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

FORM 10-K

(Mark One)

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

For the fiscal year ended October 29, 2016
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: 000-25601

Brocade Communications Systems, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**77-0409517**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
130 Holger Way, San Jose, CA	**95134-1376**
(Address of principal executive offices)	**(Zip code)**

Registrant's telephone number, including area code: (408) 333-8000

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

Title of each class	Name of each exchange on which registered
Common stock, $0.001 par value	**The NASDAQ Stock Market LLC**

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

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

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

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 x No ☐

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

Large accelerated filer ☒	Accelerated filer o	Non-accelerated filer o	Smaller reporting company o
		(Do not check if a smaller reporting company)	

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based upon the closing price of a share of the registrant's common stock on April 29, 2016, as reported by the NASDAQ Global Select Market on that date, was approximately $2,871,046,050. This calculation does not reflect a determination that certain persons are affiliates of the registrant for any other purpose.

The number of shares outstanding of the registrant's common stock as of December 9, 2016, was 406,252,789 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its 2017 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission, are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated.

BROCADE COMMUNICATIONS SYSTEMS, INC.

FORM 10-K

For the Fiscal Year Ended October 29, 2016

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Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements regarding future events and future results. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including, but not limited to, statements regarding future revenue, margins, expenses, tax provisions, tax treatment, earnings, cash flows, benefit obligations, debt repayments, stock repurchases, or other financial items; any statements of the plans, strategies, and objectives of management for future operations, including planned investments or acquisitions; any statements concerning expected development, performance, success, market conditions, or market share relating to products or services; any statements regarding future economic conditions or performance; any statements regarding pending litigation, including claims or disputes; any statements of expectation or belief; any statements regarding Brocade's pending acquisition by Broadcom Limited; and any statements of assumptions underlying any of the foregoing. Words such as "expects," "anticipates," "assumes," "targets," "projects," "intends," "plans," "believes," "seeks," "estimates," "continues," "may," "should," "could," "depend," "will," "contemplate," "predict," "potential," and variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are based on current expectations, estimates, forecasts, and projections about the industries in which Brocade operates, and the beliefs and assumptions of management. Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict, including those identified below, under "Part I, Item 1A. Risk Factors" and elsewhere herein. Therefore, actual results may differ materially and adversely from those expressed or implied in any forward-looking statements. Furthermore, Brocade undertakes no obligation to revise or update any forward-looking statements for any reason.

Additional Information

Brocade and the B-wing symbol are registered trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries. Other brands, products, or service names mentioned may be trademarks of Brocade or others.

PART I

Item 1. *Business*

General

Brocade Communications Systems, Inc. (“Brocade” or the “Company”) is a leading supplier of networking hardware, software, and services, including Storage Area Networking (“SAN”) solutions and Internet Protocol (“IP”) Networking solutions for businesses and organizations of various types and sizes. Brocade’s end customers include a wide variety of global enterprises and other organizations that use the Company’s products and services as part of their communications infrastructure. In addition, service providers, such as telecommunication firms, cable operators, and mobile carriers, use Brocade products and services as part of their commercial operations. Brocade offers a comprehensive line of high-performance networking hardware and software products and services that enable businesses and organizations to make their data centers and network edge more efficient, reliable, and adaptable to the changing demands of new network traffic patterns and volumes. Brocade’s products and services are designed to meet the stringent requirements for data center and network edge infrastructure. Many of the Company’s products have been designed to enable customers to deploy next-generation architectures and networking technologies. Some of these technologies include mobility, virtualization, cloud computing, software-defined networking (“SDN”), network functions virtualization (“NFV”), and network visibility and analytics (“NVA”).

Brocade products and services are marketed, sold, and supported worldwide to end-user customers through distribution partners, including original equipment manufacturers (“OEMs”), distributors, systems integrators, and value-added resellers (“VARs”), as well as directly to end users by Brocade’s sales force.

For revenue and other information regarding Brocade’s operating segments, see Note 15, “Segment Information,” of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K, which is incorporated herein by reference.

Pending Acquisition by Broadcom Limited

On November 2, 2016, Brocade entered into a merger agreement (the “Merger Agreement”) with Broadcom Limited (“Broadcom”) under which Broadcom agreed to acquire Brocade. Upon closing of the merger, Brocade stockholders will receive $12.75 in cash, without interest, less any required tax withholding, for each share of Brocade common stock. Consummation of the merger is subject to certain customary closing conditions, including approval by Brocade stockholders and the receipt of certain governmental and regulatory approvals in various jurisdictions. The transaction is not subject to a financing condition.

Assuming timely satisfaction of the necessary closing conditions, Brocade anticipates that the merger will be completed in the second half of its fiscal year 2017. For additional information related to the Merger Agreement, please refer to the preliminary proxy statement on Schedule 14A filed with the Securities and Exchange Commission (“SEC”) on December 6, 2016, which includes the full text of the Merger Agreement attached as Annex A.

Products and Services

Brocade is focused on helping enterprises, service providers, and a wide range of government and educational organizations fundamentally change their networking operations to make them more agile, innovative, and efficient. Brocade products enable networks to become a platform for rapid and cost-effective business innovation. As cloud computing and a proliferation of mobile services are transforming how these customers design their networks and deliver information technology (“IT”) services to their end users, Brocade has built its reputation as a leader in delivering a variety of purpose-built innovations for this era of digital transformation.

Mission-Critical Storage Networking Solutions

Customers use Brocade's Fibre Channel ("FC") protocol-based networking products to build storage area networks within their data center environments. Brocade's storage networking products and services are designed to help customers reduce the cost and complexity of managing business information within a shared data storage environment, while enabling high levels of availability of mission-critical applications. In addition, Brocade's products and services help customers develop and deploy storage and server consolidation, disaster recovery, and data security, as well as meet compliance requirements regarding data management. Brocade's products are generally used in conjunction with servers and storage subsystems, SAN interconnection components, and server and storage management software applications and tools. By utilizing shared storage, or networked storage solutions, organizations of all types and sizes can more easily share and consolidate server and storage resources; centralize and simplify data management; scale and provision storage resources more effectively; and improve application efficiency, performance, and availability. As a result, these organizations are able to better utilize IT assets; improve productivity of IT personnel; reduce capital and operational expenditures; and more reliably and securely store, manage, and administer information.

Brocade's family of FC SAN backbones, directors, and fabric/embedded switches provide interconnection, bandwidth, and high-speed switching between servers and storage devices. Product models range from entry-level 8-port fixed-configuration fabric switches to 512-port modular directors in a single chassis. Switches and directors support key applications such as data backup, remote mirroring, and high-availability clustering, as well as high-volume transaction processing applications such as enterprise resource planning and data warehousing. Brocade's storage networking products have been designed to meet the storage networking needs of data center end users in environments ranging from small- and medium-sized businesses to large enterprises with storage network fabrics that scale to thousands of ports and spread across multiple locations around the world. These products also enable storage networks to accommodate highly virtualized servers in enterprise, service provider, and cloud service provider data centers due to their high-performance, high-reliability, and low-latency capabilities.

Brocade delivers reliable and simplified management of these SAN products through its software-based management tools, including Brocade Fabric Vision and the Brocade Analytics Monitoring Platform. These technologies are designed to maximize uptime, dramatically simplify SAN deployment and management, and provide high levels of visibility and insight into the storage network. Together, Brocade's FOS operating system and software management tools are important elements that distinguish the Company's innovative FC products from those of its competitors.

Brocade has been an industry leader in every FC technology cycle, including the evolution from 1, 2, 4, 8, 16, and 32 gigabits per second ("Gbps") technologies. During fiscal year 2016, Brocade began delivering products and solutions based on the sixth generation ("Gen 6") of FC technology that offers 32 Gbps performance at the port level and 128 Gbps inter-chassis bandwidth. These solutions include the Brocade X6 Director and the Brocade G620 Switch.

IP Networking Products—Automated, scalable, and performance-driven data networking offerings

Brocade's IP Networking products are designed to connect users over private and public networks, including local area, metro, and within and across global data centers. Brocade offers a variety of platforms to allow customers to design networks to meet their needs, including the Brocade ICX, VDX, MLX, and SLX product families, as well as a wide range of virtualized SDN and NFV products. With the acquisition of Ruckus Wireless, Inc. ("Ruckus") on May 27, 2016, Brocade acquired a comprehensive family of wireless products for the network edge, significantly expanding its wireless products and solutions offerings. Brocade's Layer 2 and Layer 3 Ethernet switches and routers provide cost-effective delivery of the intelligence, speed, and manageability required to support virtualized and cloud-based applications.

The Brocade ICX family of IP Networking switches is designed for campus networks, small data centers, and the network edge. The switches provide task automation, reduce operational costs, and enable scalable growth for new applications and services. The Brocade ICX family offers a broad spectrum of access, aggregation, and high-performance core switches to build a complete end-to-end solution for both medium and large enterprises. These wired switches combine with the recently acquired Ruckus product family to provide a comprehensive wired and wireless networking solution for the network edge.

Brocade's advanced Wi-Fi solutions are used by service providers and enterprises to solve a range of network capacity, coverage, and reliability challenges associated with increasing wireless traffic demands created by the growth in the number of users equipped with more powerful smart wireless devices using increasingly data rich applications and services. We offer a comprehensive range of indoor and outdoor access points, wireless local area network controllers, network management software, Wi-Fi related applications, and cloud, or software-based, services.

Brocade's VDX Data Center Switches are designed to simplify the physical infrastructure of the network through the deployment of "Ethernet fabrics." These switches provide high levels of network automation, scalability, performance, and operational simplicity. They provide essential building blocks to help IT organizations move to highly virtualized and cloud environments. The Brocade VDX family of switches, featuring Brocade Virtual Cluster Switching ("VCS") fabric technology, provides enterprise agility through automated, zero-touch Virtual Machine ("VM") discovery, configuration, and mobility. Brocade offers a series of Brocade VDX fixed-port switches, as well as a modular switch, that deliver scalable performance, high port density, and functionality that can be combined and configured to address each customer's needs.

Brocade also offers a comprehensive set of IP routing products through the Brocade SLX, MLX, MLXe, CES, and CER families that are designed to handle network traffic within and across service provider networks, as well as data center and large enterprise networks. These IP routing products also provide functionality to help service providers extract key insights from their networks, and data privacy features to help customers protect data transiting their networks.

Brocade has developed a leadership role in NFV design and engineering by focusing on areas that are critical to telecommunication companies, mobile operators, and cloud service providers. Brocade vRouters provide advanced routing, firewall, and virtual private network ("VPN") functionality, all in a virtualized form factor. The vRouter is designed for multi-tenant public or private cloud environments or for deployment as a virtual edge solution. In delivering network functionality in a software form factor, Brocade enables its customers to reduce both capital and operational expenses, as well as achieve better levels of agility and scalability to improve service delivery to the end user.

Brocade's Layer 4-7 products, including software-based Brocade virtual application delivery controller ("vADC") solutions, are designed for application traffic management and server load balancing, allowing customers to improve the performance of specific applications or improve the performance of a server farm. By combining the Brocade vADC with the Brocade vRouter family, Brocade is one of the only companies to deliver Layer 3 through Layer 7 functionality in an integrated, virtualized software form factor. These high-performance data center traffic management systems with network intelligence capabilities allow enterprises and service providers to replace traditional hardware with more cost-effective and agile software to build reliable network infrastructures that efficiently manage the flow of traffic over extended distances.

The Brocade SDN Controller provides an open platform for the scalable management of end-to-end services across a wide range of underlying physical and virtual network infrastructure, such as switches, routers, firewalls, VPNs, and load balancers. Based on the open source and industry-backed OpenDaylight Project, it provides a fully tested and commercially supported open source platform that allows users to gradually migrate workloads running on their current equipment into an SDN environment.

Global Services

Brocade offers a wide range of consulting and post-contract customer support ("PCS") services that help customers in designing, implementing, deploying, and managing advanced networking solutions, as well as support services. Consulting services include resident service arrangements, in which highly trained Brocade consultants optimize customer networks and perform consolidations, migrations, and advanced implementations. In addition to PCS arrangements, Brocade offers Premier Support, a high-touch, proactive level of support focused on problem avoidance, account management, and accelerated responsiveness. These services address a number of customer priorities that must be managed during the life cycle of a storage network or data center network. Brocade's services may be delivered to end-user customers directly or through partners as a component of a broader service and support offering.

Industry Initiatives and Standards Development

Brocade believes that, as the need for networking solutions continues to evolve, organizations will look to further simplify the tasks of storing, managing, and administering data. At the same time, organizations will also look to optimize or improve the efficiency of their IT investments and reduce both capital and operational expenditures. In addition, Brocade believes organizations will continue to expand the size and scope of their networks, as well as the number and types of applications that these networks support.

Brocade believes that the future evolution of networking and data center markets will be led by the providers of products and services that simplify the management of increasingly virtualized server and storage environments and improve returns on end users' IT investments. Brocade also believes that networking and data center infrastructure solutions will evolve to provide increased capabilities that enable new types of data management applications that simplify the management of data, increase operational efficiencies, and reduce operating expense. As a result, many of Brocade's initiatives and investments are aimed at creating a secure, open, and automated network that provides a platform for rapid business innovation.

Brocade works with industry-leading organizations to facilitate the development of standards, technologies, products, and services that focus on simplifying data center infrastructure management and implementing and managing data networking environments. Brocade has a partner-centric approach to building solutions and works with nearly every leading provider of server, storage, hypervisor, network security, and related management applications and technologies.

Brocade has a long history of being a major contributor to the evolution of industry standards ranging from FC communication technology to storage network interoperability and storage network management. Brocade contributes to related industry standards committees and has authored or co-authored many of the FC protocol standards used today. As Brocade continues to expand its leadership presence in new technologies, Brocade's participation in associated standards groups continues to grow. In fiscal year 2016, Brocade was a member of the Ethernet Alliance, Metro Ethernet Forum, IETF, IEEE, FCIA Board, SNIA Technical Council, NVM Express, DMTF Technical Council, and other FC-related industry associations and standards bodies. An engineering director at Brocade currently chairs the INCITS T11 Committee, the lead governing body for all FC-related standards, and Brocade senior technologists serve as the president of the Ethernet Alliance and chair of the OpenDaylight Project. Brocade has also been an active participant with key leadership positions in next-generation data center initiatives promoting use of open technologies, including Open Networking Foundation, Next Generation Mobile Networks Alliance, OpenStack Foundation, NVM Express, and Open Platform for NFV. Brocade is one of the founders and a sponsor member of the Citizens Broadband Radio Service Alliance, the lead organization focused on the commercialization of coordinated shared spectrum for LTE. One of our executives is a board member of the Wireless Broadband Alliance, an organization focused on the development of the wireless broadband ecosystem and public advocacy of connected cities, next generation Wi-Fi, and wireless innovation. Additionally, Brocade is a contributing member to the Wi-Fi Alliance, promoting the Wi-Fi industry.

Education and Technical Certification Services

Brocade's education and training organization delivers technical education and training to partners and their customers on Brocade technology that includes design, implementation, and management solutions. This education and training curriculum is delivered worldwide using a variety of methods, including instructor-led classes, online web-based training, and "live" virtual classrooms. Brocade also offers certification on Brocade solutions for IT professionals who have completed certain tests administered by an independent testing organization. The certification program is designed to measure the knowledge and proficiency of IT professionals in Brocade data center and data management solutions and technologies, and to help ensure that Brocade's customers receive superior customer service and support. Approximately 54,621 certification tests have been delivered and 40,766 certifications have been awarded since inception of the program in October 2000. Brocade's education and training services are made available through Brocade University, Brocade's own education facilities, and through its worldwide training provider network.

Distribution Channels

Brocade's products and services are marketed, sold, and supported worldwide to end-user customers through distribution partners, including OEMs, distributors, systems integrators, service providers, and VARs, as well as directly to end users by the Brocade sales force.

Brocade's OEM partners are leading server, storage, and systems providers who offer Brocade's products under their own private label or as Brocade-branded solutions. Brocade's other distribution partners include a global network of authorized distributors, systems integrators, and VARs. Brocade authorizes these partners to market, sell, and support its products and services. Some of these partners also sell training and other value-added services.

Brocade has OEM or distribution agreements with many of the major companies that sell enterprise servers and storage systems. In addition, Brocade employs a worldwide sales force to assist its distribution partners in marketing Brocade solutions, assessing customer requirements, and designing, implementing, and maintaining Brocade-based solutions.

Customers

For the fiscal year ended October 29, 2016, Brocade's largest OEM customers, EMC Corporation ("EMC"), which was acquired by Dell, Inc. on September 7, 2016, combined with direct sales to Dell, Inc. (together "Dell EMC"), International Business Machines Corporation ("IBM"), and Hewlett Packard Enterprise Company ("HPE"), each represented 10% or more of Brocade's total net revenues, accounting for a combined total of 39% (Dell EMC with 19%, IBM with 10%, and HPE with 10%) of Brocade's total net revenues. For the fiscal year ended October 31, 2015, three OEM customers accounted for a combined total of 41% (EMC with 17%, IBM with 12%, and HPE with 12%) of Brocade's total net revenues. For the fiscal year ended November 1, 2014, the same three OEM customers accounted for a combined total of 46% (EMC with 18%, IBM with 16%, and HPE with 12%) of Brocade's total net revenues. Sales to any OEM customer may vary from quarter to quarter. While Brocade's OEM partners are the principal route to market for the Company's SAN products, Brocade's SAN routes to market also include distributors, direct sales to end users, global systems integrators, and VARs.

In the IP networking market, Brocade cultivates business in a number of key customer markets such as the data center, service provider, and enterprise segments, including the public sector. Customers in these market segments represented a significant part of Brocade's IP Networking business. Brocade offers its IP Networking products through a multipath distribution strategy, including distributors, resellers, Brocade's direct sales force, and OEMs that also offer Brocade SAN products. Brocade's strategy to expand its sales of IP Networking products globally includes leveraging current investments in direct sales, two-tier distribution and channel partnerships and expanding in international markets, as well as selling into existing data center customer accounts, including Global 1000 companies and other targeted end users.

Geographic Information

For the fiscal year ended October 29, 2016, domestic and international revenues were approximately 51% and 49% of total net revenues, respectively. For the fiscal year ended October 31, 2015, domestic and international revenues were approximately 56% and 44% of total net revenues, respectively. For the fiscal year ended November 1, 2014, domestic and international revenues were approximately 58% and 42% of total net revenues, respectively. International revenues primarily consist of sales to customers in Western Europe and the Asia Pacific region.

Revenues are generally attributed to geographic areas based on where Brocade's products are shipped. However, certain OEM partners take possession of Brocade's products domestically and then distribute these products to their international customers. Brocade cannot be certain of the extent to which its domestic and international revenue mix is impacted by the logistics practices of its OEM partners. Unless the Company receives discrete shipment information from its OEM partners, Brocade accounts for all domestically delivered OEM shipments as domestic revenues. Therefore, international revenues may comprise a larger percentage of Brocade's total net revenues than the attributed revenues in Part II, Item 7 of this Form 10-K indicate.

The majority of Brocade's assets as of October 29, 2016, were attributable to its United States ("U.S.") operations. For additional geographic information on Brocade's revenues and long-lived assets, see Note 15, "Segment Information," of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K, which is incorporated herein by reference. Also, for a discussion of the risks related to Brocade's international operations, see Part I, Item 1A. Risk Factors of this Form 10-K, which is incorporated herein by reference.

Acquisitions and Investments

Brocade's acquisition and investment strategy is focused on facilitating the evolution and expansion of shared storage, IP networking, network-based analytics, security, and data management.

On May 27, 2016, Brocade completed its acquisition of Ruckus, a global supplier of advanced Wi-Fi solutions. This acquisition strengthens Brocade's IP Networking product portfolio by adding Ruckus' wireless products and services.

On May 26, 2016, Brocade and Guiyang High-Tech Industrial Investment Group Co., Ltd. ("HTII") announced a joint venture in China. The joint venture combines Brocade's networking solutions with HTII's leadership and innovation in large, complex data sets, commonly known as Big Data, to help customers modernize and transform their businesses.

On March 29, 2016, Brocade completed its acquisition of a privately held developer of software for data center automation. This acquisition accelerates Brocade's efforts to deliver scalable, open source fabric automation by powering networking solutions such as Brocade Workflow Composer.

On March 24, 2015, Brocade completed its acquisition of Connectem Inc., a privately held company in the Long-Term Evolution ("LTE") virtual Evolved Packet Core market. The acquired virtual Evolved Packet Core software primarily addresses emerging mobile applications and services, including advanced mobile virtual network operators and enterprise mobile services.

On March 3, 2015, Brocade completed its acquisition of the assets of Riverbed Technology, Inc.'s vADC product line, which is a vADC for enterprise, cloud, and e-commerce. The acquired vADC software expands Brocade's NFV portfolio and addresses the needs of service providers and enterprise accounts.

From time to time, Brocade has made equity investments in companies that develop technology or provide services that are complementary to, or broaden the markets for, its products or services and further its business objectives. These investments, either individually or in the aggregate, have not been material during fiscal years 2016, 2015, or 2014.

Research and Development

The industry in which Brocade competes is characterized by rapid technological developments, evolving industry standards, changes in customer requirements, new product introductions, and consolidation. As a result, Brocade's success depends, in part, on its ability to continue to enhance its existing solutions and to develop and introduce new solutions that improve performance, simplify management, and reduce the total cost of ownership for networking solutions. Brocade has invested significantly in research and development to enhance and extend its portfolio of software products while increasing the speed, performance, and port density of its hardware platforms. Brocade also continues to enhance its operating system and management tools to further simplify storage management and to enable more functionality for end-user customers, OEM partners, and application partners.

Brocade's products are designed to support current industry standards as well as emerging standards that are consistent with its corporate strategy. Brocade designs its products around a common platform architecture, which facilitates the product design and development and testing cycle, improves quality, and reduces the time to market for new products and features. Where possible, products acquired through acquisitions are mapped to Brocade's existing design road maps that leverage common platform designs and know-how. Brocade intends to continue to leverage this common architecture to develop and introduce additional hardware and software products and enhancements in the future.

Brocade's product development process includes the certification of certain products by its OEM partners, as well as additional certifications to comply with international, U.S. federal government, and local regulations. During this process, Brocade supports its OEM partners and U.S. federal customers in the testing of its new products to ensure that they meet quality, functionality, security, and interoperability requirements. The OEM partner certification process is completed once the OEM partner has certified the product and announced general availability of that product to its customers. The U.S. federal certification process is completed once the product is certified and/or added to an officially approved products list.

For the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, Brocade's research and development expenses totaled $413.2 million, $356.7 million, and $345.5 million, respectively. All expenditures for research and development costs have been expensed as incurred.

Competition

The market for networking solutions is intensely competitive. Brocade believes the competitive factors in this market include product performance and features, product reliability, price, size, power consumption, extent of installed base, ability to meet delivery schedules, customer service, technical support, and distribution channels. In particular, Cisco Systems, Inc. ("Cisco") holds a large market share in the IP networking market, and a number of its products compete directly with Brocade's products. Brocade also competes with other IP networking companies, such as A10 Networks, Inc., Arista Networks, Inc., Avaya Inc., Extreme Networks, Inc., F5 Networks, Inc. ("F5 Networks"), Huawei Technologies Co. Ltd., Juniper Networks, Inc., and Nokia Corporation. Many of Brocade's current and potential competitors have longer operating histories; greater financial, technical, sales, marketing, and other resources; more name recognition; and larger customer installed bases than Brocade has.

Despite Brocade's strong market position, the Company faces significant competition in the market for SAN products and services from Cisco. Brocade also faces competitors in other markets in which it participates, such as Aerohive Networks, Inc. and HPE in the wireless market and A10 Networks, Inc., Citrix Systems, Inc., and F5 Networks in the application delivery market. New competition is emerging as a result of technology developments such as SDN and NFV. These existing and new competitors may use emerging technologies and various routes to market to compete with Brocade. In addition, Brocade's OEM partners and manufacturing partners, who also have relationships with some of Brocade's current competitors, could become new competitors by developing, acquiring, or introducing products and solutions that compete with Brocade's product offerings. Moreover, companies, including Brocade's OEM partners, who have not previously been competitors of Brocade may become competitors as Brocade develops or acquires new products and solutions. Competitive pressure will also likely intensify as new technology and industry consolidation impact long-standing alliances, partnerships, and go-to-market routes.

As the networking solutions market evolves, additional technologies may become available for interconnecting servers and storage. To the extent that products based upon these new technologies provide the ability to connect network servers and storage and support high-performance storage applications, they may compete with Brocade's FC products. These storage networking technologies include, but are not limited to, IP storage products such as Internet Small Computer System Interface ("iSCSI"), Network Attached Storage ("NAS"), InfiniBand, and Direct Attached Storage. In addition, networking companies, manufacturers of networking equipment, and other companies may develop competitive products and technologies. For example, new technologies that store data in the server with flash memory or solid-state drives ("SSD") could create competition for Brocade's FC SAN products. Nutanix, Inc. is an example of a vendor that offers solutions based on these new flash memory-based technologies. These emerging competitive technologies, however, can present new business opportunities for Brocade's networking and storage products and services. Brocade is working actively with IP storage and SSD vendors to create solutions and reference architectures that integrate Brocade IP and FC SAN products.

Manufacturing

Brocade has manufacturing arrangements with several contract manufacturers (collectively, the "contract manufacturers" or "CMs"), including Hon Hai Precision Industry Co., Ltd., Accton Technology Corporation, Universal Scientific Industrial (Shanghai) Co., Ltd., Flextronics Telecom Systems Ltd., and Cape EMS Manufacturing (M) Sdn. Bhd., and a service repair arrangement with Flex Ltd. Under Brocade's manufacturing arrangements with its CMs, Brocade provides product forecasts and places purchase orders in advance of the scheduled delivery of products to Brocade's customers. The required lead time for placing orders with the CMs depends on the specific product. The CMs invoice Brocade based on prices and payment terms mutually agreed upon and set forth in purchase orders issued to them by Brocade. Although the purchase orders Brocade places with its CMs are cancellable, the terms of agreements with certain CMs require Brocade to purchase all inventory components not returnable, usable by, or sold to other customers of the CMs. In addition, Brocade has an arrangement with one of its CMs regarding factory capacity that can be used by Brocade. Under this arrangement, Brocade receives a credit for exceeding the planned utilization of factory capacity and, conversely, is required to pay additional fees for not utilizing the planned capacity.

Brocade uses the CMs for final turnkey product assembly; however, Brocade also maintains key component selection and qualification expertise internally. Brocade designs and develops the key components of its products, including application-specific integrated circuits ("ASICs"), operating system and other software, and certain details in the fabrication of enclosures for its products. In addition, Brocade determines the components that are incorporated into its products and selects appropriate suppliers of those components.

Although Brocade uses standard parts and components for its products where possible, Brocade's CMs currently purchase, on Brocade's behalf, several components used in the manufacture of its products from single or limited sources. Brocade's principal single-source components include ASICs, built by third parties based on Brocade's designs and Wi–Fi chipsets, and Brocade's limited-source components include certain memory, oscillators, microprocessors, connectors, logic chips, power supplies, enclosures, programmable logic devices, printed circuit boards, optical components, packet processors, and switching fabrics.

Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act requires certain public companies to disclose whether certain minerals, commonly known as "conflict minerals," are necessary to the functionality or production of a product manufactured by those companies and if those minerals originated in the Democratic Republic of the Congo (DRC) or an adjoining country. The ongoing implementation of these disclosure requirements by Brocade, Brocade's partners, and/or customers could adversely affect (i) Brocade's revenues, if its partners or customers are dissatisfied with Brocade's use or efforts to reduce the use of conflict minerals, and (ii) the sourcing, availability, and pricing of minerals used in the manufacture of certain components used in Brocade's products.

In addition, Brocade licenses certain software from third parties that is incorporated into its fabric operating system and other software. See Part I, Item 1A. Risk Factors of this Form 10-K, which is incorporated herein by reference.

Environmental Matters

Brocade is subject to various environmental and other regulations governing product safety, materials usage, packaging, and other environmental impacts in the various countries where Brocade products are sold. For example, many Brocade products are subject to laws and regulations that restrict the use of certain substances such as lead, mercury, hexavalent chromium, and cadmium, and that require Brocade to assume responsibility for collecting, treating, recycling, and disposing of products when they have reached the end of their useful lives. In Europe, environmental restrictions apply to products sold in that region, and certain Brocade partners require compliance with these or other, more stringent, requirements. In addition, recycling, labeling, and related requirements apply to Brocade products sold in Europe and China. Brocade may be required to redesign its products to ensure that they comply with any new requirements as well as related requirements imposed by its OEM customers. Brocade also continues to work with its suppliers to ensure they provide Brocade with compliant materials, parts, and components. Various other jurisdictions have issued, or are in the process of issuing, other environmental regulations that may impose additional restrictions or obligations and require further changes to Brocade’s products, and that may require Brocade to incur additional costs in order to comply with such restrictions or obligations.

Patents, Intellectual Property, and Licensing

Brocade relies on a combination of patent, copyright, trademark, and trade secret laws, and contractual restrictions on disclosure to protect its intellectual property rights.

Brocade maintains a program to identify and obtain patent protection for its selected inventions. As of October 29, 2016, Brocade had 774 patents in the United States and 110 patents in various foreign countries (based on certain U.S. patents or patent applications) that are currently in force, and had approximately 288 patent applications pending in the United States and approximately 132 patent applications pending in various foreign countries (based on certain U.S. patents or patent applications). The normal expiration dates of Brocade’s issued patents in the United States range from 2016 to approximately 2034. Although Brocade has patent applications pending, there can be no assurance that patents will be issued from pending applications or that claims allowed on any future patents will be sufficiently broad to protect its technology. Despite these protections, the measures Brocade undertakes may not prevent misappropriation or infringement of its proprietary technology. These measures also may not preclude competitors from independently developing products with functionality or features similar to Brocade’s products.

Many of Brocade’s products are designed to include software or other intellectual property licensed from third parties. Accordingly, it may be necessary in the future to seek or renew licenses relating to various aspects of its products. While Brocade generally believes that such licenses could be obtained on commercially reasonable terms, it is possible that Brocade may not be able to obtain such licenses on commercially reasonable terms.

From time to time, third parties have asserted patent, copyright, and trade secret rights to technologies and standards that are important to Brocade. Third parties have asserted in the past, and may assert in the future, patent infringement claims against Brocade from time to time. In addition, from time to time, Brocade receives notification from customers claiming that they are entitled to indemnification or other obligations from Brocade related to infringement claims made against them by third parties. Litigation, even if Brocade is ultimately successful, can be costly and divert management’s attention from the day-to-day operations of Brocade. See Note 9, “Commitments and Contingencies,” of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K and Part I, Item 1A. Risk Factors of this Form 10-K.

Seasonality

Historically, Brocade’s SAN product revenue in the first and fourth fiscal quarters is stronger than revenue in the second and third fiscal quarters. Historically, Brocade’s IP Networking product revenue is strongest in the third and fourth fiscal quarters, while revenue in the first fiscal quarter is weakest, driven primarily by the seasonality of Brocade’s U.S. federal business revenue.

The historical seasonal patterns may materially differ in any given year due to factors such as changes in SAN inventory levels at OEMs, higher or lower demand for products and services due to new product releases, macroeconomic impacts, and U.S. federal government budget changes, as well as other factors, including Brocade’s fiscal reporting calendar that contains 52 or 53 weeks.

Backlog

Brocade's business is characterized by short lead-time orders and fast delivery schedules. Sales of its products are generally made pursuant to contracts and purchase orders that are cancellable without significant penalties. These commitments are subject to price negotiations and to changes in quantities of products and delivery schedules that reflect changes in customers' requirements and product availability. In addition, actual shipments depend on the manufacturing capacity of Brocade's suppliers and the availability of products from such suppliers. As a result of the foregoing factors, Brocade does not believe that backlog at any given time is a meaningful indicator of its ability to achieve any particular level of overall revenue or financial performance.

Employees

As of October 29, 2016, Brocade had 5,960 employees. Brocade has not experienced any work stoppages and considers its relations with its employees to be good. Brocade's employees are currently located at the U.S. headquarters in San Jose, California; as well as at facilities in Sunnyvale, California; China; Colorado; Minnesota; India; Israel; Singapore; Switzerland; Taiwan; the United Kingdom; and other offices worldwide.

Other

Brocade was incorporated in California on August 24, 1995, and reincorporated in Delaware on May 14, 1999. Brocade's mailing address and executive offices are located at 130 Holger Way, San Jose, California 95134-1376. Brocade's telephone number is (408) 333-8000.

Brocade's corporate website is www.brocade.com. Brocade's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on Brocade's website when such reports are available on the SEC website. The public may read and copy any materials filed by Brocade with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The content of any website referred to in this Form 10-K is not incorporated by reference into this filing. Further, Brocade's references to the Uniform Resource Locators ("URLs") for these websites are intended to be inactive textual references only.

Item 1A. *Risk Factors*

The announcement and pendency of Brocade's agreement to be acquired by Broadcom Limited ("Broadcom") and Broadcom's planned divestiture of Brocade's IP Networking business could have a material adverse effect on Brocade's business, operating results and stock price.

On November 2, 2016, Brocade entered into a merger agreement with Broadcom under which Broadcom agreed to acquire Brocade. In connection with the announcement of the proposed acquisition, Broadcom announced its intention to retain Brocade's SAN business and divest Brocade's IP Networking business. Brocade's pending acquisition by Broadcom, and Broadcom's announcement of its plans to divest Brocade's IP Networking business, could have an adverse effect on Brocade's revenue in the near term if its customers delay, defer, or cancel purchases pending completion of the transactions. Current and prospective customers of Brocade's products and services, including its SAN and IP Networking solutions, may be reluctant to purchase Brocade solutions due to potential uncertainty about the direction of its offerings and the support and service of its offerings following consummation of the transactions. Brocade is subject to additional risks in connection with the announcement and pendency of the proposed transactions, including:

- difficulties maintaining existing and/or establishing business relationships, including relationships with significant customers, contract manufacturers, component suppliers, channel partners, and other business partners;
- the possibility of disruption to Brocade's business, including increased costs and diversion of management time and resources that could otherwise have been devoted to other opportunities that may have been beneficial to Brocade;
- the restrictions imposed on Brocade's business and operations pursuant to certain covenants set forth in the merger agreement, which may prevent Brocade from pursuing certain opportunities, responding to competitive pressures and industry developments, or taking certain actions without Broadcom's approval;
- erosion of EBITDA leading to non-compliance with debt financial covenants and erosion of domestic cash;
- potential adverse effects on Brocade's ability to attract, recruit, retain and motivate current and prospective employees who may be uncertain about their future roles following completion of the proposed transactions, and the possibility that Brocade's employees could lose productivity as a result of uncertainty regarding their employment following the proposed transactions;
- the pendency and outcome of any legal proceedings that have been or may be instituted against Brocade, its directors, executive officers and others relating to the proposed transactions;
- announcements related to the proposed transactions could result in adjustments to the terms of the warrant transactions (the "Warrant Transactions") Brocade entered into in connection with the issuance of the 1.375% convertible senior unsecured notes due 2020 (the "2020 Convertible Notes"); and
- the diversion of Brocade's employees' and management's attention due to activities related to the proposed transactions.

Uncertainties regarding Broadcom's planned divestiture of Brocade's IP Networking business, including the completion and timing of any such divestiture, the identity of the buyer or buyers, and the terms and conditions of any such transaction or transactions, could exacerbate certain of the risks described above in relation to this business.

The failure to complete Brocade's pending acquisition by Broadcom may adversely affect Brocade's business and stock price.

Consummation of the acquisition is subject to certain customary closing conditions, including, without limitation, the absence of legal impediments, the expiration or termination of the required waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, antitrust regulatory approval in the People's Republic of China, the European Union and Japan, review and clearance by the Committee on Foreign Investment in the United States, and approval by Brocade's stockholders. There can be no assurance that these conditions to the completion of the merger will be satisfied in a timely manner or at all. If the merger is not completed, Brocade's share price could fall to the extent its current price reflects an assumption that the acquisition will be completed. Furthermore, if the acquisition is not completed, Brocade may suffer other consequences that could adversely affect its business, operating results and stock price including the following:

- Brocade could be required to pay a termination fee of $195 million to Broadcom under certain circumstances as described in the merger agreement;
- any disruptions to Brocade's business resulting from the announcement and pendency of the proposed transactions, including adverse changes in its relationships with customers, suppliers, channel partners, other business partners and employees, may continue or intensify in the event the acquisition is not consummated or is significantly delayed;
- Brocade would have incurred significant costs, including professional services fees and other transaction costs, in connection with the proposed transactions that it would be unable to recover;
- Brocade may be subject to negative publicity or be negatively perceived by the investment or business communities;
- Brocade may be subject to legal proceedings related to the transactions contemplated by the merger agreement;
- Brocade may not be able to take advantage of alternative business opportunities or effectively respond to competitive pressures; and
- Brocade may experience a departure of employees.

The merger agreement with Broadcom limits Brocade's ability to pursue alternative transactions, and in certain instances requires payment of a termination fee, which could deter a third party from proposing an alternative transaction.

The merger agreement contains provisions that, subject to certain exceptions, limit Brocade's ability to solicit, initiate, seek or knowingly encourage, facilitate, induce or support any announcement, communication, inquiry, expression of interest, proposal or other offer which constitutes, or would reasonably be expected to lead to, a proposal for an alternative acquisition transaction. In addition, under specified circumstances where the merger agreement is terminated, Brocade is required to pay a termination fee of $195 million to Broadcom. It is possible that these or other provisions might discourage a potential competing acquirer that might have an interest in acquiring all or a significant part of Brocade from considering or proposing an acquisition or might result in a potential competing acquirer proposing to pay a lower per share price to acquire Brocade than it might otherwise have proposed to pay.

Litigation challenging the merger agreement may prevent the merger from being consummated at all or within the expected timeframe and may result in substantial costs to Brocade.

In December 2016, two putative class-action lawsuits (the "Broadcom acquisition-related matters") were commenced against Brocade and its directors in the United States District Court for the Northern District of California. The complaints each allege violations of Sections 14(a) and 20(a) of the Exchange Act and one or more SEC rules arising out of Brocade's preliminary proxy statement filed with the SEC on December 6, 2016, relating to the proposed merger. Among other things, the plaintiffs in both actions seek to enjoin the defendants from consummating the proposed merger. Brocade stockholders, as plaintiffs, may initiate further stockholder class-action lawsuits also seeking, among other things, to enjoin consummation of the merger. One of the conditions to the consummation of the merger is that no governmental entity of competent jurisdiction shall have issued an order or decree which prohibits or prevents the consummation of the merger on the terms contemplated in the merger agreement. There can be no assurance that Brocade and the other defendants in these lawsuits will be successful in their defenses. An unfavorable outcome in any such lawsuit could prevent or delay the consummation of the merger and, regardless of the outcome, may result in substantial costs to Brocade and may otherwise negatively affect its business and operations. For additional information regarding the Broadcom acquisition-related matters, see Note 17, "Subsequent Events," of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

The consummation of the proposed Broadcom acquisition could result in substantial obligations becoming payable in respect of the 2020 Convertible Notes, the Warrant Transactions, the 2023 Notes, and the Credit Agreement, which could negatively impact Brocade's cash flows and financial position.

The proposed acquisition of Brocade by Broadcom would constitute a "Fundamental Change" under the terms of the 2020 Convertible Notes and a "Change in Control" under the Credit Agreement (the "Credit Agreement") with Wells Fargo Bank, National Association, and certain other lenders (collectively, the "Lenders"), would result in a termination of the Warrant Transactions, and could result in a "Change of Control Triggering Event" under the 4.625% senior notes due 2023 (the "2023 Notes"). In addition, the consummation of the proposed transaction would result in a temporary adjustment to the conversion rate for the 2020 Convertible Notes. Specifically:

- Holders of the 2020 Convertible Notes have the right to require Brocade to repurchase their convertible notes upon the occurrence of a "Fundamental Change" (as defined in the indenture governing the 2020 Convertible Notes) at a repurchase price of 100% of the principal amount plus accrued and unpaid interest, if any.

- The 2020 Convertible Notes would become convertible for a specified period of time following the consummation of the proposed Broadcom acquisition, which would require Brocade to make cash payments up to the full conversion value of any notes being converted; Brocade could not elect to settle the conversion of the notes with shares of its common stock.

- Holders of the 2023 Notes have the right to require Brocade to repurchase their notes upon the occurrence of a "Change of Control Triggering Event" (as defined in the indenture governing the 2023 Notes), at a repurchase price equal to 101% of the principal amount plus accrued and unpaid interest, if any. The proposed Broadcom acquisition would result in a Change of Control Triggering Event if the acquisition is accompanied or followed within a specified period by certain downgrades of the ratings of the 2023 Notes.

- A "Change of Control" under the Credit Agreement would constitute an event of default and permit the Lenders to accelerate the repayment of all of the outstanding amounts owed thereunder.

- Upon termination of the Warrant Transactions in connection with the proposed Broadcom acquisition, Brocade would be required to settle such transactions in cash. Further, announcements relating to the proposed acquisition may result in adjustments to the terms of the Warrant Transactions to take into account the economic effect of the proposed acquisition, which could result in greater amounts becoming due upon termination or otherwise have a dilutive effect.

The foregoing payment obligations would materially impact Brocade's cash flows and financial position, and Brocade may not have enough available cash or be able to obtain financing on acceptable terms (or at all) at the time to discharge those payment obligations.

Failure to successfully compete in the networking market could prevent Brocade from increasing or maintaining revenue, profitability, and cash flows with respect to its networking solutions.

The networking market is highly competitive and is undergoing significant transitions due to the adoption of new technologies, such as cloud computing, virtualization, software networking, and infrastructure-as-a-service. For example, companies such as Amazon Web Services, Inc., Microsoft Corporation, Cisco Systems, Inc. ("Cisco") and Hewlett Packard Enterprise Company ("HPE") all offer cloud computing services for the enterprise market, and some customers may choose to procure networking as a service rather than implement on-site networking solutions. Brocade sells into certain sections of the enterprise market which, over time, could shift their information technology ("IT") spending substantially or completely to cloud services. If Brocade is unable to build and sustain relationships with companies that will continue to invest in their own on-site networks, Brocade's revenue and profitability could be adversely affected.

Other shifts in the networking market are also creating competitive challenges for Brocade. For example, data center buying patterns are shifting to converged infrastructures in which computer, network, and storage systems are sold as bundled solutions. If Brocade is unsuccessful in having its products included in those bundled solutions, Brocade's market share could be adversely affected. Also, Juniper Networks, Inc. ("Juniper") and HPE have launched new offerings, including "whitebox" switches, which those companies have promoted as a low-cost option for networking equipment purchasers. These and other market dynamics, as well as further commoditization of networking products, could negatively impact Brocade's business and financial results.

Following its acquisition of Ruckus Wireless, Inc. (“Ruckus”), Brocade has become a vendor of wireless networking products. Previously, Brocade had relied on partner relationships developed with other companies for access to wireless networking technologies, including access to wireless networking products to supplement Brocade’s wireline campus business. Those partner relationships may be adversely affected by the fact that Brocade now competes with those companies’ wireless networking businesses.

Cisco maintains a dominant position in the networking market; however, customers also have many choices in both traditional and emerging networking technology and networking providers. These other competitors in the networking market include A10 Networks, Inc.; Arista Networks, Inc.; Avaya Inc.; Dell, Inc. (now, Dell Technologies Inc. (“Dell Technologies”)); Extreme Networks, Inc.; F5 Networks, Inc.; HPE; Huawei Technologies Co. Ltd.; Juniper; and Nokia Corporation. Many of Brocade’s competitors have longer operating histories; greater financial, technical, sales, marketing, and other resources; more name recognition; and larger customer-installed bases than Brocade. These companies’ businesses may have better economies of scale, and therefore these companies could also adopt more aggressive pricing policies than Brocade. Some of these companies’ brands are better known by end users than Brocade’s brand, and channel partners often prefer to sell well-known brands to end-user accounts. In addition, some of Brocade’s current and potential competitors have in the past, and could in the future, enhance their business models through acquisitions, divestitures, or new strategic alliances designed to enable them to better compete for customers by offering more comprehensive solutions. For example, in recent years, Dell Technologies acquired EMC Corporation (now, “Dell EMC”), Cavium, Inc. (“Cavium”) acquired QLogic Corporation, and Nokia Corporation acquired Alcatel-Lucent. Such industry consolidation may increase competitive dynamics in Brocade’s markets, impact Brocade’s partner ecosystem, and limit certain routes to market for Brocade’s solutions. Also, any one of these competitors could devote more resources to develop, promote, and sell their products, and, therefore, could respond more quickly to changes in customer or market requirements and adopt more aggressive pricing policies. Brocade’s failure to successfully compete in the networking market would harm its business and financial results.

Conditions in the Storage Area Networking (“SAN”) market could adversely affect Brocade’s business, financial results, and growth prospects.

Approximately one-half of Brocade’s fiscal year 2016 revenue was generated from its SAN business. As such, Brocade’s business, financial results, and growth prospects may be impacted significantly by SAN market conditions. For example, total SAN market revenue contracted in calendar year 2015 and through the first three calendar quarters of 2016 due to, among other factors, the increasing efficiency of SAN products, the adoption of other networking protocols, changes in data center architectures, hyper-converged solutions and other new storage technologies, and the other competitive factors described in the risk factor above.

Revenue generated from sales of Brocade’s SAN products is also impacted by the amount of storage capacity deployed by its SAN customers. While the amount of storage capacity deployed is growing, the rate of that growth has declined in recent years.

In addition, revenue generated from sales of Brocade’s SAN products is impacted by the average selling price for those products. While the overall average selling price for Brocade’s SAN products has increased in recent periods, that increase has been largely due to the introduction of new products. Accordingly, that trend may not be sustained if Brocade is unable to continue to successfully introduce and obtain customer acceptance of new SAN products at the same rate, or at all.

The health of the overall SAN market will also depend on continued market participation by other SAN ecosystem vendors, such as Broadcom and Cavium, who produce Fibre Channel host bus adapters for servers and interconnect technology for storage arrays.

If Brocade fails to successfully address these SAN market conditions, Brocade’s business, financial results, and growth prospects may be adversely affected.

A limited number of major original equipment manufacturer ("OEM") partners comprise a significant portion of Brocade's revenues; the loss of revenue from, or decreased inventory levels held by, any of these major OEM partners could significantly reduce Brocade's revenues and adversely affect its financial results.

Brocade's SAN business depends on recurring purchases from a limited number of large OEM partners for a substantial portion of its revenues, specifically Dell EMC, HPE, and International Business Machines Corporation ("IBM"). As a result, revenues from these large OEM partners have a significant impact on Brocade's quarterly and annual financial results. For fiscal years 2016, 2015, and 2014, these three OEM partners each represented 10% or more of Brocade's total net revenues, for a combined total of 36%, 41%, and 46% of total net revenues, respectively. Brocade's agreements with its OEM partners are typically cancellable and non-exclusive, and have no minimum or specific timing requirements for purchases. Brocade's OEM partners could increase the amount purchased from Brocade's competitors, introduce their own technology, or experience lower demand for Brocade SAN products from their end customers.

Also, one or more of Brocade's OEM partners could elect to divest certain lines of business, split their business, or consolidate or enter into a strategic partnership with one of Brocade's competitors, such as IBM's sale of certain lines of business to Lenovo Group Limited, HPE becoming a separate public company, and the acquisition of Dell EMC by Dell Technologies, which could reduce or eliminate Brocade's revenue opportunities with that OEM partner. In addition, business execution or other operating performance issues experienced by Brocade's OEM partners has in the past and may in the future adversely affect Brocade's revenue and financial results. Brocade anticipates that a significant portion of its revenues and operating results from its SAN business will continue to depend on sales to a relatively small number of OEM partners. Brocade's business and financial results could be harmed by the loss of any one significant OEM partner, a decrease in the level of sales to any one such partner, a change in any one such partner's go-to-market strategy, or an unsuccessful negotiation on key terms, conditions, or timing of purchase orders placed during a quarter.

Brocade may not realize the anticipated benefits of past or future acquisitions, divestitures, and strategic investments, and the integration of acquired companies or technologies or divestiture of businesses may negatively impact Brocade's business and financial results.

Brocade has acquired—or made strategic investments in—other companies, products, or technologies, and Brocade may make additional acquisitions and strategic investments in the future. In the third quarter of fiscal year 2016, Brocade acquired Ruckus. In the second quarter of fiscal year 2015, Brocade acquired its virtual Evolved Packet Core, also known as vEPC, software product line and related assets from Connectem Inc. and its virtual application delivery controller, also known as vADC, software product line and related assets from Riverbed Technology, Inc. The ability of Brocade to realize the anticipated benefits of its acquisitions and strategic investments involves numerous risks, including, but not limited to, the following:

- Difficulties in successfully integrating the acquired businesses and realizing any expected synergies, including failure to integrate successfully the sales organizations;
- Failure to communicate to customers the capabilities of the combined company;
- Unanticipated costs, litigation, and other contingent liabilities, including liabilities associated with acquired intellectual property;
- Diversion of management's attention from Brocade's daily operations and business;
- Adverse effects on existing business relationships with suppliers and customers, including delays or cancellations of customer purchases, as well as revenue attrition in excess of anticipated levels if existing customers alter or reduce their historical buying patterns;
- Risks associated with entering into markets in which Brocade has limited or no prior experience, including the potential for a lower level of understanding of specific market dynamics;
- Inability to attract and retain key employees;
- Inability to successfully develop new products and services on a timely basis to address the market opportunities of the combined company;
- Inability to compete effectively against companies already serving the broader market opportunities expected to be available to the combined company;
- Inability to qualify the combined company's products with OEM partners on a timely basis, or at all;

- Inability to successfully integrate financial reporting and IT systems;
- Inability to develop software-oriented back office systems and processes necessary to sell and support a variety of software-based offerings;
- Failure to successfully manage additional business locations, including the infrastructure and resources necessary to support and integrate such locations;
- Assumption or incurrence of debt and contingent liabilities and related obligations to service such liabilities and potential limitations on Brocade's operations in order to satisfy financial and other negative operating covenants;
- Additional costs, such as increased costs of manufacturing and service; costs associated with excess or obsolete inventory; costs of employee redeployment, relocation, and retention, including salary increases or bonuses; accelerated amortization of deferred equity compensation, severance payments, reorganization, or closure of facilities; taxes; advisor and professional fees; and termination of contracts that provide redundant or conflicting services;
- The impact of acquisition- and integration-related costs, goodwill or in-process research and development impairment charges, amortization costs for acquired intangible assets, and acquisition accounting treatment, including the loss of deferred revenue and increases in the fair values of inventory and other acquired assets, on Brocade's operating results and financial condition; and
- The target market for the acquired products may not develop within the expected time frame or may evolve in a different technical direction.

Integration and other risks associated with acquisitions can be more pronounced for larger and more complicated transactions. For example, Brocade completed its acquisition of Ruckus in May 2016 and is in the process of combining the businesses and operations of the two companies. The size of the Ruckus acquisition increases both the scope and consequence of the ongoing risks and challenges associated with those efforts. Brocade may not successfully address those risks and challenges in a timely manner, or at all. If that occurs, Brocade may not fully realize all of the anticipated benefits of the Ruckus acquisition, and its revenue, expenses, operating results and financial condition could be adversely affected.

Brocade may also divest or reduce its investment in certain businesses or product lines from time to time. For example, Brocade sold its network adapter business to QLogic Corporation (subsequently acquired by Cavium) during the first quarter of fiscal year 2014. Such divestitures involve risks, such as difficulty separating portions of or entire businesses, distracting employees, incurring potential loss of revenue, negatively impacting margins, and potentially disrupting customer relationships. Brocade may also incur significant costs associated with exit or disposal activities, related impairment charges, or both.

Uncertainty about or a slowdown in the domestic and/or international economies has adversely affected, and may increasingly adversely affect, Brocade's operating results and financial condition.

In recent years, the rate of economic growth in the United States has moderated and in certain other countries, including China, has significantly declined. In addition, uncertainty exists about the future growth of the domestic and international economies. Such uncertainty and slowdowns have resulted in, and may again result in, lower growth or a decline in IT-related spending, and, consequently, lead to lower growth or a decline in the networking market (including high-performance data networking solutions). Historically, IT spending has declined as general economic and market conditions have worsened due to geopolitical uncertainty. In addition, IT spending by international customers may decline as the value of the local currencies weaken against the U.S. dollar. Brocade is particularly susceptible to reductions in IT spending because the purchase of networking solutions is often discretionary and may involve a significant commitment of capital and other resources. The loss or delay of orders from any of Brocade's more significant customers, such as individual branches or agencies within the U.S. federal government, or customers within the service provider, financial services, education (including technology improvements for schools funded by the U.S. federal government commonly known as the E-Rate program), and health sectors, could also cause Brocade's revenue and profitability to suffer. For example, Brocade's revenue and operating results could be negatively impacted if the U.S. federal government experiences delays in procurement due to longer decision-making time frames and/or a shift in IT procurement priorities. Economic uncertainty has caused, and may cause further, reductions in Brocade's revenue, profitability, and cash flows, along with increased price competition, increased operating costs, and longer fulfillment cycles. Moreover, economic uncertainty may exacerbate many other risks noted elsewhere in this Form 10-K, which could adversely affect Brocade's business operations and financial condition.

Brocade's future revenue growth depends on its ability to successfully introduce and achieve market acceptance of new products, services, and support offerings on a timely basis.

Developing new products, services (including software networking), and support offerings requires significant up-front investments that may not result in revenues for an extended period of time, if at all. Brocade must achieve market acceptance of its new product and support offerings on a timely basis in order to realize the benefits of its investments. However, the market for networking solutions, driven in part by the growth and evolution of the Internet and adoption of new technologies, such as software-defined networking ("SDN"), network functions virtualization ("NFV"), and Wi-Fi-related cloud services, is characterized by rapidly changing technology, accelerated product introduction cycles, changes in customer requirements, and evolving industry standards. In addition, many of Brocade's new products, services, and support offerings will be directed toward customers, including hyperscale cloud providers and large service providers, with whom Brocade does not have strong existing sales relationships and who may require longer periods of time to evaluate products prior to making purchases. Sales to these customers may be challenging because sales are often based on long-term relationships and network incumbency and the complex system environments maintained by these customers often require interoperation with a variety of other vendors and back office applications. Brocade's future success depends largely upon its ability to address the rapidly changing needs of both new and existing customers by: allowing connectivity to other devices and partnering effectively; keeping pace with technological developments and emerging industry standards; and delivering high-quality, reliable, and cost-effective products, product enhancements, and services and support offerings on a timely basis.

Other factors that may affect Brocade's successful introduction of new products, services, and support offerings include, but are not limited to, Brocade's ability to:

- Properly predict the market for new products, services, and support offerings, including features, cost-effectiveness, scalability, and pricing—all of which can be particularly challenging for initial product offerings in new markets;
- Differentiate Brocade's new products, services, and support offerings from its competitors' offerings;
- Address the interoperability complexities of Brocade's products with its OEM partners' server and storage products and Brocade's competitors' products;
- Determine which route(s) to market will be most effective; and
- Manage product transitions, including forecasting demand, managing excess and obsolete inventories, addressing product cost structures, and managing different sales and support requirements.

Failure to successfully introduce competitive products, services, and support offerings on a timely basis may harm Brocade's business and adversely affect Brocade's financial results.

If Brocade is unable to successfully transition from older products and corresponding support and service offerings to new products and corresponding support and service offerings on a timely basis, its business and financial results could be adversely affected.

As Brocade introduces new or enhanced products, such as Brocade's recently introduced Gen 6 Fibre Channel SAN platform and SLX line of routers and data center switches, it must successfully manage the transition from older products to minimize disruption in customers' ordering patterns, avoid excessive levels of older product inventories, maintain existing support revenue streams, and provide sufficient supplies of new products to meet customer demands. The introduction of new or enhanced products may shorten the life cycle of Brocade's existing products or replace the sales of some of Brocade's current products, thereby offsetting the benefit of a successful product introduction. When Brocade introduces new or enhanced products, it faces numerous risks related to product transitions, including the inability to accurately forecast demand, manage excess and obsolete inventories, address new or higher product cost structures, and manage different sales and support requirements due to the type or complexity of the new or enhanced products. In addition, customer evaluation periods or any customer uncertainty regarding the timeline for rolling out new products, or Brocade's plans for future support of existing products (for example, uncertainty created by Brocade's pending acquisition by Broadcom and Broadcom's planned divestiture of Brocade's IP Networking business), may cause customers to delay purchase decisions or to purchase competing products, which would adversely affect Brocade's business and financial results.

The prices of Brocade's Internet Protocol ("IP") Networking products have declined in the past and Brocade expects the prices of its products to decline in the future, which could reduce Brocade's revenues, gross margins, and profitability.

The average selling price for Brocade's IP Networking products has typically declined in the past and will likely decline in the future as a result of competitive pricing pressures, broader macroeconomic factors, product mix, new product introductions by Brocade or competitors, the entrance of new competitors, and other factors. In particular, if economic conditions deteriorate and create a more cautious capital spending environment in the IT sector, Brocade and its competitors could pursue more aggressive pricing strategies in an effort to maintain or increase revenues. If Brocade is unable to offset a decline in the average selling price of Brocade's IP Networking products by increasing the volume of products shipped and/or reducing product manufacturing costs, including key components such as optics, Brocade's revenues, gross margins, and profitability could be adversely affected.

Brocade's failure to execute on its overall sales strategy or successfully leverage its channel and direct sales capabilities could significantly reduce its revenues and negatively affect its business, financial results, and growth prospects.

Brocade offers networking solutions through a multipath distribution strategy, including distributors, resellers, a direct sales force, and OEMs. However, Brocade's efforts to increase sales through this multipath distribution strategy may not generate incremental revenue opportunities. Several of Brocade's major OEM customers, including Dell EMC, IBM, HPE, and Oracle Corporation, have acquired companies that offer IP Networking solutions that are competitive with Brocade offerings. A loss of, or significant reduction in, revenue through one of Brocade's paths to market would negatively impact its business and financial results.

As the networking industry continues to evolve, partners with which Brocade does not have long-standing relationships, such as cloud service providers that provide routing and infrastructure-as-a-service and global systems integrators that provide complete solutions to end users interested in upgrading to more modern architectures, may become increasingly important. In addition, as more enterprises purchase infrastructure-as-a-service offerings from hyperscale cloud providers and large service providers, sales through some of Brocade's existing paths to market could decline. If Brocade fails to build or grow successful relationships with these partners and service providers, Brocade's business and financial results could be adversely affected.

Brocade's failure to successfully develop new and/or maintain its current channel partner relationships, or the failure of these partners to successfully sell Brocade's products (for example, by devoting more resources to marketing and supporting Brocade's competitors' products and services), could reduce Brocade's growth prospects significantly. In addition, Brocade's ability to respond to the needs of its distribution and reseller partners in the future may also depend on third parties producing complementary products and applications for Brocade products to enable these partners to be competitive in the market. In addition, Brocade may not successfully achieve its expanded go-to-market objectives, which include effectively maintaining or expanding sales through its distribution channels, successfully managing distribution and reseller partner relationships, and effectively training and incentivizing its channel partners. If Brocade fails to respond successfully to the needs of these distribution and reseller partners and their customers, Brocade's business and financial results could be adversely affected.

If Brocade does not manage the risks associated with its wireless networking business properly, its revenue and profitability could be adversely affected.

As described below, certain risks that accompany Brocade's new wireless networking business differ from those of Brocade's other businesses.

The success of Brocade's wireless networking business depends on the continued growth and reliance on Wi-Fi, particularly in the service provider and enterprise markets. The recent growth of the market for Wi-Fi networks is being driven by the increased use of Wi-Fi-enabled mobile devices and the use of Wi-Fi as a preferred connectivity option to support video, voice, and other higher-bandwidth uses. As a result, mobile service providers and enterprises are struggling to address the increasing capacity demands. A number of barriers may prevent service providers or their subscribers from adopting Wi-Fi technology to address the wireless network capacity gap. For example, Wi-Fi operates over an unlicensed radio spectrum, and if the Wi-Fi spectrum becomes crowded, Wi-Fi solutions will be a less attractive option for service providers. In addition, in order for Wi-Fi solutions to adequately address the capacity gap, mobile devices should automatically switch from a cellular data network to the service provider's Wi-Fi network, when available and appropriate, which does not generally occur. There is no guarantee that service providers and enterprises will continue to utilize Wi-Fi technology, that use of Wi-Fi-enabled mobile devices will continue to increase, or that Wi-Fi will continue to be the preferred connectivity option for the uses described above. If another technology were found to be superior to Wi-Fi by service providers or enterprises, it could adversely affect Brocade's revenue and profitability.

Brocade's wireless products are designed to interoperate with cellular networks and mobile devices using Wi-Fi technology. These networks and devices have varied and complex specifications. As a result, Brocade must attempt to ensure that its products interoperate effectively with all of these existing and planned networks and devices. To meet these requirements, Brocade must continue to undertake development and testing efforts that require significant capital and employee resources. Brocade may not accomplish these development efforts quickly or cost-effectively, or at all. If Brocade's wireless products do not interoperate effectively, orders for Brocade's wireless products could be delayed or cancelled, potentially resulting in the loss of existing and potential end customers; Brocade could experience significant warranty, support and repair costs; and the attention of Brocade's engineering personnel could be diverted from its product development efforts. In addition, Brocade's end customers may require Brocade's products to comply with new and rapidly evolving security or other certifications and standards. If Brocade's wireless products are late in achieving or fail to achieve compliance with these certifications and standards, and/or if Brocade's competitors achieve compliance with these certifications and standards, such end customers may not purchase Brocade's products, which would adversely affect Brocade's revenue and profitability.

Brocade's wireless products have been deployed in many different locations and user environments and are capable of providing connectivity to many different types of Wi-Fi-enabled devices operating a variety of applications. The ability of Brocade's wireless products to operate effectively can be negatively impacted by many different elements unrelated to its products. For example, a user's experience may suffer from an incorrect setting in a Wi-Fi device. Although certain technical problems experienced by users may not be caused by Brocade's products, users often perceive the underlying cause to be a result of poor performance of the wireless network. This perception, even if incorrect, could harm Brocade's business and reputation.

If Brocade loses key employees or is unable to hire additional qualified employees, its business may be negatively impacted.

Brocade's success depends, to a significant degree, upon the continued contributions of its employees, including executive officers, engineers, sales representatives, and others, many of whom would be difficult to replace. Departures, appointments, and changes in roles and responsibilities of officers or other key members of management may disrupt Brocade's business and adversely affect Brocade's operating results.

Brocade believes its future success depends, in large part, upon its ability to attract highly skilled employees and operate effectively in geographically diverse locations. Brocade has relied heavily on equity awards in the form of stock options and restricted stock units as one means for recruiting and retaining highly skilled employees. The number of shares available for issuance under Brocade's 2009 Stock Plan is limited, and any increase in the number of shares available under that plan must be approved by Brocade's stockholders. The extent to which Brocade is able to obtain such stockholder approval depends on a variety of factors, including assessments by stockholders and proxy advisory firms of Brocade's historical equity award granting practices. The effectiveness of these equity awards in recruiting and retaining employees could be reduced if Brocade has to reduce the size of the equity awards granted to its employees or if there is a sustained decline in the trading price of Brocade's shares. There are also limited qualified employees in each of Brocade's markets, and competition for such employees is very aggressive. In particular, Brocade operates in various locations with highly competitive labor markets, including Bangalore, India, and San Jose, California. Brocade may experience difficulty in hiring key management and qualified employees with skills in nearly all areas of Brocade's business and operations.

The loss of the services of any of Brocade's key employees, the inability to attract or retain qualified employees in the future, or delays in hiring required employees—particularly sales and engineering employees—could delay the development and introduction of Brocade's products or services and/or negatively affect its ability to sell products or services.

In addition, the pending acquisition of Brocade by Broadcom, and Broadcom's planned divestiture of Brocade's IP Networking business, could adversely affect Brocade's ability to retain and motivate current employees or attract and retain prospective employees, each of whom may be uncertain about their future roles and relationships following the completion of the transactions.

Brocade has a substantial amount of acquired intangible assets, goodwill, and deferred tax assets on its balance sheet, and if Brocade is required to record impairment charges for these assets, such impairment charges could adversely affect Brocade's financial results.

Brocade has a substantial amount of acquired intangible assets and goodwill on its balance sheet related to Brocade's prior acquisitions. Brocade's determination of the fair value of its long-lived assets relies on management's assumptions of future revenues, operating costs, and other relevant factors. Brocade's estimates with respect to the useful life or ultimate recoverability of Brocade's carrying basis of assets, including acquired intangible assets, could change as a result of changes in strategic focus, competition, or other changes affecting management's assumptions. If management's estimates of future operating results change or if there are changes to other assumptions, such as the discount rate applied to future cash flows, then the estimated fair value of Brocade's reporting units could change significantly, which could result in goodwill impairment charges. The risk of a future goodwill impairment charge is comparatively high for the IP Networking Products reporting unit because, based on the Company's fiscal year 2016 annual goodwill impairment test, the estimated fair value of that reporting unit's net assets, which include goodwill, exceeded the carrying value of those net assets by only approximately $181 million. For a sensitivity analysis that quantifies the impact of certain key assumptions used by Brocade on the fair value estimates for the IP Networking Products reporting unit, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates" in Part II, Item 7 of this Form 10-K. If future impairment tests should result in a charge to earnings, Brocade's financial results would be adversely affected.

Brocade has determined that, more likely than not, it will realize its deferred tax assets based on positive evidence of its historical operations and projections of future income, except for the deferred tax assets related to California and remaining capital loss carryforwards for which a valuation allowance has been applied. In the event that future income by jurisdiction is less than what is currently projected, Brocade may be required to apply a valuation allowance to these deferred tax assets in jurisdictions where realization of such assets is no longer more likely than not, which could result in a charge to earnings that would adversely affect Brocade's financial results.

Cyberattacks and data security breaches could disrupt Brocade's operations, negatively impact Brocade's reputation, and erode customers' trust.

Cyberattacks and other malicious attacks could lead to data breaches, computer break-ins, malware, viruses, and unauthorized tampering with Brocade's computer systems, intellectual property, and confidential information of its customers and partners. These attacks could disrupt Brocade's operations, negatively impact Brocade's reputation, and erode customers' trust. Brocade's IT systems also rely in part upon certain business management and communication tools provided by third-party vendors, and security flaws or outages in such tools could adversely affect Brocade's operations. Despite implementation of cybersecurity measures by Brocade and its third-party vendors, Brocade or such vendors may not successfully limit attacks by malicious third parties if they attempt to undermine or disrupt those cybersecurity measures.

Additionally, if an actual or perceived cyberattack or data security breach occurs in Brocade's network or in one of Brocade's customer's network, regardless of whether the breach is attributable to Brocade's products, the market perception of the effectiveness of Brocade's products could be harmed. Brocade may suffer reputational harm and Brocade's customers' trust may be eroded as a result of a data security breach involving customers' or employees' information, which could negatively impact revenue, expenses, and profitability. Customers have become increasingly sensitive to government-sponsored surveillance and may believe that, as a U.S.-based manufacturer, Brocade's equipment contains "backdoor" code that would allow customer data to be compromised by either governmental bodies or other third parties. As a result, customers may choose not to deploy Brocade networking products, which could negatively impact Brocade's business and financial results.

Brocade's revenues, operating results, and cash flows may fluctuate from period to period due to a number of factors, which makes predicting financial results difficult.

IT spending is subject to cyclical and uneven fluctuations, which could cause Brocade's financial results to fluctuate unevenly and unpredictably. For example, the U.S. federal budget for government IT spending can be highly seasonal and subject to delays, reductions, and uncertainty due to changes in the political and legislative environment. It can also be difficult to predict the degree to which end-customer demand and the seasonality and uneven sales patterns of Brocade's OEM partners or other customers will affect Brocade's business in the future, particularly as Brocade releases new or enhanced products. While Brocade's first and fourth fiscal quarters are typically stronger quarters for SAN products and Brocade's third and fourth fiscal quarters are typically stronger quarters for IP Networking solutions, future buying patterns may differ from historical seasonality. If the mix of revenue changes, it may also cause results to differ from historical seasonality. Accordingly, Brocade's quarterly and annual revenues, operating results, cash flows, and other financial and operating metrics may vary significantly in the future, and the results of any prior periods should not be relied upon as an indication of future performance. In addition, the announcement and pendency of Brocade's agreement to be acquired by Broadcom, Broadcom's planned divestiture of Brocade's IP Networking business, or the failure to complete the proposed transactions on a timely basis or at all, could have a material adverse effect on, and cause fluctuations in, Brocade's operating results.

Failure to accurately forecast demand for Brocade's products or to successfully manage the production of its products could increase Brocade's product cost and adversely affect its revenue, margins and profitability.

Brocade provides product forecasts to its contract manufacturers ("CMs") and places purchase orders with them in advance of the scheduled delivery of products to Brocade's customers. In preparing sales and demand forecasts, Brocade relies largely on input from its sales force, partners, resellers, and end-user customers. If Brocade is unable to accurately forecast demand, or if Brocade fails to effectively communicate with its distribution partners about end-user demand or other time-sensitive information, Brocade's ability to successfully manage production could be negatively impacted. Brocade's ability to accurately forecast demand also may become increasingly limited as Brocade introduces new or enhanced products, begins phasing out certain products, or acquires other companies or businesses. If these forecasts are inaccurate, Brocade may be unable to obtain adequate manufacturing capacity from its CMs to meet customers' delivery requirements, which could cause customers to cancel their orders for Brocade products. Inaccurate forecasts also could cause Brocade to accumulate excess inventories or incur costs associated with excess manufacturing capacity. If customers cancel their orders, Brocade's revenue may be adversely affected. If excess inventories accumulate, Brocade's gross margins may be negatively impacted by write-downs for excess and/or obsolete inventory. In addition, Brocade will experience higher fixed costs as it expands its CMs' capabilities for forecasted demand, which could negatively affect Brocade's margins if demand decreases suddenly and Brocade is unable to reduce these fixed costs.

Additionally, most of Brocade's manufacturing overhead and expenses are fixed in the short term or incurred in advance of receipt of corresponding revenue, and Brocade may not be able to reduce such expenses sufficiently to offset declining product prices, reduced volumes, or other factors. As a result, Brocade's gross margins may be adversely affected by fluctuations in manufacturing volumes, component costs, foreign currency exchange rates, the mix of product configurations sold, and the mix of distribution channels through which its products are sold. Brocade's gross margins may also be adversely affected if product or related warranty costs associated with Brocade's products are greater than previously experienced.

Brocade has extensive international operations, which expose its business and operations to additional risks.

Brocade has significant international operations, and a significant portion of Brocade's sales occur in international jurisdictions. In addition, Brocade's CMs have significant operations in China and other locations outside the United States. Brocade's international sales of its IP Networking solutions have primarily depended on its distributors and resellers. Maintenance or expansion of international sales or international operations involves inherent risks that Brocade may not be able to control, including, but not limited to, the following:

- Compliance by Brocade and its channel partners and other agents with numerous and often complex U.S. and other applicable government regulations prohibiting certain end-uses and restricting trade with embargoed or sanctioned countries, such as Iran and Russia, and with denied parties;
- Difficulty in conducting due diligence with respect to business partners in certain international markets;
- Exposure to economic instability or fluctuations in international markets, such as China, that could cause reductions in IT spending;
- Exposure to inflationary risks and/or wage inflation in certain countries, such as India;

- Increased exposure to foreign currency exchange rate fluctuations, including currencies such as the British pound, the Chinese yuan, the euro, the Indian rupee, the Japanese yen, the Singapore dollar, and the Swiss franc;
- Exposure to sovereign debt risk and political and economic instability in certain regions of Europe, including Russia and Turkey, and certain countries with newly advanced economies, including China and Brazil;
- Multiple potentially conflicting and changing governmental laws, regulations, technical standards, certification requirements, and practices, including differing environmental, data privacy, export, import, trade, manufacturing, product compliance, tax, labor, and employment laws;
- Compliance by Brocade and its channel partners and other agents with the numerous and often complex U.S. and other applicable government regulations relating to exports and imports, and associated licensing requirements, particularly in the area of encryption technology;
- Reduced or limited protection of intellectual property rights, particularly in jurisdictions that have less developed intellectual property regimes, such as China and India;
- Commercial laws and business practices that favor local competition;
- In certain international regions, particularly those with rapidly developing economies, it may be common to engage in business practices that are prohibited by anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act;
- Increased complexity, time, and costs of managing international operations;
- Managing research and development and sales teams in geographically diverse locations, including teams divided between the United States, the United Kingdom, and India;
- Effective communications across multiple geographies, cultures, and languages;
- Recruiting sales and technical support personnel with the skills to design, manufacture, sell, and support Brocade's products in international markets;
- Longer sales cycles and manufacturing lead times;
- Increased complexity and cost of providing customer support and maintenance for international customers;
- Difficulties in collecting accounts receivable;
- Increased complexity of logistics and distribution arrangements; and
- Increased complexity of accounting rules and financial reporting requirements.

In addition, the June 2016 announcement of the results of the United Kingdom European Union membership referendum (commonly referred to as Brexit) advising for the exit of the United Kingdom from the European Union has created economic, financial, and regulatory uncertainty, which may cause Brocade's customers to closely monitor their costs and reduce their spending on Brocade's products and services.

Any of these factors could negatively impact Brocade's business, revenues, and profitability.

If product orders are received late in a fiscal quarter, Brocade may be unable to recognize revenue for these orders in the same quarter, which could adversely affect quarterly financial results.

Brocade's IP Networking business typically experiences significantly higher levels of customer orders toward the end of a fiscal period. Customer orders received toward the end of the period may not ship within the period due to a lack of available inventory and manufacturing lead times. The inability to ship within the quarter in which the customer orders are received could negatively impact Brocade's financial results in a particular quarter.

Brocade is subject to—and will continue to be subject to—intellectual property infringement claims and litigation that are costly to defend and/or settle, which could result in significant damages and other costs to Brocade and limit Brocade's ability to use certain technologies in the future.

Brocade competes in markets in which companies are frequently subject to claims and related litigation regarding patent and other intellectual property rights. Third parties have, from time to time, asserted patent, copyright, trade secret, and/or other intellectual property-related claims against Brocade and/or employees of Brocade. These claims may be, and have in the past been, made against Brocade's products and services, subcomponents of its products, methods performed by its products or a combination of products, including third-party products, methods used in its operations, or uses of its products by its customers. The claimant may seek various remedies against Brocade, such as money damages, disgorgement of profits, injunctions barring sales of infringing goods, or exclusion orders barring import of products into the U.S., among other possible remedies. Moreover, these claims may concern Brocade's hiring of a former employee of the third-party claimant. Brocade and companies acquired by Brocade have in the past incurred, and will likely incur in the future, substantial expenses to defend against such third-party claims. In particular, as a result of the acquisition of Ruckus, Brocade now competes in new markets, including the Wireless LAN market, that may result in relatively greater numbers of third-party intellectual property claims. Brocade's suppliers and customers also may be subject to third-party intellectual property claims with respect to their own products, which could negatively impact the suppliers' ability to supply Brocade with components or customers' willingness to purchase products from Brocade. In addition, Brocade may be subject to claims, defenses, and indemnification obligations with respect to third-party intellectual property rights pursuant to Brocade's agreements with suppliers, OEM and channel partners, or customers. If Brocade refuses to indemnify or defend such claims, for instance, even in situations in which the allegations are meritless, then suppliers, partners, or customers may refuse to do business with Brocade. Parties that assert such intellectual property claims may be unreasonable in their demands, or may simply refuse to settle, which could lead to prolonged periods of litigation, additional burdens on employees or other resources, distraction from Brocade's business operations, component supply stoppages, expensive settlement payments, and lost sales. Furthermore, there is little or no information publicly available concerning market or fair values for licenses and/or settlement fees, which can lead to overpayment of license or settlement fees. Any of the above scenarios could have an adverse effect on Brocade's financial position, financial results, cash flows, and future business prospects.

Undetected software or hardware errors could increase Brocade's costs, reduce its revenues, and delay market acceptance of its products.

Networking products frequently contain undetected software or hardware errors when first introduced or as new versions are released. As Brocade continues to expand its product portfolio to include software-centric products, which may include software licensed from third parties, errors may be found from time to time in these products. In addition, through its acquisitions, Brocade has assumed—and may in the future assume—products previously developed by an acquired company that have not been through the same level of product development, testing, and quality control processes used by Brocade, and may have known and/or undetected errors. Some types of errors may not be detected until the product is installed in a user environment. In addition, Brocade products are often combined with other products, including software from other vendors, and these products often need to interoperate. For IT products that have different specifications, utilize multiple protocol standards, or may be procured from other vendors, it may be difficult to identify the source of any problems. Identifying the source of and remediating these problems may cause Brocade to incur significant warranty and repair costs, divert the attention of engineering personnel from product development efforts, and cause significant customer relations problems, resulting in lower profitability from increased costs and/or decreased revenue. Moreover, the occurrence of hardware and software errors, whether caused by Brocade products or another vendor's products, could delay market acceptance of new or enhanced Brocade products.

Brocade's supply chain is dependent on several sole-source and limited-source suppliers and a limited number of major CMs, either one or both of which may significantly impact Brocade's financial results.

Although Brocade uses standard parts and components for its products where possible, Brocade's CMs currently purchase, on Brocade's behalf, several key components used in the manufacture of its products from single- or limited-source suppliers. Brocade's single-source components include, but are not limited to, its application-specific integrated circuits (commonly referred to as "ASICs") and its Wi-Fi chipsets. Brocade's principal limited-source components include memory, certain oscillators, microprocessors, certain connectors, certain logic chips, power supplies, programmable logic devices, printed circuit boards, certain optical components, packet processors, and switch fabric components. Brocade generally acquires these components through purchase orders and has no long-term commitments regarding supply or pricing with such suppliers. If Brocade is unable to obtain these and other components when required, or if Brocade's suppliers experience component defects, Brocade may not be able to deliver its products to customers in a timely manner and may be required to repair or retrofit products previously delivered to customers, at significant expense to Brocade. In addition, a challenging economic or industry environment could cause some of these sole-source or limited-source suppliers to delay or halt production, go out of business, or be acquired by third parties, which could result in a disruption in Brocade's supply chain. Brocade's supply chain could also be disrupted in a variety of other circumstances that may impact its suppliers and partners, including adverse results from intellectual property litigation or natural disasters. Any manufacturing disruption by these sole-source or limited-source suppliers could severely impair Brocade's ability to fulfill orders and may significantly impact its financial results.

In addition, the loss of any of Brocade's major CMs, or portions of their capacity, could significantly impact Brocade's ability to produce its products for an indefinite period of time. Qualifying a new CM and commencing volume production is typically a lengthy and expensive process. A CM may move the production lines for Brocade's products to new locations or factories, and this may result in delays or disruptions. If Brocade changes any of its CMs or if any of its CMs experience unplanned delays, disruptions, capacity constraints, component parts shortages, or quality control problems in their manufacturing operations, shipment of Brocade's products to customers could be delayed and result in loss of revenues.

Brocade's intellectual property rights may be infringed upon or misappropriated by others, and Brocade may not be able to protect or enforce its intellectual property rights.

Brocade's intellectual property rights may be infringed upon or misappropriated by others, including by competitors, partners, former employees, foreign governments, or other third parties. In some cases, such infringement or misappropriation may be undetectable, or enforcement of Brocade's intellectual property rights may be impractical. Brocade has filed, and may in the future file, lawsuits against third parties in an effort to enforce its intellectual property rights. Intellectual property litigation is expensive and unpredictable. There can be no assurance that Brocade will prevail in such assertions or enforcement efforts, either on the merits, or with respect to particular relief sought, such as damages or an injunction. Nor can there be any assurance that any awarded damages ultimately will be paid to Brocade. Furthermore, the opposing party may attempt to prove that the asserted intellectual property rights are invalid or unenforceable, and, if successful, may seek recompense for its attorneys' fees and costs or countersue Brocade as part of its defense. Finally, there can be no assurance that any attempt by Brocade to enforce its intellectual property rights, even if successful in court, will improve Brocade's sales, diminish the defendant's sales, or stop the defendant's allegedly unfair competition.

Brocade relies on a combination of patent, copyright, trademark, and trade secret laws, along with measures such as physical and operational security and contractual restrictions, to protect its intellectual property rights in its proprietary technologies, but none of these methods of protection may be entirely appropriate or adequate to address all risks that could result in a loss of intellectual property rights. Loss or violation of Brocade's intellectual property rights could adversely affect Brocade's business and operating results, through a loss of revenue or an increase in expenses.

Brocade relies on licenses from third parties, and the loss or inability to obtain any such license could adversely affect its business.

Many Brocade products are designed to include software or other intellectual property licensed from third parties. There can be no assurance that the necessary licenses will be available on acceptable terms, if at all. Brocade's inability to obtain certain licenses or other rights on favorable terms, or the termination of existing licenses, could have an adverse effect on Brocade's business, operating results, and financial condition, including its ability to continue to distribute or support affected products.

In addition, if Brocade has failed, or in the future fails, to adequately manage the use of commercial or “open-source” software in Brocade’s products, or if companies acquired by Brocade fail in such regard, Brocade may be subject to copyright infringement litigation or other claims. Furthermore, Brocade may be required, for commercially licensed software, to pay penalties or undergo costly audits pursuant to the license agreement. In the case of open-source software, Brocade may be required to license proprietary portions of its products on a royalty-free basis, disclose proprietary parts of source code, or commence costly product redesigns that could result in a loss of intellectual property rights, product performance degradation, or a delay in shipping products to customers and result in loss of revenue or increased costs.

Brocade’s planned upgrade of its enterprise resource planning (“ERP”) software solution could result in significant disruptions to its operations.

Brocade is in the process of upgrading its ERP software solution to a newer version. Brocade expects the upgrade to be completed in the first half of fiscal year 2018. Implementation of the upgraded solution will have a significant impact on Brocade’s business processes, information systems, and internal controls. The transition will require significant change management, meaningful investment in capital and personnel resources, and coordination of numerous software and system providers and internal business teams. Brocade may experience difficulties as it manages these changes and transitions to the upgraded systems and processes, including loss or corruption of data, delayed shipments, decreases in productivity as its personnel implement and become familiar with new systems and processes, unanticipated expenses (including increased costs of implementation or costs of conducting business), and lost revenues. Difficulties in implementing the upgraded solution or significant system failures could disrupt Brocade’s operations, divert management’s attention from key strategic initiatives, and have an adverse effect on its capital resources, financial condition, results of operations, or cash flows. In addition, any delays in completing the upgrade process could exacerbate these transition risks as well as expose Brocade to additional risks in the event that the support for Brocade’s existing ERP software solution is reduced or eliminated.

Business interruptions could adversely affect Brocade’s business operations.

Brocade’s business operations and the operations of its suppliers, CMs, and customers are vulnerable to interruptions caused by acts of terrorism, fires, earthquakes, tsunamis, nuclear reactor leaks, hurricanes, power losses, telecommunications failures, and other events beyond Brocade’s control. For example, a substantial portion of Brocade’s facilities, including its corporate headquarters, are located near major earthquake faults. Brocade does not have multiple-site capacity for all of its services in the event of a business disruption. In the event of a major earthquake, Brocade could experience business interruption resulting from destruction of facilities or other infrastructure and from loss of life. Brocade does not carry earthquake insurance and has not set aside funds or reserves to cover potential earthquake-related losses. Additionally, major public health issues, such as an outbreak of a pandemic or epidemic, may interrupt business operations of Brocade, its CMs, its customers, or its suppliers in those geographic regions affected by that particular health issue. In addition, one of Brocade’s CMs has a major facility located in an area that is subject to hurricanes, and Brocade’s suppliers could face other natural disasters, such as floods, earthquakes, extreme weather, and fires. In the event that a business interruption occurs that affects Brocade, its suppliers, CMs, or customers, shipments could be delayed or cancelled, and Brocade’s business operations and financial results could be harmed.

In addition, Brocade may suffer reputational harm and may not carry sufficient insurance to compensate for financial losses that may occur as a result of any of these events. Any such event could have an adverse effect on Brocade’s business, operating results, and financial condition, and could expose Brocade to significant third-party claims of liability and damages.

Brocade is required to assess its internal control over financial reporting on an annual basis, and any adverse findings from such assessment could result in a loss of investor confidence in its financial reports, significant expense to remediate any internal control deficiencies, and ultimately have an adverse effect on its stock price.

Brocade is required to assess the effectiveness of its internal control over financial reporting annually, as required by Section 404 of the Sarbanes-Oxley Act of 2002. Brocade’s evaluation of the effectiveness of its internal control over financial reporting as of October 29, 2016, does not include the internal controls of Ruckus, which Brocade acquired in May 2016. Even though, as of October 29, 2016, Brocade concluded that its internal control over financial reporting was effective, Brocade needs to maintain its processes and systems and adapt them as its business grows and changes, including to reflect its integration of Ruckus, as well as any future acquisitions Brocade may undertake. This continuous process of maintaining and adapting its internal controls and complying with Section 404 is expensive, time consuming, and requires significant management attention. In addition, Brocade cannot be certain that its internal control measures will continue to provide adequate control over its financial processes and reporting or ensure compliance with Section 404.

If Brocade or its independent registered public accounting firm identifies material weaknesses in Brocade's internal controls, the disclosure of that fact, even if quickly remedied, may cause investors to lose confidence in Brocade's financial statements and its stock price may decline. Remediation of a material weakness could require Brocade to incur significant expenses and, if Brocade fails to remedy any material weakness, its financial statements may be inaccurate, its ability to report its financial results on a timely and accurate basis may be adversely affected, its access to the capital markets may be restricted, its stock price may decline, and Brocade may be subject to sanctions or investigation by regulatory authorities, including the U.S. Securities and Exchange Commission ("SEC") or the NASDAQ Stock Market LLC ("NASDAQ"). Brocade may also be required to restate its financial statements from prior periods.

Brocade's business is subject to increasingly complex and changing legal and regulatory requirements that could adversely affect its business, financial results, and stock price.

Brocade is subject to the changing rules and regulations of federal and state governments, as well as the stock exchange on which Brocade's common stock is listed. These entities, including the Public Company Accounting Oversight Board, the Financial Accounting Standards Board, the SEC, the Internal Revenue Service (the "IRS"), the Financial Industry Regulatory Authority, Inc., and NASDAQ, have issued a significant number of new regulations over the last several years and continue to develop additional regulations and requirements. Further, Brocade is subject to various rules and regulations of certain foreign jurisdictions. Brocade's efforts to comply with these requirements have resulted in, and are likely to continue to result in, an increase in expenses and a diversion of management's time from other business activities.

For example, the Dodd-Frank Wall Street Reform and Consumer Protection Act requires that public companies disclose whether certain minerals, commonly known as "conflict minerals," are necessary to the functionality or production of a product manufactured or contracted to be manufactured by those companies, and, if so, whether those minerals originated in the Democratic Republic of the Congo or an adjoining country. These requirements could adversely affect (i) Brocade's revenues, if its partners or customers are dissatisfied with Brocade's use or efforts to reduce the use of conflict minerals and (ii) the sourcing, availability, and pricing of minerals used in the manufacture of certain components that are incorporated in Brocade products. In addition, Brocade's supply chain is complex, so Brocade may face reputational challenges with its partners, customers, stockholders, and other stakeholders if the origins of the conflict minerals used in its products cannot be sufficiently verified.

Similarly, Brocade is subject to environmental and other regulations governing product safety, materials usage, packaging, and other environmental impacts in the countries where Brocade products are sold. For example, many Brocade products are subject to laws and regulations that restrict the use of certain substances such as lead, mercury, hexavalent chromium, and cadmium, and that require Brocade to assume responsibility for collecting, treating, recycling, and disposing of products when they have reached the end of their useful lives. For example, in Europe, environmental restrictions apply to products sold in that region, and certain Brocade partners require compliance with these or other more stringent requirements. In addition, recycling, labeling, and related requirements apply to Brocade products sold in Europe and China. If Brocade products do not comply with local environmental laws, Brocade could be subject to fines, civil and criminal sanctions, and contract damage claims. In addition, Brocade could be prohibited from shipping non-compliant products into certain jurisdictions and required to recall and replace any non-compliant products already shipped, which would disrupt Brocade's ability to ship products and result in reduced revenue, increased warranty expense, increased obsolete or excess inventories, and harm to Brocade's business and customer relationships.

Brocade's wireless products are subject to governmental regulations in a variety of jurisdictions. In order to achieve and maintain market acceptance, Brocade's wireless products must continue to comply with these regulations, as well as a significant number of industry standards. In the United States, Brocade's products must comply with various regulations defined by the Federal Communications Commission ("FCC"), Underwriters Laboratories, and others. Brocade must also comply with similar international regulations. For example, Brocade's wireless communication products operate through the transmission of radio signals, and radio emissions are subject to regulation in the United States and in other countries in which Brocade does business. In the United States, various federal agencies including the Center for Devices and Radiological Health of the United States Food and Drug Administration, the FCC, the Occupational Safety and Health Administration, and various state agencies have promulgated regulations that concern radio/electromagnetic emissions standards. Member countries of the European Union have enacted similar standards concerning electrical safety and electromagnetic compatibility and emissions, as well as chemical substances and use standards. As these regulations and standards evolve, and if new regulations or standards are implemented, Brocade will be required to modify its products or develop and support new versions of its products, and Brocade's compliance with these regulations and standards may become more burdensome. The failure of Brocade's wireless products to comply, or delays in compliance, with the various existing and evolving industry regulations and standards could prevent or delay introduction of Brocade's products, which could harm Brocade's business. End-customer uncertainty regarding future policies may also affect demand for communications products, including Brocade's wireless products. If existing laws or regulations regarding the use of Brocade's wireless products or related services are enforced in a manner not contemplated by Brocade's end customers, it could expose them or Brocade to liability and adversely affect Brocade's wireless networking business. Moreover, channel partners or end customers may require Brocade, or Brocade may otherwise deem it necessary or advisable, to alter its wireless products to address actual or anticipated changes in the regulatory environment. Brocade's inability to alter its wireless products to address these requirements and any regulatory changes may adversely affect Brocade's wireless networking business.

Brocade is subject to laws, rules, and regulations in the United States and other countries relating to the collection, use, and security of personal information and data. Brocade has incurred, and will continue to incur, expenses to comply with privacy and security standards, protocols, and obligations imposed by applicable laws, regulations, industry standards, and contracts. In addition, such data privacy laws, regulations, and other obligations may negatively impact Brocade's ability to execute transactions and pursue business opportunities. Brocade's customers may also be subject to such laws and regulations in their use of certain Brocade products and services to collect, store, and process data that may include personal information. Such customers may demand or request additional functionality in Brocade's products and services that they believe are necessary or appropriate to comply with such laws and regulations, which could cause Brocade to incur significant additional costs, lose business, or delay or impede the development of new solutions. The privacy and data protection-related laws, rules, and regulations applicable to Brocade and its customers are also subject to significant change. For example, in October 2015, the Court of Justice of the European Union invalidated a safe harbor framework that allowed Brocade and other U.S. companies to meet certain European legal requirements for transferring personal data from Europe to the United States. In response to this development, Brocade and many of its foreign subsidiaries have entered into an Intra-Group Data Transfer Agreement to enable the transatlantic transfer of employee and customer data. In April 2016, the European Parliament approved the General Data Protection Regulation. This regulation, when effective in May 2018, will impose more stringent data protection requirements on U.S. companies collecting personal data from European Union residents and establish greater penalties for noncompliance. Brocade is in the process of evaluating its business practices to ensure compliance with the General Data Protection Regulation. Any inability to comply with applicable privacy or data protection laws, regulations, or other obligations could result in significant cost and liability, damage Brocade's reputation, and adversely affect its business.

Changes to Brocade's provision for income taxes or unfavorable outcomes of tax audits could adversely impact Brocade's financial condition or results.

Brocade is subject to income and other taxes in the United States, including those required by both state and federal governmental agencies, such as the IRS, and numerous foreign jurisdictions. Brocade's provision for income taxes could be increased due to changes in tax laws in the jurisdictions in which Brocade does business, including an increase in tax rates or an adverse change in the treatment of an item of income or expense. In this regard, the United States, countries in the European Union, and other countries where Brocade operates have enacted or are proposing changes to relevant tax, accounting, and other laws, regulations, and interpretations, including fundamental changes to tax laws applicable to multinational corporations. In addition, future effective tax rates could be subject to volatility or adversely affected by changes in the geographic mix of earnings in countries with differing statutory rates, changes in the valuation of deferred tax assets and liabilities, and tax effects of stock-based compensation. These potential changes could increase Brocade's effective tax rate or result in other costs in the future.

Brocade is subject to periodic audits or other reviews by such governmental agencies, and is currently under examination by several state and foreign tax jurisdictions for various years. Audits by governmental tax agencies are subject to inherent uncertainties and could result in unfavorable outcomes, including potential fines or penalties. While Brocade regularly assesses the likely outcomes of these audits in order to determine the appropriateness of its tax provision, the occurrence of an unfavorable outcome in any specific period could have an adverse effect on Brocade's financial condition or results for that period or future periods. The expense of defending and resolving such an audit may be significant.

Brocade is exposed to various risks related to legal proceedings or claims that could adversely affect its financial condition or results.

Brocade is a party to lawsuits in the normal course of its business. The results of complex legal proceedings are difficult to predict. Responding to lawsuits brought against Brocade, or legal actions initiated by Brocade, can often be expensive, time-consuming, and disruptive to normal business operations. Unfavorable outcomes from these claims and/or lawsuits could adversely affect Brocade's business, financial results, or financial condition, and Brocade could incur substantial monetary liability and/or be required to change its business practices. In view of the uncertainties, potential risks, and expenses of litigation, Brocade may, from time to time, settle such disputes, even where Brocade had meritorious claims or defenses, by agreeing to settlement agreements that, depending on their terms, may significantly impact Brocade's financial condition or results. Additional information regarding certain legal proceedings in which Brocade is currently engaged is discussed under "Legal Proceedings" in Part I, Item 3 of this Form 10-K and under the heading "Legal Proceedings" in Note 9, "Commitments and Contingencies," of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

Brocade's stock price may fluctuate, which could cause the value of an investment in Brocade's shares to decline.

Brocade's stock price has fluctuated in the past and may be subject to wide fluctuations in the future in response to various factors. Brocade does not have the ability to influence or control many of these factors. In addition to the factors discussed elsewhere in this "Risk Factors" section, factors that could affect Brocade's stock price include, among others:

- The failure of the pending acquisition of Brocade by Broadcom to be completed on a timely basis or at all;
- Speculation, coverage, or sentiment in the media or investment community regarding the likelihood of completion of the pending acquisition of Brocade by Broadcom;
- Public announcements regarding the status of the pending acquisition of Brocade by Broadcom and/or the status of Broadcom's planned divestiture of Brocade's IP Networking business;
- Actual or anticipated changes in Brocade's operating results;
- Whether Brocade's operating results or forecasts meet the expectations of securities analysts or investors;
- Actual or anticipated changes in the expectations of securities analysts or investors;
- Recommendations by securities analysts or changes in their earnings estimates;
- The announcement or timing of announcement of Brocade's quarterly or annual operating results;
- Announcements of actual or anticipated operating results by Brocade's competitors, Brocade's OEM partners, and other companies in the IT industry;
- Speculation, coverage or sentiment in the media or the investment community about, or actual changes in, Brocade's business, strategic position, competitive position, market share, operations, prospects, future stock price performance, or Brocade's industry in general;
- The announcement of new, planned, or contemplated products; services; commercial relationships; technological innovations; acquisitions; divestitures; or other significant transactions by Brocade or its competitors;
- Brocade's level of success, or perceived level of success, in integrating acquisitions, including the Ruckus acquisition;
- Adverse changes to Brocade's relationships with any of its OEM partners;
- Changes in the business strategy or execution of any of Brocade's OEM partners;

- Departures of key employees;
- Litigation or disputes involving Brocade, Brocade's industry, or both;
- General economic conditions and trends;
- Sales of Brocade's stock by Brocade's officers, directors, or significant stockholders; and
- The timing and amount of dividends and stock repurchases.

In addition, the stock market in general, and the market for technology companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Accordingly, broad market and industry factors may adversely affect Brocade's stock price regardless of Brocade's operating performance. In addition, Brocade's stock price might also fluctuate in reaction to events that affect other companies in Brocade's industry even if these events do not directly affect or involve Brocade.

If Brocade's stock price fluctuates widely, Brocade may become the target of securities litigation. Securities litigation could result in substantial costs and divert Brocade's management's attention and resources from Brocade's business.

Brocade has incurred substantial indebtedness that may decrease its business flexibility and access to capital, and/or increase its borrowing costs, which may adversely affect Brocade's operations and financial results.

As of October 29, 2016, Brocade had approximately $1.7 billion in principal amount of outstanding indebtedness, including $575 million of indebtedness under the 2020 Convertible Notes, $300 million of unsecured indebtedness under the 2023 Notes, and $780 million of indebtedness under the Term Loan Facility described below. In connection with the completion of the Ruckus acquisition in May 2016, Brocade entered into the Credit Agreement pursuant to which the Lenders have provided Brocade with a term loan facility of $800 million (the "Term Loan Facility") and a revolving credit facility of $100 million (the "Revolving Facility," and together with the Term Loan Facility, the "Senior Credit Facility") (see Note 8, "Borrowings," of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K). Brocade's substantially increased indebtedness could have the effect, among other things, of reducing Brocade's flexibility to respond to changing business and economic conditions. In addition, a substantial amount of cash will be required to pay interest, make scheduled principal amortization payments, and repay at maturity Brocade's indebtedness, which may adversely impact Brocade's cash resources, reduce Brocade's business flexibility and reduce the funds otherwise available for working capital, capital expenditures, acquisitions, share repurchases, and other general corporate purposes. Moreover, Brocade's increased indebtedness may put the company at a competitive disadvantage relative to other companies with lower indebtedness levels.

The Credit Agreement contains financial maintenance covenants, including a maximum total leverage ratio and a minimum interest coverage ratio. The Credit Agreement also contains restrictive covenants that limit, among other things, Brocade's and certain of its subsidiaries' ability to incur additional indebtedness or issue certain preferred equity, pay dividends or make other distributions or other restricted payments (including stock repurchases), sell assets other than on terms specified by the Credit Agreement, amend the terms of certain other indebtedness and organizational documents, create liens on certain assets to secure debt, consolidate, merge, sell or otherwise dispose of all or substantially all of their assets, enter into certain transactions with affiliates, or change their lines of business, fiscal years and accounting practices, in each case, subject to certain exceptions. The indenture governing the 2023 Notes contains several negative covenants that restrict the incurrence of debt by Brocade's subsidiaries, restrict the incurrence of liens on principal properties, and restrict Brocade and its subsidiaries from engaging in certain sale-leaseback transactions. In addition, the indentures governing both the 2020 Convertible Notes and the 2023 Notes impose covenants that restrict Brocade's ability to effect certain mergers, consolidations, or sales of assets and require Brocade to offer to repurchase the notes upon the occurrence of certain "Fundamental Changes" or "Change of Control Triggering Events." A "Change in Control" will also trigger an event of default under the Credit Agreement.

The financial and other covenants agreed to by Brocade in connection with such indebtedness could, among other things, reduce Brocade's flexibility to respond to changing business and economic conditions, increase borrowing costs (if further debt financing is desired), and adversely affect Brocade's operations and financial results. Brocade's failure to comply with these covenants would result in a default under the applicable indenture or the Credit Agreement, which could permit the holders to accelerate such debt or demand payment in exchange for a waiver of such default. A default under one debt instrument could also result in cross-defaults under Brocade's other debt instruments, negatively impact the price and liquidity of Brocade's debt and equity securities, negatively impact Brocade's credit ratings, and impair Brocade's ability to access sources of capital. If any of Brocade's debt is accelerated, Brocade may not have sufficient funds available to repay such debt.

Agencies rating Brocade's debt securities may lower Brocade's credit rating. This could further negatively impact the price and liquidity of Brocade's debt and equity securities and Brocade's ability to access sources of capital. In addition, in the event of certain credit rating downgrades, Brocade's obligations under the Senior Credit Facility, which are currently unsecured, will be required to be secured, subject to certain exceptions, by the equity interests of certain Brocade subsidiaries.

Although interest rates have remained at low levels in recent years, they may increase for various reasons, including an increase in inflation, Federal Reserve Board actions, domestic or international fiscal policies, or domestic or international events impacting financial or capital markets. Higher interest rates or an increase in the credit spread for Brocade's rating could negatively impact Brocade's ability to raise additional debt or refinance existing debt. In addition, the indebtedness under the Senior Credit Facility has a floating interest rate, and an increase in interest rates may negatively impact Brocade's financial results.

Provisions in Brocade's charter documents, customer agreements, and Delaware law could discourage, delay, or prevent a change of control of Brocade, which could hinder stockholders' ability to receive a premium for Brocade's common stock and adversely affect the value of Brocade's convertible notes.

Provisions of Brocade's certificate of incorporation and bylaws may discourage, delay, or prevent a merger or mergers that a stockholder may consider favorable. These provisions include, but are not limited to:

- Authorizing the issuance of preferred stock without stockholder approval;
- Prohibiting cumulative voting in the election of directors;
- Limiting who may call special meetings of stockholders and when special meetings of stockholders may be called; and
- Prohibiting stockholder actions by written consent.

Certain provisions of Delaware law also may discourage, delay, or prevent someone from acquiring or merging with Brocade, and Brocade's agreements with certain Brocade customers require that Brocade give prior notice of a change of control and grant certain manufacturing rights following a change of control. Brocade's various change-of-control provisions could prevent or delay a change of control of Brocade, which could hinder stockholders' ability to receive a premium for Brocade's common stock and could adversely affect the value of Brocade's convertible notes.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. *Properties*

Brocade's principal administrative, sales, marketing, education, customer support, and research and development facilities include approximately 562,000 square feet owned by Brocade in San Jose, California. Additional administrative and research and development facilities are located in an aggregate of approximately 517,000 square feet in Sunnyvale, California; Broomfield, Colorado; Plymouth, Minnesota; and Bangalore, India. Approximately 349,000 square feet of such space is leased and 168,000 square feet is owned. Brocade believes that its existing properties, both owned and leased, are in good condition and are suitable for conducting its business. Brocade also productively utilizes the majority of the space in its facilities, making adjustments as necessary.

Brocade's leased properties have expirations through October 2025. In addition to the noted facilities, Brocade leases approximately 936,000 square feet of administrative, sales, and marketing office space in various locations to serve its customers throughout the world.

Brocade has three operating segments. Due to the interrelation of these segments, these segments use substantially all of the properties at least in part, and Brocade retains the flexibility to use each of the properties in whole or in part for each of the segments.

Item 3. *Legal Proceedings*

Acquisition-Related Litigation

The information set forth under the heading "Ruckus Acquisition-Related Litigation" and "Ruckus Acquisition-Related Appraisal Demand" in Note 9, "Commitments and Contingencies," of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K and the information set forth under the heading "Broadcom Acquisition-Related Litigation" in Note 17, "Subsequent Events," of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K is incorporated herein by reference.

Other Legal Proceedings

From time to time, the Company is subject to various legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business, including claims of alleged infringement of patents and/or other intellectual property rights and commercial and employment contract disputes. While the outcome of these matters cannot be predicted with certainty, the Company does not believe that the outcome of any of these matters, individually or in the aggregate, will result in losses that are materially in excess of amounts already accrued by the Company.

Item 4. *Mine Safety Disclosures*

None.

PART II

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

Brocade's common stock is listed on the NASDAQ Global Select Market under the symbol "BRCD." Information regarding the high and low sale prices per share of Brocade's common stock as reported on the NASDAQ Global Select Market for each full quarterly period for the last two fiscal years is set forth in "Selected Quarterly Financial Data (Unaudited)" in Part II, Item 8 of this Form 10-K. According to the records of Brocade's transfer agent, Brocade had 869 stockholders of record as of December 9, 2016, and Brocade believes there are a substantially greater number of beneficial holders. In the third quarter of fiscal year 2014, Brocade's Board of Directors approved the initiation of a quarterly cash dividend on the Company's common stock subject, in each quarter, to the approval of the Board of Directors. Brocade paid a total of $83.8 million and $67.5 million in cash for dividends during fiscal years 2016 and 2015, respectively. Brocade currently expects to retain any future earnings for use in the operation and expansion of its business, to manage its debt, and to return capital to stockholders. During the pendency of Brocade's acquisition by Broadcom, Brocade may not declare or pay dividends other than regular quarterly cash dividends in an amount not exceeding $0.055 per share of Brocade common stock in any fiscal quarter. Such dividends remain subject to the approval of the Brocade Board of Directors. Information with respect to the impact of paying dividends on the conversion rate of the convertible senior unsecured notes is set forth in Note 8, "Borrowings," of the Notes to Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

Unregistered Sales of Equity Securities and Use of Proceeds

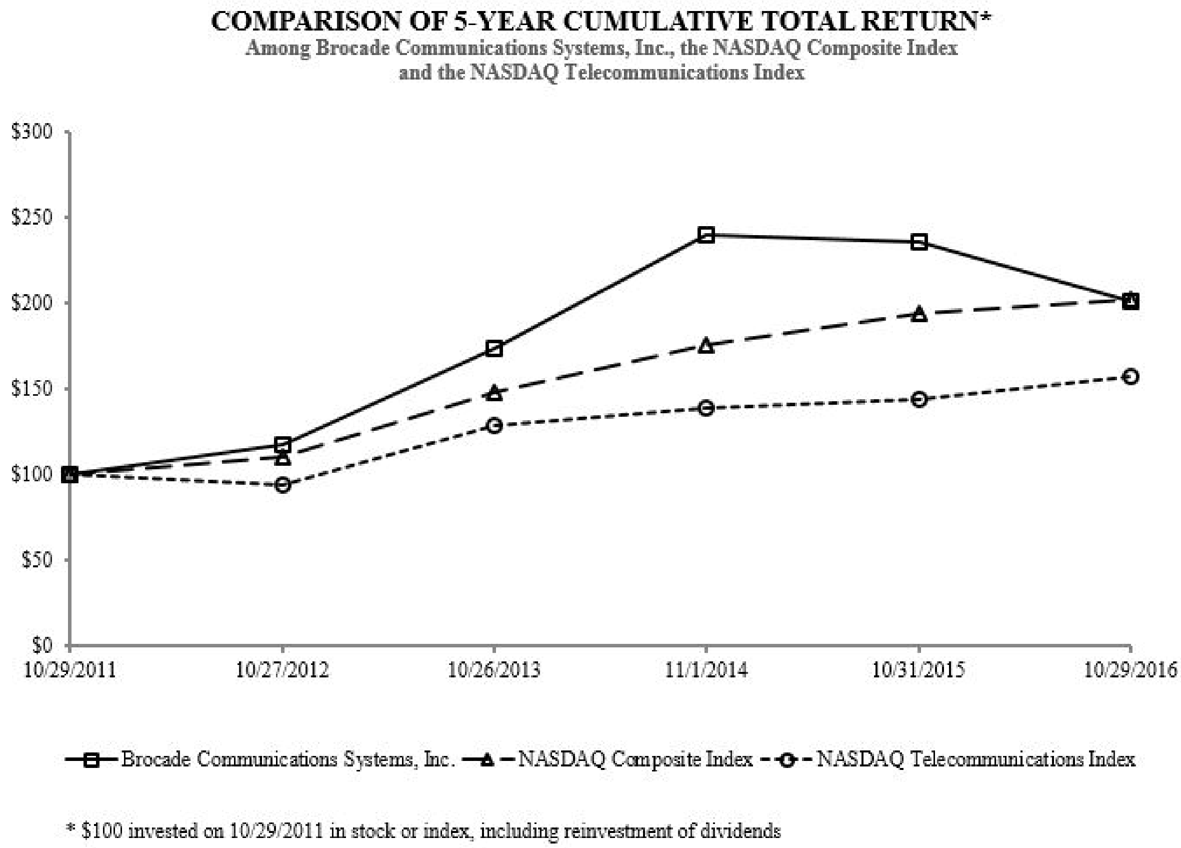
There were no unregistered sales of equity securities in fiscal year 2016 that have not been previously reported on a current report on Form 8-K.

Issuer Purchases of Equity Securities

There were no share repurchases for the three months ended October 29, 2016. As of October 29, 2016, Brocade's Board of Directors had authorized a stock repurchase program for an aggregate amount of up to approximately $3.5 billion (consisting of an original $100 million authorization on August 18, 2004, plus subsequent authorizations of an additional $200 million on January 16, 2007, $500 million on November 29, 2007, $500 million on May 16, 2012, $692 million on September 25, 2013, $700 million on September 25, 2015, and $800 million on April 3, 2016), which was used for determining the amounts in these columns. The number of shares purchased and the timing of purchases are based on the level of the Company's cash balances, general business and market conditions, the trading price of the Company's common stock, and other factors, including alternative investment opportunities. The Company is generally prohibited under the terms of the Merger Agreement with Broadcom from executing further repurchases under this program.

Stock Performance Graph

The graph below shows a comparison for the period commencing on October 29, 2011, and ending on October 29, 2016, of the annual percentage change in the cumulative total stockholder return for Brocade common stock, assuming the investment of $100.00 on October 29, 2011, with the cumulative total stockholder returns for the NASDAQ Composite Index and the NASDAQ Telecommunications Index, respectively, also assuming the investment of $100.00 on October 29, 2011. The stockholder returns for the NASDAQ Composite Index over the indicated periods below are weighted based on market capitalization of companies included in the index at the beginning of each measurement point. Both historical stockholder returns for Brocade common stock and the NASDAQ Composite Index are not indicative of, or intended to forecast, future performance. Data for Brocade common stock, the NASDAQ Composite Index, and the NASDAQ Telecommunications Index assume reinvestment of dividends and was prepared based on publicly available information.



	10/29/2011	10/27/2012	10/26/2013	11/1/2014	10/31/2015	10/29/2016
Brocade Communications Systems, Inc.	$ 100	$ 118	$ 174	$ 240	$ 236	$ 201
NASDAQ Composite Index	$ 100	$ 110	$ 148	$ 176	$ 194	$ 202
NASDAQ Telecommunications Index	$ 100	$ 94	$ 128	$ 139	$ 144	$ 158

Item 6. ***Selected Financial Data***

The following selected financial data should be read in conjunction with the Company's Consolidated Financial Statements and related notes, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and other financial information appearing elsewhere in this Annual Report on Form 10-K. The information set forth below is not necessarily indicative of Brocade's future financial condition or results of operations.

	Fiscal Year Ended				
	October 29, 2016 [(1)]	October 31, 2015	November 1, 2014 [(2)]	October 26, 2013 [(3)]	October 27, 2012
	(In thousands, except per share amounts)				
Selected Financial Data:					
Net revenues	$ 2,345,610	$ 2,263,460	$ 2,211,267	$ 2,222,864	$ 2,237,770
Net income	$ 213,927	$ 340,362	$ 237,971	$ 208,623	$ 195,181
Net income per share—basic attributable to Brocade Communications Systems, Inc. stockholders	$ 0.52	$ 0.81	$ 0.55	$ 0.46	$ 0.43
Net income per share—diluted attributable to Brocade Communications Systems, Inc. stockholders	$ 0.51	$ 0.79	$ 0.53	$ 0.45	$ 0.41
Shares used in per share calculation—basic	409,058	420,331	435,258	450,516	456,629
Shares used in per share calculation—diluted	417,093	430,556	446,859	463,705	472,343
Cash dividends declared per share	$ 0.20	$ 0.16	$ 0.07	$ —	$ —
Net cash provided by operating activities	$ 409,940	$ 447,499	$ 541,597	$ 451,029	$ 590,870
Cash, cash equivalents, and investments	$ 1,257,075	$ 1,440,882	$ 1,255,017	$ 986,997	$ 713,226
Total assets	$ 4,939,811	$ 4,036,153	$ 3,733,675	$ 3,621,391	$ 3,581,261
Senior credit facility	$ 768,401	$ —	$ —	$ —	$ —
Convertible senior unsecured notes	$ 515,602	$ 498,689	$ —	$ —	$ —
Senior unsecured notes	$ 297,457	$ 297,115	$ 296,788	$ 296,477	$ —
Senior secured notes	$ —	$ —	298,373	$ 298,127	$ 596,264
Capital lease obligations	$ —	$ 298	$ 2,115	$ 4,600	$ 4,916

(1) The Company acquired Ruckus Wireless, Inc. ("Ruckus") in May 2016. The results of Ruckus have been included in the Company's results of operations from the date of acquisition. See Note 3, "Acquisitions and Divestitures," of the Notes to Consolidated Financial Statements for additional information regarding this transaction.

(2) The fiscal year ended November 1, 2014, includes the impact of an $83.4 million impairment of goodwill in the Company's Application Delivery Products reporting unit.

(3) The fiscal year ended October 26, 2013, includes the impact of the nonrecurring gain of $76.8 million resulting from the litigation settlement with A10 Networks, Inc., as well as a discrete charge of $78.2 million to reduce previously recognized California deferred tax assets due to changes in California law resulting from the passage of Proposition 39 during fiscal year 2013.

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

The following discussion and analysis should be read in conjunction with the Company's Consolidated Financial Statements and the notes thereto included in Part II, Item 8 of this Annual Report on Form 10-K. This section and other parts of this Annual Report on Form 10-K contain forward-looking statements that involve risks and uncertainties. Forward-looking statements can also be identified by words such as "expects," "anticipates," "assumes," "targets," "projects," "intends," "plans," "believes," "seeks," "estimates," "continues," "may," "should," "could," "depend," "will," "contemplate," "predict," "potential," and variations of such words and similar expressions. Forward-looking statements are not guarantees of future performance and our actual results 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 the subsection entitled "Item 1A. Risk Factors" above.

Overview

We are a leading supplier of networking hardware, software, and services for businesses and organizations of various types and sizes. Our end customers include global enterprises and other organizations that use our products and services as part of their communications infrastructure. In addition, service providers, such as telecommunication firms, cable operators, and mobile carriers, use our products and services as part of their commercial operations. Our business is focused on two key markets. One is Storage Area Networking ("SAN"), where we offer our SAN products, including modular directors, fixed-configuration and embedded switches, and network management and monitoring capabilities. The second is Internet Protocol ("IP") Networking, where we offer IP routers, Ethernet switches, wireless access points and controllers, network security, analytics, and monitoring, as well as products used to manage application delivery. Our IP Networking products are available in modular and fixed hardware-based form factors and can be deployed in both traditional network and next-generation fabric designs. Our IP Networking products also include a wide range of virtualized network software offerings, including a virtual routing software suite, application delivery controller and load balancer, and a cloud-based wireless controller offering. In addition, for mobile service providers, our products include a virtual Evolved Packet Core ("vEPC") solution and a software analytics probe and application monitoring application. We also provide product-related customer support and services across all our businesses.

Key customer information technology ("IT") initiatives, such as virtualization, enterprise mobility, data center consolidation, cloud computing, and migration to higher performance technologies, such as solid-state storage, continue to rely on our mission-critical SAN-based solutions. We are known as a storage networking innovator and have a leading SAN market share position. Our SAN business strategy is to continue to expand and diversify our partner base and introduce new, innovative solutions for both our large installed base and potential new customers. For example, we recently launched our Gen 6 Fibre Channel SAN platform. This next generation of switches and directors delivers superior performance and scalability designed to support demanding workloads from mission-critical applications. In addition, we continue to add new SAN partners, expand relationships with existing partners, and introduce new products, such as the Brocade Analytics Monitoring Platform. This new platform provides customers the ability to improve operational performance, stability, and security within their storage environments.

Our IP Networking business strategies are designed to support IP networking initiatives and intended to increase new customer accounts and expand our current market share through product innovations, acquisitions, and the development and expansion of our routes to market. Examples include the development of both IP and Ethernet fabric switches, next generation routers, virtualized software networking products, and the acquisition of Ruckus Wireless, Inc. ("Ruckus"), which was completed on May 27, 2016. The Ruckus acquisition, which provides us access to both the Ruckus product portfolio and Ruckus' channels to market, enhances our scale and competitive positioning in both the enterprise and service provider markets and compliments our mobility strategy that we announced in February 2016. Longer term, we expect the Ruckus acquisition to strengthen our ability to pursue emerging opportunities around 5G mobile services, the Internet of Things, Smart Cities, in-building LTE, and cellular/Wi-Fi convergence.

The success of our IP Networking business, in particular, will depend on customers recognizing the benefits of upgrading their data center networks to fabric-based networking architectures, upgrading their wireline and wireless infrastructure at the network edge, and adopting our virtualized software-based networking solutions as part of the overall digital transformation happening in the marketplace. In particular, our future success in this area would be negatively impacted if the technological transition to virtual software-based solutions does not occur at the anticipated rate or at all. While our software networking license revenues have not been material to date, there is customer interest in software networking products, and we believe that customers prefer to buy networking products from suppliers that offer a portfolio of solutions that address their current and future needs. We plan to continue to support our growth strategy with continuous innovation, leveraging the strategic investments we have made in our core businesses, developing emerging technologies such as software-defined networking (“SDN”), network functions virtualization (“NFV”), and network visibility and analytics (“NVA”), introducing new products, making strategic acquisitions, and enhancing our existing partnerships and forming new partnerships through our various distribution channels.

We continue to face multiple challenges as customers consider moving specific workloads to the cloud, evaluate hyper-converged architectures, and assess new architectures based on software, servers, and a mix of proprietary- and commodity-networking hardware. We also continue to be affected by worldwide macroeconomic conditions and face the possibility that these conditions could deteriorate and create a more cautious capital spending environment in the IT sector. In addition, U.S. federal customers are important to our business, and spending by the U.S. government can be variable and difficult to predict. We are also cautious about the stability and health of certain international markets and current global and country-specific dynamics, such as the drop in the value of the euro and the Chinese yuan versus the U.S. dollar in the past fiscal year, slowing economic growth in China, Russia-related geopolitical uncertainty, and the withdrawal of the United Kingdom from the European Union as voted by the British citizens during the June 23, 2016, referendum, also commonly known as Brexit. These factors may impact our business and those of our partners. Our diversified portfolio of products helps mitigate the effect of some of these challenges, and we expect IT spending levels to generally rise in the long term. However, it is difficult for us to offset the effects of short-term reductions in IT spending.

We expect our SAN and IP Networking revenues to fluctuate depending on the demand for our existing and future products and services, and the quality of the sales support for our products and services from our distribution and reseller partners, as well as the timing of product and business transitions by our original equipment manufacturer (“OEM”) partners. The average selling prices per port for our SAN and IP Networking products have typically declined over time, unless impacted favorably by a new product introduction or product mix, and we expect this dynamic to continue.

Our plans for our operating cash flows are to provide liquidity for operations, capital investment, and other strategic initiatives, including investments and acquisitions to strengthen our networking portfolios, and to return capital to stockholders. In the fourth quarter of fiscal year 2016, our Board of Directors declared and paid a quarterly cash dividend of $0.055 per share of our common stock for a total of $22.1 million. In addition, on November 20, 2016, our Board of Directors declared a quarterly cash dividend of $0.055 per share of our common stock to be paid on January 4, 2017, to stockholders of record as of the close of market on December 12, 2016. Future dividend payments are subject to review and approval on a quarterly basis by our Board of Directors, and are limited under the terms of the Merger Agreement (as defined below).

Pending Acquisition by Broadcom Limited

On November 2, 2016, we entered into a merger agreement (the “Merger Agreement”) with Broadcom Limited (“Broadcom”) under which Broadcom agreed to acquire us. Upon closing of the merger, our stockholders will receive $12.75 in cash, without interest, less any required tax withholding, for each share of Brocade common stock. Consummation of the merger is subject to certain customary closing conditions, including approval by our stockholders and the receipt of certain governmental and regulatory approvals in various jurisdictions. The transaction is not subject to a financing condition.

Assuming timely satisfaction of the necessary closing conditions, we anticipate that the merger will be completed in the second half of our fiscal year 2017. For additional information related to the Merger Agreement, please refer to our preliminary proxy statement on Schedule14A filed with the Securities and Exchange Commission on December 6, 2016, which includes the full text of the Merger Agreement attached as Annex A. In addition, see Part I, Item 1A. Risk Factors of this Form 10-K, which is incorporated herein by reference, for a discussion of certain risks due to the announcement and pendency of the proposed acquisition or the failure of the acquisition to be completed that could have a material adverse effect on our business and operating results. These risks include, but are not limited to, the diversion of management and employee attention, potential employee attrition, potential adverse reactions or changes to our business relationships with customers, partners, and suppliers and uncertainty surrounding our future plans and prospects.

Overview of Financial Results

The following table provides an overview of some of our financial results (in thousands, except percentages):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Total net revenues	$ 2,345,610	$ 2,263,460	$ 2,211,267
Gross margin	$ 1,516,339	$ 1,528,073	$ 1,465,793
Gross margin, as a percentage of total net revenues	64.6%	67.5%	66.3%
Income from operations	$ 307,093	$ 492,680	$ 386,112
Operating income, as a percentage of total net revenues	13.1%	21.8%	17.5%
Net income attributable to Brocade Communications Systems, Inc.	$ 213,815	$ 340,362	$ 237,971

Results of Operations

We report our fiscal year on a 52- or 53-week period ending on the last Saturday in October or the first Saturday in November, respectively. As is customary for companies that use the 52/53-week convention, every fifth year is a 53-week year. Fiscal year 2016 is a 52-week fiscal year, fiscal year 2015 was a 52-week fiscal year, and fiscal year 2014 was a 53-week fiscal year. Our next 53-week fiscal year will be fiscal year 2019 and our next 14-week quarter will be the second quarter of fiscal year 2019.

Our results of operations for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, are reported in this discussion and analysis as a percentage of total net revenues, except for gross margin with respect to each reportable segment, which is indicated as a percentage of the respective reportable segment net revenues.

Revenues. Our revenues are derived primarily from sales of our SAN and IP Networking products and support and services related to these products, which we call Global Services.

Our total net revenues are summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Net Revenues	% of Net Revenues	Net Revenues	% of Net Revenues	Increase/(Decrease)	% Change
SAN Products	$ 1,229,184	52.4%	$ 1,301,231	57.5%	$ (72,047)	(5.5)%
IP Networking Products	730,412	31.1%	601,170	26.5%	129,242	21.5 %
Global Services	386,014	16.5%	361,059	16.0%	24,955	6.9 %
Total net revenues	$ 2,345,610	100.0%	$ 2,263,460	100.0%	$ 82,150	3.6 %

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Net Revenues	% of Net Revenues	Net Revenues	% of Net Revenues	Increase/(Decrease)	% Change
SAN Products	$ 1,301,231	57.5%	$ 1,326,950	60.0%	$ (25,719)	(1.9)%
IP Networking Products	601,170	26.5%	525,237	23.8%	75,933	14.5 %
Global Services	361,059	16.0%	359,080	16.2%	1,979	0.6 %
Total net revenues	$ 2,263,460	100.0%	$ 2,211,267	100.0%	$ 52,193	2.4 %

The increase in total net revenues for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, reflects higher sales for our IP Networking products and Global Services offerings, partially offset by lower sales for our SAN products, as further described below.

- The decrease in SAN product revenues was caused by lower director, embedded, and fixed-configuration switch product revenues, primarily due to the weaker storage demand environment and operational issues and transitions at certain OEM partners. Consequently, the number of ports shipped decreased by 9.3% during the fiscal year ended October 29, 2016, the effect of which was partially offset by a 4.1% increase in the average selling price per port during the same period related to the Gen 6 product introduction in fiscal year 2016 and higher density product configurations;
- The increase in IP Networking product revenues primarily reflects $169.4 million in revenue from our newly acquired wireless products due to the May 2016 acquisition of Ruckus. In addition, IP Networking product revenues are higher due to the change we made in the fourth quarter of fiscal year 2016 with respect to how we recognize revenue from sales to our distributor customers (see Note 2, “Summary of Significant Accounting Policies,” of the Notes to Consolidated Financial Statements). These increases were partially offset by a decrease in revenue from data center routing products, primarily due to weaker demand from large network carrier, enterprise, and federal customers. There were also decreases due to the completion of the MLXe product refresh and completion of a large service provider customer MLXe project; and
- The increase in Global Services revenues was primarily due to higher support revenue related to our vADC software product line acquired in the second quarter of fiscal year 2015, more renewal support contracts for our SAN and IP hardware products, growth in support revenue from our newly acquired wireless products, as well as an increase in support and services revenue from federal customers and professional services revenues.

The increase in total net revenues for the fiscal year ended October 31, 2015, compared with the fiscal year ended November 1, 2014, reflects higher sales for our IP Networking products and Global Services offerings, partially offset by lower sales for our SAN products, as further described below.

- The decrease in SAN product revenues was caused by lower embedded and fixed-configuration switch product revenues, primarily due to the increased throughput and efficiency of our latest generation of products, which allow customers to transmit significantly more data through the same number of ports, and operational issues at certain OEM partners, partially offset by higher director product revenues. The number of ports shipped decreased by 8.8% during the fiscal year ended October 31, 2015, due to lower embedded and fixed-configuration switch sales, the effect of which was partially offset by a 7.5% increase in the average selling price per port during the same period due to a shift in product mix towards more feature-rich director products;
- The increase in IP Networking product revenues primarily reflects higher revenues from our data center routing and switching products, campus products, and software networking products, partially offset by a decrease in revenues as a result of the previously announced changes in our Brocade ADX and wireless business strategies and the divestiture of our network adapter business (converged network adapters) in January 2014. Data center routing product revenues increased primarily due to strong demand for our newest MLXe modules that we began shipping in the fourth quarter of fiscal year 2014. Data center switching product revenues increased as a result of strong fixed and modular Brocade VDX sales into data center deployments. Campus product revenues increased due to strong U.S. federal sales and the government program for funding schools and libraries, commonly known as E-Rate, generating higher revenue. Software networking revenues increased due to the vADC software product line acquired in March 2015 and growth in usage of our virtual routers by cloud service providers. Data center revenues from IP Networking products accounted for an estimated 57.0% of total IP Networking product revenues for both the fiscal years ended October 31, 2015, and November 1, 2014; and
- The increase in Global Services revenues was primarily due to more new and renewal support contracts for our IP Networking products, as well as higher support contracts related to our vADC software product line acquired in March 2015. This increase was partially offset by one less fiscal week of amortized support revenue in fiscal year 2015 compared with fiscal year 2014, which was a 53-week fiscal year, and a decrease in new and renewal support contracts with certain OEMs for our SAN products.

Our total net revenues by geographic area are summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Net Revenues	% of Net Revenues	Net Revenues	% of Net Revenues	Increase/(Decrease)	% Change
United States	$ 1,202,792	51.3%	$ 1,275,056	56.3%	$ (72,264)	(5.7)%
Europe, the Middle East and Africa (1)	676,685	28.8%	610,133	27.0%	66,552	10.9 %
Asia Pacific	318,758	13.6%	229,903	10.2%	88,855	38.6 %
Japan	100,034	4.3%	93,470	4.1%	6,564	7.0 %
Canada, Central and South America	47,341	2.0%	54,898	2.4%	(7,557)	(13.8)%
Total net revenues	$ 2,345,610	100.0%	$ 2,263,460	100.0%	$ 82,150	3.6 %

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Net Revenues	% of Net Revenues	Net Revenues	% of Net Revenues	Increase/(Decrease)	% Change
United States	$ 1,275,056	56.3%	$ 1,286,650	58.2%	$ (11,594)	(0.9)%
Europe, the Middle East and Africa (1)	610,133	27.0%	598,196	27.0%	11,937	2.0 %
Asia Pacific	229,903	10.2%	183,035	8.3%	46,868	25.6 %
Japan	93,470	4.1%	91,062	4.1%	2,408	2.6 %
Canada, Central and South America	54,898	2.4%	52,324	2.4%	2,574	4.9 %
Total net revenues	$ 2,263,460	100.0%	$ 2,211,267	100.0%	$ 52,193	2.4 %

(1) Includes net revenues of $336.1 million, $400.0 million, and $385.2 million for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, respectively, relating to the Netherlands.

Revenues are generally attributed to geographic areas based on where our products are shipped. However, certain OEM partners take possession of our products domestically and then distribute these products to their international customers. We cannot be certain of the extent to which our domestic and international revenue mix is impacted by the logistics practices of our OEM partners. Unless we receive discrete shipment information from our OEM partners, we account for all domestically delivered OEM shipments as domestic revenues. Therefore international revenues may comprise a larger percentage of our total net revenues than the attributed revenues above indicate.

International revenues for the fiscal year ended October 29, 2016, increased to 48.7% as a percentage of total net revenues compared with the 43.7% for the prior year, primarily due to a shift in customer mix for our SAN and IP Networking products. In addition, one of our OEM customers, who individually accounted for 10% or more of our total net revenues in fiscal year 2016, attributed a higher percentage of their orders to end customers outside of the United States in fiscal year 2016 as compared with fiscal year 2015. International revenues for the fiscal year ended October 31, 2015, increased to 43.7% as a percentage of total net revenues compared with the 41.8% for the prior year, primarily due to a shift in customer mix for our SAN and IP Networking products.

A significant portion of our revenues are concentrated among a relatively small number of OEM customers. For the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, the following three customers individually accounted for 10% or more of our total net revenues:

- 39% of total net revenues for the fiscal year ended October 29, 2016, comprised of 19% from EMC Corporation (“EMC”), which was acquired by Dell, Inc. on September 7, 2016, combined with direct sales to Dell, Inc. (together “Dell EMC”), 10% from Hewlett Packard Enterprise Company (“HPE”), and 10% from International Business Machines Corporation (“IBM”);
- 41% of total net revenues for the fiscal year ended October 31, 2015, comprised of 17% from EMC, 12% from HPE, and 12% from IBM; and
- 46% of total net revenues for the fiscal year ended November 1, 2014, comprised of 18% from EMC, 12% from HPE, and 16% from IBM.

We expect that a significant portion of our future revenues will continue to come from sales of products to a relatively small number of OEM partners and to the U.S. federal government and its individual agencies through our distributors and resellers. Therefore, the loss of, or significant decrease in the level of sales to, or a change in the ordering pattern of any one of these customers could seriously harm our financial condition and results of operations.

Gross margin. Gross margin as stated below is indicated as a percentage of the respective reportable segment net revenues, except for total gross margin, which is stated as a percentage of total net revenues.

Gross margin is summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Gross Margin	% of Net Revenues	Gross Margin	% of Net Revenues	Increase/(Decrease)	% Points Change
SAN Products	$ 934,084	76.0%	$ 989,350	76.0%	$ (55,266)	— %
IP Networking Products	368,351	50.4%	325,536	54.2%	42,815	(3.8)%
Global Services	213,904	55.4%	213,187	59.0%	717	(3.6)%
Total gross margin	$ 1,516,339	64.6%	$ 1,528,073	67.5%	$ (11,734)	(2.9)%

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Gross Margin	% of Net Revenues	Gross Margin	% of Net Revenues	Increase	% Points Change
SAN Products	$ 989,350	76.0%	$ 982,484	74.0%	$ 6,866	2.0%
IP Networking Products	325,536	54.2%	277,262	52.8%	48,274	1.4%
Global Services	213,187	59.0%	206,047	57.4%	7,140	1.6%
Total gross margin	$ 1,528,073	67.5%	$ 1,465,793	66.3%	$ 62,280	1.2%

The changes in gross margin percentage for each reportable segment for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, were primarily due to the following factors:

- SAN gross margins relative to net revenues were flat on a percentage basis and decreased in absolute dollars primarily due to the decline in SAN net revenues, related to the weaker storage demand environment and operational issues and transitions at certain OEM partners, offset by a modest increase in the average selling price per port;
- IP Networking gross margins relative to net revenues decreased primarily due to the recognition of the purchase accounting adjustment in connection with the preliminary fair valuation of inventory acquired from Ruckus, as well as the amortization of IP Networking-related intangible assets acquired in the second and third quarters of fiscal year 2016. This was partially offset by higher IP revenue and a favorable product mix; and
- Global Services gross margins relative to net revenues decreased primarily due to growth in personnel as a result of the Ruckus acquisition, higher variable incentive compensation expense, and more staffing related to our continued focus on customer satisfaction.

The gross margin percentage for each reportable segment increased for the fiscal year ended October 31, 2015, compared with the fiscal year ended November 1, 2014, primarily due to the following factors (the percentages below reflect the impact on gross margin):

- SAN gross margins relative to net revenues increased primarily from product cost reductions, as well as a more favorable mix of SAN products as the mix shifted towards director products, which, being more feature-rich, carry a higher product margin than embedded switch products. In addition, SAN gross margins increased due to lower manufacturing overhead spending, including one less fiscal week of payroll expense and lower variable incentive compensation, in fiscal year 2015. SAN gross margins also increased due to a one-time benefit resulting from the favorable use of manufacturing factory capacity, as well as lower excess and obsolete inventory charges during fiscal year 2015;

- IP Networking gross margins relative to net revenues increased primarily due to lower excess and obsolete inventory charges and favorable supplier pricing. In addition, IP Networking gross margins increased due to lower manufacturing overhead spending, including one less fiscal week of payroll expense, lower variable incentive compensation, and lower factory set-up expenses, in fiscal year 2015. IP Networking gross margins also increased due to a decrease in amortization of IP Networking-related intangible assets, as most of these assets were acquired as part of the acquisition of Foundry Networks, LLC ("Foundry") and were fully amortized during the first quarter of fiscal year 2014. The increases in IP Networking gross margins were partially offset by higher discounting on products sold in fiscal year 2015; and
- Global Services gross margins relative to net revenues increased primarily due to lower variable incentive compensation, partially offset by higher salaries and other compensation due to growth in personnel to support our customer installed base.

Research and development expenses. Research and development ("R&D") expenses consist primarily of compensation and related expenses for personnel engaged in engineering and R&D activities, fees paid to consultants and outside service providers, engineering expenses, which primarily consist of nonrecurring engineering charges and prototyping expenses related to the design, development, testing, and enhancement of our products, depreciation related to engineering and test equipment, and allocated expenses related to legal, IT, facilities, and other shared functions.

R&D expenses are summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
R&D expenses	$ 413,236	17.6%	$ 356,720	15.8%	$ 56,516	15.8%

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
R&D expenses	$ 356,720	15.8%	$ 345,549	15.6%	$ 11,171	3.2%

R&D expenses increased for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, due to the following (in thousands):

	Increase
Salaries and other compensation	$ 44,357
Stock-based compensation expense	10,584
Various individually insignificant items	1,575
Total change	$ 56,516

Salaries and other compensation increased primarily due to increased personnel from the acquisitions that occurred in the second quarter of fiscal year 2015 (Connectem Inc. and Riverbed Technology, Inc.'s virtual application delivery controller ("vADC") software product line and related assets) and third quarter of fiscal year 2016 (Ruckus) and higher variable incentive compensation expense. Stock-based compensation expense increased primarily due to the replacement of Ruckus restricted stock units and options with Brocade restricted stock units and options as part of the Ruckus acquisition, higher grant-date fair values of grants being amortized in the recent years due to the increase in our stock price since fiscal year 2014, and lower estimated forfeiture rates used in fiscal year 2016 than in fiscal year 2015.

R&D expenses decreased for the fiscal year ended October 31, 2015, compared with the fiscal year ended November 1, 2014, due to the following (in thousands):

	Increase/(Decrease)
Salaries and other compensation	$ 7,907
Outside services expense	2,667
Facility expense	2,631
Engineering expense	1,485
Various individually insignificant items	1,133
Depreciation and amortization expense	(4,652)
Total change	$ 11,171

Salaries and other compensation increased primarily as a result of the growth in the number of our engineering personnel due to the expanded focus on our software product lines and higher salaries and cost of employment-related benefits, partially offset by lower variable incentive compensation and one less fiscal week of payroll expense in fiscal year 2015. Outside services expense increased primarily due to growth in outside engineering services to support the development of our expanded software product lines. Facility expense increased primarily due to higher rent and relocation costs related to the personnel growth in the United Kingdom and the opening of our new development center in India in April 2015. Engineering expense increased primarily due to higher prototype costs as we near the release of our next generation of SAN products. Depreciation and amortization expense decreased primarily due to lower capital spending in fiscal years 2013 and 2014.

Sales and marketing expenses. Sales and marketing expenses consist primarily of salaries, commissions, and related expenses for personnel engaged in sales and marketing functions, costs associated with promotional and marketing programs, travel and entertainment expenses, and allocated expenses related to legal, IT, facilities, and other shared functions.

Sales and marketing expenses are summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
Sales and marketing expenses	$ 641,403	27.3%	$ 585,230	25.9%	$ 56,173	9.6%

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
Sales and marketing expenses	$ 585,230	25.9%	$ 554,515	25.1%	$ 30,715	5.5%

Sales and marketing expenses increased for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, due to the following (in thousands):

		Increase
Salaries and other compensation	$	30,544
Stock-based compensation expense		15,018
Expenses related to legal, IT, facilities, and other shared functions		7,209
Outside services and other marketing expense		1,840
Various individually insignificant items		1,562
Total change	$	56,173

Salaries and other compensation grew primarily due to increased personnel as a result of the Ruckus acquisition. Stock-based compensation expense increased primarily due to the replacement of Ruckus restricted stock units and options with Brocade restricted stock units and options as part of the Ruckus acquisition, higher grant-date fair values of grants being amortized in the recent years due to growth in our stock price since fiscal year 2014, and lower estimated forfeiture rates used in fiscal year 2016 than in fiscal year 2015. Expenses related to legal, IT, facilities, and other shared functions allocated to sales and marketing activities increased overall primarily due to higher facilities costs mainly as a result of the incremental expense related to the Ruckus acquisition. Outside services and other marketing expense increased primarily due to travel expense related to the Ruckus acquisition, as well as higher consulting services and sales force training expenses, partially offset by a decrease in marketing program spending.

Sales and marketing expenses increased for the fiscal year ended October 31, 2015, compared with the fiscal year ended November 1, 2014, due to the following (in thousands):

		Increase
Salaries and other compensation	$	18,172
Stock-based compensation expense		6,689
Outside services and other marketing expense		2,213
Depreciation and amortization expense		2,146
Expenses related to legal, IT, facilities, and other shared functions		1,387
Various individually insignificant items		108
Total change	$	30,715

Salaries and other compensation increased primarily as a result of growth in personnel to support and grow our software networking revenue, including the acquired vADC software product line, and higher salaries and cost of employment-related benefits, partially offset by lower variable incentive compensation and one less fiscal week of payroll expense in fiscal year 2015. Stock-based compensation expense increased primarily due to higher grant date per-unit fair values of restricted stock units, including restricted stock units with market conditions ("MSUs"), granted to employees in recent quarters and more employee stock purchase plan expense. Outside services and other marketing expense increased primarily due to expansion of partners' sales incentives and marketing programs, including commitment to our annual sales and marketing "kick-off" meeting. Depreciation and amortization expense increased primarily due to higher expenses related to demonstration equipment used in our customer certification and proof of concept programs. Expenses related to legal, IT, facilities, and other shared functions allocated to sales and marketing activities increased primarily due to higher overall costs with respect to consulting and other outsourced services.

General and administrative expenses. General and administrative ("G&A") expenses consist primarily of compensation and related expenses for corporate management, finance and accounting, human resources, legal, IT, facilities, and investor relations, as well as recruiting expenses, professional fees, and other corporate expenses, less certain expenses allocated to cost of revenue, R&D, and sales and marketing.

G&A expenses are summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
G&A expenses	$ 110,627	4.7%	$ 87,623	3.9%	$ 23,004	26.3%

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
G&A expenses	$ 87,623	3.9%	$ 84,941	3.8%	$ 2,682	3.2%

G&A expenses increased for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, due to the following (in thousands):

	Increase
Stock-based compensation	$ 12,942
Expenses related to legal, IT, facilities, and other shared functions	5,004
Salaries and other compensation	4,029
Various individually insignificant items	1,029
Total change	$ 23,004

Stock-based compensation expense increased primarily due to the replacement of Ruckus restricted stock units and options with Brocade restricted stock units and options as part of the Ruckus acquisition, higher grant-date fair values of grants being amortized in the recent years due to growth in our stock price since fiscal year 2014, lower estimated forfeiture rates used in fiscal year 2016 than in fiscal year 2015, and more MSUs granted to employees in recent quarters. Expenses related to legal, IT, facilities, and other shared functions allocated to G&A activities increased primarily due to higher facilities costs as a result of the incremental expense related to the Ruckus acquisition. Salaries and other compensation expense increased primarily due to growth in personnel as a result of the Ruckus acquisition and higher variable incentive compensation expense.

G&A expenses increased for the fiscal year ended October 31, 2015, compared with the fiscal year ended November 1, 2014, due to the following (in thousands):

	Increase
Outside services and other expense	$ 1,934
Various individually insignificant items	748
Total change	$ 2,682

Outside services and other expense increased primarily due to more spending to support our expanded software product lines and higher legal expenses primarily related to the two acquisitions completed in the second quarter of fiscal year 2015.

Amortization of intangible assets. Amortization of intangible assets is summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
Amortization of intangible assets	$ 15,661	0.7%	$ 2,556	0.1%	$ 13,105	512.7 %

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Decrease	% Change
Amortization of intangible assets	$ 2,556	0.1%	$ 10,280	0.5%	$ (7,724)	(75.1)%

The increase in amortization of intangible assets for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, was primarily due to the addition of intangible assets in connection with our acquisitions completed in the second fiscal quarters of 2015 and 2016, and the acquisition of Ruckus in the third fiscal quarter of 2016. The decrease in amortization of intangible assets for the fiscal year ended October 31, 2015, compared with the fiscal year ended November 1, 2014, was primarily due to the completion of amortization of certain intangible assets in connection with our acquisitions of Foundry and McDATA Corporation ("McDATA"), partially offset by additional amortization of intangible assets in connection with our acquisitions completed in the fourth fiscal quarter of 2014 and in the second fiscal quarter of 2015 (see Note 4, "Goodwill and Intangible Assets," of the Notes to Consolidated Financial Statements).

Acquisition and integration costs. During fiscal year 2016, we recorded $28.2 million in acquisition and integration costs primarily for consulting services and other professional fees incurred in fiscal year 2016 in connection with the Ruckus acquisition, which resulted in greater costs being incurred than for the two much smaller acquisitions completed in the second fiscal quarter of 2015 (see Note 3, "Acquisitions and Divestitures," of the Notes to Consolidated Financial Statements). In addition, in fiscal year 2016, we recorded $0.7 million in transaction costs relating to our pending acquisition by Broadcom. We had $3.9 million of acquisition and integration costs in fiscal year 2015 and no similar costs during fiscal year 2014.

Restructuring, goodwill impairment, and other related costs (benefits). Restructuring, goodwill impairment, and other related costs (benefits) are summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Benefit	% of Net Revenues	Benefit	% of Net Revenues	Increase	% Change
Restructuring and other related benefits	$ (603)	— %	$ (678)	0.1%	$ 75	(11.1)%

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Benefit	% of Net Revenues	Expense	% of Net Revenues	Decrease	% Change
Restructuring, goodwill impairment, and other related costs (benefits)	$ (678)	0.1 %	$ 89,280	4.0%	$ (89,958)	(100.8)%

Restructuring and other related benefits for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, were relatively unchanged. We did not incur any restructuring costs for fiscal years 2016 and 2015. In addition, benefits recorded in fiscal year 2016 were primarily due to a favorable change in lease terms for a certain facility and benefits recorded in fiscal year 2015 were due to favorable changes in expected sublease terms and other related assumptions for estimated facilities lease losses.

In the second quarter of fiscal year 2014, we made a strategic decision to reduce our investment in our hardware-based application delivery controller product line and to increase investment in our software-based application delivery controller product line. As a result of this change in strategy, our hardware-based Brocade ADX revenue forecast decreased, which resulted in an $83.4 million goodwill impairment charge in the second quarter of fiscal year 2014.

Restructuring, goodwill impairment, and other related costs for the fiscal year ended November 1, 2014, were primarily due to the $83.4 million in goodwill impairment and $7.7 million in estimated lease loss reserve and related costs recorded during the fiscal year ended November 1, 2014, partially offset by a $1.8 million reduction in expense for severance and benefits due to actual cash payments made during the fiscal year ended November 1, 2014, being lower than originally estimated (see Note 5, "Restructuring and Other Related Costs," of the Notes to Consolidated Financial Statements).

Gain on sale of network adapter business. During fiscal year 2014, we recorded a gain of $4.9 million in connection with the sale of our network adapter business (see Note 3, "Acquisitions and Divestitures," of the Notes to Consolidated Financial Statements). We had no similar divestitures during fiscal years 2016 or 2015.

Interest income. Interest income for the fiscal year ended October 29, 2016, increased primarily due to the higher interest rate on our cash investments. Interest income was immaterial for the fiscal years ended October 31, 2015, and November 1, 2014.

Other income (loss), net. Other income, net, is summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Loss	% of Net Revenues	Income	% of Net Revenues	Decrease	% Change
Other income (loss), net	$ (979)	— %	$ 95	—%	$ (1,074)	*

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Income	% of Net Revenues	Income	% of Net Revenues	Decrease	% Change
Other income, net	$ 95	— %	$ 3,601	0.2%	$ (3,506)	(97.4)%

* Not meaningful

Other income, net, decreased for the fiscal year ended October 29, 2016, primarily due to higher premiums paid for foreign currency options contracts, partially offset by increased net foreign exchange gains. Other income, net, was not significant for the fiscal year ended October 31, 2015. Other income, net, for the fiscal year ended November 1, 2014, was primarily related to the gain of $5.3 million resulting from the sale of certain non-marketable equity investments, partially offset by the loss on the sale of certain property and equipment during fiscal year 2014.

Interest expense. Interest expense primarily represents the interest cost associated with our senior secured notes, senior unsecured notes, convertible senior unsecured notes, and term loan (see Note 8, "Borrowings," of the Notes to Consolidated Financial Statements). Interest expense is summarized as follows (in thousands, except percentages):

	Fiscal Year Ended					
	October 29, 2016		October 31, 2015			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Decrease	% Change
Interest expense	$ (49,327)	(2.1)%	$ (55,578)	(2.5)%	$ 6,251	(11.2)%

	Fiscal Year Ended					
	October 31, 2015		November 1, 2014			
	Expense	% of Net Revenues	Expense	% of Net Revenues	Increase	% Change
Interest expense	$ (55,578)	(2.5)%	$ (36,757)	(1.7)%	$ (18,821)	51.2 %

In January 2015, we issued $575.0 million in aggregate principal amount of 1.375% convertible senior notes due 2020 in a private placement. The proceeds from this offering were used to redeem all of the outstanding 2020 Notes, which had a higher interest rate, and for general corporate purposes. We recorded an expense of $15.1 million in the first quarter of fiscal year 2015 for the call premium, debt issuance costs, and original issue discount relating to the redemption of our 2020 Notes, thereby resulting in a decrease in interest expense for the fiscal year ended October 29, 2016, compared with the fiscal year ended October 31, 2015, as well as an increase in interest expense for the fiscal year ended October 31, 2015, compared with the fiscal year ended November 1, 2014. Interest expense was also higher for the fiscal year ended October 31, 2015, due to the non-cash interest expense related to the debt discount recorded for the conversion feature of the 2020 Convertible Notes. This increase in interest expense for the fiscal year ended October 31, 2015, was partially offset by the lower interest rate of 1.375% for the 2020 Convertible Notes compared to 6.875% for the 2020 Notes.

The decrease in interest expense for the fiscal year ended October 29, 2016, was partially offset by the additional interest expense in connection with the borrowings under the $800.0 million term loan in connection with the Ruckus acquisition (see Note 8, "Borrowings," of the Notes to Consolidated Financial Statements).

These transactions are described further below in "Liquidity and Capital Resources."

Income tax expense. Income tax expense and the effective tax rates are summarized as follows (in thousands, except effective tax rates):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Income tax expense	$ 48,111	$ 98,689	$ 115,650
Effective tax rate	18.4%	22.5%	32.7%

In general, our provision for income taxes differs from the tax computed at the U.S. federal statutory tax rate due to state taxes, the effect of non-U.S. operations being taxed at rates lower than the U.S. federal statutory tax rate, nondeductible stock-based compensation expense, tax credits, and adjustments to unrecognized tax benefits. Earnings of our subsidiaries outside of the U.S. primarily relate to our European and Asia Pacific businesses.

The effective tax rate in fiscal year 2016 was lower than the U.S. federal statutory tax rate of 35% primarily due to the effects of earnings in foreign jurisdictions being taxed at rates lower than the U.S. federal statutory tax rate, a benefit from the qualified domestic manufacturing deduction, a benefit from the release of tax reserves related to an audit settlement with the Internal Revenue Service ("IRS"), and a benefit from the federal research and development tax credit that was reinstated on December 18, 2015, and made retroactive for calendar year 2015.

The effective tax rate in fiscal year 2015 was lower than the U.S. federal statutory tax rate of 35% primarily due to the effects of earnings in foreign jurisdictions being taxed at rates lower than the U.S. federal statutory tax rate, a benefit from the qualified domestic manufacturing deduction, and a benefit from the federal research and development tax credit that was reinstated on December 19, 2014, and made retroactive for calendar year 2014.

The effective tax rate in fiscal year 2014 was lower than the U.S. federal statutory tax rate of 35% primarily due to the effects of earnings in foreign jurisdictions being taxed at rates lower than the U.S. federal statutory tax rate and a benefit from the release of tax reserves due to expired statutes of limitations. In addition, the effective tax rate for fiscal year 2014 was negatively impacted by a goodwill impairment charge, which is nondeductible for tax purposes, and a lower benefit from the federal research and development tax credit which expired on December 31, 2013, and, therefore, was not applicable for the remainder of fiscal year 2014.

Our effective tax rate for fiscal year 2016 is lower compared with fiscal years 2015 and 2014 primarily due to the effects of a sequential geographic earnings shift to foreign jurisdictions which are taxed at rates lower than the U.S. federal statutory tax rate, a benefit from the release of tax reserves related to an audit settlement with the IRS, and a benefit from the federal research and development tax credit that was reinstated on December 18, 2015, permanently, and made retroactive for calendar year 2015.

Our effective tax rate for fiscal year 2015 is lower compared with fiscal years 2014 primarily due to the goodwill impairment charge recorded in fiscal year 2014, which is nondeductible for tax purposes.

Our income tax provision could change as a result of many factors, including the effects of changing tax laws and regulations or changes to the mix of IP Networking products, SAN products, and Global Services, which have different gross margins, and changes to the mix of domestic versus international profits. Many of these factors are largely impacted by the buying patterns of our OEM and channel partners. As estimates and judgments are used to project such domestic and international earnings, the impact to our tax provision could vary if the current planning or assumptions change. In addition, we do not forecast discrete events, such as settlement of tax audits with governmental authorities, due to their inherent uncertainty. Such settlements have in the past, and could in the future, materially impact our tax expense. Given that the tax rate is affected by many different factors, it is not possible to estimate our future tax rate with a high degree of certainty.

The IRS and other tax authorities regularly examine our income tax returns. In August 2016, we reached a settlement with the IRS related to its examination of our federal income tax returns for fiscal years 2009 and 2010. In addition, in October 2014, the Geneva Tax Administration issued its final assessments for fiscal years 2003 to 2012, disputing certain of our transfer pricing arrangements. In November 2014, we filed a protest to challenge the final assessments. We believe that our reserves for unrecognized tax benefits are adequate for all open tax years. The timing of income tax examinations, as well as the amounts and timing of related settlements, if any, are highly uncertain. We believe that, before the end of fiscal year 2017, it is reasonably possible that either certain audits will conclude or the statutes of limitations relating to certain income tax examination periods will expire, or both. After we reach settlement with the tax authorities, we expect to record a corresponding adjustment to our unrecognized tax benefits. Taking into consideration the inherent uncertainty as to settlement terms, the timing of payments, and the impact of such settlements on other uncertain tax positions, we estimate that the range of potential decreases in underlying uncertainty in income tax is between $0 and $9 million in the next 12 months.

We believe that sufficient positive evidence exists from historical operations and projections of taxable income in future years to conclude that it is more likely than not that we will realize our deferred tax assets, except for California deferred tax assets and our capital loss carryforwards. Accordingly, we apply a valuation allowance to the California deferred tax assets due to the change in California law that occurred in November 2012, and to capital loss carryforwards due to the limited carryforward periods of these tax assets.

For further discussion of our income tax provision, see Note 14, “Income Taxes,” of the Notes to Consolidated Financial Statements.

Liquidity and Capital Resources

	October 29, 2016	October 31, 2015	Decrease
		(In thousands)	
Cash and cash equivalents	$ 1,257,075	$ 1,440,882	$ (183,807)
Percentage of total assets	25%	36%	

We use cash generated by operations as our primary source of liquidity. We expect that cash provided by operating activities will fluctuate in future periods as a result of a number of factors, including fluctuations in our revenues, the impact on customer orders due to the recent announcement of Broadcom’s intent to acquire us and subsequently divest our IP Networking business, the timing of product shipments, accounts receivable collections, inventory and supply chain management, the timing and amount of tax, and other payments or receipts. For additional discussion, see “Part I, Item 1A. Risk Factors” of this Annual Report on Form 10-K.

In January 2015, we issued $575.0 million in aggregate principal amount of 1.375% convertible senior unsecured notes due 2020 in a private placement. A portion of the net proceeds from this offering was used to redeem all of the outstanding 6.875% senior secured notes due 2020, including the payment of the applicable premium and expenses associated with the redemption, for a total of $322.2 million. In addition, we previously had access to a revolving credit facility under the Senior Secured Credit Facility for ongoing working capital and other general corporate purposes. On January 9, 2015, we terminated the Senior Secured Credit Facility and no longer have access to this additional capital resource (see Note 8, “Borrowings,” of the Notes to Consolidated Financial Statements).

In March 2015, we completed two acquisitions. The aggregate purchase price was $96.1 million, consisting of $95.5 million in cash consideration, which is net of $0.1 million of cash acquired as part of the acquisitions, and $0.5 million in non-cash consideration (see Note 3, “Acquisitions and Divestitures,” of the Notes to Consolidated Financial Statements).

In May 2016, we completed our acquisition of Ruckus, a public company incorporated in the state of Delaware, to strengthen our IP Networking product portfolio by adding Ruckus' wireless products and services to the Company's networking solutions. Based on the $8.60 per share closing price of our common stock on May 27, 2016, the total preliminary purchase consideration paid or payable was $1.3 billion (see Note 3, "Acquisitions and Divestitures," of the Notes to Consolidated Financial Statements). In connection with the acquisition of Ruckus on May 27, 2016, we entered into a Credit Agreement (the "Credit Agreement") with Wells Fargo Bank, N.A., as the administrative agent, swingline lender, and issuing lender, and certain other lenders (collectively, the "Lenders"). The Credit Agreement provides for a term loan facility of $800.0 million (the "Term Loan Facility") and a revolving credit facility of $100.0 million (the "Revolving Facility," and together with the Term Loan Facility, the "Senior Credit Facility"). The Revolving Facility, which is available to fund ongoing working capital requirements and other general corporate purposes, includes a $25.0 million letter of credit subfacility and a $10.0 million swing line loan subfacility. The proceeds of the Term Loan Facility were used to finance a portion of the acquisition of Ruckus and related fees and expenses, the repurchase of shares of our common stock, and fees and expenses related to the Senior Credit Facility (see Note 8, "Borrowings," of the Notes to Consolidated Financial Statements).

Based on past performance and current expectations, we believe that for at least the next 12 months, internally generated cash flows and cash on hand will be generally sufficient to support business operations, capital expenditures, contractual obligations, and other liquidity requirements, including our debt service requirements (which increased as a result of the additional indebtedness incurred in connection with the Ruckus acquisition on May 27, 2016). We may also use our operating cash flows or access sources of capital, or a combination thereof, to strengthen our networking portfolios through acquisitions and strategic investments. In addition, we have up to $100 million available under our revolving credit facility to provide additional liquidity. There are no other transactions, arrangements, or other relationships with unconsolidated entities or other persons that are reasonably likely to materially affect liquidity of, availability of, or our requirements for, capital resources.

Financial Condition

Our operating cash flows provide liquidity for operations, capital investment, and other strategic initiatives, including investments and acquisitions to strengthen our networking portfolios, and to return capital to stockholders. In the third quarter of fiscal year 2014, our Board of Directors initiated a quarterly cash dividend of $0.035 per share of our common stock. Beginning in the third quarter of fiscal year 2015, our Board of Directors increased our quarterly cash dividend to $0.045 per share of our common stock. Dividends of $0.045 per share were declared and paid in the first and second quarters of fiscal year 2016. Beginning in the third quarter of fiscal year 2016, our Board of Directors increased our quarterly cash dividend to and subsequently declared a dividend of $0.055 per share of our common stock. On November 20, 2016, our Board of Directors declared a quarterly cash dividend of $0.055 per share of our common stock to be paid on January 4, 2017, to stockholders of record as of the close of market on December 12, 2016. Future dividends are subject to review and approval on a quarterly basis by our Board of Directors, and are limited under the terms of the Merger Agreement.

For the fiscal year ended October 29, 2016, we generated $409.9 million in cash from operating activities, which was due to our net income excluding non-cash items, partially offset by cash used for changes in assets and liabilities.

Net cash used in investing activities for the fiscal year ended October 29, 2016, totaled $493.8 million and was primarily the result of $564.9 million in cash paid for acquisitions and $77.0 million in purchases of property and equipment, partially offset by the $150.3 million in proceeds from maturities and sale of short-term investments acquired from Ruckus.

Net cash used in financing activities for the fiscal year ended October 29, 2016, totaled $97.8 million and was primarily the result of $841.6 million in common stock repurchases, $20.0 million in payment of principal related to the term loan in connection with Ruckus, and $83.8 million in cash dividend payments, partially offset by the $787.3 million in proceeds from the term loan, and $49.5 million in proceeds from the issuance of common stock from the Employee Stock Purchase Plan purchases and stock option exercises. For the fiscal year ended October 29, 2016, we repurchased approximately 92.0 million shares of our common stock. Future stock repurchases are restricted under the terms of the Merger Agreement.

Net proceeds from the issuance of common stock in connection with employee participation in our equity compensation plans have historically been a significant component of our liquidity. The extent to which we receive proceeds from these plans can increase or decrease based upon changes in the market price of our common stock, and from the amount and type of awards granted. For example, we have changed the mix of restricted stock unit and stock option awards granted towards granting fewer stock option awards in recent years, which reduces the net proceeds from the issuance of common stock in connection with participation in our equity compensation plans. As a result, our cash flow resulting from the issuance of common stock in connection with employee participation in our equity compensation plans has varied over time.

A majority of our accounts receivable balance is derived from sales to our OEM partners. As of October 29, 2016, two customers accounted for a combined total of 42% (Dell EMC with 29% and HPE with 13%) of total accounts receivable and no other customers individually accounted for more than 10% of total accounts receivable. As of October 31, 2015, one customer (HPE) individually accounted for 17% of total accounts receivable and no other customers individually accounted for more than 10% of total accounts receivable. We perform ongoing credit evaluations of our customers and generally do not require collateral or security interests on accounts receivable balances. We have established reserves for credit losses and sales allowances. Allowances for doubtful accounts as of October 29, 2016, increased by $1.8 million over the balance as of October 31, 2015, primarily due to a collection issue with a specific customer. While we have not experienced material credit losses in any of the periods presented, there can be no assurance that we will not experience material credit losses in the future.

Accounts receivable days sales outstanding, which is a measure of the average number of days that a company takes to collect revenue after a sale has been made, for the fiscal year ended October 29, 2016, was 44 days, up from 38 days for the fiscal year ended October 31, 2015, primarily due to the acquisition of Ruckus, which has comparably longer collection cycles, and better sales linearity in fiscal year 2015.

Summary of Cash Flows Data

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
		(In thousands)	
Net cash provided by operating activities	$ 409,940	$ 447,499	$ 541,597
Net cash used in investing activities	(493,774)	(172,356)	(50,814)
Net cash used in financing activities	(97,839)	(83,677)	(219,692)
Effect of exchange rate fluctuations on cash and cash equivalents	(2,134)	(5,601)	(3,071)
Net increase (decrease) in cash and cash equivalents	$ (183,807)	$ 185,865	$ 268,020

Fiscal Year 2016 Compared to Fiscal Year 2015

Operating Activities. Cash provided by operating activities is net income adjusted for certain non-cash items and changes in certain assets and liabilities.

Net cash provided by operating activities decreased by $37.6 million primarily due to higher payments with respect to increased operating expenses and acquisition costs due to Ruckus. Lower payments with respect to employee variable incentive compensation partially offset this decrease in net cash provided by operating activities.

Investing Activities. Net cash used in investing activities increased by $321.4 million. The increase was primarily due to $469.4 million more cash used for acquisitions in fiscal year 2016, as compared to the cash used for the acquisition in fiscal year 2015, partially offset by the $150.3 million in proceeds from maturities and sale of short-term investments in fiscal year 2016.

Financing Activities. Net cash used in financing activities increased by $14.2 million. The increase was primarily due to $497.9 million more cash used for stock repurchases, $20.0 million in payment of term loan principal, and $16.3 million more cash used for payment of dividends to stockholders. The increase was partially offset by the $787.3 million in proceeds from the term loan in connection of Ruckus.

Fiscal Year 2015 Compared to Fiscal Year 2014

Operating Activities. Cash provided by operating activities is net income adjusted for certain non-cash items and changes in certain assets and liabilities.

Net cash provided by operating activities decreased by $94.1 million primarily due to higher payments with respect to employee variable incentive compensation earned in fiscal year 2014 and paid in fiscal year 2015, changes in accounts receivable balances due to different collection patterns among fiscal years 2015, 2014, and 2013, and higher fiscal year 2015 tax payments related to fiscal year 2014 earnings.

Investing Activities. Net cash used in investing activities increased by $121.5 million. The increase was primarily due to $78.6 million more cash used for the acquisitions in fiscal year 2015 as compared to the cash used for the acquisition in fiscal year 2014, less cash received from the sale of non-marketable equity investments in fiscal year 2015 as compared to fiscal year 2014, $14.0 million more cash used to purchase property and equipment during fiscal year 2015, and $7.8 million of cash used in fiscal year 2015 for the purchase of a license to certain patents to strengthen our portfolio of defensive patents. We also sold our host bus adapter product line in fiscal year 2014 for $10.0 million.

Financing Activities. Net cash used in financing activities decreased by $136.0 million. The decrease was primarily due to the $300.0 million of cash used to redeem the 2020 Notes in February 2015, the $86.1 million of cash used for the purchase of convertible note hedge options in connection with the issuance of the 2020 Convertible Notes, a $37.1 million increase in payment of dividends to stockholders, and $32.6 million less in proceeds from the issuance of common stock pursuant to our equity compensation plans, more than offset by the $565.7 million and $51.2 million in proceeds from the issuance of the 2020 Convertible Notes and related warrants, respectively.

Liquidity

Manufacturing and Purchase Commitments. We have manufacturing arrangements with contract manufacturers under which we provide up to 12-month product forecasts and place purchase orders in advance of the scheduled delivery of products to our customers. Our purchase commitments reserve reflects our estimate of purchase commitments we do not expect to utilize in normal operations in accordance with our policy (see Note 9, "Commitments and Contingencies," of the Notes to Consolidated Financial Statements).

Income Taxes. We intend to indefinitely reinvest all current and accumulated earnings of our foreign subsidiaries for expansion of our business operations outside the United States. Therefore, we do not currently accrue U.S. income taxes on the earnings of our foreign subsidiaries.

Our existing cash and cash equivalents totaled $1,257.1 million as of October 29, 2016. Of this amount, approximately 85% was held by our foreign subsidiaries. We do not currently anticipate a need for these funds held by our foreign subsidiaries for our domestic operations, and our intent is to permanently reinvest such funds outside of the United States. Under current tax laws and regulations, if these funds are distributed to any of our United States entities in the form of dividends or otherwise, we may be subject to additional U.S. income taxes and foreign withholding taxes.

The IRS and other tax authorities regularly examine our income tax returns (see Note 14, "Income Taxes," of the Notes to Consolidated Financial Statements). We believe we have adequate reserves for all open tax years.

Senior Unsecured Notes. In January 2013, we issued $300.0 million in aggregate principal amount of the 2023 Notes. We used the proceeds and cash on hand to redeem all of the outstanding 2018 Notes in the second quarter of fiscal year 2013.

The 2023 Notes were issued pursuant to an indenture, dated as of January 22, 2013, among the subsidiary guarantors named therein, us, and Wells Fargo Bank, National Association, as trustee (the "2023 Indenture"). The 2023 Indenture contains covenants that, among other things, restrict our ability and the ability of our subsidiaries to:

- Incur certain liens and enter into certain sale-leaseback transactions;
- Create, assume, incur, or guarantee additional indebtedness of our subsidiaries without such subsidiaries guaranteeing the 2023 Notes on a pari passu basis; and
- Enter into certain consolidation or merger transactions, or convey, transfer, or lease all, or substantially all of our or our subsidiaries' assets.

These covenants are subject to a number of other limitations and exceptions as set forth in the 2023 Indenture. We were in compliance with all applicable covenants of the 2023 Indenture as of October 29, 2016.

Convertible Senior Unsecured Notes. In January 2015, we issued $575.0 million in aggregate principal amount of the 2020 Convertible Notes. Net of an original issue discount, we received 565.7 million in proceeds from the offering of the 2020 Convertible Notes. We used the proceeds to irrevocably deposit $322.2 million with the trustee to discharge the 2020 Indenture and redeem all of the outstanding 2020 Notes, pay the cost of the convertible note hedge transactions for $35.0 million, net of the proceeds from the issuance of warrants, and to repurchase approximately 4.1 million shares of our common stock for $48.9 million at a purchase price of $11.80 per share, which was the closing price on January 8, 2015, the date of the pricing of the 2020 Convertible Notes. We intend to use the remaining proceeds of $159.6 million for general corporate purposes, including potential acquisitions and other business development activities. The 2020 Convertible Notes are unsecured and have a significantly lower interest rate of 1.375% compared to 6.875% for the 2020 Notes. Interest is payable on January 1 and July 1 of each year, beginning on July 1, 2015. See Note 8, "Borrowings," of the Notes to Consolidated Financial Statements.

Senior Credit Facility. On May 27, 2016, we entered into the Credit Agreement with Wells Fargo Bank, Deutsche Bank AG New York Branch, SunTrust Bank and certain other lenders. The Credit Agreement provided us with the Term Loan Facility of $800.0 million, which was fully drawn at the time of, and the proceeds used to fund in part, the Ruckus acquisition, and the Revolving Facility of $100.0 million, which is available to finance ongoing working capital requirements and other general corporate purposes. The initial term loan has a term of five years and bears interest at floating rates based on LIBOR, plus a 1.5% interest margin. See Note 8, "Borrowings," of the Notes to Consolidated Financial Statements.

There were no principal amounts outstanding under the Revolving Facility, and the full $100.0 million was available for future borrowing under the Revolving Facility as of October 29, 2016.

We are required to make mandatory prepayments of the Term Loan Facility (without payment of a premium or penalty) with the net cash proceeds from any issuances of debt not permitted under the Credit Agreement, net cash proceeds from certain non-ordinary course asset sales (subject to reinvestment rights and other exceptions), and casualty proceeds and condemnation awards (subject to reinvestment rights and other exceptions). Commencing October 31, 2016, the loans under the Term Loan Facility will amortize in equal quarterly installments in an aggregate annual amount equal to 10% of the original principal amount thereof, with any remaining balance payable on the final maturity date of the loans under the Term Loan Facility.

The Credit Agreement contains financial maintenance covenants, including a maximum total leverage ratio as of the last date of any fiscal quarter not to exceed 3.50:1.00, subject to certain step-downs to 3.25:1.00 and 3.00:1.00 for fiscal periods ending on or after April 30, 2017, and April 30, 2018, respectively, and a minimum interest coverage ratio of not less than 3.50:1.00. The Credit Agreement also contains restrictive covenants that limit, among other things, our and certain of our subsidiaries' ability to:

- Incur additional indebtedness or issue certain preferred equity, pay dividends or make other distributions or other restricted payments (including stock repurchases);
- Sell assets other than on terms specified by the Credit Agreement;
- Amend the terms of certain other indebtedness and organizational documents;
- Create liens on certain assets to secure debt, consolidate, merge, sell, or otherwise dispose of all or substantially all of their assets; and
- Enter into certain transactions with affiliates, or change their lines of business, fiscal years, and accounting practices, in each case, subject to customary exceptions.

These covenants are subject to a number of other limitations and exceptions as set forth in the Credit Agreement. We were in compliance with all applicable covenants of the Credit Agreement as of October 29, 2016.

The obligations under the Term Loan Facility and certain cash management and hedging obligations are fully and unconditionally guaranteed by certain of our direct and indirect subsidiaries. On May 27, 2016, subsequent to the completion of the Ruckus acquisition, and in accordance with the covenants contained in the 2023 Indenture and 2015 Indenture, Ruckus, us, and certain other of our subsidiaries, and Wells Fargo Bank, N.A., as trustee, entered into supplemental indentures pursuant to which such subsidiaries fully and unconditionally guaranteed our obligations under the 2023 Indenture and 2015 Indenture.

Impact of Broadcom Acquisition. The consummation of the proposed acquisition of Brocade by Broadcom would constitute a "Fundamental Change" under the terms of the 2020 Convertible Notes and a "Change in Control" under the Credit Agreement, would result in a termination of the warrant transactions Brocade entered into in connection with the 2020 Convertible Notes, and could result in a "Change of Control Triggering Event" under the 2023 Notes. In addition, the consummation of the proposed acquisition would result in a temporary adjustment to the conversion rate for the 2020 Convertible Notes. The payment obligations arising out of the occurrence of such events would materially impact Brocade's cash flows and financial position, and Brocade may not have enough available cash or be able to obtain financing on acceptable terms (or at all) at the time to discharge those payment obligations. See "Risk Factors - The consummation of the proposed Broadcom acquisition could result in substantial obligations becoming payable in respect of the 2020 Convertible Notes, the warrant transactions entered into in connection with the 2020 Convertible Notes, the 2023 Notes and the Credit Agreement, which could negatively impact Brocade's cash flows and financial position" and Note 8, "Borrowings," of the Notes to Consolidated Financial Statements.

Share Repurchase Program. As of October 29, 2016, our Board of Directors had authorized a total of approximately $3.5 billion for the repurchase of our common stock since the inception of the program in August 2004. The purchases may be made, from time to time, in the open market or by privately negotiated transactions, and are funded from available working capital. The number of shares to be purchased and the timing of purchases are based on the level of our cash balances, general business and market conditions, the trading price of our common stock, and other factors, including alternative investment opportunities. For the fiscal year ended October 29, 2016, we repurchased 92.0 million shares for an aggregate purchase price of $841.6 million. Approximately $979.4 million remained authorized for future repurchases under this program as of October 29, 2016. We are generally prohibited under the terms of the Merger Agreement with Broadcom from executing further repurchases under this program.

Contractual Obligations

The following table summarizes our contractual obligations, including interest expense, and commitments as of October 29, 2016 (in thousands):

	Total	Less than 1 Year	1–3 Years	3–5 Years	More than 5 Years
Contractual Obligations:					
Term loan facility [(1)]	$ 837,062	$ 95,358	$ 186,038	$ 555,666	$ —
Convertible senior unsecured notes due 2020 [(1)]	600,022	7,906	15,813	576,303	—
Senior unsecured notes due 2023 [(1)]	386,299	13,875	27,750	27,750	316,924
Non-cancellable operating leases [(2)]	88,639	20,996	26,068	20,026	21,549
Purchase obligations [(1)]	14,822	2,654	4,056	4,056	4,056
Purchase commitments, gross [(3)]	206,254	206,254	—	—	—
Total contractual obligations	$ 2,133,098	$ 347,043	$ 259,725	$ 1,183,801	$ 342,529
Other Commitments:					
Standby letters of credit	$ 133	n/a	n/a	n/a	n/a
Unrecognized tax benefits and related accrued interest [(4)]	$ 202,860	n/a	n/a	n/a	n/a

(1) Amount reflects total anticipated cash payments, including anticipated interest payments.

(2) Amount excludes contractual sublease income of $1.9 million, which consists of $1.5 million to be received in less than one year, $0.3 million to be received in one to three years, and the remaining $39.0 thousand to be received in three to five years.

(3) Amount reflects total gross purchase commitments under our manufacturing arrangements with a third-party contract manufacturer. Of this amount, we have accrued reserves of $1.1 million for estimated purchase commitments that we do not expect to utilize in normal operations within the next 12 months, in accordance with our policy.

(4) As of October 29, 2016, we had a gross liability for unrecognized tax benefits of $200.0 million and an accrual for the payment of related interest and penalties of $2.9 million.

Off-Balance Sheet Arrangements

As part of our ongoing business, we do not participate in transactions that generate material relationships with unconsolidated entities or financial partnerships, such as entities often referred to as “structured finance” or “special purpose entities,” which would have been established for the purpose of facilitating off-balance sheet arrangements or for other contractually narrow or limited purposes. As of October 29, 2016, we did not have any significant off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Securities and Exchange Commission (“SEC”) Regulation S-K.

Critical Accounting Policies and Estimates

Our discussion and analysis of financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these Consolidated Financial Statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses, and related disclosure of contingent assets and liabilities. We evaluate, on an ongoing basis, our estimates and judgments, including, but not limited to, those related to revenue recognition, sales allowances including discounts, returns, and programs, allowance for doubtful accounts, stock-based compensation, acquisition purchase price allocations, warranty obligations, inventory valuation and purchase commitments, impairment of goodwill and other indefinite-lived intangible assets, litigation, income taxes, and investments. We base our estimates on historical experience and 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 that are not readily apparent from other sources. Actual results may differ from these estimates.

The methods, estimates, and judgments we use in applying our most critical accounting policies have a significant impact on the results that we report in our Consolidated Financial Statements. We believe the following critical accounting policies, among others, require significant estimates and judgments used in the preparation of our consolidated financial statements.

Revenue Recognition. Distributors are granted rights of stock rotation which are limited to a contractually specified percentage of the distributor's aggregate purchase volume. These stock rotation rights are subject to expiration 180 days from the time of product shipment by us to the distributor. Distributor sales are also subject to Sales Program incentives and to deal-specific rebates that are payable to distributors upon sale of the related product by the distributor to an ultimate customer. Prior to the fourth quarter of the fiscal year ended October 29, 2016, we had not yet developed a historical dataset sufficient to allow for reliable estimation of distributor rebates contemporaneously with the shipment of product to the distributor. For this reason, the ultimate price of distributor sales was not deemed determinable until the period in which the distributor's sale to the ultimate customer took place. Accordingly, revenue from sales to our distributor customers was recognized in the same period in which the product was actually sold by the distributor (sell-through).

We initiated a project to enhance the capture of distributor point of sale ("POS") data in fiscal year 2014. This project resulted in us being able to associate specific rebates reflected in the distributor POS data to specific sales quotes maintained in our quoting system. Therefore, beginning in the fourth quarter of the fiscal year ended October 29, 2016, the historical distributor rebates and matching sales reflected in our historical dataset grew to reach approximately two years. Since the distributors must claim rebates within 180 days from their receipt of the related product, two years was deemed sufficient for purposes of making reliable estimates of ultimate rebate claims. Accordingly, beginning in the fourth quarter of the fiscal year ended October 29, 2016, revenue from sales to distributor customers is recognized upon shipment to the distributor (sell-in) and is reduced by allowances for rebates, sales program incentives, and stock rotations, which are all estimated by a process using both historical experience and expectations of future outcomes based on facts and circumstances available contemporaneously at the date of estimation.

Our multiple-element product offerings include networking hardware with embedded software products and support, which are considered separate units of accounting. For certain of our products, software and non-software components function together to deliver the tangible products' essential functionality. We allocate revenue to each element in a multiple-element arrangement based upon their relative selling price. When applying the relative selling price method, we determine the selling price for each deliverable using vendor-specific objective evidence ("VSOE") of selling price, if it exists, or third-party evidence ("TPE") of selling price. If neither VSOE nor TPE of selling price exists for a deliverable, we use our best estimate of selling price for that deliverable. Revenue allocated to each element is then recognized when the basic revenue recognition criteria are met for each element.

We determine VSOE based on our normal pricing and discounting practices for the specific product or service when sold separately. In determining VSOE, we require that a substantial majority of the selling prices for a product or service fall within a reasonably narrow pricing range. For post-contract customer support, we consider stated renewal rates in determining VSOE.

In most instances, we are not able to establish VSOE for all deliverables in an arrangement with multiple elements. This may be due to infrequently selling each element separately, not pricing products within a narrow range, or only having a limited sales history. When VSOE cannot be established, we attempt to establish a selling price for each element based on TPE. TPE is determined based on competitor prices for similar deliverables when sold separately. Generally, our go-to-market strategy differs from that of our competitors, and our offerings contain a significant level of customization and differentiation such that the comparable pricing of products with similar functionality cannot be obtained. Furthermore, we are unable to reliably determine what similar competitor products' selling prices are on a stand-alone basis. Therefore, we are typically not able to determine TPE.

When we are unable to establish selling price using VSOE or TPE, we use best estimated selling price (“BESP”) in our allocation of the arrangement consideration. The objective of BESP is to determine the price at which we would transact a sale if the product or service were sold on a stand-alone basis. BESP is generally used for offerings that are not typically sold on a stand-alone basis or for new or highly customized offerings.

We determine BESP for a product by considering multiple factors including, but not limited to, geographies, market conditions, competitive landscape, internal costs, gross margin objectives, and pricing practices. The determination of BESP is made through consultation with and formal approval by our management, taking into consideration the go-to-market strategy. If circumstances related to our estimates for revenue recognition change, our allocation of revenue to each element in a multiple-element arrangement may also change.

Stock-based Compensation. We grant stock options for shares in our common stock, restricted stock units (“RSUs”), including restricted stock units with market conditions, and other types of equity compensation awards to our employees and directors under various equity compensation plans.

The compensation expense for stock-based awards is adjusted for an estimated impact of forfeitures and is recognized over the vesting period of the award under a graded or straight-line vesting method. In addition, we record stock-based compensation expense in connection with shares issued under our employee stock purchase plan using the graded vesting method over the 24-month offering period.

We use the Black-Scholes option pricing model to determine the fair value of stock options granted when the measurement date is certain. We also use the Black-Scholes option pricing model to determine the fair value of the option component of employee stock purchase plan shares. The determination of the fair value of stock-based awards using the option pricing model is affected by our stock price, as well as assumptions regarding a number of complex and subjective variables. These variables include our expected stock price volatility over the expected term of the awards, projected and actual employee stock option exercise behaviors, risk-free interest rates, estimated forfeitures, and expected dividend yields.

We estimated the expected term of stock options granted prior to the second quarter of fiscal year 2014 by calculating the average term from our historical stock option exercise experience. For stock options granted on or subsequent to the first day of the second quarter of fiscal year 2014, we estimate the expected term using the simplified method as specified under Staff Accounting Bulletin Topic 14. We initiated a quarterly cash dividend in the third quarter of fiscal year 2014, and therefore we use an expected dividend yield in the option pricing model. We are required to estimate forfeitures at the time of the grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest. We use implied volatilities from traded options of our common stock and historical volatilities of our common stock to estimate volatility over the expected term of the awards.

We measured the fair value of time-based RSUs prior to the initial declaration of a quarterly cash dividend on May 22, 2014, based on the grant-date share price because we had not historically paid cash dividends on our common stock. For time-based RSUs granted on or subsequent to May 22, 2014, we measure the fair value of RSUs based on the grant-date share price, less the present value of expected dividends during the vesting period, discounted at a risk-free interest rate.

We measured the fair value of MSUs using a lattice model that incorporates a Monte Carlo simulation, which involves a series of random trials that may take different future price paths over the award’s contractual life. Conditions are imposed on each Monte Carlo simulation to determine if the market condition would have been met for the particular stock price path. The MSUs’ grant date fair value is determined by taking the average of the grant date fair values under each of many Monte Carlo trials. The determination of the fair value of MSUs is affected by our stock price, as well as assumptions regarding a number of complex and subjective variables. These variables include our expected stock price volatility over the expected term of the awards, risk-free interest rates, estimated forfeitures, and expected dividend yields.

The assumptions used in calculating the fair value of stock-based awards represent management’s best estimates, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our stock-based compensation expense could be materially different in the future. For additional discussion, see Note 12, “Stock-Based Compensation,” of the Notes to Consolidated Financial Statements.

Acquisition—Purchase Price Allocations. We allocate the purchase price of an acquired business to the assets acquired and liabilities assumed, including identifiable intangible assets, based on their respective fair values at the acquisition date. The excess of the purchase price over the fair value of the underlying acquired net tangible and intangible assets, if any, is recorded as goodwill. We estimate the fair value of assets and liabilities based upon quoted market prices, the carrying value of the acquired assets, and using widely accepted valuation techniques. We adjust the preliminary purchase price allocation, as necessary, typically up to one year after the acquisition closing date as we obtain more information regarding assets acquired and liabilities assumed. For additional discussion, see Note 3, “Acquisitions and Divestitures,” of the Notes to Consolidated Financial Statements.

Inventory Valuation and Purchase Commitments. We write down inventory and record purchase commitment liabilities for estimated excess and obsolete inventory equal to the difference between the cost of inventory and the estimated market value based upon the forecast of future product demand, product transition cycles, and market conditions. Any significant unanticipated changes in demand or technological development could have a significant impact on the value of our inventory and purchase commitments and our reported results. If actual market conditions are less favorable than those projected, additional inventory write-downs, purchase commitment liabilities, and charges against earnings may be required.

Impairment of Goodwill and Other Indefinite-Lived Intangible Assets.

Goodwill and other indefinite-lived intangible assets are generated as a result of business combinations. Our indefinite-lived assets consist of acquired in-process research and development ("IPR&D") and goodwill.

Change in Annual Impairment Testing Date. Effective on the first day of the fourth fiscal quarter of 2016, we changed the date of our annual impairment test for IPR&D and goodwill from the first day of the second fiscal quarter to the first day of the fourth fiscal quarter. This change in the annual impairment test date was made to better coincide with the timing of when we prepare our annual budget and financial plans as part of our regular long-range planning process. These financial plans are a key component in estimating the fair value of our reporting units, which is the basis for performing our annual impairment test. We believe that the change in our annual impairment test date is preferable as it allows us to utilize our most current projections in the annual impairment test.

IPR&D Impairment Testing. IPR&D is an intangible asset accounted for as an indefinite-lived asset until the completion or abandonment of the associated research and development effort. During the development period, we conduct our IPR&D impairment test annually and whenever events or changes in facts and circumstances indicate that it is more likely than not that the IPR&D is impaired. Events that might indicate impairment include, but are not limited to, adverse cost factors, deteriorating financial performance, strategic decisions made in response to economic, market, and competitive conditions, the impact of the economic environment on us and our customer base, and/or other relevant events, such as changes in management, key personnel, litigation, or customers. Our ongoing consideration of factors such as these could result in IPR&D impairment charges in the future, which could adversely affect our net income.

Goodwill Impairment Testing. We conduct our goodwill impairment test annually and whenever events occur or facts and circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Events that might indicate impairment include, but are not limited to, strategic decisions made in response to economic and competitive conditions, the impact of the economic environment on our customer base, material negative changes in relationships with significant customers, and/or a significant decline in our stock price for a sustained period. Our ongoing consideration of factors such as these could result in goodwill impairment charges in the future, which could adversely affect our net income.

We perform the two-step goodwill impairment test to identify potential goodwill impairment and measure the amount of a goodwill impairment loss to be recognized, if any. The first step tests for potential impairment by comparing the fair value of reporting units with reporting units' net asset values. The reporting units are determined by the components of our operating segments that constitute a business for which both (i) discrete financial information is available and (ii) segment management regularly reviews the operating results of that component. If the fair value of the reporting unit exceeds the carrying value of the reporting unit's net assets, then goodwill is not impaired, and no further testing is required. If the fair value of the reporting unit is below the carrying value of the reporting unit's net assets, then the second step is required to measure the amount of potential impairment. The second step requires an assignment of the reporting unit's fair value to the reporting unit's assets and liabilities, using the relevant acquisition accounting guidance, to determine the implied fair value of the reporting unit's goodwill. The implied fair value of the reporting unit's goodwill is then compared with the carrying amount of the reporting unit's goodwill to determine the goodwill impairment loss to be recognized, if any. If the carrying value of a reporting unit's goodwill exceeds its implied fair value, we record an impairment loss equal to the difference. In the normal course of business, we generate a significant amount of unrecorded intangible assets through R&D and other activities. As a result, this greatly reduces the implied fair value of the reporting unit's goodwill that is calculated when the second step is required to be performed. Thus, the impairment loss may be much more significant than the difference between the fair value of the reporting unit determined during the first step and the carrying value of the reporting unit's net assets.

To determine the reporting units' fair values, we use the income approach, the market approach, or a combination thereof. The income approach provides an estimate of fair value based on discounted expected future cash flows. The market approach provides an estimate of the fair value by applying various observable market-based multiples to the reporting units' operating results and then applying an appropriate control premium.

Determining the fair value of a reporting unit is judgmental in nature and involves the use of significant estimates and assumptions. We based our fair value estimates on assumptions we believe to be reasonable, but these estimates and assumptions are inherently uncertain. Estimates and assumptions with respect to the determination of the fair value of our reporting units using the income approach include, among other inputs:

- Our operating forecasts;
- Our forecasted revenue growth rates; and
- Risk-commensurate discount rates and costs of capital.

Our estimates of revenues and costs are based on historical data, various internal estimates, and a variety of external sources, and are developed as part of our regular long-range planning process. The control premium used in market or combined approaches is determined by considering control premiums offered as part of acquisitions where acquired companies were comparable with our reporting units.

Due to the change in our annual impairment test date, we performed our annual goodwill impairment test using measurement data as of the first day of the fourth fiscal quarter of 2016, in addition to the goodwill impairment test previously performed during the second fiscal quarter of 2016. At the time of the fiscal year 2016 annual goodwill impairment testing, our reporting units were: SAN Products; IP Networking Products; and Global Services. During the first step of the initial goodwill impairment test using measurement data as of the first day of the second fiscal quarter of 2016, we determined that all our reporting units passed the first step of goodwill impairment testing and no further testing was required. The following disclosure is related to our goodwill impairment test using measurement data as of the first day of the fourth fiscal quarter of 2016.

During our fiscal year 2016 annual goodwill impairment test, we used a combination of the income approach and market approach, weighted equally, to estimate each reporting unit’s fair value.

During the first step of goodwill impairment testing, we determined that all our reporting units passed the first step of goodwill impairment testing and no further testing was required. However, changes in the underlying assumptions can adversely impact fair value because some of the inherent estimates and assumptions used in determining the fair value of these reportable segments are complex and subjective. Accordingly, for the IP Networking Products reporting unit, we performed the sensitivity analysis below to quantify the impact of key assumptions on that reporting unit’s fair value estimate. The key assumptions impacting our estimates were (i) discount rates and (ii) discounted cash flow (“DCF”) terminal value multipliers. As these assumptions ultimately reflect the risk of achieving reporting units’ revenue and cash flow projections, we determined that a separate sensitivity analysis for changes in revenue and cash flow projections was not meaningful.

The respective fair values of the SAN and Global Services reporting units were substantially in excess of these reporting units’ carrying values, and the fair values of those reporting units were, therefore, not subject to a sensitivity analysis.

As of the date of the fiscal year 2016 annual goodwill impairment testing, the carrying value of the IP Networking Products reporting unit’s goodwill was $1,594 million. Based on our fiscal year 2016 annual goodwill impairment test, the estimated fair value of the IP Networking Products reporting unit’s net assets, which include goodwill, exceeded the carrying value of these net assets by approximately $181 million. The following table summarizes the approximate impact that a change in key assumptions would have on the estimated fair value of the IP Networking Products reporting unit, leaving all other assumptions unchanged:

	Change	**Approximate Impact on Fair Value (In millions)**	**Excess of Fair Value over Carrying Value (In millions)**
Discount rate	±1%	$(62) - 67	$119 - 247
DCF terminal value multiplier	±0.5x	$(53) - 53	$128 - 234

Accounting for Income Taxes. The determination of our tax provision is subject to estimates and judgments due to operations in multiple tax jurisdictions inside and outside the United States. Sales to our international customers are principally taxed at rates that are lower than the United States statutory rates. The ability to maintain our current effective tax rate is contingent upon existing tax laws in both the United States and in the respective countries in which our international subsidiaries are located. Future changes in domestic or international tax laws could affect the continued realization of the tax benefits we are currently receiving and expect to receive from international sales. In addition, an increase in the percentage of our total revenue from international customers, or in the mix of international revenue among particular tax jurisdictions, could change our overall effective tax rate. We intend to indefinitely reinvest current and accumulated earnings of our foreign subsidiaries for expansion of our business operations outside the United States. These earnings could become subject to United States federal and state income taxes and foreign withholding taxes, as applicable, should they be either deemed or actually remitted from our international subsidiaries to the United States. In addition, we evaluate the expected realization of our deferred tax assets and assess the need for a valuation allowance on a quarterly basis. As of October 29, 2016, our net deferred tax asset balance was $12.7 million. We believe that sufficient positive evidence exists from historical operations and projections of U.S. taxable income in future years to conclude that it is more likely than not that we would realize our deferred tax assets, except for California deferred tax assets and capital loss carryforwards. Historical operations showed that we have cumulative profits for the prior 12 quarters ended October 29, 2016. We only apply a valuation allowance to the California deferred tax assets due to the change in California law that occurred in November 2012, and to capital loss carryforwards due to the limited carryforward periods and the character of such tax attributes. In the event future income by jurisdiction is less than what is currently projected, we may be required to apply a valuation allowance to these deferred tax assets in jurisdictions for which realization is no longer determined to be more likely than not.

Accounting for Uncertain Tax Benefits. The calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. We apply a recognition threshold and measurement attribute for financial statement disclosure of tax positions taken or expected to be taken on a tax return. Recognition of a tax position is determined when it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation process. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement with a taxing authority. The threshold and measurement attribute requires significant judgment by management. Resolution of these uncertainties in a manner inconsistent with our expectations could have a material impact on our results of operations.

Recent Accounting Pronouncements

For a description of recent accounting pronouncements, including the expected dates of adoption and estimated effects, if any, on our consolidated financial statements, see Note 2, “Summary of Significant Accounting Policies,” of the Notes to Consolidated Financial Statements.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

In the normal course of business, we are exposed to market risks related to changes in interest rates, foreign currency exchange rates, and equity prices that could impact our financial position and results of operations. Our risk management strategy with respect to these three market risks may include the use of derivative financial instruments. We use derivative contracts only to manage our existing underlying exposures. Accordingly, we do not use derivative contracts for speculative purposes. Our risks and risk management strategy are outlined below. Actual gains and losses in the future may differ materially from the sensitivity analysis presented below based on changes in the timing and level of interest rates and our actual exposures and hedges.

Interest Rate Risk

Our exposure to market risk due to changes in the general level of U.S. interest rates relates primarily to our term loan and cash equivalents.

We are exposed to changes in interest rates as a result of our borrowings under our term loan, which in the fourth quarter of fiscal year 2016, bore interest at floating rates based on LIBOR, plus a 1.5% interest margin. Based on outstanding principal indebtedness of $780 million under our term loan as of October 29, 2016, if market rates average 1% above the current interest rate, our annual interest expense would increase by approximately $7.8 million. Our remaining material borrowings as of October 29, 2016, bear interest at fixed rates and therefore were not sensitive to changes in interest rates.

Our cash and cash equivalents are primarily maintained at seven major financial institutions. The primary objective of our investment activities is the preservation of principal while maximizing investment income and minimizing risk. We had $914.7 million invested in money market funds as of October 29, 2016, which were not materially sensitive to changes in interest rates due to the short duration of these investments.

We were not subject to material interest rate risk in geographical areas outside of the United States as a substantial portion of our cash and cash equivalents is invested in money market funds in U.S. dollars that have a fixed share price.

Foreign Currency Exchange Rate Risk

We are exposed to foreign currency exchange rate risk inherent in conducting business globally in numerous currencies. We are primarily exposed to foreign currency fluctuations related to operating expenses denominated in currencies other than the U.S. dollar, of which the most significant to our operations for fiscal year 2016 were the British pound, the euro, the Indian rupee, the Chinese yuan, the Singapore dollar, the Swiss franc, the Japanese yen, and the Australian dollar. Because we report in U.S. dollars and we have a net expense position in foreign currencies, we benefit from a stronger U.S. dollar and may be adversely affected by a weaker U.S. dollar relative to the foreign currency. We use foreign currency forward and option contracts designated as cash flow hedges to protect against the foreign currency exchange rate risks inherent in our forecasted operating expenses denominated in certain currencies other than the U.S. dollar. We recognize the gains and losses on foreign currency forward contracts in the same period as the remeasurement losses and gains of the related foreign currency denominated exposures.

We also may enter into other non-designated derivatives that consist primarily of forward contracts to minimize the risk associated with the foreign exchange effects of revaluing monetary assets and liabilities. Monetary assets and liabilities denominated in foreign currencies and any associated outstanding forward contracts are marked-to-market, with realized and unrealized gains and losses included in earnings.

Alternatively, we may choose not to hedge the foreign currency risk associated with our foreign currency exposures if we believe such exposure acts as a natural foreign currency hedge for other offsetting amounts denominated in the same currency or if the currency is difficult or too expensive to hedge. As of October 29, 2016, the gross notional amount of our cash flow derivative instruments was $176.2 million, and we had hedges in place through October 4, 2017.

We have performed a sensitivity analysis as of October 29, 2016, using a modeling technique that measures the change in the fair values arising from a hypothetical 10% adverse movement in the levels of foreign currency exchange rates relative to the U.S. dollar, with all other variables held constant. The analysis covers all of our foreign currency contracts offset by the underlying exposures. The foreign currency exchange rates we used were based on market rates in effect on October 29, 2016. The sensitivity analysis indicated that a hypothetical 10% adverse movement in foreign currency exchange rates would not result in a material foreign exchange loss as of October 29, 2016.

Equity Price Risk

From time to time, we have made equity investments in companies that develop technology or provide services that are complementary to, or broaden the markets for, our products or services and further our business objectives. We had no investments in publicly traded equity securities as of October 29, 2016. The aggregate cost of our equity investments in non-publicly traded companies was $4.9 million as of October 29, 2016. We monitor our equity investments for impairment on a periodic basis. In the event that the carrying value of the equity investment exceeds its fair value, and we determine the decline in value to be other than temporary, we reduce the carrying value to its current fair value. Generally, we do not attempt to reduce or eliminate our market exposure on these equity securities. We do not purchase our equity securities with the intent to use them for speculative purposes.

Our common stock is quoted on the NASDAQ Global Select Market under the symbol "BRCD." On October 28, 2016, the last business day of our fourth fiscal quarter of 2016, the last reported sale price of our common stock on the NASDAQ Global Select Market was $8.69 per share.

Item 8. ***Financial Statements and Supplementary Data***

BROCADE COMMUNICATIONS SYSTEMS, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Brocade Communications Systems, Inc.:

We have audited the accompanying consolidated balance sheets of Brocade Communications Systems, Inc. and subsidiaries (the Company) as of October 29, 2016, and October 31, 2015, and the related consolidated statements of income, comprehensive income, cash flows, and stockholders' equity for each of the years in the three-year period ended October 29, 2016. In connection with our audits of the consolidated financial statements, we also have audited the accompanying financial statement schedule. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Brocade Communications Systems, Inc. and subsidiaries as of October 29, 2016, and October 31, 2015, and the results of their operations and their cash flows for each of the years in the three-year period ended October 29, 2016, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of October 29, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated December 16, 2016, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG LLP

Santa Clara, California
December 16, 2016

BROCADE COMMUNICATIONS SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF INCOME

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
	(In thousands, except per share amounts)		
Net revenues:			
Product	$ 1,959,596	$ 1,902,401	$ 1,852,187
Service	386,014	361,059	359,080
Total net revenues	2,345,610	2,263,460	2,211,267
Cost of revenues:			
Product	657,161	587,515	592,441
Service	172,110	147,872	153,033
Total cost of revenues	829,271	735,387	745,474
Gross margin	1,516,339	1,528,073	1,465,793
Operating expenses:			
Research and development	413,236	356,720	345,549
Sales and marketing	641,403	585,230	554,515
General and administrative	110,627	87,623	84,941
Amortization of intangible assets	15,661	2,556	10,280
Acquisition and integration costs	28,922	3,942	—
Restructuring, goodwill impairment, and other related costs (benefits) (Note 4, 5)	(603)	(678)	89,280
Gain on sale of network adapter business	—	—	(4,884)
Total operating expenses	1,209,246	1,035,393	1,079,681
Income from operations	307,093	492,680	386,112
Interest income	5,251	1,854	665
Other income (loss), net	(979)	95	3,601
Interest expense	(49,327)	(55,578)	(36,757)
Income before income tax	262,038	439,051	353,621
Income tax expense	48,111	98,689	115,650
Net income	213,927	340,362	237,971
Less: Net income attributable to noncontrolling interest	(112)	—	—
Net income attributable to Brocade Communications Systems, Inc.	$ 213,815	$ 340,362	$ 237,971
Net income per share—basic attributable to Brocade Communications Systems, Inc. stockholders	$ 0.52	$ 0.81	$ 0.55
Net income per share—diluted attributable to Brocade Communications Systems, Inc. stockholders	$ 0.51	$ 0.79	$ 0.53
Shares used in per share calculation—basic	409,058	420,331	435,258
Shares used in per share calculation—diluted	417,093	430,556	446,859
Cash dividends declared per share	$ 0.20	$ 0.16	$ 0.07

See accompanying Notes to Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
	(In thousands)		
Net income	$ 213,927	$ 340,362	$ 237,971
Other comprehensive income and loss, net of tax:			
Unrealized gains (losses) on cash flow hedges:			
Change in unrealized gains and losses	(1,953)	(3,387)	(1,939)
Net gains and losses reclassified into earnings	2,621	3,755	(235)
Net unrealized gains (losses) on cash flow hedges	668	368	(2,174)
Foreign currency translation adjustments	(3,079)	(6,556)	(3,196)
Total other comprehensive loss	(2,411)	(6,188)	(5,370)
Total comprehensive income	211,516	334,174	232,601
Less: Net income attributable to noncontrolling interest	(112)	—	—
Less: Total other comprehensive loss attributable to noncontrolling interest	35	—	—
Total comprehensive income attributable to Brocade Communications Systems, Inc.	$ 211,439	$ 334,174	$ 232,601

See accompanying Notes to Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.

CONSOLIDATED BALANCE SHEETS

	October 29, 2016	October 31, 2015
	(In thousands, except par value)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,257,075	$ 1,440,882
Accounts receivable, net of allowances for doubtful accounts of $1,736 and $1,838 as of October 29, 2016, and October 31, 2015, respectively	284,344	235,883
Inventories	69,355	40,524
Deferred tax assets	—	78,675
Prepaid expenses and other current assets	62,236	56,235
Total current assets	1,673,010	1,852,199
Property and equipment, net	455,326	439,224
Goodwill	2,295,184	1,617,161
Core/developed technology intangible assets, net	248,938	30,925
Other intangible assets, net	200,840	44,698
Non-current deferred tax assets	12,736	813
Other assets	53,777	51,133
Total assets	$ 4,939,811	$ 4,036,153
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 128,685	$ 98,143
Accrued employee compensation	154,165	142,075
Deferred revenue	221,940	244,622
Current portion of long-term debt	76,692	298
Other accrued liabilities	113,170	77,226
Total current liabilities	694,652	562,364
Long-term debt, net of current portion	1,502,063	793,779
Non-current deferred revenue	90,051	72,065
Non-current income tax liability	102,100	47,010
Non-current deferred tax liabilities	—	24,024
Other non-current liabilities	5,370	3,376
Total liabilities	2,394,236	1,502,618
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Brocade stockholders' equity:		
Preferred stock, $0.001 par value, 5,000 shares authorized, no shares issued and outstanding	—	—
Common stock, $0.001 par value, 800,000 shares authorized:		
Issued and outstanding: 401,748 and 413,923 shares as of October 29, 2016, and October 31, 2015, respectively	402	414
Additional paid-in capital	1,514,730	1,632,984
Accumulated other comprehensive loss	(27,413)	(25,002)
Retained earnings	1,055,194	925,139
Total Brocade stockholders' equity	2,542,913	2,533,535
Noncontrolling interest	2,662	—
Total stockholders' equity	2,545,575	2,533,535
Total liabilities and stockholders' equity	$ 4,939,811	$ 4,036,153

See accompanying Notes to Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
	(In thousands)		
Cash flows from operating activities:			
Net income	$ 213,927	$ 340,362	$ 237,971
Adjustments to reconcile net income to net cash provided by operating activities:			
Excess tax benefits from stock-based compensation	(9,639)	(48,943)	(64,563)
Depreciation and amortization	124,346	84,807	100,647
Loss on disposal of property and equipment	607	3,163	5,118
Gain on sale of network adapter business	—	—	(4,884)
Amortization of debt issuance costs and debt discount	18,875	13,715	1,151
Write-off of debt discount and debt issuance costs related to lenders that did not participate in refinancing	—	4,808	—
Net gain on sale of investments	(122)	—	(5,292)
Provision for doubtful accounts receivable and sales allowances	2,234	5,173	7,563
Non-cash purchase accounting adjustments to inventory	30,565	—	—
Non-cash stock-based compensation expense	126,335	88,528	84,914
Goodwill impairment charge	—	—	83,382
Changes in assets and liabilities, net of acquisitions:			
Accounts receivable	(9,355)	(15,989)	17,121
Inventories	3,638	(1,805)	6,626
Prepaid expenses and other assets	7,552	(15,844)	(10,984)
Deferred tax assets	(833)	234	(887)
Accounts payable	15,819	107	2,339
Accrued employee compensation	(43,687)	(59,703)	(11,382)
Deferred revenue	(27,984)	1,345	8,652
Other accrued liabilities	(40,904)	50,366	96,376
Restructuring liabilities	(1,434)	(2,825)	(12,271)
Net cash provided by operating activities	409,940	447,499	541,597

BROCADE COMMUNICATIONS SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS—Continued

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
	(In thousands)		
Cash flows from investing activities:			
Purchases of non-marketable equity and debt investments	(2,410)	(2,150)	(223)
Proceeds from sale of non-marketable equity investments	—	1,489	10,798
Proceeds from maturities and sale of short-term investments	150,323	—	—
Purchases of property and equipment	(77,049)	(68,743)	(54,734)
Purchase of intangible assets	—	(7,750)	—
Net cash paid in connection with acquisitions	(564,888)	(95,452)	(16,900)
Proceeds from collection of note receivable	250	250	250
Proceeds from sale of network adapter business	—	—	9,995
Net cash used in investing activities	(493,774)	(172,356)	(50,814)
Cash flows from financing activities:			
Payment of principal related to senior secured notes	—	(300,000)	—
Payment of principal related to the term loan	(20,000)	—	—
Payment of debt issuance costs	(1,154)	(1,718)	—
Payment of principal related to capital leases	(298)	(1,818)	(2,485)
Common stock repurchases	(841,562)	(343,686)	(335,380)
Proceeds from issuance of common stock	49,491	51,376	83,994
Payment of cash dividends to stockholders	(83,760)	(67,470)	(30,384)
Proceeds from term loan	787,255	—	—
Proceeds from convertible notes	—	565,656	—
Purchase of convertible note hedge	—	(86,135)	—
Proceeds from issuance of warrants	—	51,175	—
Proceeds from noncontrolling interest	2,550	—	—
Excess tax benefits from stock-based compensation	9,639	48,943	64,563
Net cash used in financing activities	(97,839)	(83,677)	(219,692)
Effect of exchange rate fluctuations on cash and cash equivalents	(2,134)	(5,601)	(3,071)
Net increase (decrease) in cash and cash equivalents	(183,807)	185,865	268,020
Cash and cash equivalents, beginning of year	1,440,882	1,255,017	986,997
Cash and cash equivalents, end of year	$ 1,257,075	$ 1,440,882	$ 1,255,017
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ 28,338	$ 29,560	$ 34,737
Cash paid for income taxes	$ 49,861	$ 41,442	$ 22,207
Supplemental schedule of non-cash investing activities:			
Settlement of debt investment in relation to acquisition	$ —	$ 150	$ —
Acquiring a business through the issuance of stock and accrual for the appraisal demand submitted by the dissenting shareholder	$ 622,738	$ —	$ —

See accompanying Notes to Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Retained Earnings	Noncontrolling Interest	Total Stockholders' Equity
	Number of Shares	Amount					
	(In thousands)						
Balance at October 26, 2013	445,285	$ 445	$ 1,915,152	$ (13,444)	$ 444,660	$ —	$ 2,346,813
Issuance of common stock	24,196	24	49,565	—	—	—	49,589
Common stock repurchases	(38,011)	(38)	(335,342)	—	—	—	(335,380)
Tax benefit from employee stock plans	—	—	59,908	—	—	—	59,908
Stock-based compensation	—	—	84,914	—	—	—	84,914
Change in net unrealized losses on cash flow hedges	—	—	—	(2,174)	—	—	(2,174)
Change in cumulative translation adjustments	—	—	—	(3,196)	—	—	(3,196)
Cash dividends declared	—	—	—	—	(30,384)	—	(30,384)
Net income	—	—	—	—	237,971	—	237,971
Balance at November 1, 2014	431,470	$ 431	$ 1,774,197	$ (18,814)	$ 652,247	$ —	$ 2,408,061
Issuance of common stock	12,031	13	18,810	—	—	—	18,823
Common stock repurchases	(29,578)	(30)	(343,656)	—	—	—	(343,686)
Tax benefit from employee stock plans	—	—	47,999	—	—	—	47,999
Stock-based compensation	—	—	88,528	—	—	—	88,528
Equity value of debt issuance	—	—	47,106	—	—	—	47,106
Change in net unrealized gains on cash flow hedges	—	—	—	368	—	—	368
Change in cumulative translation adjustments	—	—	—	(6,556)	—	—	(6,556)
Cash dividends declared	—	—	—	—	(67,470)	—	(67,470)
Net income	—	—	—	—	340,362	—	340,362
Balance at October 31, 2015	413,923	$ 414	$ 1,632,984	$ (25,002)	$ 925,139	$ —	$ 2,533,535
Issuance of common stock	79,836	80	592,637	—	—	—	592,717
Common stock repurchases	(92,011)	(92)	(841,470)	—	—	—	(841,562)
Tax benefit from employee stock plans	—	—	4,244	—	—	—	4,244
Stock-based compensation	—	—	126,335	—	—	—	126,335
Change in net unrealized gains on cash flow hedges	—	—	—	668	—	—	668
Change in cumulative translation adjustments	—	—	—	(3,079)	—	—	(3,079)
Cash dividends declared	—	—	—	—	(83,760)	—	(83,760)
Proceeds from noncontrolling interest	—	—	—	—	—	2,550	2,550
Net income	—	—	—	—	213,815	112	213,927
Balance at October 29, 2016	401,748	$ 402	$ 1,514,730	$ (27,413)	$ 1,055,194	$ 2,662	$ 2,545,575

See accompanying Notes to Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Basis of Presentation

Brocade Communications Systems, Inc. (“Brocade” or the “Company”) is a leading supplier of networking hardware, software, and services, including Storage Area Networking (“SAN”) solutions and Internet Protocol (“IP”) Networking solutions for businesses and organizations of various types and sizes. Brocade’s end customers include global enterprises and other organizations and service providers, such as telecommunication firms, cable operators, and mobile carriers. Brocade’s products, services, and solutions simplify information technology (“IT”) infrastructure, increase resource utilization, ensure availability of mission-critical applications, and support key IT services including Internet connectivity, enterprise mobility, virtualization, and cloud computing. Brocade’s advanced Wi-Fi solutions are used by service providers and enterprises to solve a range of network capacity, coverage, and reliability challenges associated with increasing wireless traffic demands created by the growth in the number of users equipped with more powerful, smart wireless devices using increasingly data rich applications and services.

The Company’s fiscal year is a 52- or 53-week period ending on the last Saturday in October or the first Saturday in November, respectively. As is customary for companies that use the 52/53-week convention, every fifth year is a 53-week year. Fiscal year 2016 is a 52-week fiscal year, fiscal year 2015 was a 52-week fiscal year, and fiscal year 2014 was a 53-week fiscal year. The Company’s next 53-week fiscal year will be fiscal year 2019 and its next 14-week quarter will be the second quarter of fiscal year 2019.

The Company’s Consolidated Financial Statements include the accounts of Brocade and its wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated. In May 2016, the Company entered into a joint venture agreement with Guiyang High-Tech Industrial Investment Group Co., Ltd. (“HTII”) to create Guizhou Huiling Technology Co., Ltd (“GHTC”). The Company consolidates its investment in GHTC as this is a variable interest entity, and the Company is the primary beneficiary. The noncontrolling interest attributed to GHTC is presented as a separate component from the Company’s equity in the equity section of the Company’s Consolidated Balance Sheets. HTII’s share of GHTC’s earnings are presented separately in the Company’s Consolidated Statements of Income.

Use of Estimates in Preparation of Consolidated Financial Statements

The preparation of consolidated financial statements and related disclosures in conformity with U.S. generally accepted accounting principles (“U.S. GAAP”) requires management to make estimates and judgments that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates are used for, but not limited to, revenue recognition, sales allowances including discounts, returns, and programs, allowance for doubtful accounts, stock-based compensation, acquisition purchase price allocations, warranty obligations, inventory valuation and purchase commitments, impairment of goodwill and other indefinite-lived intangible assets, litigation, income taxes, and investments. Actual results may differ materially from these estimates.

2. Summary of Significant Accounting Policies

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original or remaining maturity of three months or less at the date of purchase to be cash equivalents.

Investments and Equity Securities

From time to time, the Company makes equity investments in non-publicly traded companies. These investments are included in “Other assets” on the accompanying Consolidated Balance Sheets and are generally accounted for under the cost method as the Company does not have the ability to exercise significant influence over the respective issuers’ operating and financial policies, nor does it have a liquidation preference that is substantive. The Company monitors its investments in non-publicly traded companies for impairment on a quarterly basis and makes appropriate reductions in carrying values when such impairments are determined to be other-than-temporary. Impairment charges are included in “Other income (loss), net” on the Company’s Consolidated Statements of Income. Factors considered in determining an impairment include, but are not limited to, the current business environment including competition and uncertainty of financial condition, going concern considerations such as the rate at which the issuer company utilizes cash and the issuer company’s ability to obtain additional financing to fulfill its stated business plan, the need for changes to the issuer company’s existing business model due to changing business environments and its ability to successfully implement necessary changes, and comparable valuations. The carrying value of the Company’s equity investments in non-publicly traded companies at October 29, 2016, and October 31, 2015, was $4.9 million and $2.5 million, respectively.

Fair Value of Financial Instruments

The fair value of the Company’s financial instruments, including cash equivalents, accounts receivable, accounts payable, and accrued liabilities, approximate cost because of their short maturities.

Derivative Financial Instruments

In the normal course of business, the Company is exposed to fluctuations in interest rates and the exchange rates associated with foreign currencies. The derivatives entered into by the Company qualify for and are designated as foreign currency cash flow hedges.

The derivatives are recognized on the Company’s Consolidated Balance Sheets at their respective fair values. Changes in fair values of outstanding cash flow hedges that are highly effective are recorded in “Accumulated other comprehensive loss” until earnings are affected by cash flows from the underlying hedged transaction. In most cases, amounts recorded in “Accumulated other comprehensive loss” will be recorded in earnings at maturity of the related derivative. The recognition of effective hedge results offsets the gains or losses on the underlying exposure. Cash flows from derivative transactions are classified according to the nature of the risk being hedged by presenting the gain or loss on the matured derivatives and related impact from the underlying hedged transactions in the same line items on the Company’s Consolidated Statements of Income.

The Company formally documents all relationships between hedging instruments and hedged items, as well as the risk-management objective and strategy for undertaking hedge transactions. This documentation includes linking all derivatives either to specific assets and liabilities on the consolidated balance sheets or specific firm commitments or forecasted transactions. The Company also formally assesses, both at the hedge’s inception and on an ongoing basis, whether the derivatives used in hedging transactions have been highly effective in offsetting changes in the cash flows of hedged items and whether those derivatives may be expected to remain highly effective in future periods.

The Company discontinues hedge accounting prospectively when (i) the derivative is no longer highly effective in offsetting changes in the cash flows of a hedged item (including hedged items such as firm commitments or forecasted transactions); (ii) the derivative expires or is sold, terminated or exercised; (iii) it is no longer probable that the forecasted transaction will occur; or (iv) management determines that designating the derivative as a hedging instrument is no longer appropriate.

When the Company discontinues hedge accounting, but it continues to be probable that the forecasted transaction will occur in the originally expected period, the gain or loss on the derivative remains in accumulated other comprehensive loss and is reclassified into earnings when the forecasted transaction affects earnings. However, if it is no longer probable that a forecasted transaction will occur by the end of the originally specified time period or within an additional two-month period of time thereafter, the gain or loss that was in accumulated other comprehensive loss will be recognized immediately in earnings. In all situations in which hedge accounting is discontinued and the derivative remains outstanding, the Company will carry the derivative at its fair value on the Company’s Consolidated Balance Sheet until maturity and will recognize future changes in the fair value in current period earnings. Any hedge ineffectiveness is recorded in current period earnings within “Other income (loss), net.” Effectiveness is assessed based upon statistical regression analysis of changes in cash flows, as well as other relevant information.

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market. Inventory costs include material, labor, and overhead. The Company records inventory write-downs based on excess and obsolete inventory determined primarily by its forecast of future demand. A majority of the Company’s inventory is located off-site at customers’ hubs, third-party managed service depots and at contract manufacturers’ locations. Cash flows related to the sale of inventories are classified as cash flows from operating activities.

Deferred Costs

When the Company’s products have been delivered, but the product revenue associated with the arrangement has been deferred as a result of not meeting the revenue recognition criteria (see section entitled “*Revenue Recognition*” below), the related product costs are also deferred if the inventory is deemed recoverable. The deferred costs are recognized in cost of revenues when the related deferred revenue is recognized or when the inventory is deemed unrecoverable.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. An estimated useful life of three years is used for computer equipment and four to seven years is used for software based on the nature of the software purchased. Estimated useful lives of up to four years are used for engineering and other equipment, seven years is used for furniture and an estimated useful life of 39 years is used for buildings with a range of ten to 30 years for some components of the buildings. Leasehold improvements are amortized using the straight-line method over the shorter of ten years or the remaining term of the lease.

Brocade evaluates long-lived assets, such as property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable in accordance with Accounting Standards Codification ("ASC") 360-10 Property, Plant and Equipment. Brocade assesses the fair value of the assets based on the undiscounted future cash flow the assets are expected to generate and recognizes an impairment loss when the estimated undiscounted future cash flow expected to result from the use of the asset plus net proceeds expected to result from the disposition of the asset, if any, are less than the carrying value of the asset. When Brocade identifies an impairment, Brocade reduces the carrying amount of the asset to its estimated fair value based on a discounted cash flow approach or, when available and appropriate, to comparable market values.

Acquisition

The Company allocates the fair value of the purchase consideration of its acquisitions to the tangible assets, liabilities, and intangible assets acquired, including in-process research and development ("IPR&D"), based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. IPR&D is initially capitalized at fair value as an intangible asset with an indefinite life and assessed for impairment thereafter. When an IPR&D project is completed, the IPR&D is reclassified as an amortizable purchased intangible asset and amortized over the asset's estimated useful life. Acquisition-related expenses and related restructuring costs are recognized separately from the business combination and are expensed as incurred.

Goodwill, Other Indefinite-lived Intangible Assets and Long-lived Intangible Assets

Goodwill and other indefinite-lived intangible assets are generated as a result of business combinations. Our indefinite-lived assets are comprised of acquired IPR&D and goodwill. IPR&D is an intangible asset accounted as an indefinite-lived asset until the completion or abandonment of the associated research and development effort.

During the development period, the Company conducts an IPR&D impairment test annually and whenever events or changes in facts and circumstances indicate that it is more likely than not that the IPR&D is impaired. Events which might indicate impairment include, but are not limited to, adverse cost factors, deteriorating financial performance, strategic decisions made in response to economic, market, and competitive conditions, the impact of the economic environment on us and our customer base, and/or other relevant events such as changes in management, key personnel, litigations, or customers.

The Company evaluates goodwill for impairment on an annual basis or whenever events occur or facts and circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. An impairment loss is recognized to the extent that the carrying amount of goodwill exceeds the asset's implied fair value. Events which might indicate impairment include, but are not limited to, strategic decisions made in response to economic and competitive conditions, the impact of the economic environment on the Company's customer base, material negative changes in relationships with significant customers, and/or a significant decline in the Company's stock price for a sustained period.

Effective on the first day of the fourth fiscal quarter of 2016, the Company changed the date of its annual impairment test for IPR&D and goodwill from the first day of the second fiscal quarter to the first day of the fourth fiscal quarter. This change in the annual impairment test date was made to better coincide with the timing of when the Company prepares its annual budget and financial plans as part of its regular long-range planning process. These financial plans are a key component in estimating the fair value of its reporting units, which is the basis for performing its annual impairment test. The Company believes that the change in its annual impairment test date is preferable as it allows the Company to utilize its most current projections in the annual impairment test.

Long-lived intangible assets are carried at cost less accumulated amortization. Amortization is recognized on a straight-line basis over the estimated useful life of the respective asset. The Company evaluates intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. Examples of such events or circumstances include, but are not limited to, significant underperformance relative to historical or projected future operating results, significant changes in the manner of use of acquired assets or the strategy for the Company's business, significant negative industry or economic trends, and/or a significant decline in the Company's stock price for a sustained period. Impairment is recognized based on the difference between the fair value of the asset and its carrying value. For additional discussion, see Note 4, "Goodwill and Intangible Assets," of the Notes to Consolidated Financial Statements.

Litigation Costs

The Company is subject to the possibility of legal actions arising in the ordinary course of business. The Company regularly monitors the status of pending legal actions to evaluate both the magnitude and likelihood of any potential losses. An accrual for these potential losses is made when they are probable and the amount of loss, or possible range of loss, can be reasonably estimated. Legal costs related to such potential losses are expensed as incurred. In addition, recoveries are shown as a reduction in litigation costs in the period in which they are realized.

Concentrations

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents, and accounts receivable. Cash and cash equivalents are primarily maintained at seven major financial institutions. Deposits held with banks may be redeemed upon demand and may exceed the amount of insurance provided on such deposits.

A majority of the Company's accounts receivable balance is derived from sales to original equipment manufacturer ("OEM") partners in the computer storage and server industry. As of October 29, 2016, two customers accounted for a combined total of 42% (EMC Corporation ("EMC"), which was acquired by Dell, Inc. on September 7, 2016, combined with direct sales to Dell, Inc. (together "Dell EMC") with 29% and Hewlett Packard Enterprise Company ("HPE") with 13%) of total accounts receivable. As of October 31, 2015, one customer (HPE) individually accounted for 17% of total accounts receivable. The Company performs ongoing credit evaluations of its customers and generally does not require collateral on accounts receivable balances. The Company has established reserves for credit losses and sales allowances.

For each of the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, three customers accounted for a combined total of 39% (Dell EMC with 19%, HPE with 10%, and International Business Machines Corporation ("IBM") with 10%), 41% (EMC with 17%, HPE with 12%, and IBM with 12%), and 46% (EMC with 18%, HPE with 12%, and IBM with 16%) of total net revenues, respectively.

The Company currently relies on single and limited sources for multiple key components used in the manufacture of its products. Additionally, the Company relies on multiple contract manufacturers ("CMs") for the production of its products, including Hon Hai Precision Industry Co., Ltd., Accton Technology Corporation, Universal Scientific Industrial (Shanghai) Co., Ltd., Flextronics Telecom Systems Ltd., and Cape EMS Manufacturing (M) Sdn. Bhd., and has a service repair arrangement with Flex Ltd. Although the Company uses standard parts and components for its products where possible, the Company's CMs currently purchase, on the Company's behalf, several key components used in the manufacture of products from single- or limited-source suppliers. The Company also entered into license agreements with some of its suppliers, including Qualcomm Inc., for technologies and components that are used in its products.

Revenue Recognition

Product revenue. Substantially all of the Company's products are integrated with software that is essential to the functionality of the equipment. Additionally, the Company provides unspecified software upgrades and enhancements related to the equipment through its maintenance contracts for most of its products. Product revenue is generally recognized when all of the following criteria have been met:

- Persuasive evidence of an arrangement exists;
- Delivery has occurred;
- The fee is fixed or determinable; and
- Collectibility is reasonably assured.

OEM and direct customers are not granted specific rights of return; however, the Company may permit returns of product from customers if such product is returned in a timely manner and in good condition. In addition, certain of the Company's contracts with OEM and direct customers include Sales Programs which entitle the customers to discounted pricing on future purchases if agreed upon volume targets are met.

The Company reduces OEM and direct customer revenue for estimated sales returns at the time of shipment and for sales programs at the later of revenue recognition or communication of the commitment for sales incentives. Sales return allowances are estimated based on historical sales returns. Sales programs are estimated based on approved sales programs versus claims under such sales programs, current trends and the Company's expectations regarding future activity.

For newly introduced products, many of the Company's large OEM customers require a product qualification period during which the Company's products are tested and approved by the OEM customers for sale to their customers. Revenue recognition and related cost are deferred for shipments to new OEM customers and for shipments of newly introduced products to existing OEM customers until satisfactory evidence of completion of the product qualification has been received from the OEM customer.

Distributors are granted rights of stock rotation which are limited to a contractually specified percentage of the distributor's aggregate purchase volume. These stock rotation rights are subject to expiration 180 days from the time of product shipment by the Company to the distributor. Distributor sales are also subject to Sales Program incentives and to deal-specific rebates that are payable to distributors upon sale of the related product by the distributor to an ultimate customer. Prior to the fourth quarter of the fiscal year ended October 29, 2016, the Company had not yet developed a historical dataset sufficient to allow for reliable estimation of distributor rebates contemporaneously with the shipment of product to the distributor. For this reason, the ultimate price of distributor sales was not deemed determinable until the period in which the distributor's sale to the ultimate customer took place. Accordingly, revenue from sales to the Company's distributor customers was recognized in the same period in which the product was actually sold by the distributor (sell-through).

The Company initiated a project to enhance the capture of distributor point of sale ("POS") data in fiscal year 2014. This project resulted in the Company being able to associate specific rebates reflected in the distributor POS data to specific sales quotes maintained in the Company's quoting system. Therefore, beginning in the fourth quarter of the fiscal year ended October 29, 2016, the historical distributor rebates and matching sales reflected in the Company's historical dataset grew to reach approximately two years. Since the distributors must claim rebates within 180 days from their receipt of the related product, two years was deemed sufficient for purposes of making reliable estimates of ultimate rebate claims. Accordingly, beginning in the fourth quarter of the fiscal year ended October 29, 2016, revenue from sales to distributor customers is recognized upon shipment to the distributor (sell-in) and is reduced by allowances for rebates, sales program incentives, and stock rotations, which are all estimated by a process using both historical experience and expectations of future outcomes based on facts and circumstances available contemporaneously at the date of estimation.

As a result of this change from a sell-through method to a sell-in method for distributor sales, revenues totaling $14.4 million that would have otherwise been deferred at October 29, 2016, were recognized during the fourth quarter of the year then ended. In addition, the related cost of goods sold totaling $4.0 million that would have been similarly deferred were also recognized in the fourth quarter of the year ended October 29, 2016.

The Company maintains an allowance for doubtful accounts, which is also accounted for as a reduction in revenue. The Company establishes the allowance for doubtful accounts to ensure accounts receivable are not overstated due to uncollectibility. The Company maintains an allowance for doubtful accounts based upon the analysis of accounts receivable, historical collection patterns, customer concentrations, customer creditworthiness, current economic trends, changes in customer payment terms and practices, and customer communication. The Company records a specific reserve for individual accounts when it becomes aware of a customer's likely inability to meet its financial obligations, such as in the case of bankruptcy filings or deterioration in the customer's operating results or financial position. If circumstances related to customers change, the Company would further adjust estimates of the recoverability of receivables.

Multiple-element arrangements. The Company's multiple-element product offerings include networking hardware with embedded software products and support, which are considered separate units of accounting. For certain of the Company's products, software and non-software components function together to deliver the tangible products' essential functionality.

The Company allocates revenue to each element in a multiple-element arrangement based upon their relative selling price. When applying the relative selling price method, the Company determines the selling price for each deliverable using vendor-specific objective evidence (“VSOE”) of selling price, if it exists, or third-party evidence (“TPE”) of selling price. If neither VSOE nor TPE of selling price exist for a deliverable, the Company uses its best estimate of selling price for that deliverable. Revenue allocated to each element is then recognized when the basic revenue recognition criteria are met for each element.

The Company determines VSOE based on its normal pricing and discounting practices for the specific product or service when sold separately. In determining VSOE, the Company requires that a substantial majority of the selling prices for a product or service fall within a reasonably narrow pricing range. For post-contract customer support (“PCS”), the Company considers stated renewal rates in determining VSOE.

In most instances, the Company is not able to establish VSOE for all deliverables in an arrangement with multiple elements. This may be due to the Company infrequently selling each element separately, not pricing products within a narrow range, or only having a limited sales history. When VSOE cannot be established, the Company attempts to establish the selling price for each element based on TPE. TPE is determined based on competitor prices for similar deliverables when sold separately. Generally, the Company’s go-to-market strategy differs from that of its peers and its offerings contain a significant level of customization and differentiation such that the comparable pricing of products with similar functionality cannot be obtained. Furthermore, the Company is unable to reliably determine what similar competitor products’ selling prices are on a stand-alone basis. Therefore, the Company is typically unable to determine TPE.

When the Company is unable to establish selling price using VSOE or TPE, the Company uses best estimated selling price (“BESP”) in its allocation of the arrangement consideration. The objective of BESP is to determine the price at which the Company would transact a sale if the product or service were sold on a stand-alone basis. BESP is generally used for offerings that are not typically sold on a stand-alone basis or for new or highly customized offerings.

The Company determines BESP for a product by considering multiple factors including, but not limited to, geographies, market conditions, competitive landscape, internal costs, gross margin objectives and pricing practices. The determination of BESP is made through consultation with and formal approval by the Company’s management, taking into consideration the go-to-market strategy.

The Company regularly reviews VSOE, TPE and BESP, as well as the establishment and updates of these estimates. There was no material impact on revenues during the fiscal year ended October 29, 2016, nor does the Company expect a material impact in the near term from changes in VSOE, TPE or BESP.

Services revenue. Services revenue consists of professional services and maintenance arrangements, including PCS, software as a service (“SaaS”), and other professional services. PCS services are offered under renewable, annual fee-based contracts or as part of multiple-element arrangements, and typically include telephone support, upgrades and enhancements to the Company’s operating system software, software updates on an “if and when available” basis, advance replacement for various defective devices and components including power supplies, fans, switches, access points and controllers, telephone and internet access to technical support personnel, and other hardware support. Revenue related to PCS elements is deferred and recognized ratably over the contractual period. PCS contracts are typically one to five years in length.

Professional services are offered under hourly or fixed fee-based contracts. Professional services revenue is typically recognized as services are performed.

Warranty Expense

The Company provides standard warranties on its products ranging from one year to limited lifetime warranties. Estimated future warranty costs are accrued at the time of shipment and charged to cost of revenues based upon historical experience, current trends in warranty claims, and the Company’s expectations regarding future experience.

Foreign Currency

Assets and liabilities of the Company’s international subsidiaries in which the local currency is the functional currency are translated into U.S. dollars at period-end exchange rates. Income and expenses are translated into U.S. dollars at the average exchange rates during the period. The resulting translation adjustments are included in the Company’s Consolidated Balance Sheets in the stockholders’ equity section as a component of accumulated other comprehensive loss. Foreign exchange gains and losses for assets and liabilities of the Company’s international subsidiaries in which the functional currency is the U.S. dollar are recorded in the Company’s Consolidated Statement of Income.

Capitalized Software Development Costs

Eligible development costs for software to be sold are capitalized upon the establishment of technological feasibility, which is defined as being equivalent to completion of a beta-phase working prototype. Total eligible software development costs have not been material to date.

Eligible costs related to internal development or purchase of software for internal use are capitalized and included in “Property and equipment, net.” These costs are amortized over the estimated useful lives of four to seven years based on the nature of the software purchased or developed. Ongoing software development costs on the Company’s Oracle R12 customization project and the Long-Term Evolution (“LTE”) Small Cell Cloud Controller are recorded in construction-in-progress accounts until completed. These costs are eligible for capitalization in accordance with ASC 350-40, *Intangibles—Goodwill* and *Other—Internal-Use Software*, and will be amortized using the straight-line method over the estimated useful life.

Advertising Costs

The Company expenses all advertising costs as incurred. Advertising costs were $11.3 million, $13.6 million, and $17.6 million for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, respectively.

During the fiscal year ended October 27, 2012, the Company entered into a multi-year arrangement which includes exchanging certain of the Company’s products and services, with an estimated overall fair value of $16.6 million, for advertising. The Company is accounting for this transaction based on fair values of products and services surrendered and accordingly recognized $1.1 million, $1.1 million, and $2.4 million of related gross operating revenue for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, respectively. In addition, $4.0 million of the advertising costs for the fiscal year ended October 29, 2016, were incurred in connection with this multi-year arrangement, and a related advertising expense prepayment is currently recorded within “Prepaid expenses and other current assets” and “Other assets.”

Income Taxes

The Company recognizes income tax expense for the amount of taxes payable or refundable for the current year. Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts, along with net operating loss carryforwards and credit carryforwards. A valuation allowance is recognized to the extent that it is more likely than not that the tax benefits will not be realized.

The Company accounts for uncertainty in income taxes using a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. The Company classifies the liability for unrecognized tax benefits as current to the extent that the Company anticipates payment (or receipt) of cash within one year. Interest and penalties related to uncertain tax positions are recognized in the provision for income taxes. For additional discussion, see Note 14, “Income Taxes,” of the Notes to Consolidated Financial Statements.

Computation of Net Income per Share

Basic net income per share is computed using the weighted-average number of common shares outstanding during the period, less shares subject to repurchase. Diluted net income per share is computed using the weighted-average number of common shares outstanding and potentially dilutive common shares outstanding during the period that have a dilutive effect on earnings per share. Potentially dilutive common shares result from the assumed exercise of outstanding stock options, assumed vesting of outstanding restricted stock units (“RSUs”), assumed issuance of stock under the employee stock purchase plan, and assumed conversion of outstanding convertible senior unsecured notes and exercise of related warrant transactions, all using the treasury stock method.

Stock-Based Compensation

The Company accounts for employee equity awards under the fair value method. Accordingly, the Company measures stock-based compensation at the grant date based on the fair value of the award. The fair values of stock options and the Employee Stock Purchase Plan ("ESPP") are estimated using the Black-Scholes option pricing model. Estimated compensation cost relating to time-based RSUs granted prior to the initial declaration of a quarterly cash dividend on May 22, 2014, is based on the fair value of the Company's common stock on the date of grant because Brocade did not historically pay cash dividends on its common stock. For time-based RSUs granted on or subsequent to May 22, 2014, the fair value of RSUs is measured based on the grant-date share price, less the present value of expected dividends during the vesting period, discounted at a risk-free interest rate. The fair value of restricted stock units with market conditions ("MSUs") is estimated using a lattice model that incorporates a Monte Carlo simulation. The Company records stock-based compensation expense over the 24-month offering period in connection with shares issued under its ESPP. The compensation expense for stock-based awards is reduced by an estimate for forfeitures and is recognized over the vesting period of the award under a graded vesting method, except for RSUs granted by the Company, which is recognized over the expected term of the award under a straight-line vesting method. For additional discussion, see Note 12, "Stock-Based Compensation," of the Notes to Consolidated Financial Statements.

The Company accounts for the tax effects of share-based payment awards using the alternative transition method, which includes simplified methods to establish the beginning balance of the additional paid-in capital pool ("APIC Pool") related to the tax effects of employee stock-based compensation and to determine the subsequent impact on the APIC Pool and consolidated statement of cash flows of the tax effects of employee stock-based compensation awards.

Consolidation of Variable Interest Entities

The Company uses a qualitative approach in assessing the consolidation requirement for variable interest entities. The approach focuses on identifying which enterprise has the power to direct the activities that most significantly impact the variable interest entity's economic performance and which enterprise has the obligation to absorb losses or the right to receive benefits from the variable interest entity. If the Company is the primary beneficiary of a variable interest entity, the assets, liabilities, and results of operations of the variable interest entity are included in the Company's consolidated financial statements.

New Accounting Pronouncements or Updates Recently Adopted

In April 2014, the Financial Accounting Standards Board ("FASB") issued an update to ASC 205, *Presentation of Financial Statements*, and ASC 360, *Property, Plant, and Equipment: Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity*. Under this update, a discontinued operation may include a component of an entity or a group of components of an entity, a business, or nonprofit activity. Only those disposals of components of an entity that represent a strategic shift that has, or will have, a major effect on an entity's operations and financial results will be reported as discontinued operations in the financial statements. This update should be applied prospectively. The Company adopted this update in the first quarter of fiscal year 2016. There was no material impact on the Company's financial position, results of operations, or cash flows.

In April 2015, the FASB issued an update to ASC 835, *Interest—Imputation of Interest: Simplifying the Presentation of Debt Issuance Costs*. Under this update, debt issuance costs are required to be presented as a direct deduction from the carrying amount of the related debt liability, consistent with the presentation of debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by this update. This update should be applied retrospectively to all prior periods presented in the financial statements. The Company adopted this update in the first quarter of fiscal year 2016. There was no material impact on the Company's financial position, results of operations, or cash flows.

In September 2015, the FASB issued an update to ASC 805, *Business Combinations: Simplifying the Accounting Measurement-Period Adjustments*. This update simplifies the accounting for adjustments made to provisional amounts recognized in a business combination by eliminating the requirement to retrospectively account for those adjustments. Under this update, the adjustments are recognized in the reporting period in which the adjustment amounts are determined. This update should be applied prospectively. The Company adopted this update in the first quarter of fiscal year 2016. There was no material impact on the Company's financial position, results of operations, or cash flows.

In November 2015, the FASB issued an update to ASC 740, *Income Taxes: Balance Sheet Classification of Deferred Taxes*. This update simplifies the presentation of current and non-current deferred tax liabilities and assets. Under this update, the deferred tax liabilities and assets are classified as non-current on the balance sheet. The update does not impact the current requirement that deferred tax liabilities and assets be offset and presented as a single amount. This update may be applied either prospectively or retrospectively. The Company adopted this update in the first quarter of fiscal year 2016 and has elected to apply this update prospectively. There was no material impact on the Company's financial position, results of operations, or cash flows.

Recent Accounting Pronouncements or Updates That Are Not Yet Effective

In May 2014, the FASB issued ASC 606, *Revenue from Contracts with Customers*, that will supersede virtually all existing revenue guidance. Under this new revenue guidance, an entity is required to recognize revenue upon transfer of promised goods or services to customers, in an amount that reflects the expected consideration received in exchange for those goods or services. As such, an entity will need to use more judgment and make more estimates than under the current guidance. This new revenue guidance should be applied retrospectively either to each prior reporting period presented in the financial statements, or only to the most current reporting period presented in the financial statements with a cumulative effect adjustment recorded in retained earnings. In August 2015, the FASB issued an update to defer the effective date of this new revenue guidance by one year. This new revenue guidance becomes effective in the first quarter of fiscal year 2019. Early adoption is not permitted for reporting periods before the first quarter of fiscal year 2018. The Company is currently evaluating the impact of this new revenue guidance on its consolidated financial statements.

In March 2016, the FASB issued an update to ASC 606, *Revenue from Contracts with Customers: Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*, which clarifies the implementation guidance for principal versus agent considerations. In April 2016, the FASB issued an update to ASC 606, *Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing*, which clarifies the guidance related to identifying performance obligations and accounting for licenses of intellectual property. In May 2016, the FASB issued an update to ASC 606, *Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients*, which clarifies the guidance related to collectibility and non-cash consideration, as well as provides practical expedients for the transition to ASC 606. The Company must adopt these updates with the adoption of ASC 606, *Revenue from Contracts with Customers*. The Company is currently evaluating the impact of these updates on its consolidated financial statements.

In April 2015, the FASB issued an update to ASC 350, *Intangibles—Goodwill and Other—Internal-Use Software: Customer's Accounting for Fees Paid in Cloud Computing Arrangement.* This update provides guidance on the accounting for fees paid in a cloud computing arrangement if the arrangement was determined to include a software license. This update will not change U.S. GAAP for a customer's accounting for service contracts. This update may be applied either prospectively or retrospectively and becomes effective in the first quarter of fiscal year 2017. Early adoption is permitted. The Company does not expect the adoption of this update to have a material impact on its consolidated financial statements.

In July 2015, the FASB issued an update to ASC 330, *Inventory: Simplifying the Measurement of Inventory*. Under this update, subsequent measurement of inventory is based on the lower of cost or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated cost of completion and disposal. This update does not apply to inventory that is measured using last-in, first-out or the retail inventory method. This update should be applied prospectively and becomes effective in the first quarter of fiscal year 2018. Early adoption is permitted. The Company does not expect the adoption of this update to have a material impact on its consolidated financial statements.

In January 2016, the FASB issued an update to ASC 825, *Financial Instruments—Overall: Recognition and Measurement of Financial Assets and Financial Liabilities*. This update consists of eight provisions that provide guidance on the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. This update should be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption and prospectively for equity investments without readily determinable fair values. This update becomes effective in the first quarter of fiscal year 2019. Early adoption is permitted for two of the eight provisions. The Company is currently evaluating the impact of this update on its consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASC 842, *Leases*, that will supersede the existing lease guidance, including on-balance sheet recognition of operating leases for lessees. This new lease guidance should be applied using a modified retrospective approach and becomes effective in the first quarter of fiscal year 2020. Early adoption is permitted. The Company is currently evaluating the impact of this new lease guidance on its consolidated financial statements.

In March 2016, the FASB issued an update to ASC 718, *Compensation—Stock Compensation: Improvements to Employee Share-Based Payment Accounting*. This update simplifies certain aspects of the accounting for share-based payment transactions, including income taxes, forfeiture rates, classification of awards, and classification in the statement of cash flows. This update becomes effective in the first quarter of fiscal year 2018. Early adoption is permitted. The Company is currently evaluating the impact of this update on its consolidated financial statements.

In June 2016, the FASB issued ASC 326, *Financial Instrument—Credit Losses*, that will supersede the existing methodology for estimating expected credit losses on certain financial instruments. The new impairment methodology eliminates the probable initial recognition threshold and, instead, estimates the expected credit losses in consideration of past events, current conditions, and forecasted information. This update becomes effective in the first quarter of fiscal year 2021. Early adoption is permitted in the first quarter of fiscal year 2020. The Company is currently evaluating the impact of this update on its consolidated financial statements.

In August 2016, the FASB issued an update to ASC 230, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments*. This update consists of eight provisions that provide guidance on the classification of certain cash receipts and cash payments. If practicable, this update should be applied using a retrospective transition method to each period presented. For the provisions that are impracticable to apply retrospectively, those provisions may be applied prospectively as of the earliest date practicable. This update becomes effective in the first quarter of fiscal year 2019. Early adoption is permitted. The Company is currently evaluating the impact of this update on its consolidated financial statements and related disclosures.

In October 2016, the FASB issued an update to ASC 740, *Income Taxes: Intra-Entity Transfers of Assets Other Than Inventory*. This update requires the recognition of current and deferred income taxes for intra-entity transfers of assets other than inventory. This update should be applied using a modified retrospective approach and becomes effective in the first quarter of fiscal year 2019. Early adoption is permitted. The Company is currently evaluating the impact of this update on its consolidated financial statements.

In November 2016, the FASB issued an update to ASC 230, *Statement of Cash Flows: Restricted Cash*. This update requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. This update should be applied using a retrospective transition method and becomes effective in the first quarter of fiscal year 2019. Early adoption is permitted. The Company is currently evaluating the impact of this update on its consolidated financial statements.

3. Acquisitions and Divestitures

Current Fiscal Year Acquisitions

Acquisition of Ruckus Wireless, Inc. (“Ruckus”)

On May 27, 2016 (“Acquisition Date”), the Company completed its acquisition of Ruckus, a public company incorporated in the state of Delaware, to strengthen its Internet Protocol (“IP”) Networking product portfolio by adding Ruckus’ wireless products and services to the Company’s networking solutions.

Pursuant to the terms of the Agreement and Plan of Merger entered into between the Company, Ruckus, and a Company subsidiary, Ruckus stockholders were entitled to receive $6.45 in cash and 0.75 shares of the Company’s common stock in exchange for each outstanding share of Ruckus common stock. The results of operations for the acquired business are included in the Company’s Consolidated Statements of Income from the Acquisition Date. Immediately prior to the completion of the acquisition, there were 92.2 million outstanding shares of Ruckus common stock, which included 3.2 million shares of Ruckus common stock owned by a dissenting former Ruckus stockholder who has filed a petition in Delaware Court of Chancery seeking appraisal of the fair value of those shares under Delaware law. As a result, no cash payment had been made and no shares had been issued to the dissenting stockholder as of October 29, 2016.

Based on the $8.60 per share closing price of the Company’s common stock on the Acquisition Date, the total purchase consideration paid or payable was $1.3 billion, consisting of approximately $574.0 million in cash for total outstanding Ruckus shares less dissenting shares, $574.0 million of equity interests in the Company, $78.3 million in cash for outstanding vested Ruckus stock options allocated to purchase consideration, $7.4 million of the fair value of replacement awards allocated to the purchase consideration, and $41.3 million relating to the appraisal petition filed by the dissenting former Ruckus stockholder, which was accrued as of October 29, 2016, and reported within “Other accrued liabilities” on the Company’s Consolidated Balance Sheets.

For the fiscal year ended October 29, 2016, the Company recorded direct acquisition costs of $15.7 million and integration costs of $12.3 million. These costs were expensed as incurred and are presented in the Company’s Consolidated Statements of Income for the fiscal year ended October 29, 2016, as “Acquisition and integration costs.”

In connection with the acquisition of Ruckus, the Company allocated the total purchase consideration to the net assets acquired and liabilities assumed, including identifiable intangible assets, based on their respective fair values at the Acquisition Date. The following table summarizes the preliminary allocation of the total purchase consideration to the fair value of the assets acquired and liabilities assumed (in thousands):

Assets acquired:		
Cash and cash equivalents	$	95,515
Short-term investments		150,257
Accounts receivable, net of allowances for doubtful accounts of $2,100		41,339
Inventories		63,035
Prepaid expenses and other current assets		5,201
Property and equipment, net		21,777
Identifiable intangible assets		417,000
Other assets		1,697
Total assets acquired		795,821
Liabilities assumed:		
Accounts payable		16,375
Accrued employee compensation		17,514
Deferred revenue		13,923
Other accrued liabilities		33,809
Non-current deferred revenue		9,364
Non-current deferred tax liabilities		62,963
Other non-current liabilities		40,561
Total liabilities assumed		194,509
Net assets acquired, excluding goodwill (a)		601,312
Total purchase consideration (b)		1,275,060
Estimated goodwill (b) - (a)	$	673,748

Goodwill represents the excess of the total purchase consideration over the fair value of the underlying assets acquired and liabilities assumed. Goodwill is attributable to planned growth in new markets and synergies expected to be achieved from the combined operations of the Company and Ruckus. Goodwill of $279.7 million was assigned to the IP Networking Products reporting unit, and goodwill of $394.0 million was assigned to the Global Services reporting unit. Goodwill recognized in the acquisition is not deductible for tax purposes.

A preliminary assessment of the fair value of identified intangible assets and their respective useful lives are as follows (in thousands, except for estimated useful life):

		Approximate Fair Value	Estimated Useful Life (In years)
Trade name/trademark	$	44,000	11.00
Customer relationships		120,000	1 - 7
Developed technology		226,000	6 - 7
IPR&D [1]		27,000	N/A
Total intangible assets	$	417,000	

(1) IPR&D will be accounted for as an indefinite-lived intangible asset until the underlying projects are completed or abandoned.

The total preliminary purchase allocation reflects the Company's preliminary estimates and is subject to revision as additional information in relation to the fair value of the inventories, identifiable intangible assets, and deferred revenue assumed becomes available. During the fourth quarter of fiscal year 2016, the Company obtained additional information related to the fair value of inventories, identifiable intangible assets, and deferred tax liabilities. As a result, the Company recorded a measurement period adjustment resulting in a net decrease in goodwill of $29.0 million. The impact on the line items "Cost of revenues" and "Acquisition and integration costs" on the Company's Consolidated Statements of Income was immaterial for the fiscal year 2016. The Company is continuing to assess the values assigned to the remaining assets acquired and liabilities assumed. Additional information that existed as of the Acquisition Date may become known to the Company during the remainder of the measurement period. This period is not to exceed 12 months from the acquisition date.

Pursuant to the terms of the Agreement and Plan of Merger, all unvested Ruckus awards, then comprised of restricted stock units ("RSUs"), performance-based RSUs, and stock options, were cancelled and replaced with Company RSUs and stock options ("replacement awards"). Per ASC 805, Business Combinations, the replacement of stock options or other share-based payment awards in conjunction with a business combination represents a modification of share-based payment awards that must be accounted for in accordance with ASC 718, Compensation—Stock Compensation. As a result of the Company's obligation to issue replacement awards, a portion of the fair-value-based measure of replacement awards is included in measuring the purchase consideration transferred in the business combination. To determine the portion of the replacement awards that is part of the purchase consideration, the Company measured the fair value of both the replacement awards and the historical Ruckus awards as of the Acquisition Date, in accordance with ASC 718. The fair value of the replacement awards, whether vested or unvested, was included in the purchase consideration to the extent that pre-acquisition services had been rendered. The purchase consideration also included the fair value of accelerated vesting for awards that vested at the Acquisition Date due to change-in-control provisions.

In addition, the Company accelerated 20% to 50% of the vesting of unvested replacement awards granted to nine Ruckus executives and modified the vesting schedules of unvested replacement awards granted to those nine plus an additional four Ruckus executives. As a result, the Company recorded $6.1 million as an expense in the fiscal year ended October 29, 2016.

As of October 29, 2016, the fair value of the remaining unvested replacement awards of $21.8 million will be recorded as stock-based compensation expense over the applicable future vesting periods.

For the fiscal year ended October 29, 2016, the Company's Consolidated Statements of Income included revenue of $181.5 million related to Ruckus. However, the Company cannot determine earnings specifically related to Ruckus since the date of acquisition, as we began integrating these operations into our business upon closing of the acquisition.

Unaudited Pro Forma Financial Information

The following unaudited pro forma financial information presents the consolidated results of the Company and Ruckus for the fiscal year ended October 29, 2016, giving effect to the acquisition and the related debt financing as if they had occurred on November 2, 2014, and combines the historical financial results of the Company and Ruckus. The unaudited pro forma financial information includes adjustments to give effect to pro forma events that are directly attributable to the acquisition and the related debt financing. The pro forma financial information includes adjustments to amortization and depreciation for intangible assets and property, plant, and equipment acquired, adjustments to stock-based compensation expense, the effect of acquisition on inventory acquired and deferred revenue, interest expense for the additional indebtedness, and acquisition and integration costs. The unaudited pro forma financial information is presented for illustrative purposes only and is not necessarily indicative of the results of operations of future periods. The unaudited pro forma financial information does not give effect to the potential impact of current financial conditions, regulatory matters, or any anticipated synergies, operating efficiencies, or cost savings that may be associated with the acquisition. Consequently, actual results will differ from the unaudited pro forma financial information presented below (in thousands, except for per share amounts):

	Fiscal Year Ended	
	October 29, 2016	October 31, 2015
Unaudited pro forma consolidated results:		
Pro forma revenues	$ 2,556,240	$ 2,633,746
Pro forma net income	$ 187,167	$ 227,566
Pro forma net income per share—basic	$ 0.46	$ 0.54
Pro forma net income per share—diluted	$ 0.45	$ 0.53

Unaudited pro forma net income for the fiscal year ended October 31, 2015, includes nonrecurring pro forma adjustments directly attributable to the acquisition to the effect of inventory acquired of $35.9 million and acquisition and integration costs of $28.0 million. No such adjustments are included in any other periods.

Other Fiscal Year 2016 Acquisition

In March 2016, the Company completed its acquisition of a privately held developer of software for data center automation to strengthen its IP Networking product portfolio. The Company does not consider this acquisition to be material to its results of operations or financial position. Therefore, the Company is not presenting pro forma financial information of combined operations.

Prior Fiscal Year Acquisitions

In March 2015, the Company completed its acquisition of two businesses to strengthen its software networking portfolio. The total aggregate purchase price of the acquisitions was $96.1 million. The total net aggregate purchase price of the acquisitions, net of $0.1 million of cash acquired as part of the acquisitions, was $95.5 million in cash consideration and $0.5 million in non-cash consideration.

For the fiscal year ended October 29, 2016, the Company recorded no direct acquisition costs and integration costs related to the prior fiscal year acquisitions. For the fiscal year ended October 31, 2015, the Company recorded direct acquisition costs and integration costs of $1.4 million and $2.5 million, respectively. These costs were expensed as incurred and are presented in the Company's Consolidated Statements of Income for the fiscal year ended October 29, 2016, and October 31, 2015, as "Acquisition and integration costs."

For each acquisition, the Company allocated the total purchase consideration to the net assets acquired and liabilities assumed, including identifiable intangible assets, based on their respective fair values at the acquisition dates. The Company also granted RSU awards and cash awards to transferring or continuing employees of the acquired businesses. These awards require the employees to continue providing services to the Company for the duration of the vesting or payout periods.

The RSUs were accounted for as stock-based compensation expense and are reported, as applicable, within "Cost of revenues," "Research and development," "Sales and marketing," and "General and administrative" on the Company's Consolidated Statements of Income. For the fiscal year ended October 29, 2016, and October 31, 2015, the Company recognized $2.5 million and $1.6 million, respectively, of stock-based compensation expense related to these RSU awards.

The cash awards were accounted for as employee compensation expense and are reported within "Research and development" on the Company's Consolidated Statements of Income. For the fiscal year ended October 29, 2016, and October 31, 2015, the Company recognized $4.2 million and $4.8 million, respectively, of cash compensation expense related to these awards.

On September 11, 2014, the Company completed its acquisition of the assets of Vistapointe, Inc. ("Vistapointe"), a privately held developer of network visibility and analytics solutions with facilities located in San Ramon, California and Bangalore, India, and certain assets of its related entities. This acquisition has enhanced Brocade's leadership role in developing software-based, carrier-grade network visibility and analytics ("NVA") solutions for mobile network operators. This acquisition has also enhanced Brocade's network functions virtualization ("NFV") technology and gives Brocade new products to address with visibility and analytics solutions for mobile operators.

The total purchase price was $16.9 million, consisting entirely of cash consideration. In addition, the Company paid direct acquisition costs of $0.4 million.

Divestitures

On January 17, 2014, the Company completed the sale of its network adapter business to QLogic Corporation (subsequently acquired by Cavium, Inc.) as part of the Company's business strategy to focus on its portfolio of high-performance networking hardware and software-based products and services.

The net carrying amount of the network adapter business' assets and liabilities at the time of the divestiture was $5.1 million, comprised primarily of associated goodwill of $4.1 million. The sale resulted in a gain of $4.9 million, which is presented in the Company's Consolidated Statements of Income for fiscal year ended November 1, 2014, as "Gain on sale of network adapter business."

4. Goodwill and Intangible Assets

The following table summarizes goodwill activity by reportable segment during the fiscal years ended October 29, 2016, and October 31, 2015 (in thousands):

	SAN Products	IP Networking Products	Global Services	Total
Balance at November 1, 2014				
Goodwill	$ 176,346	$ 1,365,175	$ 155,416	$ 1,696,937
Accumulated impairment losses	—	(129,214)	—	(129,214)
	176,346	1,235,961	155,416	1,567,723
Acquisitions [1]	—	49,458	—	49,458
Purchase accounting adjustments	—	(15)	—	(15)
Tax and other adjustments [2]	(21)	—	—	(21)
Translation adjustments	—	16	—	16
Balance at October 31, 2015				
Goodwill	176,325	1,414,634	155,416	1,746,375
Accumulated impairment losses	—	(129,214)	—	(129,214)
	176,325	1,285,420	155,416	1,617,161
Acquisitions [3]	—	284,336	394,021	678,357
Purchase accounting adjustments	—	—	—	—
Tax adjustments [2]	(5)	—	—	(5)
Translation adjustments	—	(329)	—	(329)
Balance at October 29, 2016				
Goodwill	176,320	1,698,641	549,437	2,424,398
Accumulated impairment losses	—	(129,214)	—	(129,214)
	$ 176,320	$ 1,569,427	$ 549,437	$ 2,295,184

(1) The goodwill acquired relates to the acquisitions completed in fiscal year 2015, which is gross of the adjustments recorded during the purchase price allocation period. See Note 3, “Acquisitions and Divestitures,” of the Notes to Consolidated Financial Statements.

(2) The goodwill adjustments were primarily a result of tax benefits from the exercise of stock awards of acquired companies.

(3) The goodwill acquired relates to the acquisitions completed in fiscal year 2016. See Note 3, “Acquisitions and Divestitures,” of the Notes to Consolidated Financial Statements.

The Company conducts its goodwill impairment test annually and whenever events occur or facts and circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Effective on the first day of the fourth fiscal quarter of 2016, the Company changed the date of its annual impairment test for goodwill from the first day of the second fiscal quarter to the first day of the fourth fiscal quarter. This change in the annual impairment test date was made to better coincide with the timing of when the Company prepares its annual budget and financial plans as part of its regular long-range planning process. Upon the change in the annual impairment test date during the fourth fiscal quarter of 2016, the Company again performed an impairment test in addition to the one performed during the second fiscal quarter of 2016. There was no change in the valuation methodology between the annual impairment tests performed during the second and fourth fiscal quarters of 2016.

For the annual goodwill impairment tests, the Company uses the income approach, the market approach, or a combination thereof to determine each reporting unit’s fair value. The income approach provides an estimate of fair value based on discounted expected future cash flows (“DCF”). The market approach provides an estimate of fair value by applying various observable market-based multiples to the reporting unit’s operating results and then applying an appropriate control premium. For the annual goodwill impairment tests performed in fiscal year 2016, the Company used a combination of these approaches to estimate each reporting unit’s fair value. At the time the annual goodwill impairment tests were performed, the Company believed that the income approach and the market approach were equally representative of a reporting unit’s fair value.

Determining the fair value of a reporting unit or an intangible asset requires judgment and involves the use of significant estimates and assumptions. The Company based its fair value estimates on assumptions it believes to be reasonable but inherently uncertain. Estimates and assumptions with respect to the determination of the fair value of its reporting units using the income approach include, among other inputs:

- The Company’s operating forecasts;
- The Company’s forecasted revenue growth rates; and
- Risk-commensurate discount rates and costs of capital.

The Company’s estimates of revenues and costs are based on historical data, various internal estimates, and a variety of external sources, and are developed as part of the Company’s regular long-range planning process. The control premium used in market or as part of combined approaches was determined by considering control premiums offered as part of the acquisitions where acquired companies were comparable with the Company’s reporting units.

Based on the results of the goodwill impairment analyses, performed during both the second and fourth fiscal quarter of 2016, the Company determined that no impairment charge needed to be recorded.

Intangible assets other than goodwill are amortized on a straight-line basis over the following estimated remaining useful lives, unless the Company has determined these lives to be indefinite. The Company did not incur costs to renew or extend the term of any acquired finite-lived intangible assets during the fiscal year ended October 29, 2016.

The following tables present details of the Company’s intangible assets, excluding goodwill (in thousands, except for weighted-average remaining useful life):

	October 29, 2016			
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Weighted-Average Remaining Useful Life (in years)
Finite-lived intangible assets:				
Trade names	$ 45,090	$ 2,359	$ 42,731	10.51
Core/developed technology (1) (2)	286,290	37,352	248,938	5.51
Patent portfolio license (3)	7,750	1,935	5,815	17.00
Customer relationships	143,110	15,813	127,297	6.32
Non-compete agreements	1,050	983	67	0.29
Patents with broader applications	1,040	110	930	13.38
Total finite-lived intangible assets	$ 484,330	$ 58,552	$ 425,778	6.08
Indefinite-lived intangible assets, excluding goodwill:				
IPR&D (1)	24,000	—	24,000	
Total indefinite-lived intangible assets, excluding goodwill	24,000	—	24,000	
Total intangible assets, excluding goodwill	$ 508,330	$ 58,552	$ 449,778	

	October 31, 2015			
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Weighted-Average Remaining Useful Life (in years)
Finite-lived intangible assets:				
Trade names	$ 1,090	$ 415	$ 675	4.36
Core/developed technology	40,530	9,605	30,925	3.49
Patent portfolio license (3)	7,750	849	6,901	17.74
Customer relationships	23,110	2,484	20,626	7.18
Non-compete agreements	1,050	664	386	1.17
Patents with broader applications	1,040	40	1,000	14.38
Total finite-lived intangible assets	$ 74,570	$ 14,057	$ 60,513	6.55
Indefinite-lived intangible assets, excluding goodwill:				
IPR&D (1)	15,110	—	15,110	
Total indefinite-lived intangible assets, excluding goodwill	15,110	—	15,110	
Total intangible assets, excluding goodwill	$ 89,680	$ 14,057	$ 75,623	

(1) Acquired IPR&D is an intangible asset accounted for as an indefinite-lived asset until the completion or abandonment of the associated research and development effort. If the research and development effort associated with the IPR&D is successfully completed, then the IPR&D intangible asset will be amortized over its estimated useful life to be determined at the date the effort is completed. During the year ended October 29, 2016, the Company acquired $27.0 million in IPR&D intangible assets in connection with the acquisition of Ruckus. The research and development efforts associated with these IPR&D intangible assets are expected to be completed in fiscal year 2017. During the year ended October 29, 2016, research and development efforts were completed on $18.1 million of the IPR&D intangible assets, and the completed IPR&D intangible assets are being amortized as core/developed technology over their estimated useful lives of five to seven years.

(2) During the fiscal year ended October 29, 2016, $1.0 million of finite-lived intangible assets became fully amortized and, therefore, were removed from the balance sheet.

(3) The patent portfolio license was assigned an estimated useful life that reflects the Company's consumption of the expected defensive benefits related to this license to certain patents. The method of amortization for the patent portfolio license reflects the Company's estimate of the pattern in which these expected defensive benefits will be used by the Company and is primarily based on the mix of expiration patterns of the individual patents included in the license.

The Company conducts the IPR&D impairment test annually and whenever events occur or facts and circumstances indicate that it is more likely than not that the IPR&D is impaired. Effective on the first day of the fourth fiscal quarter, the Company changed the date of its annual impairment test for IPR&D from the first day of the second fiscal quarter to the first day of the fourth fiscal quarter. This change in the annual impairment test date was made to better coincide with the timing of when the Company prepares its annual budget and financial plans as part of its regular long-range planning process. For the annual IPR&D impairment test, the Company elects the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of the IPR&D assets is less than the carrying amount. If, after assessing the totality of events and circumstances, the Company determines that it is more likely than not that the fair value of the IPR&D assets is less than the carrying amount, then the Company conducts a quantitative analysis to determine the fair value of the IPR&D assets. If the carrying amount of the IPR&D assets exceeds the fair value, then the Company recognizes an impairment loss equal to the difference.

Based on the results of the annual IPR&D impairment analysis performed during the fourth fiscal quarter of 2016, the Company determined that no impairment needed to be recorded.

The following table presents the amortization of finite-lived intangible assets included on the Company's Consolidated Statements of Income (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Cost of revenues	$ 28,787	$ 7,640	$ 8,010
General and administrative [(1)]	1,087	849	—
Other operating expense	15,661	2,556	10,280
Total	$ 45,535	$ 11,045	$ 18,290

(1) The amortization is related to the $7.8 million of perpetual, nonexclusive license to certain patents purchased during the fiscal year ended October 31, 2015.

The following table presents the estimated future amortization of finite-lived intangible assets as of October 29, 2016 (in thousands):

Fiscal Year	Estimated Future Amortization
2017	$ 78,985
2018	69,915
2019	66,386
2020	65,454
2021	61,700
Thereafter	83,338
Total	$ 425,778

5. Restructuring and Other Related Costs

The following table provides details of the Company's restructuring and other related costs (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Goodwill impairment	$ —	$ —	$ 83,382
Severance and benefits	—	—	(1,788)
Lease loss reserve and related costs (benefits)	(603)	(678)	7,686
Restructuring, goodwill impairment, and other related costs (benefits)	$ (603)	$ (678)	$ 89,280

The following table provides a reconciliation of the Company's beginning and ending restructuring liability balances (in thousands):

	Fiscal 2013 Fourth Quarter Restructuring Plan			Other Restructuring Plans	
	Severance and Benefits	Contract Terminations and Other	Lease Loss Reserve and Related Costs	Lease Loss Reserve and Related Costs	Total
Restructuring liabilities at November 1, 2014	$ 171	$ 42	$ 3,949	$ 994	$ 5,156
Restructuring and other charges	—	—	(519)	(159)	(678)
Cash payments	—	(42)	(1,411)	(427)	(1,880)
Translation adjustment	(34)	—	(208)	—	(242)
Other adjustments, net	(27)	—	—	—	(27)
Restructuring liabilities at October 31, 2015	110	—	1,811	408	2,329
Restructuring and other charges	—	—	(603)	—	(603)
Cash payments	—	—	(474)	(336)	(810)
Translation adjustment	(1)	—	(20)	—	(21)
Restructuring liabilities at October 29, 2016	$ 109	$ —	$ 714	$ 72	$ 895
Current restructuring liabilities at October 29, 2016	$ 109	$ —	$ 293	$ 72	$ 474
Non-current restructuring liabilities at October 29, 2016	$ —	$ —	$ 421	$ —	$ 421

Fiscal 2013 Fourth Quarter Restructuring Plan

During the fourth quarter of fiscal year 2013, and the first quarter of fiscal year 2014, the Company restructured certain business operations and reduced the Company's operating expense structure. The restructuring plan included a workforce reduction, as well as the cancellation of certain nonrecurring engineering agreements and exits from certain leased facilities. The restructuring plan was substantially completed in the first quarter of fiscal year 2014.

Other Restructuring Plans

The Company also recorded charges related to estimated facilities lease losses, net of expected sublease income, due to consolidation of real estate space primarily as a result of acquisitions.

Cash payments for facilities that are part of the Company's lease loss reserve are expected to be paid over the respective lease terms through fiscal year 2021.

General

The Company re-evaluates its estimates and assumptions on a quarterly basis and makes adjustments to the restructuring liabilities balance if necessary. During the fiscal year ended October 29, 2016, the Company reversed approximately $0.6 million of charges related to estimated facilities lease losses due to a change in lease terms for a certain facility.

The restructuring and other related charges are included in "Restructuring, goodwill impairment, and other related costs (benefits)" on the Company's Consolidated Statements of Income.

6. Balance Sheet Details

The following tables provide details of selected balance sheet items (in thousands):

	October 29, 2016	October 31, 2015
Accounts receivable:		
Accounts receivable	$ 296,710	$ 247,376
Allowance for doubtful accounts	(1,736)	(1,838)
Sales allowances	(10,630)	(9,655)
Accounts receivable, net	$ 284,344	$ 235,883

	October 29, 2016	October 31, 2015
Inventories:		
Raw materials	$ 17,793	$ 18,788
Finished goods	51,562	21,736
Inventories	$ 69,355	$ 40,524

	October 29, 2016	October 31, 2015
Property and equipment, net:		
Gross property and equipment		
Computer equipment	$ 19,710	$ 14,820
Software	89,132	67,625
Engineering and other equipment [1]	445,115	407,342
Furniture and fixtures [1]	33,788	31,028
Leasehold improvements	37,973	33,986
Land and building	386,163	385,415
Total gross property and equipment	1,011,881	940,216
Accumulated depreciation and amortization [1], [2]	(556,555)	(500,992)
Property and equipment, net	$ 455,326	$ 439,224

(1) Engineering and other equipment, furniture and fixtures, and accumulated depreciation and amortization include the following amounts under capital leases as of October 29, 2016, and October 31, 2015 (in thousands):

	October 29, 2016	October 31, 2015
Cost	$ 270	$ 1,312
Accumulated depreciation	(270)	(857)
Property and equipment, net, under capital leases	$ —	$ 455

(2) The following table presents the depreciation of property and equipment included on the Company's Consolidated Statements of Income (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Depreciation expense	$ 78,781	$ 73,623	$ 82,357

	October 29, 2016	October 31, 2015
Other accrued liabilities:		
Income taxes payable	$ 9,168	$ 7,142
Accrued warranty	8,326	7,599
Inventory purchase commitments	1,084	1,237
Accrued sales programs	27,552	33,637
Accrual for the appraisal demand submitted by the dissenting shareholder and related interest payable	42,244	—
Accrued interest	7,268	6,523
Others	17,528	21,088
Other accrued liabilities	$ 113,170	$ 77,226

7. Fair Value Measurements

Fair value is the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between unrelated market participants at the measurement date. In determining fair value for assets and liabilities required or permitted to be recorded at fair value, the Company considers the principal or most advantageous market in which it would transact and also considers assumptions that market participants would use when pricing the asset or liability. The Company applies fair value measurements for both financial and non-financial assets and liabilities. The Company does not have any non-financial assets or liabilities that are required to be measured at fair value on a recurring basis as of October 29, 2016.

The fair value of the Company's financial instruments, including cash and cash equivalents, accounts receivable, restricted cash, accounts payable, and accrued liabilities, approximate cost because of their short maturities.

The fair value accounting guidance permits companies to elect fair value measurement for many financial instruments and certain other items that are not required to be accounted for at fair value. The Company did not elect fair value measurement for any of these eligible financial instruments or other assets.

Fair Value Hierarchy

The Company utilizes a fair value hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. There are three levels of inputs that may be used to measure fair value:

Level 1

Observable inputs that reflect quoted prices in active markets for identical assets or liabilities. Brocade's assets utilizing Level 1 inputs include money market funds.

Level 2

Inputs that reflect quoted prices for similar assets or liabilities in active markets, quoted prices for identical assets or liabilities in less-active markets, or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data. Brocade's assets and liabilities utilizing Level 2 inputs include derivative instruments. The Company uses observable market prices for comparable instruments to value its derivative instruments.

Level 3

Unobservable inputs that reflect the Company's own assumptions incorporated in valuation techniques used to determine fair value. These assumptions are required to be consistent with market participant assumptions that are reasonably available. Brocade has no assets or liabilities utilizing Level 3 inputs.

During the fiscal year ended October 29, 2016, the Company had no transfers between levels of the fair value hierarchy of its assets and liabilities measured at fair value.

Assets and liabilities measured and recorded at fair value on a recurring basis as of October 29, 2016, were as follows (in thousands):

	Balance as of October 29, 2016	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds [1]	$ 914,724	$ 914,724	$ —	$ —
Derivative assets	514	—	514	—
Total assets measured at fair value	$ 915,238	$ 914,724	$ 514	$ —
Liabilities:				
Derivative liabilities	$ 354	$ —	$ 354	$ —
Total liabilities measured at fair value	$ 354	$ —	$ 354	$ —

(1) Money market funds are reported within "Cash and cash equivalents" on the Company's Consolidated Balance Sheets.

Assets and liabilities measured and recorded at fair value on a recurring basis as of October 31, 2015, were as follows (in thousands):

	Balance as of October 31, 2015	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds [1]	$ 1,184,410	$ 1,184,410	$ —	$ —
Derivative assets	709	—	709	—
Total assets measured at fair value	$ 1,185,119	$ 1,184,410	$ 709	$ —
Liabilities:				
Derivative liabilities	$ 1,125	$ —	$ 1,125	$ —
Total liabilities measured at fair value	$ 1,125	$ —	$ 1,125	$ —

(1) Money market funds are reported within "Cash and cash equivalents" on the Company's Consolidated Balance Sheets.

8. Borrowings

The following table provides details of the Company's long-term debt (in thousands, except years and percentages):

	Maturity	Stated Annual Interest Rate	October 29, 2016 Amount	October 29, 2016 Effective Interest Rate	October 31, 2015 Amount	October 31, 2015 Effective Interest Rate
Senior Credit Facility:						
Term Loan Facility	2021	variable	$ 780,000	2.53%	$ —	—%
Convertible Senior Unsecured Notes						
2020 Convertible Notes	2020	1.38%	575,000	4.98%	575,000	4.98%
Senior Unsecured Notes						
2023 Notes	2023	4.63%	300,000	4.83%	300,000	4.83%
Capital lease obligations	2016	4.63%	—		298	4.63%
Total gross long-term debt			1,655,000		875,298	
Unamortized discount			(73,540)		(79,196)	
Unamortized debt issuance costs			(2,705)		(2,025)	
Current portion of long-term debt			(76,692)		(298)	
Long-term debt, net of current portion			$ 1,502,063		$ 793,779	

Senior Credit Facility

In connection with the acquisition of Ruckus on May 27, 2016, the Company entered into a Credit Agreement (the "Credit Agreement") with Wells Fargo Bank, N.A., as the administrative agent, swingline lender, and issuing lender, and certain other lenders (collectively, the "Lenders"). The Credit Agreement provides for a term loan facility of $800.0 million (the "Term Loan Facility") and a revolving credit facility of $100.0 million (the "Revolving Facility," and together with the Term Loan Facility, the "Senior Credit Facility"). The Revolving Facility includes a $25.0 million letter of credit subfacility and a $10.0 million swing line loan subfacility. The proceeds of the Term Loan Facility were used to finance a portion of the acquisition of Ruckus and related fees and expenses, the repurchase of shares of the Company's common stock, and fees and expenses related to the Senior Credit Facility.

Loans made under the Senior Credit Facility bear interest, at the Company's option, either (i) at a base rate which is based in part on the greatest of (A) the prime rate, (B) the federal funds rate plus 0.50%, or (C) LIBOR for an interest period of one month plus 1.00%, plus an applicable margin that will vary between 0.00% and 0.75% based on the Company's total leverage ratio or (ii) at a LIBOR-based rate, plus an applicable margin that will vary between 1.00% and 1.75% based on the Company's total leverage ratio. For purposes of calculating the applicable rate, the base rate and LIBOR-based rate are subject to a floor of 0.00%. For base rate loans, interest is payable on the last business day of January, April, July and October of each year. For LIBOR rate loans, interest is payable on the last day of each interest period for the LIBOR-based rate, and if such interest period extends over three months, at the end of each three-month interval during such interest period.

Commitments under the Revolving Facility are subject to an initial commitment fee of 0.30%, and are later subject to adjustment between 0.20% and 0.35% based on the Company's total leverage ratio. Letters of credit issued under the letter of credit subfacility are subject to an initial commission fee starting at 1.50%, and are later subject to adjustment between 1.00% and 1.75% based on the Company's total leverage ratio, and an issuance fee of 0.125%.

The final maturity of the Senior Credit Facility will occur on May 27, 2021, except that if any of the 1.375% convertible senior unsecured notes due 2020 remain outstanding on October 2, 2019, and certain other conditions have not been met, then the final maturity of the Senior Credit Facility will occur on October 2, 2019. Notwithstanding the foregoing, upon the request of the Company made to all applicable Lenders, and provided that no event of default exists or will occur immediately thereafter, individual Lenders may agree to extend the maturity date of its commitments under the Revolving Facility and loans under the Term Loan Facility.

The Company is permitted to make voluntary prepayments of the Senior Credit Facility at any time without payment of a premium or penalty. The Company is required to make mandatory prepayments of loans under the Term Loan Facility (without payment of a premium or penalty) with (i) net cash proceeds from issuances of debt (other than certain permitted debt), (ii) net cash proceeds from certain non-ordinary course asset sales (subject to reinvestment rights and other exceptions), and (iii) casualty proceeds and condemnation awards (subject to reinvestment rights and other exceptions). Commencing October 31, 2016, the loans under the Term Loan Facility will amortize in equal quarterly installments in an aggregate annual amount equal to 10% of the original principal amount thereof, with any remaining balance payable on the final maturity date of the loans under the Term Loan Facility. The loans under the Revolving Facility and all accrued and unpaid interest thereon are due in full on the maturity date.

There were no principal amounts outstanding under the revolving credit facility, and the full $100.0 million was available for future borrowing under the revolving credit facility as of October 29, 2016. Payments totaling $20.0 million were made towards the principal of the Term Loan Facility during fiscal year ended October 29, 2016.

As of October 29, 2016, the fair value of the Term Loan Facility was approximately $767.4 million, which was estimated based on fair value for similar instruments.

The obligations under the Senior Credit Facility and certain cash management and hedging obligations are fully and unconditionally guaranteed by certain of the Company's direct and indirect subsidiaries (including Ruckus, but excluding certain immaterial subsidiaries, subsidiaries whose guarantee would result in material adverse tax consequences and subsidiaries whose guarantee is prohibited by applicable law) pursuant to a subsidiary guaranty agreement.

The Company's obligations under the Senior Credit Facility are unsecured, provided that upon the occurrence of certain events (including if the Company's corporate family rating from Moody's falls below Ba1 and from S&P falls below BB+ at any time (referred to as a "Ratings Downgrade")) or the incurrence of certain indebtedness in excess of $600 million (such occurrence or the occurrence of a Ratings Downgrade being a "Collateral Trigger Event"), then such obligations, as well as certain cash management and hedging obligations, will be required to be secured, subject to certain exceptions, by 100% of the equity interests of all present and future restricted subsidiaries directly held by the Company or any guarantor. As of the date hereof, all of the Company's subsidiaries are restricted subsidiaries under the Senior Credit Facility. The Company must provide such security within 90 days (or 20 business days with respect to the equity interests of material U.S. subsidiaries) of such Collateral Trigger Event.

The Credit Agreement contains financial maintenance covenants, including a (i) maximum total leverage ratio as of the last date of any fiscal quarter not to exceed 3.50:1.00; subject to certain step-downs to 3.25:1.00 and 3.00:1.00 for fiscal periods ending on or after April 30, 2017, and April 30, 2018, respectively, and (ii) a minimum interest coverage ratio of not less than 3.50:1.00. The Credit Agreement also contains restrictive covenants that limit, among other things, the Company's and its restricted subsidiaries' ability to:

- Incur additional indebtedness or issue certain preferred equity, pay dividends or make other distributions or other restricted payments (including stock repurchases);
- Sell assets other than on terms specified by the Credit Agreement;
- Amend the terms of certain other indebtedness and organizational documents;
- Create liens on certain assets to secure debt, consolidate, merge, sell, or otherwise dispose of all or substantially all of their assets; and
- Enter into certain transactions with affiliates, or change their lines of business, fiscal years, and accounting practices, in each case, subject to customary exceptions.

The Credit Agreement also sets forth customary events of default, including upon the failure to make timely payments under the Senior Credit Facility, the failure to satisfy certain covenants, cross-default and cross-acceleration to other material debt for borrowed money, the occurrence of a change of control, and specified events of bankruptcy and insolvency.

As discussed under Note 17, "Subsequent Events," of the Notes to Consolidated Financial Statements, on November 2, 2016, the Company entered into a merger agreement with Broadcom Limited ("Broadcom") under which Broadcom agreed to acquire Brocade. The consummation of the proposed acquisition by Broadcom would constitute a "change of control" under the events of default under the Credit Agreement.

Convertible Senior Unsecured Notes

On January 14, 2015, the Company issued $575.0 million in aggregate principal amount of 1.375% convertible senior unsecured notes due 2020 (the “2020 Convertible Notes”) pursuant to an indenture, dated as of January 14, 2015, between the Company and Wells Fargo Bank, National Association, as the trustee (the “Offering”). Net of an original issue discount, the Company received $565.7 million in proceeds from the Offering. Concurrently with the closing of the Offering, the Company called for redemption its outstanding 6.875% senior secured notes due 2020 (the “2020 Notes”) and irrevocably deposited a portion of the net proceeds from the Offering with the trustee to discharge the 2020 Indenture as described below under “*Senior Secured Notes*.”

The 2020 Convertible Notes bear interest payable semiannually on January 1 and July 1 of each year, beginning on July 1, 2015. No payments were made toward the principal of the 2020 Convertible Notes during the fiscal year ended October 29, 2016, and October 31, 2015.

The Company separately accounts for the liability and equity components of the 2020 Convertible Notes. The fair value of the liability component, used in the allocation between the liability and equity components as of the date of issuance, was based on the present value of cash flows using a discount rate of 4.57%, the Company’s borrowing rate for a similar debt instrument without the conversion feature. The carrying values of the liability and equity components of the 2020 Convertible Notes are as follows (in thousands):

	October 29, 2016	October 31, 2015
Principal	$ 575,000	$ 575,000
Unamortized discount of the liability component	(59,398)	(76,311)
Net carrying amount of liability component	$ 515,602	$ 498,689
Carrying amount of equity component	$ 55,374	$ 70,765

As of October 29, 2016, and October 31, 2015, the remaining period of amortization for the discount is 3.17 years and 4.17 years, respectively.

The following table presents the amount of interest cost recognized for amortization of the discount and for the contractual interest coupon for the 2020 Convertible Notes for the following periods (in thousands):

	October 29, 2016	October 31, 2015
Amortization of discount	$ 16,912	$ 12,891
Contractual interest coupon	$ 7,906	$ 6,299

As of October 29, 2016, and October 31, 2015, the fair value of the 2020 Convertible Notes was approximately $564.5 million and $568.0 million, respectively, which was estimated based on broker trading prices.

The 2020 Convertible Notes mature on January 1, 2020, unless repurchased or converted in accordance with their terms prior to such date. The 2020 Convertible Notes are not callable prior to their maturity. The 2020 Convertible Notes are convertible into common shares of the Company under the circumstances described below. The initial conversion rate is 62.7746 shares of the Company’s common stock per $1,000 principal amount of the notes, which is equal to 36.1 million shares at an initial conversion price of approximately $15.93 per share.

The 2020 Convertible Notes contain provisions where the conversion rate is adjusted upon the occurrence of certain events, including if the Company pays a regular, quarterly cash dividend in an amount greater than $0.035 per share. During the fourth fiscal quarter of 2016, the Board of Directors of the Company declared and paid a cash dividend in the amount of $0.055 per share. Accordingly, as of September 7, 2016, the conversion rate was adjusted to a rate of 63.2998 shares of the Company’s common stock per $1,000 principal amount of the notes, which is equal to 36.4 million shares at a conversion price of approximately $15.80 per share. However, because the adjustment resulted in a change to the conversion rate of less than 1%, as is allowed by the terms of the indenture governing the 2020 Convertible Notes, the Company elected to defer the administration and noteholder notification of such adjustment until the occurrence of (i) a subsequent adjustment to the conversion rate that results in a cumulative adjustment of at least 1% of the current conversion rate, (ii) the conversion of any 2020 Convertible Note, or (iii) certain other events requiring the adjustment to be made under the indenture governing the 2020 Convertible Notes.

Holders of the 2020 Convertible Notes may convert all or a portion of their notes prior to the close of business on the business day immediately preceding September 1, 2019, in multiples of $1,000 principal amount, only under the following circumstances:

- During any fiscal quarter commencing after the fiscal quarter ending on May 2, 2015 (and only during such fiscal quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the notes on each applicable trading day;
- During the five-business-day period after any 10 consecutive trading-day period in which the trading price per $1,000 principal amount of the notes for each trading day of that 10 consecutive trading-day period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate of the notes on each such trading day; or
- Upon the occurrence of certain corporate events as specified in the terms of the indenture governing the 2020 Convertible Notes.

On or after September 1, 2019, to the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their notes regardless of the foregoing conditions.

As of October 29, 2016, the circumstances for conversion had not been triggered, and the 2020 Convertible Notes were not convertible. The if-converted value of the 2020 Convertible Notes as of October 29, 2016, did not exceed the principal amount of the 2020 Convertible Notes.

If a "fundamental change," as specified in the terms of the indenture governing the 2020 Convertible Notes, occurs prior to the maturity date, holders of the notes may require the Company to repurchase the 2020 Convertible Notes at a repurchase price equal to 100% of the principal amount of the 2020 Convertible Notes repurchased, plus accrued and unpaid interest, if any, up to the repurchase date. As of October 29, 2016, a fundamental change had not occurred and the 2020 Convertible Notes were not re-purchasable.

The consummation of the proposed Broadcom acquisition would constitute a "fundamental change" as well as a "make-whole fundamental change" under the terms of the indenture governing the 2020 Convertible Notes. Accordingly, holders of the 2020 Convertible Notes will have the right to require the Company to repurchase their notes upon the consummation of the proposed Broadcom acquisition. In addition, the consummation of the Broadcom acquisition will cause the 2020 Convertible Notes to become convertible for a specified period of time following such consummation, will result in an adjustment to the conversion rate for conversions of the 2020 Convertible Notes during a specified period of time following such consummation, and will require that the Company settle all such conversions in cash.

Convertible Note Hedge and Warrants Related to the Convertible Senior Unsecured Notes

In connection with the issuance of the 2020 Convertible Notes, the Company entered into convertible note hedge transactions with certain financial institutions (the "counterparties") with respect to its common stock. Upon conversion of the 2020 Convertible Notes, the convertible note hedge transactions give the Company the right to acquire from the counterparties, subject to anti-dilution adjustments substantially similar to those in the 2020 Convertible Notes, initially approximately 36.1 million shares of the Company's common stock at an initial strike price of $15.93 per share. Because a dividend in an amount greater than $0.035 per share was declared and paid effective beginning in the third fiscal quarter of 2015, the strike price under the convertible note hedge transactions has been adjusted to approximately 15.80 per share as of September 7, 2016. The convertible note hedge transactions are expected generally to reduce the potential common stock dilution and/or offset potential cash payments in excess of the principal amount of converted notes upon conversion of the notes in the event that the market price per share of the Company's common stock, as measured under the terms of the convertible note hedge transactions, is greater than the strike price of the convertible note hedge transactions. The convertible note hedge transactions will be terminated on the maturity date of the 2020 Convertible Notes or earlier under certain circumstances. The $86.1 million cost of the convertible note hedge transactions has been accounted for as an equity transaction.

Separately from the convertible note hedge transactions, the Company entered into warrant transactions with the counterparties, pursuant to which the Company sold warrants to the counterparties to acquire, subject to customary anti-dilution adjustments, up to 36.1 million shares in the aggregate at an initial strike price of $20.65 per share. The primary reason the Company entered into these warrant transactions was to partially offset the cost of the convertible note hedge transactions. The warrants mature over 60 trading days, commencing on April 1, 2020, and are exercisable solely on the maturity dates. The warrants are subject to net share settlement; however, the Company may elect to cash settle the warrants. The Company received gross proceeds of $51.2 million from the warrant transactions, which have been accounted for as an equity transaction.

Under the terms of the warrants, the strike price and number of shares to be acquired by the holders of the warrants are adjusted if the Company pays a regular, quarterly cash dividend in an amount greater than $0.035 per share. Accordingly, the terms of the warrants were adjusted to reflect the payment of a cash dividend in the amount of $0.055 per share beginning in the third fiscal quarter of 2016, and, as of September 7, 2016, the holders of the warrants have the right to acquire up to approximately 36.4 million shares of the Company's common stock at a strike price of approximately $20.48 per share.

See Note 16, "Net Income per Share," of the Notes to Consolidated Financial Statements for further discussion of the dilutive impact of the 2020 Convertible Notes and the convertible note hedge and warrant transactions.

The consummation of the proposed acquisition by Broadcom would result in a termination of the warrant transactions, in which case the Company would be required to settle such transactions in cash. In addition, announcements relating to the proposed transaction may result in adjustments to the terms of the warrant transactions to take into account the economic effect of the proposed transactions, which could result in greater amounts becoming due upon termination or otherwise have a dilutive effect.

Senior Unsecured Notes

In January 2013, the Company issued 4.625% senior unsecured notes in the aggregate principal amount of $300.0 million due 2023 (the "2023 Notes") pursuant to an indenture, dated as of January 22, 2013 (the "2023 Indenture"), between the Company, certain domestic subsidiaries of the Company that have guaranteed the Company's obligations under the 2023 Notes, and Wells Fargo Bank, National Association, as the trustee. The guarantees of the 2023 Notes were released upon the termination of the Senior Secured Credit Facility and discharge of the 2020 Indenture in the first fiscal quarter of 2015.

The 2023 Notes bear interest payable semiannually on January 15 and July 15 of each year. No payments were made toward the principal of the 2023 Notes during the fiscal year ended October 29, 2016.

As of October 29, 2016, and October 31, 2015, the fair value of the 2023 Notes was approximately $297.0 million and $293.9 million, respectively, which was estimated based on broker trading prices.

On or after January 15, 2018, the Company may redeem all or part of the 2023 Notes at the redemption prices set forth in the 2023 Indenture, plus accrued and unpaid interest, if any, up to the redemption date. At any time prior to January 15, 2018, the Company may redeem all or a part of the 2023 Notes at a price equal to 100% of the principal amount of the 2023 Notes, plus an applicable premium and accrued and unpaid interest, if any, up to the redemption date.

If the Company experiences a specified change of control triggering event, it must offer to repurchase the 2023 Notes at a repurchase price equal to 101% of the principal amount of the 2023 Notes repurchased, plus accrued and unpaid interest, if any, up to the repurchase date. The consummation of the proposed acquisition by Broadcom could result in a Change of Control Triggering Event if the acquisition is accompanied or followed within a specified period by certain downgrades of the ratings of the 2023 Notes.

The 2023 Indenture contains covenants that, among other things, restrict the ability of the Company and its subsidiaries to:

- Incur certain liens and enter into certain sale-leaseback transactions;
- Create, assume, incur, or guarantee additional indebtedness of the Company's subsidiaries without such subsidiary guaranteeing the 2023 Notes on a pari passu basis; and
- Enter into certain consolidation or merger transactions, or convey, transfer, or lease all or substantially all of the Company's or its subsidiaries' assets.

These covenants are subject to a number of limitations and exceptions as set forth in the 2023 Indenture. The 2023 Indenture also includes customary events of default, including cross-defaults to other debt of the Company and its subsidiaries.

Senior Secured Notes

In January 2010, the Company issued $300.0 million in aggregate principal amount of the 2020 Notes pursuant to an indenture, dated as of January 20, 2010, between the Company, certain domestic subsidiaries of the Company that have guaranteed the Company's obligations under the 2020 Notes, and Wells Fargo Bank, National Association, as the trustee (the "2020 Indenture"). Interest on the 2020 Notes was payable semiannually on January 15 and July 15 of each year. The Company's obligations under the 2020 Notes were previously guaranteed by certain of the Company's domestic subsidiaries and secured by a lien on substantially all of the Company's and the subsidiary guarantors' assets.

On January 14, 2015, the Company called the 2020 Notes for redemption at a redemption price equal to 103.438% of the principal amount of the 2020 Notes, and irrevocably deposited $322.2 million with the trustee for the 2020 Notes to discharge the 2020 Indenture. Due to the deposit and discharge, the guarantees provided by certain of the Company's domestic subsidiaries, and the liens granted by the Company and the subsidiary guarantors to secure their obligations with respect to the 2020 Notes, were released as of the date of the deposit. As a result, the Company ceased presenting consolidated financial statements for the parent company, the former subsidiary guarantors, and non-guarantor subsidiaries effective in the first fiscal quarter of 2015.

The amount deposited with the trustee included $300.0 million to repay the principal amount of the 2020 Notes, $10.3 million representing the difference between the redemption price and the principal amount of the 2020 Notes ("Call Premium"), $10.3 million for accrued interest through January 15, 2015, and $1.6 million of interest payable up to the redemption date of February 13, 2015. The trustee redeemed the 2020 Notes on February 13, 2015, using the deposited amount, extinguishing the Company's $300.0 million liability for the principal amount of the 2020 Notes.

In accordance with the applicable accounting guidance for debt modification and extinguishment, and for interest costs accounting, the Company expensed the Call Premium, remaining debt issuance costs, and remaining original issue discount relating to the 2020 Notes in the first quarter of fiscal year 2015, which totaled $20.4 million. The Company reported this expense within "Interest expense" on the Company's Consolidated Statements of Income for the fiscal year ended October 31, 2015.

As of November 1, 2014, the fair value of the 2020 Notes was approximately $312.5 million, which was estimated based on broker trading prices.

Debt Maturities

As of October 29, 2016, the Company's aggregate debt maturities based on outstanding principal were as follows (in thousands):

Fiscal Year	Principal Balances
2017	$ 80,000
2018	80,000
2019	80,000
2020	655,000
2021	460,000
Thereafter	300,000
Total	$ 1,655,000

9. Commitments and Contingencies

Operating Leases

The Company leases certain facilities and certain equipment under various operating agreements expiring through October 2025. In connection with its facilities lease agreements, the Company has signed unconditional, irrevocable letters of credit totaling $0.1 million as security for the leases.

The following table presents the composition of net rent expense included on the Company's Consolidated Statements of Income (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Rent expense	$ 26,423	$ 22,929	$ 21,928
Sublease income	(7,538)	(7,673)	(7,264)
Net rent expense	$ 18,885	$ 15,256	$ 14,664

Future minimum lease payments under all non-cancellable operating leases as of October 29, 2016, excluding contractual sublease income of $1.9 million, are as follows (in thousands):

Fiscal Year	Operating Leases
2017	$ 20,996
2018	14,782
2019	11,286
2020	10,392
2021	9,634
Thereafter	21,549
Total minimum lease payments	$ 88,639

Product Warranties

The Company's accrued liability for estimated future warranty costs is included in "Other accrued liabilities" in the accompanying Consolidated Balance Sheets. The following table summarizes the activity related to the Company's accrued liability for estimated future warranty costs during the fiscal years ended October 29, 2016, and October 31, 2015 (in thousands):

	Accrued Warranty	
	Fiscal Year Ended	
	October 29, 2016	October 31, 2015
Beginning balance	$ 7,599	$ 7,486
Warranty liability assumed from acquisitions	760	—
Liabilities accrued for warranties issued during the period	3,584	4,076
Warranty claims paid and used during the period	(3,598)	(4,164)
Changes in liability for pre-existing warranties during the period	(19)	201
Ending balance	$ 8,326	$ 7,599

In addition, the Company has defense and indemnification clauses contained within its various customer contracts. As such, the Company indemnifies the parties to whom it sells its products with respect to the Company's products, both alone and in certain circumstances when in combination with other products and services, for infringement of any patents, trademarks, copyrights, or trade secrets, as well as against bodily injury or damage to real or tangible personal property caused by a defective Company product. As of October 29, 2016, there have been no known events or circumstances that have resulted in a material customer contract-related indemnification liability to the Company.

Manufacturing and Purchase Commitments

Brocade has manufacturing arrangements with its CMs under which Brocade provides product forecasts and places purchase orders in advance of the scheduled delivery of products to Brocade's customers. The required lead time for placing orders with the CMs depends on the specific product. Brocade issues purchase orders, and the CMs then generate invoices based on prices and payment terms mutually agreed upon and set forth in those purchase orders. Although the purchase orders Brocade places with its CMs are cancellable, the terms of the agreements require Brocade to purchase all inventory components ordered per Brocade's forecast which are not returnable, usable by, or sold to other customers of the CMs. In addition, Brocade has an arrangement with one of its CMs regarding factory capacity that can be used by the Company. Under this arrangement, the Company receives a credit for exceeding the planned utilization of factory capacity and, conversely, is required to pay additional fees for underutilizing the planned capacity.

As of October 29, 2016, the Company's aggregate commitment to its CMs for inventory components used in the manufacture of Brocade products was $206.3 million, which the Company expects to utilize during future normal ongoing operations, net of a purchase commitments reserve of $1.1 million, which is reported within "Other accrued liabilities" on the Company's Consolidated Balance Sheet as of October 29, 2016. The Company's purchase commitments reserve reflects the Company's estimate of purchase commitments it does not expect to utilize in normal ongoing operations.

Income Taxes

The Company is subject to several ongoing income tax audits and has received notices of proposed adjustments or assessments from certain tax authorities. For additional discussion, see Note 14, “Income Taxes,” of the Notes to Consolidated Financial Statements. The Company believes it has adequate reserves for all open tax years.

Legal Proceedings

From time to time, the Company is subject to various legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business, including claims of alleged infringement of patents and/or other intellectual property rights and commercial and employment contract disputes. The Company accrues a liability when management believes that it is both probable that a liability has been incurred and the amount of loss can be reasonably estimated. The Company believes it has recorded adequate provisions for any such matters and, as of October 29, 2016, it was not reasonably possible that a material loss had been incurred in excess of the amounts recognized in the Company’s financial statements. However, litigation is inherently uncertain, and the outcome of these matters cannot be predicted with certainty. Accordingly, cash flows or results of operations could be materially affected in any particular period by the resolution of one or more of these matters.

Ruckus Acquisition-Related Litigation

Subsequent to the announcement that Brocade had entered into an agreement to acquire Ruckus on April 3, 2016, three putative stockholder class action complaints relating to the acquisition were filed on behalf of purported Ruckus stockholders in the Superior Court of California, County of Santa Clara, a fourth putative stockholder class action complaint was filed in the United States District Court for the District of Delaware, and a fifth putative class action complaint was filed in the United States District Court for the Northern District of California. The complaints in the three California state court actions are captioned: Maguire v. Ruckus Wireless, Inc., et al. (filed April 12, 2016, and amended on May 10, 2016; referred to as the “Maguire action”); Jaljouli v. Ruckus Wireless, Inc., et al., (filed April 19, 2016; referred to as the “Jaljouli action”); and Small v. Ruckus Wireless, Inc., et al. (filed May 12, 2016; referred to as the “Small action”). The complaint in the Delaware federal court action is captioned Borrego v. Ruckus Wireless, Inc., et al. (filed May 11, 2016; referred to as the “Borrego action”). The complaint in the California federal court action is captioned Hussey v. Ruckus Wireless, Inc., et al. (filed June 3, 2016; referred to as the “Hussey action”).

The complaints in the Maguire, Jaljouli and Small actions contained similar allegations and named Ruckus and members of the Ruckus board of directors as defendants; the Maguire and Jaljouli actions also named Brocade and a Brocade subsidiary as defendants. In general, the complaints alleged that the members of the Ruckus board of directors breached their fiduciary duties to Ruckus stockholders in agreeing to the transaction and making related disclosures. The complaints in the Maguire and Jaljouli actions also alleged that one or more of Ruckus, Brocade, and the Brocade subsidiary aided and abetted the members of the Ruckus board of directors in breaching their fiduciary duties to Ruckus stockholders. The Maguire and Jaljouli actions were each voluntarily dismissed by the plaintiffs on September 19, 2016, and the Small action was voluntarily dismissed by the plaintiff on August 29, 2016.

The complaint in the Borrego action alleged that Ruckus and members of the Ruckus board of directors violated Sections 14(e), 14(d)(4) and 20(a) of the Exchange Act based on allegedly false and/or misleading statements and/or alleged omissions in the Solicitation/Recommendation Statement on Schedule 14D-9 filed by Ruckus with the SEC on April 29, 2016. The Borrego action was voluntarily dismissed by the plaintiff on September 15, 2016.

The original complaint in the Hussey action, which named Ruckus, members of the Ruckus board of directors, Ruckus’ chief financial officer, Brocade, and a Brocade subsidiary as defendants, contained a Section 14(e) claim similar to that alleged in the Borrego action and also alleged that the defendants violated Section14(d)(7) of the Exchange Act and Rule 14d-10 promulgated thereunder based on the allegedly differential consideration received by members of the Ruckus board of directors and Ruckus’ chief financial officer in connection with the acquisition. An amended complaint filed on October 24, 2016, names the same defendants as the original complaint, and alleges that the defendants violated Sections 14(e), 14(d)(7) and 20(a) of the Exchange Act and Rule 14d-10 promulgated thereunder, that the members of the Ruckus board of directors breached their fiduciary duties to Ruckus stockholders, and that Ruckus’ chief financial officer, Brocade and the Brocade subsidiary aided and abetted the members of the Ruckus board of directors in breaching their fiduciary duties to Ruckus stockholders by purportedly doing one or more of the following: agreeing to terms preferential to the defendants and other Ruckus insiders, accepting overly restrictive deal protection measures in the merger agreement, failing to negotiate for a collar on Brocade’s stock price, engaging a financial advisor with conflicts of interest, providing allegedly false, misleading and/or incomplete disclosures regarding conflicts of interest and the opinion of Ruckus’s financial advisors, and ultimately agreeing to unfair transaction consideration for the Ruckus shares. The amended complaint seeks an award of damages in an unspecified amount. The defendants filed a motion to dismiss the amended complaint on December 8, 2016.

Ruckus Acquisition-Related Appraisal Demand

On May 25, 2016, Ruckus received an appraisal demand letter seeking an appraisal under Section 262 of the Delaware General Corporation Law ("Section 262") of the fair value of 3.2 million Ruckus shares purported to be beneficially owned by a shareholder (the "Dissenter") that purportedly dissented from the merger of Ruckus with and into a wholly owned subsidiary of the Company. Under Section 262, the Dissenter is entitled to have those shares appraised by the Delaware Court of Chancery and receive payment of the "fair value" of such shares together with statutory interest as determined by the Delaware Court of Chancery, provided that Dissenter complies with the requirements of Section 262. The Dissenter filed a petition for appraisal in the Delaware Court of Chancery on September 22, 2016. If the Dissenter does not timely and properly prosecute to judgment its appraisal action, the Dissenter may be entitled to receive $6.45 in cash and 0.75 shares of Brocade common stock with respect to each of the 3.2 million shares subject to its appraisal demand. Otherwise, the dollar amount that the Company may be required to pay to the Dissenter will be determined by the Delaware Court of Chancery and may be more than, less than, or equal to that amount.

10. Derivative Instruments and Hedging Activities

In the normal course of business, the Company is exposed to fluctuations in interest rates and the exchange rates associated with foreign currencies. The Company's primary objective for holding derivative financial instruments is to manage foreign currency exchange rate risk. The Company currently does not manage its exposure to credit risk by entering into derivative instruments. However, the Company manages its exposure to credit risk through its investment policies. As part of these investment policies, the Company generally enters into transactions with high-credit quality counterparties and, by policy, limits the amount of credit exposure to any one counterparty based on its analysis of that counterparty's relative credit standing.

The amounts subject to credit risk related to derivative instruments are generally limited to the amounts, if any, by which a counterparty's obligations exceed the Company's obligations with that counterparty.

Foreign Currency Exchange Rate Risk

A majority of the Company's revenue, expense, and capital purchasing activities are transacted in U.S. dollars. However, the Company is exposed to foreign currency exchange rate risk inherent in conducting business globally in numerous currencies. The Company is primarily exposed to foreign currency fluctuations related to operating expenses denominated in currencies other than the U.S. dollar, of which the most significant to its operations for the fiscal year ended October 29, 2016, were the British pound, the euro, the Indian rupee, the Chinese yuan, the Singapore dollar, the Swiss franc, the Japanese yen, and the Australian dollar. The Company has established a foreign currency risk management program to protect against the volatility of future cash flows caused by changes in foreign currency exchange rates. This program reduces, but does not eliminate, the impact of foreign currency exchange rate movements.

The Company utilizes a rolling hedge strategy for the majority of its foreign currency derivative instruments to hedge exposures to the variability in the U.S. dollar equivalent of anticipated non-U.S.-dollar-denominated cash flows. All of the Company's foreign currency forward contracts are single delivery, which are settled at maturity involving one cash payment. The Company's foreign currency risk management program includes foreign currency derivatives with a cash flow hedge accounting designation that utilizes foreign currency forward and option contracts to hedge exposures to the variability in the U.S. dollar equivalent of anticipated non-U.S.-dollar-denominated cash flows. These instruments generally have a maturity of less than 15 months. For these derivatives, the Company initially reports the after-tax gain or loss from the effective portion of the hedge as a component of accumulated other comprehensive loss in stockholders' equity and reclassifies it into earnings in the same period in which the hedged transaction affects earnings. The tax effect allocated to cash flow hedge-related components of other comprehensive loss was not significant for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014.

Ineffective cash flow hedges are included in the Company's net income as part of "Other income (loss), net." The amount recorded on ineffective cash flow hedges was not significant for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014.

Net gains (losses) relating to the effective portion of foreign currency derivatives recorded in the Company's Consolidated Statements of Income are as follows (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Cost of revenues	$ (238)	$ (898)	$ 126
Research and development	(1,546)	(381)	(451)
Sales and marketing	(940)	(2,772)	528
General and administrative	(67)	(199)	59
Total	$ (2,791)	$ (4,250)	$ 262

Alternatively, the Company may choose not to hedge the foreign currency risk associated with its foreign currency exposures if the Company believes such exposure acts as a natural foreign currency hedge for other offsetting amounts denominated in the same currency or if the currency is difficult or too expensive to hedge.

The net foreign currency exchange gains and losses recorded as part of "Other income (loss), net" were losses of $0.8 million, $0.4 million and $0.3 million for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, respectively.

As of October 29, 2016, the Company had gross unrealized loss positions of $0.4 million and gross unrealized gain positions of $0.5 million included in "Other accrued liabilities" and "Prepaid expenses and other current assets," respectively.

Volume of Derivative Activity

Total gross notional amounts, presented by currency, are as follows (in thousands):

	Derivatives Designated as Hedging Instruments	
In U.S. dollars	October 29, 2016	October 31, 2015
British pound	$ 42,783	$ 46,330
Euro	34,070	40,961
Indian rupee	32,275	35,647
Chinese yuan	19,805	15,129
Singapore dollar	15,057	13,745
Swiss franc	14,426	9,265
Japanese yen	9,944	8,809
Australian dollar	7,876	—
Total	$ 176,236	$ 169,886

11. Employee Compensation Plans

In April 2009, the stockholders of Brocade approved the Company's 2009 Stock Plan, 2009 Director Plan, and 2009 Employee Stock Purchase Plan ("2009 ESPP"), and such plans are now part of the Company's equity compensation plans. The Company's 1999 Stock Plan, 1999 Director Option Plan, and 1999 Employee Stock Purchase Plan ("1999 ESPP") each expired in March 2009.

In April 2012, the stockholders of Brocade approved an amendment and restatement of the Company's 2009 Stock Plan and 2009 ESPP to increase the plans' share reserves by 35.0 million and 30.0 million shares, respectively.

In January 2013, the Compensation Committee (the "Committee") of the Board of Directors of Brocade adopted the 2013 Inducement Award Plan. The objective of the plan is to provide incentives to attract, retain, and motivate eligible persons whose potential contributions are important to promote the success of the Company. The 2013 Inducement Award Plan was amended and restated in May 2016 as discussed below.

In April 2015, the stockholders of Brocade approved an amendment and restatement of the Company's 2009 Stock Plan and 2009 Director Plan to increase the plans' share reserves by 29.5 million and 1.0 million shares, respectively, as well as change the fungible ratio at which RSUs are deducted from and returned to the plans. The 2009 Director Plan was also amended and restated to eliminate the fixed share initial restricted stock unit award granted in connection with an election or appointment to our Board of Directors, change the formula for calculating the pro-rata annual grant for a new director who first becomes a director other than at an annual meeting, and revise the method of computing the annual restricted stock unit award to a formula based on a set dollar value.

In April 2016, the stockholders of Brocade approved an amendment and restatement of the Company's 2009 ESPP to increase the plan's share reserves by 20.0 million shares.

In May 2016, the Board of Directors amended and restated the 2013 Inducement Award Plan, renaming it the "Amended and Restated Inducement Award Plan" (the "Inducement Plan"). As amended and restated, the Inducement Plan permits (i) the issuance of equity awards in connection with acquisition or merger activity that convert, replace, or adjust outstanding equity awards to reflect the acquisition or merger as permitted by Nasdaq Listing Rule 5635(c)(3), (ii) the issuance of "inducement grant" equity awards to new employees of the Company as permitted by Nasdaq Listing Rule 5635(c)(4), and (iii) the issuance of shares available under pre-existing plans acquired by the Company in acquisitions and mergers ("Assumed Shares") as permitted by Nasdaq Listing Rule 5635(c). In May 2016, 2.4 million Assumed Shares were added to the Inducement Plan, which were assumed by Brocade from the Ruckus Wireless, Inc. Amended & Restated 2012 Equity Incentive Plan.

Inducement Plan

The Inducement Plan provides for the grant of stock options, restricted stock, RSUs, stock appreciation rights, performance units, performance shares, and other stock or cash awards to recipients as the Committee may determine. Per the terms of the plan, as amended, 14.6 million shares of the Company's common stock are reserved for issuance under the plan, subject to adjustment for stock dividends, stock splits, or other changes in the Company's common stock or the Company's capital structure. In addition, the exercise price of stock options and stock appreciation rights granted under the plan must be at least equal to the fair market value of the Company's common stock on the date of grant. The term, vesting schedule, and other conditions applicable to grants made under this plan are established by the Committee at the time of grant.

2009 Stock Plan

The 2009 Stock Plan provides for the grant of stock options, restricted stock, RSUs, including restricted stock units with market conditions, stock appreciation rights, performance units, performance shares, and other stock or cash awards to employees, directors, and consultants. Per the terms of the 2009 Stock Plan, as amended, 132.5 million shares of the Company's common stock are reserved for issuance under the plan, plus any shares subject to stock options or similar awards granted under the Company's 1999 Stock Plan, 1999 Nonstatutory Stock Option Plan ("1999 NSO Plan"), and 2001 McDATA Equity Incentive Plan that expire or otherwise terminate without having been exercised in full, and shares issued pursuant to awards granted under the Company's 1999 Stock Plan, 1999 NSO Plan, and 2001 McDATA Equity Incentive Plan that are forfeited to or repurchased by the Company, with the maximum number of shares to be added to the 2009 Stock Plan pursuant to this clause equal to 40.3 million shares.

2009 Director Plan

The 2009 Director Plan provides for the grant of stock options and RSUs to non-employee directors of the Company. Per the terms of the 2009 Director Plan, as amended, 3.0 million shares of the Company's common stock are reserved for issuance under the plan, plus any shares subject to stock options or similar awards granted under the Company's 1999 Director Option Plan that expire or otherwise terminate without having been exercised in full, and shares issued pursuant to awards granted under the Company's 1999 Director Option Plan that are forfeited to or repurchased by the Company, with the maximum number of shares to be added to the 2009 Director Plan pursuant to this clause equal to 0.9 million shares.

2009 Employee Stock Purchase Plan

The 2009 ESPP permits eligible employees to purchase shares of the Company's common stock through payroll deductions for up to 15% of qualified compensation during the offering period. In addition, eligible employees may purchase at a discount of up to 15% of the lesser of the fair market value of the Company's common stock on (i) the first trading day of the offering period, or (ii) the last day of each purchase period; provided, however, that the purchase price for subsequent offering periods may be determined by the administrator, subject to compliance with the terms of the 2009 ESPP. A total of 85.0 million shares of the Company's common stock are reserved for issuance under the 2009 ESPP, as amended. The 2009 ESPP is implemented through consecutive, overlapping offering periods. The offering periods generally start with the first trading day on or after June 1 and December 1 each year and end approximately 24 months later, unless the fair market value of the Company's common stock on the last day of a purchase period is lower than the fair market value of the Company's common stock on the first trading day of the offering period, in which case the offering period will end early, immediately after the purchase period, and a new offering period will commence on or about such date. Each offering period is divided into four purchase periods of approximately six months in length. Eligible employees may purchase no more than 3,750 shares of the Company's common stock during each purchase period. As of October 29, 2016, 24.5 million shares were available for issuance under the 2009 ESPP. Employee participation in the 2009 ESPP was suspended effective December 1, 2016, and the 2009 ESPP will terminate upon the completion of the proposed acquisition of the Company by Broadcom. See Note 17, "Subsequent Events," of the Notes to Consolidated Financial Statements.

Summary of Equity Compensation Plans

The Company may grant stock options, restricted stock awards, and RSUs, including restricted stock units with market conditions, for shares of the Company's common stock and other types of equity compensation awards to its employees and directors under the various equity compensation plans described above. Effective in April 2015, in accordance with the terms of the 2009 Stock Plan and the 2009 Director Plan, as amended, each award granted other than stock options or stock appreciation rights will count against the applicable plan's share reserve as 2.03 shares for every one share subject to such award. In addition, the exercise price of stock options and stock appreciation rights granted under the 2009 Stock Plan must be at least equal to the fair market value of the Company's common stock on the date of grant and the exercise price of incentive stock options granted to any participant who owns more than 10% of the total voting power of all classes of the Company's outstanding stock must be at least 110% of the fair market value of the Company's common stock on the date of grant.

The term of a stock option and a stock appreciation right may not exceed seven years, except that, with respect to any participant who owns 10% of the voting power of all classes of the Company's outstanding capital stock, the term of an incentive stock option may not exceed five years. The majority of the stock options, restricted stock awards, and RSUs granted under the Company's equity compensation plans vest over a period of three to four years. Certain options and awards granted under the 2009 Stock Plan and the 2009 Director Plan vest over shorter or longer periods.

As of October 29, 2016, and October 31, 2015, approximately 72.4 million and 63.4 million shares, respectively, were authorized for future issuance under the Company's equity compensation plans, which include stock options, shares to be issued pursuant to the 2009 ESPP, RSUs, and other awards. A total of 39.8 million and 36.8 million shares of common stock were available for grant under the Company's equity compensation plans as of October 29, 2016, and October 31, 2015, respectively. Awards that expire, or are cancelled without delivery of shares, generally become available for issuance under the Company's equity compensation plans.

Employee 401(k) Plan

The Company sponsors the Brocade Communications Systems, Inc. 401(k) Plan ("401(k) Plan"), which qualifies under Section 401(k) of the Internal Revenue Code and is designed to provide retirement benefits for its eligible employees through tax-deferred salary deductions.

Employees may elect to contribute up to 60% of their eligible compensation to the 401(k) Plan. Employee contributions are limited to a maximum annual amount as set periodically by the Internal Revenue Service ("IRS"). The Company matches employee contributions dollar for dollar up to a maximum of $3,000 per calendar year per person. All matching contributions vest immediately. The Company's matching contributions to the 401(k) Plan totaled $9.5 million, $8.7 million, and $8.2 million for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, respectively.

12. Stock-Based Compensation

Stock-based compensation expense, net of estimated forfeitures, was included in the following line items of the Company's Consolidated Statements of Income as follows (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Cost of revenues	$ 16,882	$ 12,946	$ 14,963
Research and development	29,298	18,714	18,635
Sales and marketing	53,357	38,340	31,650
General and administrative	31,469	18,528	19,666
Total stock-based compensation expense	$ 131,006	$ 88,528	$ 84,914

The following table presents stock-based compensation expense, net of estimated forfeitures, by grant type (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Stock options	$ 5,612	$ 3,675	$ 4,581
RSUs, including restricted stock units with market conditions	105,657	67,735	62,906
Employee stock purchase plan ("ESPP")	19,737	17,118	17,427
Total stock-based compensation expense	$ 131,006	$ 88,528	$ 84,914

The following table presents the unrecognized compensation expense, net of estimated forfeitures, of the Company's equity compensation plans as of October 29, 2016, which is expected to be recognized over the following weighted-average periods (in thousands, except for the weighted-average period):

	Unrecognized Compensation Expense	Weighted-Average Period (In years)
Stock options	$ 1,364	0.89
RSUs, including restricted stock units with market conditions	$ 143,209	2.06
ESPP	$ 17,522	1.10

In accordance with the applicable accounting guidance for stock-based compensation, the compensation expense for stock-based awards is reduced by an estimate for forfeitures and is recognized over the requisite service period of the respective awards. To the extent that the actual forfeitures differ from the estimated forfeitures, the Company records the difference in the period that the awards vest. The Company estimates the forward-looking forfeiture rate, using the Company's historical forfeiture rates, annually during the second fiscal quarter, and whenever events occur or facts and circumstances indicate that the current forfeiture rate estimate is significantly different from historical forfeitures. Changes in the estimated forfeiture rates and differences between the estimated forfeiture rates and actual forfeiture rates may result in significant increases or decreases in stock-based compensation expense from period to period.

Based on the results of the annual forfeiture rate analysis performed during the second fiscal quarter of 2016, there was no significant impact related to the change in the estimated forfeiture rates in fiscal year 2016. However, in the second fiscal quarter of 2015, the Company increased its expected forfeiture rate and recorded a cumulative reduction to stock-based compensation expense of $5.6 million in fiscal year 2015.

Stock Options

The fair value of each option granted during the respective period is estimated on the date of grant using the Black-Scholes valuation model and the assumptions noted in the following table. The dividend yield reflects the cash dividends paid by Brocade starting in the third quarter of fiscal year 2014. The risk-free interest rate is based on the implied yield on a U.S. Treasury zero-coupon issue with a remaining term equal to the expected term of the option. For stock options granted prior to November 1, 2015, the expected volatility is based on an equal weighted-average of implied volatilities from traded options of the Company's common stock and historical volatility of the Company's common stock. For stock options granted on or subsequent to November 1, 2015, the expected volatility is based on historical volatility of the Company's common stock. The expected term is based on historical exercise behavior.

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Expected dividend yield	2.3%	1.3%	0.0% - 1.5%
Risk-free interest rate	0.0 - 1.3%	1.1 - 1.8%	0.7 - 2.3%
Expected volatility	32.1 - 39.0%	36.5%	36.8 - 39.4%
Expected term (in years)	1.1 - 4.5	4.5	5.0

Compensation expense computed under the fair value method for stock options issued is being amortized under a graded vesting method over the options' vesting period. A summary of stock option activity under the equity compensation plans for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, is presented as follows:

	Shares (In thousands)	Weighted-Average Exercise Price	Weighted-Average Grant Date Fair Value	Weighted-Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding as of October 26, 2013	12,561	$ 6.19		2.37	$ 24,784
Granted	1,770	$ 9.03	$ 3.16		
Exercised	(6,971)	$ 5.93			$ 24,240
Forfeited or expired	(1,161)	$ 8.93			
Outstanding as of November 1, 2014	6,199	$ 6.79		4.74	$ 24,452
Granted	1,117	$ 10.89	$ 3.09		
Exercised	(564)	$ 6.68			$ 2,980
Forfeited or expired	(61)	$ 8.20			
Outstanding as of October 31, 2015	6,691	$ 7.47		4.37	$ 20,252
Granted	1,395	$ 9.30	$ 0.88		
Exercised	(371)	$ 6.05			$ 1,258
Forfeited or expired	(47)	$ 8.88			
Outstanding as of October 29, 2016	7,668	$ 7.86		4.30	$ 10,372
Vested and expected to vest as of October 29, 2016	7,486	$ 7.82		4.26	$ 10,353
Exercisable and vested as of October 29, 2016	5,377	$ 7.25		3.62	$ 9,643

Restricted Stock Units, Including Restricted Stock Units with Market Conditions

Prior to the initial declaration of a quarterly cash dividend on May 22, 2014, the fair value of time-based RSUs was measured based on the grant-date share price because Brocade did not historically pay cash dividends on its common stock. For awards granted on or subsequent to May 22, 2014, the fair value of time-based RSUs is measured based on the grant-date share price, less the present value of expected dividends during the vesting period, discounted at a risk-free interest rate. The fair value of MSUs is estimated using a lattice model that incorporates a Monte Carlo simulation. A summary of the changes in nonvested RSUs, including MSUs, under Brocade's equity compensation plans during the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, respectively, is presented as follows:

	Shares (In thousands)	Weighted-Average Grant Date Fair Value
Nonvested as of October 26, 2013	22,761	$ 3.85
Granted	11,582	$ 9.69
Vested	(11,750)	$ 5.59
Forfeited	(3,594)	$ 6.01
Nonvested as of November 1, 2014	18,999	$ 5.93
Granted	10,777	$ 11.46
Vested	(8,317)	$ 7.81
Forfeited	(2,260)	$ 8.69
Nonvested as of October 31, 2015	19,199	$ 9.82
Granted	19,143	$ 7.92
Vested	(9,570)	$ 8.96
Forfeited	(3,755)	$ 9.84
Nonvested as of October 29, 2016	25,017	$ 9.07
Vested and expected to vest as of October 29, 2016	21,093	$ 9.10

A summary of the changes in nonvested MSUs included in the above summary of changes in nonvested RSUs under Brocade's equity compensation plans during the fiscal year ended October 29, 2016, is presented as follows:

	Shares (In thousands)	Weighted-Average Grant Date Fair Value
Nonvested as of October 31, 2015	1,936	$ 9.65
Granted	1,090	$ 6.18
Vested	(560)	$ 8.93
Forfeited	(1,487)	$ 10.55
Nonvested as of October 29, 2016	979	$ 8.94
Vested and expected to vest as of October 29, 2016	784	$ 9.05

Typically, vesting of RSUs occurs over one to four years and is subject to the employee's continuing service to Brocade.

The aggregate intrinsic value of nonvested RSUs at October 29, 2016, October 31, 2015, and November 1, 2014, was $217.4 million, $200.1 million, and $203.9 million, respectively.

Employee Stock Purchase Plan

Under the 2009 ESPP, eligible employees can participate and purchase shares semiannually at a discount of up to 15% of the lesser of the fair market value of the Company's common stock on (i) the first trading day of the offering period, or (ii) the last day of each six-month purchase period. The 2009 ESPP permits eligible employees to purchase common stock through payroll deductions for up to 15% of qualified compensation. The Company accounts for the 2009 ESPP as a compensatory plan and compensation expense is being amortized under a graded vesting method over the 24-month offering period. In addition, the Company accounts for changes in percentage contribution elected by employees, as well as decreases in the Company's common stock price on the last day of each six-month purchase period as compared to the common stock price on the first trading day of the offering period, by applying modification accounting which results in an increase in compensation expense during the period of modification.

The fair value of the option component of the 2009 ESPP shares was estimated using the Black-Scholes option pricing model and the weighted-average assumptions noted in the following table:

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Expected dividend yield	2.3%	1.4%	1.4%
Risk-free interest rate	0.7%	0.3%	0.2%
Expected volatility	35.7%	27.3%	30.1%
Expected term (in years)	1.4	1.2	1.3

13. Stockholders' Equity

Dividends

During the fiscal year ended October 29, 2016, the Company's Board of Directors declared the following dividends (in thousands, except per share amounts):

Declaration Date	Dividend per Share	Record Date	Total Amount Paid	Payment Date
November 22, 2015	$ 0.045	December 10, 2015	$ 18,429	January 4, 2016
February 16, 2016	$ 0.045	March 10, 2016	$ 18,016	April 4, 2016
May 18, 2016	$ 0.055	June 10, 2016	$ 25,261	July 5, 2016
August 24, 2016	$ 0.055	September 9, 2016	$ 22,054	October 3, 2016

Future dividends are subject to review and approval on a quarterly basis by the Company's Board of Directors or a committee thereof, and are limited under the terms of the Merger Agreement (as defined in Note 17, "Subsequent Events," of the Notes to Consolidated Financial Statements).

Convertible Note Hedge and Warrants Related to the Convertible Senior Unsecured Notes

In connection with the issuance of the 2020 Convertible Notes, the Company entered into convertible note hedge and warrant transactions with certain financial institutions with respect to its common stock. See Note 8, "Borrowings," of the Notes to Consolidated Financial Statements for further discussion.

Accumulated Other Comprehensive Loss

The components of other comprehensive loss and related tax effects for the fiscal years ended October 29, 2016, and October 31, 2015, are as follows (in thousands):

	Fiscal Year Ended					
	October 29, 2016			October 31, 2015		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gains (losses) on cash flow hedges:						
Change in unrealized gains and losses, foreign exchange contracts	$ (2,046)	$ 93	$ (1,953)	$ (3,570)	$ 183	$ (3,387)
Net gains and losses reclassified into earnings, foreign exchange contracts (1)	2,791	(170)	2,621	4,250	(495)	3,755
Net unrealized gains (losses) on cash flow hedges	745	(77)	668	680	(312)	368
Foreign currency translation adjustments	(3,079)	—	(3,079)	(6,556)	—	(6,556)
Total other comprehensive loss	$ (2,334)	$ (77)	$ (2,411)	$ (5,876)	$ (312)	$ (6,188)

(1) For Consolidated Statements of Income classification of amounts reclassified from accumulated other comprehensive loss, see Note 10, "Derivative Instruments and Hedging Activities," of the Notes to Consolidated Financial Statements.

The changes in accumulated other comprehensive loss by component, net of tax, for the fiscal years ended October 29, 2016, and October 31, 2015, are as follows (in thousands):

	Fiscal Year Ended					
	October 29, 2016			October 31, 2015		
	Gains (Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments	Total Accumulated Other Comprehensive Loss	Gains (Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments	Total Accumulated Other Comprehensive Loss
Beginning balance	$ (1,539)	$ (23,463)	$ (25,002)	$ (1,907)	$ (16,907)	$ (18,814)
Change in unrealized gains and losses	(1,953)	(3,079)	(5,032)	(3,387)	(6,556)	(9,943)
Net gains and losses reclassified into earnings	2,621	—	2,621	3,755	—	3,755
Net current-period other comprehensive income (loss)	668	(3,079)	(2,411)	368	(6,556)	(6,188)
Ending balance	$ (871)	$ (26,542)	$ (27,413)	$ (1,539)	$ (23,463)	$ (25,002)

14. Income Taxes

The domestic and international components of income before income tax and noncontrolling interest for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, are presented as follows (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
United States	$ 51,383	$ 250,788	$ 192,730
International	210,655	188,263	160,891
Total	$ 262,038	$ 439,051	$ 353,621

The income tax expense (benefit) for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, consisted of the following (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
U.S. federal taxes:			
Current	$ 50,317	$ 64,042	$ 61,666
Deferred	(18,976)	14,775	33,065
Total U.S. federal taxes	31,341	78,817	94,731
State taxes:			
Current	10,501	9,790	16,597
Deferred	(1,743)	761	(2,599)
Total state taxes	8,758	10,551	13,998
Non-U.S. taxes:			
Current	8,207	9,713	6,655
Deferred	(195)	(392)	266
Total non-U.S. taxes	8,012	9,321	6,921
Total	$ 48,111	$ 98,689	$ 115,650

The difference between the U.S. federal statutory tax rate and the Company's effective tax rate for fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, consisted of the following:

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
U.S. federal statutory tax rate	35.0%	35.0%	35.0%
State taxes, net of federal tax benefit	(2.3)	0.2	3.1
Foreign income taxed at other than U.S. rates	(24.9)	(14.5)	(16.9)
Stock-based compensation expense	5.2	1.9	2.3
Research and development credit	(1.8)	(0.9)	(3.1)
Permanent items	0.3	0.3	0.3
Change in liabilities for uncertain tax positions	3.2	0.5	0.5
Goodwill impairment charge	—	—	8.3
Audit settlement and reinstated tax credit	—	—	0.1
Change in valuation allowance	2.5	1.3	1.6
Other	1.2	(1.3)	1.5
Effective tax rate	18.4%	22.5%	32.7%

In general, the Company's provision for income taxes differs from the tax computed at the U.S. federal statutory tax rate due to state taxes, non-U.S. operations being taxed at rates lower than the U.S. federal statutory rate, non-deductible stock-based compensation expense, tax credits, and adjustments to unrecognized tax benefits. The non-U.S. operations primarily relate to Brocade's European, Asia Pacific, and Japanese subsidiaries.

The effective tax rate in fiscal year 2016 was lower than the U.S. federal statutory tax rate of 35% primarily due to the effects of earnings in foreign jurisdictions being taxed at rates lower than the U.S. federal statutory tax rate, a benefit from the qualified domestic manufacturing deduction, a benefit from the tax reserves released related to an audit settlement with the Internal Revenue Service, and a benefit from the federal research and development tax credit that was reinstated on December 18, 2015, and made retroactive for calendar year 2015.

The effective tax rate in fiscal year 2015 was lower than the U.S. federal statutory tax rate of 35% primarily due to the effects of earnings in foreign jurisdictions being taxed at rates lower than the U.S. federal statutory tax rate, a benefit from the qualified domestic manufacturing deduction, and a benefit from the federal research and development tax credit that was reinstated on December 19, 2014, and made retroactive for calendar year 2014.

The effective tax rate for fiscal year 2016 is lower compared with fiscal years 2015 and 2014 primarily due to the effects of the relatively greater fiscal year 2016 earnings in foreign jurisdictions being taxed at rates lower than the U.S. federal statutory tax rate, a benefit from the tax reserves released related to an audit settlement with the Internal Revenue Service, and a benefit from the federal research and development tax credit that was reinstated on December 18, 2015, permanently, and made retroactive for calendar year 2015.

The Company's effective tax rate for fiscal year 2015 is lower compared with fiscal year 2014 primarily due to the goodwill impairment charge recorded in fiscal year 2014, which is nondeductible for tax purposes.

As of October 29, 2016, U.S. federal income taxes and foreign withholding taxes were not provided for on an estimated cumulative total of $1,048.9 million of undistributed earnings of the Company's foreign subsidiaries. The Company intends to reinvest current and accumulated earnings of its foreign subsidiaries for expansion of its business operations outside the United States for an indefinite period of time. The Company's existing cash and cash equivalents totaled $1,257.1 million as of October 29, 2016. Of this amount, approximately 85% was held by its foreign subsidiaries. If these earnings were distributed to the United States in the form of dividends or otherwise, or if the shares of the relevant foreign subsidiaries were sold or otherwise transferred, the Company could be subject to additional U.S. income taxes, net of foreign tax credits, and foreign withholding taxes. Determination of the amount of unrecognized deferred income tax liability related to these earnings is not practicable.

The components of deferred tax assets and deferred tax liabilities for the fiscal years ended October 29, 2016, and October 31, 2015, are presented as follows (in thousands):

	October 29, 2016	October 31, 2015
Net operating loss carryforwards	$ 9,018	$ 7,871
Stock-based compensation expense	27,822	19,868
Tax credit carryforwards	104,382	87,830
Reserves and accruals	98,561	110,796
Other	47	140
Gross deferred tax assets	239,830	226,505
Valuation allowance	(106,217)	(88,581)
Total deferred tax assets	133,613	137,924
Acquired intangibles and goodwill	(90,374)	(18,155)
Fixed assets	(26,479)	(28,370)
Other	(4,024)	(35,935)
Total deferred tax liabilities	(120,877)	(82,460)
Total net deferred tax assets	$ 12,736	$ 55,464

As of October 29, 2016, the Company believes that sufficient positive evidence exists from historical operations and projections of taxable income in future years to conclude that it is more likely than not that the Company will realize its deferred tax assets except for California deferred tax assets and capital loss carryforwards. Accordingly, the Company applies a valuation allowance to the California deferred tax assets due to the change in California law that occurred in November 2012, and to capital loss carryforwards due to the limited carryforward periods of these tax assets.

As of October 29, 2016, the Company had federal net operating loss carryforwards of $89.5 million, California state net operating loss carryforwards of $77.5 million and other significant state net operating loss carryforwards of approximately $132.4 million. Additionally, the Company had federal tax credit carryforwards of $143.3 million and state tax credit carryforwards of $218.0 million. The federal net operating loss and tax credit carryforwards expire on various dates between fiscal year 2018 through 2036. The state net operating loss and credit carryforwards expire on various dates between fiscal year 2017 through 2035. The federal net operating loss carryforwards and federal tax credit carryforwards include excess tax deductions related to stock-based compensation. Under the current tax law, net operating loss and credit carryforwards available to offset future income in any given year may be limited by statute or upon the occurrence of certain events, including significant changes in ownership interests. As a result of the McDATA, Foundry, Ruckus, and other acquisitions, all of the tax attributes from these companies are subject to an annual limitation. The Company expects some of these tax attributes to expire due to the annual limitation.

The Company applies a recognition threshold and measurement attribute for the financial statement recognition and measurement of an income tax position taken or expected to be taken on a tax return. Recognition of a tax position is determined when it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation process. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement with a taxing authority.

A reconciliation of the beginning and ending amount of total gross unrecognized tax benefits, excluding accrued net interest and penalties, is as follows (in thousands):

	October 29, 2016	October 31, 2015
Unrecognized tax benefits, beginning balance	$ 117,569	$ 119,615
Gross increases for tax positions taken in prior periods	15,874	705
Gross decreases for tax positions taken in prior periods	(7,734)	(6,843)
Increase from business combinations	52,665	—
Gross increases for tax positions taken in current period	35,350	8,418
Changes due to settlements with taxing authorities	(10,294)	—
Reductions resulting from lapses of statutes of limitations	(3,474)	(4,326)
Unrecognized tax benefits, ending balance	$ 199,956	$ 117,569

As of October 29, 2016, the Company had net unrecognized tax benefits of $151.8 million, which if recognized, would result in a reduction of the Company's effective tax rate.

The Internal Revenue Service ("IRS") and other tax authorities regularly examine the Company's income tax returns. In August 2016, the Company reached a settlement agreement with the IRS related to its examination of its federal income tax returns for fiscal years 2009 and 2010. In addition, in October 2014, the Geneva Tax Administration issued its final assessments for fiscal years 2003 to 2012, disputing certain of the Company's transfer pricing arrangements. In November 2014, the Company filed a protest to challenge the final assessments. The Company believes that reserves for unrecognized tax benefits are adequate for all open tax years. The timing of income tax examinations, as well as the amounts and timing of related settlements, if any, are highly uncertain. Before the end of fiscal year 2017, it is reasonably possible that either certain audits will conclude, or the statutes of limitations relating to certain income tax examination periods will expire, or both. After the Company reaches a settlement with the tax authorities, the Company expects to record a corresponding adjustment to its unrecognized tax benefits. Taking into consideration the inherent uncertainty as to settlement terms, the timing of payments, and the impact of such settlements on the unrecognized tax benefits, the Company estimates the range of potential decreases in underlying uncertainty in income tax is between $0 and $9.0 million in the next 12 months.

The Company classifies interest and penalties related to unrecognized tax benefits as a component of income tax expense. During the fiscal year ended October 29, 2016, the Company recognized $0.4 million of interest and penalties related to unrecognized tax benefits. There were no material interest or penalties during the fiscal year ended October 31, 2015. The total net accrued interest and penalties included in the Company's liability related to unrecognized tax benefits as of October 29, 2016, and October 31, 2015, was $2.9 million and $2.5 million, respectively.

Of the total tax benefits (detriments) resulting from the exercise of employee stock options and employee participation in the Company's equity compensation plans, the amounts recorded to stockholders' equity were approximately $4.2 million in fiscal year 2016, $48.0 million in fiscal year 2015, and $59.9 million in fiscal year 2014.

15. Segment Information

Operating segments are defined as components of an enterprise for which separate financial information is available that is evaluated regularly by the Chief Operating Decision Maker ("CODM"), or decision-making group, in deciding how to allocate resources and in assessing performance. Financial decisions and the allocation of resources are based on the information from the Company's internal management reporting system. Currently, the Company's CODM is its Chief Executive Officer.

Brocade is organized into three operating segments, each of which is an individually reportable segment: SAN Products, IP Networking Products, and Global Services. These reportable segments are organized principally by product category. The results of the Ruckus business are included in the IP Networking Products and Global Services reportable segments from the date of acquisition.

The types of products and services from which each reportable segment derives its revenues are as follows:

- SAN Products include infrastructure products and solutions that help customers develop and deploy storage and server consolidation, disaster recovery, and data security, as well as meet compliance requirements regarding data management. These products are used to build storage area networks and are generally used in conjunction with servers and storage subsystems, SAN interconnection components, and server and storage management software applications and tools. Brocade's family of Fibre Channel ("FC") SAN backbones, directors, and fabric/embedded switches provide interconnection, bandwidth, and high-speed switching between servers and storage devices. Switches and directors support key applications such as data backup, remote mirroring, and high-availability clustering, as well as high-volume transaction processing applications such as enterprise resource planning and data warehousing. Additionally, Brocade offers a variety of FC fabric extension, analytics, switching, and routing solutions;
- IP Networking Products include Layer 2 and Layer 3 Ethernet switches and routers that are designed to connect users over private and public networks, including local area, metro, and within and across global data centers. Brocade also offers converged network products, and a portfolio of related software and hardware-based data networking offerings. Additionally, the Company offers Layer 4-7 products that are designed for application traffic management and server load balancing. With the acquisition of Ruckus, Brocade also offers a comprehensive range of wireless products for the network edge; and
- Global Services include break/fix maintenance, installation, consulting, network management and software maintenance, and post-contract customer support revenue.

At this time, the Company does not track its operating expenses by operating segments because management does not consider this information in its measurement of the performance of the operating segments. The Company also does not track all of its assets by operating segments. The majority of the Company's assets as of October 29, 2016, and October 31, 2015, were attributable to its U.S. operations.

Summarized financial information by reportable segment for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, based on the internal management reporting system, is as follows (in thousands):

	SAN Products	IP Networking Products	Global Services	Total
Fiscal year ended October 29, 2016				
Net revenues	$ 1,229,184	$ 730,412	$ 386,014	$ 2,345,610
Cost of revenues	295,100	362,061	172,110	829,271
Gross margin	$ 934,084	$ 368,351	$ 213,904	$ 1,516,339
Fiscal year ended October 31, 2015				
Net revenues	$ 1,301,231	$ 601,170	$ 361,059	$ 2,263,460
Cost of revenues	311,881	275,634	147,872	735,387
Gross margin	$ 989,350	$ 325,536	$ 213,187	$ 1,528,073
Fiscal year ended November 1, 2014				
Net revenues	$ 1,326,950	$ 525,237	$ 359,080	$ 2,211,267
Cost of revenues	344,466	247,975	153,033	745,474
Gross margin	$ 982,484	$ 277,262	$ 206,047	$ 1,465,793

Revenues are attributed to geographic areas based on where the Company's products are shipped. Geographic revenue and property and equipment information for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014 is presented below (in thousands):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Net revenues:			
United States	$ 1,202,792	$ 1,275,056	$ 1,286,650
International			
Europe, the Middle East and Africa (1)	676,685	610,133	598,196
Asia Pacific	318,758	229,903	183,035
Japan	100,034	93,470	91,062
Canada, Central and South America	47,341	54,898	52,324
Total international net revenues	1,142,818	988,404	924,617
Total net revenues	$ 2,345,610	$ 2,263,460	$ 2,211,267

(1) Includes net revenues of $336.1 million, $400.0 million, and $385.2 million for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, respectively, relating to the Netherlands.

	October 29, 2016	October 31, 2015	November 1, 2014
Property and equipment, net:			
United States	$ 418,804	$ 409,404	$ 426,941
International	36,522	29,820	18,492
Property and equipment, net	$ 455,326	$ 439,224	$ 445,433

16. Net Income per Share

The following table presents the calculation of basic and diluted net income per share (in thousands, except per share amounts):

	Fiscal Year Ended		
	October 29, 2016	October 31, 2015	November 1, 2014
Basic net income per share			
Net income attributable to Brocade	$ 213,815	$ 340,362	$ 237,971
Weighted-average shares used in computing basic net income per share	409,058	420,331	435,258
Basic net income per share	$ 0.52	$ 0.81	$ 0.55
Diluted net income per share			
Net income attributable to Brocade	$ 213,815	$ 340,362	$ 237,971
Weighted-average shares used in computing basic net income per share	409,058	420,331	435,258
Dilutive potential common shares in the form of stock options	1,329	1,722	1,995
Dilutive potential common shares in the form of other share-based awards	6,706	8,503	9,606
Weighted-average shares used in computing diluted net income per share	417,093	430,556	446,859
Diluted net income per share	$ 0.51	$ 0.79	$ 0.53
Antidilutive potential common shares in the form of: [(1)]			
Warrants issued in conjunction with the 2020 Convertible Notes [(2)]	36,288	28,880	—
Stock options	2,149	977	1,725
Other share-based awards	1,600	142	893

(1) These amounts are excluded from the computation of diluted net income per share.

(2) In connection with the issuance of the 2020 Convertible Notes, the Company entered into convertible note hedge and warrant transactions as described in Note 8, “Borrowings.” The 2020 Convertible Notes have no impact on diluted earnings per share until the average quarterly price of the Company’s common stock exceeds the adjusted conversion price of $15.80 per share. If the common stock price exceeds this adjusted conversion price, then, prior to conversion, the Company will calculate the effect of the additional shares that may be issued using the treasury stock method. If the average price of the Company’s common stock exceeds $20.48 per share for a quarterly period, the Company’s weighted-average shares used in computing diluted net income per share will be impacted by the effect of the additional potential shares that may be issued related to the warrants using the treasury stock method. The convertible note hedge is not considered for purposes of the diluted earnings per share calculation, as its effect would be antidilutive.

17. Subsequent Events

On November 2, 2016, the Company entered into an Agreement and Plan of Merger (the “Merger Agreement”) with Broadcom Limited, a limited liability company organized under the laws of the Republic of Singapore (“Ultimate Parent”), Broadcom Corporation, a California corporation and an indirect subsidiary of Ultimate Parent (“Parent”), and Bobcat Merger Sub, Inc., a Delaware corporation and a direct wholly owned subsidiary of Parent (“Merger Sub”), providing for the merger of Merger Sub with and into the Company (the “Merger”), with the Company surviving as a wholly owned subsidiary of Parent.

At the effective time of the Merger, each share of the Company’s common stock that is outstanding immediately prior to such time will be cancelled and converted into the right to receive $12.75 per share in cash, without interest, less any required tax withholding.

In general, at the effective time of the Merger: (i) Ultimate Parent will assume and convert all vested Brocade stock options that are not in-the-money and all unvested Brocade stock options, restricted stock units and performance stock units, in each case held by continuing employees and service providers; (ii) all vested in-the-money Brocade stock options, after giving effect to any acceleration, will be cashed out; (iii) all other Brocade restricted stock units and performance stock units will accelerate vesting and be cashed out; and (iv) all other Brocade stock options not assumed or cashed out will be cancelled in exchange for no consideration.

Consummation of the Merger is subject to certain customary closing conditions, including, without limitation, the absence of certain legal impediments, the expiration or termination of the required waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the "HSR Act"), antitrust regulatory approval in the People's Republic of China, the European Union and Japan, review and clearance by the Committee on Foreign Investment in the United States, and approval by the Company's stockholders. The transaction is not subject to a financing condition. On November 30, 2016, the Company submitted its notification and report form with the U.S. Federal Trade Commission and the Antitrust Division of the U.S. Department of Justice under the HSR Act. Assuming timely satisfaction of these closing conditions, Brocade expects that the Merger will be completed in the second half of its fiscal year 2017.

The Merger Agreement contains certain customary termination rights for the Company and Parent. Upon termination of the Merger Agreement under specified circumstances, including, but not limited to, if the Company accepts a superior acquisition proposal or the Company's Board of Directors changes or withdraws its recommendation of the Merger, the Company will be required to pay Parent a termination fee of $195 million.

Broadcom Acquisition-Related Litigation

On December 12, 2016, a purported stockholder of the Company commenced a putative class-action lawsuit captioned Steinberg v. Brocade Communications Systems, Inc., et al., against the Company, its directors, Ultimate Parent, Parent and Merger Sub in the United States District Court for the Northern District of California. The complaint alleges violations of Sections 14(a) and 20(a) of the Exchange Act and SEC Rule 14a-9 arising out of the Company's preliminary proxy statement filed with the SEC on December 6, 2016 (the "preliminary proxy statement") relating to the Merger. Specifically, the complaint asserts that the preliminary proxy statement omitted material information regarding the Company's financial projections and an analysis performed by Evercore Group L.L.C. ("Evercore"), the Company's financial advisor in connection with the Merger. The plaintiff seeks to enjoin defendants from consummating the Merger, or, if the Merger is consummated, the plaintiff alternatively seeks rescission and damages. The plaintiff also seeks costs and fees.

On December 15, 2016, another purported stockholder of the Company commenced a putative class action lawsuit captioned Gross v. Brocade Communications Systems, Inc., et al., against the Company and its directors in the United States District Court for the Northern District of California. The complaint alleges violations of Sections 14(a) and 20(a) of the Exchange Act and various SEC rules including Rule 14a-9 arising out of the preliminary proxy statement. Specifically, the complaint asserts that the preliminary proxy statement omitted material information regarding the background of the Merger, the Company's financial projections, the valuation analyses performed by Evercore, and alleged conflicts of interest faced by Evercore. The plaintiff seeks to enjoin defendants from consummating the Merger and to enjoin the stockholder vote concerning the Merger, or, if the Merger is consummated, the plaintiff alternatively seeks damages. The plaintiff also seeks costs and fees.

BROCADE COMMUNICATIONS SYSTEMS, INC.

Selected Quarterly Financial Data
(Unaudited)

	Three Months Ended							
	October 29, 2016	July 30, 2016	April 30, 2016	January 30, 2016	October 31, 2015	August 1, 2015	May 2, 2015	January 31, 2015
	(In thousands, except per share and stock price amounts)							
Quarterly Data:								
Net revenues	$ 657,299	$ 590,721	$ 523,306	$ 574,284	$ 588,827	$ 551,819	$ 546,575	$ 576,239
Gross margin	$ 420,314	$ 356,899	$ 350,311	$ 388,815	$ 394,277	$ 371,904	$ 372,209	$ 389,683
Income from operations (1)	$ 82,868	$ 20,594	$ 82,665	$ 120,966	$ 119,221	$ 119,849	$ 114,205	$ 139,405
Net income	$ 66,701	$ 10,495	$ 43,085	$ 93,646	$ 84,388	$ 91,667	$ 77,040	$ 87,267
Per share amounts:								
Basic	$ 0.17	$ 0.02	$ 0.11	$ 0.23	$ 0.20	$ 0.22	$ 0.18	$ 0.20
Diluted	$ 0.16	$ 0.02	$ 0.11	$ 0.23	$ 0.20	$ 0.21	$ 0.18	$ 0.20
Shares used in computing per share amounts:								
Basic	401,103	426,671	400,554	407,902	414,769	417,299	420,718	428,536
Diluted	410,123	434,416	408,748	415,085	422,315	427,518	433,234	439,156
Common stock sale prices:								
High	$ 10.49	$ 9.84	$ 10.70	$ 10.92	$ 11.28	$ 12.88	$ 12.96	$ 12.43
Low	$ 8.64	$ 7.60	$ 7.58	$ 7.40	$ 9.72	$ 9.67	$ 10.85	$ 10.66

(1) Beginning in the fourth quarter of the fiscal year ended October 29, 2016, revenue from sales to distributor customers is recognized upon shipment to the distributor (sell-in) and is reduced by allowances for rebates, sales program incentives, and stock rotations, which are all estimated by a process using both historical experience and expectations of future outcomes based on facts and circumstances available contemporaneously at the date of estimation. See Note 2, "Summary of Significant Accounting Policies," of the Notes to Consolidated Financial Statements.

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

None.

Item 9A. *Controls and Procedures*

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Act"), as of the end of the period covered by this Annual Report on Form 10-K (the "Evaluation Date").

The purpose of this evaluation is to determine if, as of the Evaluation Date, our disclosure controls and procedures are effective such that the information required to be disclosed in the reports we file or submit under the Act (i) is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Act, that occurred during the quarter ended October 29, 2016, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

The management of Brocade Communications Systems, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) or 15d-15(f) of the Act, which has historically been based on the framework set forth in the *Internal Control—Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations ("COSO") of the Treadway Commission. In May 2013, COSO issued an updated framework (the "2013 COSO Framework"). We integrated the changes prescribed by the 2013 COSO Framework into our internal controls over financial reporting during fiscal year 2015. The Company's internal control over financial reporting is a process designed by, or under the supervision of, the Company's principal executive and principal financial officers, and effected by the Company's Board of Directors, management, and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

We acquired Ruckus on May 27, 2016, and we have not yet completed the process of integrating the acquired business' internal control over financial reporting into our overall internal control over financial reporting process. Accordingly, we excluded from our assessment of internal control over financial reporting as of October 29, 2016, the internal control over financial reporting of Ruckus. Associated with Ruckus are total assets of $1,226.3 million (of which $1,062.9 million represents goodwill and intangible assets subject to Brocade's internal control over financial reporting as of October 29, 2016) and net revenues of $181.5 million included in our consolidated financial statements as of and for the fiscal year ended October 29, 2016.

Our management assessed the effectiveness of the Company's internal control over financial reporting as of October 29, 2016, utilizing the criteria set forth by the COSO of the Treadway Commission in *Internal Control—Integrated Framework (2013)*. Based on our management's assessment, we believe that, as of October 29, 2016, our internal control over financial reporting was effective based on those criteria. The effectiveness of our internal control over financial reporting as of October 29, 2016, has been audited by KPMG LLP, Brocade's independent registered public accounting firm, as stated in their report which is included elsewhere in this Annual Report on Form 10-K.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well designed and implemented, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues within a company are detected. The inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple errors or mistakes. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and may not be detected. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Brocade Communications Systems, Inc.:

We have audited Brocade Communications Systems, Inc. and subsidiaries' (the Company) internal control over financial reporting as of October 29, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying *Management's Report on Internal Control over Financial Reporting* appearing in Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 29, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

The Company acquired Ruckus Wireless, Inc. on May 27, 2016, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of October 29, 2016, Ruckus Wireless, Inc.'s internal control over financial reporting associated with Ruckus Wireless, Inc. are total assets of $1,226.3 million (of which $1,062.9 million represents goodwill and intangible assets that were subject to the Company's internal control over financial reporting) and net revenues of $181.5 million included in the consolidated financial statements of the Company as of and for the year ended October 29, 2016. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Ruckus Wireless, Inc.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Brocade Communications Systems, Inc. and subsidiaries as of October 29, 2016, and October 31, 2015, and the related consolidated statements of income, comprehensive income, cash flows, and stockholders' equity for each of the years in the three-year period ended October 29, 2016, and the accompanying financial statement schedule. Our report, dated December 16, 2016, expressed an unqualified opinion on those consolidated financial statements and the related financial statement schedule.

/s/ KPMG LLP

Santa Clara, California
December 16, 2016

Item 9B. ***Other Information***

None.

PART III

Certain information required by Part III is incorporated by reference from the Company's definitive proxy statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for the Company's 2017 Annual Meeting of Stockholders (the "Proxy Statement").

Item 10. ***Directors, Executive Officers and Corporate Governance***

The information required by this Item with respect to the Company's directors is incorporated by reference from the Proxy Statement under the sections entitled "Election of Directors" and "Board of Directors." The information required by this Item with respect to the Company's executive officers is incorporated by reference from the Proxy Statement under the section entitled "Executive Officers." The information required by this Item with respect to disclosure of any known late filing or failure by an insider to file a report required by Section 16 of the Exchange Act is incorporated by reference from the Proxy Statement under the section entitled "Section 16(a) Beneficial Ownership Reporting Compliance." The information regarding the Company's corporate governance is incorporated by reference from the Proxy Statement.

The Board of Directors has adopted a Code of Ethics for Principal Executive and Senior Financial Officers (the "Code of Ethics"), which applies to the Company's Chief Executive Officer, Chief Financial Officer, and any other principal financial officer, controller and any other principal accounting officer, and any other person performing similar functions. The Code of Ethics is available on the Company's website at www.brcd.com in the "Corporate Governance" section of its Investor Relations webpage. The Company will also provide a copy of the Code of Ethics upon request made by e-mail to ir@brocade.com or in writing to Brocade Communications Systems, Inc., Attention: Investor Relations, 130 Holger Way, San Jose, California 95134-1376. The Company will disclose any amendment to the Code of Ethics or waiver of a provision of the Code of Ethics that applies to the Company's Chief Executive Officer, Chief Financial Officer, and any other principal financial officer, controller and any other principal accounting officer, and any other person performing similar functions, and relate to certain elements of the Code of Ethics, including the name of the officer to whom the waiver was granted, on its website at www.brcd.com on its Investor Relations webpage.

Item 11. ***Executive Compensation***

The information required by this Item is incorporated by reference from the Proxy Statement under the section entitled "Compensation Discussion and Analysis."

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

The information required by this Item is incorporated by reference from the Proxy Statement under the sections entitled "Security Ownership of Certain Beneficial Owners and Management" and "Board of Directors." Information with respect to securities authorized for issuance under equity compensation plans is incorporated by reference from the Proxy Statement under the section entitled "Equity Compensation Plan Information."

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

The information required by this Item is incorporated by reference from the Proxy Statement under the section entitled "Certain Relationships and Related Transactions."

Item 14. ***Principal Accountant Fees and Services***

The information required by this Item is incorporated by reference from the Proxy Statement under the section entitled "Ratification of Selection of Independent Registered Public Accountants."

PART IV

Item 15. *Exhibits and Financial Statement Schedules*

a. The following documents are filed as a part of this Form 10-K:

(1) Financial Statements and Supplementary Data:

The following financial statements and supplementary data of Brocade Communications Systems, Inc. are filed as a part of this Annual Report.

(2) Financial Statement Schedules:

The following financial statement schedule of Brocade Communications Systems, Inc. for the fiscal years ended October 29, 2016, October 31, 2015, and November 1, 2014, is filed as part of this Annual Report, and should be read in conjunction with the Company's Consolidated Financial Statements of Brocade Communications Systems, Inc.

All other schedules have been omitted, as the required information is inapplicable or the information is presented in the Company's Consolidated Financial Statements and notes thereto under Item 8 in Part II of this Form 10-K.

(3) Exhibits:

EXHIBIT INDEX

Exhibit Number	Description of Document
1.1	Purchase Agreement, dated January 8, 2015, by and among Brocade, Wells Fargo Securities, LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated (incorporated by reference to Exhibit 1.1 from Brocade's current report on Form 8-K filed on January 14, 2015)
2.1	Agreement and Plan of Merger, dated as of April 3, 2016, among Ruckus Wireless, Inc., Brocade Communications Systems, Inc. and Stallion Merger Sub Inc. (incorporated by reference to Exhibit 2.1 from Brocade's current report on Form 8-K filed on April 4, 2016)
2.2	Agreement and Plan of Merger, dated as of November 2, 2016, by and among Brocade Communications Systems, Inc., Broadcom Limited, Broadcom Corporation, and Bobcat Merger Sub, Inc. (incorporated by reference to Exhibit 2.1 from Brocade's current report on Form 8-K filed on November 2, 2016)
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 28, 2007)
3.2	Certificates of Correction and Corrected Amended and Restated Certificate of Incorporation, effective as of June 1, 2009 (incorporated by reference to Exhibit 3.5 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 2, 2009)
3.3	Certificate of Amendment to Amended and Restated Certificate of Incorporation, effective as of April 13, 2010 (incorporated by reference to Exhibit 3.1 from Brocade's current report on Form 8-K filed on April 13, 2010)

Exhibit Number	Description of Document
3.4	Amended and Restated Bylaws of Brocade Communications Systems, Inc., effective as of April 7, 2016 (incorporated by reference to Exhibit 3.4 from Amendment No. 1 to Brocade's Registration Statement on Form S-4 (Reg. Number 333-211039) filed on April 29, 2016)
3.5	Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of Brocade (incorporated by reference to Exhibit 4.1 from Brocade's Registration Statement on Form 8-A filed on February 11, 2002)
3.6	Certificate of Elimination of Series A Participating Preferred Stock of Brocade (incorporated by reference to Exhibit 3.1 from Brocade's current report on Form 8-K filed on February 16, 2007)
4.1	Form of Registrant's Common Stock certificate (incorporated by reference to Exhibit 4.1 from Brocade's Registration Statement on Form S-1 (Reg. Number 333-74711), as amended)
4.2	Indenture, dated as of January 22, 2013, by and among the Company, the Subsidiary Guarantors named therein and Wells Fargo Bank, National Association, as Trustee, governing the Notes (incorporated by reference to Exhibit 4.1 from Brocade's Form 8-K filed on January 22, 2013)
4.3	Indenture (including the Form of Notes), dated January 14, 2015, between Brocade and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.1 from Brocade's current report on Form 8-K filed on January 14, 2015)
4.4	Form of 1.375% Convertible Senior Note due 2020 (included in Exhibit 4.4) (incorporated by reference to Exhibit 4.2 from Brocade's current report on Form 8-K filed on January 14, 2015)
10.1	Form of Indemnification Agreement entered into between Brocade and each of its directors and executive officers (incorporated by reference to Exhibit 10.1 from Brocade's Registration Statement on Form S-1 (Reg. Number 333-74711), as amended)
10.2†	Goods Agreement between IBM and Brocade, dated April 15, 1999 (incorporated by reference to Exhibit 10.24 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2001)
10.3	Amendment Number 1 to the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.25 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2001)
10.4†	Statement of Work Number 1 between IBM and Brocade (incorporated by reference to Exhibit 10.26 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2001)
10.5†	Amendment Number 4 to Statement of Work Number 1 between IBM and Brocade (incorporated by reference to Exhibit 10.28 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2001)
10.6	Lease Agreement between MV Golden State San Jose, LLC and Brocade, dated December 1, 2000 (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 27, 2001)
10.7†	Amendment Number 7 to Statement of Work Number 1 between IBM and Brocade (incorporated by reference to Exhibit 10.37 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 27, 2002)
10.8†	OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated December 16, 2002 (incorporated by reference to Exhibit 10.48 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 25, 2003)
10.9†	Manufacturing and Purchase Agreement between Brocade and Hon Hai Precision Industry Co., Ltd., dated April 5, 2003 (HHPI Manufacturing and Purchase Agreement) (incorporated by reference to Exhibit 10.49 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2003)
10.10	Amendment Number One to HHPI Manufacturing and Purchase Agreement between Brocade and Hon Hai Precision Industry Co., Ltd., dated April 5, 2003 (incorporated by reference to Exhibit 10.50 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2003)
10.11†	Manufacturing and Purchase Agreement between Brocade Communications Switzerland SarL and Hon Hai Precision Industry Co., Ltd., dated May 1, 2003 (incorporated by reference to Exhibit 10.51 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2003)
10.12†	Manufacturing and Purchase Agreement between Brocade and Solectron Corporation, dated February 21, 2003 (Solectron Manufacturing and Purchase Agreement) (incorporated by reference to Exhibit 10.52 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2003)

Exhibit Number	Description of Document
10.13	Amendment Number 1 to Solectron Manufacturing and Purchase Agreement between Brocade and Solectron Corporation, dated March 21, 2003 (incorporated by reference to Exhibit 10.53 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2003)
10.14†	Manufacturing and Purchase Agreement between Brocade Communications Switzerland SarL and Solectron Corporation, dated March 21, 2003 (incorporated by reference to Exhibit 10.54 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2003)
10.15†	Amendment Number 15, dated March 26, 2004, to Statement of Work Number 1 between IBM and Brocade (incorporated by reference to Exhibit 10.71 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 1, 2004)
10.16†	Amendment Number 18, dated October 5, 2004, to Statement of Work Number 1 between IBM and Brocade (incorporated by reference to Exhibit 10.77 from Brocade's annual report on Form 10-K for the fiscal year ended October 30, 2004)
10.17†	Amendment Number 1, dated November 2, 2004, to OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated December 16, 2002 (incorporated by reference to Exhibit 10.80 from Brocade's annual report on Form 10-K for the fiscal year ended October 30, 2004)
10.18†	Amendment Number 2, dated October 27, 2004, to OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated December 16, 2002 (incorporated by reference to Exhibit 10.81 from Brocade's annual report on Form 10-K for the fiscal year ended October 30, 2004)
10.19†	Amendment Number 3, dated November 22, 2004, to OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated December 16, 2002 (incorporated by reference to Exhibit 10.89 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 29, 2005)
10.20*	Amended and Restated 1999 Employee Stock Purchase Plan and related forms of agreements (incorporated by reference to Exhibit 10.7 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 30, 2005)
10.21*	Amended and Restated 1999 Nonstatutory Stock Option Plan and related forms of agreements (incorporated by reference to Exhibit 10.8 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 30, 2005)
10.22	Tolling Agreement, dated as of January 1, 2006, between Gregory L. Reyes and Brocade, David House, William Krause, Nicholas Moore, William O'Brien, Christopher Paisley, Larry Sonsini, Seth Neiman, Neal Dempsey and Sanjay Vaswani (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 28, 2006)
10.23	Notice of partial termination of Tolling Agreement, dated September 11, 2006 (incorporated by reference to Exhibit 10.80 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2007)
10.24†	Amendment Number 4, dated January 20, 2006, to the OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated December 16, 2002 (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 29, 2006)
10.25†	Amendment Number 26, dated September 19, 2006, to Statement of Work Number 1 between IBM and Brocade, dated August 12, 2005 (incorporated by reference to Exhibit 10.103 from Brocade's annual report on Form 10-K for the fiscal year ended October 28, 2006)
10.26†	Amendment Number 6, effective as of August 4, 2006, to OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated December 16, 2002 (incorporated by reference to Exhibit 10.105 from Brocade's annual report on Form 10-K for the fiscal year ended October 28, 2006)
10.27†	Amendment Number 7, dated August 4, 2006, to OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated December 16, 2002 (incorporated by reference to Exhibit 10.106 from Brocade's annual report on Form 10-K for the fiscal year ended October 28, 2006)
10.28†	Amendment Number 5, dated April 20, 2007, to OEM Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.102 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2007)
10.29†	Amendment Number 8, dated September 6, 2007, to OEM Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.103 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2007)

Exhibit Number	Description of Document
10.30†	Statement of Work Number 7, dated October 1, 2007, to Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.104 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2007)
10.31†	Ninth Amendment, dated November 5, 2007, to OEM Purchase Agreement, dated December 16, 2002, between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 26, 2008)
10.32†	Tenth Amendment, dated December 21, 2007, to OEM Purchase Agreement, dated December 16, 2002, between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.4 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 26, 2008)
10.33†	Amendment Number 32, dated January 22, 2008, to Statement of Work Number 1 to Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.6 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 26, 2008)
10.34*	1999 Director Plan as amended and restated April 10, 2008, and related forms of agreements, as amended (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2008)
10.35*	1999 Stock Plan as amended and restated November 27, 2006, and related forms of agreements, as amended (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 26, 2008)
10.36†	OEM Purchase and License Agreement, dated May 20, 2008, between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 26, 2008)
10.37†	Amendment Number 11, dated April 28, 2008, to OEM Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 26, 2008)
10.38†	Amendment Number 34, dated June 23, 2008, to Statement of Work Number 1 to Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.122 from Brocade's annual report on Form 10-K for the fiscal year ended October 25, 2008)
10.39†	Amendment Number 12, dated August 21, 2008, to Statement of Work Number 3 to Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.124 from Brocade's annual report on Form 10-K for the fiscal year ended October 25, 2008)
10.40†	Amendment Number 1, dated July 10, 2008, to Statement of Work Number 7 to Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.125 from Brocade's annual report on Form 10-K for the fiscal year ended October 25, 2008)
10.41†	Amendment Number 1, dated January 9, 2009, to OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 24, 2009)
10.42†	Amendment Number 2, dated October 29, 2008, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.4 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 24, 2009)
10.43†	Amendment Number 12, dated March 11, 2009, with an effective date of February 28, 2008, to OEM Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 2, 2009)
10.44†	Amendment Number 13, dated March 14, 2009, with an effective date of March 6, 2009, to OEM Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 2, 2009)
10.45†	Amendment Number 14, dated March 14, 2009, with an effective date as of October 24, 2008, to OEM Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 2, 2009)
10.46†	Statement of Work Number 8, dated April 1, 2009, to Goods Agreement between International Business Machines and Brocade (incorporated by reference to Exhibit 10.4 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 2, 2009)

Exhibit Number	Description of Document
10.47*	2009 Stock Plan, as amended and restated April 12, 2012, and related forms of agreements, as amended (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 28, 2012)
10.48*	2009 Employee Stock Purchase Plan, as amended and restated April 12, 2012 (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 28, 2012)
10.49†	Amendment Number 15, dated May 11, 2009, with an effective date of February 1, 2009, to the Product Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the quarterly period ended August 1, 2009)
10.50†	Amendment Number 37, dated June 22, 2009, with an effective date of June 19, 2008 [sic], to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the quarterly period ended August 1, 2009)
10.51†	Amendment Number 14, dated June 10, 2009, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the quarterly period ended August 1, 2009)
10.52†	Amendment Number 15, dated June 23, 2009, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.4 from Brocade's quarterly report on Form 10-Q for the quarterly period ended August 1, 2009)
10.53†	Amendment Number 3, dated June 8, 2009, with an effective date of June 5, 2009, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.5 from Brocade's quarterly report on Form 10-Q for the quarterly period ended August 1, 2009)
10.54	Amendment Number 5, dated August 3, 2009, to the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.148 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.55†	Amendment Number 38, dated September 19, 2009, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.149 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.56†	Amendment Number 16, dated September 10, 2009, with an effective date of September 18, 2009, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.150 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.57†	Amendment Number 17, dated October 30, 2009, with an effective date of October 28, 2009, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.151 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.58	Amendment Number 4, dated September 22, 2009, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.152 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.59†	Amendment Number 5, dated September 15, 2009, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.153 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.60†	Amendment Number 1, dated October 3, 2009, to Statement of Work Number 8 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.154 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.61†	Amendment Number 2, dated October 13, 2009, to Statement of Work Number 8 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.155 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.62†	Amendment Number 3, dated October 1, 2009, to Statement of Work Number 8 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.156 from Brocade's annual report on Form 10-K for the fiscal year ended October 31, 2009)
10.63*	Senior Leadership Plan (formerly Executive Leadership Plan), as amended as of December 2, 2010 (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 29, 2011)

Exhibit Number	Description of Document
10.64*	Form of Restricted Stock Unit Agreement (Market Stock Units) under the 2009 Stock Plan (incorporated by reference to Exhibit 10.2 from Brocade's current report on Form 8-K filed on December 9, 2009)
10.65†	Amendment Number 39, dated December 15, 2009, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 30, 2010)
10.66	Real Estate Sale Agreement, effective as of January 25, 2010, by and between Brocade Communications Systems Skyport LLC, a wholly owned subsidiary of Brocade, and CA-Skyport III Limited Partnership (incorporated by reference to Exhibit 10.10 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 30, 2010)
10.67	Lease Agreement, dated as of January 28, 2010, by and between Brocade and CA-Skyport III Limited Partnership (incorporated by reference to Exhibit 10.11 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 30, 2010)
10.68†	Amendment Number 2, dated February 2, 2010, to OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.12 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 30, 2010)
10.69†	Amendment Number 3, dated April 13, 2010, to OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 1, 2010)
10.70†	Amendment Number 16, dated March 24, 2010, with an effective date as of June 8, 2009, to the Product Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 1, 2010)
10.71†	Amendment Number 40, dated April 13, 2010, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.4 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 1, 2010)
10.72†	Amendment Number 3, dated April 19, 2010, with an effective date of January 1, 2010, to Statement of Work Number 6 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.5 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 1, 2010)
10.73†	Amendment Number 6, dated April 13, 2010, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.6 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 1, 2010)
10.74†	Amendment Number 17, dated May 21, 2010, to the Product Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 31, 2010)
10.75†	Amendment Number 4, dated May 18, 2010, to Statement of Work Number 8 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 31, 2010)
10.76†	Amendment Number 5, dated May 18, 2010, with an effective date of May 14, 2010, to Statement of Work Number 8 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 31, 2010)
10.77†	Amendment Number 19, dated August 4, 2010, to the Product Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.131 from Brocade's annual report on Form 10-K for the fiscal year ended October 30, 2010)
10.78	Amendment Number 6, dated October 22, 2009, with an effective date of October 29, 2010, to the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.132 from Brocade's annual report on Form 10- K for the fiscal year ended October 30, 2010)
10.79†	Amendment Number 41, dated September 21, 2010, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.133 from Brocade's annual report on Form 10-K for the fiscal year ended October 30, 2010)
10.80†	Amendment Number 18, dated September 8, 2010, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.134 from Brocade's annual report on Form 10-K for the fiscal year ended October 30, 2010)

Exhibit Number	Description of Document
10.81	Special Ethernet Bonus Program, as approved on December 2, 2010 (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 29, 2011)
10.82	Statement of Work Number 9, dated April 8, 2011, to Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 30, 2011)
10.83	French Sub-Plan under the 2009 Stock Plan and related forms of agreements (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 30, 2011)
10.84	Amendment Number 2, dated as of June 10, 2011, by and among Brocade, the lenders party thereto, and Bank of America, N.A., as administrative agent, swing line lender and letter of credit issuer, to the Credit Agreement, dated as of October 7, 2008 (as amended), by and among Brocade, the lenders party thereto, and Bank of America, N.A., as administrative agent, swing line lender and letter of credit issuer (incorporated by reference to Exhibit 10.1 from Brocade's current report on Form 8-K filed on June 10, 2011)
10.85†	Amendment Number 42, dated June 30, 2011, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 30, 2011)
10.86†	Amendment Number 7, dated July 20, 2011, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 30, 2011)
10.87†	Amendment Number 43, dated September 23, 2011, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.114 from Brocade's annual report on Form 10-K for the fiscal year ended October 29, 2011)
10.88	Amendment Number 19, dated October 12, 2011, with an effective date of October 24, 2011, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.115 from Brocade's annual report on Form 10-K for the fiscal year ended October 29, 2011)
10.89*	Senior Leadership Plan, as amended as of October 25, 2011 (incorporated by reference to Exhibit 10.116 from Brocade's annual report on Form 10-K for the fiscal year ended October 29, 2011)
10.90*	Rev It Up Plan, approved as of October 25, 2011, and then clarified as of January 23, 2012 (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 28, 2012)
10.91*	Sales Leader Plan, approved as of October 28, 2011, and then clarified as of December 21, 2011 (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 28, 2012)
10.92*	Amended and Restated Change of Control Retention Agreement between Brocade and Michael Klayko, effective as of December 22, 2008 (incorporated by reference to Exhibit 10.119 from Brocade's annual report on Form 10-K for the fiscal year ended October 29, 2011)
10.93*	Form of Amended and Restated Change of Control Retention Agreement between Brocade and each of Tyler Wall and Ian Whiting, effective as of December 22, 2008 (incorporated by reference to Exhibit 10.120 from Brocade's annual report on Form 10-K for the fiscal year ended October 29, 2011)
10.94*	Form of Change of Control Retention Agreement between Brocade and newly designated executive officers, including Daniel Fairfax, effective as of February 23, 2009 (incorporated by reference to Exhibit 10.121 from Brocade's annual report on Form 10-K for the fiscal year ended October 29, 2011)
10.95*	Form of Restricted Stock Unit Agreement (2012 Market Stock Units) under the 2009 Stock Plan (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended January 28, 2012)
10.96†	Amendment Number 20, dated February 21, 2012, with an effective date of February 29, 2012, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 28, 2012)
10.97†	Amendment Number 44, dated February 29, 2012, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.4 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 28, 2012)

Exhibit Number	Description of Document
10.98†	Amendment Number 45, dated May 18, 2012, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 28, 2012)
10.99*	Agreement and General Release of Claims by and between Brocade and Michael Klayko, dated as of August 12, 2012 (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 28, 2012)
10.100	Amendment Number 4, dated October 11, 2012, to the OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.112 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2012)
10.101†	Amendment Number 21, dated October 18, 2012, with an effective date of October 22, 2012, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.113 from Brocade's annual report on Form 10-K for the fiscal year ended October 27, 2012)
10.102*	Offer Letter, dated December 20, 2012, between Brocade and Lloyd Carney (incorporated by reference to Exhibit 10.1 from Brocade's Form 8-K filed on January 14, 2013)
10.103*	Change of Control Retention Agreement between Brocade and Lloyd Carney, effective as of January 14, 2013 (incorporated by reference to Exhibit 10.2 from Brocade's Form 8-K filed on January 14, 2013)
10.104	Purchase Agreement, dated January 16, 2013, among Brocade, Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC, as representatives of the several Initial Purchasers listed in Schedule I thereto, and the Subsidiary Guarantors named therein (incorporated by reference to Exhibit 10.1 from Brocade's Form 8-K filed on January 22, 2013)
10.105	Registration Rights Agreement, dated as of January 22, 2013, by and among Brocade, the Subsidiary Guarantors listed on the signature pages thereto and the purchasers named therein (incorporated by reference to Exhibit 10.2 from Brocade's Form 8-K filed on January 22, 2013)
10.106*	2013 Inducement Award Plan (incorporated by reference to Exhibit 10.3 from Brocade's Form 8-K filed on January 22, 2013)
10.107*	Form of Stock Option Agreement under the 2013 Inducement Award Plan (incorporated by reference to Exhibit 10.4 from Brocade's Form 8-K filed on January 22, 2013)
10.108*	Form of Restricted Stock Unit Agreement under the 2013 Inducement Award Plan (incorporated by reference to Exhibit 10.5 from Brocade's Form 8-K filed on January 22, 2013)
10.109*	Form of Amendment to Change of Control Agreement between Brocade and Brocade's executive officers (incorporated by reference to Exhibit 10.1 from Brocade's current report on Form 8-K filed on February 21, 2013)
10.110*	2009 Director Plan, as amended and restated on April 11, 2013 (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 27, 2013)
10.111*	Performance Bonus Plan, as approved on April 11, 2013 (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 27, 2013)
10.112†	Amendment Number 5, dated February 13, 2013, to the OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.4 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 27, 2013)
10.113†	Amendment Number 46, dated March 8, 2013, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.5 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 27, 2013)
10.114†	Amendment Number 22, dated March 14, 2013, with an effective date of March 20, 2013, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.6 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 27, 2013)
10.115†	Amendment Number 8, dated April 11, 2013, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.7 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended April 27, 2013)
10.116*	Senior Leadership Plan for fiscal year 2013, as approved on July 26, 2013 (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 27, 2013)

Exhibit Number	Description of Document
10.117	Amendment Number 6, dated June 19, 2013, with an effective date of May 22, 2013, to the OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended July 27, 2013)
10.118*	Amended and Restated Change of Control Retention Agreement for Lloyd Carney between Brocade and Lloyd Carney, Brocade's Chief Executive Officer (incorporated by reference to Exhibit 10.1 from Brocade's Form 8-K filed on October 25, 2013)
10.119*	Form of Change of Control Retention Agreement between Brocade and Brocade's executive officers other than the Chief Executive Officer (entered into with each of Ken Cheng, Dan Fairfax, Jeff Lindholm and Tyler Wall) (incorporated by reference to Exhibit 10.2 from Brocade's Form 8-K filed on October 25, 2013)
10.120	Amendment Number 3, dated as of January 8, 2013, by and among Brocade, the lenders party thereto, and Bank of America, N.A., as administrative agent, swing line lender and letter of credit issuer, to the Credit Agreement, dated as of October 7, 2008 (as amended), by and among Brocade, the lenders party thereto, and Bank of America, N.A., as administrative agent, swing line lender and letter of credit issuer (incorporated by reference to Exhibit 10.132 from Brocade's annual report on Form 10-K filed on December 16, 2013)
10.121	Amendment Number 4, dated as of October 7, 2013, by and among Brocade, the lenders party thereto, and Bank of America, N.A., as administrative agent, swing line lender and letter of credit issuer, to the Credit Agreement, dated as of October 7, 2008 (as amended), by and among Brocade, the lenders party thereto, and Bank of America, N.A., as administrative agent, swing line lender and letter of credit issuer (incorporated by reference to Exhibit 10.133 from Brocade's annual report on Form 10-K filed on December 16, 2013)
10.122	Amendment Number 1, dated October 29, 2013, to Statement of Work Number 9 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.134 from Brocade's annual report on Form 10-K filed on December 16, 2013)
10.123†	Amendment Number 23, dated September 30, 2013, with an effective date of October 10, 2013, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.135 from Brocade's annual report on Form 10-K filed on December 16, 2013)
10.124†	Amendment Number 47, dated October 9, 2013, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.136 from Brocade's annual report on Form 10-K filed on December 16, 2013)
10.125†	Amendment Number 9, dated October 16, 2013, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.137 from Brocade's annual report on Form 10-K filed on December 16, 2013)
10.126*	Form of Indemnification Agreement, to be entered into between Brocade and each of its directors and executive officers (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 3, 2014)
10.127†	Amendment Number 24, dated April 17, 2014, with an effective date of April 23, 2014, to Statement of Work Number 3 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q for the fiscal quarter ended May 3, 2014)
10.128†	Amendment Number 48, dated August 15, 2014, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.139 from Brocade's annual report on Form 10-K for the fiscal year ended November 1, 2014)
10.129†	Amendment Number 10, dated September 5, 2014, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.140 from Brocade's annual report on Form 10-K for the fiscal year ended November 1, 2014)
10.130†	Amendment Number 7, dated October 31, 2014, to the OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.141 from Brocade's annual report on Form 10-K for the fiscal year ended November 1, 2014)
10.131*	Form of Restricted Stock Unit Agreement for Performance Stock Units under the 2009 Stock Plan (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q filed on March 6, 2015)
10.132*	2009 Stock Plan, as amended and restated January 26, 2015 (incorporated by reference to Exhibit 10.1 from Brocade's current report on Form 8-K filed on January 30, 2015)

Exhibit Number	Description of Document
10.133	Form of Convertible Note Hedge Transaction Confirmation (incorporated by reference to Exhibit 99.1 from Brocade's current report on Form 8-K filed on January 14, 2015)
10.134	Form of Warrant Transaction Confirmation (incorporated by reference to Exhibit 99.2 from Brocade's current report on Form 8-K filed on January 14, 2015)
10.135*	2009 Stock Plan, as amended and restated on April 7, 2015 (incorporated by reference to Exhibit 10.2 from Brocade's current report on Form 8-K filed on April 8, 2015)
10.136*	2009 Director Plan, as amended and restated on April 7, 2015 (incorporated by reference to Exhibit 10.4 from Brocade's current report on Form 8-K filed on April 8, 2015)
10.137†	Amendment Number 20, dated February 12, 2015, to the OEM Purchase Agreement between Hewlett-Packard Company and Brocade (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q filed on June 5, 2015)
10.138†	Amendment Number 49, dated June 5, 2015, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q filed on September 4, 2015)
10.139†	Amendment Number 11, dated June 10, 2015, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q filed on September 4, 2015)
10.140*	Form of 2009 Director Plan Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.3 from Brocade's quarterly report on Form 10-Q filed on September 4, 2015)
10.141*	2009 Stock Plan, as amended and restated on September 24, 2015 (incorporated by reference to Exhibit 10.1 from Brocade's current report on Form 8-K filed on September 30, 2015)
10.142*	Form of 2009 Stock Plan Global Restricted Stock Unit Agreement
10.143	Amendment Number 21, dated October 16, 2015, to the OEM Purchase Agreement between Hewlett-Packard Company and Brocade
10.144†	Amendment Number 50, dated January 20, 2016, with an effective date of January 26, 2016, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q filed on March 4, 2016)
10.145*	Form of Restricted Stock Unit Agreement for Performance Stock Units under the 2009 Stock Plan (incorporated by reference to Exhibit 10.2 from Brocade's quarterly report on Form 10-Q filed on March 4, 2016)
10.146	Commitment Letter, dated as of April 3, 2016, among Brocade Communications Systems, Inc., Wells Fargo Bank, National Association, Wells Fargo Securities, LLC, Deutsche Bank AG New York Branch, Deutsche Bank Securities Inc., SunTrust Bank and SunTrust Robinson Humphrey, Inc. (incorporated by reference to Exhibit 10.1 from Brocade's current report on Form 8-K filed on April 4, 2016)
10.147*	Brocade Communications Systems, Inc. 2009 Employee Stock Purchase Plan, as amended and restated on April 7, 2016 (incorporated by reference to Exhibit 10.2 from Brocade's current report on Form 8-K filed on April 13, 2016)
10.148	Credit Agreement, dated as of May 27, 2016, among Brocade Communications Systems, Inc., Wells Fargo Bank, National Association, as Administrative Agent, Swingline Lender and Issuing Lender, and the other Lenders party thereto (incorporated by reference to Exhibit 10.1 from Brocade's current report on Form 8-K filed on May 27, 2016)
10.149	Amendment Number 8, dated March 31, 2016, to the OEM Purchase and License Agreement between EMC Corporation and Brocade (incorporated by reference to Exhibit 10.1 from Brocade's quarterly report on Form 10-Q filed on June 3, 2016)
10.150*	Brocade Communications Systems, Inc. Amended and Restated Inducement Award Plan, effective as of May 24, 2016 (incorporated by reference to Exhibit 10.1 from Brocade's Post-Effective Amendment Number 1 to Form S-4 on Form S-8 Registration Statement (Reg. No. 333-211823) filed on June 3, 2016)
10.151*	Amendment to Amended and Restated Change of Control Retention Agreement for Lloyd Carney entered into between Brocade and Lloyd A. Carney (incorporated by reference to Exhibit 10.1 from Brocade's current report on Form 8-K filed on September 22, 2016)

Exhibit Number	Description of Document
10.152*	Form of Amendment to Change of Control Retention Agreement entered into between Brocade and Brocade's executive officers other than the Chief Executive Officer (entered into with each of Ken K. Cheng, Gale E. England, Daniel W. Fairfax, Jeffrey P. Lindholm, and Ellen A. O'Donnell) (incorporated by reference to Exhibit 10.2 from Brocade's current report on Form 8-K filed on September 22, 2016)
10.153††	Amendment Number 9, dated September 28, 2016, to the OEM Purchase and License Agreement between EMC Corporation and Brocade
10.154††	Amendment Number 12, dated September 13, 2016, to Statement of Work Number 7 of the Goods Agreement between IBM and Brocade
10.155††	Amendment Number 51, dated September 1, 2016, to Statement of Work Number 1 of the Goods Agreement between IBM and Brocade
10.156*	Form of Restricted Stock Unit Agreement for Performance Stock Units granted under the 2009 Stock Plan
12.1	Statement of Computation of Ratio of Earnings to Fixed Charges
21.1	Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm
24.1	Power of attorney (see signatures page)
31.1	Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer
31.2	Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer
32.1	Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
*	Indicates management compensatory plan, contract, or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.
#	Unless otherwise indicated, SEC file number for each document incorporated by reference is 000-25601.
†	Confidential treatment granted as to certain portions, which portions were omitted and filed separately with the Securities and Exchange Commission.
††	Confidential treatment requested as to certain portions, which portions were omitted and filed separately with the Securities and Exchange Commission.

b. Exhibits

See Exhibit Index included in Item 15(a) of this Form 10-K.

c. Financial Statement Schedules

Schedule II—Valuation and Qualifying Accounts

Fiscal Years Ended October 29, 2016, October 31, 2015, and November 1, 2014

	Balance at Beginning of Period	Additions (Recoveries) Charged to Revenues	Deductions [(1)]	Balance at End of Period
	(In thousands)			
Allowance for doubtful accounts:				
2016	$ 1,838	$ (50)	$ (52)	$ 1,736
2015	$ 80	$ 1,786	$ (28)	$ 1,838
2014	$ 575	$ (85)	$ (410)	$ 80
Sales allowances:				
2016	$ 9,655	$ 3,221	$ (2,246)	$ 10,630
2015	$ 7,396	$ 9,466	$ (7,207)	$ 9,655
2014	$ 7,321	$ 7,563	$ (7,488)	$ 7,396

(1) Deductions related to the allowance for doubtful accounts and sales allowances represent amounts written off against the allowance and recoveries.

SIGNATURES

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

Brocade Communications Systems, Inc.

December 16, 2016

By: /S/ LLOYD A. CARNEY

Lloyd A. Carney
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Lloyd A. Carney and Daniel W. Fairfax, and each of them, his and her true and lawful attorneys-in-fact, each with full power of substitution, for him and her in any and all capacities, to sign any amendments to this report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or their substitute or substitutes, may do or cause to be done by virtue hereof.

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

Signature	Title	Date
/S/ LLOYD A. CARNEY **Lloyd A. Carney**	Director and Chief Executive Officer (Principal Executive Officer)	December 16, 2016
/S/ DANIEL W. FAIRFAX **Daniel W. Fairfax**	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	December 16, 2016
/S/ DAVID L. HOUSE **David L. House**	Chairman of the Board of Directors	December 13, 2016
/S/ JUDY BRUNER **Judy Bruner**	Director	December 13, 2016
/S/ RENATO A. DIPENTIMA **Renato A. DiPentima**	Director	December 13, 2016
/S/ ALAN L. EARHART **Alan L. Earhart**	Director	December 13, 2016
/S/ JOHN W. GERDELMAN **John W. Gerdelman**	Director	December 13, 2016
/S/ KIM C. GOODMAN **Kim C. Goodman**	Director	December 13, 2016
/S/ L. WILLIAM KRAUSE **L. William Krause**	Director	December 13, 2016
/S/ DAVID E. ROBERSON **David E. Roberson**	Director	December 13, 2016
/S/ SANJAY VASWANI **Sanjay Vaswani**	Director	December 13, 2016

Exhibit 10.153

Amendment Number 9 to
OEM Purchase and License Agreement
Between EMC Corporation and Brocade Communications, Inc.
OEM Agreement Number OEM 051208 Dated May 20, 2008

This Amendment Number 9 ("**Amendment 9**") to the OEM Purchase and License Agreement ("**Original Agreement**") dated May 20, 2008 Brocade Communications Systems, Inc., a Delaware corporation with an office located at 130 Holger Way, San Jose, California 95134, and Brocade Communications Switzerland SarL., a Geneva corporation with principal offices at 29 Route de l'Aeroport, Case Postale 105, CH-1215, Geneva 15, Switzerland, (collectively, "**Brocade**"), and EMC Corporation, 176 South Street, Hopkinton, MA 01748 together with its designated Subsidiaries ("**EMC**"), and commences as of April 1, 2016 ("**Effective Date**"). The Original Agreement, as amended by Amendments 1 through 9, is collectively referred to herein as the "**Agreement**."

RECITALS

WHEREAS, Brocade would like EMC and Brocade to collect certain information about Brocade products in customer environments when EMC conducts pre-sales data collection at customer environments using a data collection tool provided by Timmins Software Corporation ("**Timmins**");

WHEREAS, EMC has entered into an agreement with Timmins under which Timmins has created the software tools to perform the data collection stated above vis-à-vis the Brocade products and has agreed to make those tools available for use by EMC and its partners and customers, including Brocade;

WHEREAS, Brocade is willing to use its MDF funding program to provide EMC with funds to support this data collection process for pre-sales efforts.

NOW THEREFORE, in consideration of the above and other good and valuable consideration, the sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. <u>Data Collection Tool Availability</u>. So long as EMC and Timmins maintain their agreement with respect to the Data Center Discovery and Analysis tool ("**Data Collection Tool**") created by Timmins, Brocade may use the Data Collection Tool to the same extent that any other EMC partner may do so. If EMC and Timmins no longer have an agreement for the use of the Data Collection Tool, then Brocade's use of the tool pursuant to this Amendment also terminates.
    a. <u>Data Collection Tool Functionality</u>. During the term of this Amendment, the Data Collection Tool will continue to provide EMC SEs with detailed reports on all EMC and Non-EMC fibre channel attached storage arrays, tape drives, network fibre channel directors and fibre channel switches within the customer environment from which data is gathered. In addition, for the fibre channel SAN directors and switches, the tool will summarize and provide details on the number of switches/directors by manufacturer, the number of ports in the SAN, the port utilization percentage, the number of ports used, the number of ports free, rack space (u's) utilized and the number of ports by switch/director speed, director and switch software level, and identify those directors and or switches that have or will soon (within 6-months) be out of EMC's end of service/support life. The Data Collection Tool will provide the following deliverables for each assessment:
        - Excel File with all the details on all storage, tape and SAN devices discovered
        - Summary report in Microsoft PowerPoint format

2. <u>Term of Amendment; Tool Funding</u>
    a. <u>Term</u>. This Amendment will commence as of April 1, 2016 and terminate March 31, 2017.
    The parties may renew the term of this Amendment and provide additional appropriate funding by mutual, written agreement.
    b. <u>Tool Funding</u>. Provided that Brocade has access to the Data Collection Tool and the functionality described in Section 1a above remains within the tool, then Brocade agrees to pay EMC [***] during the term to maintain the capability within the Data Collection Tool to collect data on Brocade products at customer environments. If Brocade's access to the Data Collection Tool terminates, then Brocade's obligation to provide further funding under this Amendment will also cease.

3. <u>Quarterly Reviews and monthly reporting</u>. EMC and Brocade will conduct quarterly reviews, and EMC will provide monthly usage reports to Brocade, to discuss/review the status and usage of the Data Collection Tool, to include the following:

a. Tool overview and status, along with a roadmap of upcoming changes.

b. Data Collection Tool usage, reporting and effectiveness:

i. Number of assessments using the Data Collection Tool in the current quarter and program-to-date.

ii. User Information:

1. Customer Name/Location

2. Partner Name/Location

3. EMC SE Name/Location

iii. Product Analysis:

1. Number of Brocade switches/directors assessed overall

2. Average number of switches/directors per assessment

iv. Sales Opportunities. This information is not currently available, but a process to get this information is going to be worked on by EMC and Brocade.

1. Information sought to include sales opportunities in play and deals closed; details to include are customer name/company name/location, number of type of Brocade switches/directors, probability to close, and close date.

4. No Other Changes. This Amendment is subject to the terms of the Original Agreement, as amended. Except as stated in this Amendment, all terms of the Agreement, as amended by Amendments 1 through 8, remain in full force and effect.

5. Counterparts. This Amendment may be executed in one or more counterparts, each of which shall be deemed an original and which together shall constitute one and the same instrument. Such execution and delivery shall be considered valid, binding and effective for all purposes. Once signed, any reproduction of this Amendment made by reliable means (for example, electronic image, photocopy or facsimile) will be considered an original.

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The parties' authorized representatives have executed this Agreement on the dates stated below. Facsimile signatures will be relied upon as original signatures in all respects.

BROCADE COMMUNICATIONS SYSTEMS, INC. Signature: /s/ Kevin C. Langan Print Name: Kevin C. Langan Title: VP Global Partners	**EMC CORPORATION** Signature: /s/ Jeff Bettencourt Print Name: Jeff Bettencourt Title: SVP, Connect
BROCADE COMMUNICATIONS SWITZERLAND SARL Signature: /s/ Pierre Mattenberger Print Name: Pierre Mattenberger Title: Director	

BROCADE
R. Borders rrb
Legal Approved on: 9/28/16

IBM and Brocade
Statement of Work

Base Agreement # ROC-P-68
SOW # 7 (Contract Number 4907015087.0)

SOW #7
Amendment # 12

This Amendment # 12 is subject to the terms and conditions and forms a part of Statement of Work 7, as amended, and its related Agreement # ROC-P-68 (collectively, "Agreement") between International Business Machines Corporation ("Buyer" or "IBM") and Brocade Communications Systems, Inc. and Brocade Communications Switzerland, SarL (individually and collectively, "Supplier" or "Brocade"). The effective date of this Amendment is September 1, 2016 ("Effective Date")> For good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the parties hereto agree as follows:

PURPOSE:

The purpose of this Amendment # 12 is to add IBM Network Advisor 12.4.x as a Licensed Work under this SOW #7.

NOW, THEREFORE, THE FOLLOWING CHANGES ARE MADE TO SOW #7 BY THIS AMENDMENT #12:

1. Delete Table 4, IBM Network Advisor Pricing, to Attachment A, and replace with the updated Table 4, IBM Network Advisor Pricing, to Attachment A, as set forth in substantially the form attached hereto as Exhibit 2 to this Amendment.

2. Delete Exhibit 1, Attachment F-3, and replace with updated Exhibit 1, Attachment F-3.

(The remainder of this page intentionally left blank)

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective duly authorized representatives.

ACCEPTED AND AGREED TO:
International Business Machines Corporation

By: /s/ David Lake
(Authorized signature)

Name David Lake
(Type or print)

Title Procurement GCM

Date 9/9/16

ACCEPTED AND AGREED TO:
Brocade Communications Systems, Inc.

By: /s/ Harry Ault
(Authorized signature)

Name Harry Ault
(Type or print)

Title VP, Global Partners

Date 9/13/2016

ACCEPTED AND AGREED TO:
Brocade Communications Switzerland SarL

By: /s/ Pierre MATTENBERGER
(Authorized signature)

Name Pierre MATTENBERGER
(Type or print)

Title Director

Date September 12th, 2016

BROCADE
R. Borders
Legal Approved on: 9/12/16

Exhibit 1
Attachment F-3

Branding, Description of Licensed Work, and Milestone Schedules For Network Advisor

1.0 Buyer Branded Version of Supplier's OEM Software Product
The Licensed Work will be comprised of a Buyer-branded version of Supplier's Brocade Network Advisor software product. The Buyer branded version will be called "IBM Network Advisor." Supplier consents to the use by Buyer the name "IBM Network Advisor", "Network Advisor". The Licensed Work will be provided by Supplier to Buyer in Object Code format.

2.0 Description of Licensed Works

2.1 Description of Licensed Work for IBM Network Advisor

Code Name	Version	Description	Documentation	Format	Delivery Requirements
Network Advisor	**12.0.x** **12.1.x** **12.3.x** **[***]** **[***]**	IBM Network Advisor	Online	Object Code	CD, License key documentation **[***]**

2.1.1 Operating System Requirements
Brocade Network Advisor operating system requirements can be found in Brocade documentation located on line via our partner web portal. To access, log in to MyBrocade -> documentation -> management software. Brocade Network Advisor Installation Guide (by version). Specific document part numbers listed below.

IBM Network Advisor v12.0.x
Brocade Network Advisor
Installation and Migration Guide
PN: 53-1002699-01
Date: December 17, 2012

IBM Network Advisor v12.1.x
Brocade Network Advisor
Installation and Migration Guide
PN: 53-1002950-01
Date: July 26, 2013

IBM Network Advisor v12.3.x
Brocade Network Advisor
SAN Installation and Migration Guide
PN: 53-1003158-01
Date: July 11, 2014

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[***]

[***]
[***]
[***]
[***]

[***]

[***]
[***]
[***]
[***]

2.2 Documentation : Supplier will provide Buyer with IBM branded customer documentation.

a) Internal (standard Supplier documentation)
b) External (on-line documentation)
c) No other related written materials

2.2.1 Other Materials:

a) Quality Plan: Supplier will provide Buyer with quality plan upon Buyer's request
b) Test Results: Supplier will provide Buyer with available test results upon Buyer's request
c) Test Cases: Supplier will provide Buyer with available test cases upon Buyer's request.
d) Maintenance and Support Reports (including information required and format)
e) Promotional Materials: Buyer and Supplier will mutually determine what promotional materials are needed for the Licensed Works.
f) Education/Training material: Buyer and Supplier will mutually determine what Education and Training materials are needed for the Licensed Works.

2.2.2 Code deposited on CD media and shipped to Buyer as directed on Buyer's purchase order.
Beginning with v12.3, Code is available on IBM's support download site only.

3. Identification of Tools

No tools are provided for the Licensed Works.

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

TABLE 4 - IBM NETWORK ADVISOR PRICING

4907015087 (SOW-7) - AMENDMENT 12
Product Price List and Description
Date: AUGUST 22, 2016 FINAL

BROCADE	IBM	IBM (End-Customer P/N)			IBM NETWORK ADVISOR			
Brocade p/n	IBM Hub Stock P/N	US Feature Code	LA/EMEA Feature Code	AP/ Canada Feature Code	Feature Description	Unit Price	Software Maintenance	TOTAL UNIT PRICE
IBM Machine Type / Model: 5639-NAT					**IBM System Storage Data Center Fabric Manager v12.x**			
IB-NA-SAN-ENT3-M		[***]	[***]	[***]	NA Ent v12 Per Install with 1 Year SW Maintenance	[***]	[***]	[***]
IB-NA-SAN-PLU-UPG3-M		[***]	[***]	[***]	Add NA Ent to ProPlus v12 Per Install with 1 Year SW Maintenance	[***]	[***]	[***]
IB-NA-SAN-PLU3-M		[***]	[***]	[***]	NA ProPlus v12 Per Install with 1 Year SW Maintenance	[***]	[***]	[***]
[***]					**[***]**			
[***]		[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]		[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]		[***]	[***]	[***]	[***]	[***]	[***]	[***]
NA v12.3 and above Paperpack								
IB-NA-SAN-123ENT	SC27-6629-00	[***]	[***]	[***]	IBM Network Advisor paperpack includes Enterprise Transaction Key **MUST be ordered in quantity of 50 units (MOQ)**	[***]	[***]	[***]
IB-NA-SAN-123PLU-UPG	SC27-6631-00	[***]	[***]	[***]	IBM Network Advisor paperpack includes Pro Plus to Enterprise UpgradeTransaction Key **MUST be ordered in quantity of 50 units (MOQ)**	[***]	[***]	[***]
IB-NA-SAN-123PLU	SC27-6632-00	[***]	[***]	[***]	IBM Network Advisor paperpack includes Pro Plus Transaction Key **MUST be ordered in quantity of 50 units (MOQ)**	[***]	[***]	[***]
IBM Machine Type / Model: 5639-NA2					**IBM NETWORK ADVISOR 1 Yr Renewal**			
N/A		[***]	[***]	[***]	Per Install SW Maintenance NoCharge Registration	[***]	[***]	[***]
IB-NA-SAN-ENT-SVC-MAINT		[***]	[***]	[***]	Per Install SW Maintenance 1 Year Renewal	[***]	[***]	[***]
N/A		[***]	[***]	[***]	Per Install SW Maintenance NoCharge Registration	[***]	[***]	[***]
IB-NA-SAN-PLU-SVC-MAINT		[***]	[***]	[***]	Per Install SW Maintenance 1 Year Renewal	[***]	[***]	[***]
IBM Machine Type / Model: 5639-NA3					**IBM NETWORK ADVISOR 1 Yr After License**			
IB-NA-SAN-ENT-SVC-MAINT1A		[***]	[***]	[***]	Per Install SW Maintenance 1 Year After License	[***]	[***]	[***]
IB-NA-SAN-PLU-SVC-MAINT1A		[***]	[***]	[***]	Per Install SW Maintenance 1 Year After License	[***]	[***]	[***]
IBM Machine Type / Model: 5639-NA4					**IBM NETWORK ADVISOR 3 Yr Registration**			
IB-NA-SAN-ENT-SVC-MAINT3R		[***]	[***]	[***]	Per Install SW Maintenance 3 Year Registration	[***]	[***]	[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

TABLE 4 - IBM NETWORK ADVISOR PRICING

4907015087 (SOW-7) - AMENDMENT 12
Product Price List and Description
Date: AUGUST 22, 2016 FINAL

IB-NA-SAN-PLU-SVC-MAINT3R		[***]	[***]	[***]	Per Install SW Maintenance 3 Year Registration	[***]	[***]	[***]
IBM Machine Type / Model: 5639-NA5					**IBM NETWORK ADVISOR 3 Yr Renewal**			
IB-NA-SAN-ENT-SVC-MAINT3		[***]	[***]	[***]	Per Install SW Maintenance 3 Year Renewal	[***]	[***]	[***]
IB-NA-SAN-PLU-SVC-MAINT3		[***]	[***]	[***]	Per Install SW Maintenance 3 Year Renewal	[***]	[***]	[***]
IBM Machine Type / Model: 5639-NA6					**IBM NETWORK ADVISOR 3 Yr After License**			
IB-NA-SAN-ENT-SVC-MAINT3A		[***]	[***]	[***]	Per Install SW Maintenance 3 Year After License	[***]	[***]	[***]
IB-NA-SAN-PLU-SVC-MAINT3A		[***]	[***]	[***]	Per Install SW Maintenance 3 Year After License	[***]	[***]	[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

TABLE 4 - IBM NETWORK ADVISOR PRICING

4907015087 (SOW-7) - AMENDMENT 12
Product Price List and Description <u>**END OF LIFE PRODUCTS**</u>
Date: AUGUST 22, 2016 FINAL

BROCADE	IBM	IBM (End-Customer P/N)			IBM NETWORK ADVISOR			
Brocade p/n	**IBM Hub Stock P/N**	**US Feature Code**	**LA/EMEA Feature Code**	**AP/ Canada Feature Code**	**Feature Description**	**Unit Price**	**Software Maintenance**	**TOTAL UNIT PRICE**
IBM Machine Type / Model: 5639-NA1					**IBM System Storage Data Center Fabric Manager v11.x**			
IB-NA-SAN-ENT2-M		[***]	[***]	[***]	NA Ent V11 Per Install with 1 Year SW Maintenance	[***]	[***]	[***]
IB-NA-SAN-PLU-UPG2-M		[***]	[***]	[***]	Add NA Ent to ProPlus V11 Per Install with 1 Year SW Maintenance	[***]	[***]	[***]
IB-NA-SAN-PLU2-M		[***]	[***]	[***]	NA ProPlus V11 Per Install with 1 Year SW Maintenance	[***]	[***]	[***]
IB-NA-SAN-ENT	LK4T-4924-01	[***]			NA V11 Media Kit Enterprise Code DVD and LEF CD **MUST** be ordered in quantity of 50 units	[***]	[***]	[***]
IB-NA-SAN-PLU-UPG	LK4T-4926-01	[***]			NA V11 Media Kit upgrade Code DVD and LEF CD **MUST** be ordered in quantity of 50 units	[***]	[***]	[***]
IB-NA-SAN-PLU	LK4T-4925-01	[***]			NA V11 Media Kit ProPlus Code DVD and LEF CD **MUST** be ordered in quantity of 50 units	[***]	[***]	[***]
NA v12 Media Kits								
IB-NA-SAN-12ENT	LCD7-5634-00	[***]	[***]	[***]	NA v12 Media Kit Enterprise Code DVD and LEF CD. MUST be ordered in quantity of 50 units (MOQ)	[***]	[***]	[***]
IB-NA-SAN-12PLU-UPG	LCD7-5636-00	[***]	[***]	[***]	NA v12 Media Kit upgrade Code DVD and LEF CD MUST be ordered in quantity of 50 units (MOQ)	[***]	[***]	[***]
IB-NA-SAN-12PLU	LCD7-5635-00	[***]	[***]	[***]	NA v12 Media Kit ProPlus Code DVD and LEF CD MUST be ordered in quantity of 50 units (MOQ)	[***]	[***]	[***]
NA v12.1 Media Kits								
IB-NA-SAN-121ENT	LCD7-5634-01	[***]	[***]	[***]	NA v12.1 Media Kit Enterprise Code DVD and LEF CD. MUST be ordered in quantity of 50 units (MOQ)	[***]	[***]	[***]
IB-NA-SAN-121PLU-UPG	LCD7-5636-01	[***]	[***]	[***]	NA v12.1 Media Kit upgrade Code DVD and LEF CD MUST be ordered in quantity of 50 units (MOQ)	[***]	[***]	[***]
IB-NA-SAN-121PLU	LCD7-5635-01	[***]	[***]	[***]	NA v12.1 Media Kit ProPlus Code DVD and LEF CD MUST be ordered in quantity of 50 units (MOQ)	[***]	[***]	[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.155

3039 E CORNWALLIS RD
RESEARCH TRIANGLE PARK NC 27709-2195

September 1, 2016

Mr. Mike Harrison
Brocade Communications Systems, Inc.
130 Holger Way
San Jose, CA 95134-1376

Subject: Amendment 51 to SOW #1 of the IBM/Brocade Goods Agreement ROC-P-68

This letter (the "Amendment") serves as Amendment Number **51** to SOW #1, including all amendments thereto ("SOW#1") of the Goods Agreement ROC-P-68 (the "Agreement"), which the parties hereto do mutually agree to amend as follows

1. The effective date of this Amendment is September 1, 2016 (the "Effective Date").

2. Delete Section 9.7, Software Maintenance and Support Program, in its entirety and replace with the following Section 9.7, Software Maintenance and Support Program.

9.7 Software Maintenance and Support Program

All Products purchased under this SOW shall be eligible for coverage under Seller's annual Software Maintenance and Support Program (also known as "Post Contract Support" or "PCS"). Under the terms of this support program, Supplier shall provide for a fee, Software Maintenance and Support for Products. Software Maintenance and Support is defined as the inclusion of software upgrades and enhancements for the Products together with the Software Technical Support provided in section 9.4.

For Products added to the Agreement prior to Amendment 51, the following Post Contract Support terms apply:
Included as part of the transfer price for the Products added to the Agreement prior to Amendment 51 is provision of thirty-six (36) months of product defect support (including, but is not limited to, bug fixes) ("Product Defect Support") only (the "Product Defect Support Period) and thirteen (13) months of Software Maintenance and Support, both commencing on Product shipment. After the expiration of the initial thirteen (13) month coverage period for Software Maintenance and Support (the "Initial Support Period"), subsequent Software Maintenance and Support shall be referenced as "Post-contract Customer Support" or "PCS." Supplier will make PCS available for a 5 year period following Product End of Life. PCS will be sold to Buyer's customer base as a part option or Feature Code. A Supplier part number will be linked to each of the Buyer's Feature Codes. Buyer may order for its customers PCS at the prices listed on Exhibit A. Customers will have the option to purchase incremental PCS at either the time of initial purchase of the Product, or as a renewal agreement after the Initial Period. Notwithstanding the foregoing, any customer will be entitled to Product Defect Support to support the Product in accordance with the specifications at the time of initial Product shipment at no additional charge during the Product Defect Support Period. Buyer and Seller will meet on a quarterly basis to review the purchase of PCS Feature Codes. If the number of such PCS Feature Code purchase during such quarter are less than the average number of PCS Feature Code purchases of comparable OEM customers, the parties agree to meet to determine ways to increase the sales of such PCS Feature Code purchases

For Products added to the Agreement starting with Amendment 51 and any Products added to Exhibit A thereafter, the following Post Contract Support terms apply:

Buyer will purchase [***] years of Support and Maintenance, paid in full with the initial product purchase price, at an annual discount rate as reflected in the Post Contract Support price stated in Exhibit A, Pricing,. This is based on the PCS formula as a percentage of the annual purchase price as follows: [***] until support end of life. PCS is non-cancellable and non-refundable.

2. Schedule 1 to Exhibit A, of SOW#1 is hereby deleted and replaced with Schedule 1 to Exhibit A, dated September 1, 2016 and attached hereto**. V**

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission.
Confidential treatment has been requested with respect to the omitted portions.

The parties acknowledge that they have read this Amendment, understand it, and agree to be bound by its terms and conditions. All capitalized terms not defined herein shall have the meaning set forth in the Goods Agreement or SOW #1. All other terms and conditions of the Goods Agreement and SOW#1 that are unaffected by the revisions set forth in this Amendment shall remain in full force and effect. Further, the parties agree that this Amendment and the Goods Agreement and SOW#1 are the complete and exclusive statement of the agreement between the parties, superseding all proposals or other prior agreement, oral or written, and all other communications between the parties relating to this subject.

Accepted and Agreed To:
International Business Machines Corporation

By: /s/ David Lake 9/9/16
Authorized Signature Date

David Lake
Type or Print Name

Procurement GCM (NIC)
Title & Organization

Address:

Accepted and Agreed To:
Brocade Communications Systems, Inc.

By: /s/ Harry Ault 9/12/16
Authorized Signature Date

Harry Ault
Type or Print Name

VP, Global Partners
Title & Organization

Address: 130 Holger Way
San Jose, California 95134-1376

Accepted and Agreed To:
Brocade Communications Switzerland SarL

/s/ Pierre Mattenberger September 12th, 2016
Authorized Signature Date

Pierre Mattenberger
Type or Print Name

Director
Title & Organization

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM P/N	Description	TOTAL UNIT PRICE	Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
1Gbit/sec Switch Products and Software								
SW2400 & SW2800 (Refer to End of Life Products)								
	IB-200008-05		[***]	[***]	[***]			
2Gbit/sec Switch Products and Software (Refer to END OF LIFE section for EOL part numbers)								
SW3200								
	IB-3200-MSB-03		[***]	[***]	[***]			
	IB-3200SEC-01		[***]	[***]	[***]			
	IB-3200TPM-03		[***]	[***]	[***]			
	IB-3200TRK-01		[***]	[***]	[***]			
SW3800								
	IB-3800SEC-01		[***]	[***]	[***]			
	IB-3800TPM-03		[***]	[***]	[***]			
	IB-3800TRK-01		[***]	[***]	[***]			
SW325x & SW385x								
	IB-3250EXF-01		[***]	[***]	[***]			
	IB-3250MSB-01		[***]	[***]	[***]			
	IB-3250RSW-01		[***]	[***]	[***]			
	IB-3250SEC-01-M		[***]	[***]	[***]	[***]		
	IB-3250TPM-01		[***]	[***]	[***]			
	IB-3850EXF-01		[***]	[***]	[***]			
	IB-3850FTF-01	FC 7820	[***]	[***]	[***]			
	IB-3850RSW-01		[***]	[***]	[***]			
	IB-3850SEC-01-M		[***]	[***]	[***]	[***]		
	IB-3850TPM-01	FC 7821	[***]	[***]	[***]			
4Gbit/sec Switch Products and Software (Refer to END OF LIFE Section for EOL part numbers)								
SW210E								
	IB-SMED4POD-01	FC 7515	[***]	[***]	[***]			
SW4100								
	IB-MIDR16T24-01	FC 7510 FC 7514	[***]	[***]	[***]			
	IB-MIDR16T32-01	FC 7512	[***]	[***]	[***]			
	IB-MIDR16T32-02	FC 7513	[***]	[***]	[***]			
	IB-MIDR24T32-01	FC 7511	[***]	[***]	[***]			
	IB-MIDRTPM-01	FC 7555 FC 7575	[***]	[***]	[***]			
BROCADE 7500E								
	IB-MIDRTPM-01	FC 7575	[***]	[***]	[***]			
	IB-7500FIA-01-M	FC 7538	[***]	[***]	[***]	[***]		
	IB-7500EUG-01-M	FC 7537	[***]	[***]	[***]	[***]		
8Gbit/sec Switch Products and Software (Refer to END OF LIFE Section for EOL part numbers)								
BROCADE 300								
	IB-320-0008-M **Jul 21, 2016 = IB-320-B-0008-M**	2498-B24 **Jul 14, 2015 = 2498-B24 + FC 2825**	[***]	[***]	[***]	[***]		[***]
BROCADE 300 FRU's								
	XIB-320-0000 **Jan 25, 2016 = XIB-320-B-0000**		[***]	[***]	[***]			[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 1: Parts through Gen 5
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	**Brocade P/N**	**IBM Model or FC #**	**IBM P/N**	**Description**	**TOTAL UNIT PRICE**	**Software Maintenance (included in unit price of product)**	**Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)**	**Out of Warranty Pricing**
	BROCADE 300 SOFTWARE ORDERABLES							
	IB-SMEDEBI1-01 **Dec 3, 2013 = IB-SMEDEBl1-02**	FC 7201 **Dec 3, 2013 = 7215**	[***]	[***]	[***]			
	IB-SMEDEPT-01	FC 7208	[***]	[***]	[***]			
	IB-SMEDEXF-10	FC 7203	[***]	[***]	[***]			
	IB-SMEDFWH-10	FC 7202	[***]	[***]	[***]			
	IB-SMEDPRF-01	FC 7204	[***]	[***]	[***]			
	IB-SMEDTRK8-01	FC 7205	[***]	[***]	[***]			
	IB-SMEDEGM-01		[***]	[***]	[***]			
	IB-SMEDAN-01	FC 7206	[***]	[***]	[***]			
	IB-SMEDPOD-01	FC 7200	[***]	[***]	[***]			
	IB-SMEDPOD8-01	N/A **Jul 14, 2015 = FC 7249**	[***]	[***]	[***]			
	IB-SMEDSAO-01	FC 7210	[***]	[***]	[***]			
BROCADE 5100								
	IB-5120-0000-M	2498-B40	[***]	[***]	[***]	[***]		[***]
	IB-5120-1000-M	249840E	[***]	[***]	[***]	[***]		[***]
	BROCADE 5100 FRU's							
	XIB-5100-0001		[***]	[***]	[***]			
	XIB-000147		[***]	[***]	[***]			
	XIB-000139		[***]	[***]	[***]			
	XIB-000144		[***]	[***]	[***]			
	XIB-000146		[***]	[***]	[***]			
	XIB-000142		[***]	[***]	[***]			
	BROCADE 5100 SOFTWARE ORDERABLES							
	IB-MIDREBIB-01	FC 7401	[***]	[***]	[***]			
	IB-3900EXF-20	FC 7403	[***]	[***]	[***]			
	IB-3900PRF-20	FC 7404	[***]	[***]	[***]			
	IB-3900TRK-20	FC 7405	[***]	[***]	[***]			
	IB-MIDRAN-01	FC 7406	[***]	[***]	[***]			
	IB-MIDRIR-01-M	FC 7407	[***]	[***]	[***]	[***]		
	IB-MIDRCUP-20-M	FC 7409	[***]	[***]	[***]	[***]		
	IB-MIDRPOD-01	FC 7400	[***]	[***]	[***]			
	IB-MIDRPOD8-01		[***]	[***]	[***]			
	IB-MIDRPOD4-10		[***]	[***]	[***]			
	IB-MIDRPOD8-10		[***]	[***]	[***]			
	IB-MIDRSAO-01	FC 7410	[***]	[***]	[***]			
BROCADE 5300 (Refer to End of Life Products)								
	BROCADE 5300 SOFTWARE ORDERABLES							
	IB-MENTEBIB-01	[***]	[***]	[***]	[***]			
	IB-MENTEXF-20	[***]	[***]	[***]	[***]			
	IB-MENTPRF-20	[***]	[***]	[***]	[***]			
	IB-MENTTRK-20	[***]	[***]	[***]	[***]			
	IB-MENTAN-01	[***]	[***]	[***]	[***]			
	IB-MENTIR-01-M	[***]	[***]	[***]	[***]	[***]		
	IB-MENTCUP-20-M	[***]	[***]	[***]	[***]	[***]		

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Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM P/N	Description	TOTAL UNIT PRICE	Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	IB-MENTPOD-01		[***]	[***]	[***]			
	IB-MENTPOD8-01		[***]	[***]	[***]			
	IB-MENTPOD4-10		[***]	[***]	[***]			
	IB-MENTPOD8-10		[***]	[***]	[***]			
	IB-MENTSAO-01	[***]	[***]	[***]	[***]			
FCoE Switch Products and Software (Refer to END OF LIFE Section for EOL part numbers)								
BROCADE 8000								
	BROCADE 8000 - MAINTENANCE RENEWALS							
	SVC-UPGRADE	[***]	[***]	[***]	[***]			
	SVC-UPGRADE	[***]	[***]	[***]	[***]			
BROCADE 8000 (CEE Only)								
	BROCADE 8000 - MAINTENANCE RENEWALS							
	SVC-UPGRADE	[***]	[***]	[***]	[***]			
	SVC-UPGRADE	[***]	[***]	[***]	[***]			
	BROCADE 8000 - ACCESSORIES							
	IB-R000162	[***]	[***]	[***]	[***]			
	IB-000165	[***]	[***]	[***]	[***]			
	IB-DCX-0131	[***]	[***]	[***]	[***]			
	BROCADE 8000 FRU's							
	XIB-R000162	[***]	[***]	[***]	[***]			
	XIB-000165	[***]	[***]	[***]	[***]			
	XIB-DCX-0131	[***]	[***]	[***]	[***]			
	BROCADE 8000 SOFTWARE ORDERABLES							
	(NOTE: Using 2 p/n's already released with Brocade 5100)							
EXTENSION PRODUCTS								
BROCADE 7800 Extension Switch								
	IB-7800-0001-W-U **Jul 21, 2016 = IB-7800-B-0001-W-U**	[***]	[***]	[***]	[***]		[***]	[***]
	IB-7800-1001-W-U **Jul 21, 2016 = IB-7800-B-1001-W-U**	[***]	[***]	[***]	[***]		[***]	[***]
	BROCADE 7800 MAINTENANCE RENEWALS							
	SVC-UPGRADE	[***]	[***]	[***]	[***]			
	SVC-UPGRADE	[***]	[***]	[***]	[***]			
	BROCADE 7800 FRU's							
	XIB-7800-0000 **Dec 14, 2015 = XIB-7800-B-0000**	[***]	[***]	[***]	[***]			[***]
	BROCADE 7800 SOFTWARE ORDERABLES							
	IB-EXTSAFI-01-M	[***]	[***]	[***]	[***]	[***]		
	IB-EXTSAEX-01-M	[***]	[***]	[***]	[***]	[***]		
	IB-EXTSIR-01-M	[***]	[***]	[***]	[***]	[***]		
	IB-EXTSEB-01 **Dec 3, 2013 = IB-EXTSEB1-02**	[***]	[***]	[***]	[***]			
	IB-EXTSTRK-01	[***]	[***]	[***]	[***]			
	IB-EXTSAN-01	[***]	[***]	[***]	[***]			
	IB-EXTSFWH-01	[***]	[***]	[***]	[***]			
	IB-EXTSPRF-01	[***]	[***]	[***]	[***]			
	IB-EXTSSAO-01	[***]	[***]	[***]	[***]			

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4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 1: Parts through Gen 5
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	**Brocade P/N**	**IBM Model or FC #**	**IBM P/N**	**Description**	**TOTAL UNIT PRICE**	**Software Maintenance (included in unit price of product)**	**Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)**	**Out of Warranty Pricing**
	IB-EXTSCUP-01-M	[***]	[***]	[***]	[***]	[***]		
	IB-EXTSEXF-01	[***]	[***]	[***]	[***]			
	IB-7800UG-0001-M	[***]	[***]	[***]	[***]	[***]		
BROCADE 7840 Extension Switch								
	IB-7840-0001-W-U **Jul 21, 2016 = IB-7840-B-0001-W-U**	2498-R42 **Jul 14, 2015 = 2498-R42 + FC 2642**	00MA670 **Jul 21, 2016 = 00MA791**	[***]	[***]	[***]	[***]	[***]
	IB-7840-0002-W-U **Jul 21, 2016 = IB-7840-B-0002-W-U**	2498-R42 **Jul 14, 2015 = 2498-R42 + FC 2842**	00MA669 **Jul 21, 2016 = 00MA792**	[***]	[***]	[***]	[***]	[***]
	BROCADE 7840 ACCESSORIES							
	IB-R000294	5,912	00MA686	[***]	[***]			[***]
	BROCADE 7840 FRU's							
	XIB-7840-0000 **Feb 12, 2016 = XIB-7840-B-0000**	N/A	00MA710 **Feb 12, 2016 = 00MA793**	[***]	[***]			[***]
	XIB-R000294	N/A	00MA711	[***]	[***]			
	XIB-R000296	N/A	00MA709	[***]	[***]			
	BROCADE 7840 MAINTENANCE RENEWALS							
	SVC-UPGRADE	7,724	00MA704	[***]	[***]			
	SVC-UPGRADE	7,725	00MA707	[***]	[***]			
	BROCADE 7840 SOFTWARE ORDERABLES							
	IB-LEXTSAFI-01-M	7,417	00MA700	[***]	[***]	[***]	[***]	
	IB-LEXTSUG1-01-M	7,418	00MA692	[***]	[***]	[***]	[***]	
	IB-LEXTSUG2-01-M	7,419	00MA696	[***]	[***]	[***]	[***]	
ENCRYPTION PRODUCTS								
BROCADE ENCRYPTION SWITCH (IBM 2498-E32) (Refer to End of Life Products)								
	BROCADE ENCRYPTION SWITCH (IBM 2498-E32) MAINTENANCE RENEWALS							
	SVC-UPGRADE	FC 7718	45W8596	[***]	[***]			
	SVC-UPGRADE	FC 7719	45W8599	[***]	[***]			
	BROCADE ENCRYPTION PRODUCTS - SOFTWARE ORDERABLES							
	IB-ENCPRF48-01	FC 7895	45W8626	[***]	[***]			
	IB-ENCPRF32-01	FC 7815	45W8593	[***]	[***]			
	IB-MENTEBIB-04	FC7818	98Y5715	[***]	[***]			
MULTI-PROTOCOL ROUTER (Refer to END OF LIFE Section for EOL part numbers)								
SW7420								
	IB-7420FCIP-01	FC 7904	22R3724	[***]	[***]			
	IB-7420FCR-01	FC 7903	22R3722	[***]	[***]			
	IB-7420FCCR-01	FC 7905	22R3783	[***]	[***]			
DIRECTOR PRODUCTS AND SOFTWARE (Refer to END OF LIFE Section for EOL part numbers)								
SW12000								
	XIB-12000-0104 XIB-12000-R0104		18P5037 23R0580	[***]	[***]			[***]
	XIB-12000-0106 XIB-12000-R0106		18P5133	[***]	[***]			

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SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 1: Parts through Gen 5
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	**Brocade P/N**	**IBM Model or FC #**	**IBM P/N**	**Description**	**TOTAL UNIT PRICE**	**Software Maintenance (included in unit price of product)**	**Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)**	**Out of Warranty Pricing**
	XIB-12000-0107 XIB-12000-R0107		18P5134	[***]	[***]			
	XIB-12000-0108 XIB-12000-R0108		18P5135	[***]	[***]			
	XIB-12000-0109 XIB-12000-R0109		18P5136	[***]	[***]			
	XIB-12000-0110 XIB-12000-R0110		18P5137	[***]	[***]			
BROCADE DCX (DATA CENTER BACKBONE) (Refer to End of Life Products)								
	IB-DCX-0104 **Jul 21, 2016 = IB-DCX-B-0104**	FC 7880	21R9967 Nov 1, 2012 = 98Y1753 Apr 1, 2013 = 98Y4376 **Jul 21, 2016 =** **00MA778**	[***]	[***]			
	DCX BLADE - BUNDLED WITH SFP'S (Refer to End of Life Products)							
	DCX - SOFTWARE ORDERABLES							
	IB-DCX8LICL-01	FC 7882	45W5445	[***]	[***]			
	IB-DCXCUP-01-M	FC 7886	17P9955	[***]	[***]	[***]		
	IB-DCXFCI-01-M	FC 7887	21R9956	[***]	[***]	[***]		
	IB-DCXFIA-01-M	FC 7888	21R9958	[***]	[***]	[***]		
	IB-DCXICL-01	FC 7885	21R9955	[***]	[***]			
	IB-DCXIR-01-M	FC 7889	45W0268	[***]	[***]	[***]		
	DCX - FRU's							
	XIB-DCX-0103 **Sep 30, 2015 = XIB-DCX-B-0103**		17P9869 Nov 1, 2012 = 98Y3212 **Sep 30, 2015 =** **00MA801**	[***]	[***]			[***]
	XIB-DCX-0105		17P9865	[***]	[***]			
	XIB-DCX-0111		17P9868	[***]	[***]			
	XIB-DCX-0104 **Sep 30, 2015 = XIB-DCX-B-0104**		17P9861 Nov 1, 2012 = 98Y1762 Mar 1, 2013 = 98Y4373 **Sep 30, 2015 =** **00MA779**	[***]	[***]			
	XIB-DCX-0120		17P9859	[***]	[***]			
	XIB-DCX-0123		17P9862	[***]	[***]			
	XIB-DCX-0124 **Oct 30, 2015 = XIB-DCX-B-0124**		17P9863 **Oct 30, 2015 =** **00MA780**	[***]	[***]			
	XIB-DCX-0122 **Oct 30,2015 = XIB-DCX-B-0122**		17P9860 Dec 20, 2011 = 98Y2223 **Oct 30, 2015 =** **00MA771**	[***]	[***]			
	XIB-DCX-0128		17P9858	[***]	[***]			
	XIB-DCX-0130		17P9864	[***]	[***]			
	XIB-48000-R0129		17P9985	[***]	[***]			
	XIB-DCX-0151		17P9984	[***]	[***]			
BROCADE DCX-4S (Refer to End of Life Products)								
	BROCADE DCX-4S MAINTENANCE RENEWALS							
	SVC-UPGRADE	FC 7712	45W5337	[***]	[***]			
	SVC-UPGRADE	FC 7713	45W5340	[***]	[***]			

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SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 1: Parts through Gen 5
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM P/N	Description	TOTAL UNIT PRICE	Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	BROCADE DCX-4S - ACCESSORIES							
	IB-DCX4S-0120		45W3293	[***]	[***]			
	IB-DCX4S-0126		45W3294	[***]	[***]			
	BROCADE DCX-4S - FRU's							
	XIB-DCX4S-0105	N/A	45W2069	[***]	[***]			
	XIB-DCX4S-0123	N/A	45W2074	[***]	[***]			
	XIB-DCX4S-0124 **Oct 30, 2015 = XIB-DCX4S-B-0124**	N/A	45W2075 **Oct 30, 2015 = 00MA781**	[***]	[***]			$140
	XIB-DCX4S-0128	NA	45W2071	[***]	[***]			
	XIB-DCX4S-0121	N/A	45W2244	[***]	[***]			
	XIB-DCX4S-0111	N/A	45W2245	[***]	[***]			
	XIB-DCX4S-0120	N/A	45W2072	[***]	[***]			
	XIB-DCX4S-0126	N/A	45W2073	[***]	[***]			
	BROCADE DCX-4S - SOFTWARE ORDERABLES							
	IB-DCX4SCUP-01-M	FC 7884	45W2243	[***]	[***]	[***]		
	IB-DCX4SIR-01-M	FC 7890	45W0260	[***]	[***]	[***]		
	IB-DCX4SICL-01	FC 7883	45W2051	[***]	[***]			
BROCADE FX8-24 DCX EXTENSION BLADE								
	IB-FX824-1001-M **Jul 21, 2016 = IB-FX824-B-1001-M**	FC 3891	98Y4368 **Jul 21, 2016 = 00MA776**	[***]	[***]	[***]		[***]
	BROCADE FX8-24 DCX EXTENSION BLADE - FRU's							
	XIB-FX824-1001 **Dec 30, 2015 = XIB-FX824-B-1001**	N/A	98Y4369 **Dec 30, 2015 = 00MA784**	[***]	[***]			[***]
	BROCADE FX8-24 DCX EXTENSION BLADE - SOFTWARE ORDERABLES							
	IB-DCXAFI-01-M	FC 7893	45W5454	[***]	[***]	[***]		
	IB-DCXAEX-01-M	FC 7891	45W5448	[***]	[***]	[***]		
	IB-DCX10GE-01-M	FC 7892	45W5451	[***]	[***]	[***]		
GEN 5 - SWITCHES								
BROCADE 6505 Switch (IBM 2498-F24G / 249824G / 2498-X24)								
	IB-6505-12-16G-0R1-W-U	2498-X24 **Jul 14, 2015 = 2498-X24 + FC 2624**	00MA739	[***]	[***]		[***]	[***]
	IB-6505-12-8G-0R1-W-U	2498-X24 **Jul 14, 2015 = 2498-X24 + FC 2824**	00MA740	[***]	[***]		[***]	[***]
	BROCADE 6505 Switch (IBM 2498-F24 / 249824G / 2498-X24) ACCESSORIES							
	IB-5100-0001	FC 5998	98Y2191	[***]	[***]			
	BROCADE 6505 Switch (IBM 2498-F24 / 249824G / 2498-X24) FRU'S							
	XIB-6505-12-2000-0R	2498-X24	00MA735	[***]	[***]		[***]	[***]
	BROCADE 6505 Switch (IBM 2498-F24 / 249824G / 2498-X24) MAINTENANCE RENEWALS							
	SVC-UPGRADE	FC 7722	98Y2205	[***]	[***]			
	SVC-UPGRADE	FC 7723	98Y2209	[***]	[***]			
	BROCADE 6505 Switch (IBM 2498-F24 / 249824G / 2498-X24) SOFTWARE ORDERABLES							
	IB-SMED12POD-8G	N/A **Jul 14, 2015 = FC 7248**	98Y2340	[***]	[***]			

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 1: Parts through Gen 5
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	**Brocade P/N**	**IBM Model or FC #**	**IBM P/N**	**Description**	**TOTAL UNIT PRICE**	**Software Maintenance (included in unit price of product)**	**Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)**	**Out of Warranty Pricing**
	IB-SMED12POD-16G	N/A **Jul 14, 2015 = FC 7246**	98Y2341	[***]	[***]			
	IB-SMEDEBIB3-02	FC 7216	98Y5507	[***]	[***]			
BROCADE 6510 Switch (IBM 2498-F48)								
	IB-6510-24-16G-R-W-U	N/A **Jul 14, 2015 = FC 2648**	99Y0303	[***]	[***]		[***]	[***]
	IB-6510-24-8G-R-W-U	N/A **Jul 14, 2015 = FC 2848**	99Y0304	[***]	[***]		[***]	[***]
	IB-6510-24-16G-10KM-R-W-U	FC 2658	01AD441	[***]	[***]		[***]	[***]
	XIB-6510-24-0000-R	N/A	99Y0283 Oct 1, 2012 = 98Y1764	[***]	[***]			[***]
	BROCADE 6510 Switch (IBM 2498-F48) MAINTENANCE RENEWALS							
	SVC-UPGRADE	FC 7720	99Y0313	[***]	[***]			
	SVC-UPGRADE	FC 7721	99Y0316	[***]	[***]			
	BROCADE 6510 Switch (IBM 2498-F48) / 6505 Switch (IBM 2498-F24) ACCESSORIES & FRU's							
	IB-R000291	N/A	99Y0295	[***]	[***]			
	IB-R000292	FC 5911	99Y0324	[***]	[***]			
	XIB-R000291	N/A	99Y0319	[***]	[***]			
	XIB-R000292	N/A	99Y0325	[***]	[***]			
	BROCADE 6510 Switch (IBM 2498-F48) SOFTWARE ORDERABLES							
	IB-MIDR10G-01-M	FC 7413	99Y0310	[***]	[***]	[***]		
	IB-MIDR12POD-8G	N/A **Jul 14, 2015 = FC 7488**	99Y0306	[***]	[***]			
	IB-MIDR12POD-16G	N/A **Jul 14, 2015 = FC 7486**	99Y0305	[***]	[***]			
	IB-MIDR12POD-16G-10KM	FC 7489	01AD445	[***]	[***]			
	Added Oct 30, 2012 to Brocade 6510/IBM 2498-F48: **IB-MIDRCUP-20-M**	FC 7409	45W0269	[***]		**[***]**		
	IB-MIDREBIB2-02	FC 7416	98Y5514	[***]	[***]			
BROCADE 6520 Switch (IBM 2498-F96 and IBM 2498-N96)								
	IB-6520-48-16G-R-W-U	N/A **Jul 14, 2015 = FC 2696**	98Y4146	[***]	[***]		[***]	[***]
	IB-6520-48-8G-R-W-U	N/A **Jul 14, 2015 = FC 2896**	98Y4147	[***]	[***]		[***]	[***]
	IB-6520-48-16G-F-W-U	N/A **Jul 14, 2015 = FC 2697**	98Y4505	[***]	[***]		[***]	[***]
	IB-6520-48-8G-F-W-U	N/A **Jul 14, 2015 = FC 2897**	98Y4506	[***]	[***]		[***]	[***]
	IB-R000162	N/A	98Y1845	[***]	[***]			
	BROCADE 6520 Switch (IBM 2498-F96 and IBM 2498-F96) FRU's							
	XIB-6520-48-0000-R	N/A	98Y4145	[***]	[***]			[***]
	XIB-6520-48-0000-F	N/A	98Y4508	[***]	[***]			[***]
	XIB-R000162	N/A	98Y1870	[***]	[***]			
	XIB-FAN-80-R	N/A	98Y1859	[***]	[***]			

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM P/N	Description	TOTAL UNIT PRICE	Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	XIB-FAN-80-F	N/A	98Y4234	[***]	[***]			
	XIB-1100WPSAC-R	N/A	98Y4235	[***]	[***]			
	XIB-1100WPSAC-F	N/A	98Y4509	[***]	[***]			
	BROCADE 6520 Switch (IBM 2498-F96 and IBM 2498-N96) MAINTENANCE RENEWALS							
	SVC-UPGRADE	FC 7726	98Y4140	[***]	[***]			
	SVC-UPGRADE	FC 7727	98Y4143	[***]	[***]			
	BROCADE 6520 Switch (IBM 2498-F96 and IBM 2498-N96) SOFTWARE ORDERABLES							
	IB-MENTFWH-01	FC 7802	98Y4230	[***]	[***]			
	IB-MENTEB4-02	FC 7816	98Y5517	[***]	[***]			
	IB-MENT10G-01-M	FC 7813	98Y4133	[***]	[***]	[***]		
	IB-ENTPOD-8G	N/A **Jul 14, 2015 = FC 7968**	98Y4149	[***]	[***]			
	IB-ENTPOD-16G	N/A **Jul 14, 2015 = FC 7966**	98Y4148	[***]	[***]			
GEN 5 - DIRECTORS								
BLADES & ACCESSORIES FOR SAN384B-2 (2499-416) AND SAN768B-2 (2499-816) (Refer to End of Life Products)								
	IB-DCX8510-0102 **Jul 21, 2016 = IB-DCX8510-B-0102**	FC 3632 **Jul 14, 2015 = FC3034**	99Y0347 **Jul 21, 2016 = 00MA775**	[***]	[***]			[***]
	IB-DCX8510-0148 **Jul 21, 2016 = IB-DCX8510-B-0148**	FC 3648 **Jul 14, 2015 = FC 3035**	99Y0350 **Jul 21, 2016 = 00MA777**	[***]	[***]			[***]
	IB-DCX8510-2102 **Jul 21, 2016 = IB-DCX8510-B-2102**	**Jul 14, 2015 = FC 3634**	99Y0365 **Jul 21, 2016 = 00MA786**	[***]	[***]			[***]
	IB-DCX8510-2148 **Jul 21, 2016 = IB-DCX8510-B-2148**	N/A **Jul 14, 2015 = FC 3636**	99Y0366 **Jul 21, 2016 = 00MA787**	[***]	[***]			[***]
	IB-DCX8510-5102 **Jul 21, 2016 = IB-DCX8510-B-5102**	N/A **Jul 14, 2015 = FC 3635**	99Y0367 **Jul 21, 2016 = 00MA794**	[***]	[***]			[***]
	IB-DCX8510-5148 **Jul 21, 2016 = IB-DCX8510-B-5148**	N/A **Jul 14, 2015 = FC 3637**	99Y0368 **Jul 21, 2016 = 00MA796**	[***]	[***]			[***]
	IB-DCX8510-2164	3664	00MA716	[***]	[***]			[***]
	ACCESSORIES & FRU's							
	IB-000195	FC 7230	17P9965	[***]	[***]			
	XIB-000195	N/A	45W5468	[***]	[***]			
	IB-8510ICLKIT2KM-01-M	FC 7875	00MA809	[***]	[***]	[***]		
	BLADE FRU'S (Refer to End of Life Products)							
	XIB-DCX8510-0102 **Sep 30, 2015 = XIB-DCX8510-B-0102**	N/A	99Y0370 **Sep 30, 2015 = 00MA772**	[***]	[***]			[***]
	XIB-DCX8510-0148 **Sep 30, 2015 = XIB-DCX8510-B-0148**	N/A	99Y0371 **Sep 30, 2015 = 00MA773**	[***]	[***]			[***]
	XIB-DCX8514-0106 **Sep 30, 2015 = XIB-DCX8514-B-0106**	N/A	99Y0374 Nov 1, 2012 = 98Y1766 **Sep 30, 2015 = 00MA795**	[***]	[***]			[***]
	XIB-DCX8518-0106 **Sep 30, 2015 = XIB-DCX8518-B-0106**	N/A	99Y0441 **Sep 30, 2015 = 00MA774**	[***]	[***]			[***]
	XIB-DCX8510-0164	N/A	00MA717	[***]	[***]			[***]

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SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 1: Parts through Gen 5
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM P/N	Description	TOTAL UNIT PRICE	Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	SOFTWARE ORDERABLES:							
	IB-DCX4ENTICL-01-M	FC 7872	98Y2306	[***]	[***]	[***]		
	IB-DCX8ENTICL-01-M	FC 7873	98Y2260	[***]	[***]	[***]		
	IB-8510ICLKIT-01-M	FC 7874	98Y4362	[***]	[***]	[***]		
	IB-MENTFV-01	FC 7819	98Y5520	[***]	[***]			
	IB-SMEDFV-01	FC 7219	98Y5499	[***]	[***]			
	IB-EXTSFV-01	FC 7729	98Y5523	[***]	[***]			
IBM SYSTEM STORAGE SAN384B-2 (2499-416)								
	IB-DCX8514-0002-W-U **Jul 21, 2016 = IB-DCX8514-B-0002-W-U**	**2499-416**	99Y0335 Nov 1, 2012 = 98Y1756 **Jul 21, 2016 = 00MA799**	[***]	[***]		[***]	[***]
	IBM 2499-416 MAINTENANCE RENEWALS							
	SVC-UPGRADE	FC 7714	99Y0353	[***]	[***]			
	SVC-UPGRADE	FC 7715	99Y0356	[***]	[***]			
	IBM 2499-416 FRU'S							
	XIB-DCX8514-0010 **Oct 30, 2015 = XIB-DCX8514-B-0010**	N/A	99Y0372 Nov 1, 2012 = 98Y1765 **Oct 30, 2015 = 00MA798**	[***]	[***]			[***]
IBM SYSTEM STORAGE SAN768B-2 (2499-816)								
	IB-DCX8518-0001-W-U **Jul 21, 2016 = IB-DCX8518-B-0001-W-U**	**2499-816**	99Y0380 Nov 1, 2012 = 98Y1759 **Jul 21, 2016 = 00MA797**	[***]	[***]		[***]	[***]
	IBM 2499-816 MAINTENANCE RENEWALS							
	SVC-UPGRADE	FC 7710	99Y0387	[***]	[***]			
	SVC-UPGRADE	FC 7711	99Y0390	[***]	[***]			
	IBM 2499-816 FRU'S							
	XIB-DCX8518-0010 **Oct 30, 2015 = XIB-DCX8518-B-0010**	N/A	99Y0439 Nov 1, 2012 = 98Y1767 **Oct 30, 2015 = 00MA800**	[***]	[***]			[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 2: Gen 6+ Products
Date: September 1, 2016 FINAL

	Supplier Part Number	Buyer Part Number				- M	
Model	**Brocade P/N**	**IBM Feature Code**	**IBM P/N**	**Description**	**TOTAL UNIT PRICE**	**Software Maintenance 5 years (included in Total Unit Price)**	**Out of Warranty Pricing**
GEN 6 Switch Products and Software							
BROCADE G620 (IBM 8960-N64 and IBM 8960-F64)							
8960-N64	IB-G620-24-32G-F-M	[***]	[***]	[***]	[***]	[***]	[***]
8960-F64	IB-G620-24-32G-R-M	[***]	[***]	[***]	[***]	[***]	[***]
8960-N64	IB-G620-24-F-M	[***]	[***]	[***]	[***]	[***]	[***]
8960-F64	IB-G620-24-R-M	[***]	[***]	[***]	[***]	[***]	[***]
8960-F64	IB-G620-24-32GLWL-R-M	[***]	[***]	[***]	[***]	[***]	[***]
8960-N64	IB-G620-48-32G-F-M	[***]	[***]	[***]	[***]	[***]	[***]
8960-F64	IB-G620-48-32G-R-M	[***]	[***]	[***]	[***]	[***]	[***]
	IB-G6MIDR12PTPOD-32G	[***]	[***]	[***]	[***]	[***]	[***]
	IB-G6MIDR16QFLEX-32G	[***]	[***]	[***]	[***]	[***]	[***]
	FRUs - SWITCH						
8960-N64	XIB-G620-24-F	[***]	[***]	[***]	[***]	[***]	[***]
8960-F64	XIB-G620-24-R	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-G620-48-F	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-G620-48-R	[***]	[***]	[***]	[***]	[***]	[***]
	OPTIONS & FRUs						
	IB-USB-4GB	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-USB-4GB	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-G250WPSAC-F	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-G250WPSAC-R	[***]	[***]	[***]	[***]	[***]	[***]
	SOFTWARE ORDERABLES						
	IB-MIDREB5-01	[***]	[***]	[***]	[***]	[***]	[***]
	IB-MIDRMFEB-01-M	[***]	[***]	[***]	[***]	[***]	[***]
	IB-MIDR12PTPOD-01	[***]	[***]	[***]	[***]	[***]	[***]
	IB-MIDR16QFLEX-01	[***]	[***]	[***]	[***]	[***]	[***]
GEN 6 Director Products and Software							
BROCADE X6-4 (IBM 8961-F04)							
8961-F04	IB-X64-0002-M	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X64-0010	[***]	[***]	[***]	[***]	[***]	[***]
BROCADE X6-8 (IBM 8961-F08)							
8961-F08	IB-X68-0002-M	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X68-0010	[***]	[***]	[***]	[***]	[***]	[***]
	BLADES (X6-4 and X6-8 / 8961-F04 and 8961-F08)						
	IB-SX6-0001-M	[***]	[***]	[***]	[***]	[***]	[***]
	IB-SX6-0002-M	[***]	[***]	[***]	[***]	[***]	[***]
	IB-X6-0148	[***]	[***]	[***]	[***]	[***]	[***]
	IB-X6-2148	[***]	[***]	[***]	[***]	[***]	[***]
	IB-X6-5148	[***]	[***]	[***]	[***]	[***]	[***]
	OPTIONS (X6-4 and X6-8 / 8961-F04 and 8961-F08)						
	IB-USB-4GB	[***]	[***]	[***]	[***]	[***]	[***]
	IB-X6-RACNPEPSU-0104	[***]	[***]	[***]	[***]	[***]	[***]
	IB-X6-RACNPIPSU-0104	[***]	[***]	[***]	[***]	[***]	[***]
	IB-X6-FANNPE-0122	[***]	[***]	[***]	[***]	[***]	[***]
	IB-X6-FANNPI-0122	[***]	[***]	[***]	[***]	[***]	[***]

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4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 2: Gen 6+ Products
Date: September 1, 2016 FINAL

	Supplier Part Number	Buyer Part Number				- M	
Model	Brocade P/N	IBM Feature Code	IBM P/N	Description	TOTAL UNIT PRICE	Software Maintenance 5 years (included in Total Unit Price)	Out of Warranty Pricing
X6-4 / 8961-F04	IB-X64-0126	[***]	[***]	[***]	[***]	[***]	[***]
X6-4 / 8961-F04	IB-X64GEN5ICLKIT-01-M	[***]	[***]	[***]	[***]	[***]	[***]
X6-4 / 8961-F04	IB-X64GEN5ICLKIT-2KM-01-M	[***]	[***]	[***]	[***]	[***]	[***]
X6-4 / 8961-F04	IB-X64ICLKIT-100M-01-M	[***]	[***]	[***]	[***]	[***]	[***]
X6-8 / 8961-F08	IB-X68GEN5ICLKIT-01-M	[***]	[***]	[***]	[***]	[***]	[***]
X6-8 / 8961-F08	IB-X68GEN5ICLKIT-2KM-01-M	[***]	[***]	[***]	[***]	[***]	[***]
X6-8 / 8961-F08	IB-X68ICLKIT-100M-01-M	[***]	[***]	[***]	[***]	[***]	[***]
	FRU: BLADDES & OPTIONS (X6-4 and X6-8 / 8961-F04 and 8961-F08)						
	XIB-CPX6-0103	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-SX6-0000	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-USB-4GB	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-0124	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-0128	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-0130	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-0148	[***]	[***]	[***]	[***]	[***]	[***]
FRU: X6-4 / 8961-F04	XIB-X64-0105	[***]	[***]	[***]	[***]	[***]	[***]
FRU: X6-4 / 8961-F04	XIB-X64-0106	[***]	[***]	[***]	[***]	[***]	[***]
FRU: X6-4 / 8961-F04	XIB-X64-0123	[***]	[***]	[***]	[***]	[***]	[***]
FRU: X6-4 / 8961-F04	XIB-X64-0126	[***]	[***]	[***]	[***]	[***]	[***]
FRU: X6-8 / 8961-F08	XIB-X68-0105	[***]	[***]	[***]	[***]	[***]	[***]
FRU: X6-8 / 8961-F08	XIB-X68-0106	[***]	[***]	[***]	[***]	[***]	[***]
FRU: X6-8 / 8961-F08	XIB-X68-0123	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-FANNPE-0122	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-FANNPI-0122	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-RACNPEPSU-0104	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-X6-RACNPIPSU-0104	[***]	[***]	[***]	[***]	[***]	[***]
	SOFTWARE ORDERABLES						
	IB-CHASIR128POD-01-M	[***]	[***]	[***]	[***]	[***]	[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission.
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4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 3: Transceivers & Cables
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	
Brocade Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	TOTAL UNIT PRICE	Software Maintenance (included in Total Unit Price)	Out of Warranty Pricing
TRANSCEIVERS & CABLES (Refer to END OF LIFE Section for EOL part numbers)							
	IB-000139	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000141	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000142	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000143	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000144	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000146	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000153	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000157	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000163	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000164	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000172	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000174	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000181	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000182	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000183	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000190 **Jul 21, 2016 = IB-B-000190**	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000192	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000193	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000198	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000199	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000217	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000218	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000245	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000255	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000258	[***]	[***]	[***]	[***]	[***]	[***]
	IB-001180	[***]	[***]	[***]	[***]	[***]	[***]
	IB-10G-SFPP-USR	[***]	[***]	[***]	[***]	[***]	[***]
	IB-10G-SFPP-USR-8	[***]	[***]	[***]	[***]	[***]	[***]
	IB-40G-QSFP-ER4	[***]	[***]	[***]	[***]	[***]	[***]
	IB-40G-QSFP-LR4	[***]	[***]	[***]	[***]	[***]	[***]
	IB-40G-QSFP-SR4	[***]	[***]	[***]	[***]	[***]	[***]
	TRANSCEIVERS (GEN 6)						
	IB-000212	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000213	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000238	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000239	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000268	[***]	[***]	[***]	[***]	[***]	[***]
TRANSCEIVERS (FRU'S)							
	XIB-000139	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000142	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000144	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000146	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000153	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000163	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000174	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000182	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000190 **Jan 30, 2016 = XIB-B-000190**	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000192	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000198	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000217	[***]	[***]	[***]	[***]	[***]	[***]

	XIB-000218	[***]	[***]	[***]	[***]	[***]	[***]

Brocade Confidential Information

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4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 3: Transceivers & Cables
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	
Brocade Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	TOTAL UNIT PRICE	Software Maintenance (included in Total Unit Price)	Out of Warranty Pricing
	XIB-000232	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000245	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000255	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000258	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-001180	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-10G-SFPP-USR	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-40G-QSFP-ER4	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-40G-QSFP-LR4	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-40G-QSFP-SR4	[***]	[***]	[***]	[***]	[***]	[***]
	FRU'S (GEN 6)						
	XIB-000212	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000238	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000268	[***]	[***]	[***]	[***]	[***]	[***]

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Supplier Part Number		Buyer Part Number			
Brocade Model	**Brocade P/N**	**IBM Model or FC #**	**IBM PN**	**Description**	**Out of Warranty**
DIRECTOR PRODUCTS (part numbers for DCX RMA purposes only)					
	XIB-DCX-0101		[***]	[***]	[***]
	XIB-DCX-0102		[***]	[***]	[***]
	XIB-DCX-0148		[***]	[***]	[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission.
Confidential treatment has been requested with respect to the omitted portions.

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
1Gbit/sec Switch Products and Software								
	IB-228011-01		[***]	[***]	[***]			
	IB-228001-04		[***]	[***]	[***]			
	IB-228002-05		[***]	[***]	[***]			
	IB-200032-05		[***]	[***]	[***]			
SW2400 & SW2800								
[***]	IB-2401-0001		[***]	[***]	[***]			
[***]	IB-2801-0001		[***]	[***]	[***]			
	XIB-000001		[***]	[***]	[***]			
	XIB-000002		[***]	[***]	[***]			[***]
	XIB-000003		[***]	[***]	[***]			
	XIB-000004		[***]	[***]	[***]			
	XIB-000005		[***]	[***]	[***]			[***]
	XIB-000006		[***]	[***]	[***]			
	XIB-000007		[***]	[***]	[***]			
[***]								
SW3200								
	IB-3200-0000	[***]	[***]	[***]	[***]			[***]
	IB-3200-0001	[***]	[***]	[***]	[***]			[***]
SW3800								
	IB-3801-0000	[***]	[***]	[***]	[***]			
	XIB-3800-0001		[***]	[***]	[***]			[***]
	XIB-3800-0002		[***]	[***]	[***]			[***]
	XIB-3800-0003		[***]	[***]	[***]			[***]
SW3900								
	IB-3902-0000	[***]	[***]	[***]	[***]			
	XIB-3900-0001		[***]	[***]	[***]			[***]
	XIB-3900-0002		[***]	[***]	[***]			[***]
	XIB-3900-0003		[***]	[***]	[***]			[***]
	SW3900 SOFTWARE ORDERABLES							
	IB-3900EXF-03		[***]	[***]	[***]			
	IB-3900EXF-10	[***]	[***]	[***]	[***]			
	IB-3900PRF-10	[***]	[***]	[***]	[***]			
	IB-3900RSW-03		[***]	[***]	[***]			
	IB-3900RSW-10	[***]	[***]	[***]	[***]			
	IB-3900SEC-01		[***]	[***]	[***]			
	IB-3900SEC-10-M	[***]	[***]	[***]	[***]	[***]		
	IB-3900TRK-10	[***]	[***]	[***]	[***]			
	IB-MIDRCUP-10-M	[***]	[***]	[***]	[***]	[***]		
	IB-MIDRCUS-10-M	[***]	[***]	[***]	[***]	[***]		
SW325x & SW385x								
SW3252	IB-3252-0000-B	[***]	[***]	[***]	[***]	[***]		[***]
SW3252	IB-3252-D0000-B	[***]	[***]	[***]	[***]	[***]		[***]
SW3854	IB-3854-0000-B	[***]	[***]	[***]	[***]	[***]		[***]
SW3854	IB-3854-D0000-B	[***]	[***]	[***]	[***]	[***]		[***]
	XIB-3252-0000		[***]	[***]	[***]			[***]

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	XIB-3252-D0000		[***]	[***]	[***]			[***]
	XIB-3854-0000		[***]	[***]	[***]			[***]
	XIB-3854-D0000		[***]	[***]	[***]			[***]
4Gbit/sec Switch Products and Software								
SW210E								
	IB-210E-0000-B IB-210E-R0000-M	[***]	[***]	[***]	[***]	[***]		[***]
	IB-210E-1000-B IB-210E-R1000-M	[***]	[***]	[***]	[***]	[***]		[***]
	XIB-210E-0000 XIB-210E-R0000		[***]	[***]	[***]			[***]
	XIB-210E-1000 XIB-210E-R1000		[***]	[***]	[***]			[***]
	SW210E SOFTWARE ORDERABLES							
	IB-SMEDEPT-10	[***]	[***]	[***]	[***]			
	IB-SMEDEPT-20	[***]	[***]	[***]	[***]			
	IB-SMEDFWH-01	[***]	[***]	[***]	[***]			
	IB-SMEDEXF-01	[***]	[***]	[***]	[***]			
SW4100								
	IB-4120-0000-B IB-4120-R0000-M	[***]	[***]	[***]	[***]	[***]		[***]
	IB-4120-1000-B IB-4120-R1000-M	[***]	[***]	[***]	[***]	[***]		[***]
	XIB-4120-0000 XIB-4120-R0000		[***]	[***]	[***]			[***]
	XIB-4120-1000 XIB-4120-R1000		[***]	[***]	[***]			[***]
	XIB-4100-0003 XIB-4100-R0003		[***]	[***]	[***]			
	XIB-4100-0004 XIB-4100-R0004		[***]	[***]	[***]			
SW4900								
	IB-4920-0000-M	[***]	[***]	[***]	[***]	[***]		[***]
	XIB-4920-0000		[***]	[***]	[***]			[***]
	XIB-4900-0004		[***]	[***]	[***]			
	IB-4900POD-01	[***]	[***]	[***]	[***]			
	IB-MENTSEC-10-M	[***]	[***]	[***]	[***]	[***]		
	IB-MENTTPM-01	[***]	[***]	[***]	[***]			
	IB-MENTTRK-10	[***]	[***]	[***]	[***]			
	IB-MENTPRF-10	[***]	[***]	[***]	[***]			
	IB-MENTEXF-10	[***]	[***]	[***]	[***]			
	IB-MENTCUP-01-M	[***]	[***]	[***]	[***]	[***]		
BROCADE 5000								
	IB-5020-0000-M	[***]	[***]	[***]	[***]	[***]		[***]
	IB-5020-1000-M	[***]	[***]	[***]	[***]	[***]		[***]
	XIB-5020-0000		[***]	[***]	[***]			[***]
	XIB-5020-1000		[***]	[***]	[***]			[***]
	XIB-5000-0003		[***]	[***]	[***]			
SW7500								
	IB-7500-0000-M	[***]	[***]	[***]	[***]	[***]		[***]
	XIB-7500-0000		[***]	[***]	[***]			[***]

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	XIB-7500-0004		[***]	[***]	[***]			
	XIB-MIDR-0003		[***]	[***]	[***]			
	IB-7500FCI-01-M IB-7500FCI-02-M (12/1/06)	[***]	[***]	[***]	[***]	[***]		
BROCADE 7500E								
	IB-7500E-0000-M	[***]	[***]	[***]	[***]	[***]		[***]
	XIB-7500E-0000		[***]	[***]	[***]			[***]
	XIB-MIDR-0003		[***]	[***]	Refer to SW7500 section for price			
	XIB-7500-0004		[***]	[***]	Refer to SW7500 section for price			
	IB-MIDRCUP-10-M	[***]	[***]	[***]	Refer to SW3900 section for price			
	IB-3900PRF-10	[***]	[***]	[***]	Refer to SW3900 section for price			
	IB-3900TRK-10	[***]	[***]	[***]	Refer to SW3900 section for price			
8Gbit/sec Switch Products and Software								
BROCADE 300								
	BROCADE 300 BUNDLED WITH SFP'S							
	IB-320-0004-M		[***]	[***]	[***]	[***]		
	IB-310-1004-M		[***]	[***]	[***]	[***]		
	IB-310-1008-M		[***]	[***]	[***]	[***]		
	BROCADE 300 FRU's							
	XIB-310-1000		[***]	[***]	[***]			[***]
	BROCADE 300 SOFTWARE ORDERABLES							
	IB-SMEDEBI2-01 **Dec 3, 2013 = IB-SMEDEBI2-02**	[***]	[***]	[***]	[***]			
	IB-SMEDPOD4-01		[***]	[***]	[***]			
BROCADE 5100								
	BROCADE 5100 BUNDLED WITH SFP'S							
	IB-5120-0008-M		[***]	[***]	[***]	[***]		
	IB-5120-1008-M		[***]	[***]	[***]	[***]		
	IB-5120-0004-M		[***]	[***]	[***]	[***]		
	IB-5120-1004-M		[***]	[***]	[***]	[***]		
	BROCADE 5100 FRU's							
	XIB-5120-0000		[***]	[***]	[***]			[***]
	XIB-5120-1000		[***]	[***]	[***]			[***]
	BROCADE 5100 SOFTWARE ORDERABLES							
	IB-MIDRPOD4-01		[***]	[***]	[***]			
BROCADE 5300								
	IB-5320-0000-M	2498-B80	[***]	[***]	[***]	[***]		[***]
	BROCADE 5300 BUNDLED WITH SFP'S							
	IB-5320-0004-M		[***]	[***]	[***]	[***]		
	IB-5320-0008-M		[***]	[***]	[***]	[***]		
	BROCADE 5300 FRU's							
	XIB-5320-0000		[***]	[***]	[***]			[***]
	XIB-MIDR-0003		[***]	[***]				
	XIB-5300-0001		[***]	[***]	[***]			
	BROCADE 5300 SOFTWARE ORDERABLES							

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 5: End of Life
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	IB-MENTPOD4-01		[***]	[***]	[***]			
16Gbit/sec Switch Products								
BROCADE 6505 Switch (IBM 2498-F24G / 249824G / 2498-X24)								
	IB-6505-12-G16-0R-W-U	2498-F24	[***]	[***]	[***]		[***]	[***]
	IB-6505-12-G8-0R-W-U	2498-F24	[***]	[***]	[***]		[***]	[***]
	IB-6505-12-16G-0R-W-U	249824G/X24	[***]	[***]	[***]		[***]	[***]
	IB-6505-12-8G-0R-W-U	249824G/X24	[***]	[***]	[***]		[***]	[***]
	BROCADE 6505 Switch (IBM 2498-F24 / 249824G / 2498-X24) FRU'S							
	XIB-6505-12-0000-0R	N/A	[***]	[***]	[***]			[***]
	XIB-6505-12-1000-0R	N/A	[***]	[***]	[***]			[***]
	BROCADE 6505 Switch (IBM 2498-F24 / 249824G / 2498-X24) SOFTWARE ORDERABLES							
	IB-SMEDEBIB2-01 Oct 30, 2012 = IB-SMEDEBIB3-01	FC 7211 Mar 7, 2013: FC7214	[***]	[***]	[***]			
	BROCADE 6510 Switch (IBM 2498-F48) SOFTWARE ORDERABLES							
	IB-MIDREBIB-01 Sep 15, 2012 = IB-MIDREBIB2-01	FC 7414	[***]	[***]	[***]			
BROCADE 6520 Switch (IBM 2498-F96 and IBM 2498-N96)								
	BROCADE 6520 Switch (IBM 2498-F96 and IBM 2498-N96) SOFTWARE ORDERABLES							
	IB-MENTEB4-01	FC 7814	[***]	[***]	[***]			
FCoE Switch Products and Software								
BROCADE 8000								
	IB-8000-0018-W-U	N/A	[***]	[***]	[***]		[***]	[***]
	IB-8000-1018-W-U	N/A	[***]	[***]	[***]		[***]	[***]
	BROCADE 8000 FRU's							
	XIB-8000-0000	N/A	[***]	[***]	[***]			[***]
	XIB-8000-1000	N/A	[***]	[***]	[***]			[***]
	XIB-350WPS-0001	N/A	[***]	[***]	[***]			
BROCADE 8000 (CEE Only)								
	IB-8000-0001-W-U	NA	[***]	[***]	[***]		[***]	[***]
	BROCADE 8000 CEE Only FRU's							
	XIB-8000-0010	N/A	[***]	[***]	[***]			[***]
BROCADE 8000 CEE Only (Accessories, FRU's, SOFTWARE ORDERABLES)								
	IB-CNVSVC-0001	N/A	[***]	[***]	[***]			
ENCRYPTION PRODUCTS								
BROCADE ENCRYPTION SWITCH (IBM 2498-E32)								
	IB-BES20-0008-W-U	NA	[***]	[***]	[***]		[***]	[***]
BROCADE FS8-18 ENCRYPTION BLADE								
	IB-FS818-0001-M Nov 1, 2010 = IB-FS818-0010-M	FC 3895	[***]	[***]	[***]	[***]		[***]
	BROCADE ENCRYPTION SWITCH AND FS8-18 ENCRYPTION BLADE FRU's							
	XIB-BES-0000	N/A	[***]	[***]	[***]			[***]
	XIB-FS818-0001	N/A	[***]	[***]	[***]			[***]
	XIB-001173	N/A	[***]	[***]	[***]			
	BROCADE ENCRYPTION PRODUCTS - SOFTWARE ORDERABLES							
	IB-MENTEBIB-02	FC 7811	[***]	[***]	[***]			

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Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
MULTI-PROTOCOL ROUTER								
SW7420								
	IB-7422-D0100-B IB-7422-R0100-M	2109-A16	[***]	[***]	[***]	[***]		[***]
	IB-7420POD-10	FC 7901	[***]	[***]	[***]			
	IB-7420POD-20	FC 7902	[***]	[***]	[***]			
	XIB-7422-0100 XIB-7422-R0100		[***]	[***]	[***]			[***]
	XIB-7420-0004 XIB-7420-R0004		[***]	[***]	[***]			
	XIB-7420-0005 XIB-7420-R0005		[***]	[***]	[***]			
DIRECTOR PRODUCTS AND SOFTWARE								
SW12000								
	IB-12000-0003	2109-M12	[***]	[***]	[***]			
	IB-12000-0201		[***]	[***]	[***]			[***]
	XIB-12000-0010		[***]	[***]	[***]			
	XIB-12000-0103		[***]	[***]	[***]			[***]
	XIB-12000-0120 XIB-12000-R0120		[***]	[***]	[***]			
	XIB-12000-0122 XIB-12000-R0122		[***]	[***]	[***]			
	XIB-12000-0123 XIB-12000-R0123		[***]	[***]	[***]			
	XIB-12000-0124 XIB-12000-R0124		[***]	[***]	[***]			
	XIB-12000-0127		[***]	[***]	[***]			
	XIB-12000-0128		[***]	[***]	[***]			
	XIB-12000-0131		[***]	[***]	[***]			
	XIB-12000-0132		[***]	[***]	[***]			
	XIB-12000-0201		[***]	[***]	[***]			[***]
	IB-1200CUP-10-M		[***]	[***]	[***]	[***]		
	IB-1200CUP-20-M		[***]	[***]	[***]	[***]		
	IB-1200CUS-10-M		[***]	[***]	[***]	[***]		
	IB-1200CUS-20-M		[***]	[***]	[***]	[***]		
	IB-1200EXF-03		[***]	[***]	[***]			
	IB-1200RSW-03		[***]	[***]	[***]			
	IB-1200SEC-01		[***]	[***]	[***]			
	IB-1200SEC-01-M		[***]	[***]	[***]	[***]		
SW24000								
	IB-24000-0003-B	2109-M14	[***]	[***]	[***]	[***]		
	IB-24000-0201		[***]	[***]	[***]			[***]
	IB-24000-0301-B		[***]	[***]	[***]	[***]		
	XIB-24000-0010		[***]	[***]	[***]			
	XIB-24000-0103		[***]	[***]	[***]			[***]
	XIB-24000-0127		[***]	[***]	[***]			

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Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	XIB-24000-0130 XIB-24000-R0130		[***]	[***]	[***]			
	XIB-24000-0201		[***]	[***]	[***]			[***]
SW48000								
	IB-48000-0000-B IB-48000-R0000-M	2109-M48	[***]	[***]	[***]	[***]		
	IB-48000-0101 IB-48000-R0101	FC 3416	[***]	[***]	[***]			[***]
	IB-48000-0102 IB-48000-R0102	FC 3432	[***]	[***]	[***]			[***]
	XIB-48000-0010 XIB-48000-R0010		[***]	[***]	[***]			
	XIB-48000-0101 XIB-48000-R0101		[***]	[***]	[***]			[***]
	XIB-48000-0102 XIB-48000-R0102		[***]	[***]	[***]			[***]
	XIB-48000-0103 XIB-48000-R0103		[***]	[***]	[***]			[***]
	XIB-48000-0105 XIB-48000-R0105		[***]	[***]	[***]			
	XIB-48000-0111 XIB-48000-R0111		[***]	[***]	[***]			
	XIB-48000-0128 XIB-48000-R0128		[***]	[***]	[***]			
	IB-48000-0150-M	FC 3450	[***]	[***]	[***]	[***]		[***]
	XIB-48000-0150		[***]	[***]	[***]			[***]
	IB-48000-0148	FC 3448	[***]	[***]	[***]			[***]
	IB-48000-0140	FC 3449	[***]	[***]	[***]			
	XIB-48000-0148		[***]	[***]	[***]			[***]
	IB-48000-0152-M	FC 3460	[***]	[***]	[***]	[***]		[***]
	XIB-48000-0152		[***]	[***]	[***]			
	IB-48000-0153-M	FC 3470	[***]	[***]	[***]	[***]		[***]
	XIB-48000-0153		[***]	[***]	[***]			
	IB-48000-0303 IB-48000-R0303	FC 4444	[***]	[***]	[***]			
	IB-48KCUP-01-M	FC 7831	[***]	[***]	[***]	[***]		
	IB-48KCUS-01-M	FC 7833	[***]	[***]	[***]	[***]		
	IB-48KEXF-01	FC 7803	[***]	[***]	[***]			
	IB-48KRSW-01	FC 7802	[***]	[***]	[***]			
	IB-48KSEC-01-M	FC 7823	[***]	[***]	[***]	[***]		
	IB-48000-R0104	FC 7840	[***]	[***]	[***]			
	IB-48KFCI-01-M IB-48KFCI-02-M	FC 7827	[***]	[***]	[***]	[***]		
	IB-48KFIA-01-M	FC 7838	[***]	[***]	[***]	[***]		
BROCADE DCX-4S								
	IB-DCX4S-0002-W-U	2499-192	[***]	[***]	[***]		[***]	[***]
	BROCADE DCX-4S - FRU's							
	XIB-DCX4S-0106	N/A	[***]	[***]	[***]			[***]
	XIB-DCX4S-0010	N/A	[***]	[***]	[***]			[***]
	XIB-000305	N/A	[***]	[***]	[***]			
BROCADE DCX (DATA CENTER BACKBONE)								
	IB-DCX-0001-M		[***]	[***]	[***]	[***]		

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Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	IB-DCX-0107	FC 7870	[***]	[***]	[***]			
	IB-DCX-0101	FC 3816	[***]	[***]	[***]			[***]
	IB-DCX-0102	FC 3832	[***]	[***]	[***]			[***]
	IB-DCX-0148	FC 3848	[***]	[***]	[***]			[***]
	DCX BLADE - BUNDLED WITH SFP'S							
	IB-DCX-2101		[***]	[***]	[***]			
	IB-DCX-2102		[***]	[***]	[***]			
	IB-DCX-2148		[***]	[***]	[***]			
	IB-DCX-3101		[***]	[***]	[***]			
	IB-DCX-3102		[***]	[***]	[***]			
	IB-DCX-3148		[***]	[***]	[***]			
	IB-DCX-5101		[***]	[***]	[***]			
	IB-DCX-5102		[***]	[***]	[***]			
	IB-DCX-5148		[***]	[***]	[***]			
	IB-DCX-2164	FC 3864	[***]	[***]	[***]			[***]
	DCX - FRU's							
	XIB-DCX-0010		[***]	[***]	[***]			
	XIB-DCX-0106		[***]	[***]	[***]			[***]
	XIB-DCX-0107		[***]	[***]	[***]			
	XIB-DCX-0164	N/A	[***]	[***]	[***]			[***]
	DCX BLADE - BUNDLED WITH SFP'S							
	IB-DCX-1101		[***]	[***]	[***]			
	IB-DCX-1102		[***]	[***]	[***]			
	IB-DCX-1148		[***]	[***]	[***]			
	IB-DCX-4101		[***]	[***]	[***]			
	IB-DCX-4102		[***]	[***]	[***]			
	IB-DCX-4148		[***]	[***]	[***]			
BROCADE FX8-24 DCX EXTENSION BLADE								
	IB-FX824-0001-M	FC 3890	[***]	[***]	[***]	[***]		[***]
BROCADE FX8-24 DCX EXTENSION BLADE								
	IB-FX824-0001-M	FC 3890	[***]	[***]	[***]	[***]		[***]
	BROCADE FX8-24 DCX EXTENSION BLADE - FRU's							
	XIB-FX824-0000	N/A	[***]	[***]	[***]			[***]
BROCADE FCoE 10-24 DCX Blade								
	IB-FCOE10-2400-M Nov 1, 2010 = IB-FCOE10-2410-M	FC 3880	[***]	[***]	[***]	[***]		[***]
	BROCADE FCoE 10-24 DCX Blade - FRU's							
	XIB-FCOE10-2400	N/A	[***]	[***]	[***]			[***]
16Gbit/sec DIRECTORS								
BLADES & ACCESSORIES FOR SAN384B-2 (2499-416) AND SAN768B-2 (2499-816)								
	ACCESSORIES & FRU's							
	IB-DCXICLKIT-01-M	FC 7871	[***]	[***]	[***]	[***]		
BLADES & ACCESSORIES FOR SAN384B-2 (2499-416) AND SAN768B-2 (2499-816)								
	IB-FS818-0020-M	FC 3895	[***]	[***]	[***]	[***]		[***]
	IB-DCX8510-2032	N/A	[***]	[***]	[***]			[***]
	IB-DCX8510-2048	N/A	[***]	[***]	[***]			[***]
	IB-DCX8514-0150	FC 3016	[***]	[***]	[***]			[***]

4999RO0022 (SOW1) - AMENDMENT 51
SCHEDULE 1 TO EXHIBIT A - Product Price List and Description
TABLE 5: End of Life
Date: September 1, 2016 FINAL

Supplier Part Number		Buyer Part Number				- M	- U	
Model	Brocade P/N	IBM Model or FC #	IBM PN	Description	Unit Price	**Software Maintenance (included in unit price of product)	Non Defect Based SW Technical Support & SW Upgrades - [***] Months (included in unit price of product)	Out of Warranty Pricing
	IB-DCX8518-0150	FC 3017	[***]	[***]	[***]			[***]
	BLADE FRU'S							
	XIB-DCX8510-2032 Effective 3/1/12: XIB-DCX8510-0032	N/A	[***]	[***]	[***]			[***]
	XIB-DCX8510-2048 Effective 3/1/12: XIB-DCX8510-0048	N/A	[***]	[***]	[***]			[***]
FABRIC MANAGER								
	BR-CD-FMG3.0.2		[***]	[***]	[***]			
	IB-FMG4-0001-S		[***]	[***]	[***]	[***]		
	IB-FMG4-7000-S		[***]	[***]	[***]	[***]		
	IB-FMG4-0010-S		[***]	[***]	[***]	[***]		
	IB-FMG4-9000-S		[***]	[***]	[***]	[***]		
TRANSCEIVERS								
	IB-000147	FC 2801	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000148	FC 2808	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000228	FC 7868	[***]	[***]	[***]	[***]	[***]	[***]
	IB-000300	FC 2550	[***]	[***]	[***]	[***]	[***]	[***]
TRANSCEIVERS (FRU'S)								
	XIB-000147	N/A	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000160	N/A	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000228	N/A	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-000300	N/A	[***]	[***]	[***]	[***]	[***]	[***]
CABLES								
	IB-TWX-0101	FC 2711	[***]	[***]	[***]	[***]	[***]	[***]
	IB-TWX-0108	FC 2718	[***]	[***]	[***]	[***]	[***]	[***]
	IB-TWX-0301	FC 2731	[***]	[***]	[***]	[***]	[***]	[***]
	IB-TWX-0308	FC 2738	[***]	[***]	[***]	[***]	[***]	[***]
	IB-TWX-0501	FC 2751	[***]	[***]	[***]	[***]	[***]	[***]
	IB-TWX-0508	FC 2758	[***]	[***]	[***]	[***]	[***]	[***]
CABLES (FRU'S)								
	XIB-TWX-0101	N/A	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-TWX-0301	N/A	[***]	[***]	[***]	[***]	[***]	[***]
	XIB-TWX-0501	N/A	[***]	[***]	[***]	[***]	[***]	[***]

[***] Certain information on this page has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.156

BROCADE COMMUNICATIONS SYSTEMS, INC.
2009 STOCK PLAN
RESTRICTED STOCK UNIT AGREEMENT
FOR
FY17 PERFORMANCE STOCK UNITS

NOTICE OF GRANT

[FIRST_NAME MIDDLE_NAME LAST_NAME]

You ("**Grantee**") have been granted an award of market-based performance Restricted Stock Units under the Company's 2009 Stock Plan (the "**Plan**"). The date of this Restricted Stock Unit Agreement (the "**Agreement**") is the Grant Date defined below. Unless otherwise defined herein, capitalized terms used herein shall have the meanings ascribed to them in the Plan or Appendix A, which are attached hereto and incorporated herein in their entirety. The principal features of this award are as follows:

Grant Date:	October 30, 2016 (the "**Grant Date**")
Baseline Number of Restricted Stock Units:	**[_______]** (the "**Baseline Number of Restricted Stock Units**")
Maximum Number of Restricted Stock Units:	**[*To be calculated as 150% of the Baseline Number of Restricted Stock Units*]** (the "**Maximum Number of Restricted Stock Units**")
Performance Periods:	The Performance Period for 50% of the Baseline Number of Restricted Stock Units shall be November 1, 2016 through October 27, 2018 (subject to Section 4(c) of Appendix A) (the "**First Performance Period**"). The Performance Period for the remaining 50% of the Baseline Number of Restricted Stock Units shall be November 1, 2016 through November 2, 2019 (subject to Section 4(c) of Appendix A) (the "**Second Performance Period**").
Performance Matrix:	The number of Restricted Stock Units ("**RSUs**"), if any, in which you may vest in accordance with the Vesting Schedule will depend upon the Company's Stock Price Performance as compared to the NASDAQ Telecom Stock Price Performance for the applicable Performance Period and will be determined in accordance with Section 1 of Appendix A.
Vesting Schedules:	Subject to Section 4 of Appendix A and the terms of the Plan, if there are any Calculated RSUs (as defined in Appendix A) determined as of the end of the applicable Performance Period, the Grantee will vest as to one hundred percent (100%) of the Calculated RSUs for such Performance Period at the close of business on the last day of such Performance Period (the "**Vesting Date**"). To the extent that the number of Calculated RSUs determined as of the end of the Performance Period is less than the applicable Baseline Number of Restricted Stock Units for such Performance Period, the difference between such Baseline Number of Restricted Stock Units and the actual number of Calculated RSUs for such Performance Period shall be immediately forfeited. Notwithstanding the foregoing and except as otherwise provided in Appendix A, the Grantee will not vest in the Restricted Stock Units, even if they are Calculated RSUs, unless he or she remains a Service Provider (as defined in the Plan) through the applicable Vesting Date. If the actual number of Calculated RSUs for any given Performance Period is determined after the Vesting Date and the Grantee is employed on the Vesting Date, but ceases to be a Service Provider prior to the date of such determination, the Grantee shall be entitled to receive the number of Calculated RSUs for such Performance Period as of the Vesting Date and shall forfeit any unvested Restricted Stock Units as of the date on which the Grantee ceases to be a Service Provider.

Your acceptance online indicates your agreement and understanding that this award is subject to all of the terms and conditions contained in Appendix A and the Plan. For example, important additional information on vesting and forfeiture of the Restricted Stock Units is contained in Sections 3 through 5 and Section 7 of Appendix A. **PLEASE BE SURE TO READ ALL OF APPENDIX A AND THE PLAN, WHICH CONTAIN THE SPECIFIC TERMS AND CONDITIONS OF THIS AWARD.**

BROCADE COMMUNICATIONS SYSTEMS, INC.	**GRANTEE**
Signature	**Signature**
Print Name	**Print Name**
Title	

Electronic Signature will be required on E*Trade

Attachments: Appendix A
2009 Stock Plan (To be attached when distributed to plan participants)

APPENDIX A

TERMS AND CONDITIONS OF RESTRICTED STOCK UNITS
(FY17 PERFORMANCE STOCK UNITS)

Unless otherwise defined herein, capitalized terms used herein shall have the meanings ascribed to them in the Plan.

1. Grant.

(a) The Company hereby grants to the Grantee under the Plan an award of the Baseline Number of Restricted Stock Units set forth on the Notice of Grant, subject to adjustment for market performance and vesting requirements in accordance with the Notice of Grant and this Appendix A and all of the terms and conditions in this Agreement and the Plan. For each Restricted Stock Unit that vests, the Grantee will be entitled to receive one (1) Share (subject to automatic adjustment for stock splits, combinations and other adjustments contemplated in the Plan).

(b) The number of Restricted Stock Units in which the Grantee may vest in accordance with the Vesting Schedule will depend upon the Company's Stock Price Performance as compared to the NASDAQ Telecom Stock Price Performance for the applicable Performance Period and will be determined following the end of the applicable Performance Period as follows:

(i) Performance Calculation.

(a) The "**Company's Stock Price Performance**" means the percentage increase or decrease in the total return (change in share price plus reinvestment of any dividends) of the Company's Common Stock for (i) the last sixty (60) market trading days in the applicable Performance Period, over (ii) the sixty (60) market trading day period beginning on the thirtieth (30^{th}) market trading day prior to the first day of the applicable Performance Period and ending on the thirtieth (30^{th}) market trading day following (and including) the first day of the applicable Performance Period.

(b) The "**NASDAQ Telecom Stock Price Performance**" means the percentage increase or decrease in the total return (change in share price plus reinvestment of any dividends) of a share of the NASDAQ Telecommunications Index, ticker symbol "IXTC," (or any successor fund) for (i) the last sixty (60) market trading days in the applicable Performance Period, over (ii) the sixty (60) market trading day period beginning on the thirtieth (30^{th}) market trading day prior to the first day of the applicable Performance Period and ending on the thirtieth (30^{th}) market trading day following (and including) the first day of the applicable Performance Period.

(c) The Company's Stock Price Performance will be compared against the NASDAQ Telecom Stock Price Performance (each expressed as a growth rate percentage as of the beginning of the applicable Performance Period) to result in the growth rate difference (the "**Growth Rate Delta**") equal to the Company's Stock Price Performance minus the NASDAQ Telecom Stock Price Performance.

(ii) RSU Calculation.

(a) If the Growth Rate Delta is equal to zero percent (0%) at the end of the applicable Performance Period, the number of Restricted Stock Units that will be eligible to vest (the "**Calculated RSUs**") will equal fifty percent (50%) of the Baseline Number of Restricted Stock Units for such Performance Period; and

(b) If the Growth Rate Delta is greater or less than zero percent (0%) at the end of the applicable Performance Period, the Calculated RSUs for such Performance Period will be equal to: (i) fifty percent (50%) of the Baseline Number of Restricted Stock Units, multiplied by (ii) the sum of (A) 100% and (B) five (5) times the Growth Rate Delta; *provided, however*, that in no event will more than fifty percent (50%) of the Maximum Number of Restricted Stock Units for any given Performance Period become Calculated RSUs or will the number of Calculated RSUs for any given Performance Period be less than zero.

(iii) Examples (for illustration purposes only).

(a) Example #1: If the Growth Rate Delta was +10% for the First Performance Period, then 75% (equal to 50% times 100% plus (5 times 10%)) of the Baseline Number of Restricted Stock Units would be Calculated RSUs for the First Performance Period.

(b) Example #2: If the Growth Rate Delta was -10% for the First Performance Period, then 25% (equal to 50% times 100% plus (5 times -10%)) of the Baseline Number of Restricted Stock Units would be Calculated RSUs for the First Performance Period.

(c) When Shares are paid to the Grantee in payment for the Restricted Stock Units, par value ($.001 per share) will be deemed paid by the Grantee for each Restricted Stock Unit by services rendered by the Grantee, and will be subject to the appropriate tax withholdings in accordance with Section 9 below.

2. Company's Obligation to Pay. Each Restricted Stock Unit has a value equal to the Fair Market Value of a Share on the date that the Restricted Stock Unit is granted. Unless and until the Restricted Stock Units have vested in the manner set forth in Sections 3 through 5, the Grantee will have no right to payment of such Restricted Stock Units. Prior to actual payment of Shares upon the vesting of any Restricted Stock Units, such Restricted Stock Units will represent an unsecured obligation. Payment of any vested Restricted Stock Units shall be made in whole Shares only and any fractional Shares will be forfeited at the time of payment.

3. Vesting Schedule/Period of Restriction. Except as provided in Sections 4 and 5 and subject to Section 7, the Restricted Stock Units awarded by this Agreement shall vest in accordance with the vesting provisions set forth on the Notice of Grant. Restricted Stock Units shall not vest in accordance with any of the provisions of this Agreement unless the Grantee shall have been continuously employed by the Company or by its Parent or other successor or a Subsidiary from the Grant Date through the dates the Restricted Stock Units are otherwise scheduled to vest.

4. Modifications to Vesting Schedule.

(a) *Vesting upon Leave of Absence.* In the event that the Grantee takes an authorized leave of absence ("**LOA**"), the Restricted Stock Units awarded by this Agreement that are eligible to be earned shall either: (i) not be affected, or (ii) shall be deferred for a period of time equal to the duration of such LOA, based on the Company's LOA policy in effect at such time as determined by the Company in its sole discretion.

(b) *Death or Disability of Grantee*. In the event that the Grantee's relationship with the Company or its Parent or other successor or a Subsidiary as a Service Provider is terminated prior to full vesting of the Restricted Stock Units due to his or her death or Disability, the unvested portion of the Restricted Stock Units subject to this Restricted Stock Unit Award shall be forfeited on the date of the Grantee's death or Disability, unless otherwise determined by the Administrator.

(c) *Change in Control*. In the event of a Change in Control that occurs during any Performance Period, that Performance Period shall be deemed to end upon the closing of the Change in Control for purposes of determining the Company's Stock Price Performance and the NASDAQ Telecom Stock Price Performance, and the number of Restricted Stock Units that are Calculated RSUs for such Performance Period otherwise will be determined in accordance with the Performance Matrix and Section 1 of this Appendix A. The Grantee shall vest in the number of Calculated RSUs for such Performance Period determined (as determined based on the preceding sentence) as follows:

(i) if a Change in Control occurs at any time during the First Performance Period, fifty percent (50%) of the Calculated RSUs (as determined with respect to each of the First Performance Period and the Second Performance Period) will vest immediately prior to and contingent upon the Change in Control (the "**New First Vesting Date**") and the remaining fifty percent (50%) of such Calculated RSUs will vest on the one-year anniversary of the closing of the Change in Control (the "**New Second Vesting Date**," and each of the New First Vesting Date and the New Second Vesting Date, a "**New Vesting Date**"), and provided that the Grantee remains a Service Provider through such New Vesting Date or as otherwise set forth in this Agreement, in each case unless vested earlier or as otherwise provided in accordance with the terms of this Award, Section 18 of the Plan, any Change of Control Retention Agreement between Grantee and the Company or any employment or other change in control agreement by and between the Company and the Grantee.

(ii) if a Change in Control occurs at any time during the period commencing on November 1, 2018 and ending on October 28, 2019, one hundred percent (100%) of the Calculated RSUs for the Second Performance Period will vest immediately prior to and contingent upon the Change in Control.

In accordance with Section 1 of this Appendix A, the Administrator shall not be entitled to eliminate or reduce the number of Calculated RSUs determined in accordance with Section 1 of Appendix A following a Change in Control.

5. Administrator Discretion. The Administrator, in its discretion, at any time may accelerate the vesting of the balance, or some lesser portion of the balance, of: (a) the Calculated RSUs; or (b) the Restricted Stock Units held by any Grantee who, for the year in which the acceleration occurs, will not be a "covered employee" as that term is defined in Code Section 162(m), subject to the terms of the Plan. If so accelerated, such Restricted Stock Units will be considered as having vested as of the date specified by the Administrator. Subject to the provisions of this paragraph 5, if the Administrator, in its discretion, accelerates the vesting of all or a portion of any unvested Restricted Stock Units, the payment of such accelerated Restricted Stock Units shall be made as soon as practicable upon or following the accelerated vesting date, but in no event later than 60 days following the vesting date of such accelerated Restricted Stock Units. The Grantee is hereby advised to consult with the Grantee's own personal tax, legal and financial advisors regarding the Grantee's participation in the Plan before taking any action related to the Plan.

Notwithstanding anything in the Plan or this Agreement to the contrary, if the vesting of all or a portion of any unvested Restricted Stock Units is accelerated in connection with the termination of the Grantee's relationship with the Company as a Service Provider (a "Termination of Service") other than due to death**,** and if both (a) the Grantee is a "specified employee" within the meaning of Section 409A at the time of such Termination of Service, and (b) the payment of such accelerated Restricted Stock Units would result in the imposition of additional tax under Section 409A if paid to the Grantee within the six (6) month period following the Grantee's Termination of Service, then the payment of such accelerated Restricted Stock Units will not be made until the date that is six (6) months and one (1) day following the date of the Grantee's Termination of Service, unless the Grantee dies following his or her Termination of Service, in which case, the Restricted Stock Units will be paid in Shares to the Grantee's estate as soon as practicable following his or her death. It is the intent of this Agreement to be exempt from or comply with the requirements of Section 409A so that none of the Restricted Stock Units provided under this Agreement or shares issuable thereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities or ambiguous terms herein will be interpreted to be so exempt or comply. For purposes of this Agreement, "Section 409A" means Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and any proposed, temporary or final Treasury Regulations and Internal Revenue Service guidance thereunder, as each may be amended from time to time.

6. Payment after Vesting. Any Restricted Stock Units that vest in accordance with this Agreement will be paid to the Grantee (or in the event of the Grantee's death, to his or her estate) as soon as practicable following the applicable Vesting Date (or New Vesting Date, as applicable), subject to Sections 9 and 21, but no later than sixty (60) days following the applicable Vesting Date (or New Vesting Date, as applicable).

7. Forfeiture. Except as set forth in Sections 4 or 5 or applicable Change of Control Retention Agreement between Grantee and the Company (or successor), the balance of the Restricted Stock Units that have not vested pursuant to Sections 3 through 5 at the time of the termination of the Grantee's relationship with the Company as a Service Provider for any or no reason will be forfeited.

8. [Reserved]

9. Withholding of Taxes.

(a) General. Regardless of any action the Company and/or the Grantee's employer (the "**Employer**") take with respect to any or all income tax (including U.S. federal, state, local and/or non-U.S. taxes), social insurance, payroll tax, payment on account or other tax-related withholdings ("**Tax-Related Items**"), the Grantee acknowledges that the ultimate liability for all Tax-Related Items legally due by the Grantee is and remains the Grantee's responsibility and that the Company and/or the Employer (i) make no guarantees or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the award, including the grant of the Restricted Stock Units, the vesting of the Restricted Stock Units, the delivery of Shares, the subsequent sale of any Shares received at vesting and the receipt of any dividends; and (ii) do not commit to structure the terms of the grant or any aspect of the award to reduce or eliminate the Grantee's liability for Tax-Related Items.

(b) Payment of Tax-Related Items. The Grantee authorizes the Company and/or the Employer, at its discretion, to satisfy the obligations with regard to all Tax-Related Items by automatically withholding a portion of the Shares issued as payment for vested Restricted Stock Units that have an aggregate market value sufficient to pay all Tax-Related Items required to be withheld by the Company and/or the Employer with respect to the vesting of the Restricted Stock Units and issuance of the Shares, unless the Company, in its sole discretion, either requires or otherwise permits the Grantee to make alternate arrangements satisfactory to the Company for such withholdings in advance of, or concurrently with, the arising of any withholding obligations. The number of Shares withheld pursuant to the prior sentence will be rounded up to the nearest whole Share, with no refund for any value of the Shares withheld in excess of the tax obligation as a result of such rounding.

If the obligation of Tax-Related Items is satisfied by reducing the number of Shares delivered as described herein, the Grantee is deemed to have been issued the full number of Shares subject to the award of Restricted Stock Units, notwithstanding that a number of the Shares are held back solely for the purpose of paying the Tax-Related Items due as a result of any aspect of the award.

If the foregoing method of withholding is prohibited or insufficient to satisfy all Tax-Related Items required to be withheld by the Company and/or the Employer with respect to the vesting of the Restricted Stock Units and issuance of the Shares or if the Company, in its discretion, determines not to apply the foregoing method of withholding, then the Grantee hereby authorizes the Company and/or the Employer to satisfy such obligations by one or a combination of the following: (i) withholding from the Grantee's wages or other cash compensation paid to the Grantee by the Company and/or the Employer, to the maximum extent permitted by law; or (ii) selling the applicable number of Shares or arranging for the sale of the applicable number of Shares (in either case on the Grantee's behalf and at the Grantee's discretion pursuant to this authorization) issued in settlement of vested Restricted Stock Units and retaining the requisite proceeds from such sale.

Finally, the Grantee shall pay to the Company and/or the Employer any amount of Tax-Related Items that the Company and/or the Employer may be required to withhold as a result of the Grantee's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to deliver to the Grantee any Shares pursuant to the award if the Grantee fails to comply with the Grantee's obligations in connection with the Tax-Related Items, as described in this Section 9.

10. Rights as Stockholder. Neither the Grantee nor any person claiming under or through the Grantee will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares (which may be in book entry form) will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to the Grantee (including through electronic delivery to a brokerage account). After such issuance, recordation and delivery, the Grantee will have all the rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

11. No Effect on Employment. Subject to any employment contract with the Grantee, the terms of such employment will be determined from time to time by the Company, or the Subsidiary employing the Grantee, as the case may be, and the Company, or the Subsidiary employing the Grantee, as the case may be, will have the right, which is hereby expressly reserved, to terminate or change the terms of the employment of the Grantee at any time for any reason whatsoever, with or without good cause. The transactions contemplated hereunder and the vesting schedule set forth on the first page of this Agreement do not constitute an expressed or implied promise of continued employment for any period of time. A leave of absence or an interruption in service (including an interruption during military service) authorized or acknowledged by the Company or the Subsidiary employing the Grantee, as the case may be, shall not be deemed a termination of the Grantee's relationship with the Company or its Subsidiary as a Service Provider for the purposes of this Agreement.

12. Address for Notices. Any notice to be given to the Company under the terms of this Agreement will be addressed to the Company, in care of Stock Administrator, at 130 Holger Way, San Jose, California, 95134, USA, or at such other address as the Company may hereafter designate in writing, with a copy to the Company, C/O General Counsel, 130 Holger Way, San Jose, California, 95134, USA.

13. Grant is Not Transferable. Except to the limited extent provided in this Agreement or the Plan, this grant of Restricted Stock Units and the rights and privileges conferred hereby will not be sold, pledged, assigned, hypothecated, transferred or disposed of any way (whether by operation of law or otherwise) and will not be subject to sale under execution, attachment or similar process, until the Grantee has been issued Shares in payment of the Restricted Stock Units. Upon any attempt to sell, pledge, assign, hypothecate, transfer or otherwise dispose of this grant, or any right or privilege conferred hereby, or upon any attempted sale under any execution, attachment or similar process, this grant and the rights and privileges conferred hereby immediately will become null and void. Notwithstanding the foregoing, Grantee may, in a manner and in accordance with terms specified by the Administrator, transfer these Restricted Stock Units to Grantee's spouse, former spouse or dependent pursuant to a court-approved domestic relations order which relates to the provision of child support, alimony payments or marital property rights.

14. Restrictions on Sale of Securities. The Shares issued as payment for vested Restricted Stock Units under this Agreement will be registered under U.S. federal securities laws and will be freely tradable upon receipt. However, a Grantee's subsequent sale of the Shares may be subject to any market blackout-period that may be imposed by the Company and must comply with the Company's insider trading policies, and any other U.S. securities laws or other Applicable Laws.

15. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

16. Additional Conditions to Issuance of Certificates for Shares. The Company shall not be required to issue any certificate or certificates for Shares hereunder prior to fulfillment of all the following conditions: (a) the admission of such Shares to listing on all stock exchanges on which such class of stock is then listed; (b) the completion of any registration or other qualification of such Shares under any U.S. state or federal or non-U.S. law or under the rulings or regulations of the Securities and Exchange Commission or any other governmental regulatory body, which the Administrator shall, in its absolute discretion, deem necessary or advisable; (c) the obtaining of any approval or other clearance from any U.S. state or federal or non-U.S. governmental agency, which the Administrator shall, in its absolute discretion, determine to be necessary or advisable; and (d) the lapse of such reasonable period of time following the Vesting Date of the Restricted Stock Units as the Administrator may establish from time to time for reasons of administrative convenience. The Company shall use its commercially reasonable efforts to satisfy the preceding conditions, as determined by the Administrator.

17. Plan Governs. This Agreement is subject to all the terms and provisions of the Plan. In the event of a conflict between one or more provisions of this Agreement and one or more provisions of the Plan, the provisions of the Plan will govern.

18. Administrator Authority. The Administrator will have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Restricted Stock Units have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon the Grantee, the Company and all other interested persons. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Agreement.

19. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

20. Agreement Severable. In the event that any provision in this Agreement will be held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

21. Modifications to the Agreement. This Agreement, including Appendix A, together with the Plan, constitutes the entire understanding of the parties on the subjects covered, subject to any applicable pre-existing agreement or agreement entered into after the date hereof relating to full or partial acceleration of vesting in the event of a change of control of the Company (or similar event). The Grantee expressly warrants that he or she is not accepting this Agreement in reliance on any promises, representations, or inducements other than those contained herein or expressly contemplated above. Modifications to this Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in the Plan or this Agreement, the Company reserves the right to revise this Agreement as it deems necessary or advisable, in its sole discretion and without the consent of the Grantee, to comply with Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A prior to the actual payment of Shares pursuant to this award of Restricted Stock Units. However, in no event will the Company be required to reimburse the Grantee (or his or her estate) for any taxes or other costs under Section 409A or for any other Tax-Related Item.

22. Amendment, Suspension or Termination of the Plan. By accepting this Restricted Stock Unit Award, the Grantee expressly warrants that he or she has received a right to receive stock under the Plan, and has received, read and understood a description of the Plan. The Grantee understands that the Plan is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, except as otherwise provided in the Plan and/or the Agreement.

23. Labor Law and Nature of Grant. In accepting the award of Restricted Stock Units, the Grantee acknowledges that:

(a) the Plan is established voluntarily by the Company;

(b) the award of Restricted Stock Units is voluntary and occasional and does not create any contractual or other right to receive future awards of Restricted Stock Units, or benefits in lieu of Restricted Stock Units even if Restricted Stock Units have been awarded repeatedly in the past;

(c) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(d) the Grantee's participation in the Plan is voluntary;

(e) the award is an extraordinary item that is outside the scope of the Grantee's employment or service contract, if any;

(f) the award is not part of normal or expected compensation or salary for any purposes, including, but not limited to, calculation of any severance, resignation, termination, redundancy, end of service payments, bonuses, long-service awards, pension or retirement or welfare benefits or similar payments;

(g) in the event that the Grantee is not an employee of the Company, the award will not be interpreted to form an employment or service contract or relationship with the Company; and, furthermore, the award will not be interpreted to form an employment or service contract or relationship with the Employer or any Parent or other successor or a Subsidiary of the Company;

(h) the future value of the underlying Shares is unknown and cannot be predicted with certainty;

(i) the Company is not providing any tax, legal, or financial advice, nor is the Company making any recommendations regarding the Grantee's participation in the Plan or the acquisition or sale of Shares; and

(j) the Grantee is hereby advised to consult with the Grantee's own personal tax, legal and financial advisors regarding the Grantee's participation in the Plan before taking any action related to the Plan.

24. Data Privacy. The Grantee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of the Grantee's personal data as described in the Notice of Grant and this Agreement and any other Restricted Stock Unit grant materials by and among, as applicable, the Employer, the Company and its Subsidiaries for the exclusive purpose of implementing, administering and managing the Grantee's participation in the Plan.

The Grantee understands that the Company and the Employer may hold certain personal information about the Grantee, including, but not limited to, the Grantee's name, home address and telephone number, date of birth, social insurance or other identification number, salary, nationality, job title, any Shares or directorships held in the Company, details of all Restricted Stock Units or any other entitlement to Shares awarded, canceled, vested, unvested or outstanding in the Grantee's favor, for the exclusive purpose of implementing, administering and managing the Plan ("**Data**").

The Grantee understands that Data will be transferred to E*Trade or such other stock plan service provider as may be selected by the Company in the future, which is assisting the Company with the implementation, administration and management of the Plan. The Grantee understands the recipients of Data may be located in the Grantee's country, in the United States or elsewhere, and that the recipients' country may have different data privacy laws and protections than the Grantee's country. The Grantee understands that the Grantee may request a list with the names and addresses of any potential recipients of the Data by contacting the Grantee's local human resources representative. The Grantee authorizes the Company, E*Trade and any other potential recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purpose of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that he or she may, at any time, view the Data, request additional information about the storage and processing of the Data, require any necessary amendments to the Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing the Grantee's local human resources representative. The Grantee understands, however, that refusing or withdrawing consent may affect the Grantee's ability to participate in the Plan. For more information on the consequences of the Grantee's refusal to consent or withdrawal of consent, the Grantee understands that he or she may contact his or her local human resources representative.

25. Notice of Governing Law. This award of Restricted Stock Units shall be governed by, and construed in accordance with, the laws of the State of California, without regard to principles of conflict of laws. For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by the award of Restricted Stock Units, the parties hereby submit to and consent to the exclusive jurisdiction of the State of California and agree that such litigation shall be conducted on in the courts of Santa Clara County, California or the federal courts for the United States for the Northern District of California, and no other courts, where this grant is made and/or to be performed.

26. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to Restricted Stock Units awarded under the Plan or future Restricted Stock Units that may be awarded under the Plan by electronic means, or to request the Grantee's consent to participate in the Plan by electronic means. The Grantee hereby consents to receive

such documents by electronic delivery and if requested, to agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

Exhibit 12.1

Statement of Computation of Ratio of Earnings to Fixed Charges
(in thousands, except ratios)

	Fiscal Year Ended				
	October 29, 2016	October 31, 2015	November 1, 2014	October 26, 2013	October 27, 2012
Earnings from continuing operations before taxes	$ 262,038	$ 439,051	$ 353,621	$ 330,461	$ 224,401
Adjustments:					
Add fixed charges from continuing operations	54,901	59,949	41,401	60,698	55,745
Earnings before taxes and fixed charges	$ 316,939	$ 499,000	$ 395,022	$ 391,159	$ 280,146
Fixed charges:					
Interest expense	$ 49,327	$ 55,578	$ 36,757	55,261	$ 52,488
Interest component of rent expense	5,574	4,371	4,644	5,437	3,257
Total fixed charges from continuing operations	$ 54,901	$ 59,949	$ 41,401	$ 60,698	$ 55,745
Ratio of earnings to fixed charges (1)	5.8 x	8.3 x	9.5 x	6.4 x	5.0 x
Coverage deficiency	—	—	—	—	—

(1) The ratio of earnings to fixed charges was computed by dividing earnings from continuing operations before taxes and fixed charges, by total fixed charges from continuing operations for the periods indicated. Fixed charges from continuing operations include (i) interest expense and capitalization and amortization of debt discount and issuance costs on all indebtedness and (ii) one-third of all rental expense, which the Company considers to be a reasonable approximation of the interest factor included in rental expense.

Exhibit 21.1

Subsidiaries of the Registrant

Foundry Networks, LLC (a US company)

Brocade Communications Luxembourg Holdings SarL (a Luxembourg company)

Brocade Communications Luxembourg Holdings II SCS (a Luxembourg partnership treated as a US corporation for income tax purpose)

Brocade Communications Luxembourg SarL (a Luxembourg company)

Brocade CH Holdings GmbH (a Swiss company)

Brocade Switzerland Holdings GmbH (a Swiss company)

Brocade Communications Switzerland SarL (a Swiss company)

Brocade Technology GmbH (a Swiss company)

Brocade Global Holdings GmbH (a Swiss company)

Foundry Networks Holdings LLC (a US company treated as a disregarded entity for income tax purpose)

Foundry Networks International LLC (a US company treated as a disregarded entity for income tax purpose)

Foundry Networks International Holdings C.V. (a Netherlands partnership treated as a US corporation for income tax purpose)

Brocade has an additional 52 international subsidiaries and 1 domestic subsidiary, which have been omitted pursuant to Item 601(b)(21)(ii) of Regulation S-K.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Brocade Communications Systems, Inc.:

We consent to the incorporation by reference in the registration statements on Form S-8 (Nos. 333-211823, 333-211039, 333-204829, 333-192886, 333-181851, 333-158874, 333-156413, 333-156140, 333-143053, 333-140334, 333-129909, 333-129908, 333-117897, 333-103571, 333-100797, 333-72480, 333-64260, 333-53734, 333-39126, 333-95653 and 333-85187) of Brocade Communications Systems, Inc. (the Company) of our reports dated December 16, 2016 with respect to the consolidated balance sheets of Brocade Communications Systems, Inc. as of October 29, 2016 and October 31, 2015 and the related consolidated statements of income, comprehensive income, cash flows, and stockholders' equity for each of the years in the three-year period ended October 29, 2016, and the related financial statement schedule, and the effectiveness of internal control over financial reporting as of October 29, 2016, which reports appear in the 2016 annual report on Form 10-K of Brocade Communications Systems, Inc.

Our report dated December 16, 2016, on the effectiveness of internal control over financial reporting as of October 29, 2016, contains an explanatory paragraph that states the Company acquired Ruckus Wireless, Inc. on May 27, 2016, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of October 29, 2016, Ruckus Wireless, Inc.'s internal control over financial reporting associated with Ruckus Wireless, Inc. are total assets of $1,226.3 million (of which $1,062.9 million represents goodwill and intangible assets that were subject to the Company's internal control over financial reporting) and net revenues of $181.5 million included in the consolidated financial statements of the Company as of and for the year ended October 29, 2016. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Ruckus Wireless, Inc.

/s/ KPMG LLP

Santa Clara, California
December 16, 2016

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15(d)-14(a) AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Lloyd A. Carney, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended October 29, 2016 of Brocade Communications Systems, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 16, 2016

/s/ Lloyd A. Carney

Lloyd A. Carney
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15(d)-14(a) AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Daniel W. Fairfax, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended October 29, 2016 of Brocade Communications Systems, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 16, 2016

/s/ Daniel W. Fairfax

Daniel W. Fairfax
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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

I, Lloyd A. Carney, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Brocade Communications Systems, Inc. for the fiscal year ended October 29, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Brocade Communications Systems, Inc.

Date: December 16, 2016

By: /s/ Lloyd A. Carney

Lloyd A. Carney
Chief Executive Officer
(Principal Executive Officer)

I, Daniel W. Fairfax, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Brocade Communications Systems, Inc. for the fiscal year ended October 29, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Brocade Communications Systems, Inc.

Date: December 16, 2016

By: /s/ Daniel W. Fairfax

Daniel W. Fairfax
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)