod infrastructure. This tool simplifies key tasks for administrative support with an automated review of over 100 best practices, component support updates, and resilient design requirements. With continual remote monitoring and notifications, NetApp CSA helps administrators prevent gaps in system supportability and more easily protect their investment in mission-critical data center infrastructure. These capabilities simplify lifecycle management, improve productivity with infrastructure support, and facilitate the management of infrastructure.

NetApp HCI

The NetApp HCI enterprise-scale hyper converged cloud infrastructure is the cornerstone of a private cloud strategy solution capable of transforming and empowering organizations so they can move faster, drive operational efficiency, and reduce costs. It can easily run multiple applications with the predictable performance demanded by enterprise customers. Compute and storage resources scale independently to avoid overprovisioning and can be deployed in minutes with a turnkey cloud infrastructure that eliminates the complex management of traditional three-tier architectures.

NetApp StorageGRID Webscale Object Storage Software

NetApp StorageGRID Webscale is a software-defined object-based storage solution that provides intelligent policy-driven data management. StorageGRID Webscale provides Amazon S3 API compatibility and acts as the foundation for global data availability anytime, anywhere to facilitate nonstop operations. Configurations can be designed for resilience to one or multiple simultaneous failures and even for resilience to entire site losses and regional disasters. StorageGRID Webscale is suitable for single data centers or multi-data center deployments with many sites across the globe.

Storage Systems and Software

Our storage systems and software portfolio enables customers to modernize their IT architectures with cloud-connected flash to free the resources necessary to fund transformation by deploying highly efficient flash storage that scales from the edge to the core to the cloud.

All-Flash Arrays

Flash plays a key role in customers' digital transformation efforts as they seek to gain advantage through greater speed, responsiveness, and value from key business applications, all while lowering total cost of ownership. All-flash array technology is the de facto choice as customers seek performance and economic benefits from replacing hard disk installations. With a highly differentiated and broad portfolio of all-flash and hybrid array offerings, NetApp is well positioned to enable customers to accomplish this transition.

NetApp All Flash FAS (AFF) systems address enterprise storage requirements with high performance, superior flexibility, and best-in-class data management. Built on ONTAP data management software, AFF systems speed up business without compromising on the efficiency, reliability, or flexibility of IT operations. As an enterprise-grade all-flash array, it accelerates, manages, and protects business-critical data and enables an easy and risk-free transition to flash. Designed specifically for flash, the AFF A-Series all-flash systems deliver industry-leading performance, capacity density, scalability, security, and network connectivity in dense form factors. With the addition of a new entry-level system, the new AFF A-Series family extends enterprise-grade flash to midsize businesses and to fit any budget.

SolidFire® all-flash arrays are architected from the ground up to be the storage foundation of next-generation data centers with scale-out highly available, easy-to-control all-flash storage with guaranteed performance. NetApp SolidFire enables customers to reduce cost and complexity by safely consolidating mission-critical applications onto a single storage platform, increase productivity with deep infrastructure integrations, and dynamically scale storage resources to meet business demands.

NetApp EF-Series all-flash arrays deliver fast, consistent response times to accelerate high-performance databases and data analytics. Designed specifically for mixed-workload environments, including big data analytics, technical computing, video surveillance, and backup and recovery, the EF-Series provides leading price/performance, configuration flexibility, and simplicity in a compact package to help organizations make decisions faster, more actionable, and more secure.

With our all-flash array portfolio, NetApp is enabling customers to modernize IT architecture with cloud-connected flash and free the resources necessary to fund transformation by deploying the industry's leading flash storage solution, which scales from the edge to the core to the cloud.

Hybrid Flash Arrays

NetApp hybrid flash storage serves customers who want the option to deploy the speed of flash storage where they need it while using more affordable hard disk drives (HDDs) to address capacity requirements. NetApp FAS hybrid flash arrays are created for shared, consolidated environments running SAN and NAS workloads that require rich data management, enterprise-grade capabilities, and easy cloud connection. NetApp E-Series hybrid flash arrays are built for dedicated, high-bandwidth applications such as data analytics, video surveillance, and disk-based backup that need simple, fast, reliable SAN storage.

NetApp ONTAP Storage Operating System

ONTAP 9 is the next generation of the industry's leading enterprise data management software. It combines new levels of simplicity and flexibility with powerful data management capabilities and storage efficiencies. With ONTAP 9, customers can build a hybrid cloud that is the foundation of a Data Fabric. ONTAP 9 provides flexibility to design and deploy a storage environment across the widest range of architectures—engineered systems, software-defined storage (SDS), and the cloud—spanning flash and disk infrastructures. AFF systems running ONTAP 9 are optimized specifically for flash. ONTAP 9 also enables FAS hybrid storage systems to deliver flash-accelerated performance that is balanced with HDD economies.

NetApp ONTAP Select

NetApp ONTAP Select offers robust enterprise storage services that are deployed on the customer's choice of commodity hardware. It combines the best of the cloud, in terms of agility and granular capacity scaling, with the flexibility, resilience, and locality of on-premises storage.

NetApp FlexArray Storage Virtualization Software

NetApp FlexArray® virtualization software enables FAS8000 systems to virtualize existing Dell/EMC, HP, Hitachi, and NetApp E-Series arrays, creating a single storage management architecture that overcomes the limitations of existing arrays, expands the capabilities of customers' IT infrastructures, and delivers the benefits of software-defined storage.

NetApp SnapCenter Backup Management Software

NetApp SnapCenter® software is a unified, scalable platform for application-consistent data protection and clone management. This software simplifies backup, restore, and clone lifecycle management with application-integrated workflows. Leveraging storage-based data management, SnapCenter enables increased performance and availability and reduced testing and development times.

NetApp SnapMirror Data Replication Software

NetApp SnapMirror® software is a cost-effective, easy-to-use unified replication solution across the Data Fabric, replicating data at high speeds over LAN or WAN. SnapMirror delivers powerful data management capabilities for virtualization, protecting critical data while providing the flexibility to move data between locations and storage tiers, including cloud service providers.

NetApp MetroCluster Business Continuity Software

NetApp MetroCluster™ software is a solution that combines array-based clustering with synchronous replication to deliver continuous availability and zero data loss. MetroCluster enhances the built-in high availability and nondisruptive operations of NetApp hardware and ONTAP storage software, providing an additional layer of protection for the entire storage and host environment.

NetApp SnapLock Data Compliance Software

NetApp SnapLock® software delivers high-performance disk-based data permanence for HDD and solid-state disk (SSD) deployments. Part of our proven NetApp ONTAP storage software, SnapLock helps provide data integrity and retention, enabling electronic records to be both unalterable and rapidly accessible.

SANtricity Storage Operating System

The SANtricity® operating system performs management tasks while the storage remains online, with complete read and write data access. This capability enables storage administrators to make configuration changes, perform maintenance, or expand storage capacity without disrupting I/O to attached hosts. For application environments, including backup and recovery, technical computing, video surveillance, and big data analytics, NetApp E-Series and EF-Series storage arrays with SANtricity software offer industry-leading performance, reliability, and ease of use.

NetApp SolidFire Element Operating System

NetApp SolidFire Element® OS is the storage operating system for the next-generation data center, providing all the features demanded from primary storage, including enterprise-grade reliability, all-flash performance, and secure multitenancy, in an innovative, automated architecture that delivers on-demand scalability, with guaranteed predictable storage performance. With Element OS, SolidFire systems can host a broad range of performance-sensitive and business-critical applications.

Professional and Support Services

NetApp and our ecosystem of partners deliver a full portfolio of professional and technical services that enable customers to gain the end-to-end expertise and insight needed to succeed and accelerate digital transformations. Our services experts help organizations create a Data Fabric strategy, aligned to their business strategy, to drive innovation and deliver improved business results across cloud and on-premises environments. We collaborate with our customers to accelerate digital transformation with the right expertise to envision, deploy, and operate NetApp data management solutions. NetApp Services experts deliver proactive and predictive intelligence for optimizing the way organizations manage their solutions throughout the data lifecycle.

Our professional services team and certified services partners deliver the expertise needed to accelerate transformations and realize greater business value from technology investments. NetApp professionals and partners help to determine the right technology roadmap to meet business requirements, so customers can respond rapidly to changing business demands. Our proven methodologies, validated designs, and best practices are geared to ensure desired outcomes.

Operational Support Services ensure our products operate efficiently and benefit from the most up-to-date software to help customers minimize downtime for systems running business-critical applications. Our services organization also delivers actionable intelligence for managing and optimizing data management solutions with proactive and predictive technology.

Active IQ® builds on NetApp AutoSupport® with powerful machine-learning capabilities, artificial intelligence, and more deployment options. Cloud-based analytics provide predictions and recommendations based on peer comparisons and community learning. Active IQ simplifies and automates operations with predictive, self-healing care.

Sales, Principal Markets, and Distribution Channels

We market and sell our products in numerous countries throughout the world. To increase visibility of NetApp in the broader IT segment, we continue to make investments in our multi-year branding and awareness campaigns.

Our diversified customer base spans industry segments and vertical markets such as energy, financial services, government, high technology, internet, life sciences, healthcare services, manufacturing, media, entertainment, animation, video postproduction and telecommunications. NetApp focuses primarily on the data management and storage markets. We design our products to meet the needs of our broad customer base – from large enterprises to midsize customers.

NetApp uses a multichannel distribution strategy. We sell our products and services to end-user business customers and service providers through a direct sales force and an ecosystem of partners. We work with a wide range of partners for our customers, including technology partners, value-added resellers, system integrators, OEMs, service providers and distributors. During fiscal 2018, sales through our indirect channels represented 79% of our net revenues. Our global partner ecosystem is critical to NetApp's growth and success. We are continually strengthening existing partnerships and investing in new ones to ensure we are meeting the evolving needs of our customers.

As of April 27, 2018, our worldwide sales and marketing functions consisted of approximately 5,100 managers, sales representatives and technical support personnel. We have field sales offices in approximately 47 countries. Sales to customers Arrow Electronics, Inc. and Tech Data Corporation, which are distributors, each accounted for 17% of our net revenues in fiscal 2018. Information about sales to and accounts receivables from our major customers, segment disclosures, foreign operations and net sales attributable to our geographic regions is included in Note 16 – Segment, Geographic, and Significant Customer Information of the Notes to Consolidated Financial Statements

Seasonality

We have historically experienced a decline in revenues in the first quarter of our fiscal year, as the sales organization spends time developing new business after higher close rates in the fourth quarter, and because sales to European customers are historically weaker during the summer months. During the second quarter of our fiscal year, we have historically experienced increased sales, driven by the government sector, concurrent with the end of the U.S. federal government's fiscal year in September, as well as an increase in business from European markets. We derive a majority of our revenue in any given quarter from orders booked in the same quarter. Bookings and revenues typically follow intra-quarter seasonality patterns weighted toward the back end of the quarter.

Backlog

We manufacture products based on a combination of specific order requirements and forecasts of our customers' demand. Orders are generally placed by customers on an as-needed basis. A substantial portion of our products is sold on the basis of standard purchase orders that are cancelable prior to shipment without penalty. In certain circumstances, purchase orders are subject to change with respect to quantity of product or timing of delivery resulting from changes in customer requirements. Our business is characterized by seasonal and intra-quarter variability in demand, as well as short lead times and product delivery schedules. Accordingly, backlog at any given time might not be a meaningful indicator of future revenue.

Manufacturing and Supply Chain

We have outsourced manufacturing operations to third parties located in Memphis, Tennessee; San Jose, California; San Antonio, Texas; Guadalajara, Mexico; Schiphol Airport, The Netherlands; Komarom and Tiszaujvaros, Hungary; Wuxi and Tianjin, China; Taoyuan City, Taiwan; and Singapore. These operations include materials procurement, commodity management, component engineering, test engineering, manufacturing engineering, product assembly, product assurance, quality control, final test, and global logistics. We rely on a limited number of suppliers for materials, as well as several key subcontractors for the production of certain subassemblies and finished systems. We use multiple vendors and have our products manufactured in a number of locations wherever possible to mitigate our supply chain risk. Our strategy has been to develop close relationships with our suppliers, maximizing the exchange of critical information and facilitating implementation of joint quality programs. We use contract manufacturers for the production of major subassemblies and final system configuration. This manufacturing strategy minimizes capital investments and overhead expenditures while creating flexibility for rapid expansion.

We are certified to the International Organization for Standardization (ISO) 9001:2008 and ISO 14001:2004 certification standards.

Research and Development

We conduct research and development activities in various locations throughout the world. Total research and development expenses were \$783 million, \$779 million and \$861 million in fiscal 2018, 2017 and 2016, respectively. These costs consist primarily of personnel and related costs incurred to conduct product development activities. Although we develop many of our products internally, we may acquire technology through business combinations or through licensing from third parties when appropriate. We believe that technical leadership is essential to our success, and we expect to continue to commit substantial resources to research and development.

Competition

We compete with many companies in the markets we serve, including established public companies, newly public companies with a strong flash focus, and new market entrants addressing the growing opportunity for hyper converged systems. Some offer a broad spectrum of IT products and services (full-stack vendors) and others offer a more limited set of storage and data management products or services.

Technology trends – for example, the emergence of hosted (or cloud) storage, SaaS and flash storage – are driving significant changes in storage architectures and solution requirements. Cloud service providers provide customers storage as an operating expense, rather than storage systems capital expenditures, for the customers' data centers, which competes with more traditional storage offerings. While the short- and long-term impact of these evolving trends cannot be predicted, NetApp is confident that our customers recognize the value in our cloud and Data Fabric strategy. Our strategy includes integrating and building relationships with these new classes of providers, and to date, we have established relationships with more than 300 cloud service providers and hyperscaler providers, including AWS, Google, IBM SoftLayer and Microsoft Azure.

We compete against Dell Technologies/EMC Corporation, Hewlett Packard Enterprise Company, Hitachi Vantara, and International Business Machines Corporation, as well as Pure Storage, Nutanix, and other smaller players. Our current and potential competitors may establish cooperative relationships among themselves or with third parties, including some of our partners. It is possible that new competitors or alliances among competitors might emerge and rapidly acquire significant market share.

We consider innovation, cloud integration, and our technology partnerships key to our competitive differentiation. We believe our competitive advantage also includes the nature of the relationships we form with our customers and partners worldwide. We strive to deliver an outstanding experience in every interaction we have with our customers and partners through our product, service, and support offerings, which enable us to provide our customers with a full range of expertise before, during and after their purchase.

Proprietary Rights

NetApp generally relies on patent, copyright, trademark, trade secret and contract laws to establish and maintain our proprietary rights in our technology and products. While our intellectual property rights are important to our success, we believe that our business is not materially dependent on any particular patent, trademark, copyright, license or other intellectual property right. We have been granted or own by assignment well over a thousand U.S. patents, hundreds of pending U.S. patent applications, and many

corresponding patents and patent applications in other countries. Our primary trademarks are NetApp and the NetApp design logo, which are registered trademarks in the U.S. and in many other countries. In addition, we have numerous trademarks and trademark registrations in the U.S. and other countries covering our various product names.

We generally enter into confidentiality agreements with our employees, resellers, customers, and suppliers. In addition, through various licensing arrangements, we receive certain rights to intellectual property of others. We expect to maintain current licensing arrangements and to secure licensing arrangements in the future, as needed and to the extent available on reasonable terms and conditions, to support continued development and sales of our products and services. Some of these licensing arrangements require or might require royalty payments and other licensing fees. The amount of these payments and fees might depend on various factors, including but not limited to the structure of royalty payments; offsetting considerations, if any; and the degree of use of the licensed technology.

The industry in which we compete is characterized by rapidly changing technology, a large number of patents, and frequent claims and related litigation regarding intellectual property rights, and we may be exposed to various risks related to such claims or legal proceedings. If we are unable to protect our intellectual property, we might be subject to increased competition that could materially and adversely affect our operating results.

Environmental Disclosure

We are committed to the success of our customers and partners, to delivering value to our stockholders, and to positively affecting the communities where our employees work and live. We firmly believe that we can accomplish these objectives concurrently with our commitment to sustainability. We are committed to the prevention of pollution; efficient use of natural resources; and minimizing, relative to the growth of the company, the environmental impacts from our operations, products, and services, as well as complying with laws and regulations related to these areas. Our environmental management system provides the framework for setting, monitoring, and continuously improving our environmental goals and objectives.

We are voluntarily measuring, monitoring, and publicly reporting our scope 1 and scope 2 greenhouse gas emissions and participate in the CDP, which is a global standardized mechanism by which companies report their greenhouse gas emissions to institutional investors. We promote alternative transportation programs through education and awareness campaigns, and we continuously seek to optimize the energy efficiency of our buildings, labs, and data centers. At both the global and regional/state levels, various laws and regulations have been implemented or are under consideration to mitigate the effects of climate change caused by greenhouse gas emissions. Environmental laws are complex, change frequently, and have tended to become more stringent over time. It is often difficult to estimate the future impact of environmental matters. Based on current information, we believe that our primary risk related to climate change is the risk of increased energy costs. We are not subject to a cap and trade system or any other mitigation measures that could be material to our operations in the near future. Additionally, we have implemented disaster recovery and business resiliency measures to mitigate the physical risks our facilities, business, and supply chain might face as a consequence of severe weather-/climate-related phenomena such as earthquakes, floods, droughts, and other such natural occurrences.

We are also subject to other federal, state, and local regulations regarding workplace safety and protection of the environment. Various international, federal, state, and local provisions regulate the use and discharge of certain hazardous materials used in the manufacture of our products. Failure to comply with environmental regulations in the future could cause us to incur substantial costs or subject us to business interruptions. We believe we are substantially compliant with all applicable environmental laws. All of our products meet the requirements of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH); Waste Electrical and Electronic Equipment (WEEE); Restriction of Hazardous Substances (RoHS); and China RoHS directives. We have maintained an environmental management system since December 2004. As part of ISO 14001 requirements, we set local environmental performance goals such as reducing energy use per square foot and minimizing waste generated on site, that are aligned with our overall corporate strategy. We also conduct periodic reviews and are subject to third-party audits of our operations, and we monitor environmental legislation and requirements to help make sure we are taking necessary measures to remain in compliance with applicable laws, not only in our operations but also for our products.

Employees

As of April 27, 2018, we had approximately 10,300 employees worldwide. None of our employees are represented by a labor union and we consider relations with our employees to be good. Competition for technical personnel in the industry in which we compete is intense. We believe that our future success depends in part on our continued ability to hire, assimilate, and retain qualified personnel. To date, we believe that we have been successful in recruiting qualified employees, but there is no assurance that we will continue to be successful in the future.

Executive Officers

Our executive officers and their ages as of June 1, 2018, are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
George Kurian	51	Chief Executive Officer and President
Ronald J. Pasek	57	Executive Vice President and Chief Financial Officer
Henri Richard	60	Executive Vice President, Worldwide Field and Customer Operations
Joel D. Reich	59	Executive Vice President and General Manager, NetApp Storage Systems and Software Business Unit
Matthew K. Fawcett	50	Senior Vice President, General Counsel and Secretary

George Kurian was appointed chief executive officer on June 1, 2015 and president on May 20, 2016. He joined our board of directors in June 2015. From September 2013 to May 2015, he was executive vice president of product operations, overseeing all aspects of technology strategy, product and solutions development across our product portfolio. Mr. Kurian joined NetApp in April 2011 as the senior vice president of the storage solutions group and was appointed to senior vice president of the Data ONTAP group in December 2011. Prior to NetApp, from 2002 to 2011, Mr. Kurian held several positions at Cisco Systems, including most recently vice president and general manager of the application networking and switching technology group. From 1999 to 2002, Mr. Kurian was the vice president of product management and strategy at Akamai Technologies. Prior to that, he was a management consultant with McKinsey and Company, and led software engineering and product management teams at Oracle Corporation. Mr. Kurian holds a BS degree in electrical engineering from Princeton University and an MBA degree from Stanford University.

Ronald J. Pasek joined NetApp in April 2016 as executive vice president and chief financial officer, overseeing the finance, customer leasing, workplace resources, internal audit, and IT functions. Mr. Pasek served as senior vice president, finance and chief financial officer of Altera Corporation, a worldwide provider of programmable logic devices, from December 2009 until its acquisition by Intel in December 2015. Mr. Pasek was previously employed by Sun Microsystems, where he most recently served as vice president and corporate treasurer. In his 19 years at Sun Microsystems, he also held a variety of other positions in finance, including vice president of worldwide field finance, worldwide manufacturing, and U.S. field finance. Mr. Pasek is the chairman of the board of directors of Spectra7 Microsystems Inc., a Canadian publicly traded consumer connectivity company. Mr. Pasek holds a BS degree from San Jose State University and an MBA degree from Santa Clara University.

Henri Richard joined NetApp in May 2016 as executive vice president of worldwide field and customer operations, leading NetApp's global field and customer success operations, which support the company's ecosystem of channel, alliance, and service partners and perform customer-facing functions. Before joining NetApp, from April 2013 to May 2016, he was senior vice president of worldwide sales and support at SanDisk Corporation. Prior to SanDisk, Mr. Richard served as senior vice president of worldwide sales and marketing at Freescale Semiconductor from September 2007 to April 2013. Mr. Richard brings 30-years of experience serving in global executive roles at companies including Seagate, IBM, WebGain and AMD. He started his career in IT with Informatique Haute Performance in Paris, France, a company he founded. Mr. Richard was a member of the board of directors of Ultratech Inc., a formerly publicly traded advance packaging and laser processing company, until its acquisition by Veeco Instruments, Inc. in May 2017. Mr. Richard holds a bachelor of science degree from the Ecole Nationale de Radiotechnique et d'Electronique Appliquee in Asnieres, France.

Joel D. Reich joined NetApp in 2002 and was appointed executive vice president of product operations in June 2015. He is currently executive vice president and general manager of the NetApp Storage Systems and Software business unit. He is responsible for overseeing the strategy and development of the NetApp product and solutions portfolio. He is responsible for overseeing the strategy, development and manufacturing operations of the NetApp product and solutions portfolio. From April 2011 to June 2015, Mr. Reich served as NetApp's senior vice president of the Hyperscale Storage Group. Before that time, he served in various NetApp Data ONTAP engineering leadership roles. Before joining NetApp, he was vice president of marketing and product operations for HighGround Systems, Inc. He also held the position of director of product management at Data General Corporation and EMC Corporation and was director of sales and marketing for Conner Peripherals Storage Systems Group. Mr. Reich holds a bachelor's degree from Lehigh University.

Matthew K. Fawcett joined the company in September 2010 as senior vice president, general counsel, and secretary. Prior to joining NetApp, from 1999 to August 2010, Mr. Fawcett served in various legal positions at JDS Uniphase Corporation, an optical components company, including as senior vice president, general counsel, and corporate secretary. Prior to joining JDSU, Mr. Fawcett was counsel at Fujitsu and worked in private practice at Morrison & Foerster LLP. Mr. Fawcett is a member of the boards of the Association of Corporate Counsel and the Law Foundation of Silicon Valley. Mr. Fawcett holds a BA degree from the University of California at Berkeley and a JD degree from the University of California at Los Angeles.

Additional Information

Our internet address is *www.netapp.com*. We make available through our internet website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, amendments to those reports and other documents filed or furnished pursuant to the Exchange Act of 1934, as soon as reasonably practicable after we electronically file such materials with, or furnish them to, the SEC.

The SEC maintains an internet site (*www.sec.gov*) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The public also may read and copy these filings at the SEC's Public Reference Room at 100 F Street N.E., Washington, DC 20549. Information about this Public Reference Room is available by calling (800) SEC-0330.

Item 1A. Risk Factors

The information included elsewhere in this Annual Report on Form 10-K should be considered and understood in the context of the following risk factors, which describe circumstances that may materially harm our future business, operating results or financial condition. The following discussion reflects our current judgment regarding the most significant risks we face. These risks can and will change in the future.

Our business may be harmed by trends in the networked storage hardware market or if we are unable to keep pace with rapid industry, technological and market changes.

Our industry and the markets in which we compete have historically experienced significant growth due to the increase in the demand for storage and data management solutions by consumers, enterprises and government bodies around the world, and the resultant purchases of storage and data management solutions to address this demand. However, despite continued data growth, the networked storage hardware market experienced a decline in each of the last three calendar years due to a combination of customers delaying purchases in the face of technology transitions, increasing adoption of Cloud environments built on commodity hardware, increased storage efficiency, and changing economic and business environments. While customers are navigating through their IT transformations, which leverage modern architectures and hybrid cloud environments, they are also reducing IT budgets, looking for simpler solutions, and rethinking how they consume IT. This evolution is diverting spending towards transformational projects and architectures like flash, hybrid cloud, IT as a service, converged infrastructure, and software defined storage. Our business may be adversely impacted if we are unable to keep pace with rapid industry, technological or market changes or if our Data Fabric strategy is not accepted in the marketplace. As a result of these and other factors discussed in the report, our revenue may decline as it did in fiscal years 2015, 2016 and 2017, on a year-over year basis. The future impact of these trends on both short-term and long-term growth patterns is uncertain. If the general historical rate of industry growth declines, if the growth rates of the specific markets in which we compete decline, and/or if the consumption model of storage changes and our new and existing products, services and solutions do not receive customer acceptance, our business, operating results and financial condition could suffer.

If we are unable to develop, introduce and gain market acceptance for new products while managing the transition from older products, or if we cannot provide the expected level of quality, service and support for our new products, our business, operating results and financial condition could be harmed.

Our future growth depends upon the successful development and introduction of new hardware and software products and related services. Due to the complexity of storage software, subsystems and appliances and the difficulty in gauging the engineering effort required to produce new products and services, such products and services are subject to significant technical and quality control risks.

If we are unable, for technological, customer reluctance or other reasons, to develop, introduce and gain market acceptance for new products and services, as and when required by the market and our customers, our business, operating results and financial condition could be materially and adversely affected.

New or additional product introductions, including new hardware and software offerings, such as NetApp HCI, Cloud Volumes ONTAP, and new all flash storage products, subject us to additional financial and operational risks, including our ability to forecast customer preferences and/or demand, our ability to successfully manage the transition from older products and solutions, our ability to forecast the impact of customers' demand for new products and solutions or the products being replaced, and our ability to manage production capacity to meet the demand for new products. In addition, as new or enhanced products are introduced, we must also avoid excessive levels of older product inventories and related components and ensure that enough supplies of new products can be delivered to meet customers' demands. Further risks inherent in new product and solutions introductions include the uncertainty of price-performance relative to products of competitors, competitors' responses to the introductions, delays in sales caused by the desire of customers to evaluate new products for extended periods of time and our partners' investment in selling our new products and solutions. If these risks are not managed effectively, we could experience material risks to our operations, financial condition and business model.

As we enter new or emerging markets, we will likely increase demands on our service and support operations and may be exposed to additional competition. We may not be able to provide products, service and support to effectively compete for these market opportunities.

Our new consumption based business models may adversely affect our revenues and profitability.

We offer customers a full range of consumption models, including the deployment of our software through our subscription and cloud-based Software as a Service (SaaS), and utility pricing and managed services offerings for our hardware and software systems. These business models continue to evolve, and we may not be able to compete effectively, generate significant revenues or maintain the profitability of our consumption based offerings. Additionally, the increasing prevalence of cloud and SaaS delivery models offered by us and our competitors may unfavorably impact the pricing of our on-premise hardware and software offerings and could have a dampening impact on overall demand for our on-premise hardware and software product and service offerings, which could

reduce our revenues and profitability, at least in the near term. If we do not successfully execute our consumption model strategy or anticipate the needs of our customers, our revenues and profitability could decline.

As customer demand for our consumption model offerings increases, we could experience volatility in our reported revenues and operating results due to differences in the timing of revenue recognition between our traditional hardware and software license arrangements, (for which revenue is generally recognized in full at the time of delivery), relative to our consumption model offerings, (for which revenue is generally recognized ratably over the term of the arrangement). We incur certain expenses associated with the infrastructure and marketing of our consumption model offerings in advance of our ability to recognize the revenues associated with these offerings.

Our sales and distribution structure makes forecasting revenues difficult and, if disrupted, could harm our operating results.

Our business and sales models make revenues difficult to forecast. We sell to a variety of customers directly and through various channels, with a corresponding variety of sales cycles, and we recently reorganized our sales resources to improve the alignment of those resources with customer and market opportunities. The reorganization of our sales resources could result in short or long-term disruption of our sales cycles and harm our operating results. The majority of our sales are made and/or fulfilled indirectly through channel partners, including value-added resellers, systems integrators, distributors, original equipment manufacturers (OEMs) and strategic business partners, which now include hyperscalers. This structure significantly complicates our ability to forecast future revenue, especially within any particular fiscal quarter or year. Moreover, our relationships with our indirect channel partners and strategic business partners are critical to our success. The loss of one or more of our key indirect channel partners in a given geographic area or the failure of our channel or strategic partners to promote our products could harm our operating results. Qualifying and developing new indirect channel partners typically require a significant investment of time and resources before acceptable levels of productivity are met. If we fail to maintain our relationships with our indirect channel partners and strategic partners, if their financial condition, business or customer relationships were to weaken, if they fail to comply with legal or regulatory requirements, or if we were to cease to do business with them for these or other reasons, our business, operating results and financial condition could be harmed.

Increasing competition and industry consolidation could harm our business and operating results.

The storage and data management markets are intensely competitive and are characterized by rapidly changing technology and fragmentation. We compete with many companies in the markets we serve, including established public companies, newly public companies with a strong flash focus, and new market entrants addressing the growing opportunity for hyper-converged systems. Some offer a broad spectrum of IT products and services (full-stack vendors) and others offer a more limited set of storage and data management products or services. Technology trends, such as the emergence of hosted or public cloud storage, SaaS and flash storage are driving significant changes in storage architectures and solution requirements. Cloud service providers provide customers storage for their data centers on demand, without requiring a capital expenditure, which meets rapidly evolving business needs and has changed the competitive landscape.

Competitors may develop new technologies or products in advance of us or establish business models or technologies disruptive to us. By extending our flash, converged infrastructure and cloud storage offerings, we are competing in new segments with both traditional competitors and new competitors, particularly smaller emerging storage vendors. The longer-term potential and competitiveness of these emerging vendors remains to be determined. In cloud and converged infrastructure, we also compete with large well-established competitors.

For additional information regarding our competitors, see the section entitled “Competition” contained in Item 1 – Business of Part I of this Form 10-K. It is possible that new competitors or alliances among competitors might emerge and rapidly acquire significant market share or buying power. An increase in industry consolidation might result in stronger competitors that are better able to compete as full stack vendors for customers and achieve increased economies of scale in the supply chain. For example, in October 2016, Dell Inc. and EMC Corp. consummated their agreement to merge. Also in April 2017, HP Enterprise completed their acquisition of Nimble Storage. In addition, current and potential competitors have established or might establish cooperative relationships among themselves or with third parties, including some of our partners or suppliers.

Continuing uncertain economic and political conditions restrict our visibility and may harm our operating results, including our revenue growth and profitability.

Continuing global economic uncertainty, political conditions and fiscal challenges in the United States (U.S.) and abroad have, among other things, limited our ability to forecast future demand for our products, contributed to increased periodic volatility in the computer, storage and networking industries at large, as well as the information technology (IT) market, and could constrain future access to capital for our suppliers, customers and partners. The impacts of these circumstances are global and pervasive, and the timing and nature of any ultimate resolution of these matters remain highly uncertain. Consequently, we expect these concerns to challenge our business for the foreseeable future, which could cause harm to our operating results. Such conditions have resulted, and may in the future again result, in failure to meet our forecasted financial expectations and to achieve historical levels of revenue growth.

Our quarterly operating results may fluctuate materially, which could harm our common stock price.

Our operating results have fluctuated in the past and will continue to do so, sometimes materially. All of the matters discussed in this Risk Factors section could impact our operating results in any fiscal quarter or year. In addition to those matters, we face the following issues, which could impact our quarterly results:

- Seasonality, such as our historical seasonal decline in revenues in the first quarter of our fiscal year and seasonal increase in revenues in the second quarter of our fiscal year, with the latter due in part to the impact of the U.S. federal government's September 30 fiscal year end on the timing of its orders; and
- Linearity, such as our historical intra-quarter bookings and revenue pattern in which a disproportionate percentage of each quarter's total bookings and related revenue occur in the last month of the quarter.

If our operating results fall below our forecasts and the expectations of public market analysts and investors, the trading price of our common stock may decline.

Our gross margins vary.

Our gross margins reflect a variety of factors, including competitive pricing, component and product design, the volume and relative mix of product, software maintenance, hardware maintenance and other services revenues. Increased component costs, increased pricing and discounting pressures, the relative and varying rates of increases or decreases in component costs and product prices, changes in product, software maintenance, hardware maintenance and other services revenue mix or decreased volume could harm our revenues, gross margins or earnings. Our gross margins are also impacted by the cost of any materials that are of poor quality and our sales and distribution activities, including, without limitation, pricing actions, rebates, sales initiatives and discount levels, and the timing of service contract renewals.

The costs of third-party components comprise a significant portion of our product costs. While we generally have been able to manage our component and product design costs, we may have difficulty managing these costs if supplies of certain components become limited or component prices increase. Any such limitation could result in an increase in our product costs. An increase in component or design costs relative to our product prices could harm our gross margins and earnings.

We often incur expenses before we receive related benefits, and expenses may be difficult to reduce quickly if demand declines.

We base our expense levels in part on future revenue expectations and a significant percentage of our expenses is fixed. It is difficult to reduce our fixed costs quickly, and if revenue levels are below our expectations, operating results could be adversely impacted. During periods of uneven growth or decline, we may incur costs before we realize the anticipated related benefits, which could also harm our operating results. We have made, and will continue to make, significant investments in engineering, sales, service and support, marketing and other functions to support and grow our business. We are likely to recognize the costs associated with these investments earlier than some of the related anticipated benefits, such as revenue growth, and the return on these investments may be lower, or may develop more slowly, than we expect, which could harm our business, operating results and financial condition.

If we are unable to maintain and develop relationships with strategic partners, our revenues may be harmed.

Our growth strategy includes developing and maintaining strategic partnerships with major third-party software and hardware vendors to integrate our products into their products and also co-market our products with them. A number of our strategic partners are industry leaders that offer us expanded access to segments of the storage and data management markets. In particular, strategic partnerships with hyperscalers and cloud service vendors are critical to the success of our cloud-based business. However, there is intense competition for attractive strategic partners, and these relationships may not be exclusive, may not generate significant revenues and may be terminated on short notice. For instance, some of our partners are also partnering with our competitors, which may increase the availability of competing solutions and harm our ability to grow our relationships with those partners. Moreover, some of our partners, particularly large, more diversified technology companies, are also competitors, thereby complicating our relationships. If we are unable to establish new partnerships or maintain existing partnerships, if our strategic partners favor their relationships with other vendors in the storage industry or if our strategic partners increasingly compete with us, we could experience lower than expected revenues, suffer delays in product development, or experience other harm to our business, operating results and financial condition.

If we do not achieve forecasted bookings in any quarter, our financial results could be harmed.

We derive a majority of our revenues in any given quarter from orders booked in the same quarter. Bookings typically follow intra-quarter seasonality patterns weighted toward the back end of the quarter. If we do not achieve the level, timing and mix of bookings consistent with our quarterly targets and historical patterns, or if we experience cancellations of significant orders, our financial results could be harmed.

A portion of our revenues is generated by large, recurring purchases from various customers, resellers and distributors. A loss, cancellation or delay in purchases by any of these parties has negatively affected us in the past, and in the future could, negatively affect our revenues.

A significant portion of our net revenues are generated through sales to a limited number of distributors. We generally do not enter into binding purchase commitments with our customers, resellers and distributors for extended periods of time, and thus there is no guarantee we will continue to receive large, recurring orders from these customers, resellers or distributors. For example, our reseller agreements generally do not require minimum purchases, and our customers, resellers and distributors can stop purchasing and marketing our products at any time. In addition, unfavorable economic conditions may negatively impact the solvency of our customers, resellers and distributors or the ability of such customers, resellers and distributors to obtain credit to finance purchases of our products. If any of our key customers, resellers or distributors changes its pricing practices, reduces the size or frequency of its orders for our products, or stops purchasing our products altogether, our operating results and financial condition could be materially adversely impacted.

We rely on a limited number of suppliers for critical product components.

We rely on a limited number of suppliers for drives and other components utilized in the assembly of our products, including certain single source suppliers, which has subjected us, and could in the future subject us to price rigidity, periodic supply constraints, and the inability to produce our products with the quality and in the quantities demanded. Consolidation among suppliers, particularly within the semiconductor and disk drive industries, has contributed to price rigidity and may in the future create supply constraints. When industry supply is constrained, our suppliers may allocate volumes away from us and to our competitors, all of which rely on many of the same suppliers as we do. Accordingly, our operating results may be harmed.

Any disruption to our supply chain could materially harm our business, operating results and financial condition.

We do not manufacture our products or their components. Instead, we rely on third parties to make our products and critical components, such as disk drives, as well as for associated logistics. Our lack of direct responsibility for, and control over, these elements of our business, as well as the diverse international geographic locations of our manufacturing partners and suppliers, creates significant risks for us, including, among other things:

- Limited ability to control the quality, quantity and cost of our products or of their components;
- The potential for binding price or purchase commitments with our suppliers that are higher than market rates;
- Limited ability to adjust production volumes in response to our customers' demand fluctuations;
- Labor and political unrest at facilities we do not operate or own;
- Geopolitical disputes disrupting our supply chain;
- Business, legal compliance, litigation and financial concerns affecting our suppliers or their ability to manufacture and ship our products in the quantities, quality and manner we require; and
- Disruptions due to floods, earthquakes, storms and other natural disasters, particularly in countries with limited infrastructure and disaster recovery resources.

Such risks have in the past and could again in the future subject us to supply constraints, price increases and minimum purchase requirements and our business, operating results and financial condition could be harmed. The risks associated with our out-sourced manufacturing model are particularly acute when we transition products to new facilities or manufacturers, introduce and increase volumes of new products or qualify new contract manufacturers or suppliers, at which times our ability to manage the relationships among us, our manufacturing partners and our component suppliers, becomes critical. New manufacturers, products, components or facilities create increased costs and risk that we will fail to deliver high quality products in the required volumes to our customers. Any failure of a manufacturer or component supplier to meet our quality, quantity or delivery requirements in a cost-effective manner will harm our business, operating results and customer relationships.

Due to the global nature of our business, risks inherent in our international operations could materially harm our business.

A significant portion of our operations is located, and a significant portion of our revenues is derived, outside of the U.S. In addition, most of our products are manufactured outside of the U.S., and we have research and development, sales and service centers overseas. Accordingly, our business and our future operating results could be adversely impacted by factors affecting our international operations including, among other things, local political or economic conditions, trade protection and export and import requirements, tariffs, local labor conditions, transportation costs, government spending patterns, acts of terrorism, international conflicts and natural

disasters in areas with limited infrastructure. In particular, the current trade tensions with China could impact our business and operating results. In addition, due to the global nature of our business, we are subject to complex legal and regulatory requirements in the U.S. and the foreign jurisdictions in which we operate and sell our products, including antitrust and anti-competition laws, rules and regulations, and regulations related to data privacy. We are also subject to the potential loss of proprietary information due to piracy, misappropriation, or laws that may be less protective of our intellectual property rights than U.S. laws. Such factors could have an adverse impact on our business, operating results and financial condition.

We face exposure to adverse movements in foreign currency exchange rates as a result of our international operations. These exposures may change over time as business practices evolve, and they could have a material adverse impact on our financial results and cash flows. We utilize forward and option contracts in an attempt to reduce the adverse earnings impact from the effect of exchange rate fluctuations on certain assets and liabilities. Our hedging strategies may not be successful, and currency exchange rate fluctuations could have a material adverse effect on our operating results and cash flows. In addition, our foreign currency exposure on assets, liabilities and cash flows that we do not hedge could have a material impact on our financial results in periods when the U.S. dollar significantly fluctuates in relation to foreign currencies.

Additional risks inherent in our international business activities generally include, among others, longer accounts receivable payment cycles and difficulties in managing international operations.

Moreover, in many foreign countries, particularly in those with developing economies, it is common to engage in business practices that are prohibited by our internal policies and procedures, or U.S. laws and regulations applicable to us, such as the Foreign Corrupt Practices Act. There can be no assurance that all our employees, contractors and agents, as well as those companies to which we outsource certain of our business operations, will comply with these policies, procedures, laws and/or regulations. Any such violation could subject us to fines and other penalties, which could have a material adverse effect on our business, operating results and financial condition.

We could be subject to additional income tax liabilities.

Our effective tax rate is influenced by a variety of factors, many of which are outside of our control. These factors include among other things, fluctuations in our earnings and financial results in the various countries and states in which we do business, the outcome of income tax audits and changes to the tax laws in such jurisdictions. Changes to any of these factors could materially impact our operating results.

We receive significant tax benefits from sales to our non-U.S. customers. These benefits are contingent upon existing tax laws and regulations in the U.S. and in the countries in which our international operations are located. Future changes in domestic or international tax laws and regulations or a change in how we manage our international operations could adversely affect our ability to continue realizing these tax benefits.

Many countries around the world are beginning to implement legislation and other guidance to align their international tax rules with the Organisation for Economic Co-operation's Base Erosion and Profit Shifting recommendations and related action plans that aim to standardize and modernize global corporate tax policy, including changes to cross-border tax, transfer-pricing documentation rules and nexus-based tax incentive practices. As a result, many of these changes, if enacted, could increase our worldwide effective tax rate and harm our financial position and results of operations.

We are routinely subject to income tax audits in the U.S. and several foreign tax jurisdictions. If the ultimate determination of income taxes or at-source withholding taxes assessed under these audits results in amounts in excess of the tax provision we have recorded or reserved for, our operating results, cash flows and financial condition could be adversely affected.

Our effective tax rate could also be adversely affected by different and evolving interpretations of existing law or regulations, which in turn would negatively impact our operating and financial results as a whole. Additionally, our effective tax rate could also be adversely affected if there is a change in international operations, our tax structure and how our operations are managed and structured, and as a result, we could experience harm to our operating results and financial condition. The recent U.S. tax law changes enacted through the Tax Cuts and Jobs Act are subject to further interpretations from the U.S. federal and state governments and regulatory organizations, such as the Treasury Department and/or IRS. Changes to interpretations of the law could change the provisional tax expense or accounting treatment of the \$732 million expense we have recorded in relation to the transition tax. We have elected to pay the transition tax over a period of eight years. As result, our cash flows from operating activities will be adversely impacted until the additional tax provisions are paid in full.

Our success depends upon our ability to effectively plan and manage our resources and restructure our business in response to changing market conditions and market demand for our products, and such actions may have an adverse effect on our financial and operating results.

Our ability to successfully offer our products and services in a rapidly evolving market requires an effective planning, forecasting, and management process to enable us to effectively scale and adjust our business in response to fluctuating market opportunities and conditions.

In response to changes in market conditions and market demand for our products, we have in the past undertaken cost savings initiatives. For example, in May 2015, March 2016 and November 2016 we executed restructuring events designed to streamline our business, reduce our cost structure and focus our resources on key strategic opportunities. As a result, we have recognized substantial restructuring charges. In fiscal 2018, we created the Storage Systems and Software, Cloud Data Services, and Cloud Infrastructure business units to enable us to develop the organization and systems to successfully execute a multi-product business. We also reorganized our sales resources to improve the alignment of those resources with customer and market opportunities. We may in the future undertake initiatives that could include reorganizing our workforce, restructuring, disposing of, and/or otherwise discontinuing certain products, or a combination of these actions. Rapid changes in the size, alignment or organization of our workforce, including our new business unit structure and sales account coverage, could adversely affect our ability to develop, sell and deliver products and services as planned or impair our ability to realize our current or future business and financial objectives. Any decision to take these actions may result in charges to earnings associated with, among other things, inventory or other fixed, intangible or goodwill asset reductions (including, without limitation, impairment charges), workforce and facility reductions and penalties and claims from third party resellers or users of discontinued products. Charges associated with these activities would harm our operating results. In addition to the costs associated with these activities, we may not realize any of the anticipated benefits of the underlying restructuring activities.

If our products are defective, or are perceived to be defective as a result of improper use or maintenance, our gross margins, operating results and customer relationships may be harmed.

Our hardware and software products are complex. We have experienced in the past, and expect to experience in the future, quality issues. Such quality issues may be due to, for example, our own designs or processes, the designs or processes of our suppliers, and/or flaws in third party software used in our products. Quality risk is most acute when we are introducing new products. We have also increased the cadence of our product release cycle, which could impact product and service quality. Quality issues have and could again in the future cause customers to experience outages or disruptions in service, data loss or data corruption. If we fail to remedy a product defect, we may experience a failure of a product line, temporary or permanent withdrawal from a product or market, damage to our reputation, loss of revenue, inventory costs or product reengineering expenses and higher ongoing warranty and service costs, and these occurrences could have a material impact on our gross margins, business and operating results. In addition, we exercise little control over how our customers use or maintain our products, and in some cases improper usage or maintenance could impair the performance of our products, which could lead to a perception of a quality issue. Customers and we may experience losses that may result from or are alleged to result from defects in our products, which could subject us to claims for damages, including consequential damages.

If a data center or other third-party who relies on our products experiences a disruption in service or a loss of data, such disruption could be attributed to the quality of our products, thereby causing financial or reputational harm to our business.

Our clients, including data centers, SaaS, cloud computing and internet infrastructure and bandwidth providers, rely on our products for their data storage needs. Our clients may authorize third-party technology providers to access their data on our systems. Because we do not control the transmissions between our clients, their customers, and third-party technology providers, or the processing of such data by third-party technology providers, we cannot ensure the complete integrity or security of such transmissions or processing. Errors or wrongdoing by clients, their customers, or third-party technology providers resulting in security breaches may be attributed to us.

A failure or inability to meet our clients' expectations with respect to security and confidentiality through a disruption in the services provided by these third-party vendors, or the loss of data stored by such vendors, could result in financial or reputational harm to our business to the extent that such disruption or loss is caused by, or perceived by our customers to have been caused by, defects in our products. Moreover, the risk of reputational harm may be magnified and/or distorted through the rapid dissemination of information over the internet, including through news articles, blogs, chat rooms, and social media sites. This may affect our ability to retain clients and attract new business.

If a cybersecurity or other security breach occurs on our systems or on our end user customer systems, or if stored data is improperly accessed, customers may reduce or cease using our solutions, our reputation may be harmed and we may incur significant liabilities.

We store and transmit personal, sensitive and proprietary data related to our products, our employees, customers, clients and partners (including third-party vendors such as data centers and providers of SaaS, cloud computing, and internet infrastructure and bandwidth), and their respective customers, including intellectual property, books of record and personal information. It is critical to our business strategy that our infrastructure, products and services remain secure and are perceived by customers, clients and partners to be secure. There are numerous and evolving risks to cybersecurity and privacy, including criminal hackers, state-sponsored intrusions, industrial espionage, human error and technological vulnerabilities. Cybersecurity incidents or other security breaches could result in (1) unauthorized access to, or loss or unauthorized disclosure of, such information; (2) litigation, indemnity obligations, government investigations and other possible liabilities; (3) negative publicity; and (4) disruptions to our internal and external operations. Any of these could damage our reputation and public perception of the security and reliability of our products, as well as harm our business and cause us to incur significant liabilities. In addition, a cybersecurity incident or other security breach could result

in other negative consequences, including remediation costs, disruption of internal operations, increased cybersecurity protection costs and lost revenues.

Our clients and customers use our platforms for the transmission and storage of sensitive data. We do not review the information or content that our clients and their customers upload and store, and, therefore, we have no direct control over the substance of the information or content stored within our platforms. If our employees, or our clients, partners or their respective customers use our platforms for the transmission or storage of personal or other sensitive information and our security measures are breached as a result of third-party action, employee error, malfeasance, stolen or fraudulently obtained log-in credentials or otherwise, our reputation could be damaged, our business may be harmed and we could incur significant liabilities.

High-profile cyber-attacks and security breaches have increased in recent years, and security industry experts and government officials have warned about the risks of hackers and cyberattacks targeting information technology products and businesses. Because techniques used to obtain unauthorized access or to sabotage systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. As we continue to increase our client base and expand our brand, we may become more of a target for third parties seeking to compromise our security systems and we anticipate that hacking attempts and cyberattacks will increase in the future. We cannot give assurance that we will always be successful in preventing or repelling unauthorized access to our systems.

Many jurisdictions have enacted or are enacting laws requiring companies to notify regulators or individuals of data security incidents involving certain types of personal data. These mandatory disclosures regarding security incidents often lead to widespread negative publicity. Moreover, the risk of reputational harm may be magnified and/or distorted through the rapid dissemination of information over the internet, including through news articles, blogs, chat rooms, and social media sites. Any security incident, whether actual or perceived, could harm our reputation, erode customer confidence in the effectiveness of our data security measures, negatively impact our ability to attract new customers, cause existing customers to elect not to renew their support contracts or their SaaS subscriptions, or subject us to third-party lawsuits, regulatory fines or other action or liability, which could materially and adversely affect our business and operating results. In addition, a security incident or loss of personal information could result in other negative consequences, including remediation costs, disruption of internal operations, increased cybersecurity protection costs and lost revenues. Our business could be subject to stricter obligations and greater fines under the enactment of new data privacy laws, including the European Union General Data Protection Regulation enacted on May 25, 2018.

There can be no assurance that the limitations of liability in our contracts would be enforceable or adequate or would otherwise protect us from any such liabilities or damages with respect to any particular claim. Our existing general liability insurance coverage and coverage for errors and omissions may not continue to be available on acceptable terms or may not be available in sufficient amounts to cover one or more large claims, or our insurers may deny coverage as to any future claim. The successful assertion of one or more large claims against us that exceeds available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, operating results and financial condition.

If we are unable to attract and retain qualified personnel, our business, operating results and financial condition could be harmed.

Our continued success depends, in part, on our ability to hire and retain qualified personnel and to preserve the key aspects of our corporate culture. Because our future success is dependent on our ability to continue to enhance and introduce new products, we are particularly dependent on our ability to hire and retain qualified engineers, including in emerging areas of technology such as artificial intelligence and machine learning. In addition, to increase revenues, we will be required to increase the productivity of our sales force and support infrastructure to achieve adequate customer coverage. Competition for qualified employees, particularly in Silicon Valley, is intense. We have periodically reduced our workforce, including an 11% reduction announced in March 2016 and a 6% reduction announced in November 2016, and these actions may make it more difficult to attract and retain qualified employees. Our inability to hire and retain qualified management and skilled personnel, particularly engineers, salespeople and key executive management, could be disruptive to our development efforts, sales results, business relationships and/or our ability to execute our business plan and strategy on a timely basis and could materially and adversely affect our operating results.

Equity grants are a critical component of our current compensation programs. If we reduce, modify or eliminate our equity programs, we may have difficulty attracting and retaining critical employees.

In addition, because of the structure of our cash and equity incentive compensation plans, we may be at increased risk of losing employees at certain times. For example, the retention value of our compensation plans decreases after the payment of annual bonuses or the vesting of equity awards.

We are continually seeking ways to make our cost structure, business processes and systems more efficient, including by moving activities from higher-cost to lower-cost locations, outsourcing certain business processes and functions, and implementing new business information systems. Problems with the execution of these activities could have an adverse effect on our business, operating results and financial condition. In addition, we may not achieve the expected benefits of these initiatives.

We continuously seek to make our cost structure and business processes more efficient, including by moving our business activities from higher-cost to lower-cost locations, outsourcing certain business processes and functions, and implementing changes to our business information systems. These efforts involve a significant investment of financial and human resources and significant changes to our current operating processes. In addition, as we move operations into lower-cost jurisdictions and outsource certain business processes, we become subject to new regulatory regimes and lose control of certain aspects of our operations and, as a consequence, become more dependent upon the systems and business processes of third-parties. If we are unable to move our operations, outsource business processes and implement new business information systems in a manner that complies with local law and maintains adequate standards, controls and procedures, the quality of our products and services may suffer and we may be subject to increased litigation risk, either of which could have an adverse effect on our business, operating results and financial condition. Additionally, we may not achieve the expected benefits of these and other transformational initiatives, which could harm our business, operating results and financial condition.

Our acquisitions may not achieve expected benefits, and may increase our liabilities, disrupt our existing business and harm our operating results.

As part of our strategy, we seek to acquire other businesses and technologies to complement our current products, expand the breadth of our markets, or enhance our technical capabilities. For example, in fiscal 2018 we acquired two privately held companies, and in fiscal 2016 we acquired SolidFire, Inc. The benefits we have received, and expect to receive, from these and other acquisitions depend on our ability to successfully conduct due diligence, negotiate the terms of the acquisition and integrate the acquired business into our systems, procedures and organizational structure. Any inaccuracy in our acquisition assumptions or any failure to uncover liabilities or risks associated with the acquisition, make the acquisition on favorable terms, integrate the acquired business or assets as and when expected or retain key employees of the acquired company may reduce or eliminate the expected benefits of the acquisition to us, increase our costs, disrupt our operations, result in additional liabilities, investigations and litigation, and may also harm our strategy, our business and our operating results. The failure to achieve expected acquisition benefits may also result in impairment charges for goodwill and purchased intangible assets.

Reduced U.S. government demand could materially harm our business and operating results. In addition, we could be harmed by claims that we have or a channel partner has failed to comply with regulatory and contractual requirements applicable to sales to the U.S. government.

The U.S. government is an important customer for us. However, government demand is uncertain, as it is subject to political and budgetary fluctuations and constraints. Events such as the U.S. federal government shutdown in October 2013 and continued uncertainty regarding the U.S. budget and debt levels, have increased demand uncertainty for our products, and in our fiscal 2016 resulted in lower sales to these customers. In addition, like other customers, the U.S. government may evaluate competing products and delay purchasing in the face of the technology transitions taking place in the storage industry. If the U.S. government or an individual agency or multiple agencies within the U.S. government continue to reduce or shift their IT spending patterns, our revenues and operating results may be harmed.

Selling our products to the U.S. government, whether directly or through channel partners, also subjects us to certain regulatory and contractual requirements. Failure to comply with these requirements by either us or our channel partners could subject us to investigations, fines, and other penalties, which could materially harm our operating results and financial condition. As an example, the United States Department of Justice (DOJ) and the General Services Administration (GSA) have in the past pursued claims against and financial settlements with IT vendors, including us and several of our competitors and channel partners, under the False Claims Act and other statutes related to pricing and discount practices and compliance with certain provisions of GSA contracts for sales to the federal government. Although the DOJ and GSA currently have no claims pending against us, we could face claims in the future. Violations of certain regulatory and contractual requirements, including with respect to data security, could also result in us being suspended or debarred from future government contracting. Any of these outcomes could have a material adverse effect on our business, operating results and financial condition.

We are exposed to credit risks and fluctuations in the market values of our investment portfolio.

We maintain an investment portfolio of various holdings, types, and maturities. Credit ratings and pricing of our investments can be negatively affected by liquidity, credit deterioration, financial results, economic risk, political risk, sovereign risk or other factors. As a result, the value and liquidity of our investments may fluctuate substantially. Therefore, although we have not recently realized any significant losses on our investments, future fluctuations in their value could result in a significant realized loss.

There are risks associated with our outstanding and future indebtedness.

As of April 27, 2018, we had \$1.6 billion aggregate principal amount of outstanding indebtedness for our senior notes that mature at specific dates in calendar years 2019, 2021, 2022 and 2024, and we had an aggregate of \$385 million of commercial paper notes outstanding with maturities ranging from 19 to 32 days. We may incur additional indebtedness in the future under existing credit facilities and/or entering into new financing arrangements. We may fail to pay these or additional future obligations, as and when required. Specifically, if we are unable to generate sufficient cash flows from operations or to borrow sufficient funds in the future to

service or refinance our debt, our business, operating results and financial condition will be harmed. Any downgrades from credit rating agencies such as Moody's Investors Service or Standard & Poor's Rating Services may adversely impact our ability to obtain additional financing or the terms of such financing and reduce the market capacity for our commercial paper. Furthermore, if prevailing interest rates or other factors result in higher interest upon any potential future financing, then interest expense related to the refinance indebtedness would increase.

In addition, all our debt and credit facility arrangements subject us to continued compliance with restrictive and financial covenants. If we do not comply with these covenants or otherwise default under the arrangements, we may be required to repay any outstanding amounts borrowed under these agreements. Moreover, compliance with these covenants may restrict our strategic or operational flexibility in the future, which could harm our business, operating results and financial condition.

We are exposed to the credit and non-payment risk of our customers, resellers and distributors, especially during times of economic uncertainty and tight credit markets, which could result in material losses.

Most of our sales to customers are on an open credit basis, with typical payment terms of 30 days. We may experience losses due to a customer's inability to pay. Beyond our open credit arrangements, some of our customers have entered into recourse and non-recourse financing leasing arrangements using third-party leasing companies. Under the terms of recourse leases, which are generally three years or less, we remain liable for the aggregate unpaid remaining lease payments to the third-party leasing companies in the event of end-user customer default. During periods of economic uncertainty, our exposure to credit risks from our customers increases. In addition, our exposure to credit risks of our customers may increase further if our customers and their customers or their lease financing sources are adversely affected by global economic conditions.

Our failure to adjust to emerging standards in the storage and data management industry may harm our business.

Emerging standards in the storage and data management markets may adversely affect the UNIX[®], Windows[®] and the World Wide Web server markets upon which we depend. For example, we provide our open access data retention solutions to customers within the financial services, healthcare, pharmaceutical and government market segments, industries that are subject to various evolving governmental regulations with respect to data access, reliability and permanence in the U.S. and in the other countries in which we operate. If our products do not meet and continue to comply with these evolving governmental regulations in this regard, customers in these market and geographical segments will not purchase our products, and we may not be able to expand our product offerings in these market and geographical segments at the rates which we have forecasted.

Some of our products are subject to U.S. export control laws and other laws affecting the countries in which our products and services may be sold, distributed, or delivered; any violation of these laws could have a material and adverse effect on our business, operating results and financial condition.

Due to the global nature of our business, we are subject to import and export restrictions and regulations, including the Export Administration Regulations administered by the Commerce Department's Bureau of Industry and Security (BIS) and the trade and economic sanctions regulations administered by the Treasury Department's Office of Foreign Assets Control (OFAC). The U.S., through the BIS and OFAC, places restrictions on the sale or export of certain products and services to certain countries and persons. Violators of these export control and sanctions laws may be subject to significant penalties, which may include significant monetary fines, criminal proceedings against them and their officers and employees, a denial of export privileges, and suspension or debarment from selling products to the federal government. Our products could be shipped to those targets by third parties, including potentially our channel partners, despite our precautions.

If we were ever found to have violated U.S. export control laws, we may be subject to various penalties available under the laws, any of which could have a material and adverse impact on our business, operating results and financial condition. Even if we were not found to have violated such laws, the political and media scrutiny surrounding any governmental investigation of us could cause us significant expense and reputational harm. Such collateral consequences could have a material adverse impact on our business, operating results and financial condition.

Changes in regulations relating to our products or their components, or the manufacture, sourcing, distribution or use thereof, may harm our business and operating results.

The laws and regulations governing the manufacturing, sourcing, distribution and use of our products have become more complex and stringent over time. For example, in addition to various environmental laws relating to carbon emissions and the use and discharge of hazardous materials, the SEC adopted regulations concerning the supply of certain minerals originating from the conflict zones of the Democratic Republic of Congo or adjoining countries. We incur costs to comply with the disclosure requirements of this law and may realize other costs relating to the sourcing and availability of minerals used in our products. Further, since our supply chain is complex, we may face reputational harm if our customers or other stakeholders conclude that we are unable to verify sufficiently the origins of the minerals used in the products we sell. As the laws and regulations governing our products continue to expand and change, our costs are likely to rise, and the failure to comply with any such laws and regulations could subject us to business interruptions, litigation risks and reputational harm.

Our failure to protect our intellectual property could harm our business, operating results and financial condition.

Our success depends significantly upon developing, maintaining and protecting our proprietary technology. We rely on a combination of patents, copyrights, trademarks, trade secrets, confidentiality procedures and contractual provisions with employees, resellers, strategic partners and customers, to protect our proprietary rights. We currently have multiple U.S. and international patent applications pending and multiple U.S. and international patents issued. The pending applications may not be approved, and our existing and future patents may be challenged. If such challenges are brought, the patents may be invalidated. We may not be able to develop proprietary products or technologies that are patentable, and patents issued to us may not provide us with any competitive advantages and may be challenged by third parties. Further, the patents of others may materially and adversely affect our ability to do business. In addition, a failure to obtain and defend our trademark registrations may impede our marketing and branding efforts and competitive condition. Litigation may be necessary to protect our proprietary technology. Any such litigation may be time-consuming and costly. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or obtain and use information that we regard as proprietary. In addition, the laws of some foreign countries do not protect proprietary rights to as great an extent as do the laws of the U.S. Our means of protecting our proprietary rights may not be adequate or our competitors may independently develop similar technology, duplicate our products, or design around patents issued to us or other intellectual property rights of ours. In addition, while we train employees in confidentiality practices and include terms in our employee and consultant agreements to protect our intellectual property, there is persistent risk that some individuals will improperly take our intellectual property after terminating their employment or other engagements with us, which could lead to intellectual property leakage to competitors and a loss of our competitive advantages.

We may be found to infringe on intellectual property rights of others.

We compete in markets in which intellectual property infringement claims arise in the normal course of business. Third parties have, from time to time, asserted intellectual property-related claims against us, including claims for alleged patent infringement brought by non-practicing entities. Such claims may be made against our products and services, our customers' use of our products and services, or a combination of our products and third-party products. We also may be subject to claims and indemnification obligations from customers and resellers with respect to third-party intellectual property rights pursuant to our agreements with them. If we refuse to indemnify or defend such claims, even in situations in which the third party's allegations are meritless, then customers and resellers may refuse to do business with us.

Patent litigation is particularly common in our industry. We have been, and continue to be, in active patent litigations with non-practicing entities. While we vigorously defend our ability to compete in the marketplace, there is no guarantee that, in patent or other types of intellectual property litigation, we will prevail at trial or be able to settle at a reasonable cost. If a judge or jury were to find that our products infringe, we could be required to pay significant monetary damages and be subject to an injunction that could cause product shipment delays, require us to redesign our products, affect our ability to supply or service our customer, and/or require us to enter into compulsory royalty or licensing agreements.

We expect that companies in the network storage and data management markets will increasingly be subject to infringement claims as the number of products and competitors in our industry segment grows and the functionality of products in different industry segments overlaps. Any such claims, and any such infringement claims discussed above, could be time consuming, result in costly litigation, cause product shipment delays, require us to redesign our products, or require us to enter into royalty or licensing agreements, any of which could materially and adversely affect our operating results. Such royalty or licensing agreements, if required, may not be available on terms acceptable to us or at all.

We rely on software from third parties, and a failure to properly manage our use of third-party software could result in increased costs or loss of revenue.

Many of our products are designed to include software licensed from third parties. Such third-party software includes software licensed from commercial suppliers and software licensed under public open source licenses. We have internal processes to manage our use of such third-party software. However, if we fail to adequately manage our use of third party software, then we may be subject to copyright infringement or other third-party claims. If we are non-compliant with a license for commercial software, then we may be required to pay penalties or undergo costly audits pursuant to the license agreement. In the case of open-source software licensed under certain "copyleft" licenses, the license itself may require, or a court-imposed remedy for non-compliant use of the open source software may require, that proprietary portions of our own software be publicly-disclosed or licensed. This could result in a loss of intellectual property rights, increased costs, damage to our reputation and/or a loss of revenue.

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

We depend on the ability of our personnel, inventories, equipment and products to move reasonably unimpeded around the world. Any political, military, terrorism, global trade, world health or other issue that hinders this movement or restricts the import or export of materials could lead to significant business disruptions. Furthermore, any economic failure or other material disruption caused by natural disasters, including fires, floods, hurricanes, earthquakes, and volcanoes; power loss or shortages; environmental disasters; telecommunications or business information systems failures or break-ins and similar events could also adversely affect our ability to

conduct business. If such disruptions result in cancellations of customer orders or contribute to a general decrease in economic activity or corporate spending on IT, or directly impact our marketing, manufacturing, financial and logistics functions, or impair our ability to meet our customer demands, our operating results and financial condition could be materially adversely affected. In addition, our headquarters is located in Northern California, an area susceptible to earthquakes. If any significant disaster were to occur, our ability to operate our business and our financial condition could be impaired.

Our stock price is subject to volatility.

Our stock price is subject to changes in recommendations or earnings estimates by financial analysts, changes in investors' or analysts' valuation measures for our stock, changes in our capital structure, including issuance of additional debt, changes in our credit ratings, our ability to pay dividends and to continue to execute our stock repurchase program as planned and market trends unrelated to our performance.

Our ability to pay quarterly dividends and to continue to execute our stock repurchase program as planned will be subject to, among other things, our financial condition and operating results, available cash and cash flows in the U.S., capital requirements, and other factors. Future dividends are subject to declaration by our Board of Directors, and our stock repurchase program does not obligate us to acquire any specific number of shares. If we fail to meet any expectations related to dividends and/or stock repurchases, the market price of our stock could decline significantly, and could have a material adverse impact on investor confidence. Additionally, price volatility of our stock over a given period may cause the average price at which we repurchase our own stock to exceed the stock's market price at a given point in time.

Furthermore, speculation in the press or investment community about our strategic position, financial condition, results of operations or business can cause changes in our stock price. These factors, as well as general economic and political conditions and the timing of announcements in the public market regarding new products or services, product enhancements or technological advances by our competitors or us, and any announcements by us of acquisitions, major transactions, or management changes may adversely affect our stock price.

Item 1B. *Unresolved Staff Comments*

Not applicable.

Item 2. *Properties*

We own approximately 0.7 million square feet of facilities at our Sunnyvale, California headquarters. The Sunnyvale site supports research and development, corporate general administration, sales and marketing, global services and operations.

We own approximately 0.8 million square feet of facilities in Research Triangle Park (RTP), North Carolina. In addition, we own 65 acres of undeveloped land. The RTP site supports research and development, global services and sales and marketing.

We own forty acres of land and approximately 0.3 million square feet of facilities in Wichita, Kansas. This site supports sales and marketing, research and development, and global services.

We own approximately 0.7 million square feet of facilities in Bangalore, India. The Bangalore site supports research and development, marketing and global services.

We lease other sales offices and research and development facilities throughout the U.S. and internationally. We expect that our existing facilities and those being developed worldwide are suitable and adequate for our requirements over at least the next two years and that additional space will be available as needed.

Item 3. *Legal Proceedings*

For a discussion of legal proceedings, see Note 18 – Commitments and Contingencies of the Notes to Consolidated Financial Statements.

Item 4. *Mine Safety Disclosures*

Not applicable.

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

The Company's common stock is traded on the NASDAQ Stock Market LLC ("NASDAQ") under the symbol NTAP.

Price Range of Common Stock

The price range per share of common stock presented below represents the highest and lowest intraday sales prices for the Company's common stock on the NASDAQ during each quarter of our two most recent fiscal years.

	Fiscal 2018		Fiscal 2017	
	High	Low	High	Low
First Quarter	\$ 45.24	\$ 37.43	\$ 26.95	\$ 22.50
Second Quarter	\$ 45.14	\$ 37.55	\$ 36.10	\$ 25.82
Third Quarter	\$ 64.06	\$ 43.24	\$ 39.00	\$ 30.36
Fourth Quarter	\$ 69.75	\$ 52.00	\$ 43.14	\$ 37.48

Holders

As of June 8, 2018 there were 431 holders of record of our common stock.

Dividends

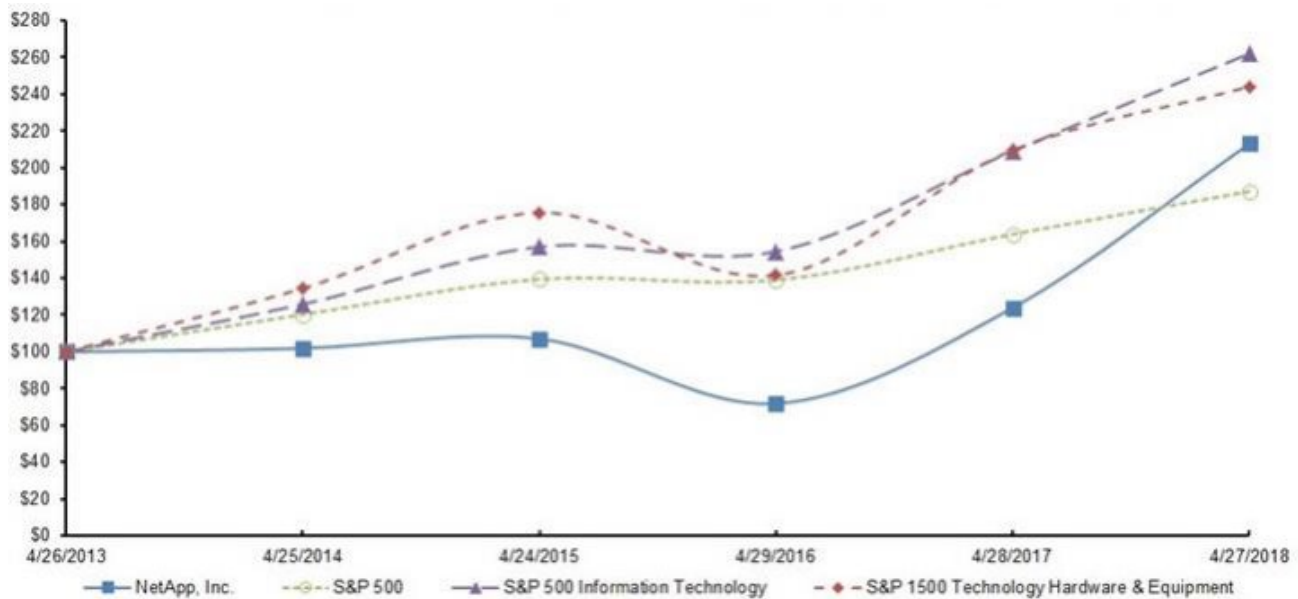
The Company paid cash dividends of \$0.20 per outstanding common share in each quarter of fiscal 2018 for an aggregate of \$214 million, \$0.19 per outstanding common share in each quarter of fiscal 2017 for an aggregate of \$208 million, and \$0.18 per outstanding common share in each quarter of fiscal 2016 for an aggregate of \$210 million. In the first quarter of fiscal 2019, the Company declared a cash dividend of \$0.40 per share of common stock, payable on July 25, 2018 to shareholders of record as of the close of business on July 6, 2018.

Performance Graph

The following graph shows a comparison of cumulative total shareholder return, calculated on a dividend reinvested basis, of an investment of \$100 for the Company, the S&P 500 Index, the S&P Information Technology Index and the S&P 1500 Technology Hardware & Equipment Index for the five years ended April 27, 2018. The comparisons in the graphs below are based upon historical data and are not indicative of, nor intended to forecast, future performance of our common stock. The graph and related information shall not be deemed “soliciting material” or be deemed to be “filed” with the SEC, nor shall such information be incorporated by reference into any past or future filing with the SEC, except to the extent that such filing specifically states that such graph and related information are incorporated by reference into such filing.

COMPARISON OF FIVE YEAR CUMULATIVE TOTAL RETURN

Among NetApp, Inc., the S&P 500 Index, the S&P Information Technology Index and the S&P 1500 Technology Hardware & Equipment Index*



*\$100 invested on April 26, 2013 in stock or index, including reinvestment of dividends. Data points are the last day of each fiscal year for the Company’s common stock and each of the indexes.

	April 2013	April 2014	April 2015	April 2016	April 2017	April 2018
NetApp, Inc.	\$ 100.00	\$ 101.92	\$ 107.07	\$ 71.89	\$ 123.99	\$ 213.12
S&P 500 Index	\$ 100.00	\$ 120.27	\$ 139.48	\$ 139.05	\$ 163.96	\$ 187.24
S&P 500 Information Technology Index	\$ 100.00	\$ 125.84	\$ 157.09	\$ 154.56	\$ 209.21	\$ 262.10
S&P 1500 Technology Hardware & Equipment Index	\$ 100.00	\$ 134.47	\$ 175.66	\$ 141.56	\$ 209.67	\$ 244.12

We believe that a number of factors may cause the market price of our common stock to fluctuate significantly. See Item 1A. – Risk Factors.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table provides information with respect to the shares of common stock repurchased by us during the three months ended April 27, 2018:

<u>Period</u>	<u>Total Number of Shares Purchased</u> (Shares in thousands)	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Program</u> (Shares in thousands)	<u>Approximate Dollar Value of Shares That May Yet Be Purchased Under The Repurchase Program</u> (Dollars in millions)
January 27, 2018 - February 23, 2018	1,752	\$ 58.13	280,330	\$ 242
February 24, 2018 - March 23, 2018	3,765	\$ 61.52	284,095	\$ 10
March 24, 2018 - April 27, 2018	173	\$ 60.38	284,268	\$ 4,000
Total	<u>5,690</u>	\$ 60.44		

In May 2003, our Board of Directors approved a stock repurchase program. As of April 27, 2018, our Board of Directors has authorized the repurchase of up to \$13.6 billion of our common stock, including a \$4.0 billion increase approved by our Board of Directors in April 2018. Since inception of the program through April 27, 2018, we repurchased a total of 284 million shares of our common stock for an aggregate purchase price of \$9.6 billion. Under this program, we may purchase shares of our outstanding common stock through solicited or unsolicited transactions in the open market, in privately negotiated transactions, through accelerated share repurchase programs, pursuant to a Rule 10b5-1 plan or in such other manner as deemed appropriate by our management. The stock repurchase program may be suspended or discontinued at any time.

Item 6. Selected Financial Data

The following selected consolidated financial data set forth below was derived from our historical audited consolidated financial statements and should be read in conjunction with Item 7 – Management’s Discussion and Analysis of Financial Condition and Results of Operations and Item 8 – Financial Statements and Supplementary Data, and other financial data included elsewhere in this Annual Report on Form 10-K. Our historical results of operations are not indicative of our future results of operations.

	Fiscal Year Ended				
	April 27, 2018	April 28, 2017	April 29, 2016	April 24, 2015	April 25, 2014
	(In millions, except per share amounts)				
Net revenues	\$ 5,911	\$ 5,519	\$ 5,546	\$ 6,123	\$ 6,325
Gross profit	\$ 3,699	\$ 3,390	\$ 3,373	\$ 3,833	\$ 3,919
Provision for income taxes ⁽¹⁾	\$ 1,090	\$ 156	\$ 116	\$ 153	\$ 103
Net income	\$ 76	\$ 509	\$ 229	\$ 560	\$ 638
Net income per share, basic	\$ 0.28	\$ 1.85	\$ 0.78	\$ 1.77	\$ 1.87
Net income per share, diluted	\$ 0.28	\$ 1.81	\$ 0.77	\$ 1.75	\$ 1.83
Shares used in basic computation	268	275	294	316	340
Shares used in diluted computation	276	281	297	321	348
Cash dividends declared per share	\$ 0.80	\$ 0.76	\$ 0.72	\$ 0.66	\$ 0.60
			April 29, 2016	April 24, 2015	April 25, 2014
	April 27, 2018	April 28, 2017	(In millions)		
Cash, cash equivalents and short-term investments	\$ 5,391	\$ 4,921	\$ 5,303	\$ 5,326	\$ 5,003
Working capital	\$ 3,233	\$ 2,076	\$ 2,786	\$ 4,064	\$ 3,776
Total assets	\$ 9,865	\$ 9,493	\$ 10,037	\$ 9,401	\$ 9,214
Total debt	\$ 1,926	\$ 1,993	\$ 2,339	\$ 1,487	\$ 990
Total deferred revenue and financed unearned services revenue	\$ 3,477	\$ 3,342	\$ 3,385	\$ 3,197	\$ 3,100
Total stockholders' equity	\$ 2,067	\$ 2,780	\$ 2,881	\$ 3,414	\$ 3,787

(1) In fiscal 2018, our provision for income taxes included significant charges attributable to United States tax reform.

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

The following discussion of our financial condition and results of operations should be read together with the financial statements and the accompanying notes set forth under Item 8. – Financial Statements and Supplementary Data. The following discussion also contains trend information and other forward-looking statements that involve a number of risks and uncertainties. The Risk Factors set forth in Item 1A. – Risk Factors are hereby incorporated into the discussion by reference.

Executive Overview

Our Company

We are the data authority for the hybrid cloud. Digital transformation remains top of mind for executives. In order to successfully digitally transform, data must become the lifeblood of an organization and be used as a business accelerator. Data-driven digital transformations accelerate business outcomes. Together with our partners, we empower global organizations to unleash the full potential of their data to enable new customer touchpoints, create innovative business opportunities and optimize operations.

NetApp delivers a Data Fabric built for the data-driven world. Our Data Fabric simplifies and integrates data management across clouds and on-premises to accelerate digital transformation, enabling our customers to manage, secure and protect their data at the scale needed to accommodate the exponential data growth of the digital world. It delivers integrated data management services and applications for data visibility and insights, data access and control, and data protection and security.

We focus on delivering an exceptional customer experience to become our customers' preferred data partner. NetApp's unique approach to managing data holistically enables organizations to inspire innovation with the cloud, build clouds to accelerate new services, and modernize IT architecture with cloud-connected flash.

With NetApp products and solutions, customers can:

- Continually fuel business growth by delivering data-rich customer experiences through new application deployments that easily use data and services regardless of where they reside or in what form.
- Accelerate digital transformation by developing a next-generation, cloud-architected infrastructure that manages data and services as one integrated resource supporting both public and private clouds.
- Free the resources necessary to fund transformation by deploying the industry's leading flash storage solution, which is highly efficient and scales from the edge to the core to the cloud.

Customers are attracted by the speed and scale benefits of the public cloud but need new data management capabilities to keep control of data as it moves beyond the walls of the enterprise. NetApp believes the hybrid cloud is fast becoming the dominant model for enterprise IT. Whether an organization is targeting an all-cloud, hybrid cloud, or multi-cloud strategy, NetApp Cloud Data Services accelerate the time it takes to deploy or develop an application by making the data requirements seamless to the application layer.

Budget constraints and skill imbalances lead our customers to seek help in integrating, deploying and managing the solutions they need to stay competitive. This drives demand for converged and hyper-converged infrastructure solutions. FlexPod is the converged infrastructure of choice for many of the largest enterprises around the globe. Customers can break free from the limits of first-generation HCI with NetApp HCI and attain guaranteed performance with high levels flexibility, scale, automation, and integration with the Data Fabric.

Flash plays a key role in customers' digital transformation efforts as they seek to gain advantage through greater speed, responsiveness and value from key business applications - all while lowering total cost of ownership. All-flash array technology is the de facto choice for primary application workloads as customers seek performance and economic benefits from replacing hard disk installations. With a highly differentiated and broad portfolio of all-flash and hybrid array offerings, NetApp is well positioned to enable customers to accomplish this transition.

To provide visibility into our transition from older products to our newer, higher growth products and clarity into the dynamics of our product revenue, we group our products by "Strategic" and "Mature" solutions. Strategic solutions include Clustered ONTAP, branded E-Series, SolidFire, converged and hyper-converged infrastructure, and optional add-on software products. Mature solutions include 7-mode ONTAP, add-on hardware and related operating system (OS) software and original equipment manufacturers (OEM) products. Both our Mature and Strategic product lines include a mix of disk, hybrid and all flash storage media.

Additionally, we provide a variety of services including software maintenance, hardware maintenance and other services including professional services, global support solutions, and customer education and training to help customers most effectively manage their data. Revenues generated by our Cloud Data Services offerings are included in software maintenance revenues.

Financial Results and Key Performance Metrics Overview

The following table provides an overview of some of our key financial metrics for each of the last three fiscal years (in millions, except per share amounts, percentages and cash conversion cycle):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Net revenues	\$ 5,911	\$ 5,519	\$ 5,546
Gross profit	\$ 3,699	\$ 3,390	\$ 3,373
Gross profit margin percentage	63%	61%	61%
Income from operations	\$ 1,125	\$ 665	\$ 348
Income from operations as a percentage of net revenues	19%	12%	6%
Provision for income taxes	\$ 1,090	\$ 156	\$ 116
Net income	\$ 76	\$ 509	\$ 229
Diluted net income per share	\$ 0.28	\$ 1.81	\$ 0.77
Operating cash flows	\$ 1,478	\$ 986	\$ 974
		April 27, 2018	April 28, 2017
Deferred revenue and financed unearned services revenue	\$	3,477	\$ 3,342
Cash conversion cycle		(15)	15

- *Net revenues* : Our net revenues increased 7% in fiscal 2018 compared to fiscal 2017. This was primarily due to an increase of 15% in product revenues, partially offset by a 3% decrease in software and hardware maintenance and other services revenues.
- *Gross profit margin percentage*: Our gross profit margin as a percentage of net revenues increased by one percentage point in fiscal 2018 compared to fiscal 2017, reflecting an increase in gross profit margin on product revenues, and, to a lesser extent, an increase in gross profit margin on hardware maintenance and other services revenues.
- *Income from operations as a percentage of net revenues*: Our income from operations as a percentage of net revenues increased in fiscal 2018 compared to fiscal 2017 primarily due to higher product gross margin and lower operating expenses as a result of a gain on sale of certain of our properties.
- *Provision for income taxes*: Our provision for income taxes increased significantly in fiscal 2018 compared to fiscal 2017 as a result of significant charges recorded in connection with U.S. tax reform enacted in fiscal 2018.
- *Net income and Diluted income per share*: The 85% decrease in both net income and diluted net income per share in fiscal 2018 compared to fiscal 2017 reflect the factors discussed above. Diluted net income per share was favorably impacted by a 2% decrease in the annual weighted average number of dilutive shares, primarily due to share repurchases.
- *Operating cash flows*: Operating cash flows increased by 50% in fiscal 2018 compared to fiscal 2017, reflecting changes in operating assets and liabilities, partially offset by lower net income.
- *Deferred revenue and financed unearned services revenue*: Total deferred revenue and financed unearned services revenue increased \$135 million, or 4%, as of fiscal 2018 year end compared to fiscal 2017 year end primarily due to increases in the installed base and aggregate contract values under software and hardware maintenance contracts.
- *Cash Conversion Cycle*: Our cash conversion cycle was (15) days in the fourth quarter of fiscal 2018, compared to 15 days in the corresponding period of fiscal 2017, reflecting higher Days Payables Outstanding and lower Days Inventory Outstanding, partially offset by higher Days Sales Outstanding.

Stock Repurchase Program and Dividend Activity

During fiscal 2018, we repurchased 15 million shares of our common stock at an average price of \$51.57 per share, for an aggregate purchase price of \$794 million. We also declared cash dividends of an aggregate of \$0.80 per share in fiscal 2018, for which we paid an aggregate of \$214 million.

Senior Notes Issuance and Redemption

In September 2017, we issued \$400 million aggregate principal amount of 2.00% Senior Notes due on September 27, 2019 and \$400 million aggregate principal amount of 3.30% Senior Notes due on September 29, 2024, for which we received total proceeds of approximately \$795 million, net of discount and issuance costs. On November 3, 2017, we extinguished our 2.00% Senior Notes due December 2017 for an aggregate redemption price of \$751 million, plus accrued and unpaid interest.

Real Estate Transactions

On September 8, 2017, we entered into an agreement to sell certain land and buildings for a total of \$306 million, through two separate and independent closings. On December 7, 2017, the first closing date, we consummated the sale of properties with a net book value of \$66 million for cash proceeds of \$210 million, resulting in a gain, net of direct selling costs, of \$142 million.

In fiscal 2016, we entered into a sale-leaseback arrangement of certain of our land and buildings. The arrangement did not qualify for sale-leaseback accounting and instead was accounted for as a financing transaction. In December 2017, we terminated the leases and recorded a non-cash sale of properties with a net book value of \$54 million, the extinguishment of \$130 million in financing obligations, and a gain of \$76 million.

Tax Reform

On December 22, 2017, the 2017 Tax Reform Reconciliation Act, originally referred to as the Tax Cuts and Jobs Act (TCJA), was enacted into law. This tax reform legislation contains several key tax provisions that affected us, including a one-time mandatory transition tax on accumulated foreign earnings and a reduction of the U.S. corporate income tax rate to 21% effective January 1, 2018, among others. Our net income in fiscal 2018 includes a one-time tax reform-related provisional charge of \$858 million.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America (GAAP), which require management to make judgments, estimates and assumptions that affect the reported amounts of assets, liabilities, net revenues and expenses, and the disclosure of contingent assets and liabilities. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. We believe that the accounting estimates employed and the resulting balances are reasonable; however, actual results may differ from these estimates and such differences may be material.

The summary of significant accounting policies is included in Note 1 – Description of Business and Significant Accounting Policies of the Notes to Consolidated Financial Statements. An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, if different estimates reasonably could have been used, or if changes in the estimate that are reasonably possible could materially impact the financial statements. The accounting policies described below reflect the significant judgments, estimates and assumptions used in the preparation of the consolidated financial statements.

Revenue Recognition, Reserves and Allowances

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable and collection is reasonably assured. Revenue from the sale of hardware systems and software components essential to the functionality of the hardware systems is recognized in accordance with general revenue recognition accounting guidance. Our product revenues also include revenues from the sale of non-essential software products, which generally includes a perpetual license to our software. Non-essential software sales are subject to industry specific software revenue recognition accounting guidance. Software maintenance and hardware maintenance services revenues are recognized ratably over their contractual terms, generally from one to five years.

For multiple element arrangements, we allocate revenue to the software deliverables and the non-software deliverables as a group based on the relative selling prices of all of the deliverables in the arrangement. For our non-software deliverables, we allocate the arrangement consideration based on the relative selling price of the deliverables using estimated selling price (ESP). For our software maintenance services, we generally use vendor-specific objective evidence of selling price (VSOE). When we are unable to establish VSOE for our software maintenance services, we use ESP in our allocation of arrangement consideration.

The selling price for each element is based upon the following selling price hierarchy: VSOE if available, third party evidence (TPE) if VSOE is not available, or ESP if neither VSOE nor TPE are available. Generally, we are not able to determine TPE because our go-to-market strategy differs from that of our peers and our offerings contain a significant level of differentiation such that the comparable pricing of products with similar functionality cannot be obtained.

We record reductions to revenue for estimated sales returns at the time of shipment. We also maintain a separate allowance for doubtful accounts for estimated losses based on our assessment of the collectability of specific customer accounts.

The following are the key estimates and assumptions and corresponding uncertainties for recognizing revenue:

Key Estimates and Assumptions

Key Uncertainties

- We establish VSOE of selling price using the price charged for a deliverable when sold separately and generally evidenced by a substantial majority of historical stand-alone transactions falling within a reasonably narrow range. In addition, we consider major service type, customer type, and other variables in determining VSOE. Our revenue estimates and assumptions are based on our ability to assert and maintain VSOE.
- ESP is generally evidenced by a majority of historical transactions falling within a reasonable price range. We also consider multiple factors, including, but not limited to, cost of products, gross margin objectives, historical pricing practices, customer type and distribution channels. Our revenue estimates and assumptions are based on our ability to maintain consistent ESP.
- Sales returns are estimated based on historical sales returns, current trends and our expectations regarding future experience. Additionally, distributors and partners participate in various marketing and other programs, and we maintain estimated accruals and allowances for these programs based on contractual terms and historical experience.
- As our business and offerings evolve over time, modifications to our pricing and discounting methodologies, changes in the scope and nature of service offerings and/or changes in customer segmentation may result in a lack of consistency required to establish and/or maintain key revenue estimates and assumptions. Additionally, technological changes resulting in variability in product costs and gross margins may require changes to certain estimates and assumptions. Such changes may result in a different allocation of revenue to the deliverables in multiple-element arrangements. These factors, among others, may adversely impact the amount of revenue and gross margin we report in a particular period.
- If there is insufficient relevant historical data for determining our sales returns estimates, or if we experience changes in practices related to sales returns or changes in market or competitive conditions resulting in higher than expected return rates, or if actual credits received by our distributors and partners deviate significantly from our estimates, our revenues may be adversely impacted.

Inventory Valuation and Purchase Order Accruals

Inventories consist primarily of purchased components and finished goods and are stated at the lower of cost or net realizable value, which approximates actual cost on a first-in, first-out basis. A provision is recorded when inventory is determined to be in excess of anticipated demand or obsolete in order to adjust inventory to its estimated realizable value. The following are the key estimates and assumptions and corresponding uncertainties for estimating the value of our inventories:

Key Estimates and Assumptions

- We periodically perform an excess and obsolete analysis of our inventory. Inventories are written down based on excess and obsolete reserves determined primarily on assumptions about future demand forecasts and market conditions. At the point of the loss recognition, a new, lower cost basis for that inventory is established, and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis.
- We make commitments to our third-party contract manufacturers and other suppliers to manage lead times and meet product forecasts and to other parties to purchase various key components used in the manufacture of our products. We establish accruals for estimated losses on non-cancelable purchase commitments when we believe it is probable that the components will not be utilized in future operations.

Key Uncertainties

- Although we use our best estimates to forecast future product demand, any significant unanticipated changes in demand or obsolescence related to technological developments, new product introductions, customer requirements, competition or other factors could have a significant impact on the valuation of our inventory. If actual market conditions are less favorable than those projected, additional write-downs and other charges against earnings that adversely impact gross margins may be required. If actual market conditions are more favorable, we may realize higher gross profits in the period when the written-down inventory is sold.

We are subject to a variety of environmental laws relating to the manufacture of our products. If there are changes to the current regulations, we may be required to make product design changes which may result in excess or obsolete inventory, which could adversely impact our operating results.

- If the actual materials demand is significantly lower than our forecast, we may be required to increase our recorded liabilities for estimated losses on non-cancelable purchase commitments which would adversely impact our operating results.

Goodwill and Purchased Intangible Assets

We allocate the purchase price of acquisitions to identifiable assets acquired and liabilities assumed at their acquisition date fair

values based on established valuation techniques. Goodwill represents the residual value as of the acquisition date, which in most cases is measured as the excess of the purchase consideration transferred over the net of the acquisition date fair values of the assets acquired and liabilities assumed.

The carrying values of purchased intangible assets are reviewed whenever events and circumstances indicate that the net book value of an asset may not be recovered through expected future cash flows from its use and eventual disposition. We periodically review the estimated remaining useful lives of our intangible assets. This review may result in impairment charges or shortened useful lives, resulting in charges to our consolidated statements of operations.

We review goodwill for impairment annually and whenever events or changes in circumstances indicate the carrying amount of our reporting unit may exceed its fair value. The provisions of the accounting standard for goodwill allow us to first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. For our annual goodwill impairment test in the fourth quarter of fiscal 2018, we performed a quantitative test and determined the fair value of our reporting unit substantially exceeded its carrying amount, therefore, found no impairment of goodwill.

The following are the key estimates and assumptions and corresponding uncertainties for estimating the value of our goodwill and purchased intangible assets:

Key Estimates and Assumptions

- The assessment of fair value for goodwill and purchased intangible assets is based on factors that market participants would use in an orderly transaction in accordance with the accounting guidance for the fair value measurement of nonfinancial assets.

The valuation of purchased intangible assets is principally based on estimates of the future performance and cash flows expected to be generated by the acquired assets from the acquired business.

- Evaluations of possible goodwill and purchased intangible assets impairment require us to make judgments and assumptions related to the allocation of our balance sheet and income statement amounts and estimate future cash flows and fair market values of our reporting unit and assets.

Key Uncertainties

- While we employ experts to determine the acquisition date fair value of acquired intangibles, the fair values of assets acquired and liabilities assumed are based on significant management assumptions and estimates, which are inherently uncertain and highly subjective and as a result, actual results may differ from estimates. If different assumptions were to be used, it could materially impact the purchase price allocation.

- In response to changes in industry and market conditions, we could be required to strategically realign our resources and consider restructuring, disposing of, or otherwise exiting businesses, which could result in an impairment of goodwill or purchased intangible assets.

Assumptions and estimates about expected future cash flows and the fair values of our reporting unit and purchased intangible assets are complex and subjective. They can be affected by a variety of factors, including external factors such as the adverse impact of unanticipated changes in macroeconomic conditions and technological changes or new product introductions from competitors. They can also be affected by internal factors such as changes in business strategy or in forecasted product life cycles and roadmaps. Our ongoing consideration of these and other factors could result in future impairment charges or accelerated amortization expense, which could adversely affect our operating results.

Product Warranties

Estimated future hardware and software warranty costs are recorded as a cost of product revenues at the time of product shipment. We assess the adequacy of our warranty accrual each quarter and adjust the amount as considered necessary.

The following are the key estimates and assumptions and corresponding uncertainties for product warranties:

Key Estimates and Assumptions

- Estimated future software and hardware warranty costs are based on historical and projected warranty claim rates, product failure rates, historical and projected materials and logistics costs, distribution and labor costs and knowledge of specific product failures that are outside of our typical experience. We also evaluate our estimates to assess the adequacy of our warranty liability considering the size of the installed base of products subject to warranty protection and adjust the estimates as necessary.

Key Uncertainties

- Although we engage in product quality programs and processes, if we experience unexpected quality issues resulting in higher failure rates or experience increases in costs to remediate product failures, additional warranty costs may be incurred. Additionally, for new products our warranty liability is based on limited historical experience. If our projections differ from such limited experience, our warranty costs may increase, which could adversely impact our gross margins.

Valuation of Investment Securities

Our investments in debt securities are reported at fair value and are subject to periodic impairment review. Unrealized gains and losses related to changes in the fair value of these securities are recognized in accumulated other comprehensive income, net of tax, unless they are determined to be other-than-temporary impairments. The ultimate value realized on these securities is subject to market price volatility until they are sold.

The following are the key estimates and assumptions and corresponding uncertainties for the valuation of our investment securities:

Key Estimates and Assumptions

- The estimated fair value of our debt securities, and the associated accounting for unrealized losses is based on an evaluation of current economic and market conditions, the credit rating of the security's issuer, the length of time and extent the security's fair value has been below its amortized cost and our ability and intent to hold the security for a period of time sufficient to allow for anticipated recovery in value. If we determine that an investment has an other-than-temporary decline in fair value, we recognize the investment loss in earnings.

Key Uncertainties

- The fair value of our investments in debt securities could decrease significantly from uncertainties in the credit and capital markets, credit rating downgrades and/or solvency of the issuer, decreases in the marketability of the securities. If the fair value of our investments decreases significantly and, if because of changes in our ability and intent to continue to hold the securities or other factors, it is determined to be other-than-temporary, we may incur impairment charges that could adversely affect our results of operations.

Income Taxes

We are subject to income taxes in the United States and numerous foreign jurisdictions. We compute our provision for income taxes using the asset and liability method, under which deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those tax assets are expected to be realized or settled. The Company records a valuation allowance to reduce deferred tax assets to the amount that is believed more likely than not to be realized.

The following are the key estimates and assumptions and corresponding uncertainties for our income taxes:

Key Estimates and Assumptions

- Our income tax provision is based on existing tax law and advanced pricing agreements or letter rulings we have with various tax authorities.
- The determination of whether we should record or adjust a valuation allowance against our deferred tax assets is based on assumptions regarding our future profitability.
- The estimates for our uncertain tax positions are based primarily on company specific circumstances, applicable tax laws, tax opinions from outside firms and past results from examinations of our income tax returns.

Key Uncertainties

- Our provision for income taxes is subject to volatility and could be adversely impacted by future changes in existing tax laws, such as a change in tax rate, possible U.S. changes to the taxation of earnings of our foreign subsidiaries, and uncertainties as to future renewals of favorable tax agreements and rulings.
- Our future profits could differ from current expectations resulting in a change to our determination as to the amount of deferred tax assets that are more likely than not to be realized. We could adjust our valuation allowance with a corresponding impact to the tax provision in the period in which such determination is made.
- Significant judgment is required in evaluating our uncertain tax positions. Although we believe our reserves are reasonable, no assurance can be given that the final tax outcome or tax court rulings of these matters will not be different from that which is reflected in our historical tax provisions and accruals.

New Accounting Standards

See Note 2 – Recent Accounting Standards Not Yet Effective of the Notes to Consolidated Financial Statements for a full description of new accounting pronouncements, including the respective expected dates of adoption and effects on our financial statements.

Results of Operations

Our fiscal year is reported on a 52- or 53-week year that ends on the last Friday in April. An additional week is included in the first fiscal quarter approximately every six years to realign fiscal months with calendar months. Fiscal year 2018, which ended on April 27, 2018, and fiscal year 2017, which ended on April 28, 2017, were each 52-week years. Fiscal year 2016, which ended on April 29, 2016, was a 53-week year. Unless otherwise stated, references to particular years, quarters, months and periods refer to our fiscal years ended in April and the associated quarters, months and periods of those fiscal years.

The following table sets forth certain Consolidated Statements of Operations data as a percentage of net revenues for the periods indicated:

	Fiscal Year		
	2018	2017	2016
Revenues:			
Product	59 %	54 %	54 %
Software maintenance	16	17	17
Hardware maintenance and other services	25	28	29
Net revenues	100	100	100
Cost of revenues:			
Cost of product	29	29	28
Cost of software maintenance	—	1	1
Cost of hardware maintenance and other services	8	9	10
Gross profit	63	61	61
Operating expenses:			
Sales and marketing	29	30	32
Research and development	13	14	16
General and administrative	5	5	6
Restructuring charges	—	1	2
Acquisition-related expense	—	—	—
Gain on sale of properties	(4)	—	(1)
Total operating expenses	44	49	55
Income from operations	19	12	6
Other income (expense), net	1	—	—
Income before income taxes	20	12	6
Provision for income taxes	18	3	2
Net income	1 %	9 %	4 %

Percentages may not add due to rounding

Discussion and Analysis of Results of Operations

Overview — Net revenues for fiscal 2018 were \$5,911 million, an increase of \$392 million, or 7% compared to fiscal 2017, reflecting higher product revenues, partially offset by slightly lower hardware maintenance and other services revenues. Net revenues for fiscal 2017 were \$5,519 million, a decrease of \$27 million, relatively flat compared to fiscal 2016, reflecting lower hardware maintenance and other services revenues, partially offset by higher product revenues and software maintenance revenues.

Gross profit as a percentage of net revenues for fiscal 2018 increased one percentage point compared to fiscal 2017, reflecting higher margins on product revenues and slightly higher margins on hardware maintenance and other services revenues. Gross profit margins on product revenues in fiscal 2018 increased three and a half percentage points compared to fiscal 2017, primarily due to higher average selling prices (ASPs), and, to a lesser extent, the favorable impact of foreign exchange rate fluctuations. Gross profit as a percentage of net revenues for fiscal 2017 was relatively flat compared to fiscal 2016, reflecting lower margins on product revenues, mostly offset by higher margins on hardware maintenance and other services revenues.

Sales and marketing, research and development, and general and administrative expenses for fiscal 2018 totaled \$2,792 million, or 47% of net revenues, representing a decrease of one and a half percentage points compared to fiscal 2017, primarily due to higher net revenues in the current year, coupled with relatively consistent average headcount in both fiscal years. Sales and marketing, research and development, and general and administrative expenses for fiscal 2017 totaled \$2,683 million, or 49% of net revenues, representing a decrease of 5 percentage points compared to fiscal 2016, primarily due to a lower average headcount as a result of our restructuring plans as well as other cost reduction initiatives, partially offset by additional operating expenses related to our acquisition of SolidFire, Inc. (SolidFire).

Net Revenues (in million s, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Net revenues	\$ 5,911	\$ 5,519	7%	\$ 5,546	—%

The increase in net revenues for fiscal 2018 compared to fiscal 2017 was primarily due to an increase of \$455 million in product revenues, partially offset by a decrease of \$56 million in hardware maintenance and other services revenues, while software maintenance revenues were relatively flat. Product revenues as a percent of net revenues increased four percentage points in fiscal 2018 compared to fiscal 2017.

The decrease in net revenues for fiscal 2017 compared to fiscal 2016 was primarily due to a decrease of \$63 million in hardware maintenance and other services revenues, partially offset by an increase of \$20 million in product revenues and an increase of \$16 million in software maintenance revenues. Product revenues as a percent of net revenues increased one percentage point in fiscal 2017 compared to fiscal 2016.

Sales through our indirect channels represented 79%, 78% and 77% of net revenues in fiscal 2018, 2017 and 2016, respectively.

The following customers, each of which is a distributor, accounted for 10% or more of net revenues:

	Fiscal Year		
	2018	2017	2016
Arrow Electronics, Inc.	23%	22%	22%
Tech Data Corporation (previously presented as Avnet, Inc.)	19%	20%	19%

Product Revenues (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Product revenues	\$ 3,461	\$ 3,006	15%	\$ 2,986	1%

Product revenues are derived through the sale of our strategic and mature solutions, and consist of sales of configured systems, which are bundled hardware and software products, as well as add-on flash, disk and/or hybrid storage and related OS, original equipment manufacturer (OEM) products and add-on hardware and software.

Product revenues from strategic solutions represented 71% of product revenues in fiscal 2018, compared to 66% in fiscal 2017. Product revenues from mature solutions represented 29% of product revenues in fiscal 2018, compared to 34% in fiscal 2017.

Total product revenues from strategic solutions totaled \$2,449 million in fiscal 2018, reflecting a 24% increase from \$1,971 million in fiscal 2017. This increase was primarily due to a 4% increase in unit volume of Clustered ONTAP systems and an increase in ASP driven by sales of our All-Flash FAS products. Total product revenue from mature solutions totaled \$1,012 million in fiscal 2018, reflecting a 2% decrease from \$1,035 million in fiscal 2017, primarily due to a 73% decrease in unit volume of 7-mode systems and a 13% decrease in OEM revenues, partially offset by a 13% increase in add-on hardware, storage and related OS revenues. These fluctuations reflect our planned transition of our product offerings and the adoption by our customers of our newer all-flash and hybrid-cloud compatible products.

Total product revenues from strategic solutions totaled \$1,971 million in fiscal 2017, reflecting a 17% increase from \$1,682 million in fiscal 2016. This increase was primarily due to a 15% increase in unit volume of Clustered ONTAP systems, partially offset by a decrease in ASP reflecting higher discounting and promotional programs. Total product revenue from mature solutions totaled \$1,035 million in fiscal 2017, reflecting a 21% decrease from \$1,304 million in fiscal 2016, primarily due to a 57% decrease in unit volume of 7-mode systems, as well as a decrease in ASP. In addition, add-on hardware, storage and related OS revenues decreased 11%, while OEM revenues increased 4%.

Our systems are highly configurable to respond to customer requirements in the open systems storage markets that we serve. This can cause a wide variation in product configurations that can significantly impact revenues, cost of revenues and gross profits. Pricing changes, discounting practices, product competition, foreign currency, unit volumes, customer mix, natural disasters and product materials costs can also impact revenues, cost of revenues and/or gross profits. Disk drive and flash storage materials are a significant component of our storage systems. While our sales price per terabyte historically declines over time, improved system performance, increased capacity and software to manage this increased capacity have an offsetting favorable impact on product revenues.

Software Maintenance Revenues (in millions, except percentages) :

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Software maintenance revenues	\$ 958	\$ 965	(1)%	\$ 949	2%

Software maintenance revenues are associated with contracts which entitle customers to receive unspecified product upgrades and enhancements on a when-and-if-available basis, bug fixes and patch releases, as well as internet and telephone access to technical support personnel located in our global support centers.

The fluctuations in software maintenance revenues reflect fluctuations in the aggregate contract value of the installed base under software maintenance contracts, which is recognized as revenue ratably over the terms of the underlying contracts. Software maintenance revenues in fiscal 2016 were also favorably impacted by the additional week of deferred revenue amortization in the first quarter of that year.

Hardware Maintenance and Other Services Revenues (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Hardware maintenance and other services revenues	\$ 1,492	\$ 1,548	(4)%	\$ 1,611	(4)%

Hardware maintenance and other services revenues include hardware maintenance, professional services and educational and training services revenues.

Hardware maintenance contract revenues were \$1,213 million, \$1,265 million and \$1,316 million in fiscal 2018, 2017 and 2016, respectively, reflecting a year over year decrease of 4% in each of fiscal 2018 and fiscal 2017. These decreases were primarily attributable to a decline in ASP on contracts executed during those years. Lower contract renewal rates also contributed to the decrease in fiscal 2018.

Professional services and educational and training services revenues were \$279 million, \$283 million and \$295 million in fiscal 2018, 2017 and 2016, respectively.

Revenues by Geographic Area:

	Fiscal Year		
	2018	2017	2016
United States, Canada and Latin America (Americas)	54%	56%	55%
Europe, Middle East and Africa (EMEA)	32%	31%	32%
Asia Pacific (APAC)	14%	13%	13%

Percentages may not add due to rounding

Americas revenues consist of sales to Americas commercial and United States (U.S.) public sector markets. During fiscal 2018 revenues increased in all geographic areas, with the largest percentage increases seen in EMEA and APAC. The increases in these geographic areas reflect higher product revenues and, to a lesser extent, the favorable impact of foreign exchange rate fluctuations. Revenues in fiscal 2017 were relatively flat compared to fiscal 2016 across all geographical areas. During fiscal 2016, we experienced declining revenues in all geographic areas, with the largest percentage decline in the Americas U.S. public sector market.

Cost of Revenues

Our cost of revenues consists of three elements: (1) cost of product revenues, which includes the costs of manufacturing and shipping our storage products, amortization of purchased intangible assets, inventory write-downs, and warranty costs, (2) cost of software maintenance, which includes the costs of providing software maintenance and third-party royalty costs and (3) cost of hardware maintenance and other services revenues, which includes costs associated with providing support activities for hardware maintenance, global support partnership programs, professional services and educational and training services.

Cost of Product Revenues (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Cost of product revenues	\$ 1,738	\$ 1,614	8%	\$ 1,558	4%

The changes in cost of product revenues consisted of the following (in percentage points of the total change):

	Fiscal 2018 to Fiscal 2017 Percentage Change Points	Fiscal 2017 to Fiscal 2016 Percentage Change Points
Materials costs	7	9
Warranty	—	(1)
Amortization of purchased intangible assets	—	(2)
Other	1	(2)
Total change	8	4

Cost of product revenues represented 50%, 54% and 52% of product revenues for fiscal 2018, 2017 and 2016, respectively. Materials cost represented 91%, 91% and 85% of product costs for fiscal 2018, 2017 and 2016, respectively.

Materials costs increased \$107 million in fiscal 2018 compared to fiscal 2017, reflecting a 14% increase in materials costs related to strategic products, primarily due to higher unit volume of Clustered ONTAP systems.

An increase in ASP for strategic systems resulted in higher margins for strategic products in fiscal 2018 compared to the prior year. Margins in fiscal 2018 also benefitted from the favorable impact of foreign exchange rate fluctuations. Margins for mature products were relatively consistent in fiscal 2018 compared to the prior year.

Materials costs increased \$143 million in fiscal 2017 compared to fiscal 2016, reflecting a 32% increase in materials costs related to strategic products, primarily due to higher unit volume of Clustered ONTAP systems.

A decrease in ASP for strategic systems combined with the increase in unit materials costs resulted in lower gross margins for strategic products in fiscal 2017 compared to the prior year. Average unit materials costs for mature products were relatively flat compared to the prior year, which when combined with a decrease in ASP resulted in lower gross margins for mature products.

Cost of product revenues in fiscal 2017 compared to fiscal 2016 were also favorably impacted by an \$18 million decrease in warranty expense, reflecting our product quality and cost reduction efforts, and a decrease of \$31 million in the amortization of intangibles due to the impact of certain acquired developed technologies being fully amortized by the end of fiscal 2016, partially offset by amortization related to the SolidFire acquisition.

Cost of Software Maintenance Revenues (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Cost of software maintenance revenues	\$ 25	\$ 28	(11)%	\$ 37	(24)%

Cost of software maintenance revenues decreased in fiscal 2018 compared to fiscal 2017, and in fiscal 2017 compared to fiscal 2016. Cost of software maintenance revenues represented 3%, 3% and 4% of software maintenance revenues for fiscal 2018, 2017 and 2016, respectively.

Cost of Hardware Maintenance and Other Services Revenues (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Cost of hardware maintenance and other services revenues	\$ 449	\$ 487	(8)%	\$ 578	(16)%

Cost of hardware maintenance and other services revenues decreased \$38 million, or 8%, in fiscal 2018 compared to fiscal 2017 and decreased \$91 million, or 16%, in fiscal 2017 compared to fiscal 2016. Costs represented 30%, 31% and 36% of hardware maintenance and other services revenues for fiscal 2018, 2017 and 2016, respectively.

Operating Expenses

Sales and Marketing, Research and Development and General and Administrative Expenses

Compensation costs represent the largest component of operating expenses. Included in compensation costs are salaries, benefits, other compensation-related costs, stock-based compensation expense and employee incentive compensation plan costs.

Total compensation costs included in operating expenses increased \$21 million, or 1% during fiscal 2018 compared to fiscal 2017, primarily due to higher incentive compensation expense, reflecting stronger operating performance against goals, and higher salary expense, reflecting merit increases and the unfavorable impact of foreign exchange rate fluctuations. These increases were partially offset by lower stock-based compensation expense. Average headcount was relatively consistent in both fiscal years.

Total compensation costs included in operating expenses decreased \$149 million, or 9% during fiscal 2017 compared to fiscal 2016, primarily due to lower salary and stock-based compensation expenses, reflecting a 13% decrease in average headcount as a result of cost reduction initiatives, partially offset by higher incentive compensation expense, reflecting stronger operating performance against goals.

Sales and Marketing (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Sales and marketing expenses	\$ 1,729	\$ 1,633	6%	\$ 1,792	(9)%

Sales and marketing expenses consist primarily of compensation costs, commissions, outside services, allocated facilities and IT support costs, advertising and marketing promotional expense and travel and entertainment expense. The changes in sales and marketing expenses consisted of the following:

	Fiscal 2018 to Fiscal 2017 Percentage Change Points	Fiscal 2017 to Fiscal 2016 Percentage Change Points
Compensation costs	1	(4)
Commissions	4	—
Facilities and IT support costs	—	(3)
Other	1	(2)
Total change	6	(9)

The increase in compensation costs in fiscal 2018 reflects higher average salaries due to merit increases and the unfavorable impact of foreign exchange rate fluctuations, partially offset by a slight reduction in average headcount. The increase in commissions expense is due to higher performance against sales goals.

The decrease in compensation costs during fiscal 2017 reflects a 10% decrease in average headcount from the prior year. Facilities and IT support costs decreased during fiscal 2017 primarily due to cost containment efforts.

Research and Development (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Research and development expenses	\$ 783	\$ 779	1%	\$ 861	(10)%

Research and development expenses consist primarily of compensation costs, allocated facilities and IT support costs, depreciation, equipment and software related costs, prototypes, non-recurring engineering charges and other outside services costs. Changes in research and development expense consisted of the following:

	<u>Fiscal 2018 to Fiscal 2017</u> <u>Percentage Change Points</u>	<u>Fiscal 2017 to Fiscal 2016</u> <u>Percentage Change Points</u>
Compensation costs	1	(7)
Development projects and outside services	1	—
Depreciation	(1)	(1)
Facilities and IT support costs	(1)	(1)
Other	1	(1)
Total change	<u>1</u>	<u>(10)</u>

The increase in compensation costs for fiscal 2018 reflects higher incentive compensation expense, partially offset by lower stock-based compensation expense. Development projects and outside services expense increased as a result of higher spending on materials and services associated with engineering activities to develop new products and enhance existing products.

Depreciation expense was favorably impacted in each of fiscal 2018 and fiscal 2017 by certain equipment becoming fully depreciated, and facilities and IT support costs decreased primarily due to cost containment efforts.

Compensation costs for fiscal 2017 were favorably impacted by lower salary and stock-based compensation expenses due to a decrease of 18% in average headcount, but were unfavorably impacted by higher incentive compensation expense.

General and Administrative (in millions, except percentages):

	<u>Fiscal Year</u>				
	<u>2018</u>	<u>2017</u>	<u>% Change</u>	<u>2016</u>	<u>% Change</u>
General and administrative expenses	\$ 280	\$ 271	3%	\$ 307	(12)%

General and administrative expenses consist primarily of compensation costs, professional and corporate legal fees, outside services and allocated facilities and IT support costs. Changes in general and administrative expense consisted of the following:

	<u>Fiscal 2018 to Fiscal 2017</u> <u>Percentage Change Points</u>	<u>Fiscal 2017 to Fiscal 2016</u> <u>Percentage Change Points</u>
Compensation costs	(4)	(4)
Professional and legal fees and outside services	6	(8)
Facilities and IT support costs	2	2
Other	(1)	(2)
Total change	<u>3</u>	<u>(12)</u>

The decrease in compensation costs for fiscal 2018 reflects lower salary, benefits and stock-based compensation expenses due to an 8% decrease in average headcount, partially offset by higher incentive compensation expense. The increase in professional and legal fees and outside services expense in fiscal 2018 was primarily due to higher spending levels on projects and outside services, while the increase in facilities and IT support costs was primarily due to an increase in spending on IT projects.

Compensation costs for fiscal 2017 were favorably impacted by lower salary and stock-based compensation expenses due to a decrease of 11% in average headcount, but were unfavorably impacted by higher incentive compensation expense. The decrease in professional and legal fees and outside services expense in fiscal 2017 was primarily due to lower spending levels on consulting fees and projects. Facilities and IT support costs increased during fiscal 2017 primarily due to an increase in spending on IT projects.

Restructuring Charges (in millions, except percentages):

	<u>Fiscal Year</u>				
	<u>2018</u>	<u>2017</u>	<u>% Change</u>	<u>2016</u>	<u>% Change</u>
Restructuring charges	\$ —	\$ 52	(100)%	\$ 108	(52)%

In response to changes in market conditions and market demand for our products, in fiscal years 2017 and 2016, we initiated a number of business realignment plans designed to streamline our business, reduce our cost structure and focus our resources on key strategic opportunities, resulting in aggregate reductions of our global workforce of approximately 6% and 14% in fiscal 2017 and 2016, respectively, for which we recognized aggregate charges of \$52 million and \$108 million, consisting primarily of employee severance costs. See Note 13 – Restructuring Charges of the Notes to Consolidated Financial Statements for more details regarding our restructuring plans.

Acquisition-related Expense (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Acquisition-related expense	\$ —	\$ —	NM	\$ 8	(100)%

NM - Not Meaningful

During fiscal 2016, we incurred \$8 million of acquisition costs, primarily related to legal and consulting fees, employee severance costs, and asset impairments associated with our acquisition of SolidFire.

Gain on Sale of Properties (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Gain on sale of properties	\$ (218)	\$ (10)	NM	\$ (51)	(80)%

NM - Not Meaningful

On September 8, 2017, we entered into an agreement to sell certain properties previously classified as assets held-for-sale for a total of \$306 million, through two separate and independent closings. On December 7, 2017, the date of the first closing, we consummated the sale of properties with a net book value of \$66 million, for cash proceeds of \$210 million, resulting in a gain, net of direct selling costs, of \$142 million.

During fiscal 2018, our continuing involvement with properties subject to a sale-leaseback arrangement entered into in fiscal 2016 ended, and as a result we recorded a non-cash sale of properties, extinguished the associated financing obligation and recognized a gain of \$76 million.

In fiscal 2017, our continuing involvement with certain properties subject to a sale-leaseback arrangement entered into in fiscal 2016 ended, and as a result we recorded a non-cash sale of properties, extinguished the associated financing obligation and recognized a gain of \$10 million.

In fiscal 2016, we sold certain properties, which had a net book value of \$51 million and related sales proceeds of \$102 million, resulting in a gain of \$51 million.

Other Income (Expense), Net (in millions, except percentages)

The components of other income (expense), net were as follows:

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Interest income	\$ 79	\$ 44	80%	\$ 46	(4)%
Interest expense	(62)	(52)	19%	(49)	6%
Other income, net	24	8	200%	—	NM
Total	\$ 41	\$ —	NM	\$ (3)	(100)%

NM - Not Meaningful

Interest income increased during fiscal 2018 compared to fiscal 2017, primarily due to a shift in our investment portfolio to higher-yielding investments. Interest income decreased slightly during fiscal 2017 compared to fiscal 2016, primarily due to a decrease in the size of our investment portfolio.

Interest expense increased in fiscal years 2018 and 2017 primarily as a result of our commercial paper program, which began in the third quarter of fiscal 2017, and the September 2017 issuance of \$800 million aggregate principal amount of Senior Notes which have a higher weighted average interest rate than the \$750 million aggregate principal amount of Senior Notes extinguished in November 2017.

Other income, net increased during fiscal 2018 compared to fiscal 2017 primarily due to higher net foreign exchange gains.

Provision for Income Taxes (in millions, except percentages):

	Fiscal Year				
	2018	2017	% Change	2016	% Change
Provision for income taxes	\$ 1,090	\$ 156	599%	\$ 116	34%

Our effective tax rate for fiscal 2018 was 93.5% compared to an effective tax rate of 23.5% for fiscal 2017, and an effective tax rate of 33.6% for fiscal 2016. Our effective tax rates reflect the impact of a significant amount of our earnings, primarily income from our European operations which are headquartered in the Netherlands, being taxed in foreign jurisdictions at rates below the U.S. statutory tax rate. Our effective tax rate for fiscal 2018 was substantially higher compared to the prior years primarily due to the provisional effects of the TCJA enacted on December 22, 2017.

Key components of the effective tax rate of 93.5% in fiscal 2018 included a one-time transition tax charge on accumulated foreign earnings of approximately \$732 million, or 62.8 percentage points, a charge of \$126 million, or 10.8 percentage points, related to the remeasurement of deferred tax assets and liabilities due to tax rate changes, offset by a benefit of \$108 million, or 9.3 percentage points, from foreign profits taxed at effective tax rates lower than our blended U.S. federal statutory rate of 30.5%, and a tax benefit of \$23 million, or 2.0 percentage points, attributable to stock-based compensation.

Key components of the effective tax rate of 23.5% in fiscal 2017 included a benefit of \$100 million, or 15.0 percentage points, from foreign profits taxed at effective tax rates lower than the U.S. federal statutory rate of 35%, and a tax charge of \$16 million, or 2.4 percentage points, attributable to stock-based compensation.

Key components of the effective tax rate of 33.6% in fiscal 2016 included a benefit of \$81 million, or 23.5 percentage points, from foreign profits taxed at effective tax rates lower than the U.S. federal statutory rate of 35%, a charge of \$64 million, or 18.6 percentage points, related to the integration of SolidFire intellectual property into our tax structure, a tax charge of \$20 million, or 5.8 percentage points, in connection with the settlement of income tax audits, and a benefit of \$14 million, or 4.1 percentage points, related to research and development credits.

On December 22, 2017, the TCJA was enacted into law. The TCJA made significant changes to the U.S. corporate income tax system including a reduction of the U.S. federal corporate income tax rate, the imposition of a one-time transition tax on deferred foreign earnings, and a shift to a modified territorial tax regime. Given the timing and pace of regulatory guidance, the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB) 118, which allows for the recording of provisional amounts related to U.S. tax reform and subsequent related adjustments during a measurement period.

As of April 27, 2018, we have not fully completed the accounting for the tax impacts of the TCJA and, in connection with SAB 118, have recorded provisional tax charges based on reasonable estimates for the remeasurement of deferred tax assets and liabilities based on the new corporate rate and for the transition tax on our total post-1986 foreign earnings and profits (E&P). The TCJA also includes provisions for a global minimum tax on intangible low-taxed income (GMT) of foreign subsidiaries, a base erosion anti-abuse tax on certain intercompany payments, and beneficial tax treatment for foreign derived intangible income. These provisions will be effective for us beginning in our fiscal 2019. We will continue to refine provisional balances and make adjustments during the measurement period based on the issuance of further regulatory guidance, changes in interpretations, and the collection and analysis of additional information; these adjustments could be material to our financial statements. The provisional amounts recorded during the current year are explained below.

The TJCA decreased the U.S. federal corporate tax rate from 35% to 21% as of January 1, 2018. For fiscal 2018, this decrease results in a blended statutory tax rate of 30.5%. As a result of the tax rate change, we remeasured our deferred tax assets and liabilities based on the rates at which they are expected to reverse in future periods. We recorded a \$126 million tax expense for fiscal 2018 related to all tax rate changes. The final remeasurement impact could vary from the provisional amount if actual future activities impacting deferred tax balances differ from our estimates.

The TCJA imposes a mandatory, one-time transition tax on accumulated foreign E&P not previously subject to U.S. income tax at a rate of 15.5% on earnings to the extent of foreign cash and other liquid assets, and 8% on the remaining earnings. For fiscal 2018, we recorded \$732 million of tax expense for the estimated U.S. federal and state income tax impacts of the transition tax. Our estimates may change with further guidance from U.S. federal and state tax authorities or other regulatory bodies and additional analyses that we expect to complete during the measurement period with respect to various components of the computations. We intend to make the election to pay the one-time transition tax over a period of eight years.

Under the TCJA, the GMT provision taxes foreign income in excess of a deemed return on tangible assets of foreign corporations. Under U.S. GAAP, companies are allowed to make an accounting policy election to either (i) account for GMT as a component of tax expense in the period in which a company is subject to the rule s (the period cost method), or (ii) account for GMT in a company's measurement of deferred taxes (the deferred method). Because of the complexity of the new tax rules, we are continuing to evaluate this provision and the application of ASC 740 and have not yet made an accounting policy election.

During fiscal 2017, we adopted a new accounting standard that simplifies stock-based compensation income tax accounting and presentation within the financial statements and recorded a charge of \$18 million following the post-adoption rules which require that all excess tax benefits and deficiencies from stock-based compensation be recognized as a component of income tax expense.

We are currently undergoing various income tax audits in the U.S. and several foreign tax jurisdictions. Transfer pricing calculations are key issues under these audits and are often subject to dispute and appeals.

In October 2015, the Internal Revenue Service (IRS) completed the examination of our fiscal 2008 to 2010 income tax returns and made certain agreed-to transfer pricing adjustments. During fiscal 2016, we recorded charges totaling \$23 million attributable to the audit settlements and the related re-measurement of uncertain tax positions for tax years subject to future audits. The IRS commenced the examination of our federal tax returns for our fiscal years 2012 and 2013 in August 2016. In addition, we are effectively subject to federal tax examination adjustments for tax years ended on or after fiscal 2001, in that we have carryforward attributes from these years that could be subject to adjustment in the tax years of utilization.

In September 2010, the Danish Tax Authorities issued a decision concluding that distributions declared in 2005 and 2006 by our Danish subsidiary were subject to Danish at-source dividend withholding tax. We do not believe that our Danish subsidiary is liable for such withholding tax and filed an appeal with the Danish Tax Tribunal to that effect. In December 2011, the Danish Tax Tribunal issued a ruling in favor of NetApp. The Danish tax examination agency appealed this decision at the Danish High Court (DHC) in March 2012. In February 2016, the DHC requested a preliminary ruling from the Court of Justice of the European Union (CJEU). Parties were heard before the court in October 2017. During March 2018, the Advocate General issued an opinion which was largely in favor of NetApp, however, the CJEU is not bound by the opinion of the Advocate General. It is expected that the preliminary ruling will be issued during our fiscal year 2019. Once a ruling has been issued by the CJEU, it will be reviewed and may be subjected to additional briefing by the DHC. Once complete, the DHC will then issue its final decision. We expect this decision to be complete sometime during our fiscal year 2019 or 2020.

We continue to monitor the progress of ongoing discussions with tax authorities and the impact, if any, of the expected expiration of the statute of limitations in various taxing jurisdictions. We engage in continuous discussion and negotiation with taxing authorities regarding tax matters in multiple jurisdictions. We believe that within the next 12 months, it is reasonably possible that either certain audits will conclude, certain statutes of limitations will lapse, or both. As a result of uncertainties regarding tax audits and their possible outcomes, an estimate of the range of possible impacts to unrecognized tax benefits in the next twelve months cannot be made at this time.

Liquidity, Capital Resources and Cash Requirements

(In millions, except percentages)	April 27, 2018	April 28, 2017
Cash, cash equivalents and short-term investments	\$ 5,391	\$ 4,921
Principal amount of debt	\$ 1,935	\$ 2,000
Debt as a percentage of stockholders' equity	94%	72%

The following is a summary of our cash flow activities:

(In millions)	Fiscal Year	
	2018	2017
Net cash provided by operating activities	\$ 1,478	\$ 986
Net cash used in investing activities	(21)	(220)
Net cash used in financing activities	(986)	(1,179)
Effect of exchange rate changes on cash and cash equivalents	26	(11)
Net increase (decrease) in cash and cash equivalents	<u>\$ 497</u>	<u>\$ (424)</u>

As of April 27, 2018, our cash, cash equivalents and short-term investments totaled \$ 5.4 billion, reflecting an increase of \$ 0.5 billion from April 28, 2017. The increase was primarily due to \$1.5 billion of cash provided by operating activities, \$ 795 million of net proceeds from the issuance of long-term debt, and \$210 million in proceeds from the sale of properties, partially offset by \$750 million paid to redeem our Senior Notes due in December 2017, \$794 million in cash paid for the repurchase of our common stock, \$ 214 million in cash used for the payment of dividends, \$145 million in purchases of property of equipment, and \$115 million used for the net repayment of commercial paper notes. Working capital increased by \$ 1.2 billion to \$ 3.2 billion as of April 27, 2018 primarily due to an increase in cash and cash equivalents, as discussed above, and the fiscal 2018 redemption of our Senior Notes due December 2017 using net proceeds from the issuance of long-term debt.

Cash Conversion Cycle

The following table presents the components of our cash conversion cycle for the fourth quarter of each of the past three fiscal years:

(In days)	Three Months Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Days sales outstanding (1)	56	45	54
Days inventory outstanding (2)	19	26	16
Days payables outstanding (3)	(90)	(56)	(41)
Cash conversion cycle (4)	(15)	15	28

Days may not add due to rounding

- (1) Days sales outstanding, referred to as DSO, calculates the average collection period of our receivables. DSO is based on ending accounts receivable and net revenue for each period. DSO is calculated by dividing accounts receivable by average net revenue per day for the current quarter (91 days for each of the four quarters presented above). The increase in DSO in the fourth quarter of fiscal 2018 compared to the corresponding period of fiscal 2017 was due to less favorable shipping linearity in the current quarter, while the decrease in the fourth quarter of fiscal 2017 compared to the corresponding period of fiscal 2016 was due to more favorable shipping linearity in the fiscal 2017 period.
- (2) Days inventory outstanding, referred to as DIO, measures the average number of days from procurement to sale of our products. DIO is based on ending inventory and cost of revenues for each period. DIO is calculated by dividing ending inventory by average cost of revenues per day for the current quarter. The decrease in DIO in the fourth quarter of fiscal 2018 compared to the corresponding period of fiscal 2017 was primarily due to strong product sales towards the end of current quarter. Compared to the corresponding period in fiscal 2016, the increase in DIO in the fourth quarter of fiscal 2017 was due primarily to the timing of inventory purchases, and to a lesser extent, the higher cost of flash compared to disk storage.
- (3) Days payables outstanding, referred to as DPO, calculates the average number of days our payables remain outstanding before payment. DPO is based on ending accounts payable and cost of revenues for each period. DPO is calculated by dividing accounts payable by average cost of revenues per day for the current quarter. The year over year increases in DPO in each of the four quarters of fiscal 2018 and fiscal 2017 were primarily the result of improved vendor payables management and extensions of payment terms with our suppliers.
- (4) The cash conversion cycle is the sum of DSO and DIO less DPO. Items which may cause the cash conversion cycle in a particular period to differ include, but are not limited to, changes in business mix, changes in payment terms (including extended payment terms from suppliers), shipment linearity, seasonal trends and the timing of revenue recognition and inventory purchases within the period.

Cash Flows from Operating Activities

During fiscal 2018, we generated cash from operating activities of \$1.5 billion, reflecting net income of \$76 million, adjusted by non-cash depreciation and amortization of \$198 million, stock-based compensation of \$161 million, a deferred income tax provision of \$277 million, and a gain on sale of properties of \$218 million.

Changes in assets and liabilities during fiscal 2018 included the following:

- *Accounts receivable* increased \$272 million, reflecting higher DSO.
- *Accounts payable* increased \$262 million, reflecting higher DPO.
- *Long-term taxes payable* increased \$714 million, primarily due to a one-time transition tax liability recorded as a result of the impact of U.S. tax reform, which will be paid over a period of eight years.

During fiscal 2017, we generated cash from operating activities of \$986 million, reflecting net income of \$509 million, adjusted by non-cash depreciation and amortization of \$226 million, stock-based compensation of \$195 million and a deferred income tax provision of \$90 million.

Changes in assets and liabilities during fiscal 2017 included the following:

- *Accounts receivable* decreased \$81 million, reflecting lower DSO.
- *Inventories* increased \$65 million, reflecting higher DIO.
- *Accounts payable* increased \$94 million, reflecting higher DPO.

- *Accrued expenses* decreased \$86 million primarily due to the payment of restructuring obligations.

We expect that cash provided by operating activities may materially fluctuate in future periods due to a number of factors, including fluctuations in our operating results, shipment linearity, accounts receivable collections performance, inventory and supply chain management, vendor payment initiatives, tax benefits or charges from stock-based compensation, and the timing and amount of compensation and other payments.

Cash Flows from Investing Activities

During fiscal 2018, we used \$10 million for the purchases of investments, net of maturities and sales, and paid \$145 million for capital expenditures. Additionally, we paid \$75 million to acquire two privately-held companies, and received proceeds of \$210 million from the sale of properties.

During fiscal 2017, we used \$43 million for the purchase of investments, net of maturities and sales, and paid \$175 million for capital expenditures.

Cash Flows from Financing Activities

During fiscal 2018, we used \$750 million to redeem our Senior Notes due in December 2017, \$115 million for the repayment of our commercial paper notes, net of issuances, \$794 million for the repurchase of 15 million shares of our common stock, \$214 million for the payment of dividends, and generated \$795 million in cash from the issuance of long-term debt.

During fiscal 2017, we used \$850 million to repay our short-term loan related to the SolidFire acquisition, \$705 million for the repurchase of 22 million shares of our common stock, \$208 million for the payment of dividends, and generated \$499 million in cash from issuances of commercial paper notes, net of repayments.

Key factors that could affect our cash flows include changes in our revenue mix and profitability, our ability to effectively manage our working capital, in particular, accounts receivable, accounts payable and inventories, the timing and amount of stock repurchases and payment of cash dividends, the impact of foreign exchange rate changes, our ability to effectively integrate acquired products, businesses and technologies, and the timing of repayments of our debt. Based on past performance and our current business outlook, we believe that our sources of liquidity, including potential future issuances of debt, equity or other securities, will satisfy our working capital needs, capital expenditures, investment requirements, stock repurchases, cash dividends, contractual obligations, commitments, principal and interest payments on our debt and other liquidity requirements associated with operations and meet our cash requirements for at least the next 12 months. However, in the event our liquidity is insufficient, we may be required to curtail spending and implement additional cost saving measures and restructuring actions or enter into new financing arrangements. We cannot be certain that we will continue to generate cash flows at or above current levels or that we will be able to obtain additional financing, if necessary, on satisfactory terms, if at all.

Liquidity

Our principal sources of liquidity as of April 27, 2018 consisted of cash, cash equivalents and short-term investments, cash we expect to generate from operations, and our commercial paper program and related credit facility.

Cash, cash equivalents and short-term investments consisted of the following (in millions):

	April 27, 2018	April 28, 2017
Cash and cash equivalents	\$ 2,941	\$ 2,444
Short-term investments	2,450	2,477
Total	\$ 5,391	\$ 4,921

As of April 27, 2018 and April 28, 2017, \$4.5 billion of cash, cash equivalents and short-term investments were held by various foreign subsidiaries and were generally based in U.S. dollar-denominated holdings, while \$0.9 billion and \$0.4 billion, respectively, were available in the U.S. The TCJA imposes a one-time transition tax on substantially all accumulated foreign earnings through December 31, 2017 which resulted in \$732 million of tax expense in fiscal 2018, and generally allows companies to make distributions of foreign earnings without incurring additional federal taxes. As a part of the provisional estimates recorded during the year, we considered the impacts of the TCJA in relation to our projected global cash requirements and have determined that certain historical and future foreign earnings will no longer be indefinitely reinvested. For further information, see Note 14 – Income Taxes.

Our principal liquidity requirements are primarily to meet our working capital needs, support ongoing business activities, fund research and development, meet capital expenditure needs, and invest in critical or complementary technologies, service interest and principal payments on our debt, fund our stock repurchase program, and pay dividends, as and if declared.

The principal objectives of our investment policy are the preservation of principal and maintenance of liquidity. We attempt to mitigate default risk by investing in high-quality investment grade securities, limiting the time to maturity and monitoring the counter-parties and underlying obligors closely. We believe our cash equivalents and short-term investments are liquid and accessible. We are not aware of any significant deterioration in the fair value of our cash equivalents or investments from the values reported as of April 27, 2018.

Our investment portfolio has been and will continue to be exposed to market risk due to trends in the credit and capital markets. We continue to closely monitor current economic and market events to minimize the market risk of our investment portfolio. We routinely monitor our financial exposure to both sovereign and non-sovereign borrowers and counterparties. We utilize a variety of planning and financing strategies in an effort to ensure our worldwide cash is available when and where it is needed. Based on past performance and current expectations, we believe our cash and cash equivalents, investments, cash generated from operations, and ability to access capital markets and committed credit lines will satisfy, through at least the next 12 months, our liquidity requirements, both in total and domestically, including the following: working capital needs, capital expenditures, stock repurchases, cash dividends, contractual obligations, commitments, principal and interest payments on debt, and other liquidity requirements associated with our operations. We also have an automatic shelf registration statement on file with the Securities and Exchange Commission. We may in the future offer an additional unspecified amount of debt, equity and other securities.

Senior Notes

The following table summarizes the principal amount of our Senior Notes as of April 27, 2018 (in millions):

2.00% Senior Notes Due September 2019	\$	400
3.375% Senior Notes Due June 2021		500
3.25% Senior Notes Due December 2022		250
3.30% Senior Notes Due September 2024		400
Total	\$	1,550

Interest on the Senior Notes is payable semi-annually. For further information on the underlying terms, see Note 10 – Financing Arrangements of the Notes to Consolidated Financial Statements.

Commercial Paper Program and Credit Facility

We have a commercial paper program (the Program), under which we may issue unsecured commercial paper notes. On July 17, 2017 we amended the Program to increase the maximum amounts available that may be borrowed, repaid and re-borrowed to an aggregate face or principal amount of the notes outstanding of \$1.0 billion, as compared to \$600 million prior to the amendment. The maturities of the notes can vary, but may not exceed 397 days from the date of issue. The notes are sold under customary terms in the commercial paper market and may be issued at a discount from par or, alternatively, may be sold at par and bear interest at rates dictated by market conditions at the time of their issuance. The proceeds from the issuance of the notes are used for general corporate purposes. As of April 27, 2018, we had commercial paper notes outstanding with an aggregate principal amount of \$385 million, a weighted-average interest rate of 2.29% and maturities ranging from 19 days to 32 days.

In connection with the Program, we have a new senior unsecured credit agreement that expires on December 10, 2021, and we terminated our existing credit agreement that had been scheduled to expire on December 21, 2017. The new credit agreement, which as amended on July 17, 2017, provides a \$1.0 billion revolving unsecured credit facility that serves as a back-up for the Program. Proceeds from the facility may also be used for general corporate purposes, providing another potential source of liquidity to the extent that the credit facility exceeds the outstanding debt issued under the Program. The credit agreement also includes options that allow us to request an increase in the facility of up to an additional \$300 million and to extend its maturity date for two additional one-year periods, both subject to certain conditions. As of April 27, 2018, we were in compliance with all associated covenants in this agreement. No amounts were drawn against this facility during any of the periods presented.

Capital Expenditure Requirements

We expect to fund our capital expenditures, including our commitments related to facilities, equipment, operating leases and internal-use software development projects over the next few years through existing cash, cash equivalents, investments and cash generated from operations. The timing and amount of our capital requirements cannot be precisely determined and will depend on a number of factors, including future demand for products, changes in the network storage industry, hiring plans and our decisions related to the financing of our facilities and equipment requirements. We anticipate capital expenditures for fiscal 2019 to be between \$175 million and \$225 million.

Dividends and Stock Repurchase Program

On May 23, 2018, we declared a cash dividend of \$0.40 per share of common stock, payable on July 25, 2018 to holders of record as of the close of business on July 6, 2018.

As of April 27, 2018, our Board of Directors had authorized the repurchase of up to \$13.6 billion of our common stock under our stock repurchase program, including a \$4.0 billion increase approved by our Board of Directors in April 2018. Under this program, we may purchase shares of our outstanding common stock through solicited or unsolicited transactions in the open market, in privately negotiated transactions, through accelerated share repurchase programs, pursuant to a Rule 10b5-1 plan or in such other manner as deemed appropriate by our management. The stock repurchase program may be suspended or discontinued at any time. Since the May 13, 2003 inception of this program through April 27, 2018, we repurchased a total of 284 million shares of our common stock at an average price of \$33.85 per share, for an aggregate purchase price of \$9.6 billion.

The timing and amount of stock repurchase transactions and future dividends will depend on market conditions, corporate business and financial considerations and regulatory requirements.

Contractual Obligations

The impact of contractual obligations on our liquidity and capital resources in future periods should be analyzed in conjunction with the factors that impact our cash flows from operations discussed previously. The following table summarizes our contractual obligations at April 27, 2018 (in millions):

	2019	2020	2021	2022	2023	Thereafter	Total
Office space and equipment lease commitments	\$ 55	\$ 46	\$ 34	\$ 22	\$ 13	\$ 23	\$ 193
Purchase commitments with contract manufacturers ⁽¹⁾	374	—	—	—	—	—	374
Construction related obligations	7	—	—	—	—	—	7
Other purchase obligations ⁽²⁾	109	38	22	9	5	10	193
Total off-balance sheet commitments	545	84	56	31	18	33	767
Commercial paper notes ⁽³⁾	385	—	—	—	—	—	385
Long-term debt obligations ⁽⁴⁾	46	442	38	530	271	420	1,747
Long-term financing arrangements	4	4	1	—	—	—	9
Uncertain tax positions ⁽⁵⁾							314
Total contractual obligations	\$ 980	\$ 530	\$ 95	\$ 561	\$ 289	\$ 453	\$ 3,222

(1) Contract manufacturer commitments consist of obligations for on-hand inventories and non-cancelable purchase orders with our contract manufacturers. We record a liability for firm, non-cancelable and unconditional purchase commitments with contract manufacturers for quantities in excess of our future demand forecasts. As of April 27, 2018, such liability amounted to \$14 million and is included in accrued expenses in our consolidated balance sheets. To the extent that such forecasts are not achieved, our commitments and associated accruals may change.

(2) Purchase obligations represent an estimate of all open purchase orders and contractual obligations associated with our ordinary course of business, in addition to inventory commitments with contract manufacturers, for which we have not received the goods or services. Purchase obligations do not include contracts that may be canceled without penalty. Although open purchase orders are considered enforceable and legally binding, the terms generally allow us the option to cancel, reschedule, and adjust our requirements based on our business needs prior to the delivery of goods or performance of services.

(3) Represents principal payments on our commercial paper notes.

(4) Included in long-term debt are obligations related to our \$1.6 billion principal amount of our Senior Notes, of which \$400 million is due in September 2019, \$500 million is due in June 2021, \$250 million is due in December 2022 and \$400 million is due in September 2024. Estimated interest payments for our long-term debt, assuming no early retirement of debt obligations, are \$197 million for fiscal 2019 through fiscal 2025.

(5) As of April 27, 2018, our liability for uncertain tax positions was \$314 million, including interest, penalties and offsetting indirect benefits, which due to the uncertainty of the timing of future payments, is presented in the total column on a separate line in this table.

Some of the amounts in the table above are based on management's estimates and assumptions, including the commitment duration, the possibility of renewal or termination, anticipated actions by management and third parties and other factors. Because these estimates and assumptions are subjective, our actual future obligations may vary from those reflected in the table.

Financing Guarantees

While most of our arrangements for sales include short-term payment terms, from time to time we provide long-term financing to creditworthy customers. We have generally sold receivables financed through these arrangements on a non-recourse basis to third party financing institutions within 10 days of the contracts' dates of execution, and we classify the proceeds from these sales as cash flows from operating activities in our consolidated statements of cash flows. We account for the sales of these receivables as "true sales" as defined in the accounting standards on transfers of financial assets, as we are considered to have surrendered control of these financing receivables. Provided all other revenue recognition criteria have been met, we recognize product revenues for these arrangements, net of any payment discounts from financing transactions, upon product acceptance. We sold \$67 million and \$183 million of receivables during fiscal 2018 and 2017, respectively.

In addition, we enter into arrangements with leasing companies for the sale of our hardware systems products. These leasing companies, in turn, lease our products to end-users. The leasing companies generally have no recourse to us in the event of default by the end-user and we recognize revenue upon delivery to the end-user customer, if all other revenue recognition criteria have been met.

Some of the leasing arrangements described above have been financed on a recourse basis through third-party financing institutions. Under the terms of recourse leases, which are generally three years or less, we remain liable for the aggregate unpaid remaining lease payments to the third-party leasing companies in the event of end-user customer default. These arrangements are generally collateralized by a security interest in the underlying assets. Where we provide a guarantee for recourse leases, we defer revenues subject to the industry-specific software revenue recognition guidance and recognize revenues for non-software deliverables in accordance with our multiple deliverable revenue arrangement policy. In connection with certain recourse financing arrangements, we receive advance payments associated with undelivered elements that are subject to customer refund rights. As of April 27, 2018 and April 28, 2017, the aggregate amount by which such contingencies exceeded the associated liabilities was not significant. To date, we have not experienced significant losses under our lease financing programs or other financing arrangements.

We have entered into service contracts with certain of our end-user customers that are supported by third-party financing arrangements. If a service contract is terminated as a result of our non-performance under the contract or our failure to comply with the terms of the financing arrangement, we could, under certain circumstances, be required to acquire certain assets related to the service contract or to pay the aggregate unpaid payments under such arrangements. As of April 27, 2018, we have not been required to make any payments under these arrangements, and we believe the likelihood of having to acquire a material amount of assets or make payments under these arrangements is remote. The portion of the financial arrangement that represents unearned services revenue is included in deferred revenue and financed unearned services revenue in our consolidated balance sheets.

Indemnification Agreements

We enter into indemnification agreements with third parties in the ordinary course of business. Generally, these indemnification agreements require us to reimburse losses suffered by the third-parties due to various events, such as lawsuits arising from patent or copyright infringement. These indemnification obligations are considered off-balance sheet arrangements under accounting guidance.

Legal Contingencies

We are subject to various legal proceedings and claims which arise in the normal course of business. See further details on such matters in Note 18 – Commitments and Contingencies of the Notes to Consolidated Financial Statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk related to fluctuations in interest rates and foreign currency exchange rates. We use certain derivative financial instruments to manage foreign currency exchange risks. We do not use derivative financial instruments for speculative or trading purposes. All financial instruments are used in accordance with management-approved policies.

Interest Rate Risk

Fixed Income Investments — As of April 27, 2018, we had fixed income debt investments of \$2.7 billion. Our investment portfolio primarily consists of investments with original maturities greater than three months at the date of purchase, which are classified as available-for-sale investments. These investments, which consist primarily of corporate bonds, U.S. Treasury and government debt securities, commercial paper, and certificates of deposit, are subject to interest rate and interest income risk and will decrease in value if market interest rates increase. Conversely, declines in interest rates, including the impact from lower credit spreads, could have a material adverse impact on interest income for our investment portfolio. A hypothetical 100 basis point increase in market interest rates from levels as of April 27, 2018 would have resulted in a decrease in the fair value of our fixed-income securities of approximately \$57 million. Volatility in market interest rates over time will cause variability in our interest income. We do not use derivative financial instruments in our investment portfolio.

Our investment policy is to limit credit exposure through diversification and investment in highly rated securities. We further mitigate concentrations of credit risk in our investments by limiting our investments in the debt securities of a single issuer and by diversifying risk across geographies and type of issuer. We actively review, along with our investment advisors, current investment ratings, company-specific events and general economic conditions in managing our investments and in determining whether there is a significant decline in fair value that is other-than-temporary. We monitor and evaluate our investment portfolio on a quarterly basis for any other-than-temporary impairments.

Debt — As of April 27, 2018, we have outstanding \$1.6 billion aggregate principal amount of Senior Notes. We carry these instruments at face value less unamortized discount on our consolidated balance sheets. Since these instruments bear interest at fixed rates, we have no financial statement risk associated with changes in interest rates. However, the fair value of these instruments

fluctuates when interest rates change. See Note 10 – Financing Arrangements of the Notes to Consolidated Financial Statements for more information.

Credit Facility — We are exposed to the impact of changes in interest rates in connection with our \$1.0 billion five-year revolving credit facility. Borrowings under the facility accrue interest at rates that vary based on certain market rates and our credit rating on our Senior Notes. Consequently, our interest expense would fluctuate with any changes in these market interest rates or in our credit rating if we were to borrow any amounts under the credit facility. As of April 27, 2018, no amounts were outstanding under the credit facility.

Foreign Currency Exchange Rate Risk

We hedge risks associated with certain foreign currency transactions to minimize the impact of changes in foreign currency exchange rates on earnings. We utilize foreign currency exchange forward and option contracts to hedge against the short-term impact of foreign currency fluctuations on certain foreign currency denominated monetary assets and liabilities. Currently, sales transactions and expenditures denominated in foreign currencies are not hedged, and therefore are exposed to the impact of foreign currency fluctuations.

We do not enter into foreign currency exchange contracts for speculative or trading purposes. In entering into foreign currency exchange forward and option contracts, we have assumed the risk that might arise from the possible inability of counterparties to meet the terms of the contracts. We attempt to limit our exposure to credit risk by executing foreign currency exchange contracts with creditworthy multinational commercial banks. All contracts have a maturity of less than six months. See Note 12 – Derivatives and Hedging Activities of the Notes to Consolidated Financial Statements for more information regarding our derivatives and hedging activities.

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NETAPP, INC.
CONSOLIDATED BALANCE SHEETS

	<u>April 27, 2018</u>	<u>April 28, 2017</u>
ASSETS		
(In millions, except par value)		
Current assets:		
Cash and cash equivalents	\$ 2,941	\$ 2,444
Short-term investments	2,450	2,477
Accounts receivable	1,009	731
Inventories	126	163
Other current assets	330	383
Total current assets	6,856	6,198
Property and equipment, net	756	799
Goodwill	1,739	1,684
Other intangible assets, net	94	131
Other non-current assets	420	681
Total assets	\$ 9,865	\$ 9,493
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 609	\$ 347
Accrued expenses	825	782
Commercial paper notes	385	500
Current portion of long-term debt	—	749
Short-term deferred revenue and financed unearned services revenue	1,804	1,744
Total current liabilities	3,623	4,122
Long-term debt	1,541	744
Other long-term liabilities	961	249
Long-term deferred revenue and financed unearned services revenue	1,673	1,598
Total liabilities	7,798	6,713
Commitments and contingencies (Note 18)		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 5 shares authorized; no shares issued or outstanding as of April 27, 2018 or April 28, 2017	—	—
Common stock and additional paid-in capital, \$0.001 par value, 885 shares authorized; 263 and 269 shares issued and outstanding as of April 27, 2018 and April 28, 2017, respectively	2,355	2,769
Retained earnings (accumulated deficit)	(218)	40
Accumulated other comprehensive loss	(70)	(29)
Total stockholders' equity	2,067	2,780
Total liabilities and stockholders' equity	\$ 9,865	\$ 9,493

See accompanying notes to consolidated financial statements.

NETAPP, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
(In millions, except per share amounts)			
Revenues:			
Product	\$ 3,461	\$ 3,006	\$ 2,986
Software maintenance	958	965	949
Hardware maintenance and other services	1,492	1,548	1,611
Net revenues	<u>5,911</u>	<u>5,519</u>	<u>5,546</u>
Cost of revenues:			
Cost of product	1,738	1,614	1,558
Cost of software maintenance	25	28	37
Cost of hardware maintenance and other services	449	487	578
Total cost of revenues	<u>2,212</u>	<u>2,129</u>	<u>2,173</u>
Gross profit	<u>3,699</u>	<u>3,390</u>	<u>3,373</u>
Operating expenses:			
Sales and marketing	1,729	1,633	1,792
Research and development	783	779	861
General and administrative	280	271	307
Restructuring charges	—	52	108
Acquisition-related expense	—	—	8
Gain on sale of properties	(218)	(10)	(51)
Total operating expenses	<u>2,574</u>	<u>2,725</u>	<u>3,025</u>
Income from operations	<u>1,125</u>	<u>665</u>	<u>348</u>
Other income (expense), net	41	—	(3)
Income before income taxes	<u>1,166</u>	<u>665</u>	<u>345</u>
Provision for income taxes	1,090	156	116
Net income	<u>\$ 76</u>	<u>\$ 509</u>	<u>\$ 229</u>
Net income per share:			
Basic	<u>\$ 0.28</u>	<u>\$ 1.85</u>	<u>\$ 0.78</u>
Diluted	<u>\$ 0.28</u>	<u>\$ 1.81</u>	<u>\$ 0.77</u>
Shares used in net income per share calculations:			
Basic	<u>268</u>	<u>275</u>	<u>294</u>
Diluted	<u>276</u>	<u>281</u>	<u>297</u>

See accompanying notes to consolidated financial statements.

NETAPP, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
	(In millions)		
Net income	\$ 76	\$ 509	\$ 229
Other comprehensive income (loss):			
Foreign currency translation adjustments	2	(10)	4
Defined benefit obligations:			
Defined benefit obligation adjustments	1	25	(7)
Reclassification adjustments related to defined benefit obligations	(2)	1	2
Income tax effect	1	(10)	2
Unrealized gains (losses) on available-for-sale securities:			
Unrealized holding losses arising during the period	(43)	(6)	(4)
Reclassification adjustments for gains included in net income	—	—	(1)
Unrealized gains (losses) on cash flow hedges:			
Unrealized holding gains (losses) arising during the period	—	8	(4)
Reclassification adjustments for (gains) losses included in net income	—	(6)	1
Other comprehensive income (loss):	(41)	2	(7)
Comprehensive income	<u>\$ 35</u>	<u>\$ 511</u>	<u>\$ 222</u>

See accompanying notes to consolidated financial statements.

NETAPP, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
(In millions)			
Cash flows from operating activities:			
Net income	\$ 76	\$ 509	\$ 229
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	198	226	279
Stock-based compensation	161	195	260
Deferred income taxes	277	90	(113)
Gain on sale of properties	(218)	(10)	(51)
Other items, net	(27)	(6)	70
Changes in assets and liabilities, net of acquisitions of businesses:			
Accounts receivable	(272)	81	(16)
Inventories	37	(65)	49
Other operating assets	(7)	1	109
Accounts payable	262	94	(53)
Accrued expenses	162	(86)	30
Deferred revenue and financed unearned services revenue	124	(37)	186
Long-term taxes payable	714	(6)	(39)
Other operating liabilities	(9)	—	34
Net cash provided by operating activities	<u>1,478</u>	<u>986</u>	<u>974</u>
Cash flows from investing activities:			
Purchases of investments	(1,389)	(1,977)	(1,589)
Maturities, sales and collections of investments	1,379	1,934	2,571
Purchases of property and equipment	(145)	(175)	(160)
Proceeds from sale of properties	210	—	102
Acquisitions of businesses, net of cash acquired	(75)	(8)	(842)
Other investing activities, net	(1)	6	3
Net cash provided by (used in) investing activities	<u>(21)</u>	<u>(220)</u>	<u>85</u>
Cash flows from financing activities:			
Proceeds from issuance of common stock under employee stock award plans	173	140	120
Payments for taxes related to net share settlement of stock awards	(75)	(48)	(50)
Repurchase of common stock	(794)	(705)	(960)
Proceeds from (repayments of) commercial paper notes, net	(115)	499	—
Proceeds from sale-leaseback financing transactions	—	—	148
Proceeds from short-term loan	—	—	870
Issuance of long-term debt, net	795	—	—
Repayment of short-term loan	—	(850)	(20)
Repayment of long-term debt	(750)	—	—
Dividends paid	(214)	(208)	(210)
Other financing activities, net	(6)	(7)	(7)
Net cash used in financing activities	<u>(986)</u>	<u>(1,179)</u>	<u>(109)</u>
Effect of exchange rate changes on cash and cash equivalents	26	(11)	(4)
Net increase (decrease) in cash and cash equivalents	497	(424)	946
Cash and cash equivalents:			
Beginning of period	2,444	2,868	1,922
End of period	<u>\$ 2,941</u>	<u>\$ 2,444</u>	<u>\$ 2,868</u>

See accompanying notes to consolidated financial statements.

NETAPP, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock and Additional Paid-in Capital		Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income (Loss)	Total
	Shares	Amount			
	(In millions, except per share amounts)				
Balances, April 24, 2015	306	\$ 3,385	\$ 53	\$ (24)	\$ 3,414
Net income	—	—	229	—	229
Other comprehensive loss	—	—	—	(7)	(7)
Issuance of common stock under employee stock award plans, net of taxes	8	70	—	—	70
Repurchase of common stock	(33)	(763)	(197)	—	(960)
Stock-based compensation	—	260	—	—	260
Income tax benefit from employee stock transactions	—	59	—	—	59
Income tax adjustments on other equity transactions	—	26	—	—	26
Cash dividends declared (\$0.72 per common share)	—	(125)	(85)	—	(210)
Balances, April 29, 2016	281	2,912	—	(31)	2,881
Cumulative-effect of new accounting principle	—	(7)	21	—	14
Net income	—	—	509	—	509
Other comprehensive income	—	—	—	2	2
Issuance of common stock under employee stock award plans, net of taxes	10	92	—	—	92
Repurchase of common stock	(22)	(335)	(370)	—	(705)
Stock-based compensation	—	195	—	—	195
Cash dividends declared (\$0.76 per common share)	—	(88)	(120)	—	(208)
Balances, April 28, 2017	269	2,769	40	(29)	2,780
Net income	—	—	76	—	76
Other comprehensive loss	—	—	—	(41)	(41)
Issuance of common stock under employee stock award plans, net of taxes	9	99	—	—	99
Repurchase of common stock	(15)	(568)	(226)	—	(794)
Stock-based compensation	—	161	—	—	161
Cash dividends declared (\$0.80 per common share)	—	(106)	(108)	—	(214)
Balances, April 27, 2018	263	\$ 2,355	\$ (218)	\$ (70)	\$ 2,067

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business and Significant Accounting Policies

Description of Business — NetApp, Inc. (we, us, or the Company) provides global organizations the ability to manage and share their data across on-premises, private and public clouds. Together with our partners, we provide a full range of enterprise-class software, systems and services solutions that customers use to modernize their infrastructures, build next generation data centers and harness the power of hybrid clouds.

Fiscal Year — Our fiscal year is reported on a 52- or 53-week year ending on the last Friday in April. An additional week is included in the first fiscal quarter approximately every six years to realign fiscal months with calendar months. Fiscal year 2018, which ended on April 27, 2018, and fiscal year 2017, which ended on April 28, 2017, were each 52-week years; fiscal year 2016, which ended on April 29, 2016, was a 53-week year. Unless otherwise stated, references to particular years, quarters, months and periods refer to the Company's fiscal years ended on the last Friday of April and the associated quarters, months and periods of those fiscal years.

Principles of Consolidation — The consolidated financial statements include the Company and its subsidiaries. Intercompany accounts and transactions are eliminated in consolidation.

Use of Estimates — The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Such estimates include, but are not limited to, revenue recognition, reserves and allowances; inventory valuation and purchase order accruals; valuation of goodwill and intangibles; restructuring reserves; product warranties; employee benefit accruals; stock-based compensation; loss contingencies; investment impairments; income taxes and fair value measurements. Actual results could differ materially from those estimates.

Cash Equivalents — We consider all highly liquid debt investments with original maturities of three months or less at the time of purchase to be cash equivalents.

Available-for-Sale Investments — We classify our investments in debt securities as available-for-sale investments. Debt securities primarily consist of corporate bonds, U.S. Treasury and government debt securities, commercial paper and certificates of deposit. These available-for-sale investments are primarily held in the custody of a major financial institution. A specific identification method is used to determine the cost basis of debt securities sold. These investments are recorded in the consolidated balance sheets at fair value.

Unrealized gains and temporary losses, net of related taxes, are included in accumulated other comprehensive income (loss) (AOCI). Upon realization, those amounts are reclassified from AOCI to earnings. The amortization of premiums and discounts on the investments are included in our results of operations. Realized gains and losses on our available-for-sale investments are calculated based on the specific identification method.

We classify our investments as current or noncurrent based on the nature of the investments and their availability for use in current operations.

Other-than-Temporary Impairments on Investments — All of our available-for-sale investments are subject to periodic impairment review. When the fair value of a debt security is less than its amortized cost, it is deemed impaired, and we assess whether the impairment is other-than-temporary. An impairment is considered other-than-temporary if (i) we have the intent to sell the security, (ii) it is more likely than not that we will be required to sell the security before recovery of the entire amortized cost basis, or (iii) we do not expect to recover the entire amortized cost basis of the security. If impairment is considered other-than-temporary based on condition (i) or (ii) described above, the entire difference between the amortized cost and the fair value of the debt security is recognized in the results of operations. If an impairment is considered other-than-temporary based on condition (iii) described above, the amount representing credit losses (defined as the difference between the present value of the cash flows expected to be collected and the amortized cost basis of the debt security) is recognized in earnings, and the amount relating to all other factors is recognized in other comprehensive income (OCI).

Inventories — Inventories are stated at the lower of cost or net realizable value, which approximates actual cost on a first-in, first-out basis. We write down excess and obsolete inventory based on the difference between the cost of inventory and the estimated net realizable value based upon assumptions about future demand forecasts and market conditions. At the point of a loss recognition, a new, lower cost basis for that inventory is established, and subsequent changes in facts or circumstances do not result in the restoration or increase in that newly established basis. In addition, we record a liability for firm, non-cancelable and unconditional purchase commitments with contract manufacturers and suppliers for quantities in excess of our future demand forecasts consistent with our valuation of excess and obsolete inventory.

Property and Equipment — Property and equipment are recorded at cost.

Depreciation and amortization is computed using the straight-line method, generally over the following periods:

	Depreciation Life
Buildings and improvements	10 to 40 years
Furniture and fixtures	5 years
Computer, production, engineering and other equipment	2 to 3 years
Computer software	3 to 5 years
Leasehold improvements	Shorter of remaining lease term or useful life

Construction in progress will be depreciated over the estimated useful lives of the respective assets when they are ready for use. We capitalize interest on significant facility assets under construction and on significant software development projects.

Software Development Costs — The costs for the development of new software products and substantial enhancements to existing software products are expensed as incurred until technological feasibility has been established, at which time any additional costs would be capitalized in accordance with the accounting guidance for software. Because our current process for developing software is essentially completed concurrently with the establishment of technological feasibility, which occurs upon the completion of a working model, no costs have been capitalized for any of the periods presented.

Internal-Use Software Development Costs — We capitalize qualifying costs, which are incurred during the application development stage, for computer software developed or obtained for internal-use and amortize them over the software's estimated useful life.

Business Combinations — We recognize identifiable assets acquired and liabilities assumed at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. While we use our best estimates and assumptions as a part of the purchase price allocation process to accurately value assets acquired and liabilities assumed at the acquisition date, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill to the extent that we identify adjustments to the preliminary purchase price allocation. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of operations.

Goodwill and Purchased Intangible Assets — Goodwill is recorded when the consideration paid for an acquisition exceeds the fair value of net tangible and intangible assets acquired. Purchased intangible assets with finite lives are amortized on a straight-line basis over their economic lives of three to six years for developed technology, two to eight years for customer contracts/relationships, two to three years for covenants not to compete and two to seven years for trademarks and trade names as we believe this method most closely reflects the pattern in which the economic benefits of the assets will be consumed. In-process research and development is accounted for as an indefinite lived intangible asset and is assessed for potential impairment annually until development is complete or when events or circumstances indicate that their carrying amounts might be impaired. Upon completion of development, in-process research and development is accounted for as a finite-lived intangible asset.

The carrying value of goodwill is tested for impairment on an annual basis in the fourth quarter of our fiscal year, or more frequently if we believe indicators of impairment exist. Triggering events for impairment reviews may be indicators such as adverse industry or economic trends, restructuring actions, lower projections of profitability, or a sustained decline in our market capitalization. For the purpose of impairment testing, we have a single reporting unit. The performance of the quantitative impairment test requires comparing the fair value of our reporting unit to its carrying amount, including goodwill. The fair value of our reporting unit is based on our entity level market capitalization, as determined through quoted market prices. An impairment exists if the fair value of our reporting unit is lower than its carrying amount. The impairment loss is measured based on the amount by which the carrying amount of our reporting unit exceeds its fair value, with the recognized loss not to exceed the total amount of goodwill. The fair value of our reporting unit has substantially exceeded its carrying amount in all periods presented.

Impairment of Long-Lived Assets — We review the carrying values of long-lived assets whenever events and circumstances, such as reductions in demand, lower projections of profitability, significant changes in the manner of our use of acquired assets, or significant negative industry or economic trends, indicate that the net book value of an asset may not be recovered through expected future cash flows from its use and eventual disposition. If this review indicates that there is an impairment, the impaired asset is written down to its fair value, which is typically calculated using: (i) quoted market prices and/or (ii) expected future cash flows utilizing a discount rate. Our estimates regarding future anticipated cash flows, the remaining economic life of the products and technologies, or both, may differ from those used to assess the recoverability of assets. In that event, impairment charges or shortened useful lives of certain long-lived assets may be required, resulting in charges to our consolidated statements of operations when such determinations are made.

Derivative Instruments — Our derivative instruments, which are carried at fair value in our consolidated balance sheets, consist primarily of foreign currency exchange contracts utilized to hedge against the short-term impact of foreign currency exchange rate fluctuations related to certain foreign currency denominated monetary assets and liabilities, primarily intercompany receivables and payables. These derivative instruments are not designated as hedging instruments and do not subject us to material balance sheet risk due to exchange rate movements because the gains and losses on these contracts are intended to offset the gains and losses in the underlying foreign currency denominated monetary assets and liabilities being hedged, and the net amount is included in earnings.

Factors that could have an impact on the effectiveness of our hedging program include the accuracy of forecasts and the volatility of foreign currency markets. The program reduces, but does not entirely eliminate, the impact of currency exchange movements. Currently, we do not enter into any foreign currency exchange forward contracts to hedge exposures related to forecasted sales transactions, forecasted expenditures or firm commitments. Cash flows from our derivative program are included under operating activities in the consolidated statements of cash flows.

Revenue Recognition — We recognize revenue when:

- *Persuasive evidence of an arrangement exists* . Customarily we have a purchase order and/or contract prior to recognizing revenue on an arrangement from our end users, customers, value-added resellers or distributors.
- *Delivery has occurred* . Our product is physically delivered to our customers. We typically do not allow for restocking rights with any of our value-added resellers or distributors. Products shipped with acceptance criteria or return rights are not recognized as revenue until all criteria are achieved. We do not recognize revenue if undelivered products or services exist that are essential to the functionality of the delivered product in an arrangement.
- *The fee is fixed or determinable* . Arrangements with payment terms extending beyond our standard terms, conditions and practices are not considered to be fixed or determinable. Revenue from such arrangements is recognized at the earlier of customer payment or when the fees become due and payable. We typically do not allow for price-protection rights with any of our value-added resellers or distributors.
- *Collection is reasonably assured* . If there is considerable doubt surrounding the creditworthiness of a customer at the outset of an arrangement, the associated revenue is deferred and recognized upon cash receipt.

The hardware systems and software components essential to the functionality of the hardware systems are considered non-software deliverables and therefore are not subject to industry-specific software revenue recognition guidance.

Our product revenues also include revenues from the sale of non-essential software products. Non-essential software sales generally include a perpetual license to our software. Non-essential software sales are subject to the industry-specific software revenue recognition guidance.

Our multiple element arrangements may include our systems, software maintenance, hardware maintenance and other services. Software maintenance contracts entitle our customers to receive unspecified product upgrades and enhancements on a when-and-if-available basis, and patch releases. Hardware maintenance services include contracts for extended warranty, technical support and minimum response times. Other services include professional services and customer education and training services. Revenues from software maintenance and hardware maintenance services are recognized ratably over the contractual term, generally from one to five years. We also offer extended warranty contracts (which extend our standard parts warranty and may include premium hardware maintenance) at the end of the original warranty term; revenues from these contracts are recognized ratably over their respective contract term. We sell professional services either on a time and materials basis or under fixed price projects; we recognize revenue for these services as they are performed.

For multiple element arrangements, we allocate revenue to the software deliverables and the non-software deliverables as a group based on the relative selling prices of all of the deliverables in the arrangement. The selling price for each element is based upon the following selling price hierarchy: vendor specific objective evidence of selling price (VSOE) if available, third party evidence (TPE) if VSOE is not available, or estimated selling price (ESP) if neither VSOE nor TPE are available. ESP is generally evidenced by a majority of historical transactions falling within a reasonable price range. We also consider multiple factors, including, but not limited

to, cost of products, gross margin objectives, historical pricing practices, type of customer and distribution channels. For our non-software deliverables, we generally allocate the arrangement consideration based on the relative selling price of the deliverables using ESP. For our software maintenance services, we generally use VSOE. When we are unable to establish VSOE for our software maintenance services, we use ESP in our allocation of arrangement consideration.

VSOE is based upon the normal pricing and discounting practices for those services when sold separately. VSOE is generally evidenced by a substantial majority of historical stand-alone transactions falling within a reasonably narrow range. In addition, we consider major service type, customer type, and other variables in determining VSOE.

When VSOE cannot be established, we attempt to establish the selling price of each element based on third party evidence of selling price (TPE). Generally, we are not able to determine TPE because our go-to-market strategy differs from that of our peers and our offerings contain a significant level of differentiation such that the comparable pricing of products with similar functionality cannot be obtained.

We regularly review VSOE, TPE, and ESP and maintain internal controls over the establishment and updates of these estimates.

For our software deliverables, we use the residual method to recognize revenue when an arrangement includes one or more elements to be delivered at a future date and VSOE of all undelivered elements exists. Typically, only software maintenance, hardware maintenance and/or other services remain undelivered after the product is delivered. Under the residual method, the fair value of the undelivered elements is deferred and the remaining portion of the consideration is recognized as product revenues for delivered elements. If evidence of the fair value of one or more undelivered elements does not exist, all revenue is generally deferred until the earlier of when delivery of those elements occurs or when fair value can be established. In instances where the only undelivered element without fair value is software maintenance, the entire arrangement is recognized ratably over the maintenance period.

We record reductions to revenue for estimated sales returns at the time of shipment. Sales returns are estimated based on historical sales returns, current trends, and our expectations regarding future experience. We monitor and analyze the accuracy of sales returns estimates by reviewing actual returns and adjust them for future expectations. Additionally, distributors and retail partners participate in various marketing and other programs, and we record estimated accruals and allowances for these programs. We accrue for these programs based on contractual terms and historical experience. Sales and value added taxes collected from customers and remitted to governmental authorities are presented on a net basis in the accompanying consolidated statements of operations.

Product Warranties — Estimated future hardware and software warranty costs are recorded as a cost of product revenues at the time of product shipment, based on historical and projected warranty claim rates, historical and projected cost-per-claim and knowledge of specific product failures that are outside our typical experience. Factors that affect our warranty liability include the number of installed units subject to warranty protection, product failure rates, and estimated materials, distribution and labor costs. We assess the adequacy of our warranty accrual each quarter and adjust the amount as considered necessary.

Foreign Currency Translation — For international subsidiaries whose functional currency is the local currency, gains and losses resulting from translation of these foreign currency financial statements into U.S. dollars are recorded in AOCI. For subsidiaries where the functional currency is the U.S. dollar, gains and losses resulting from the process of remeasuring foreign currency financial statements into U.S. dollars are included in other income (expense), net.

Benefit Plans — We record actuarial gains and losses associated with defined benefit plans within AOCI and amortize net gains or losses in excess of 10 percent of the greater of the market value of plan assets or the plans' projected benefit obligation on a straight-line basis over the remaining estimated service life of plan participants. The measurement date for all defined benefit plans is our fiscal year end.

Stock-Based Compensation — We measure and recognize stock-based compensation for all stock-based awards, including employee stock options, restricted stock units (RSUs), including time-based RSUs and performance-based RSUs (PBRsUs), and rights to purchase shares under our employee stock purchase plan (ESPP), based on their estimated fair value, and recognize the costs in our financial statements using the single option straight-line approach over the requisite service period for the entire award.

The fair value of employee time-based RSUs is equal to the market value of our common stock on the grant date of the award, less the present value of expected dividends during the vesting period, discounted at a risk-free interest rate. The fair value of PBRsUs is measured using a Monte Carlo simulation model on the date of grant.

The fair value of each award is estimated on the grant date and is not remeasured as a result of subsequent stock price fluctuations. Our expected term assumption is based primarily on historical exercise and post-vesting forfeiture experience. Our stock price volatility assumption is based on a combination of our historical and implied volatility. The risk-free interest rates are based upon United States (U.S.) Treasury bills with equivalent expected terms, and the expected dividends are based on our history and expected dividend payouts.

We account for forfeitures of stock-based awards as they occur.

Income Taxes — Deferred income tax assets and liabilities are provided for temporary differences that will result in tax deductions or income in future periods, as well as the future benefit of tax credit carryforwards. A valuation allowance reduces tax assets to their estimated realizable value.

We recognize the tax liability for uncertain income tax positions on the income tax return based on the two-step process prescribed in the interpretation. The first step is to determine whether it is more likely than not that each income tax position would be sustained upon audit. The second step is to estimate and measure the tax benefit as the amount that has a greater than 50% likelihood of being realized upon ultimate settlement with the tax authority. Estimating these amounts requires us to determine the probability of various possible outcomes. We evaluate these uncertain tax positions on a quarterly basis. We recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying consolidated statements of operations.

Net Income per Share — Basic net income per share is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding. Diluted net income per share is computed giving effect to all dilutive potential shares that were outstanding during the period. Potential dilutive common shares consist primarily of outstanding stock options, shares to be purchased under our employee stock purchase plan and unvested RSUs.

Treasury Stock — We account for treasury stock under the cost method. Upon the retirement of treasury stock, we allocate the value of treasury shares between common stock, additional paid-in capital and retained earnings.

2. Recent Accounting Standards Not Yet Effective

Revenue from Contracts with Customers

In May 2014, the FASB issued an accounting standards update related to the recognition and reporting of revenue that establishes a comprehensive new revenue recognition model designed to depict the transfer of goods or services to a customer in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services. The guidance allows for the use of either the full or modified retrospective transition method. We expect to adopt this new standard, as amended, on its effective date in the first quarter of fiscal 2019 using the full retrospective method to restate each prior reporting period presented. We are continuing to assess the impact of this standard on our financial statements and related disclosures. However, we do not expect that the adoption will have a material impact on our results of operations or operating cash flows.

We believe that the new standard will impact the following policies and disclosures:

- in arrangements containing software, revenue deferred for the undelivered elements previously allocated based on the residual method will be based on a relative fair value allocation, generally resulting in more software arrangement revenue being recognized earlier;
- estimation of variable consideration for certain arrangements with contract terms such as rights of return, potential penalties and acceptance clauses;
- required disclosures, including information about the transaction price allocated to remaining performance obligations and expected timing of revenue recognition; and
- accounting for deferred commissions, including costs that qualify for deferral and the amortization period.

We do not expect that the new standard will result in substantive changes in our deliverables or the amounts of revenue allocated between multiple deliverables, with the exception of the items discussed above.

Leases

In February 2016, the FASB issued an accounting standards update on financial reporting for leasing arrangements, including requiring lessees to recognize an operating lease with a term greater than one year on their balance sheets as a right-of-use asset and corresponding lease liability, measured at the present value of the lease payments. This new standard will be effective for us in our first quarter of fiscal 2020, although early adoption is permitted. Upon adoption, lessees must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. We are currently in the assessment phase to determine the adoption methodology and are evaluating the impact of this new standard on our consolidated financial statements and disclosures. We expect that most of our operating lease commitments will be subject to the new standard and recognized as lease liabilities and right-of-use assets upon adoption, which will increase the total assets and total liabilities we report.

Credit Losses on Financial Instruments

In June 2016, the FASB issued an accounting standards update on the measurement of credit losses on financial instruments. The standard introduces a new model for measuring and recognizing credit losses on financial instruments, requiring financial assets measured at amortized cost basis to be presented at the net amount expected to be collected. It also requires that credit losses be recorded through an allowance for credit losses. This new standard will be effective for us in our first quarter of fiscal 2021, although

early adoption is permitted. Upon adoption, companies must apply a modified retrospective transition approach through a cumulative-effect adjustment to retained earnings, though a prospective transition approach is required for debt securities for which an other-than-temporary impairment had been recognized before the effective date. Based on the composition of our investment portfolio, current market conditions, and historical credit loss activity, the adoption of this standard is not expected to have a material impact on our consolidated financial statements.

Income Taxes on Intra-Entity Transfers of Assets

In October 2016, the FASB issued an accounting standards update that requires entities to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. This amends current GAAP which prohibits recognition of current and deferred income taxes for all types of intra-entity asset transfers until the asset has been sold to an outside party. We will adopt this new standard on its effective date in the first quarter of fiscal 2019. Upon adoption, companies must apply a modified retrospective transition approach through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

Although there are several other new accounting pronouncements issued or proposed by the FASB that we have adopted or will adopt, as applicable, we do not believe any of these accounting pronouncements has had or will have a material impact on our consolidated financial position, operating results or disclosures.

3. Concentration of Risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash equivalents, investments, foreign currency exchange contracts and accounts receivable. Cash equivalents and short-term investments consist primarily of corporate bonds, U.S. Treasury and government debt securities, commercial paper and certificates of deposit, all of which are considered high investment grade. Our policy is to limit the amount of credit exposure through diversification and investment in highly rated securities. We further mitigate concentrations of credit risk in our investments by limiting our investments in the debt securities of a single issuer and by diversifying risk across geographies and type of issuer.

By entering into foreign currency exchange contracts, we have assumed the risk that might arise from the possible inability of counterparties to meet the terms of their contracts. The counterparties to these contracts are major multinational commercial banks, and we do not expect any losses as a result of counterparty defaults.

We sell our products primarily to large organizations in different industries and geographies. We do not require collateral or other security to support accounts receivable. In addition, we maintain an allowance for potential credit losses. To reduce credit risk, we perform ongoing credit evaluations on our customers' financial condition. We establish an allowance for doubtful accounts based upon factors surrounding the credit risk of customers, historical trends and other information and, to date, such losses have been within management's expectations. Concentrations of credit risk with respect to trade accounts receivable are limited due to the wide variety of customers who are dispersed across many geographic regions.

There are no concentrations of business transacted with a particular market that would severely impact our business in the near term. However, we rely on a limited number of suppliers for certain key components and a few key contract manufacturers to manufacture most of our products; any disruption or termination of these arrangements could materially adversely affect our operating results.

4. Statements of Cash Flows Additional Information

Non-cash investing and financing activities and supplemental cash flow information are as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Non-cash Investing and Financing Activities:			
Capital expenditures incurred but not paid	\$ 24	\$ 19	\$ 18
Non-cash extinguishment of sale-leaseback financing obligations	\$ 130	\$ 19	\$ —
Supplemental Cash Flow Information:			
Income taxes paid, net of refunds	\$ 87	\$ 102	\$ 161
Interest paid	\$ 58	\$ 44	\$ 43

5. Business Combinations

Fiscal 2018 Acquisitions

On August 4, 2017, we acquired all of the outstanding shares of Greencloud ehf., a privately-held provider of cloud management software based in Iceland, for \$51 million in cash, of which we preliminarily allocated \$10 million to developed technology, \$38 million to goodwill, and the remainder to other assets.

On June 15, 2017, we acquired all of the outstanding shares of Plexistor Ltd., a privately-held provider of software defined memory architecture based in Israel, for \$24 million in cash, of which we allocated \$6 million to developed technology, \$17 million to goodwill, and the remainder to other assets.

Fiscal 2017 Acquisition

On March 24, 2017, we acquired all of the outstanding shares of a privately-held consulting and software development company for \$8 million in cash. Substantially all of the purchase price was recorded to goodwill.

Fiscal 2016 Acquisition

On February 2, 2016, we acquired all of the outstanding shares of privately-held SolidFire, Inc. (SolidFire), a maker of all-flash storage systems based in Colorado, for \$850 million in cash. This acquisition extends our position in the all-flash array market by adding new flash offerings that enhance our ability to deliver customers all-flash storage with a webscale architecture that simplifies data center operations and enables rapid deployments of new applications.

The acquired assets and assumed liabilities were recorded at their estimated fair values. We determined the estimated fair values with the assistance of valuations and appraisals performed by third party specialists and estimates made by management. We expected to realize revenue synergies, leverage and expand the existing SolidFire sales channels and product development resources, and utilize the existing workforce. We also anticipated opportunities for growth through the ability to leverage additional future products and capabilities. These factors, among others, contributed to a purchase price in excess of the estimated fair value of SolidFire's identifiable net assets acquired, and as a result, we have recorded goodwill in connection with this acquisition. The U.S. goodwill is not deductible for income tax purposes.

The fair values of assets acquired and liabilities assumed on the closing date are summarized as follows (in millions):

Cash	\$	8
Intangible assets		168
Goodwill		649
Other assets		56
Total assets acquired		881
Liabilities assumed		(31)
Total purchase price	\$	<u>850</u>

The components of intangible assets acquired were as follows (in millions, except useful life):

		Estimated useful life (years)
Developed technology	\$ 99	5
Customer contracts/relationships	41	3
Trade name	9	2
Total intangible assets subject to amortization	149	
In-process research and development	19	N/A
Total intangible assets	\$ 168	

N/A - Not applicable

In-process research and development was valued with input from valuation specialists using the multi-period excess earnings method under the income approach by discounting forecasted cash flows directly related to the products expected to result from the associated project, net of returns on contributory assets. The in-process development project acquired related to a major new generation of the SolidFire technology platform.

The results of operations related to the SolidFire acquisition have been included in our consolidated statements of operations from the acquisition date. The following unaudited pro forma condensed combined financial information gives effect to the acquisition of SolidFire as if it had been consummated on April 26, 2014. The unaudited pro forma condensed combined financial information is presented for informational purposes only, and is not intended to represent or be indicative of the results of operations of the Company that would have been reported had the acquisition occurred on April 26, 2014 and should not be taken as representative of future consolidated results of operations of the combined company (in millions).

	<u>Year Ended</u> <u>April 29, 2016</u>
Net income	\$ 219

Adjustments have been reflected in the unaudited pro forma condensed combined information to include the amortization of identifiable intangible assets, purchase accounting adjustments to deferred revenue, interest expense related to the associated financing arrangement, costs directly attributable to the acquisition and impacts to our provision for income taxes as a result of the acquisition. Pro forma net revenues were not materially different than those presented in the consolidated statements of operations.

6. Goodwill and Purchased Intangible Assets, Net

Goodwill activity is summarized as follows (in millions):

Balance as of April 29, 2016	\$ 1,676
Goodwill acquired	8
Balance as of April 28, 2017	1,684
Goodwill acquired	55
Balance as of April 27, 2018	<u>\$ 1,739</u>

Purchased intangible assets are summarized below (in millions):

	<u>April 27, 2018</u>			<u>April 28, 2017</u>		
	Gross Assets	Accumulated Amortization	Net Assets	Gross Assets	Accumulated Amortization	Net Assets
Developed technology	\$ 164	\$ (80)	\$ 84	\$ 148	\$ (44)	\$ 104
Customer contracts/relationships	43	(33)	10	43	(19)	24
Other purchased intangibles	9	(9)	—	9	(6)	3
Total purchased intangible assets	<u>\$ 216</u>	<u>\$ (122)</u>	<u>\$ 94</u>	<u>\$ 200</u>	<u>\$ (69)</u>	<u>\$ 131</u>

In fiscal 2017, the in-process research and development project related to the SolidFire acquisition was completed, and the associated intangible asset was reclassified to developed technology.

Amortization expense for purchased intangible assets is summarized below (in millions):

	<u>Year Ended</u>			<u>Statement of Operations Classifications</u>
	<u>April 27, 2018</u>	<u>April 28, 2017</u>	<u>April 29, 2016</u>	
Developed technology	\$ 36	\$ 29	\$ 61	Cost of revenues
Customer contracts/relationships	14	14	5	Operating expenses
Other purchased intangibles	3	5	1	Operating expenses
Total	<u>\$ 53</u>	<u>\$ 48</u>	<u>\$ 67</u>	

As of April 27, 2018, future amortization expense related to purchased intangible assets is as follows (in millions):

Fiscal Year	Amount
2019	47
2020	31
2021	16
Total	\$ 94

7. Balance Sheet Details

Cash and cash equivalents (in millions):

	April 27, 2018	April 28, 2017
Cash	\$ 2,727	\$ 2,275
Cash equivalents	214	169
Cash and cash equivalents	\$ 2,941	\$ 2,444

Inventories (in millions):

	April 27, 2018	April 28, 2017
Purchased components	\$ 12	\$ 28
Finished goods	114	135
Inventories	\$ 126	\$ 163

Property and equipment, net (in millions):

	April 27, 2018	April 28, 2017
Land	\$ 106	\$ 132
Buildings and improvements	594	612
Leasehold improvements	88	93
Computer, production, engineering and other equipment	733	741
Computer software	357	353
Furniture and fixtures	99	90
Construction-in-progress	27	26
	2,004	2,047
Accumulated depreciation and amortization	(1,248)	(1,248)
Property and equipment, net	\$ 756	\$ 799

As of April 28, 2017, we had classified certain land and buildings located in Sunnyvale, California, previously reported as property and equipment as assets held-for-sale and included their book value of \$118 million in other current assets in the consolidated balance sheets. On September 8, 2017, we entered into an agreement to sell these properties for a total of \$306 million, through two separate and independent closings. On December 7, 2017, the first closing occurred and we consummated the sale of properties with a net book value of \$66 million for cash proceeds of \$210 million, resulting in a gain, net of direct selling costs, of \$142 million.

The remaining properties, consisting of land with a net book value of \$52 million, continue to be classified as assets held-for-sale as of April 27, 2018. We will consummate the sale of these properties, and receive cash proceeds of \$96 million, upon the occurrence of the second closing, which is expected to occur within the next 12 months. That closing is subject to due diligence, certain termination rights and customary closing conditions, including local governmental approval of the subdivision of a land parcel.

Depreciation and amortization expense related to property and equipment, net is summarized below (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Depreciation and amortization expense	\$ 145	\$ 178	\$ 212

Other non-current assets (in millions):

	April 27, 2018	April 28, 2017
Deferred tax assets	\$ 270	\$ 525
Other assets	150	156
Other non-current assets	<u>\$ 420</u>	<u>\$ 681</u>

Accrued expenses (in millions):

	April 27, 2018	April 28, 2017
Accrued compensation and benefits	\$ 441	\$ 340
Sale-leaseback financing obligations	—	130
Product warranty liabilities	25	33
Other current liabilities	359	279
Accrued expenses	<u>\$ 825</u>	<u>\$ 782</u>

Product warranty liabilities:

Equipment and software systems sales include a standard product warranty. The following tables summarize the activity related to product warranty liabilities and their balances as reported in our consolidated balance sheets (in millions):

	Year Ended	
	April 27, 2018	April 28, 2017
Balance at beginning of period	\$ 50	\$ 70
Expense accrued during the period	16	17
Warranty costs incurred	(26)	(37)
Balance at end of period	<u>\$ 40</u>	<u>\$ 50</u>
	April 27, 2018	April 28, 2017
Accrued expenses	\$ 25	\$ 33
Other long-term liabilities	15	17
Total warranty liabilities	<u>\$ 40</u>	<u>\$ 50</u>

Warranty expense accrued during the period includes amounts accrued for systems at the time of shipment, adjustments for changes in estimated costs for warranties on systems shipped in the period and changes in estimated costs for warranties on systems shipped in prior periods.

Other long-term liabilities (in millions):

	April 27, 2018	April 28, 2017
Liability for uncertain tax positions	\$ 314	\$ 148
Income taxes payable	549	—
Product warranty liabilities	15	17
Other liabilities	83	84
Other long-term liabilities	<u>\$ 961</u>	<u>\$ 249</u>

Deferred revenue and financed unearned services revenue (in millions):

	April 27, 2018	April 28, 2017
Deferred product revenue	\$ 119	\$ 124
Deferred services revenue	3,236	2,999
Financed unearned services revenue	122	219
Total	<u>\$ 3,477</u>	<u>\$ 3,342</u>
Reported as:		
Short-term	\$ 1,804	\$ 1,744
Long-term	1,673	1,598
Total	<u>\$ 3,477</u>	<u>\$ 3,342</u>

Deferred product revenue represents unrecognized revenue related to undelivered product commitments and other product deliveries that have not met all revenue recognition criteria. Deferred services revenue represents customer payments made in advance for services, which include software and hardware maintenance contracts and other services. Financed unearned services revenue represents undelivered services for which cash has been received under certain third-party financing arrangements. See Note 18 – Commitments and Contingencies for additional information related to these arrangements.

8. Other income (expense), net

Other income (expense), net consists of the following (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Interest income	\$ 79	\$ 44	\$ 46
Interest expense	(62)	(52)	(49)
Other income, net	24	8	—
Total other income (expense), net	<u>\$ 41</u>	<u>\$ —</u>	<u>\$ (3)</u>

9. Financial Instruments and Fair Value Measurements

The accounting guidance for fair value measurements provides a framework for measuring fair value on either a recurring or nonrecurring basis, whereby the inputs used in valuation techniques are assigned a hierarchical level. The following are the three levels of inputs to measure fair value:

Level 1 : Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2: Inputs that reflect quoted prices for identical assets or liabilities in less active markets; quoted prices for similar assets or liabilities in active markets; benchmark yields, reported trades, broker/dealer quotes, inputs other than quoted prices that are observable for the assets or liabilities; or inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3: Unobservable inputs that reflect our own assumptions incorporated in valuation techniques used to measure fair value. These assumptions are required to be consistent with market participant assumptions that are reasonably available.

We consider an active market to be one in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis, and consider an inactive market to be one in which there are infrequent or few transactions for the asset or liability, the prices are not current, or price quotations vary substantially either over time or among market makers. Where appropriate, our own or the counterparty's non-performance risk is considered in measuring the fair values of liabilities and assets, respectively.

Investments

The following is a summary of our investments (in millions):

	April 27, 2018				April 28, 2017			
	Cost or Amortized Cost	Gross Unrealized		Estimated Fair Value	Cost or Amortized Cost	Gross Unrealized		Estimated Fair Value
		Gains	Losses			Gains	Losses	
Corporate bonds	\$ 1,861	\$ 1	\$ (39)	\$ 1,823	\$ 1,535	\$ 3	\$ (2)	\$ 1,536
U.S. Treasury and government debt securities	497	—	(5)	492	629	1	(2)	628
Foreign government debt securities	4	—	—	4	21	—	—	21
Commercial paper	230	—	—	230	362	—	—	362
Certificates of deposit	115	—	—	115	99	—	—	99
Mutual funds	31	—	—	31	31	—	—	31
Total debt and equity securities	<u>\$ 2,738</u>	<u>\$ 1</u>	<u>\$ (44)</u>	<u>\$ 2,695</u>	<u>\$ 2,677</u>	<u>\$ 4</u>	<u>\$ (4)</u>	<u>\$ 2,677</u>

As of April 27, 2018, the unrealized losses on our available-for-sale investments were caused by market value declines as a result of increasing market interest rates. Because the declines in market value are attributable to changes in market conditions and not credit quality, and because we have determined that (i) we do not have the intent to sell any of these investments and (ii) it is not more likely than not that we will be required to sell any of these investments before recovery of the entire amortized cost basis, we have determined that no other-than-temporary impairments were required to be recognized on these investments as of April 27, 2018.

The following table presents the contractual maturities of our debt investments as of April 27, 2018 (in millions):

	Amortized Cost	Fair Value
Due in one year or less	\$ 968	\$ 966
Due after one year through five years	1,110	1,094
Due after five years through ten years	629	604
	<u>\$ 2,707</u>	<u>\$ 2,664</u>

Actual maturities may differ from the contractual maturities because borrowers may have the right to call or prepay certain obligations.

Fair Value of Financial Instruments

The following table summarizes our financial assets and liabilities measured at fair value on a recurring basis (in millions):

	April 27, 2018		
	Total	Fair Value Measurements at Reporting Date Using	
		Level 1	Level 2
Cash	\$ 2,727	\$ 2,727	\$ —
Corporate bonds	1,823	—	1,823
U.S. Treasury and government debt securities	492	253	239
Foreign government debt securities	4	—	4
Commercial paper	230	—	230
Certificates of deposit	115	—	115
Total cash, cash equivalents and short-term investments	<u>\$ 5,391</u>	<u>\$ 2,980</u>	<u>\$ 2,411</u>
Other items:			
Mutual funds (1)	\$ 6	\$ 6	\$ —
Mutual funds (2)	\$ 25	\$ 25	\$ —
Foreign currency exchange contracts assets (1)	\$ 9	\$ —	\$ 9
Foreign currency exchange contracts liabilities (3)	\$ (1)	\$ —	\$ (1)

	April 28, 2017					
	Fair Value Measurements at Reporting Date Using					
	Total		Level 1		Level 2	
Cash	\$	2,275	\$	2,275	\$	—
Corporate bonds		1,536		—		1,536
U.S. Treasury and government debt securities		628		273		355
Foreign government debt securities		21		—		21
Commercial paper		362		—		362
Certificates of deposit		99		—		99
Total cash, cash equivalents and short-term investments	\$	4,921	\$	2,548	\$	2,373
Other items:						
Mutual funds (1)	\$	7	\$	7	\$	—
Mutual funds (2)	\$	24	\$	24	\$	—
Foreign currency exchange contracts assets (1)	\$	1	\$	—	\$	1
Foreign currency exchange contracts liabilities (3)	\$	(4)	\$	—	\$	(4)

(1) Reported as other current assets in the consolidated balance sheets
(2) Reported as other non-current assets in the consolidated balance sheets
(3) Reported as accrued expenses in the consolidated balance sheets

Our Level 2 debt instruments are held by a custodian who prices some of the investments using standard inputs in various asset price models or obtains investment prices from third-party pricing providers that incorporate standard inputs in various asset price models. These pricing providers utilize the most recent observable market information in pricing these securities or, if specific prices are not available for these securities, use other observable inputs like market transactions involving identical or comparable securities. We review Level 2 inputs and fair value for reasonableness and the values may be further validated by comparison to multiple independent pricing sources. In addition, we review third-party pricing provider models, key inputs and assumptions and understand the pricing processes at our third-party providers in determining the overall reasonableness of the fair value of our Level 2 debt instruments. As of April 27, 2018 and April 28, 2017, we have not made any adjustments to the prices obtained from our third-party pricing providers.

Fair Value of Debt

As of April 27, 2018 and April 28, 2017, the fair value of our long-term debt was approximately \$1,523 million and \$1,520 million, respectively. The fair value of our long-term debt was based on observable market prices in a less active market. The fair value of our commercial paper notes approximated their carrying value. All of our debt obligations are categorized as Level 2 instruments.

10. Financing Arrangements

Long-Term Debt

The following table summarizes information relating to our long-term debt, which we collectively refer to as our Senior Notes (in millions, except interest rates):

	April 27, 2018		April 28, 2017	
	Amount	Effective Interest Rate	Amount	Effective Interest Rate
2.00% Senior Notes Due December 2017	\$ —	N/A	\$ 750	2.25%
2.00% Senior Notes Due September 2019	400	2.32%	—	N/A
3.375% Senior Notes Due June 2021	500	3.54%	500	3.54%
3.25% Senior Notes Due December 2022	250	3.43%	250	3.43%
3.30% Senior Notes Due September 2024	400	3.42%	—	N/A
Total principal amount	1,550		1,500	
Unamortized discount and issuance costs	(9)		(7)	
Total senior notes	1,541		1,493	
Less: Current portion of long-term debt	—		(749)	
Total long-term debt	\$ 1,541		\$ 744	

Senior Notes

In September 2017, we issued \$400 million aggregate principal amount of 2.00% Senior Notes due on September 27, 2019 and \$400 million aggregate principal amount of 3.30% Senior Notes due on September 29, 2024, for which we received total proceeds of approximately \$795 million, net of discount and issuance costs. On November 3, 2017, we extinguished our 2.00% Senior Notes due December 2017 for an aggregate cash redemption price of \$751 million, plus accrued and unpaid interest.

Interest on our Senior Notes issued in September 2017 is payable semi-annually in March and September. Our 3.375% Senior Notes and 3.25% Senior Notes, with principal amounts of \$500 million and \$250 million, respectively, were issued in June 2014 and December 2012, respectively. Interest on these Senior Notes is paid semi-annually in June and December. Our Senior Notes, which are unsecured, unsubordinated obligations, rank equally in right of payment with any existing and future senior unsecured indebtedness.

We may redeem the Senior Notes in whole or in part, at any time at our option at specified redemption prices. In addition, upon the occurrence of certain change of control triggering events, we may be required to repurchase the Senior Notes under specified terms. The Senior Notes also include covenants that limit our ability to incur debt secured by liens on assets or on shares of stock or indebtedness of our subsidiaries; to engage in certain sale and lease-back transactions; and to consolidate, merge or sell all or substantially all of our assets. As of April 27, 2018, we were in compliance with all covenants associated with the Senior Notes.

As of April 27, 2018, our aggregate future principal debt maturities are as follows (in millions):

Fiscal Year	Amount
2020	\$ 400
2022	500
2023	250
Thereafter	400
Total	\$ 1,550

Commercial Paper Program and Credit Facility

We have a commercial paper program (the Program), under which we may issue unsecured commercial paper notes. Amounts available under the Program, as amended on July 17, 2017, may be borrowed, repaid and re-borrowed, with the aggregate face or principal amount of the notes outstanding under the Program at any time not to exceed \$1.0 billion. The maturities of the notes can vary, but may not exceed 397 days from the date of issue. The notes are sold under customary terms in the commercial paper market and may be issued at a discount from par or, alternatively, may be sold at par and bear interest at rates dictated by market conditions at the time of their issuance. The proceeds from the issuance of the notes are used for general corporate purposes. As of April 27, 2018, we had commercial paper notes outstanding with an aggregate principal amount of \$385 million, a weighted-average interest rate of 2.29% and maturities ranging from 19 days to 32 days. As of April 28, 2017, we had commercial paper notes outstanding with an aggregate principal amount of \$500 million, a weighted-average interest rate of 1.26% and maturities ranging from 7 days to 38 days.

In connection with the Program, we have a new senior unsecured credit agreement with a syndicated group of lenders that expires on December 10, 2021. The credit agreement, as amended on July 17, 2017, provides a \$1.0 billion revolving unsecured credit facility, with a \$50 million letter of credit sub-facility, that serves as a back-up for the Program. Proceeds from the facility may also be used for general corporate purposes to the extent that the credit facility exceeds the outstanding debt issued under the Program. The credit agreement includes options that allow us to request an increase in the facility of up to an additional \$300 million and to extend its maturity date for two additional one-year periods, both subject to certain conditions. As of April 27, 2018, we were in compliance with all associated covenants in this agreement. No amounts were drawn against this facility during any of the periods presented.

Sale-leaseback Transactions

In fiscal 2016, we entered into a sale-leaseback arrangement of certain of our land and buildings, under which we leased back certain of our properties rent free over lease terms ending at various dates through December 31, 2017. These properties did not qualify for sale-leaseback accounting and as a result they were accounted for as financing transactions. During fiscal 2017, we terminated one of the leases and recorded a non-cash sale of properties with a net book value of \$9 million, the extinguishment of \$19 million in financing obligations, and a gain of \$10 million. During fiscal 2018, we terminated the remaining leases and recorded a non-cash sale of properties with a net book value of \$54 million, the extinguishment of \$130 million in financing obligations, and a gain of \$76 million. As of April 27, 2018, there are no balances remaining on our consolidated balance sheets associated with this sale-leaseback arrangement.

11. Stockholders' Equity

Equity Incentive Programs

The 1999 Plan — As most recently amended on September 14, 2017, the 1999 Stock Option Plan (the Plan) comprises five separate equity incentive programs: (i) the Discretionary Option Grant Program under which options may be granted to eligible individuals at a fixed price per share; (ii) the Stock Appreciation Rights Program under which eligible persons may be granted stock appreciation rights that allow individuals to receive the appreciation in fair market value of the shares; (iii) the Stock Issuance Program under which eligible individuals may be issued shares of common stock directly; (iv) the Performance Share and Performance Unit Program under which eligible persons may be granted performance shares or performance units which result in payment to the participant only if performance goals or other vesting criteria are achieved and (v) the Automatic Award Program under which nonemployee board members automatically receive equity grants at designated intervals over their period of board service. The Plan expires in August 2019.

Under the Plan, the Board of Directors may grant to employees, nonemployee directors, consultants and independent advisors options to purchase shares of our common stock during their period of service. The exercise price for an incentive stock option and a nonstatutory option cannot be less than 100% of the fair market value of the common stock on the grant date. Options granted under the Plan generally vest over a four-year period. Options granted generally have a term of seven years after the grant date, subject to earlier termination upon the occurrence of certain events. The Plan prohibits the repricing of any outstanding stock option or stock appreciation right after it has been granted or to cancel any outstanding stock option or stock appreciation right and immediately replace it with a new stock option or stock appreciation right with a lower exercise price unless approved by stockholders. RSUs granted under the Plan include time-based RSUs that generally vest over a four-year period with 25% vesting on each anniversary of the grant date. The Compensation Committee of the Board of Directors (the Compensation Committee) has the discretion to use different vesting schedules. In addition, performance-based RSUs may be granted under the Plan and are subject to performance criteria and vesting terms specified by the Compensation Committee.

Under the Plan, the number of shares reserved for issuance is reduced by two shares for every share subject to a full value award, which are specified to be grants that are in the form of performance shares and/or performance unit awards, stock, restricted stock or restricted stock units. The Plan (i) limits the number of shares that may be granted pursuant to awards under the Stock Issuance Program to a participant in any calendar year to 1 million, (ii) limits the initial value of performance units a participant may receive to not more than \$5 million and (iii) limits the number of performance shares a participant may receive in a calendar year to 1 million.

During fiscal 2018, the shares reserved for issuance under the Plan were increased by approximately 9 million shares of common stock. As of April 27, 2018, 26 million shares were available for grant under the Plan.

Stock Options

The following table summarizes information related to our stock options (in millions, except exercise price and contractual term):

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding as of April 24, 2015	12	\$ 37.74		
Assumed in acquisition	2	\$ 5.20		
Exercised	(2)	\$ 19.64		
Forfeited and expired	(3)	\$ 38.27		
Outstanding as of April 29, 2016	9	\$ 34.01		
Exercised	(3)	\$ 25.61		
Forfeited and expired	(2)	\$ 39.36		
Outstanding as of April 28, 2017	4	\$ 35.76		
Exercised	(2)	\$ 36.99		
Forfeited and expired	(1)	\$ 40.50		
Outstanding as of April 27, 2018	1	\$ 31.19	3.48	\$ 44
Exercisable as of April 27, 2018	1	\$ 34.30	2.91	\$ 34

The aggregate intrinsic value represents the pre-tax difference between the exercise price of stock options and the quoted market price of our stock on that day for all in-the-money options.

Additional information related to our stock options is summarized below (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Intrinsic value of exercises	\$ 37	\$ 26	\$ 16
Proceeds received from exercises	\$ 88	\$ 60	\$ 27
Fair value of options vested	\$ 8	\$ 15	\$ 15

Restricted Stock Units

In fiscal 2018, 2017 and 2016, we granted PBRsUs to certain of our executives. Each PBRsU has performance-based vesting criteria (in addition to the service based vesting criteria) such that the PBRsU cliff-vests at the end of either an approximate two year or three year performance period, which began on the date specified in the grant agreement and ends on the last day of the second or third fiscal year, respectively, following the grant date. The number of shares of common stock that will be issued to settle the PBRsUs at the end of the applicable performance and service period will range from 0% to 200% of a target number of shares originally granted, and will depend upon our Total Stockholder Return (TSR) as compared to an index TSR (each expressed as a growth rate percentage) calculated as of the applicable period end date. The fair values of the PBRsUs were fixed at grant date using a Monte Carlo simulation model and the related aggregate compensation cost of PBRsUs granted in fiscal 2018, 2017 and 2016 of \$20 million, \$15 million and \$20 million, respectively, is being recognized over the shorter of the remaining applicable performance or service periods.

As of April 27, 2018 and April 28, 2017, there were approximately 1 million PBRsUs outstanding.

The following table summarizes information related to RSUs, including PBRsUs, (in millions, except for fair value):

	Number of Shares	Weighted- Average Grant Date Fair Value
Outstanding as of April 24, 2015	13	\$ 36.58
Granted	7	\$ 29.26
Vested	(5)	\$ 37.72
Forfeited	(2)	\$ 34.85
Outstanding as of April 29, 2016	13	\$ 32.46
Granted	5	\$ 24.99
Vested	(5)	\$ 32.03
Forfeited	(2)	\$ 31.66
Outstanding as of April 28, 2017	11	\$ 28.81
Granted	4	\$ 39.74
Vested	(5)	\$ 30.59
Forfeited	(1)	\$ 29.54
Outstanding as of April 27, 2018	9	\$ 32.91

We primarily use the net share settlement approach upon vesting, where a portion of the shares are withheld as settlement of employee withholding taxes, which decreases the shares issued to the employee by a corresponding value. The number and value of the shares netted for employee taxes are summarized in the table below (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Shares withheld for taxes	2	2	2
Fair value of shares withheld	\$ 75	\$ 48	\$ 50

Employee Stock Purchase Plan

Eligible employees are offered shares through a 24-month offering period, which consists of four consecutive 6-month purchase periods. Employees may purchase a limited number of shares of the Company's stock at a discount of up to 15% of the lesser of the market value at the beginning of the offering period or the end of each 6-month purchase period. On September 14, 2017, the ESPP was amended to increase the shares reserved for issuance by approximately 3 million shares of common stock. As of April 27, 2018,

8 million shares were available for issuance. The following table summarizes activity related to the purchase rights issued under the ESPP (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Shares issued under the ESPP	4	4	3
Proceeds from issuance of shares	\$ 85	\$ 80	\$ 93

Stock-Based Compensation Expense

Stock-based compensation expense is included in the consolidated statements of operations as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Cost of product revenues	\$ 3	\$ 4	\$ 5
Cost of hardware maintenance and other services revenues	10	13	19
Sales and marketing	68	84	110
Research and development	49	59	84
General and administrative	31	35	42
Total stock-based compensation expense	\$ 161	\$ 195	\$ 260
Income tax benefit for stock-based compensation	\$ 29	\$ 41	\$ 53

As of April 27, 2018, total unrecognized compensation expense related to our equity awards was \$206 million, which is expected to be recognized on a straight-line basis over a weighted-average remaining service period of 2.2 years.

Valuation Assumptions

The valuation of RSUs and ESPP purchase rights and the underlying weighted-average assumptions are summarized as follows:

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
RSUs:			
Risk-free interest rate	1.4%	1.0%	0.6%
Expected dividend yield	2.0%	3.1%	2.3%
Weighted-average fair value per share granted	\$ 39.74	\$ 24.99	\$ 29.26
ESPP:			
Expected term in years	1.2	1.2	1.2
Risk-free interest rate	1.4%	0.8%	0.5%
Expected volatility	28%	30%	27%
Expected dividend yield	2.0%	3.1%	2.3%
Weighted-average fair value per right granted	\$ 12.34	\$ 7.85	\$ 8.18

In connection with our fiscal 2016 acquisition of SolidFire, we assumed all of the then outstanding unvested options to purchase SolidFire common stock and converted those into unvested options to purchase 2 million shares of our common stock. The weighted average assumptions used to value these options, as of the acquisition date, were an expected term of 4.3 years, risk-free interest rate of 1.1%, expected volatility of 31% and expected dividend yield of 3.3%. The weighted average fair value per share of these options was \$14.32.

Stock Repurchase Program

As of April 27, 2018, our Board of Directors has authorized the repurchase of up to \$13.6 billion of our common stock under our stock repurchase program, including a \$4.0 billion increase approved by our Board of Directors in April 2018. Under this program, which we may suspend or discontinue at any time, we may purchase shares of our outstanding common stock through solicited or unsolicited transactions in the open market, in privately negotiated transactions, through accelerated share repurchase programs, pursuant to a Rule 10b5-1 plan or in such other manner as deemed appropriate by our management.

The following table summarizes activity related to this program (in millions, except per share amounts):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Number of shares repurchased	15	22	33
Average price per share	\$ 51.57	\$ 32.72	\$ 28.80
Aggregate purchase price	\$ 794	\$ 705	\$ 960
Remaining authorization at end of period	\$ 4,000	\$ 794	\$ 1,499

The aggregate purchase price of our stock repurchases for fiscal 2018 consisted of \$794 million of open market purchases, of which, \$568 million and \$226 million was allocated to additional paid-in capital and retained earnings (accumulated deficit), respectively.

Since the May 13, 2003 inception of our stock repurchase program through April 27, 2018, we repurchased a total of 284 million shares of our common stock at an average price of \$33.85 per share, for an aggregate purchase price of \$9.6 billion.

Preferred Stock

Our Board of Directors has the authority to issue up to 5 million shares of preferred stock and to determine the price, rights, preferences, privileges, and restrictions, including voting rights, of those shares without any further vote or action by the stockholders. No shares of preferred stock were issued or outstanding in any period presented.

Dividends

The following is a summary of our fiscal 2018, 2017 and 2016 activities related to dividends on our common stock (in millions, except per share amounts).

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Dividends per share declared	\$ 0.80	\$ 0.76	\$ 0.72
Dividend payments allocated to additional paid-in capital	\$ 106	\$ 88	\$ 125
Dividend payments allocated to retained earnings (accumulated deficit)	\$ 108	\$ 120	\$ 85

On May 23, 2018, we declared a cash dividend of \$0.40 per share of common stock, payable on July 25, 2018 to shareholders of record as of the close of business on July 6, 2018. The timing and amount of future dividends will depend on market conditions, corporate business and financial considerations and regulatory requirements. All dividends declared have been determined by the Company to be legally authorized under the laws of the state in which we are incorporated.

Accumulated Other Comprehensive Income (Loss)

Changes in AOCI by component, net of tax, are summarized below (in millions):

	Foreign Currency Translation Adjustments	Defined Benefit Obligation Adjustments	Unrealized Gains (Losses) on Available- for-Sale Securities	Unrealized Gains (Losses) on Derivative Instruments	Total
Balance as of April 29, 2016	\$ (19)	\$ (16)	\$ 6	\$ (2)	\$ (31)
OCI before reclassifications, net of tax	(10)	16	(6)	8	8
Amounts reclassified from AOCI, net of tax	—	—	—	(6)	(6)
Total OCI	(10)	16	(6)	2	2
Balance as of April 28, 2017	(29)	—	—	—	(29)
OCI before reclassifications, net of tax	2	1	(43)	—	(40)
Amounts reclassified from AOCI, net of tax	—	(1)	—	—	(1)
Total OCI	2	—	(43)	—	(41)
Balance as of April 27, 2018	\$ (27)	\$ —	\$ (43)	\$ —	\$ (70)

The amounts reclassified out of AOCI are as follows (in millions):

	Year Ended			Statements of Operations Location
	April 27, 2018	April 28, 2017	April 29, 2016	
	Amounts Reclassified from AOCI			
Recognized (gains) losses on defined benefit obligations	\$ (2)	\$ 1	2	Operating expenses
Realized gains on available-for-sale securities	—	—	(1)	Other income (expense), net
Realized (gains) losses on cash flow hedges	—	(6)	1	Net revenues
Total reclassifications	<u>\$ (2)</u>	<u>\$ (5)</u>	<u>\$ 2</u>	

12. Derivatives and Hedging Activities

We use derivative instruments to manage exposures to foreign currency risk. Our primary objective in holding derivatives is to reduce the volatility of earnings and cash flows associated with changes in foreign currency exchange rates. The program is not designated for trading or speculative purposes. Our derivatives expose us to credit risk to the extent that the counterparties may be unable to meet the terms of our agreements with them. We seek to mitigate such risk by limiting our counterparties to major financial institutions. In addition, the potential risk of loss with any one counterparty resulting from this type of credit risk is monitored on an ongoing basis. We also have in place master netting arrangements to mitigate the credit risk of our counterparties and to potentially reduce our losses due to counterparty nonperformance. We present our derivative instruments as net amounts in our consolidated balance sheets. The gross and net fair value amounts of such instruments were not material as of April 27, 2018 or April 28, 2017. We did not recognize any gains or losses in earnings due to hedge ineffectiveness for any period presented. All contracts have a maturity of less than six months.

The notional amount of our outstanding U.S. dollar equivalent foreign currency exchange forward contracts consisted of the following (in millions):

	April 27, 2018	April 28, 2017
Forward contracts sold	\$ 115	\$ 165
Forward contracts purchased	\$ 412	\$ 257

As of April 27, 2018 and April 28, 2017, there were no instruments designated as cash flow hedges outstanding.

The effect of cash flow hedges recognized in net revenues is presented in the consolidated statements of comprehensive income and Note 11 – Stockholders' Equity.

The effect of derivative instruments not designated as hedging instruments recognized in other income (expense), net on our consolidated statements of operations was as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
	Gain (Loss) Recognized into Income		
Foreign currency exchange contracts	\$ (9)	\$ 1	\$ (4)

13. Restructuring Charges

Management has previously approved several restructuring actions to streamline our business, eliminate costs and redirect resources to our highest return activities, including the May 2015 Plan, the March 2016 Plan and the November 2016 Plan, under which we reduced our global workforce by approximately 3%, 11% and 6%, respectively. Charges related to our restructuring plans consisted primarily of employee severance-related costs. We completed all workforce related activities under these plans as of the end of fiscal 2017. The remaining balance under the November 2016 Plan as of April 27, 2018 principally related to lease obligations that will be paid over their remaining terms.

Activities related to our restructuring plans are summarized as follows (in millions):

	November 2016 Plan	March 2016 Plan	May 2015 Plan	Total
Balance as of April 24, 2015	\$ —	\$ —	\$ —	\$ —
Net charges	—	80	28	108
Cash payments	—	(35)	(28)	(63)
Balance as of April 29, 2016	—	45	—	45
Net charges	52	—	—	52
Cash payments	(39)	(45)	—	(84)
Balance as of April 28, 2017	13	—	—	13
Net charges	—	—	—	—
Cash payments	(7)	—	—	(7)
Balance as of April 27, 2018	<u>\$ 6</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 6</u>

Liabilities for our restructuring activities are included in accrued expenses in our consolidated balance sheets.

14. Income Taxes

Income before income taxes is as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Domestic	\$ 565	\$ 206	\$ 88
Foreign	601	459	257
Total	<u>\$ 1,166</u>	<u>\$ 665</u>	<u>\$ 345</u>

Domestic income before taxes is lower than foreign income before taxes due to significant domestic expenses related to stock-based compensation.

The provision for income taxes consists of the following (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Current:			
Federal	\$ 764	\$ 22	\$ 180
State	10	3	14
Foreign	39	41	35
Total current	<u>813</u>	<u>66</u>	<u>229</u>
Deferred:			
Federal	250	75	(91)
State	26	18	(17)
Foreign	1	(3)	(5)
Total deferred	<u>277</u>	<u>90</u>	<u>(113)</u>
Provision for income taxes	<u>\$ 1,090</u>	<u>\$ 156</u>	<u>\$ 116</u>

The provision for income taxes differs from the amount computed by applying the statutory federal income tax rate as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Tax computed at federal statutory rate	\$ 356	\$ 233	\$ 121
State income taxes, net of federal benefit	17	9	(4)
Foreign earnings in lower tax jurisdictions	(108)	(100)	(81)
Stock-based compensation	(23)	16	13
Research and development credits	(10)	(8)	(14)
Resolution of income tax examinations	—	—	20
Domestic production activities deduction	(7)	(4)	(10)
Tax charge from integration of intellectual property from the SolidFire acquisition	—	—	64
Tax rate changes	126	5	1
Transition tax	732	—	—
Other	7	5	6
Provision for income taxes	<u>\$ 1,090</u>	<u>\$ 156</u>	<u>\$ 116</u>

We generated foreign earnings in lower tax jurisdictions primarily related to income from our European operations which are headquartered in the Netherlands.

On December 22, 2017, the 2017 Tax Reform Reconciliation Act, originally referred to as the TCJA was enacted into law. The TCJA made significant changes to the U.S. corporate income tax system including a reduction of the U.S. federal corporate income tax rate, the imposition of a one-time transition tax on deferred foreign earnings, and a shift to a modified territorial tax regime. Given the timing and pace of regulatory guidance, the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB) 118, which allows for the recording of provisional amounts related to U.S. tax reform and subsequent related adjustments during a measurement period.

As of April 27, 2018, we have not fully completed the accounting for the tax impacts of the TCJA and, in connection with SAB 118, have recorded provisional tax charges based on reasonable estimates for the remeasurement of deferred tax assets and liabilities based on the new corporate rate and for the transition tax on our total post-1986 foreign earnings and profits (E&P). The TCJA also includes provisions for a global minimum tax on intangible low-taxed income (GMT) of foreign subsidiaries, a base erosion anti-abuse tax on certain intercompany payments, and beneficial tax treatment for foreign derived intangible income. These provisions will be effective for us beginning in our fiscal 2019. We will continue to refine provisional balances and make adjustments during the measurement period based on the issuance of further regulatory guidance, changes in interpretations, and the collection and analysis of additional information; these adjustments could be material to our financial statements. The provisional amounts recorded during the current year are explained below.

The TCJA decreased the U.S. federal corporate tax rate from 35% to 21% as of January 1, 2018. For fiscal 2018, this decrease results in a blended statutory tax rate of 30.5%. As a result of the tax rate change, we remeasured our deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future periods. We recorded \$126 million of tax expense for fiscal 2018 related to all tax rate changes. The final remeasurement impact could vary from the provisional amount if actual future activities impacting deferred tax balances differ from our estimates.

The TCJA imposes a mandatory, one-time transition tax on accumulated foreign E&P not previously subject to U.S. income tax at a rate of 15.5% on earnings to the extent of foreign cash and other liquid assets, and 8% on the remaining earnings. For fiscal 2018, we recorded \$732 million of tax expense for the estimated U.S. federal and state income tax impacts of the transition tax. Our estimates may change with further guidance from U.S. federal and state tax authorities or other regulatory bodies and additional analyses that we expect to complete during the measurement period with respect to various components of the computations. We intend to make the election to pay the one-time transition tax over a period of eight years.

Under the TCJA, the GMT provision taxes foreign income in excess of a deemed return on tangible assets of foreign corporations. Under U.S. GAAP, companies are allowed to make an accounting policy election to either (i) account for GMT as a component of tax expense in the period in which a company is subject to the rules (the period cost method), or (ii) account for GMT in a company's measurement of deferred taxes (the deferred method). Because of the complexity of the new tax rules, we are continuing to evaluate this provision and the application of ASC 740 and have not yet made an accounting policy election.

During fiscal 2017, we adopted a new accounting standard that simplifies stock-based compensation income tax accounting and presentation within the financial statements and recorded a tax charge of \$18 million following the post-adoption rules which require that all excess tax benefits and deficiencies from stock-based compensation be recognized as a component of income tax expense.

During fiscal 2016, we acquired SolidFire and recorded a tax charge of \$64 million related to the integration of SolidFire intellectual property into our worldwide operations.

The components of our deferred tax assets and liabilities are as follows (in millions):

	April 27, 2018	April 28, 2017
Deferred tax assets:		
Reserves and accruals	\$ 57	\$ 149
Net operating loss and credit carryforwards	131	104
Stock-based compensation	22	49
Deferred revenue	211	329
Other	29	32
Gross deferred tax assets	450	663
Valuation allowance	(109)	(94)
Deferred tax assets, net of valuation allowance	341	569
Deferred tax liabilities:		
Prepays and accruals	2	3
Acquired intangibles	29	36
Property and equipment	25	4
Other	16	2
Total deferred tax liabilities	72	45
Deferred tax assets, net of valuation allowance and deferred tax liabilities	\$ 269	\$ 524

The valuation allowance increased by \$15 million in fiscal 2018. The increase is mainly attributable to corresponding changes in deferred tax assets, primarily foreign tax credit carryforwards and certain state tax credit carryforwards.

As of April 27, 2018, we have federal net operating loss and tax credit carryforwards of approximately \$7 million and \$3 million, respectively. In addition, we have gross state net operating loss and tax credit carryforwards of \$29 million and \$146 million, respectively. The majority of the state credit carryforwards are California research credits which are offset by a valuation allowance as we believe it is more likely than not that these credits will not be utilized. We also have \$4 million of foreign net operating losses, and \$28 million of foreign tax credit carryforwards generated by our Dutch subsidiary which are fully offset by a valuation allowance. Certain acquired net operating loss and credit carryforwards are subject to an annual limitation under Internal Revenue Code Section 382, but are expected to be realized with the exception of those which have a valuation allowance. The federal, state, and foreign net operating loss carryforwards and credits will expire in various years from fiscal 2019 through 2038. The California research credit and Dutch foreign tax credit carryforwards do not expire.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Balance at beginning of period	\$ 218	\$ 216	\$ 272
Additions based on tax positions related to the current year	131	7	14
Additions for tax positions of prior years	—	7	21
Decreases for tax positions of prior years	(1)	—	(39)
Settlements	—	(12)	(52)
Balance at end of period	\$ 348	\$ 218	\$ 216

As of April 27, 2018, we had \$348 million of gross unrecognized tax benefits, of which \$318 million has been recorded in other long-term liabilities. Unrecognized tax benefits of \$294 million, including penalties, interest and indirect benefits, would affect our provision for income taxes if recognized. As a result of U.S. tax reform, we recorded provisional gross unrecognized tax benefits of \$114 million.

We recognized accrued interest and penalties related to unrecognized tax benefits in the income tax provision of approximately \$5 million in each of fiscal 2018 and 2017, and \$2 million in fiscal 2016. Accrued interest and penalties of \$22 million and \$16 million were recorded in the consolidated balance sheets as of April 27, 2018 and April 28, 2017, respectively.

The tax years that remain subject to examination for our major tax jurisdictions are shown below:

Fiscal Years Subject to Examination for Major Tax Jurisdictions at April 27, 2018

2012 — 2018	United States — federal income tax
2008 — 2018	United States — state and local income tax
2012 — 2018	Australia
2013 — 2018	Germany
2007 — 2018	India
2012 — 2018	Japan
2013 — 2018	The Netherlands
2015 — 2018	United Kingdom
2010 — 2018	Canada

We are currently undergoing various income tax audits in the U.S. and several foreign tax jurisdictions. Transfer pricing calculations are key issues under these audits and are often subject to dispute and appeals.

In October 2015, the Internal Revenue Service (IRS) completed the examination of our fiscal 2008 to 2010 income tax returns and made certain agreed-to transfer pricing adjustments. During fiscal 2016, we recorded charges totaling \$23 million attributable to audit settlements and the related re-measurement of uncertain tax positions for tax years subject to future audits. The IRS commenced the examination of our federal income tax returns for our fiscal years 2012 and 2013 in August 2016. In addition, we are effectively subject to federal tax examination adjustments for tax years ended on or after fiscal 2001, in that we have carryforward attributes from these years that could be subject to adjustment in the tax years of utilization.

In September 2010, the Danish Tax Authorities issued a decision concluding that distributions declared in 2005 and 2006 by our Danish subsidiary were subject to Danish at-source dividend withholding tax. We do not believe that our Danish subsidiary is liable for such withholding tax and filed an appeal with the Danish Tax Tribunal to that effect. In December 2011, the Danish Tax Tribunal issued a ruling in favor of NetApp. The Danish tax examination agency appealed this decision at the Danish High Court (DHC) in March 2012. In February 2016, the DHC requested a preliminary ruling from the Court of Justice of the European Union (CJEU). Parties were heard before the court in October 2017. During March 2018, the Advocate General issued an opinion which was largely in favor of NetApp, however, the CJEU is not bound by the opinion of the Advocate General. It is expected that the preliminary ruling will be issued during our fiscal year 2019. Once a ruling has been issued by the CJEU, it will be reviewed and may be subjected to additional briefing by the DHC. Once complete, the DHC will then issue its final decision. We expect this decision to be complete sometime during our fiscal year 2019 or 2020.

We continue to monitor the progress of ongoing discussions with tax authorities and the impact, if any, of the expected expiration of the statute of limitations in various taxing jurisdictions. We engage in continuous discussion and negotiation with taxing authorities regarding tax matters in multiple jurisdictions. We believe that within the next 12 months, it is reasonably possible that either certain audits will conclude, certain statutes of limitations will lapse, or both. As a result of uncertainties regarding tax audits and their possible outcomes, an estimate of the range of possible impacts to unrecognized tax benefits in the next twelve months cannot be made at this time.

Prior to the passage of the TCJA, we had not provided U.S. income taxes and foreign withholding taxes on the undistributed earnings of foreign subsidiaries because we had intended to indefinitely reinvest such earnings outside the U.S. The TCJA imposes a one-time transition tax on substantially all accumulated foreign earnings through December 31, 2017 and generally allows companies to make distributions of foreign earnings without incurring additional federal taxes. As a part of the provisional estimates recorded during fiscal 2018, we considered the impacts of the TCJA and reviewed our projected global cash requirements, and have determined that certain historical and future foreign earnings will no longer be indefinitely reinvested. As of April 27, 2018, we estimate the unrecognized deferred tax liability related to the earnings we expect to be indefinitely reinvested to be immaterial. We will continue to monitor our plans to indefinitely reinvest undistributed earnings of foreign subsidiaries and will assess the related unrecognized deferred tax liability considering our ongoing projected global cash requirements, tax consequences associated with repatriation and any U.S. or foreign government programs designed to influence remittances.

15. Net Income per Share

The following is a calculation of basic and diluted net income per share (in millions, except per share amounts):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Numerator:			
Net income	\$ 76	\$ 509	\$ 229
Denominator:			
Shares used in basic computation	268	275	294
Dilutive impact of employee equity award plans	8	6	3
Shares used in diluted computation	276	281	297
Net Income per Share:			
Basic	\$ 0.28	\$ 1.85	\$ 0.78
Diluted	\$ 0.28	\$ 1.81	\$ 0.77

Potential shares from outstanding employee equity awards totaling 1 million, 6 million and 12 million for fiscal 2018, 2017 and 2016, respectively, were excluded from the diluted net income per share calculations as their inclusion would have been anti-dilutive.

16. Segment, Geographic, and Significant Customer Information

We operate in one industry segment: the design, manufacturing, marketing, and technical support of high-performance storage and data management solutions. We conduct business globally, and our sales and support activities are managed on a geographic basis. Our management reviews financial information presented on a consolidated basis, accompanied by disaggregated information it receives from our internal management system about revenues by geographic region, based on the location from which the customer relationship is managed, for purposes of allocating resources and evaluating financial performance. We do not allocate costs of revenues, research and development, sales and marketing, or general and administrative expenses to our geographic regions in this internal management reporting because management does not review operations or operating results, or make planning decisions, below the consolidated entity level.

Summarized revenues by geographic region based on information from our internal management system and utilized by our Chief Executive Officer, who is considered our Chief Operating Decision Maker, is as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
United States, Canada and Latin America (Americas)	\$ 3,184	\$ 3,077	\$ 3,067
Europe, Middle East and Africa (EMEA)	1,883	1,712	1,757
Asia Pacific (APAC)	844	730	722
Net revenues	\$ 5,911	\$ 5,519	\$ 5,546

Americas revenues consist of sales to Americas commercial and U.S. public sector markets. Sales to customers inside the U.S. were \$2,861 million, \$2,774 million and \$2,753 million during fiscal 2018, 2017 and 2016, respectively.

The majority of our assets, excluding cash, cash equivalents, short-term investments and accounts receivable, were attributable to our domestic operations. The following table presents cash, cash equivalents and short-term investments held in the U.S. and internationally in various foreign subsidiaries (in millions):

	April 27, 2018	April 28, 2017
U.S.	\$ 853	\$ 425
International	4,538	4,496
Total	\$ 5,391	\$ 4,921

With the exception of property and equipment, we do not identify or allocate our long-lived assets by geographic area. The following table presents property and equipment information for geographic areas based on the physical location of the assets (in mil lions):

	April 27, 2018	April 28, 2017
U.S.	\$ 566	\$ 593
International	190	206
Total	\$ 756	\$ 799

The following customers, each of which is a distributor, accounted for 10% or more of our net revenues:

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
Arrow Electronics, Inc.	23%	22%	22%
Tech Data Corporation (previously presented as Avnet, Inc.)	19%	20%	19%

The following customers accounted for 10% or more of accounts receivable:

	April 27, 2018	April 28, 2017
Arrow Electronics, Inc.	17%	15%
Tech Data Corporation (previously presented as Avnet, Inc.)	17%	14%

17. Employee Benefits and Deferred Compensation

Employee 401(k) Plan

Our 401(k) Plan is a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the 401(k) Plan, participating U.S. employees may defer a portion of their pre-tax earnings, up to the IRS annual contribution limit. We match 100% of the first 2% of eligible earnings an employee contributes to the 401(k) Plan, and then match 50% of the next 4% of eligible earnings an employee contributes. An employee receives the full 4% match when he/she contributes at least 6% of his/her eligible earnings, up to a maximum calendar year matching contribution of \$6,000. Our employer matching contributions to the 401(k) Plan were as follows (in millions):

	Year Ended		
	April 27, 2018	April 28, 2017	April 29, 2016
401(k) matching contributions	\$ 28	\$ 30	\$ 35

Deferred Compensation Plan

We have a non-qualified deferred compensation plan that allows a group of employees within the U.S. to contribute base salary and commissions or incentive compensation on a tax deferred basis in excess of the IRS limits imposed on 401(k) plans. The marketable securities related to these investments are held in a Rabbi Trust. The related deferred compensation plan assets and liabilities under the non-qualified deferred compensation plan were as follows (in millions):

	April 27, 2018	April 28, 2017
Deferred compensation plan assets	\$ 31	\$ 31
Deferred compensation liabilities reported as:		
Accrued expenses	\$ 6	\$ 7
Other long-term liabilities	\$ 25	\$ 24

Postretirement Health Care Plan

Certain of our executive officers are eligible to participate in our Executive Retirement Medical Plan (the ERM Plan). The ERM Plan provides, upon retirement, medical benefits beyond the COBRA maximum benefit period to a defined group of senior executives based on minimum age, years of service and position. The ERM Plan was unfunded as of April 28, 2017 and April 27, 2018, and there is no minimum funding requirement under the ERM Plan.

In November 2016, we made certain amendments to the ERM Plan, which prior to amendment, provided group health insurance benefits to eligible retirees. Effective January 1, 2017, the amended ERM Plan provides each eligible retiree with a capped reimbursement of premiums for the period from January 1, 2017 through December 31, 2019. During the period from December 31, 2019 through December 31, 2021, participants in the ERM Plan will be eligible to receive a lump sum cash payment equal to two years of projected health care costs, or a prorated portion thereof, pursuant to the methodology set forth in the ERM Plan. Such payment will be made by us outside the ERM Plan as the ERM Plan is expected to terminate on December 31, 2019.

These plan amendments resulted in a prior service credit adjustment, with the following impacts to our consolidated financial statements in fiscal 2017 (in millions):

Decrease in other long-term liabilities	\$	23
Decrease in deferred tax assets	\$	9
Other comprehensive income, net of taxes	\$	14

Other Defined Benefit Plans

We maintain various defined benefit plans to provide termination and postretirement benefits to certain eligible employees outside of the U.S. We also provide disability benefits to certain eligible employees in the U.S. Eligibility is determined based on the terms of our plans and local statutory requirements.

Funded Status

The funded status of our postretirement health care and other defined benefit plans, which is recognized in other long-term liabilities in our consolidated balance sheets, was as follows (in millions):

	April 27, 2018		April 28, 2017	
Fair value of plan assets	\$	25	\$	23
Benefit obligations		(53)		(50)
Unfunded obligations	\$	(28)	\$	(27)

18. Commitments and Contingencies

Operating Leases

We lease various equipment, vehicles and office space in the U.S. and internationally.

Future annual minimum lease payments under all non-cancelable operating leases with an initial term in excess of one year as of April 27, 2018 are as follows (in millions):

	2019	2020	2021	2022	2023	Thereafter	Total
Operating lease commitments	\$ 55	\$ 46	\$ 34	\$ 22	\$ 13	\$ 23	\$ 193

Rent expense under all cancelable and non-cancelable operating leases was \$59 million, \$64 million and \$69 million in fiscal 2018, 2017 and 2016, respectively.

Purchase Orders and Other Commitments

In the ordinary course of business, we make commitments to third-party contract manufacturers to manage manufacturer lead times and meet product forecasts, and to other parties, to purchase various key components used in the manufacture of our products. A significant portion of our reported purchase commitments arising from these agreements consist of firm, non-cancelable, and unconditional commitments. As of April 27, 2018, we had \$374 million in non-cancelable purchase commitments for inventory. We record a liability for firm, non-cancelable and unconditional purchase commitments for quantities in excess of our future demand forecasts consistent with the valuation of our excess and obsolete inventory. As of April 27, 2018 and April 28, 2017, such liability amounted to \$14 million and \$10 million, respectively, and is included in accrued expenses in our consolidated balance sheets. To the extent that such forecasts are not achieved, our commitments and associated accruals may change.

In addition to inventory commitments with contract manufacturers and component suppliers, we have open purchase orders and contractual obligations associated with our ordinary course of business for which we have not yet received goods or services. As of April 27, 2018, we had \$7 million in construction related obligations and \$193 million in other purchase obligations.

Financing Guarantees

While most of our arrangements for sales include short-term payment terms, from time to time we provide long-term financing to creditworthy customers. We have generally sold receivables financed through these arrangements on a non-recourse basis to third party financing institutions within 10 days of the contracts' dates of execution, and we classify the proceeds from these sales as cash flows from operating activities in our consolidated statements of cash flows. We account for the sales of these receivables as "true sales" as defined in the accounting standards on transfers of financial assets, as we are considered to have surrendered control of these financing receivables. Provided all other revenue recognition criteria have been met, we recognize product revenues for these arrangements, net of any payment discounts from financing transactions, upon product acceptance. We sold \$67 million, \$183 million and \$243 million of receivables during fiscal 2018, 2017 and 2016, respectively.

In addition, we enter into arrangements with leasing companies for the sale of our hardware systems products. These leasing companies, in turn, lease our products to end-users. The leasing companies generally have no recourse to us in the event of default by the end-user and we recognize revenue upon delivery to the end-user customer, if all other revenue recognition criteria have been met.

Some of the leasing arrangements described above have been financed on a recourse basis through third-party financing institutions. Under the terms of recourse leases, which are generally three years or less, we remain liable for the aggregate unpaid remaining lease payments to the third-party leasing companies in the event of end-user customer default. These arrangements are generally collateralized by a security interest in the underlying assets. Where we provide a guarantee for recourse leases, we defer revenues subject to the industry-specific software revenue recognition guidance, and recognize revenues for non-software deliverables in accordance with our multiple deliverable revenue arrangement policy. In connection with certain recourse financing arrangements, we receive advance payments associated with undelivered elements that are subject to customer refund rights. We defer revenue associated with these advance payments until the related refund rights expire and we perform the services. As of April 27, 2018, and April 28, 2017, the aggregate amount by which such contingencies exceeded the associated liabilities was not significant. To date, we have not experienced significant losses under our lease financing programs or other financing arrangements.

We have entered into service contracts with certain of our end-user customers that are supported by third-party financing arrangements. If a service contract is terminated as a result of our non-performance under the contract or our failure to comply with the terms of the financing arrangement, we could, under certain circumstances, be required to acquire certain assets related to the service contract or to pay the aggregate unpaid financing payments under such arrangements. As of April 27, 2018, we have not been required to make any payments under these arrangements, and we believe the likelihood of having to acquire a material amount of assets or make payments under these arrangements is remote. The portion of the financial arrangement that represents unearned services revenue is included in deferred revenue and financed unearned services revenue in our consolidated balance sheets.

Indemnification Agreements

We enter into standard indemnification agreements in the ordinary course of business. Pursuant to these agreements, we agree to defend and indemnify other parties, primarily our customers or business partners or subcontractors, for damages and reasonable costs incurred in any suit or claim brought against them alleging that our products sold to them infringe any U.S. patent, copyright, trade secret, or similar right. If a product becomes the subject of an infringement claim, we may, at our option: (i) replace the product with another non-infringing product that provides substantially similar performance; (ii) modify the infringing product so that it no longer infringes but remains functionally equivalent; (iii) obtain the right for the customer to continue using the product at our expense and for the reseller to continue selling the product; (iv) take back the infringing product and refund to the customer the purchase price paid less depreciation amortized on a straight-line basis. We have not been required to make material payments pursuant to these provisions historically. We have not recorded any liability at April 27, 2018 related to these guarantees since the maximum amount of potential future payments under such guarantees, indemnities and warranties is not determinable, other than as described above.

Legal Contingencies

When a loss is considered probable and reasonably estimable, we record a liability in the amount of our best estimate for the ultimate loss. However, the likelihood of a loss with respect to a particular contingency is often difficult to predict and determining a meaningful estimate of the loss or a range of loss may not be practicable based on the information available and the potential effect of future events and decisions by third parties that will determine the ultimate resolution of the contingency.

We are subject to various legal proceedings and claims that arise in the normal course of business. We may, from time to time, receive claims that we are infringing third parties' intellectual property rights, including claims for alleged patent infringement brought by non-practicing entities. We are currently involved in patent litigations brought by non-practicing entities and other third parties. We believe we have strong arguments that our products do not infringe and/or the asserted patents are invalid, and we intend to vigorously defend against the plaintiffs' claims. However, there is no guarantee that we will prevail at trial and if a jury were to find that our products infringe, we could be required to pay significant monetary damages, and may cause product shipment delays, require us to redesign our products, or require us to enter into royalty or licensing agreements.

Although management at present believes that the ultimate outcome of these proceedings, individually and in the aggregate, will not materially harm our financial position, results of operations, cash flows, or overall trends, legal proceedings are subject to inherent uncertainties, and unfavorable rulings or other events could occur. Unfavorable resolutions could include significant monetary damages. In addition, in matters for which injunctive relief or other conduct remedies are sought, unfavorable resolutions could include an injunction or other order prohibiting us from selling one or more products at all or in particular ways or requiring other remedies. An unfavorable outcome may result in a material adverse impact on our business, results of operations, financial position, and overall trends. No material accrual has been recorded as of April 27, 2018 related to such matters.

Selected Quarterly Financial Data (Unaudited)

Selected quarterly financial data is as follows (in millions, except per share amounts):

	Quarter Ended			
	July 28, 2017	October 27, 2017	January 26, 2018	April 27, 2018
Net revenues	\$ 1,325	\$ 1,422	\$ 1,523	\$ 1,641
Gross profit	\$ 834	\$ 902	\$ 941	\$ 1,022
Provision for income taxes (1)	\$ 17	\$ 50	\$ 991	\$ 32
Net income (loss)	\$ 136	\$ 175	\$ (506)	\$ 271
Net income (loss) per share, basic	\$ 0.50	\$ 0.65	\$ (1.89)	\$ 1.02
Net income (loss) per share, diluted	\$ 0.49	\$ 0.64	\$ (1.89)	\$ 0.99

	Quarter Ended			
	July 29, 2016	October 28, 2016	January 27, 2017	April 28, 2017
Net revenues	\$ 1,294	\$ 1,340	\$ 1,404	\$ 1,481
Gross profit	\$ 797	\$ 829	\$ 851	\$ 913
Provision for income taxes	\$ 28	\$ 33	\$ 37	\$ 58
Net income	\$ 64	\$ 109	\$ 146	\$ 190
Net income per share, basic	\$ 0.23	\$ 0.39	\$ 0.53	\$ 0.70
Net income per share, diluted	\$ 0.23	\$ 0.38	\$ 0.52	\$ 0.68

(1) In the quarter ended January 26, 2018, our provision for income taxes included significant charges attributable to United States tax reform.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
NetApp, Inc.
Sunnyvale, California

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of NetApp, Inc. and subsidiaries (the "Company") as of April 27, 2018 and April 28, 2017, the related consolidated statements of operations, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended April 27, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of April 27, 2018 and April 28, 2017, and the results of its operations and its cash flows for each of the three years in the period ended April 27, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of April 27, 2018, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated June 19, 2018, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
June 19, 2018

We have served as the Company's auditor since 1995.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
NetApp, Inc.
Sunnyvale, California

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of NetApp, Inc. and subsidiaries (the “Company”) as of April 27, 2018, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of April 27, 2018, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended April 27, 2018, of the Company and our report dated June 19, 2018, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ DELOITTE & TOUCHE LLP

San Jose, California
June 19, 2018

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

None.

Item 9A. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

The phrase “disclosure controls and procedures” refers to controls and procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934, as amended (the Exchange Act), such as this Annual Report on Form 10-K, is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the U.S. Securities and Exchange Commission (SEC). Disclosure controls and procedures are also designed to ensure that such information is accumulated and communicated to our management, including our Chief Executive Officer (CEO) and our Chief Financial Officer (CFO), as appropriate to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our CEO and CFO, we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of April 27, 2018, the end of the fiscal period covered by this Annual Report on Form 10-K (the Evaluation Date). Based on this evaluation, our CEO and CFO concluded as of the Evaluation Date that our disclosure controls and procedures were effective such that the information required to be disclosed in our SEC reports (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and (ii) is accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

(b) Management’s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Our 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. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, our management concluded that, as of April 27, 2018, our internal control over financial reporting was effective at the reasonable assurance level based on those criteria.

The effectiveness of our internal control over financial reporting as of April 27, 2018 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is included in Part II, Item 8 of this Annual Report on Form 10-K.

(c) Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting identified in connection with our evaluation required by paragraph (d) of rules 13a-15 and 15d-15 under the Exchange Act that occurred during the fourth quarter of fiscal 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PA RT III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by Item 10 with respect to our executive officers is incorporated herein by reference from the information under Item 1 – Business of Part I of this Annual Report on Form 10-K under the section entitled “Executive Officers.” The information required by Item 10 with respect to the Company’s directors and corporate governance is incorporated herein by reference from the information provided under the headings “Election of Directors” and “Corporate Governance,” respectively, in the Proxy Statement for the 2018 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission within 120 days of our year ended April 27, 2018. The information required by Item 405 of Regulation S-K is incorporated herein by reference from the information provided under the heading “Section 16(a) Beneficial Ownership Reporting Compliance” in the Proxy Statement for the 2018 Annual Meeting of Stockholders.

We have adopted a written code of ethics that applies to our Board of Directors and all of our employees, including our principal executive officer and principal financial and accounting officer. A copy of the code of ethics, which we refer to as our “Code of Conduct,” is available on our website at <http://investors.netapp.com/governance.cfm>. We will post any amendments to or waivers from the provisions of our Code of Conduct on our website.

Item 11. Executive Compensation

Information regarding the compensation of executive officers and directors of the Company is incorporated by reference from the information under the headings “Executive Compensation and Related Information” and “Director Compensation,” respectively, in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

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

Information regarding security ownership of certain beneficial owners and management and related stockholder matters is incorporated by reference from the information under the heading “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

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

Information regarding certain relationships and related transactions and director independence is incorporated by reference from the information under the headings “Corporate Governance” and “Certain Transactions with Related Parties” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

Item 14. Principal Accountant Fees and Services

The information required by this item is incorporated by reference from the information under the caption “Audit Fees” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

With the exception of the information incorporated in Items 10, 11, 12, 13 and 14 of this Annual Report on Form 10-K, NetApp’s Proxy Statement is not deemed “filed” as part of this Annual Report on Form 10-K.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as part of this report

(1) All Financial Statements

See index to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K

(2) Financial Statement Schedules

All financial statement schedules have been omitted, since the required information is not applicable or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the consolidated financial statements and notes thereto included in this Form 10-K.

(3) Exhibits required by Item 601 of Regulation S-K

The information required by this Section (a)(3) of Item 15 is as follows:

EXHIBIT INDEX

Exhibit No	Description	Incorporation by Reference			
		Form	File No.	Exhibit	Filing Date
3.1	Certificate of Incorporation of the Company, as amended.	10-Q	000-27130	3.1	November 26, 2013
3.2	Bylaws of the Company.	8-K	000-27130	3.1	April 30, 2018
4.1	Indenture dated December 12, 2012, by and between the Company and U.S. Bank National Association.	8-K	000-27130	4.1	December 12, 2012
4.2	First Supplemental Indenture dated December 12, 2012, by and between the Company and U.S. Bank National Association.	8-K	000-27130	4.2	December 12, 2012
4.3	Second Supplemental Indenture dated June 5, 2014 by and between the Company and U.S. Bank National Association.	8-K	000-27130	4.1	June 5, 2014
4.4	Third Supplemental Indenture dated September 29, 2017 by and between the Company and U.S. Bank National Association.	8-K	000-27130	4.2	September 29, 2017
10.1*	Form of Indemnification Agreement by and between the Company and each of its directors and executive officers.	10-Q	000-27130	10.1	August 28, 2014
10.2*	Form of Change of Control Severance Agreement.	8-K	000-27130	10.1	June 28, 2016
10.3*	The Company's Amended and Restated Executive Compensation Plan, as amended effective July 23, 2014.	DEF 14A	000-27130	Appendix C	July 25, 2014
10.4*	The Company's Deferred Compensation Plan.	8-K	000-27130	2.1	July 7, 2005
10.5*	The Company's Amended and Restated Employee Stock Purchase Plan, as amended effective July 17, 2017.	DEF 14A	000-27130	Appendix B	August 1, 2017
10.6*	The Company's Amended and Restated 1995 Stock Incentive Plan.	DEF 14A	000-27130		August 21, 1998
10.7*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1995 Stock Option Plan.	10-K	000-27130	10.21	July 8, 2005
10.8*	Form of Stock Issuance Agreement approved for use under the Company's amended and restated 1995 Stock Option Plan (Restricted Stock).	10-K	000-27130	10.23	July 8, 2005
10.9*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1995 Stock Option Plan (Chairman of the Board or any Board Committee Chairperson).	10-K	000-27130	10.22	July 8, 2005
10.10*	The Company's Amended and Restated 1999 Stock Option Plan, as amended effective July 20, 2017.	DEF 14A	000-27130	Appendix A	August 1, 2017

Exhibit No	Description	Incorporation by Reference			
		Form	File No.	Exhibit	Filing Date
10.11*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan.	10-Q	000-27130	10.3	November 26, 2013
10.12*	Form of Restricted Stock Unit Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (Employees).	10-Q	000-27130	10.4	November 26, 2013
10.13*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (Non-Employee Director Automatic Stock Option — Initial).	10-K	000-27130	10.29	July 8, 2005
10.14*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (Non-Employee Director Automatic Stock Option — Annual).	10-K	000-27130	10.28	July 8, 2005
10.15*	Form of Restricted Stock Unit Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (Non-Employees Directors).	10-K	000-27130	10.17	June 18, 2010
10.16*	Form of Restricted Stock Unit Agreement (Performance Based) under the NetApp, Inc. 1999 Stock Option Plan.	8-K	000-27130	10.1	June 26, 2015
10.17*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (China).	10-K	000-27130	10.27	July 8, 2005
10.18*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (France).	10-K	000-27130	10.30	July 8, 2005
10.19*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (India).	10-K	000-27130	10.31	July 8, 2005
10.20*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (United Kingdom).	10-K	000-27130	10.32	July 8, 2005
10.21*	Form of Stock Option Agreement approved for use under the Company's amended and restated 1999 Stock Option Plan (Israel).	10-K	000-27130	10.81	June 24, 2008
10.22*	Onaro, Inc. Amended and Restated 2002 Stock Option and Incentive Plan (including Appendix — Israeli Taxpayers).	S-8	333-149375	4.1	February 25, 2008
10.23*	Bycast Inc. 2010 Equity Incentive Plan.	S-8	333-167619	99.1	June 18, 2010
10.24*	Incentive Stock Option Plan of Bycast Inc.	S-8	333-167619	99.2	June 18, 2010
10.25*	SolidFire, Inc. 2010 Stock Incentive Plan.	S-8	333-209570	99.1	February 17, 2016
10.26*	SolidFire, Inc. 2016 Equity Incentive Plan.	S-8	333-209570	99.2	February 17, 2016
10.27*	Outside Director Compensation Policy.	10-K	000-27130	10.65	June 19, 2012

Exhibit No	Description	Incorporation by Reference			
		Form	File No.	Exhibit	Filing Date
10.28 *	Offer Letter for employment at the Company to Ronald Pasek, dated March 22, 2016.	10-K	000-27130	10.35	June 22, 2016
10.29*	NetApp, Inc. Executive Retiree Health Plan, as amended and restated.	8-K	000-27130	10.1	November 21, 2016
10.30	Credit Agreement, dated as of December 12, 2016, by and among the Company, the lenders from time to time party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Bank of America, N.A. and Wells Fargo Bank, National Association, as co-syndication agents, and The Bank of Tokyo-Mitsubishi UFJ, Ltd. and Citibank, N.A., as co-documentation agents.	8-K	000-27130	10.1	December 12, 2016
10.31	Amendment No. 1 to Credit Agreement, dated as of July 17, 2017, by and among the Company, the financial institutions listed on the signature pages and JPMorgan Chase Bank, N.A., as administrative agent.	8-K	000-27130	10.1	July 17, 2017
10.32	Form of Dealer Agreement between the Company, as issuer, and each Dealer.	8-K	000-27130	10.2	December 12, 2016
10.33	Collared Accelerated Share Repurchase Transaction dated as of June 5, 2013, by and between the Company and Goldman, Sachs & Co.	10-Q	000-27130	10.1	August 29, 2013
10.34	Agreement of Purchase and Sale and Joint Escrow Instructions dated as of March 9, 2016 by and between the Company and Google Inc.	10-K	000-27130	10.41	June 22, 2016
10.35	First Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of March 11, 2016, by and between the Company and Google Inc.	10-K	000-27130	10.42	June 22, 2016
10.36	Second Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of April 8, 2016, by and between the Company and Google Inc.	10-K	000-27130	10.43	June 22, 2016
10.37	Agreement of Purchase and Sale and Joint Escrow Instructions dated as of September 11, 2017 by and between the Company and Google Inc.	10-Q	000-27130	10.2	November 29, 2017
10.38	First Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of October 2, 2017, by and between the Company and Google LLC.	10-Q	000-27130	10.3	November 29, 2017
10.39	Second Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of October 25, 2017, by and between the Company and Google LLC.	10-Q	000-27130	10.4	November 29, 2017

Exhibit No	Description	Incorporation by Reference			
		Form	File No.	Exhibit	Filing Date
10.40	Third Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of October 31, 2017, by and between the Company and Google LLC.	10-Q	000-27130	10.1	February 22, 2018
10.41	Fourth Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of November 2, 2017, by and between the Company and Google LLC.	10-Q	000-27130	10.2	February 22, 2018
10.42	Fifth Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of November 8, 2017, by and between the Company and Google LLC.	10-Q	000-27130	10.3	February 22, 2018
10.43	Sixth Amendment to Agreement of Purchase and Sale and Joint Escrow Instructions dated as of November 10, 2017, by and between the Company and Google LLC.	10-Q	000-27130	10.4	February 22, 2018
21.1	Subsidiaries of the Company.	—	—	—	—
23.1	Consent of Independent Registered Public Accounting Firm.	—	—	—	—
24.1	Power of Attorney (see signature page).	—	—	—	—
31.1	Certification of the Chief Executive Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.	—	—	—	—
31.2	Certification of the Chief Financial Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.	—	—	—	—
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002.	—	—	—	—
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002.	—	—	—	—
101.INS	XBRL Instance Document	—	—	—	—
101.SCH	XBRL Taxonomy Extension Schema Document	—	—	—	—
101.CAL	XBRL Taxonomy Calculation Linkbase Document	—	—	—	—
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	—	—	—	—
101.LAB	XBRL Taxonomy Label Linkbase Document	—	—	—	—
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	—	—	—	—

* Identifies management plan or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NETAPP, INC.

By: /s/ GEORGE KURIAN
 George Kurian
Chief Executive Officer and President
(Principal Executive Officer and Principal Operating Officer)

Date: June 19, 2018

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints George Kurian and Ronald J. Pasek, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u> /s/ GEORGE KURIAN </u> George Kurian	Chief Executive Officer and President (Principal Executive Officer and Principal Operating Officer)	June 19, 2018
<u> /s/ RONALD J. PASEK </u> Ronald J. Pasek	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	June 19, 2018
<u> /s/ T. MICHAEL NEVENS </u> T. Michael Nevens	Chairman of the Board	June 19, 2018
<u> /s/ ALAN L. EARHART </u> Alan L. Earhart	Director	June 19, 2018
<u> /s/ GERALD HELD </u> Gerald Held	Director	June 19, 2018
<u> /s/ KATHRYN M. HILL </u> Kathryn M. Hill	Director	June 19, 2018
<u> /s/ DEBORAH KERR </u> Deborah Kerr	Director	June 19, 2018
<u> /s/ SCOTT SCHENKEL </u> Scott Schenkel	Director	June 19, 2018
<u> /s/ GEORGE T. SHAHEEN </u> George T. Shaheen	Director	June 19, 2018
<u> /s/ RICHARD P. WALLACE </u> Richard P. Wallace	Director	June 19, 2018

SUBSIDIARIES OF THE COMPANY

Name	Jurisdiction of Incorporation or Organization
NetApp Argentina S.R.L.	Argentina
NetApp Australia Pty. Ltd.	Australia
NetApp Austria GmbH	Austria
BYMS International, Inc.	Barbados
NetApp Belgium BVBA	Belgium
NetApp Global Limited	Bermuda
NetApp Global Holdings Ltd.	Bermuda
NetApp Brasil Solucoes de Gerenciamento e Armazenamento de Dados Ltda	Brazil
NetApp U.S. Public Sector, Inc.	California
NetCache, Inc.	California
NetApp Canada Ltd.	Canada
NetApp VTC, Inc.	Canada
NetApp Chile Limitada	Chile
NetApp (Shanghai) Commercial Co., Ltd.	China
NetApp Holdings Limited	Cyprus
NetApp Capital Solutions, Inc.	Delaware
SolidFire, LLC	Delaware
SolidFire International, LLC	Delaware
SolidFire Holdings, LLC	Delaware
Sonoma Holdings, LLC	Delaware
Blue Steel Acquisition LLC	Delaware
Clu Acquisition LLC	Delaware
Onaro, Inc.	Delaware
NetApp Denmark ApS	Denmark
NetApp Finland Oy	Finland
NetApp France SAS	France
NetApp Deutschland GmbH	Germany
NetApp (China) Limited	Hong Kong
NetApp (Hong Kong) Limited	Hong Kong
Greenqloud ehf.	Iceland
NetApp India Private Limited	India
NetApp India Marketing and Services Private Limited	India
PT. NetApp Indonesia	Indonesia
Network Appliance (Sales) Limited	Ireland
NetApp Israel R&D Ltd.	Israel
NetApp Israel Sales Limited	Israel
Onaro Israel, Ltd.	Israel
Plexistor Ltd.	Israel
Scharfnet, Ltd	Israel
NetApp Italia S.r.l.	Italy
NetApp G.K.	Japan
NetApp Korea Limited	Korea
NetApp Luxembourg S.a.r.l.	Luxembourg
NetApp Malaysia Sdn. Bhd.	Malaysia
NetApp Mexico S. de R.L. de C.V.	Mexico
NetApp New Zealand Limited	New Zealand
NetApp Nigeria Limited	Nigeria
NetApp Norway AS	Norway
NetApp Poland Sp. spółka z ograniczoną odpowiedzialnością	Poland
NetApp Russia LLC	Russia
Network Appliance Saudi Arabia LLC	Saudi Arabia
NetApp Singapore Pte. Ltd.	Singapore
NetApp South Africa (Pty) Limited	South Africa
NetApp Spain Sales SL	Spain
NetApp Sweden AB	Sweden
NetApp Switzerland GmbH	Switzerland
NetApp (Thailand) Limited	Thailand

Name	Jurisdiction of Incorporation or Organization
Decru B.V.	The Netherlands
NA Technology C.V.	The Netherlands
NetApp Asia Pacific Holdings B.V.	The Netherlands
NetApp B.V.	The Netherlands
NetApp Holding & Manufacturing B.V.	The Netherlands
SolidFire B.V.	The Netherlands
SolidFire Holdings, C.V.	The Netherlands
Sonoma Holdings C.V.	The Netherlands
NetApp Teknoloji Limited Sirketi	Turkey
NetApp UK Ltd.	United Kingdom
NetApp Vietnam Company Limited	Vietnam

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-25277, 333-40307, 333-32318, 333-41384, 333-53776, 333-57378, 333-73982, 333-100837, 333-109627, 333-113200, 333-119640, 333-125448, 333-128098, 333-133564, 333-138337, 333-139835, 333-147034, 333-149375, 333-154867, 333-162696, 333-167619, 333-170089, 333-172081, 333-178213, 333-184259, 333-185216, 333-186967, 333-192564, 333-200586, 333-208309, 333-209570, 333-214886, 333-219061, 333-220230 and 333-221809 on Form S-8, Registration Statement Nos. 333-185217, 333-208311, 333-223154, 333-26163, 333-41386 and 333-74979 on Form S-3 of our reports dated June 19, 2018, relating to the consolidated financial statements of NetApp, Inc. and subsidiaries, and the effectiveness of NetApp, Inc. and subsidiaries' internal control over financial reporting, appearing in this Annual Report on Form 10-K of NetApp, Inc. for the year ended April 27, 2018.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
June 19, 2018

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

I, George Kurian, certify that:

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

/s/ GEORGE KURIAN

George Kurian

Chief Executive Officer and President

(Principal Executive Officer and Principal Operating Officer)

Date: June 19, 2018

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

I, Ronald J. Pasek, certify that:

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

/s/ RONALD J. PASEK

Ronald J. Pasek

*Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)*

Date: June 19, 2018

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

I, George Kurian, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of NetApp, Inc., on Form 10-K for the year ended April 27, 2018 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of NetApp, Inc.

/s/ GEORGE KURIAN

George Kurian

Chief Executive Officer and President

(Principal Executive Officer and Principal Operating Officer)

Date: June 19, 2018

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

I, Ronald J. Pasek, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of NetApp, Inc., on Form 10-K for the year ended April 27, 2018 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of NetApp, Inc.

/s/ RONALD J. PASEK

Ronald J. Pasek

Executive Vice President and Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)

Date: June 19, 2018