NetApp, Inc.
Form 10-Q
November 19, 2018
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended October 26, 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, Inc.

(Exact name of registrant as specified in its charter)

Delaware	77-0307520
(State or other jurisdiction of incorporation or organization)	(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)

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

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

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

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

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

Indicate the number of shares outstanding of each of the issuer’s classes of common stock, as of the latest practicable date.

As of November 14, 2018, there were 251,885,962 shares of the registrant’s common stock, $0.001 par value, outstanding.

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PART I — FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements (Unaudited)

NETAPP, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

(In millions, except par value)

(Unaudited)

	October 26, 2018	April 27, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 2,359	$ 2,941
Short-term investments	1,940	2,450
Accounts receivable	765	1,047
Inventories	86	122
Other current assets	321	392
Total current assets	5,471	6,952
Property and equipment, net	770	756
Goodwill	1,742	1,739
Other intangible assets, net	69	94
Other non-current assets	499	450
Total assets	$ 8,551	$ 9,991
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 472	$ 609
Accrued expenses	652	825
Commercial paper notes	249	385
Current portion of long-term debt	399	—
Short-term deferred revenue and financed unearned services revenue	1,538	1,712
Total current liabilities	3,310	3,531
Long-term debt	1,144	1,541
Other long-term liabilities	899	992
Long-term deferred revenue and financed unearned services revenue	1,668	1,651
Total liabilities	7,021	7,715
Commitments and contingencies (Note 15)		

Stockholders' equity:		
Common stock and additional paid-in capital, $0.001 par value; 254 and 263 shares issued and outstanding as of October 26, 2018 and April 27, 2018	1,605	2,355
Retained earnings (accumulated deficit)	—	(9)
Accumulated other comprehensive loss	(75)	(70)
Total stockholders' equity	1,530	2,276
Total liabilities and stockholders' equity	$ 8,551	$ 9,991

See accompanying notes to condensed consolidated financial statements.

NETAPP, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In millions, except per share amounts)

(Unaudited)

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Revenues:				
Product	$913	$819	$1,788	$1,546
Software maintenance	236	224	465	447
Hardware maintenance and other services	368	372	738	743
Net revenues	1,517	1,415	2,991	2,736
Cost of revenues:				
Cost of product	428	397	826	773
Cost of software maintenance	8	6	15	13
Cost of hardware maintenance and other services	107	112	213	226
Total cost of revenues	543	515	1,054	1,012
Gross profit	974	900	1,937	1,724
Operating expenses:				
Sales and marketing	408	421	817	844
Research and development	211	194	419	387
General and administrative	69	69	142	137
Restructuring charges	—	—	19	—
Total operating expenses	688	684	1,397	1,368
Income from operations	286	216	540	356
Other income, net	7	6	25	11
Income before income taxes	293	222	565	367
Provision for income taxes	52	48	41	62
Net income	$241	$174	$524	$305
Net income per share:				
Basic	$0.93	$0.65	$2.02	$1.13
Diluted	$0.91	$0.63	$1.96	$1.10
Shares used in net income per share calculations:				
Basic	258	269	260	270
Diluted	264	275	267	277
Cash dividends declared per share	$0.40	$0.20	$0.80	$0.40

See accompanying notes to condensed consolidated financial statements.

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NETAPP, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In millions)

(Unaudited)

.	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Net income	$241	$ 174	$524	$ 305
Other comprehensive income (loss):				
Foreign currency translation adjustments	(3)	(2)	(3)	8
Defined benefit obligations:				
Reclassification adjustments related to defined benefit obligations	(1)	(1)	(1)	(1)
Income tax effect	—	1	—	1
Unrealized gains (losses) on available-for-sale securities:				
Unrealized holding gains (losses) arising during the period	(1)	(4)	(1)	2
Other comprehensive income (loss)	(5)	(6)	(5)	10
Comprehensive income	$236	$ 168	$519	$ 315

See accompanying notes to condensed consolidated financial statements.

NETAPP, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions)

(Unaudited)

	Six Months Ended	
	October 26, 2018	October 27, 2017
Cash flows from operating activities:		
Net income	$ 524	$ 305
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	98	102
Stock-based compensation	78	87
Deferred income taxes	(25)	40
Other items, net	11	(5)
Changes in assets and liabilities, net of acquisitions of businesses:		
Accounts receivable	269	146
Inventories	36	58
Other operating assets	(19)	29
Accounts payable	(127)	34
Accrued expenses	(162)	(68)
Deferred revenue and financed unearned services revenue	(129)	(163)
Long-term taxes payable	(63)	2
Other operating liabilities	—	(3)
Net cash provided by operating activities	491	564
Cash flows from investing activities:		
Purchases of investments	(20)	(609)
Maturities, sales and collections of investments	509	657
Purchases of property and equipment	(107)	(65)
Acquisitions of businesses, net of cash acquired	(3)	(75)
Other investing activities, net	2	—
Net cash provided by (used in) investing activities	381	(92)
Cash flows from financing activities:		
Proceeds from issuance of common stock under employee stock award plans	65	57
Payments for taxes related to net share settlement of stock awards	(89)	(60)
Repurchase of common stock	(1,061)	(300)
Proceeds from (repayments of) commercial paper notes, net	(135)	218
Issuance of long-term debt, net	—	795
Dividends paid	(207)	(108)

Other financing activities, net	(2)	(1)
Net cash provided by (used in) financing activities	(1,429)	601
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(25)	13
Net increase (decrease) in cash, cash equivalents and restricted cash	(582)	1,086
Cash, cash equivalents and restricted cash:		
Beginning of period	2,947	2,450
End of period	$ 2,365	$ 3,536

See accompanying notes to condensed consolidated financial statements.

NETAPP, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

1. Description of Business and Significant Accounting Policies

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.

Basis of Presentation and Preparation

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 years 2019 and 2018, ending on April 26, 2019, and April 27, 2018, respectively, are each 52-week years, with 13 weeks in each of their quarters.

The accompanying unaudited condensed consolidated financial statements have been prepared by the Company, and reflect all adjustments, consisting only of normal recurring adjustments, that are, in the opinion of management, necessary for the fair presentation of our financial position, results of operations, comprehensive income and cash flows for the interim periods presented. The statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) for interim financial information. Accordingly, these statements do not include all information and footnotes required by GAAP for annual consolidated financial statements, and should be read in conjunction with our audited consolidated financial statements as of and for the fiscal year ended April 27, 2018 contained in our Annual Report on Form 10-K. The results of operations for the three and six months ended October 26, 2018 are not necessarily indicative of the operating results to be expected for the full fiscal year or future operating periods.

The preparation of the condensed consolidated financial statements in conformity with 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 compensation and benefit accruals; stock-based compensation; loss contingencies; valuation of investment securities; income taxes and fair value measurements. Actual results could differ materially from those estimates.

Accounting Changes

In May 2014, the Financial Accounting Standards Board (FASB) issued a new standard, Revenue from Contracts with Customers (ASC 606), which 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. In the first quarter of fiscal 2019, we adopted this new standard using the full retrospective method of adoption. Accordingly, our prior period condensed consolidated financial statements and

information, as presented herein, have been restated to conform to the new rules. Refer to Note 5 – Revenue for a summary of the impacts of adopting this standard, and a discussion of our updated policies related to revenue recognition.

In October 2016, the FASB issued an accounting standards update (ASU) which eliminates the deferred tax effects of intra-entity asset transfers other than inventory. As a result, tax expense from the sale of an asset in the seller's tax jurisdiction is recognized when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. In the first quarter of fiscal 2019, we adopted this ASU using a modified retrospective transition approach and recorded a cumulative-effect adjustment to decrease retained earnings by $51 million, with a corresponding reduction of prepaid taxes, which were classified as other non-current assets on our condensed consolidated balance sheets.

In November 2016, the FASB issued an ASU that requires a statement of cash flows to explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. In the first quarter of fiscal 2019, we adopted this ASU using a retrospective transition method. Accordingly, our condensed consolidated statement of cash flows for the three and six months ended October 27, 2017, as presented herein, has been restated to comply with the new requirements. Refer to Note 4 – Supplemental Financial Information for a detail of the components of our cash, cash equivalents and restricted cash balances.

There have been no other significant changes in our significant accounting policies as of and for the six months ended October 26, 2018, as compared to the significant accounting policies described in our Annual Report on Form 10-K for the fiscal year ended April 27, 2018.

2. Recent Accounting Standards Not Yet Effective

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, the new standard, as amended, allows lessees to apply the transition requirements either (1) retrospectively to each prior reporting period presented in the financial statements with the cumulative effect of applying the new rules recognized at the beginning of the earliest comparative period presented, or (2) retrospectively at the beginning of the period of adoption with the cumulative effect of applying the new rules recognized then. 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.

3. Goodwill and Purchased Intangible Assets, Net

Goodwill activity is summarized as follows (in millions):

Balance as of April 27, 2018	$1,739
Additions	3
Balance as of October 26, 2018	$1,742

On September 17, 2018, we acquired all of the outstanding shares of a privately-held software company for $3 million in cash. Substantially all of the purchase price was recorded to goodwill.

Purchased intangible assets, net are summarized below (in millions):

	October 26, 2018	April 27, 2018

	Gross Assets	Accumulated Amortization	Net Assets	Gross Assets	Accumulated Amortization	Net Assets
Developed technology	$160	$ (95)	$ 65	$164	$ (80)	$ 84
Customer contracts/relationships	41	(37)	4	43	(33)	10
Other purchased intangibles	—	—	—	9	(9)	—
Total purchased intangible assets	$201	$ (132)	$ 69	$216	$ (122)	$ 94

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

	Three Months Ended October 26, 2018	Three Months Ended October 27, 2017	Six Months Ended October 26, 2018	Six Months Ended October 27, 2017	Statements of Operations Classification
Developed technology	$9	$ 9	$18	$ 17	Cost of revenues
Customer contracts/relationships	3	4	7	8	Operating expenses
Other purchased intangibles	—	1	—	2	Operating expenses
Total	$12	$ 14	$25	$ 27	

As of October 26, 2018, future amortization expense related to purchased intangible assets is as follows (in millions):

Fiscal Year	Amount
Remainder of 2019	$ 22
2020	31
2021	16
Total	$ 69

4. Supplemental Financial Information

Cash, cash equivalents and restricted cash (in millions):

The following table presents cash and cash equivalents as reported in our condensed consolidated balance sheets, as well as the sum of cash, cash equivalents and restricted cash as reported on our condensed consolidated statement of cash flows in accordance with our adoption of the ASU discussed in Note 1 – Description of Business and Significant Accounting Policies:

	October 26, 2018	April 27, 2018
Cash	$ 2,251	$ 2,727
Cash equivalents	108	214
Cash and cash equivalents	$ 2,359	$ 2,941
Short-term restricted cash	5	5
Long-term restricted cash	1	1
Restricted cash	$ 6	$ 6
Cash, cash equivalents and restricted cash	$ 2,365	$ 2,947

Inventories (in millions):

	October 26, 2018	April 27, 2018
Purchased components	$ 12	$ 12
Finished goods	74	110
Inventories	$ 86	$ 122

Property and equipment, net (in millions):

	October 26, 2018	April 27, 2018
Land	$106	$106
Buildings and improvements	604	594
Leasehold improvements	87	88
Computer, production, engineering and other equipment	786	733
Computer software	357	357
Furniture and fixtures	104	99
Construction-in-progress	8	27
	2,052	2,004
Accumulated depreciation and amortization	(1,282)	(1,248)
Property and equipment, net	$770	$756

In September 2017, we entered into an agreement to sell certain land and buildings located in Sunnyvale, California, through two separate and independent closings, the first of which was completed in the third quarter of fiscal 2018. The remaining properties, consisting of land with a net book value of $52 million, were classified as assets held for sale, and included as other current assets in our condensed consolidated balance sheets as of October 26, 2018 and April 27, 2018. We will consummate the sale of these properties, and receive cash proceeds of $96 million, upon the completion 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.

Other non-current assets (in millions):

	October 26, 2018	April 27, 2018
Deferred tax assets	$ 223	$ 229
Other assets	276	221
Other non-current assets	$ 499	$ 450

Accrued expenses (in millions):

	October 26, 2018	April 27, 2018
Accrued compensation and benefits	$ 314	$ 441
Product warranty liabilities	26	25
Other current liabilities	312	359
Accrued expenses	$ 652	$ 825

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 condensed consolidated balance sheets (in millions):

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Balance at beginning of period	$ 38	$ 44	$ 40	$ 50
Expense accrued during the period	6	7	10	8
Warranty costs incurred	(5)	(7)	(11)	(14)
Balance at end of period	$ 39	$ 44	$ 39	$ 44

	October 26, 2018	April 27, 2018

Accrued expenses	$ 26	$ 25
Other long-term liabilities	13	15
Total warranty liabilities	$ 39	$ 40

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):

	October 26, 2018	April 27, 2018
Liability for uncertain tax positions	$ 324	$ 314
Income taxes payable	476	549
Product warranty liabilities	13	15
Other liabilities	86	114
Other long-term liabilities	$ 899	$ 992

Statements of cash flows additional information (in millions):

Non-cash investing and financing activities and supplemental cash flow information are as follows:

	Six Months Ended	
	October 26, 2018	October 27, 2017
Non-cash Investing and Financing Activities:		
Capital expenditures incurred but not paid	$7	$ 17
Supplemental Cash Flow Information:		
Income taxes paid, net of refunds	$104	$ 28
Interest paid	$26	$ 24

5. Revenue

Effective our first quarter of fiscal 2019, we adopted ASC 606 using the full retrospective method and have restated each prior reporting period presented to conform to the new rules. The most significant impact of the new standard relates to our accounting for arrangements containing software. For our enterprise software license agreements (ELAs), we now recognize the license fee component of such arrangements up front. Under the prior rules, the software license fee was recognized over the term of the enterprise license based on our inability to establish vendor specific objective evidence of fair value for the undelivered software support element of these arrangements. In addition, for other software arrangements, revenue deferred for the undelivered elements that was previously allocated based on the residual method is now allocated based on relative fair value, which generally results in more software arrangement revenue being recognized earlier. The new standard also impacts our estimation of variable consideration for certain arrangements with contract terms such as rights of return, potential penalties and acceptance clauses.

The following table presents the impacts of adoption of ASC 606 to select line items of our condensed consolidated balance sheet as of the end of fiscal 2018:

	As of April 27, 2018			
	As Previously Reported	Impact of ASC 606 Adoption		As Adjusted
ASSETS				
Accounts receivable	$1,009	$38	(1)	$ 1,047
Inventories	$126	$(4)		$ 122
Other current assets	$330	$62	(2)	$ 392
Other non-current assets	$420	$30	(2)	$ 450
LIABILITIES AND STOCKHOLDERS' EQUITY				
Short-term deferred revenue and financed unearned services revenue	$1,804	$(92)	(3)	$ 1,712
Other long-term liabilities	$961	$31	(4)	$ 992
Long-term deferred revenue and financed unearned services revenue	$1,673	$(22)	(3)	$ 1,651

Accumulated deficit	$(218)	$209	(5)	$ (9)

(1) Netting of accounts receivable and deferred revenue balances for certain customer arrangements has been updated to reflect the impact of adoption
(2) Reflects capitalization of commissions and reduction of long-term deferred tax assets
(3) Reflects cumulative change in revenue and the impact of adoption to the netting of accounts receivable and deferred revenue balances for certain customer arrangements
(4) Reflects increase in long-term deferred tax liabilities
(5) Reflects cumulative impact to net income (loss)

The following table presents the impacts of adoption of ASC 606 to our statement of operations for the second quarter and first six months of fiscal 2018:

	Three Months Ended October 27, 2017			Six Months Ended October 27, 2017		
	As Previously Reported	Impact of ASC 606 Adoption	As Adjusted	As Previously Reported	Impact of ASC 606 Adoption	As Adjusted
Revenues:						
Product	$807	$12	$819	$1,530	$16	$1,546
Software maintenance	240	(16)	224	474	(27)	447
Hardware maintenance and other services	375	(3)	372	743	—	743
Net revenues	1,422	(7)	1,415	2,747	(11)	2,736
Cost of revenues:						
Cost of product	399	(2)	397	770	3	773
Cost of software maintenance	6	—	6	13	—	13
Cost of hardware maintenance and other services	115	(3)	112	228	(2)	226
Total cost of revenues	520	(5)	515	1,011	1	1,012
Gross profit	902	(2)	900	1,736	(12)	1,724
Operating expenses:						
Sales and marketing	420	1	421	845	(1)	844
Research and development	194	—	194	387	—	387
General and administrative	69	—	69	137	—	137
Total operating expenses	683	1	684	1,369	(1)	1,368
Income from operations	219	(3)	216	367	(11)	356
Other income, net	6	—	6	11	—	11
Income before income taxes	225	(3)	222	378	(11)	367
Provision for income taxes	50	(2)	48	67	(5)	62
Net income	$175	$(1)	$174	$311	$(6)	$305
Net income per share:						
Basic	$0.65	$—	$0.65	$1.15	$(0.02)	$1.13
Diluted	$0.64	$(0.01)	$0.63	$1.12	$(0.02)	$1.10
Shares used in net income per share calculations:						
Basic	269	269	269	270	270	270
Diluted	275	275	275	277	277	277

The adoption of ASC 606 had no impact to cash provided by or used in operating, investing or financing activities as presented on our condensed consolidated statement of cash flows.

The core principle of ASC 606 is to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration the entity expects to be entitled in exchange for those goods or services. This principle is achieved through applying the following five-step approach.

- Identification of the contract, or contracts, with a customer — A contract with a customer exists when (i) we enter into an enforceable contract with a customer that (ii) defines each party's rights regarding the goods or services to be transferred and (iii) identifies the payment terms related to these goods or services. Additionally, (iv) the contract has commercial substance and, (v) we determine that collection of substantially all consideration for goods or services that are transferred is probable based on the customer's intent and ability to pay the promised consideration. We apply judgment in determining the customer's ability and intention to pay, which is based on a variety of factors including the customer's historical payment experience or, in the case of a new customer, published credit and financial information pertaining to the customer. We also combine two or more contracts entered into at or near the same time with the same customer as a single contract if the contracts are negotiated as one package with a single commercial objective, the amount of consideration to be paid on one contract depends on the price or performance of the other contract or if the goods and services promised in each of the contracts are a single performance obligation.

- Identification of the performance obligations in the contract — Performance obligations promised in a contract are identified based on the goods or services (or a bundle of goods and services) that will be transferred to the customer that are distinct. A good or service is distinct if it is capable of being distinct, where the customer can benefit from the goods or service either on its own or together with other resources that are readily available from third parties or from us, and is distinct in the context of the contract, meaning the transfer of the goods or services is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised goods or services, we apply judgment to determine whether promised goods or services are capable of being distinct and distinct in the context of the contract. If these criteria are not met, we combine the goods and services until we have a distinct performance obligation.

- Determination of the transaction price — The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring goods or services to the customer. Consideration promised may include fixed amounts, variable amounts or both. We use judgment in determining variable consideration, particularly if consideration is contingent on the occurrence or nonoccurrence of a future event. We use the expected value, primarily relying on our history, to estimate variable consideration. We may also use, in certain situations, the most likely amount as the basis of our estimate. In either case, we consider variable consideration only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur. Reassessments of our variable consideration may occur as historical information changes. Transaction prices should also be adjusted for the effects of time value of money if the timing of payments provides either the customer or ourselves a significant benefit of financing.

- Allocation of the transaction price to the performance obligations in the contract — If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price basis. We determine standalone selling price based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, we estimate the standalone selling price taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations. Variable consideration is also allocated to the performance obligations. If the terms of variable consideration relate to one performance obligation, it is entirely allocated to that obligation. Otherwise, it is allocated to all the performance obligations in the contract.

- Recognition of revenue when, or as, we satisfy a performance obligation — We satisfy performance obligations either over time or at a point in time. We typically recognize revenue at a point in time for promises to transfer goods to a

customer. Services are typically transferred over time based on an appropriate method for measuring our progress toward completion of that performance obligation. Our stand-ready services, including both hardware and software maintenance support, are transferred ratably over the period of the contract. For other services such as our fixed professional services contract, we use an input method to determine the percentage of completion. That is, we estimate the effort to date versus the expected effort required over the life of the contract.

Disaggregation of revenue

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 have historically grouped our products by “Strategic” and “Mature” solutions. Strategic solutions include Clustered ONTAP, branded E-Series, SolidFire, converged and hyper-converged infrastructure, ELAs and other 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.

The following table depicts the disaggregation of revenue by our products and services (in millions):

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Product revenues	$913	$819	$1,788	$1,546
Strategic	649	566	1,261	1,064
Mature	264	253	527	482
Software maintenance revenues	236	224	465	447
Hardware maintenance and other services revenues	368	372	738	743
Hardware maintenance support contracts	303	306	606	604
Professional and other services	65	66	132	139
Net revenues	$1,517	$1,415	$2,991	$2,736

Revenues by geographic region are presented in Note 14 – Segment, Geographic, and Significant Customer Information.

Deferred revenue and financed unearned services revenue

The following table summarizes the components of our deferred revenue and financed unearned services balance as reported in our condensed consolidated balance sheets (in millions):

	October 26, 2018	April 27, 2018
Deferred product revenue	$102	$107
Deferred services revenue	3,010	3,134
Financed unearned services revenue	94	122
Total	$3,206	$3,363
Reported as:		
Short-term	$1,538	$1,712
Long-term	1,668	1,651
Total	$3,206	$3,363

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 15 – Commitments and Contingencies for additional information related to these arrangements.

The following tables summarize the activity related to deferred revenue and financed unearned services revenue (in millions):

	Six Months Ended	
	October 26, 2018	October 27, 2017
Balance at beginning of period	$3,363	$3,213
Additions	1,067	1,031
Revenue recognized during the period	(1,224)	(1,185)
Balance at end of period	$3,206	$3,059

During the six months ended October 26, 2018 and October 27, 2017, we recognized $1,019 million and $1,017 million, respectively, that was included in the deferred revenue and financed unearned services revenue balance at the beginning of the respective periods.

As of October 26, 2018, the aggregate amount of the transaction price allocated to the remaining performance obligations related to customer contracts that are unsatisfied or partially unsatisfied was $3,206 million, which is equivalent to our deferred revenue and unearned services revenue balance. Because customer orders are typically placed on an as-needed basis, and cancellable without penalty prior to shipment, orders in backlog may not be a meaningful indicator of future revenue and have not been included in this

amount. We expect to recognize as revenue approximately 48% of our deferred revenue and financed unearned services revenue balance in the next 12 months, approximately 27% in the next 13 to 24 months, and the remainder thereafter.

Deferred commissions

As a result of our adoption of ASC 606 in the first quarter of fiscal 2019, we capitalize sales commissions that are incremental direct costs of obtaining customer contracts for which revenue is not immediately recognized and classify them as current or non-current based on the terms of the related contracts. Capitalized commissions are amortized based on the transfer of goods or services to which they relate, typically over one to three years, and are also periodically reviewed for impairment. Amortization expense is recorded to sales and marketing expense in our condensed consolidated statements of operations. The following tables summarize the activity related to deferred commissions and their balances as reported in our condensed consolidated balance sheets (in millions):

	Six Months Ended	
	October 26, 2018	October 27, 2017
Balance at beginning of period	$ 137	$ 113
Additions	35	34
Expense recognized during the period	(41)	(32)
Balance at end of period	$ 131	$ 115

	October 26, 2018	April 27, 2018
Other current assets	$ 61	$ 66
Other non-current assets	70	71
Total deferred commissions	$ 131	$ 137

6. Other income, net

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

Three Months Ended		Six Months Ended	
October 26,	October 27,	October 26,	October 27,

	2018	2017	2018	2017
Interest income	$21	$ 19	$46	$ 35
Interest expense	(14)	(17)	(28)	(30)
Other income, net	—	4	7	6
Total other income, net	$7	$ 6	$25	$ 11

7. 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):

	October 26, 2018				April 27, 2018			
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Corporate bonds	$1,614	$ —	$ (40)	$ 1,574	$1,865	$ 1	$ (39)	$ 1,827
U.S. Treasury and government debt securities	362	—	(4)	358	497	—	(5)	492
Commercial paper	—	—	—	—	230	—	—	230
Certificates of deposit	116	—	—	116	115	—	—	115
Mutual funds	34	—	—	34	31	—	—	31
Total debt and equity securities	$2,126	$ —	$ (44)	$ 2,082	$2,738	$ 1	$ (44)	$ 2,695

As of October 26, 2018 and 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 October 26, 2018 and April 27, 2018.

The following table presents the contractual maturities of our debt investments as of October 26, 2018 (in millions):

	Amortized Cost	Fair Value
Due in one year or less	$ 679	$676
Due after one year through five years	835	821
Due after five years through ten years	578	551
	$ 2,092	$2,048

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):

	October 26, 2018	
		Fair Value Measurements at Reporting

		Date Using	
	Total	Level 1	Level 2
Cash	$2,251	$2,251	$—
Corporate bonds	1,574	—	1,574
U.S. Treasury and government debt securities	358	190	168
Certificates of deposit	116	—	116
Total cash, cash equivalents and short-term investments	$4,299	$2,441	$1,858
Other items:			
Mutual funds [1]	$6	$6	$—
Mutual funds [2]	$28	$28	$—
Foreign currency exchange contracts assets [1]	$5	$—	$5
Foreign currency exchange contracts liabilities [3]	$(3)	$—	$(3)

[1] Reported as other current assets in the condensed consolidated balance sheets
[2] Reported as other non-current assets in the condensed consolidated balance sheets
[3] Reported as accrued expenses in the condensed 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 October 26, 2018 and April 27, 2018, we have not made any adjustments to the prices obtained from our third-party pricing providers.

Fair Value of Debt

As of October 26, 2018 and April 27, 2018, the fair value of our long-term debt was approximately $1,524 million and $1,523 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.

8. 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):

	October 26, 2018		April 27, 2018	
	Amount	Effective Interest Rate	Amount	Effective Interest Rate
2.00% Senior Notes Due September 2019	$400	2.32 %	$400	2.32 %
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 %	400	3.42 %
Total principal amount	1,550		1,550	
Unamortized discount and issuance costs	(7)		(9)	
Total senior notes	1,543		1,541	
Less: Current portion of long-term debt	(399)		—	
Total long-term debt	$1,144		$1,541	

Senior Notes

Our 2.00% Senior Notes and 3.30% Senior Notes, each with a principal amount of $400 million, were issued in September 2017. Interest on these Senior Notes is paid 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 October 26, 2018, we were in compliance with all covenants associated with the Senior Notes.

As of October 26, 2018, our aggregate future principal debt maturities are as follows (in millions):

Fiscal Year	Amount
2020	$ 400
2022	500
2023	250
2025	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 in July 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 October 26, 2018, we had commercial paper notes outstanding with an aggregate principal amount of $250 million, a weighted-average interest rate of 2.45% and maturities ranging from 4 days to 31 days. 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 senior unsecured credit agreement with a syndicated group of lenders that expires on December 10, 2021. The credit agreement, as amended in July 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 October 26, 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.

9. Stockholders' Equity

Equity Incentive Awards

As of October 26, 2018, we have certain equity incentive awards (awards) outstanding, which include stock options, restricted stock units (RSUs), including time-based RSUs and performance-based RSUs (PBRSUs), and Employee Stock Purchase Plan (ESPP) awards.

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 27, 2018	1	$ 31.19		
Outstanding as of October 26, 2018	1	$ 30.49	3.27	$ 29
Exercisable as of October 26, 2018	1	$ 32.21	2.92	$ 25

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):

	Six Months Ended	
	October 26, 2018	October 27, 2017
Intrinsic value of exercises	$22	$ 11
Proceeds received from exercises	$17	$ 15
Fair value of options vested	$1	$ 5

Restricted Stock Units

In the six months ended October 26, 2018, 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 PBRSUs cliff-vest at the end of an approximate three year performance period, which began on the date specified in the grant agreements and ends the last day of fiscal 2021. 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. For half of the PBRSUs granted in the current year, the number of shares issued will depend upon our Total Stockholder Return (TSR) as compared to the TSR of a specified group of benchmark peer companies (each expressed as a growth rate percentage) calculated as of the end of fiscal 2021. The fair values of these awards were fixed at grant date using a Monte Carlo simulation model. For the remaining PBRSUs granted, the number of shares issued will depend upon our achievement against a cumulative Adjusted Operating Income (AOI) target, as defined in the grant agreements, for the three year period from fiscal 2019 through 2021. The fair values of these awards were established consistent with our methodology for valuing time-based RSUs, while compensation cost is being recognized based on the probable outcome of the performance condition. The aggregate grant date fair value of all PBRSUs granted in the current year was $23 million, which is being recognized to compensation expense over the remaining applicable performance / service periods.

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

	Number of Shares	Weighted-Average Grant Date Fair Value
Outstanding as of April 27, 2018	9	$ 32.91
Granted	3	$ 63.37
Vested	(3)	$ 31.67
Forfeited	(1)	$ 34.03
Outstanding as of October 26, 2018	8	$ 44.55

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):

	Six Months Ended	
	October 26, 2018	October 27, 2017
Shares withheld for taxes	1	2
Fair value of shares withheld	$ 89	$ 60

Employee Stock Purchase Plan

The following table summarizes activity related to the purchase rights issued under the ESPP (in millions):

	Six Months Ended	
	October 26, 2018	October 27, 2017
Shares issued under the ESPP	2	2
Proceeds from issuance of shares	$ 49	$ 42

Stock-Based Compensation Expense

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

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Cost of product revenues	$—	$ 1	$1	$ 2
Cost of hardware maintenance and other services revenues	2	2	5	5
Sales and marketing	16	16	33	37
Research and development	12	12	24	27
General and administrative	8	8	15	16
Total stock-based compensation expense	$38	$ 39	$78	$ 87
Income tax benefit for stock-based compensation expense	$5	$ 9	$10	$ 18

As of October 26, 2018, total unrecognized compensation expense related to our equity awards was $337 million, which is expected to be recognized on a straight-line basis over a weighted-average remaining service period of 2.3 years.

Stock Repurchase Program

Our Board of Directors has authorized the repurchase of up to $13.6 billion of our common stock. 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 for the six months ended October 26, 2018 (in millions, except per share amounts):

Number of shares repurchased	14
Average price per share	$77.94
Aggregate purchase price	$1,061
Remaining authorization at end of period	$2,939

The aggregate purchase price of our stock repurchases for the six months ended October 26, 2018 consisted of $1,061 million of open market purchases, of which $597 million and $464 million were allocated to additional paid-in capital and retained earnings (accumulated deficit), respectively.

Since the May 13, 2003 inception of our stock repurchase program through October 26, 2018, we repurchased a total of 298 million shares of our common stock at an average price of $35.87 per share, for an aggregate purchase price of $10.7 billion.

Dividends

The following is a summary of our activities related to dividends on our common stock (in millions, except per share amounts):

	Six Months Ended October 26, 2018		October 27, 2017	
Dividends per share declared	$	0.80	$	0.40
Dividend payments allocated to additional paid-in capital	$	207	$	—
Dividend payments allocated to retained earnings (accumulated deficit)	$	—	$	108

On November 14, 2018, we declared a cash dividend of $0.40 per share of common stock, payable on January 23, 2019 to holders of record as of the close of business on January 4, 2019. 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 us to be legally authorized under the laws of the state in which we are incorporated.

Retained Earnings (Accumulated Deficit)

A reconciliation of retained earnings (accumulated deficit) is as follows (in millions):

Balance as of April 27, 2018	$(9)
Cumulative-effect of new accounting principle	(51)
Net income	524
Repurchases of common stock	(464)
Balance as of October 26, 2018	$—

In the first quarter of fiscal 2019, we adopted an ASU that eliminates the deferred tax effects of intra-entity asset transfers other than inventory and recorded the cumulative-effect of adoption to retained earnings (accumulated deficit). Refer to Note 1 – Description of Business and Significant Accounting Policies for details.

Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss) (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	Total
Balance as of April 27, 2018	$ (27)	$ —	$ (43)	$ (70)
Other comprehensive income (loss), net of tax	(3)	—	(1)	(4)
Amounts reclassified from AOCI, net of tax	—	(1)	—	(1)
Total other comprehensive loss	(3)	(1)	(1)	(5)
Balance as of October 26, 2018	$ (30)	$ (1)	$ (44)	$ (75)

10. 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 maximum length of time over which forecasted foreign currency denominated revenues are hedged is six months. 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 condensed consolidated balance sheets. The gross and net fair value amounts of such instruments were not material as of October 26, 2018 or April 27, 2018. 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):

	October 26, 2018	April 27, 2018
Cash Flow Hedges		
Forward contracts purchased	$ 182	$—
Balance Sheet Contracts		
Forward contracts sold	$ 101	$115
Forward contracts purchased	$ 237	$412

The effect of cash flow hedges recognized in net revenues on our condensed consolidated statements of operations was immaterial in all periods presented.

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

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
	Gain (Loss) Recognized into Income		Gain (Loss) Recognized into Income	
Foreign currency exchange contracts	$ 2	$ 1	$ 12	$ (1)

11. Restructuring Charges `

In the first quarter of fiscal 2019, we announced a restructuring plan (the May 2018 Plan) to reduce costs and redirect resources to our highest return activities, which included a reduction in our global workforce of less than 2%. Charges related to the plan consisted primarily of employee severance-related costs. Substantially all activities under the plan have been completed.

Management previously approved the November 2016 Plan, under which we reduced our global workforce by approximately 6%. We completed all workforce related activities under this plan as of the end of fiscal 2017. The remaining balance as of October 26, 2018 principally relates to lease obligations that will be paid over their remaining terms.

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

	Six Months Ended October 26, 2018			Six Months Ended October 27, 2017
	May 2018 Plan	November 2016 Plan	Total	November 2016 Plan
Balance at beginning of period	$—	$ 6	$ 6	$ 13
Net charges	19	—	19	—
Cash payments	(17)	(1)	(18)	(5)
Balance at end of period	$ 2	$ 5	$ 7	$ 8

12. Income Taxes

Our effective tax rates for the periods presented were as follows:

	Six Months Ended	
	October 26, 2018	October 27, 2017
Effective tax rates	7.3 %	16.9 %

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 United States (U.S.) statutory tax rate. The differences in effective tax rates for the six months ended October 26, 2018 and October 27, 2017 were primarily related to the adoption of the new revenue standard, differences in discrete benefits for stock-based compensation and the reduced federal income tax rate due to U.S. tax reform.

The effective tax rate for the six months ended October 27, 2017 has been restated to reflect the retrospective application of the new revenue standard. During the six months ended October 26, 2018, we recognized a $34 million discrete tax benefit for adjustments to certain intercompany transactions resulting from the retrospective application of the new standard. See Note 5 – Revenue for additional details.

On December 22, 2017, the Tax Cuts and Jobs Act ("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 from 35% to 21%, the imposition of a one-time transition tax on deferred foreign earnings, and the creation of new taxes on certain foreign-sourced earnings. As of October 26, 2018, we have not fully completed the accounting for the tax impacts of the TCJA. No significant adjustments to prior period estimates or positions have been made in the current period. The provisional amounts recorded are based on reasonable estimates and our current interpretation and understanding of the TCJA. The final impacts of U.S. tax reform may differ, possibly materially, due to factors such as the issuance of further regulatory guidance, changes in interpretations, and the collection and analysis of additional information. The Company is also still evaluating the effects of the TCJA's global minimum tax on intangible low-taxed income ("GILTI") and has not yet made an accounting policy election to either account for the tax under a period cost method or a deferred method. For the six months ended October 26, 2018, we have accounted for the GILTI tax under a period cost method as we continue to evaluate potential impacts. In accordance with Staff Accounting Bulletin 118, we will complete the accounting of the tax effects of the TCJA within the measurement period not to extend beyond one year from the enactment date.

As of October 26, 2018, we had $356 million of gross unrecognized tax benefits. Inclusive of penalties, interest and certain income tax benefits, $306 million would affect our provision for income taxes if recognized, and $324 million has been recorded in other long-term liabilities.

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

The IRS has concluded the examination of our tax returns for our fiscal years through 2010. The IRS commenced the examination of our federal income tax returns for our fiscal years 2012 and 2013 in August 2016. We expect this examination to conclude within the next 12 months.

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. 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 issue its final decision. We expect this decision to be issued 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 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.

13. Net Income per Share

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

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Numerator:				
Net income	$241	$ 174	$524	$ 305
Denominator:				
Shares used in basic computation	258	269	260	270
Dilutive impact of employee equity award plans	6	6	7	7
Shares used in diluted computation	264	275	267	277
Net Income per Share:				
Basic	$0.93	$ 0.65	$2.02	$ 1.13
Diluted	$0.91	$ 0.63	$1.96	$ 1.10

No potential shares from outstanding employee equity awards were excluded from the diluted net income per share calculation for the three or six months ended October 26, 2018. For the three and six months ended October 27, 2017, 1 million and 2 million potential shares from outstanding awards, respectively, were excluded from the calculation as their inclusion would have been anti-dilutive.

14. 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):

	Three Months Ended		Six Months Ended	
	October 26,	October 27,	October 26,	October 27,

	2018	2017	2018	2017
United States, Canada and Latin America (Americas)	$868	$792	$1,711	$1,513
Europe, Middle East and Africa (EMEA)	429	426	859	827
Asia Pacific (APAC)	220	197	421	396
Net revenues	$1,517	$1,415	$2,991	$2,736

Americas revenues consist of sales to Americas commercial and U.S. public sector markets. Sales to customers inside the U.S. were $789 million and $722 million during the three months ended October 26, 2018 and October 27, 2017, respectively, and were $1,550 million and 1,361 million during the six months ended October 26, 2018 and October 27, 2017, 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):

	October 26, 2018	April 27, 2018
U.S.	$405	$853
International	3,894	4,538
Total	$4,299	$5,391

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 millions):

	October 26, 2018	April 27, 2018
U.S.	$ 580	$ 566
International	190	190
Total	$ 770	$ 756

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

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Arrow Electronics, Inc.	24 %	22 %	23 %	23 %
Tech Data Corporation	21 %	19 %	19 %	20 %

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

	October 26, 2018	April 27, 2018
Arrow Electronics, Inc.	11 %	17 %
Tech Data Corporation	24 %	17 %

15. 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 non-cancelable operating leases with an initial term in excess of one year totaled $172 million as of October 26, 2018.

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 manufacturing of our products. A significant portion of our reported purchase commitments arising from these agreements consists of firm, non-cancelable, and unconditional commitments. As of October 26, 2018, we had $422 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 October 26, 2018 and April 27, 2018, such liability amounted to $16 million and $14 million, respectively, and is included in accrued expenses in our condensed 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 October 26, 2018, we had $5 million in construction related obligations and $187 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 condensed 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 $43 million and $49 million of receivables during the six months ended October 26, 2018 and October 27, 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 recognize revenues in accordance with our revenue recognition policy, as updated to reflect the adoption of ASC 606. 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 October 26, 2018 and April 27, 2018, 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 October 26, 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 condensed consolidated balance sheets.

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 October 26, 2018 related to such matters.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This section and other parts of this Form 10-Q contain forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that involve risks and uncertainties. Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. Forward-looking statements also can be identified by words such as "future," "anticipates," "believes," "estimates," "expects," "intends," "will," "would," "could," "can," "may," and similar terms. Forward statements are not guarantees of future performance and the actual results of NetApp, Inc. ("we," "us," or the "Company") may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such differences include, but are not limited to, those discussed in Part II, Item 1A of this Form 10-Q under the heading "Risk Factors," which are incorporated herein by reference. The following discussion should be read in conjunction with our consolidated financial statements as of and for the fiscal year ended April 27, 2018, and the notes thereto, contained in our Annual Report on Form 10-K, and the condensed consolidated financial statements and notes thereto included elsewhere in this Form 10-Q. We assume no obligation to revise or update any forward-looking statements for any reason, except as required by law.

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 have historically grouped our products by "Strategic" and "Mature" solutions. Strategic solutions include Clustered ONTAP, branded E-Series, SolidFire, converged and hyper-converged infrastructure, enterprise software license agreements (ELAs) and other 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 (in millions, except per share amounts, percentages and cash conversion cycle):

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Net revenues	$1,517	$1,415	$2,991	$2,736
Gross profit	$974	$900	$1,937	$1,724
Gross profit margin percentage	64 %	64 %	65 %	63 %
Income from operations	$286	$216	$540	$356
Income from operations as a percentage of net revenues	19 %	15 %	18 %	13 %
Net income	$241	$174	$524	$305
Diluted net income per share	$0.91	$0.63	$1.96	$1.10
Operating cash flows	$165	$314	$491	$564

	October 26, 2018	April 27, 2018
Deferred revenue and financed unearned services revenue	$3,206	$3,363
Cash conversion cycle (days)	(19)	(14)

Stock Repurchase Program and Dividend Activity

During the first six months of fiscal 2019, we repurchased 14 million shares of our common stock at an average price of $77.94 per share, for an aggregate of $1,061 million. We also declared aggregate cash dividends of $0.80 per share in that period, for which we paid an aggregate of $207 million.

Adoption of Revenue Accounting Standard

As of the beginning of fiscal 2019, we adopted the new accounting standard Revenue from Contracts with Customers (ASC 606) using the full retrospective method of adoption. Accordingly, our prior period condensed consolidated financial statements and supplementary data, as presented herein, have been restated to conform to the new rules. As illustrated in Note 5 – Revenue of the Notes to Condensed Consolidated Financial Statements, the overall impact of adoption was not significant to prior periods. However, application of the new rules to our ELAs resulted in approximately $20 million and $110 million of product revenues for such arrangements in the second quarter and first six months of fiscal 2019, respectively, that are incremental to the amounts we would have recognized under the old standard. Under ASC 606, we recognize the software license fee component of our ELAs up-front, whereas under the prior rules the software license fee was recognized over the term of the ELA.

Critical Accounting Policies and Estimates

Our condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, 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 our significant accounting policies is included under Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations of our fiscal 2018 Form 10-K. 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. There have been no material changes to the critical accounting policies and estimates as filed in such report, except with respect to revenue recognition as a result of the adoption of ASC 606 in the first quarter of fiscal 2019. Refer to Note 5 – Revenue of the Notes to Condensed Consolidated Financial Statements for details.

New Accounting Standards

See Note 2 – Recent Accounting Standards Not Yet Effective of the Notes to Condensed 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 as a 52- or 53-week year that ends on the last Friday in April. Fiscal years 2019 and 2018 are each 52-week years, with 13 weeks in each of their quarters. Unless otherwise stated, references to particular years, quarters, months and periods refer to the Company's fiscal years ended in April and the associated quarters, months and periods of those fiscal years.

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

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Revenues:				
Product	60 %	58 %	60 %	57 %
Software maintenance	16	16	16	16
Hardware maintenance and other services	24	26	25	27
Net revenues	100	100	100	100
Cost of revenues:				
Cost of product	28	28	28	28
Cost of software maintenance	1	—	1	—
Cost of hardware maintenance and other services	7	8	7	8
Gross profit	64	64	65	63
Operating expenses:				
Sales and marketing	27	30	27	31
Research and development	14	14	14	14
General and administrative	5	5	5	5
Restructuring charges	—	—	1	—
Total operating expenses	45	48	47	50
Income from operations	19	15	18	13
Other income, net	—	—	1	—
Income before income taxes	19	16	19	13
Provision for income taxes	3	3	1	2
Net income	16 %	12 %	18 %	11 %

Percentages may not add due to rounding

Discussion and Analysis of Results of Operations

Overview

Net revenues for the second quarter and first six months of fiscal 2019 were $1,517 million and $2,991 million, respectively, reflecting an increase of $102 million, or 7%, and $255 million, or 9%, respectively, compared to the corresponding periods of the prior year, reflecting higher product revenues.

Gross profit as a percentage of net revenues for the second quarter increased by half of one percentage point compared to the corresponding period in fiscal 2018, and increased almost two percentage points in the first six months of fiscal 2019 when compared to the corresponding period in fiscal 2018, primarily reflecting higher margins on product revenues. Gross profit margins on product revenues increased one and a half percentage points in the second quarter of fiscal 2019 and four percentage points in the first six months of fiscal 2019 compared to the corresponding periods of fiscal 2018, primarily reflecting high margins on revenue recognized during the current year periods related to the software license components of several ELAs, and, to a lesser extent, higher average selling prices (ASPs).

Sales and marketing, research and development, and general and administrative expenses for the second quarter and the first six months of fiscal 2019 totaled $688 million, or 45% of net revenues and $1,378 million, or 46% of net revenues, respectively, representing a decrease of three percentage points and four percentage points when compared to the second quarter and the first six months of fiscal 2019, respectively, primarily due to higher net revenues in the current year periods.

Net Revenues (in millions, except percentages):

	Three Months Ended			Six Months Ended		
	October 26, 2018	October 27, 2017	% Change	October 26, 2018	October 27, 2017	% Change
Net revenues	$1,517	$1,415	7 %	$2,991	$2,736	9 %

The increase in net revenues for the second quarter and first six months of fiscal 2019 compared to the corresponding periods of fiscal 2018 was primarily due to an increase in product revenues of $94 million and $242 million, respectively. Product revenues as a percentage of net revenues increased two percentage points and three percentage points in the second quarter and first six months of fiscal 2019, respectively, compared to the corresponding periods of fiscal 2018.

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

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
Arrow Electronics, Inc.	24%	22 %	23%	23 %
Tech Data Corporation	21%	19 %	19%	20 %

Product Revenues (in millions, except percentages):

	Three Months Ended			Six Months Ended		
	October 26, 2018	October 27, 2017	% Change	October 26, 2018	October 27, 2017	% Change
Product revenues	$913	$ 819	11 %	$1,788	$1,546	16 %

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 the second quarter and first six months of fiscal 2019, compared to 69% in the corresponding periods of the prior year. Product revenues from mature solutions represented 29% of product revenues in the second quarter and first six months of fiscal 2019, compared to 31% in the corresponding periods of the prior year.

Total product revenues from strategic solutions totaled $649 million in the second quarter of fiscal 2019 reflecting a 15% increase from $566 million in the second quarter of fiscal 2018. Total product revenues from strategic solutions totaled $1,261 million in the first six months of fiscal 2019 reflecting a 19% increase from $1,064 million in the first six months of fiscal 2018. Contributing to these increases was over $20 million and $110 million of revenues from the software license component of several ELAs in the second quarter and first six months of fiscal 2019, respectively, which, under ASC 606, were recognized up-front. There were no comparable ELAs in the second quarter or first six months of fiscal 2018. Revenues generated from the sale of optional add-on software, unrelated to ELAs, also increased in the second quarter and first six months of fiscal 2019 compared to the corresponding periods of the prior year.

Total product revenue from mature solutions totaled $264 million in the second quarter of fiscal 2019 reflecting a 4% increase from $253 million in the second quarter of fiscal 2018. Total product revenue from mature solutions totaled $527 million in the first six months of fiscal 2019 reflecting a 9% increase from $482 million in the first six months of fiscal 2018. These increases are primarily due to an increase in add-on hardware, storage and related OS revenues of 11% and 14% in the second quarter and first six months of fiscal 2019, respectively, compared to the corresponding periods of prior year. Additionally, OEM revenues increased by 6% and 25% in the second quarter and first six months of fiscal 2019, respectively, compared to the corresponding periods of the prior year. These increases were partially offset by our discontinuation of the 7-mode systems in the first quarter of fiscal 2019, reflecting the movement of customers to our newer products.

Software Maintenance Revenues (in millions, except percentages):

	Three Months Ended			Six Months Ended		
	October 26, 2018	October 27, 2017	% Change	October 26, 2018	October 27, 2017	% Change
Software maintenance revenues	$236	$ 224	5 %	$465	$ 447	4 %

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.

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

	Three Months Ended			Six Months Ended		
	October 26, 2018	October 27, 2017	% Change	October 26, 2018	October 27, 2017	% Change
Hardware maintenance and other services revenues	$368	$ 372	(1)%	$738	$ 743	(1)%

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

Hardware maintenance contract revenues were relatively flat year over year, at $303 million and $606 million, respectively, for the second quarter and first six months of fiscal 2019, compared to $306 million and $604 million, respectively, for the corresponding periods of the prior year.

Professional services and educational and training services revenues were $65 million and $132 million, respectively, for the second quarter and first six months of fiscal 2019, compared to $66 million and $139 million, respectively, for the corresponding periods of the prior year.

Revenues by Geographic Area:

	Three Months Ended		Six Months Ended	
	October 26, 2018	October 27, 2017	October 26, 2018	October 27, 2017
United States, Canada and Latin America (Americas)	57%	56 %	57%	55 %
Europe, Middle East and Africa (EMEA)	28%	30 %	29%	30 %
Asia Pacific (APAC)	15%	14 %	14%	14 %

Percentages may not add due to rounding

Americas revenues consist of sales to Americas commercial and U.S. public sector markets. Our geographic distribution of revenues as a percentage of net revenues was relatively consistent in the second quarter and first six months of fiscal 2019 compared to the corresponding periods of fiscal 2018.

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):

	Three Months Ended			Six Months Ended		
	October 26, 2018	October 27, 2017	% Change	October 26, 2018	October 27, 2017	% Change
Cost of product revenues	$428	$ 397	8 %	$826	$ 773	7 %

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

	Three Months Ended Fiscal 2019 to Fiscal 2018 Percentage Change Points	Six Months Ended Fiscal 2019 to Fiscal 2018 Percentage Change Points
Materials costs	8	6
Other	—	1
Total change	8	7

Cost of product revenues represented 47% and 46% of product revenues for the second quarter and first six months of fiscal 2019, respectively, compared to 48% and 50% for the corresponding periods of fiscal 2018. Materials costs represented 91% and 89% of product costs for the second quarter and first six months of fiscal 2019, respectively, compared to 91% and 90% in the corresponding periods of fiscal 2018.

Materials costs increased $31 million and $47 million in the second quarter and first six months of fiscal 2019, respectively, compared to the corresponding periods of the prior year, primarily due to higher unit volumes of certain products.

Average unit materials costs for Clustered ONTAP systems increased by 12% and 13% in the second quarter and first six months of fiscal 2019, respectively, compared to the corresponding periods of the prior year.

Margins on revenue recognized for strategic solutions were higher during the second quarter and first six months of fiscal 2019 compared to the corresponding periods of fiscal 2018 primarily as a result of the benefit of high margins realized on the software license components of several ELAs, and, to a lesser extent, higher ASPs. Margins for mature products increased slightly in the second quarter and first six months of fiscal 2019 compared to the corresponding periods of the prior year.

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

	Three Months Ended			Six Months Ended		
	October 26, 2018	October 27, 2017	% Change	October 26, 2018	October 27, 2017	% Change
Cost of software maintenance revenues	$8	$ 6	33 %	$15	$ 13	15 %

Cost of software maintenance revenues in dollars was relatively flat in the second quarter and first six months of fiscal 2019 compared to the corresponding periods of fiscal 2018 and represented 3% of software maintenance revenues for both periods.

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

	Three Months Ended			Six Months Ended		
	October 26, 2018	October 27, 2017	% Change	October 26, 2018	October 27, 2017	% Change
Cost of hardware maintenance and other services revenues	$107	$ 112	(4)%	$213	$ 226	(6)%

Cost of hardware maintenance and other services revenues decreased by $5 million, or 4%, and $13 million, or 6%, respectively, for the second quarter and first six months of fiscal 2019 compared to the corresponding periods of fiscal 2018, primarily due to the favorable impact of cost savings initiatives. Costs represented 29% of hardware

maintenance and other services revenues in the second quarter and first six months of fiscal 2019, compared to 30% in the second quarter and first six months of fiscal 2018.

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 by $5 million and $10 million in the second quarter and first six months of fiscal 2019, respectively, compared to the corresponding periods of the prior year, each representing an increase of 1%. Stock-based compensation expenses decreased slightly in the current year, while the other components of compensation costs increased slightly. Average headcount was relatively flat in each period.

Sales and Marketing (in millions, except percentages):

Three Months Ended			Six Months Ended
October 26,	October 27,		October 26,
2018	2017	% Change	2018