

ADTRAN INC  
Form 10-K  
February 24, 2016  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**FORM 10-K**

**FOR ANNUAL AND TRANSITION REPORTS**  
**PURSUANT TO SECTION 13 OR 15(d) OF THE**  
**SECURITIES EXCHANGE ACT OF 1934**

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

**For the Fiscal Year Ended December 31, 2015**

.. **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 0-24612**

**ADTRAN, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State of Incorporation)

**63-0918200**  
(I.R.S. Employer

**Identification Number)**

**901 Explorer Boulevard**

**Huntsville, Alabama 35806-2807**  
(Address of principal executive offices, including zip code) (Registrant's telephone number, including area code)

**(256) 963-8000**

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

<b>Title of Each Class:</b>	<b>Name of Each Exchange on which Registered</b>
<b>Common Stock, par value \$0.01 per share</b>	<b>NASDAQ Global Select Market</b>
<b>Securities registered pursuant to Section 12(g) of the Act: None</b>	

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

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

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

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

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

Part III of this Form 10-K or any amendment to this Form 10-K.

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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. (Check one)

Large Accelerated Filer  Accelerated Filer   
Non-accelerated Filer  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

The aggregate market value of the registrant's outstanding common stock held by non-affiliates of the registrant on June 30, 2015 was \$816,967,639 based on a closing market price of \$16.25 as quoted on the NASDAQ Global Select Market. There were 49,236,008 shares of common stock outstanding as of February 8, 2016.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Proxy Statement for the Annual Meeting of Stockholders to be held on May 11, 2016 are incorporated herein by reference in Part III.

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**ADTRAN, Inc.**  
**Annual Report on Form 10-K**  
**For the Fiscal Year Ended December 31, 2015**

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**PART I**

***ITEM 1. BUSINESS***

***Overview***

ADTRAN, Inc. (ADTRAN) is a leading global provider of networking and communications equipment. Our solutions enable voice, data, video and Internet communications across a variety of network infrastructures. These solutions are deployed by many of the United States' and the world's largest service providers (SPs), distributed enterprises and small and medium-sized businesses, public and private enterprises, and millions of individual users worldwide.

We were incorporated under the laws of Delaware in November 1985, and commenced operations in January 1986. We are headquartered in Cummings Research Park in Huntsville, Alabama. The mailing address at our headquarters is 901 Explorer Boulevard, Huntsville, Alabama, 35806. The telephone number at this location is (256) 963-8000.

***Products and Services***

We maintain two operating divisions based on our product and service offerings: the **Carrier Networks Division** and the **Enterprise Networks Division**. These divisions serve distinct markets and support sales globally, operating as two reportable segments. Our Carrier Networks product sales accounted for 83.2% of our total revenue in 2015, while Enterprise Networks product sales accounted for 16.8% of total revenue. Sales to countries outside of the United States are included in these aggregate divisional figures, but, when accounted for separately, comprised 30.1% of total revenue. For more financial information about these divisions and geographic areas, see Note 11 to the Consolidated Financial Statements included in this report.

Our Carrier Networks Division offers broadband and optical infrastructure products and services used by SPs to aggregate, transport, and deliver voice, data, Internet and video services to their customers' premises and mobile network cell sites. These products are typically located in central office (CO) exchanges or outside plant cabinets, infrastructure locations for business services and mobile backhaul networks, and residential and business premises.

Our Enterprise Networks Division provides cloud connectivity solutions, such as IP business gateways, access routers and switches. Our ProCloud services provide customizable, cloud-management platforms with centralized configuration and firmware management, proactive monitoring and alerts, and quick access to technical experts for 24/7 support. These enterprise communications solutions enable businesses to develop voice, data, Internet and video networks at a single customer premises or among multiple sites. Enterprise Networks products are sold through SPs in the form of bundled business services and solutions resale, as well as through value-added resellers (VARs).

Both of our divisions compete in the global communications industry, specifically, in the areas of Ethernet and Internet Protocol (IP)-based networks. As SPs and enterprises continue to transition to all IP-based networks, our access solutions enable them to cost-effectively deliver and scale higher-bandwidth video and data services. We continue to develop and improve broadband and fiber solutions in our core product areas—Broadband Access, Optical, and Internetworking—as SPs begin to offer wide-scale Internet services up to 1 Gigabit and higher in a cost-effective manner.

*For a discussion of risks associated with our products see Risk Factors. We must continue to update and improve our products and develop new products in order to compete and to keep pace with improvements in communications*

*technology , and Risk Factors If our products do not interoperate with our customers networks, installations may be delayed or cancelled, which could harm our business , in Item 1A of this report.*

**Broadband Access Infrastructure for Advanced Services**

SPs have historically deployed specific, independent networks to meet the needs of their residential, enterprise, and mobile backhaul customers, resulting in an overlay of disparate networks. SPs are now being challenged to deliver Gigabit-ready residential services, widely available high-bandwidth cloud connectivity services for enterprise customers, and scalable Ethernet and optical networking for mobile backhaul and data center connectivity, all requiring varying service level agreements (SLAs) and simplified service automation. It is becoming impractical to continue the proliferation of separate overlay networks to address each of these market segment needs. In response to this demand, we see SPs making a fundamental shift toward IP network convergence. Communications SPs have four fundamental network priorities: (1) high-capacity residential services, (2) enterprise services, (3) the expansion of fourth-generation mobile/Long Term Evolution (4G/LTE) and carrier-based Wi-Fi networks, and (4) data center connectivity for cloud services.

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These fundamental priorities are driving communication network operators to transition their networks to a single all-fiber, cloud-controlled and software defined future state for large-scale converged service delivery. SPs plan to support the full range of residential, enterprise, and mobile backhaul requirements over a common, next-generation network capable of providing each segment's advanced service management. We believe that we are well-positioned to deliver flexible network solutions that enable network operators to meet today's service demands, while enabling the transition to fully converged, scalable, highly automated, cloud-controlled voice, data, Internet and video network of the future.

### ***Software-Defined Networks (SDN) and Network Functions Virtualization (NFV)***

SDN and NFV are two key technologies that are enabling service providers and enterprises to create more agile, programmable networks. SDN enables highly scalable network programmability to help facilitate service automation. NFV virtualizes functions typically performed in proprietary hardware and moves them into software functions that run on general purpose hardware. The combination of these two technologies enables a long-term vision of user-driven networks where subscribers can activate a wide range of sophisticated services on-demand.

We will continue to apply SDN and NFV to our product and service offerings moving forward. In particular, we will use these technologies to provide end-to-end service automation of our solutions and third party devices. This capability will enable service providers to speed up the time to market for new service introduction, while providing a platform on which they can monetize new managed service offerings enabled by technologies like the Internet of Things.

### ***Major Product Categories***

Our three major product categories are Carrier Systems, Business Networking, and Loop Access.

**Carrier Systems** products are used by communications SPs to provide data, voice, Internet and video services to consumers and enterprises. This category includes the following product areas and related services:

#### Broadband Access

Total Access® 5000 Series of Multi-Service Access Node (MSANs)

hiX 5600 Series of MSANs

Total Access 1100/1200 Series of Fiber to the Node (FTTN) products

hiX 1100 Series of FTTN products

VDSL2 Vectoring based Digital Subscriber Line Access Multiplexer (DSLAM) products



ADTRAN 500 Series of FTTdp G.fast Distribution Point Units (DPU)

Optical

Optical Networking Edge (ONE)

NetVanta® 8000 Series of Fiber Ethernet Access Devices (EAD)

NetVanta 8400 Series of 10Gig Multi-service Edge Switches

OPTI-6100® and Total Access 3000 optical Multi-Service Provisioning Platforms (MSPP)

Pluggable Optical Products, including Small Form Factor Pluggable (SFP), 10-Gigabit Fiber Small Form Factor Pluggable (XFP), and SFP+

Time Division Multiplexed (TDM) systems

**Business Networking** products provide access to communication services and facilitate the delivery of cloud connectivity and enterprise communications to the small and mid-sized enterprise (SME) market. This category includes the following product areas and related services:

Internetworking products

Total Access IP Business Gateways

Optical Network Terminals (ONTs)

Bluesocket® virtual Wireless LAN (vWLAN®)

NetVanta

Access Routers

Enterprise Session Border Controllers (eSBC)

Managed Ethernet Switches

IP Business Gateways

Unified Communications (UC) solutions

Carrier Ethernet Network Termination Equipment (NTE)

Carrier Ethernet Routers and Gateways

Network Management Solutions

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**Loop Access** products are used by carrier and enterprise customers for access to copper-based communications networks. This category includes the following product areas and related services:

High bit-rate Digital Subscriber Line (HDSL) products

Digital Data Service (DDS)

Integrated Services Digital Network (ISDN) products

In addition, we identify subcategories of product revenues, which we divide into Core products and Legacy products. Our Core products consist of Broadband Access and Optical products (included in Carrier Systems) and Internetworking products (included in Business Networking). Our Legacy products include HDSL products (included in Loop Access) and other products not included in the aforementioned core products.

**Carrier Networks Division**

Carrier SPs are focused on accelerating the delivery of revenue-generating broadband, business and mobile services, while also streamlining and automating their networks. We develop and provide the flexible, next-generation access solutions that allow SPs to reduce network costs and expedite the delivery of their services. This enables them to connect greater numbers of customers at ever-increasing speeds and with better quality, thus allowing for new revenue generation and decreased customer churn. Our Carrier Networks Division provides the network access products, services and support that SPs require to connect customers to their core transmission and switching networks. Specifically, we deliver broadband solutions that enable high-speed digital services. Our customer base includes many of the major SPs in the United States and around the globe, including Incumbent Local Exchange Carriers (ILECs), Public Telephone and Telegraph companies (PTT), Competitive Local Exchange Carriers (CLECs), and Cable Multi-service Operators (MSOs), as well as many U.S.-based independent operating companies, utilities, municipalities and wireless SPs. We are a global solutions provider, with major customers in North America, the Europe, Middle East and Africa (EMEA) region, Latin America, Australia, and other regions of the world.

Our products and services provide a complete end-to-end solution for carriers by supporting both new fiber-based infrastructure and enabling them to reuse their existing copper infrastructure, thus lowering their overall cost to deploy advanced Ethernet services. Carrier services enabled using our Ethernet-based systems include traditional voice services, VoIP, IPTV, RF Video, high-speed Internet access, mobile broadband and data services based on Ethernet, frame relay, TDM and ATM technologies. These carrier services connect the network with user components such as switches, routers, gateways, PBXs and wireless LAN products. Our devices are deployed at business sites, making it possible for carriers to provide Ethernet services to SMEs and distributed enterprises.

Products marketed under the Total Access and hiX brands are platforms that can accommodate the demand for a variety of high-speed Internet, voice, data and video services from businesses and residential customers. Our Total Access product portfolio is focused on the American National Standards Institute (ANSI) markets for residential and business broadband applications and global markets for Carrier Ethernet and Packet Optical applications. Our hiX product portfolio is focused on the European Telecommunications Standards Institute (ETSI) markets for residential and business broadband applications and is deployed in central exchanges, outside plant cabinets or multi-tenant units. These modular, scalable and geographically distributed products offer advantages such as lower start-up costs, more flexible service deployment, greater network interface options, increased bandwidth, grow-as-you-go modularity and

centralized network management. Our products connect to fiber optic and copper network backbones, making them suitable for installation in many parts of the network and enabling deployment of a wide range of data, voice, Internet and video services around the world.

In the United States, the Total Access products, as well as a variety of other ADTRAN products, are accepted by the USDA Rural Utilities Service (RUS) as suitable for use in RUS-financed communications systems. Deployed in COs, remote terminals, or multi-tenant units, the Total Access system encompasses carrier-class solutions for fiber and copper broadband multi-service access, DSL access, Carrier Ethernet access and narrowband multi-service access.

### *Advanced IP Services*

Our broadband access products offer SPs the ability to increase bandwidth and improve the quality of services to customers. These products are used in high-density CO applications, fiber-fed remote terminals and outside plant deployments, providing support for Ethernet delivery of advanced IP services over fiber or copper, as well as legacy TDM and ATM networks. Our broadband access products are available in models that are temperature-hardened for use in harsh, outside-plant environments.

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**Table of Contents*****High-speed Residential Services***

Designed with fiber deployment in mind, our Total Access 5000 Series provides high-capacity switching and bandwidth for Fiber-to-the-Premises (FTTP) services based on advanced optical standards. It also provides other ultra-broadband services based on advanced copper technologies used in Fiber-to-the-Node, Cabinet or distribution point (FTTN/FTTCab/FTTdp). FTTP networks are typically based on the Gigabit Passive Optical Networks (GPON) standard, which have two key network components: the Optical Line Terminal (OLT) and the customer-side Optical Network Terminal (ONT). The OLT is typically located in communications exchanges and other network COs within MSANs. The OLT provides Gigabit levels of shared or dedicated bandwidth across thousands of subscribers, enabling the delivery of advanced solutions like IPTV across an all-Ethernet architecture. On the other end of the FTTP network in every subscriber's home is a provider-owned ONT that terminates the fiber optics from the OLT and converts the optical signals to electric signals, enabling the in-home network to deliver voice, data, Internet and video services. Customer-owned connected devices, such as computers, typically utilize Ethernet, a standard networking technology, making an all-Ethernet solution preferable. Our portfolio of ONTs, including the Total Access 300 Series, and next-generation ADTRAN 400 and 500 Series ONTs provides carriers with a widely differentiated set of service delivery options for residential, business and mobile backhaul opportunities.

To accelerate the penetration of 100Mbps and Gigabit services at the lowest cost per bit deployed, both the Total Access and hiX-based platforms allow SPs to deliver ultra-broadband speeds over their existing copper infrastructure using established VDSL2 vectoring and emerging G.fast technologies. These high-speed access technologies economically provide broadband connections to customers' homes, enabling the SPs' delivery of advanced communications and entertainment services that are being demanded by customers. Capabilities like our VDSL2 vectoring, a cross-talk cancellation technology that expands typical 30-50Mbps DSL rates to 100Mbps or more per pair, are actively being deployed to help SPs overcome the challenges of using existing copper facilities to compete with 100Mbps and higher service offerings without the need to invest in and/or overcome the access obstacles often associated with end-to-end FTTP networks.

To further enhance the competitiveness of operators using FTTCab and FTTdp architectures, we have more than 60 G.fast ultra-broadband trials underway with SPs in EMEA, North America, Latin America, and Asia-Pacific. The trials demonstrate that G.fast is quickly moving from a technology concept to a commercial reality supported by a portfolio of FTTdp environmentally sealed platforms. ADTRAN's G.fast solutions are enabling SPs to address the unique and varied deployment scenarios encountered where fiber-to-the-home (FTTH) is cost prohibitive, particularly in Multiple Dwelling Units (MDUs).

The Total Access 1100 and hiX 1100 Series of environmentally sealed broadband access products provide an innovative approach to the successful deployment of Fiber-to-the-Node (FTTN) architectures. Recognizing the technological and economic barriers of traditional cabinet-based DSL deployments, we designed this series of products to eliminate the need for expensive cabinet enclosures, heat exchangers and site construction, which account for a large portion of the total cost of deployment. In many cases, 1100 Series DSLAMs can deliver services for significantly less than traditional cabinet-based systems. This flexibility, combined with VDSL2 with system-level vectoring, allows carriers to economically utilize the capacity of existing copper networks over the last mile.

The hiX 5600 Series leverages the latest technology in next-generation VDSL2 vectoring as a residential MSAN in ETSI markets to deliver high-density DSL and voice technologies. hiX 5600 Series MSANs also support residential point-to-point fiber applications. Additionally, hiX platforms offer a comprehensive voice feature set for ETSI markets.

***Business Ethernet Services***

Business Ethernet is growing with the proliferation of packet-based infrastructure in both enterprise and carrier networks. The implementation of Ethernet throughout the communications network provides benefits in both equipment and operational savings. While Gigabit speeds are increasingly becoming available throughout the access network, they are far from being widespread. Ethernet's growing presence throughout the network is driving costs down, resulting in increasing availability to business customers. We provide Metro Ethernet Forum (MEF)-compliant products that enable the delivery of these services.

We have a complete portfolio of solutions for Business Ethernet services utilizing Fiber (EoF), Copper (EoCu) and TDM (EoTDM), enabling cost-effective business Ethernet service delivery across a variety of network infrastructures. The Total Access 5000 supports standards-based copper pair bonding of xDSL loops for direct Ethernet service delivery. Leveraging a complete end-to-end solution with NetVanta 800, NetVanta 8000 and NetVanta 8400 Series network termination equipment, the Total Access 5000 and hiX 5600 offer an innovative approach for the delivery of Ethernet services by aggregating bonded copper, bonded circuits, and fiber, while supporting multi-megabit rates for MEF-certified carrier Ethernet circuits. This combination allows carriers to offer Ethernet services across their entire network, enabling new revenue-generating services for businesses.

### ***Packet Optical Networking, Optical Access and Optical Transport***

Mobile networks that were originally built for voice communications are now being optimized for data applications, putting strain on the mobile backhaul network. With the introduction of carrier-class Ethernet technologies, operators can now take advantage of fiber facilities to achieve the highest traffic-carrying capacity utilization of their embedded investment and provide a network migration path toward an all-packet network. We have integrated EoF in the Total Access 5000 and NetVanta 8000/8400 platforms to offer a scalable solution that supports service migration as providers strive to meet the customer demand for greater bandwidth. EoF is an ideal transport method for mobile backhaul networks, enabling long-haul reach to residential and business networks as wireless needs continue to grow.

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Our ONE products enables integrated optical transport solutions and high-performance packet optical services at the network edge. ONE solutions combine right-sized core packet optical networking like miniature Reconfigurable Optical Add Drop Multiplexer (mini-ROADM), Wave Division Multiplexing (WDM), Scalable Carrier Ethernet, Optical Transport Network (OTN), and SONET/SDH with high-speed access services in the Total Access 5000 Series of MSANs. ONE modules fit into the Total Access 5000 Series to deliver integrated access, aggregation and transport, allowing SPs to simplify service delivery and network operation to improve profitability. Specifically, ONE enables SPs to deliver, aggregate, and transport carrier-grade services, including multiple 10Gbps interfaces. The ONE portfolio supports agile photonics and tunable pluggable optics. These advancements provide operators with a flexible, efficient and scalable network architecture, improving their market responsiveness and speeding the transition from circuit-based to packet optical services.

The NetVanta 8400 Series 10G Multi-service Edge Switch has achieved MEF Carrier Ethernet 2.0 (CE2.0) certification. MEF CE2.0 compliance ensures support for SLA-based Carrier Ethernet services, a critical requirement for SPs looking to support Gigabit services in MDU environments. The coexistence of commercial and residential customers presents the opportunity to converge premium Gigabit services across a range of market verticals from Gigabit broadband to 1 GE and 10 GE SLA-based services for both business cloud connectivity and small-cell backhaul segments.

One of the challenges presented in the MDU environment is how to preserve a high-quality experience as Gigabit services converge for multiple vertical markets. As high-bandwidth services are delivered over the access network, the effective aggregation of those services is required. Network operators are, as a result, deploying both fiber-based access and packet-optical aggregation solutions closer to the customer edge to support both inter- and intra-building premium service delivery and aggregation. This enhanced scalability and quality assurance allows carriers to expand services to address gaps in mobile services coverage that can be found in high-rise residential and commercial buildings. These MDUs are ideal targets for small cell deployments that require 50-100 Mbps, scalable to 1 GE, of specialized backhaul access from multiple locations in a building.

All of these products enable wireless and wireline SPs to more efficiently handle network traffic by consolidating multiple circuits into a single facility, upgrading their networks to support next-generation services, and improving backhaul efficiency. These devices provide a migration path from TDM systems to Ethernet/IP networks and also support techniques for bonding multiple physical circuits into a single virtual circuit.

***Service and Support***

In addition to our product portfolio and standard pre-sales and post-sales technical support, our Carrier Networks Division provides customers with a full-range of network implementation, maintenance and management services. Our network implementation service offerings include engineering, site preparation, cabinet placement, installation, configuration, turn-up and test, training, project management services, and fully engineered pre-assembled, wired rack and cabinet assemblies. Our maintenance services are specifically designed to protect customers' networks from unnecessary downtime through services such as managed spares, extended warranty, and remote or on-site technical support beyond our standard warranty coverage. Management services facilitate remote management and monitoring of SP networks.

***Network and Services Management***

As communications solutions and networks become more complex, the need for carrier-class management systems becomes vital to ensure operational efficiencies. A system-level view is necessary, and service awareness is increasingly important. We develop and support systems to centralize and automate the configuration, provisioning

and management of our network access products. These systems are used to configure, monitor and control ADTRAN equipment installed in the network and ensure communication with the SP's central management system to reduce technician dispatches and operating costs. Our Advanced Operational Environment (AOE) products provide integrated, end-to-end, service-aware network management tools that enhance network planning, service activation, service assurance and decision support tools for our customers' operations.

**Enterprise Networks Division**

Our Enterprise Networks Division delivers a full portfolio of networking and communications solutions tailored for small and medium-sized businesses, as well as distributed enterprises. Our portfolio includes Cloud Connectivity solutions, such as IP business gateways and access routers, which provide business access to SP networks, and Enterprise Communications solutions, enabling businesses to construct voice, data and video networks at a single site or among distributed sites. These products are sold through SPs in the form of bundled business services and solutions resale and through VARs.



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With the increased speed, capacity and availability of broadband services to businesses and the proliferation of mobile broadband devices such as smartphones and tablets, both SPs and enterprises are rapidly migrating to cloud-based services and wireless solutions for their communications and networking needs. Businesses of all sizes are increasingly using the cloud for voice, data, video, computing, storage and applications. As business workers adopt mobile devices both inside and outside the physical office, convergence with fixed VoIP and UC solutions are emerging. Wireless networks in the enterprise are beginning to converge with wired networks. This wireless-wireline convergence, along with the merging of voice, data, and messaging from any location or device, results in increased employee efficiency and productivity. Our Enterprise Networks Division is addressing these major market shifts by focusing on solutions in two key areas: Cloud Connectivity and Enterprise Communications.

***Cloud Connectivity***

Our Cloud Connectivity solutions, including our Total Access and NetVanta IP Business Gateway (IPBG) and NetVanta Access Router products, empower SPs to deliver hosted and bundled service offerings that connect businesses to the public or private cloud. Service offerings that are delivered utilizing our Cloud Connectivity solutions include: Hosted Voice and UC, Hosted Wireless Local Area Networking (WLAN), Business Internet Access, MEF-compliant Carrier Ethernet, Private Network, Session Initiation Protocol (SIP) Trunking, Enterprise Session Border Control (eSBC) functionality, Managed UC, and SIP Trunking with PBX. Enterprise Network Division solutions offered as key elements of these SP business bundles include our Cloud Connectivity portfolio of IPBGs and Access Routers (used to provide connectivity to the business location), and our Enterprise Communications portfolio of vWLAN, and Ethernet Switches (used to provide the business productivity component of the SP bundled services).

Our Total Access, NetVanta IPBGs and NetVanta Access Routers are deployed by SPs at the demarcation point of the customer premises. An IPBG combines the functionality of a voice gateway, multiservice router, eSBC, SIP Proxy, and firewall into a single device. Our products offer an integrated, cost-effective platform for delivering cloud services to enterprise customers. Our multiservice routers move data between networked computers over public or private IP, Frame Relay, Multi-Protocol Label Switching (MPLS) leased-line infrastructures, and carrier-supplied Ethernet services. These devices provide features to route traffic between multiple destinations, secure the network against cyber-attacks, ensure the privacy of data as it is transported across the Internet, and restore communications in the event of equipment or network failure. Our multiservice routers provide Internet access and interconnect corporate locations. The NetVanta router portfolio, provided in modular and fixed-port configurations, offers an assortment of business-class features including: Quality of Service (QoS), Firewall, VPN, Network Performance Monitoring, Packet Capture, eSBC, SIP Proxy, Voice Quality Monitoring (VQM), and numerous MEF-compliant Carrier Ethernet features.

***Enterprise Communications***

Our Enterprise Communications solutions are premises-based and enable businesses to become more productive and capable through efficient communications. We provide enterprises with solutions from the network edge to the desktop that create business efficiency and capability while driving employee productivity. Our Enterprise Communications solutions simplify network support and ensure ease of scalability, all while lowering the Total Cost of Ownership (TCO). These solutions include unified communications and wireless and wireline LAN infrastructure solutions.

Our Bluesocket vWLAN solutions deliver endpoints across the enterprise by utilizing virtualized, cloud-based solutions for connectivity, communications and collaboration. With the proliferation of smart phones, tablets and wireless devices, end-users are now dictating which devices should be supported across the enterprise. This Bring

Your Own Device (BYOD) trend has forced the proliferation of wireless connectivity campus wide and is no longer limited to conference rooms and building lobbies. Users now expect to be able to roam across the enterprise campus while maintaining a persistent IP session to support voice, video and other wireless applications without interruption. Bluesocket vWLAN solutions allow users to access enterprise resources anytime, anywhere, on any device and deliver a unified service experience. These solutions leverage the scalability, reliability and cost benefits of virtualization and are cloud-ready for easy deployment and management and complement our portfolio of internetworking solutions.

Our NetVanta managed Layer 2 and Layer 3 (L2/L3) Ethernet switches complement our Bluesocket vWLAN solutions, providing integrated wireless/wireline LAN deployments and connectivity from the Wide Area Network (WAN) to the end user's desktop computer and IP Phone. Our managed L2/L3 switches offer speeds up to 10 Gigabits per second and include Power over Ethernet (PoE) options for powering IP phones, wireless network access points, IP cameras and other critical business networking devices.

### ***Common Internetworking Software***

We view the continued development and evolution of our internetworking software as critical to our success in bringing feature-rich, reliable solutions to market. As such, our internetworking software is common across many of our products, optimizing our product development resources and minimizing time to market for new products and features. It also ensures common configuration practices, policies, protection schemes, and management interfaces for our carrier customers providing an advantage from a TCO perspective.

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### *Configuration and Network Management*

We develop and support network productivity tools and systems to centralize the configuration and management of our internetworking products. These tools aid in the management of networks powered by our internetworking products and include the nCommand Managed Service Provider (MSP) management platform. nCommand MSP streamlines SPs' product life cycle management efforts including remote monitoring and management of NetVanta or Total Access solutions. A web-based platform, nCommand MSP simplifies new device deployment and enables MSPs, SPs and enterprise IT organizations to deliver on SLAs, improve customer service response time, reduce network downtime and proactively monitor and report network performance, all while reducing operational costs.

### *Service and Support*

In addition to our product portfolio, we offer a variety of services and support options to ensure we are responsive to customers who deploy our networking and infrastructure solutions. We offer pre-sales and post-sales technical support and a variety of training options. We also offer a complete portfolio of professional services within our ProServices® offering. We offer ProStart® installation and ProCare® maintenance services designed to protect customers' networks from unnecessary downtime. ProCare guarantees priority access to technical support engineers and offers five different maintenance programs ranging from five days-a-week, eight hours-a-day and next business day equipment replacement to seven days-a-week, 24 hours-a-day and equipment replacement within four hours of notification. Our service and support offerings are available to all of our customers.

In 2015, we continued to add customers for both our ProCloud and ProCloud Plus cloud-based managed service offerings. ProCloud offers a managed, business-class networking infrastructure supporting wireless LAN and other networking needs. ProCloud offers a 7x24 service, providing network monitoring and management reports to reduce IT support burdens. When coupled with ProStart and ProCare, our ProCloud service offers turnkey installation, maintenance, and management.

### Customers

We have a diverse customer base, which is segmented based on the markets served and typically within each of our two divisions.

Customers of our **Carrier Networks Division** include major SPs, independent communications operating companies, competitive service providers, cable MSOs, Internet service providers, utilities, municipalities and wireless service providers. Major SPs and many smaller providers require product approval prior to adopting a vendor's products for use in their networks. We are involved in a constant process of submitting new and succeeding generations of products for approval. Our products are widely deployed in many SP networks.

Customers of our **Enterprise Networks Division** include major SPs, cable MSOs, independent communications companies and competitive service providers. Additionally, SME organizations purchase our solutions through a two-tier distribution channel. The two-tier distribution channel is comprised of several large distributor partners and an extensive network of VARs as described in *Distribution, Sales and Marketing* below. Vertical markets where our solutions are used include retail, food service, healthcare, finance, government, education, manufacturing, military, transportation, hospitality and energy/utility.

Three customers, CenturyLink, Inc., Deutsche Telekom, AG, and Windstream Corporation, individually comprised more than 10 percent of our revenue in 2015. The revenues from these customers are reported in both the Carrier Networks and Enterprise Networks segments.

*For a discussion of risks associated with customers, SPs and approval processes, see Risk Factors The lengthy sales and approval process required by major and other SPs for new products could result in fluctuations in our revenue , Risk Factors We depend heavily on sales to certain customers; the loss of any of these customers would significantly reduce our revenues and net income , and Risk Factors Consolidation and deterioration in the competitive SP market could result in a significant decrease in our revenue , in Item 1A of this report.*

**Distribution, Sales and Marketing**

We sell our **Carrier Networks Division** products globally through our direct sales organization and our distribution network. Our direct sales organization supports major accounts and has offices in a number of domestic and international locations. Sales to most competitive SPs and independent telephone companies are fulfilled through a combination of direct sales and major technology distribution companies.

Prior to placing any orders, SPs typically require lengthy product qualification and standardization processes that can extend for several months or years. Once approved, product orders are typically placed under single or multi-year supply agreements that are generally not subject to minimum volume commitments. SPs generally prefer having two or more suppliers for most products, so individual orders are usually subject to competition based on some combination of total value, service, price, delivery and other terms.

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Similar to Carrier Networks products, **Enterprise Networks Division** products are fulfilled through a combination of direct sales and major technology distribution companies. This is supported by a direct sales organization for major accounts and a channel-based sales organization to facilitate sales to our partners. VARs and system integrators may be affiliated with the company as a channel partner, or they may purchase from a distributor in an unaffiliated fashion. Affiliated partners participate with us at various program levels, based on sales volume and other factors, to receive benefits such as product discounts, market development funds, technical support and training. We maintain field offices worldwide to support direct sales, distributors, VARs and system integrators.

Outside of the United States, most Carrier Networks products are sold through our direct sales organization, and Enterprise Networks products are sold direct or through distribution arrangements customized for each region. Each region is supported by a field office that offers sales and support functions, and in some cases, warehousing and manufacturing support.

Our field sales organizations, distributors, and SP customers receive support from regional-based marketing, sales, and customer support groups. Under certain circumstances, other headquarters personnel may be involved in sales and other activities.

## **Research and Development**

Rapidly changing technologies, evolving industry standards, changing customer requirements, and continuing developments in communications service offerings characterize the markets for our products. Our on-going ability to adapt to these changes and to develop new and enhanced products that meet or anticipate market demand is a significant factor influencing our competitive position and our prospects for growth.

During 2015, 2014, and 2013, product development expenditures totaled \$129.9 million, \$132.3 million, and \$131.1 million, respectively. Our product development activities are an important part of our strategy. We plan to maintain an emphasis on product development each year to respond to rapidly changing technology and evolving industry standards.

We strive to deliver innovative network access solutions that lower the total cost of deploying services, increase the level of performance achievable with established infrastructures, reduce operating and capital expense for our customers, increase network bandwidth and functionality, and extend network reach. Our development process is conducted in accordance with ISO 9001, TL 9000, and ISO 14001, which are international standards for quality and environmental management systems.

While we develop most of our products internally, in some cases we license intellectual property (IP) or use Original Design Manufacturer (ODM) partners across certain products. Internal development on advanced technology products gives us more control over design and manufacturing issues, while for traditional designs, ODM and/or licensed IP gives us the ability to leverage the economies of scale of our technology partners. This balanced approach in product development ensures we provide a best in class approach to our customers.

As we continue to create more software-based IP, such as our SDN/NFV portfolio, our use of Agile Development Methodologies ensures we remain responsive and customer-focused.

Our ability to continually reduce product costs is an important part of our overall business strategy. Our product development efforts are often centered on entering a market with improved technology, allowing us to offer products at competitive prices. We then compete for market share. We continually re-engineer successive generations of the product to improve our product costs.

Product development activities focus on products to support both existing and emerging technologies in the communications industry in segments of our markets that we consider viable revenue opportunities. We are actively engaged in developing and refining technologies to support data, voice, and video transport primarily over IP/Ethernet network architectures. This includes Ethernet aggregation, fiber optic transport and access, DSL access, access routing, Ethernet switching, wireless LANs, integrated access, converged services, VoIP, network management, and professional services.

A centralized research function supports product development efforts throughout the company. This group provides guidance to our various product design and engineering teams in digital signal processing technologies, computer simulation and modeling, CAD/CAM tool sets, custom semiconductor design, optical transceiver design, industry standards, and technological forecasting.

Many communications issues, processes and technologies are governed by Standards Development Organizations (SDOs). These SDOs consist of representatives from various manufacturers, SPs and testing laboratories working to establish specifications and compliance guidelines for emerging communications technologies. We are an active participant in several SDOs and have assisted with the development of worldwide standards in many technologies.

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Our SDO activities are primarily in the area of broadband access. This includes involvement with the ITU-Telecommunications sector (ITU-T), ATIS, ETSI, NICC (UK Interoperability Standards), and the Broadband Forum (BBF). We continue to be involved in the evolution of optical access technologies, participating in activities in the ITU-T, FSAN, and BBF on next-generation PON. We are also involved in standards development efforts related to maximizing the bandwidth potential of the copper pair to enable new applications. We participate in the ITU-T, and are currently involved in projects to enhance G.fast and specify a new symmetric 10 gigabit PON, XGS PON. We continue to be involved with the industry-wide interoperability, performance testing, and system-level projects related to those standards in the BBF and are leading the work in the BBF to specify the application of SDN and NFV in the access network. We are also members of ATIS, MEF, Open Compute Project, Wi-Fi Alliance (WFA) and the ETSI Network Functions Virtualization Industry Specification Group (NFV-ISG).

*For a discussion of risks associated with our research and development activities, see Risk Factors We must continue to update and improve our products and develop new products in order to compete and to keep pace with improvements in communications technology and Risk Factors We engage in research and development activities to improve the application of developed technologies, and as a consequence may miss certain market opportunities enjoyed by larger companies with substantially greater research and development efforts who may focus on more leading edge development , in Item 1A of this report.*

**Manufacturing and Operations**

The principal steps in our manufacturing process include the purchase and management of materials, assembly, testing, final inspection, packing and shipping. We purchase parts and components for the assembly of some products from a large number of suppliers through a worldwide sourcing program. In addition, we manage a process that identifies the components that are best purchased directly by contract manufacturers for use in the assembly of our products to achieve manufacturing efficiency, quality and cost objectives. Certain key components used in our products are currently available from a single source, and other key components are available from only a limited number of sources. In the past, we have experienced delays in the receipt of certain key components, which has resulted in delays in related product deliveries. We attempt to manage these risks through developing alternative sources, by staging inventories at strategic locations, through engineering efforts designed to obviate the necessity of certain components, and by maintaining close contact and building long-term relationships with our suppliers.

We rely on subcontractors for assembly and testing of certain printed circuit board assemblies, sub-assemblies, chassis, enclosures and equipment shelves, and to purchase some of the raw materials used in such assemblies. We typically manufacture our lower-volume, higher-mix product assemblies at our manufacturing site in Huntsville, Alabama. We continue to build and test new product prototypes and many of our initial production units for our products in Huntsville, and we later transfer the production of higher-volume, lower-mix assemblies to our subcontractors. Subcontract assembly operations can lengthen fulfillment cycle times, but we believe we can respond more rapidly to uncertainties in incoming order rates by selecting assembly subcontractors that have significant reserve capacity and flexibility. Our subcontractors have proven to be flexible and able to meet our quality requirements. We conduct the majority of all transactions with our foreign suppliers in United States currency.

We ship the majority of products to our U.S. customers from our facilities in Huntsville, Alabama, although we also fulfill customer orders from other locations near our customers' sites. The majority of our products shipped to EMEA customers come from locations in that region. We also ship directly from suppliers to a number of customers in the U.S. and international locations. Many of our facilities are certified pursuant to the most current releases of ISO 9001, TL 9000, and ISO 14001. Our Huntsville facilities and many of our key suppliers are U.S. Customs-Trade Partnership Against Terrorism (C-TPAT) certified. Our products are also certified to certain other telephone company standards, including those relating to emission of electromagnetic energy and safety specifications.

*For a discussion of risks associated with manufacturing activities, see Risk Factors Our strategy of outsourcing a portion of our manufacturing requirements to subcontractors located in various international regions may result in us not meeting our cost, quality or performance standards and Risk Factors Our dependence on a limited number of suppliers for certain raw materials and key components may prevent us from delivering our products on a timely basis, which could have a material adverse effect on customer relations and operating results , in Item 1A of this report.*

### **Competition**

We compete in markets for networking and communications equipment for SPs, businesses, government agencies and other organizations worldwide. Our products and services support the transfer of data, voice and video across SPs fiber, copper and wireless infrastructures, as well as across wide area networks, local area networks, and the Internet.

The markets for our products are intensely competitive, and numerous competitors exist in each of our product segments. These competitive conditions and recent declines in economic activity have resulted in competitor consolidations, bankruptcies and liquidations. Consumer acceptance of alternative communications technologies such as coaxial cable and cellular-based services that compete with our products has grown in recent years. Competition might further increase if new technologies emerge, new companies enter the market, or existing competitors expand their product lines.



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For our **Carrier Networks Division**, factors influencing the markets in which we currently compete or may compete in the future include the ability to:

Help the customer solve networking problems within the confines of restrained capital budgets;

Offer globally competitive solutions against a different set of competitors than in the United States;

Deliver solutions that fit the distributed networking model being deployed by most SPs;

Deliver solutions for SP networks as they increasingly focus on network transformation, convergence, and integration of services;

Deliver solutions at attractive price points;

Deliver reliability and redundancy, especially for higher bandwidth products;

Adapt to new network technologies as they evolve;

Compete effectively against large companies with greater resources;

Deliver products when needed by the customer;

Deliver responsive customer service, technical support and training; and

Assist customers requiring pre-assembled, turnkey systems and professional services.

Competitors of our Carrier Networks Division include large, established companies, such as Alcatel-Lucent (acquired by Nokia), ARRIS, Ciena Corporation, Fujitsu Network Communications, Huawei Technologies, and ZTE Corporation. There are also a number of smaller, specialized companies with which we compete, including Actelis Networks, Calix, Inc., Overture Networks (acquired by ADVA), and Zhong Technologies.

For our **Enterprise Networks Division**, factors influencing the markets in which we currently compete or may compete in the future include the ability to:

Satisfy the customer's need for a cost-efficient alternative to established internetworking suppliers;

Satisfy the customer's need to utilize the most cost-effective combination of transmission technologies to connect geographically dispersed locations;

Increase network performance and lower the customer's cost for communications services and equipment;

Add capacity and migrate to new or different technologies without a major system upgrade;

Continue to develop and support established platforms;

Offer products to address new networking technologies in a timely manner;

Deliver reliability and system backup, especially for higher bandwidth products;

Adapt to new network technologies as they evolve;

Deliver responsive customer service, technical support and training; and

Assist customers requiring hands-on installation and maintenance.

Competitors of our Enterprise Networks Division include: Aerohive Networks, Aruba Networks (a Hewlett Packard Enterprise company), AudioCodes, Cisco Systems, Inc., Edgewater Networks, Hewlett Packard Enterprise, Juniper Networks, Ruckus Wireless, and Ubiquiti Networks. Some of these companies compete in a single product segment, while others compete across multiple product lines.

Competitors of our services business include BlueStream and Ericsson, in addition to some of the competitors of the Carrier Networks Division, such as Fujitsu Network Communications, Alcatel-Lucent, and Calix, Inc.

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*For further discussion of risks associated with our competition, see Risk Factors We must continue to update and improve our products and develop new products in order to compete and to keep pace with improvements in communications technology and Risk Factors We compete in markets that have become increasingly competitive, which may result in reduced gross profit margins and market share , in Item 1A of this report.*

## **Seasonality**

We have experienced quarterly fluctuations in customer activity due to seasonal considerations. We typically experience reductions in order volume toward the beginning and end of the calendar year, which may result in lower revenues in the first and fourth quarters of our fiscal year. These seasonal effects may vary and do not always correlate to our operating results. Accordingly, they should not be considered a reliable indicator of our future revenue or operating results.

## **Foreign Currency**

We record transactions denominated in foreign currencies on a monthly basis using exchange rates from throughout the year. Assets and liabilities denominated in foreign currencies are translated at the balance sheet dates using the closing rates of exchange between those foreign currencies and the functional currency with any transaction gains or losses reported in other income (expense). Our primary exposures to foreign currency exchange rate movements are with our Mexican subsidiary, whose functional currency is the United States dollar, German subsidiary, whose functional currency is the Euro, and our Australian subsidiary, whose functional currency is the Australian dollar. Adjustments resulting from translating financial statements of international subsidiaries are recorded as a component of accumulated other comprehensive income (loss).

## **Backlog and Inventory**

A substantial portion of our shipments in any fiscal period relate to orders received and shipped in that fiscal period for customers under agreements containing non-binding purchase commitments. Further, a significant percentage of orders require delivery within a few days. These factors normally result in very little order backlog or order flow visibility. Additionally, backlog levels may vary because of seasonal trends, timing of customer projects and other factors that affect customer order lead times. We believe that because we fill a substantial portion of customer orders within the fiscal quarter of receipt, backlog is not a meaningful indicator of actual sales for any succeeding period.

To meet this type of demand, we have implemented supply chain management systems to manage the production process. We also maintain a substantial finished goods inventory. Our practice of maintaining sufficient inventory levels to assure prompt delivery of our products and services increases the amount of inventory that may become obsolete. The obsolescence of this inventory may require us to write down the value of the obsolete inventory, which may have an adverse effect on our operating results.

*For further discussion of risks associated with managing our inventory, see Risk Factors Managing our inventory is complex and may include write-downs of excess or obsolete inventory , in Item 1A of this report.*

## **Government Regulation**

Our products must comply with various regulations and standards established by communications authorities in various countries, as well as those of certain international bodies. For instance, environmental legislation within the European Union (EU) may increase our cost of doing business as we amend our products to comply with these requirements. The EU issued directives on the Restriction of the Use of Certain Hazardous Substances in Electrical

and Electronic Equipment (RoHS), Waste Electrical and Electronic Equipment (WEEE), and the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). We continue to implement measures to comply with the RoHS directive, the WEEE directive and the REACH regulation as individual countries issue their implementation guidance.

*For further discussion of risks associated with government regulation, see Risk Factors Our products may not continue to comply with evolving regulations governing their sale, which may harm our business and Risk Factors Regulatory and potential physical impacts of climate change and other natural events may affect our customers and our production operations, resulting in adverse effects on our operating results , in Item 1A of this report.*

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**Employees**

As of December 31, 2015, we had 1,991 full-time employees in the United States and in our international subsidiaries located in Canada, Mexico, the Asia-Pacific region, Europe and the Middle East region. The majority of ADTRAN GmbH employees, our subsidiary in Germany, are subject to collective bargaining agreements of either the Association of Metal and Electrical Industry in Berlin and Brandenburg e.V. or NORDMETALL Association of Metal and Electrical Industry e.V. A small number of our other employees are represented by a collective bargaining agreement. We have never experienced a work stoppage, and we believe that our relationship with our employees is good.

We also utilize contractors and temporary employees domestically and internationally in various manufacturing, engineering and sales capacities, as needed.

**Intellectual Property**

The ADTRAN corporate logo is a registered trademark of ADTRAN. The name ADTRAN is a registered trademark of ADTRAN. A number of our product identifiers and names also are registered. We claim rights to a number of unregistered trademarks as well.

We have ownership of over 540 patents worldwide related to our products and have over 160 additional patent applications pending, of which at least 12 have been approved and are in the process of being issued by various patent offices worldwide. Our patents expire at various dates between March 2016 and June 2034. We will continue to seek additional patents from time to time related to our research and development activities. We do not derive any material amount of revenue from the licensing of our patents.

We protect our intellectual property and proprietary rights in accordance with good legal and business practices. We believe, however, that our competitive success will not depend on the ownership of intellectual property, but instead will depend primarily on the innovative skills, technical competence and marketing abilities of our personnel.

The communications industry is characterized by the existence of an ever-increasing volume of patent litigation and licensing activities. From time to time we receive and may continue to receive notices of claims alleging that we are infringing upon patents or other intellectual property. We cannot predict whether we will prevail in any claims or litigation over alleged infringements, or whether we will be able to license any valid and infringed patents, or other intellectual property, on commercially reasonable terms. It is possible that litigation may result in significant legal costs and judgments. Any intellectual property infringement claims, or related litigation against or by us, could have a material adverse effect on our business and operating results.

*For a discussion of risks associated with our intellectual property and proprietary rights, see Risk Factors Our failure to maintain rights to intellectual property used in our business could adversely affect the development, functionality, and commercial value of our products , in Item 1A of this report.*

**Available Information**

A copy of this Annual Report on Form 10-K, as well as our Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to these reports, are available free of charge on the Internet at our Web site, [www.adtran.com](http://www.adtran.com), as soon as reasonably practicable (generally, within one day) after we electronically file these reports with, or furnish these reports to, the Securities and Exchange Commission (SEC). The reference to our Web site address does not constitute incorporation by reference of the information contained on the Web site, which

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information should not be considered part of this document. You may also read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., 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 an Internet site ([www.sec.gov](http://www.sec.gov)) that contains our reports, proxy and information statements, and other information that we have filed electronically with the SEC.

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***ITEM 1A. RISK FACTORS***

*The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements made by or on behalf of ADTRAN. ADTRAN and its representatives may from time to time make written or oral forward-looking statements, including statements contained in this report and our other filings with the SEC and other communications with our stockholders. Generally, the words, believe, expect, intend, estimate, anticipate, will, may, could and similar expressions identify forward-looking statements. We caution you that any forward-looking statements made by or on our behalf are subject to uncertainties and other factors that could cause these statements to be wrong. Some of these uncertainties and other factors are listed below. Though we have attempted to list comprehensively these important factors, we caution investors that other factors may prove to be important in the future in affecting our operating results. New factors emerge from time to time, and it is not possible for us to predict all of these factors, nor can we assess the impact each factor or combination of factors may have on our business.*

*You are further cautioned not to place undue reliance on those forward-looking statements because they speak only of our views as of the date the statements were made. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.*

*The following are some of the risks that could affect our financial performance or could cause actual results to differ materially from those expressed or implied in our forward-looking statements:*

***Our operating results may fluctuate in future periods, which may adversely affect our stock price.***

Our operating results have been and will continue to be subject to quarterly and annual fluctuations as a result of numerous factors. These factors include, but are not limited to:

Fluctuations in demand for our products and services, especially with respect to significant network expansion projects undertaken by communications SPs;

Continued growth of communications network traffic and the adoption of communication services and applications by enterprise and consumer end users;

Changes in sales and implementation cycles for our products and reduced visibility into our customers spending plans and associated revenue;

Reductions in demand for our legacy products as new technologies gain acceptance;

Our ability to maintain appropriate inventory levels and purchase commitments;

Price and product competition in the communications and networking industries, which can change rapidly due to technological innovation;

The overall movement toward industry consolidation among both our competitors and our customers;

Our dependence on sales of our products by channel partners, the timing of their replenishment orders, the potential for conflicts and competition involving our channel partners and large end use customers and the potential for consolidation among our channel partners;

Variations in sales channels, product cost or mix of products and services sold;

Delays in receiving product acceptance from certain customers as defined under contract, for shipments near the end of a reporting period;

Our ability to maintain high levels of product support and professional services;

Manufacturing and customer order lead times;

Fluctuations in our gross margin, and the factors that contribute to this as described below;

Our ability to achieve cost reductions;

The ability of our customers, channel partners, and suppliers to obtain financing or to fund capital expenditures;

Our ability to execute on our strategy and operating plans;

Benefits anticipated from our investments in engineering, sales and marketing activities;

The effects of climate change and other natural events;



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The effect of political or economic conditions, terrorist attacks, acts of war, or other unrest in certain international markets; and

Changes in tax laws and regulations, or accounting pronouncements.

As a result, operating results for a particular future period are difficult to predict, and prior results are not necessarily indicative of results to be expected in future periods. Any of the above mentioned factors, or other factors discussed elsewhere in this document, could have a material adverse effect on our business, results of operations, financial condition and cash flow that could adversely affect our stock price.

***Our revenue for a particular period can be difficult to predict, and a shortfall in revenue may harm our operating results.***

As a result of the many factors discussed in this report, our revenue for a particular quarter is difficult to predict and will fluctuate from quarter to quarter. Our typical pattern of customer orders requests product delivery within a short period following receipt of an order. Consequently, we do not typically carry a significant order backlog, and are dependent upon obtaining orders and completing delivery in accordance with shipping terms that are predominantly within each quarter to achieve our targeted revenues. Our net sales may grow at a slower rate than in previous quarters or may decline. Our deployment/installation cycle can vary depending on the customer's schedule, site readiness, network size and complexity and other factors, which can cause our revenue to fluctuate from period to period. Our ability to meet financial expectations could also be affected if the variable sales patterns seen in prior quarters recur in future quarters. We have experienced periods of time during which manufacturing issues have delayed shipments, leading to variable shipping patterns. In addition, to the extent that manufacturing issues and any related component shortages result in delayed shipments in the future, and particularly in quarters in which we and our subcontractors are operating at higher levels of capacity, it is possible that revenue for a quarter could be adversely affected, and we may not be able to remediate the conditions within the same quarter.

In the past, under certain market conditions, long manufacturing lead times have caused our customers to place the same order multiple times. When this multiple ordering occurs, along with other factors, it may cause difficulty in predicting our sales and, as a result, could impair our ability to manage parts inventory effectively.

We plan our operating expense levels based primarily on forecasted revenue levels. These expenses and the impact of long-term commitments are relatively fixed in the short term. A shortfall in revenue could lead to operating results being below expectations because we may not be able to quickly reduce these fixed expenses in response to short-term business changes.

***General economic conditions may reduce our revenues and harm our operating results.***

Economic conditions may contribute to a slowdown in communications industry spending, including specific market segments in which we operate. The potential reoccurrence of these trends and their duration and depth are difficult to predict. Capital spending for network infrastructure projects of our largest customers could be delayed or cancelled in response to reduced consumer spending, tight capital markets or declining liquidity trends. Sustained trends of this nature could have a material, adverse effect on our revenues, results of operations, financial condition and cash flow.

***Our exposure to the credit risks of our customers and distributors may make it difficult to collect accounts receivable and could adversely affect our operating results, financial condition and cash flow.***

Most of our sales are made on an open credit basis, frequently with payment terms of 30 to 45 days in the United States and typically longer in many geographic markets outside the United States. Our sales to customers outside of the United States as a percentage of our total sales have increased, and our total accounts receivable balance will likely increase. Our days sales outstanding (DSO) could also increase as a result of greater mix of international sales. Additionally, international laws may not provide the same degree of protection against defaults on accounts receivable as provided under United States laws governing domestic transactions; therefore, as our international business grows, we may be subject to higher bad debt expense compared to historical trends. Overall, we monitor individual customer payment capability in granting such open credit arrangements, seek to limit such open credit to amounts that we believe customers can pay, and maintain reserves we believe are adequate to cover exposure for doubtful accounts. In the course of our sales to customers, we may encounter difficulty collecting accounts receivable and could be exposed to risks associated with uncollectible accounts receivable. We may be exposed to similar credit risks relating to collections from distributors of our products, and we apply similar processes to monitor and reserve for any exposures. Turmoil in the financial markets could impact certain of our customers' ability to maintain adequate credit facilities with financial institutions, thereby potentially impacting their ability to pay their debts. While we attempt to monitor these situations carefully and attempt to take appropriate measures to collect accounts receivable balances, there are no assurances we can avoid accounts receivable write-downs or write-offs of doubtful accounts. Such write-downs or write-offs could negatively affect our operating results for the period in which they occur, and could potentially have a material adverse effect on our results of operations, financial condition and cash flow.

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*We expect gross margins to vary over time, and our levels of product and services gross margins may not be sustainable.*

Our level of gross margins may not be sustainable and may be adversely affected by numerous factors, including:

Changes in customer, geographic, or product mix, including software and the mix of configurations and professional services revenue within each product group;

Introduction of new products by competitors, including products with price-performance advantages;

Our ability to reduce product cost;

Increases in material or labor cost;

Foreign currency exchange rate movements;

Expediting costs incurred to meet customer delivery requirements;

Excess inventory and inventory holding charges;

Obsolescence charges;

Changes in shipment volume;

Our ability to absorb fixed manufacturing costs during short-term fluctuations in customer demand;

Loss of cost savings due to changes in component pricing or charges incurred due to inventory holding periods if parts ordering does not correctly anticipate product demand;

Lower than expected benefits from value engineering;

Increased price competition, including competitors from Asia, especially China;

Changes in distribution channels;

Increased warranty cost;

Liquidated damages costs relating to customer contractual terms; and

Our ability to manage the impact of foreign currency exchange rate fluctuations relating to our accounts receivable and accounts payable.

***We must continue to update and improve our products and develop new products in order to compete and to keep pace with improvements in communications technology.***

The markets for our products are characterized by rapidly changing technology, evolving industry standards, and continuing improvements in the communications service offerings of common SPs. If technologies or standards applicable to our products, or common SP offerings based on our products, become obsolete or fail to gain widespread commercial acceptance, our existing products or products under development may become obsolete or unmarketable. Moreover, the introduction of products embodying new technologies, the emergence of new industry standards, or changes in common SP offerings could adversely affect our ability to sell our products. For instance, we offer a large number of products that apply primarily to the delivery of high-speed digital communications over the local loop utilizing copper wire. We compete favorably with our competitors by developing a high-performance line of these products. We market products that apply to fiber optic transport in the local loop. We expect, however, that use of coaxial cable and mobile wireless access in place of local loop access will increase. Also, MSOs are increasing their presence in the local loop. To meet the requirements of these new delivery systems and to maintain our market position, we expect to continue to develop new products and/or modify existing products.

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Our sales and profitability in the past have, to a significant extent, resulted from our ability to anticipate changes in technology, industry standards and common SP offerings, and to develop and introduce new and enhanced products. Our continued ability to adapt will be a significant factor in maintaining or improving our competitive position and our prospects for growth. We cannot assure that we will be able to respond effectively to changes in technology, industry standards, common SP offerings or new product announcements by our competitors. We also cannot assure that we will be able to successfully develop and market new products or product enhancements, or that these products or enhancements will achieve market acceptance. Should the rate of decline in sales of certain traditional TDM based products exceed the rate of market acceptance and growth in sales of our newer IP-based products, our revenues may be adversely affected. Any failure by us to continue to anticipate or respond in a cost-effective and timely manner to changes in technology, industry standards, common SP offerings, or new product announcements by our competitors, or any significant delays in product development or introduction, could have a material adverse effect on our ability to competitively market our products and on our revenues, results of operations, financial condition and cash flow.

***Our products may not continue to comply with evolving regulations governing their sale, which may harm our business.***

Our products must comply with various regulations, regional standards established by communications authorities, import/export control authorities or other authorities who control the execution of trade agreements in various countries, as well as those of certain international bodies. Although we believe our products are currently in compliance with domestic and international standards and regulations in countries in which we currently sell, there can be no assurance that we will be able to design our products to comply with evolving standards and regulations in the future. Changes in domestic or international communications regulations, tariffs, application requirements, import/export controls or expansion of regulation to new areas, including access, communications or commerce over the Internet, may affect customer demand for our products or slow the adoption of new technologies which may affect our sales. Further, the cost of complying with the evolving standards and regulations, or the failure to obtain timely domestic or foreign regulatory approvals or certification such that we may not be able to sell our products where these standards or regulations apply, may adversely affect our results of operations, financial condition and cash flow.

***Failure to comply with the U.S. Foreign Corrupt Practices Act and similar laws associated with our global activities could subject us to penalties or other adverse consequences.***

A significant portion of our total revenues is generated from sales outside of the United States. As a result, we are subject to the U.S. Foreign Corrupt Practices Act (FCPA), which prohibits U.S. companies and their intermediaries from making corrupt payments to foreign officials for the purpose of directing, obtaining or keeping business, and requires companies to maintain reasonable books and records and a system of internal accounting controls. The FCPA applies to companies, individual directors, officers, employees and agents. Under the FCPA, U.S. companies may be held liable for the corrupt actions taken by employees, strategic or local partners or other representatives. If we or our intermediaries fail to comply with the requirements of the FCPA or similar legislation, governmental authorities in the U.S. and elsewhere could seek to impose civil and/or criminal fines and penalties which could have an adverse effect on our business, results of operations, financial condition and cash flow. To address this risk, we have implemented a comprehensive online training program for our employees.

***Our failure or the failure of our contract manufacturers to comply with applicable environmental regulations could adversely impact our results of operations.***

The manufacture, assembly and testing of our products may require the use of hazardous materials that are subject to environmental, health and safety regulations. Our failure or the failure of our contract manufacturers to comply with any of these applicable requirements could result in regulatory penalties, legal claims or disruption of production. In

addition, our failure or the failure of our contract manufacturers to properly manage the use, transportation, emission, discharge, storage, recycling or disposal of hazardous materials could subject us to increased costs or liabilities. Existing and future environmental regulations may restrict our use of certain materials to manufacture, assemble and test products. Any of these consequences could adversely impact our results of operations by increasing our expenses and/or requiring us to alter our manufacturing processes.

***If our products do not interoperate with our customers' networks, installations may be delayed or cancelled, which could harm our business.***

Our products must interface with existing networks, each of which may have different specifications, utilize multiple protocol standards and incorporate products from other vendors. Many of our customers' networks contain multiple generations of products that have been added over time as these networks have grown and evolved. Our products may be required to interoperate with many or all of the products within these networks as well as future products in order to meet our customers' requirements. If we find errors in the existing software or defects in the hardware used in our customers' networks, we may have to modify our software or hardware to fix or overcome these errors so that our products will interoperate with the existing software and hardware. Such issues may affect our ability to obtain product acceptance from other customers. Implementation of product corrections involving interoperability issues could increase our costs and adversely affect our results of operations.

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***The lengthy sales and approval process required by major and other SPs for new products could result in fluctuations in our revenue.***

In the industry in which we compete, sales and approval cycles are often lengthy. Selling efforts often involve a significant commitment of time and resources by us and our customers that may include extensive product testing, laboratory or network certification, or region-specific product certification and homologation requirements for deployment in networks. Additionally, a supplier must first obtain product approval from a major or other SP to sell its products to them. This process can last from six to 18 months, or longer, depending on the technology, the SP, and the demand for the product from the SP's subscribers. Consequently, we are involved in a constant process of submitting for approval succeeding generations of products, as well as products that deploy new technology or respond to new technology demands from a major or other SP. We have been successful in the past in obtaining these approvals. However, we cannot be certain that we will obtain these approvals in the future or that sales of these products will continue to occur. Any attempt by a major or other SP to seek out additional or alternative suppliers, or to undertake, as permitted under applicable regulations, the production of these products internally, could have a material adverse effect on our operating results. Furthermore, the delay in sales until the completion of the approval process, the length of which is difficult to predict, could result in fluctuations of revenue and uneven operating results from quarter to quarter or year to year.

***We engage in research and development activities to improve the application of developed technologies, and as a consequence may miss certain market opportunities enjoyed by larger companies with substantially greater research and development efforts who may focus on more leading edge development.***

A portion of our research and development activities are focused on the refinement and redefinition of access technologies that are currently accepted and commonly practiced, which may include emerging technologies not yet widely distributed across all networks. These research and development efforts result in improved applications of technologies for which demand already exists or is latent. We rarely engage in research projects that represent a vast departure from the current business practices of our key customers. This includes pioneering new services and participating in leading edge field trials or demonstration projects for new technologies. While we believe our strategy provides a higher likelihood of producing nearer term revenue streams, this strategy could reduce our ability to influence industry standards and share in the establishment of intellectual property rights associated with new technologies, and could result in lost revenue opportunities should a new technology achieve rapid and widespread market acceptance.

***We depend heavily on sales to certain customers; the loss of any of these customers would significantly reduce our revenues and net income.***

Historically, a large percentage of our sales have been made to major SPs and larger independent communications companies. In 2015, these customers continued to comprise over half of our revenue. As long as the major and larger independent communications companies represent such a substantial percentage of our total sales, our future success will significantly depend upon certain factors which are not within our control, including:

the timing and size of future purchase orders, if any, from these customers;

the product requirements of these customers;

the financial and operational success of these customers;

the impact of legislative and regulatory changes on these customers;

the success of these customers' services deployed using our products; and

the impact of work stoppages at these customers.

In the past, sales to our large customers have fluctuated and may fluctuate significantly from quarter to quarter and year to year. The loss of, or a significant reduction or delay in, sales to any such customer or the occurrence of sales fluctuations could have a material adverse effect on our business and results of operations. Further, any attempt by a major or other SP to seek out additional or alternative suppliers or to undertake, as permitted under applicable regulations, the production of these products internally, could have a material adverse effect on our operating results.

There has been a trend toward industry consolidation in our markets for several years. We expect this trend to continue as companies attempt to strengthen or hold their market positions and as companies are acquired or are unable to continue operations. This could lead to variability in our operating results and could have a material adverse effect on our business, operating results, financial condition and cash flow. In addition, particularly in the SP market, rapid consolidation will lead to fewer customers, with the effect that a loss of a major customer could have a material impact on our results that we would not have anticipated in a marketplace composed of more numerous participants.



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***Our strategy of outsourcing a portion of our manufacturing requirements to subcontractors located in various international regions may result in us not meeting our cost, quality or performance standards.***

We are heavily dependent on subcontractors for the assembly and testing of certain printed circuit board assemblies, subassemblies, chassis, enclosures and equipment shelves, and the purchase of some raw materials used in such assemblies. This reliance involves several risks, including the unavailability of, or interruptions in, access to certain process technologies and reduced control over product quality, delivery schedules, transportation, manufacturing yields and costs. We may not be able to provide product order volumes to our subcontractors that are high enough to achieve sufficient cost savings. If shipments fall below forecasted levels, we may incur increased costs or be required to take ownership of excess inventory. Changes in international tariff structures could adversely impact our product costs. In addition, a significant component of maintaining cost competitiveness is the ability of our subcontractors to adjust their own costs to compensate for possible adverse exchange rate movements. To the extent that the subcontractors are unable to do so, and we are unable to procure alternative product supplies, then our own competitiveness and results of operations could be adversely impaired. These risks may be exacerbated by economic or political uncertainties, terrorist actions, the effects of climate change, natural disasters or pandemics in the foreign countries in which our subcontractors are located.

To date, we believe that we have successfully managed the risks of our dependence on these subcontractors through a variety of efforts, which include seeking and developing alternative subcontractors while maintaining existing relationships; however, we cannot be assured that delays in product deliveries will not occur in the future because of shortages resulting from this limited number of subcontractors or from the financial or other difficulties of these parties. Our inability to develop alternative subcontractors if and as required in the future, or the need to undertake required retraining and other activities related to establishing and developing a new subcontractor relationship, could result in delays or reductions in product shipments which, in turn, could have a negative effect on our customer relationships and operating results.

***Our dependence on a limited number of suppliers for certain raw materials and key components may prevent us from delivering our products on a timely basis, which could have a material adverse effect on customer relations and operating results.***

Certain raw materials and key components used in our products are currently available from only one source, and others are available from only a limited number of sources. The availability of these raw materials and supplies may be subject to market forces beyond our control. From time to time, there may not be sufficient quantities of raw materials and supplies in the marketplace to meet customer demand. Many companies utilize the same raw materials and supplies that we do in the production of their products. Companies with more resources than our own may have a competitive advantage in obtaining raw materials and supplies due to greater buying power. These factors can result in reduced supply, higher prices of raw materials, and delays in the receipt of certain of our key components, which in turn may generate increased costs, lower margins, and delays in product delivery, with a corresponding adverse effect on sales, customer relationships, and revenue. Furthermore, due to general economic conditions in the United States and globally, our suppliers may experience financial difficulties, which could result in increased delays, additional costs, or loss of a supplier. We attempt to manage these risks through developing alternative sources, by staging inventories at strategic locations, through engineering efforts designed to obviate the necessity of certain components, and by building long-term relationships and close contact with each of our key suppliers; however, we cannot assure you that delays in or failures of deliveries of key components, either to us or to our contract manufacturers, and consequent delays in product deliveries, will not occur in the future.

In addition, the SEC has adopted disclosure requirements regarding the use of conflict minerals mined from the Democratic Republic of Congo and adjoining countries and procedures to identify the source of such minerals

included in manufactured products. The required disclosures began in 2014, and will require us to incur additional costs to verify the origins of the identified minerals used and comply with disclosure requirements. The implementation of these requirements could affect the availability of minerals used in the manufacture of a limited number of parts contained in our products. This may reduce the number of suppliers who provide conflict-free minerals, and may affect our ability to obtain products in sufficient quantities or at competitive prices. Our material sourcing is broad based and multi-tiered. While we are taking steps to identify sourcing based on recommended standards for our industry, we may not be able to conclusively verify the origins for all minerals used in our products. An inability to make a sourcing determination of minerals in our products could impact our revenues and harm our financial condition should our customers require that we certify that all components used in our products are free of minerals from this region.

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***We compete in markets that have become increasingly competitive, which may result in reduced gross profit margins and market share.***

The markets for our products are intensely competitive. Additional manufacturers have entered the markets in recent years to offer products in competition with us. Additionally, certain companies have, in recent years, developed the ability to deliver competing products using coaxial cable and cellular transmission, especially in high-density metropolitan areas. Competition would further increase if new companies enter the market or existing competitors expand their product lines. Some of these potential competitors may have greater financial, technological, manufacturing, sales and marketing, and personnel resources than we have. As a result, these competitors may be able to respond more rapidly or effectively to new or emerging technologies and changes in customer requirements, withstand significant price decreases, or devote greater resources to the development, promotion, and sale of their products than we can.

In addition, our present and future competitors may be able to enter our existing or future markets with products or technologies comparable or superior to those that we offer. An increase in competition could cause us to reduce prices, decrease our market share, require increased spending by us on product development and sales and marketing, or cause delays or cancellations in customer orders, any one of which could reduce our gross profit margins and adversely affect our business and results of operations.

***Our estimates regarding future warranty obligations may change due to product failure rates, installation and shipment volumes, field service repair obligations and other rework costs incurred in correcting product failures. If our estimates change, the liability for warranty obligations may be increased or decreased, impacting future cost of goods sold.***

Our products are highly complex, and we cannot assure you that our extensive product development, manufacturing and integration testing will be adequate to detect all defects, errors, failures and quality issues. Quality or performance problems for products covered under warranty could adversely impact our reputation and negatively affect our operating results, financial position and cash flow. The development and production of new products with high complexity often involves problems with software, components and manufacturing methods. If significant warranty obligations arise due to reliability or quality issues arising from defects in software, faulty components, or manufacturing methods, our operating results, financial position and cash flow could be negatively impacted by:

costs associated with fixing software or hardware defects;

costs associated with installation errors;

high service and warranty expenses;

high inventory obsolescence expense;

delays in collecting accounts receivable;

payment of liquidated damages for performance failures; and

a decline in sales to existing customers.

***Managing our inventory is complex and may include write-downs of excess or obsolete inventory.***

Managing our inventory of components and finished products is complicated by a number of factors, including the need to maintain a significant inventory of certain components that are in short supply, have been discontinued by the component manufacturer, that must be purchased in bulk to obtain favorable pricing or that require long lead times. These issues may result in our purchasing and maintaining significant amounts of inventory, which if not used or expected to be used based on anticipated production requirements, may become excess or obsolete. Any excess or obsolete inventory could also result in sales price reductions and/or inventory write-downs, which could adversely affect our business and results of operations.

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*The continuing growth of our international operations could expose us to additional risks, increase our costs and adversely affect our operating results, financial condition and cash flow.*

We are expanding our presence in international markets, which represented 30.1% of our net sales for 2015, and as a result, we anticipate increased sales and operating costs in these markets. This international expansion may increase our operational risks and impact our results of operations, including:

Exposure to unfavorable commercial terms in certain countries;

The time and cost to staff and manage foreign operations;

The time and cost to maintain good relationships with employer associations and works councils;

The time and cost to ensure adequate business interruption controls, processes and facilities;

The time and cost to manage and evolve financial reporting systems, maintain effective financial disclosure controls and procedures, and comply with corporate governance requirements in multiple jurisdictions;

The cost to collect accounts receivable and extension of collection periods;

The cost and potential disruption of facilities transitions required in some business acquisitions;

Less regulation of patents or other safeguards of intellectual property in certain countries;

Potential impact of adverse tax, customs regulations and transfer-pricing issues;

Exposure to global social, political and economic instability, changes in economic conditions, and foreign currency exchange rate movements;

Potential exposure to liability or damage of reputation resulting from a higher incidence of corruption or unethical business practices in some countries;

Potential regulations on data protection, regarding the collection, use, disclosure and security of data;

Potential trade protection measures, export compliance issues, domestic preference procurement requirements, qualification to transact business and additional regulatory requirements; and

Potential exposure to natural disasters, epidemics and acts of war or terrorism.

If we are unable to successfully address the potential risks associated with our overall international expansion, our operating results, financial condition and cash flow may be negatively impacted.

***We may be adversely affected by fluctuations in currency exchange rates.***

As our international sales increase or as utilization of international suppliers expands, we may transact additional business in currencies other than United States currency. As a result, we will be subject to the possibility of greater effects of foreign currency exchange translation on our financial statements. Sales contract commitments and accounts receivable balances based on foreign currency expose us to potential risk of loss as the value of the United States dollar fluctuates over time. In addition, for those countries outside the United States where we have significant sales or significant purchases of supplies, devaluation in the local currency could make our products more expensive for customers to purchase or increase our costs, thereby adversely affecting our competitiveness or results of operation. When appropriate, we may enter into various derivative transactions to enhance our ability to manage the volatility relating to these typical business exposures. If used, the derivative transactions will be intended to reduce, but not eliminate, the impact of foreign currency exchange rate movements; therefore, we generally would not anticipate hedging all outstanding foreign currency risk. There can be no assurance that exchange rate fluctuations in the future will not have a material adverse effect on our revenue from international sales, manufacturing costs, results of operations, financial condition and cash flow.

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***Our success depends on our ability to reduce the selling prices of succeeding generations of our products.***

Our strategy is to attempt to increase unit sales volumes and market share each year by introducing succeeding generations of products having lower selling prices and increased functionality as compared to prior generations of products. To maintain or increase our revenues and margins while continuing this strategy, we must continue, in some combination, to increase sales volumes of existing products, introduce and sell new products, or reduce our per unit costs at rates sufficient to compensate for the reduced revenue effect of continuing reductions in the average sales prices of our products. We cannot assure you that we will be able to maintain or increase revenues or margins by increasing unit sales volumes of our products, introducing and selling new products, or reducing unit costs of our products.

***Breaches in our information systems could cause significant damage to our business and reputation.***

We maintain sensitive data on our information systems, including intellectual property, financial data and proprietary or confidential business information relating to our business, customers and business partners. The secure maintenance of this information is critical to our business and reputation. We rely upon a number of internal business processes and information systems to support key operations and financial functions, and the efficient operation of these processes and systems is critical. Companies are increasingly subjected to cyber-attacks and other attempts to gain unauthorized access. We have multiple layers of access control, and devote significant resources to data encryption and other security measures to protect our information technology and communications systems. We test our vulnerability periodically and take action to further secure our networks, yet our network and storage applications may be subject to unauthorized access by cyber-attack or breached due to operator error, fraudulent activity or other system disruptions. In some cases, it is difficult to anticipate or immediately detect damage caused by such incidents. Unauthorized access or disclosure of our information could compromise our intellectual property and expose sensitive business information. Our information systems are designed to appropriate industry standards to reduce downtime in the event of power outages, weather or climate events and cyber-security issues. A significant failure of our systems due to these issues could result in significant remediation costs, disrupt business operations, and divert management attention, which could result in harm to our business reputation, operating results, financial condition and cash flow.

***Our failure to maintain rights to intellectual property used in our business could adversely affect the development, functionality, and commercial value of our products.***

Our future success depends in part upon our proprietary technology. Although we attempt to protect our proprietary technology by contract, trademark, copyright and patent registration, and internal security, these protections may not be adequate. Furthermore, our competitors can develop similar technology independently without violating our proprietary rights. From time to time we receive and may continue to receive notices of claims alleging that we are infringing upon patents or other intellectual property. Any of these claims, whether with or without merit, could result in significant legal fees; divert our management's time, attention and resources; delay our product shipments; or require us to enter into royalty or licensing agreements. We cannot predict whether we will prevail in any claims or litigation over alleged infringements, or whether we will be able to license any valid and infringed patents, or other intellectual property, on commercially reasonable terms. If a claim of intellectual property infringement against us is successful and we fail to obtain a license or develop or license non-infringing technology, our business, operating results, financial condition and cash flow could be affected adversely.

***Software under license from third parties for use in certain of our products may not continue to be available to us on commercially reasonable terms.***

We integrate third-party software into certain of our products. Licenses for this technology may not be available or continue to be available to us on commercially reasonable terms. Difficulties with third party technology licensors could result in termination of such licenses, which may result in increased costs or require us to purchase or develop a substitute technology. Difficulty obtaining and maintaining third-party technology licenses may disrupt development of our products and increase our costs, which could harm our business.



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***We may incur liabilities or become subject to litigation that would have a material effect on our business.***

In the ordinary course of business, we accept purchase orders, and enter into sales and other related contracts, for the marketing, sale, manufacture, distribution, or use of our products and services. We may incur liabilities relating to our performance under such agreements, or which result from damage claims arising from certain events as outlined within the particular contract. While we attempt to structure all agreements to include normal protection clauses, such agreements may not always contain, or be subject to, maximum loss clauses, and liabilities arising from them may result in significant adverse changes to our results of operations, financial condition and cash flow.

In the ordinary course of business, we may be subject to various legal proceedings and claims, including employment disputes, patent claims, disputes over contract agreements and other commercial disputes. In some cases, claimants seek damages, or other relief, such as royalty payments related to patents, which, if granted, could require significant expenditures. Any such disputes may be resolved before trial, or if litigated, may be resolved in our favor; however, the cost of claims sustained in litigation, and costs associated with the litigation process, may not be covered by our insurance. Such costs, and the demands on management time during such an event, could harm our business and have a material adverse effect on our liquidity, results of operations, financial condition and cash flow.

***Consolidation and deterioration in the competitive SP market could result in a significant decrease in our revenue.***

We sell a moderate volume of products directly or indirectly to competitive SPs who compete with the established ILECs. The competitive SP market is experiencing a process of consolidation. Many of our competitive service provider customers do not have a strong financial position and have limited ability to access the public financial markets for additional funding for growth and operations. If one or more of these competitive SPs fail, we could face a loss in revenue and an increased bad debt expense, due to their inability to pay outstanding invoices, as well as the corresponding decrease in customer base and future revenue. Furthermore, significant portions of our sales to competitive SPs are made through independent distributors. The failure of one or more competitive SPs could also negatively affect the financial position of a distributor to the point that the distributor could also experience business failure and/or default on payments to us.

***We depend on distributors who maintain inventories of our products. If the distributors reduce their inventories of these products, our sales could be adversely affected.***

We work closely with our distributors to monitor channel inventory levels and ensure that appropriate levels of product are available to resellers and end users. If our distributors reduce their levels of inventory of our products, our sales would be negatively impacted during the period of change.

***If we are unable to successfully develop and maintain relationships with system integrators, SPs, and enterprise VARs, our sales may be negatively affected.***

As part of our sales strategy, we are targeting system integrators (SIs), SPs, and enterprise VARs. In addition to specialized technical expertise, SIs, SPs and VARs typically offer sophisticated service capabilities that are frequently desired by enterprise customers. In order to expand our distribution channel to include resellers with such capabilities, we must be able to provide effective support to these resellers. If our sales, marketing or service capabilities are not sufficient to provide effective support to such SIs, SPs and VARs, our sales may be negatively affected, and current SI, SP and VAR partners may terminate their relationships with us, which would adversely impact our sales and overall results of operations.

***If we fail to manage our exposure to worldwide financial and securities markets successfully, our operating results and financial statements could be materially impacted.***

We are exposed to financial market risks, including changes in interest rates and prices of marketable equity and fixed-income securities. The primary objective of the large majority of our investment activities is to preserve principal while at the same time achieving appropriate yields without significantly increasing risk. To achieve this objective, a majority of our marketable securities are investment grade corporate and municipal fixed-rate bonds, municipal variable rate demand notes and municipal money market instruments denominated in United States dollars. Our investment policy provides limitations for issuer concentration, which limits, at the time of purchase, the concentration in any one issuer to 5% of the market value of our total investment portfolio.

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We have significant investments in corporate and municipal fixed-rate bonds and municipal variable rate demand notes. Through December 31, 2015, we have not been required to impair any of these investments; however, we may experience a reduction in value or loss of liquidity in these investments, which may have an adverse effect on our results of operations, liquidity and financial condition. Fixed rate interest securities may have their fair value adversely impacted due to a rise in interest rates, while variable rate securities may produce less income than expected if interest rates fall. Our investments are subject to general credit, liquidity, market, and interest rate risks, which may increase because of conditions in the financial markets and related credit liquidity issues. Consequently, our future investment income may fall short of expectations due to changes in interest rates, or we may suffer losses in principal if we are forced to sell securities that decline in fair value due to changes in interest rates.

At December 31, 2015, our long-term investments included \$34.3 million of marketable equity securities, which included 396 unique securities, and had total net unrealized gains of \$2.6 million. If market conditions deteriorate in 2016, we may be required to record impairment charges related to our marketable equity securities.

See Management's Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources in Item 7, Part II of this report and Quantitative and Qualitative Disclosures about Market Risk in Item 7A, Part II of this report for more information about our investments.

***Changes in our effective tax rate or assessments arising from tax audits may have an adverse impact on our results.***

We are subject to taxation in various jurisdictions, both domestically and internationally, in which we conduct business. Significant judgment is required in the determination of our provision for income taxes and this determination requires the interpretation and application of complex and sometimes uncertain tax laws and regulations. Our effective tax rate may be adversely impacted by changes in the mix of earnings between jurisdictions with different statutory tax rates, in the valuation of our deferred tax assets, and by changes in tax rules and regulations. For instance, the accounting of uncertain tax positions and the amount of our estimated tax deduction for manufacturer's domestic production activities under Internal Revenue Code Section 199 may add more variability to our future effective tax rates. We currently receive corporate income tax credits under a program administered by the Alabama State Industrial Development Authority in connection with revenue bonds issued to provide funding for expansion of our corporate facilities. We cannot be certain that the state of Alabama will continue to make these corporate income tax credits available; therefore, we may not realize the full benefit of these incentives, which would increase our effective tax rate. Also, employment related tax benefits are currently accounted for in our effective tax rate. In addition, we are subject to examination of our income tax returns by the Internal Revenue Service and various other jurisdictions in which we conduct business. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. There can be no assurance that the outcomes from these continuous examinations will not have an adverse effect on our results of operations, financial condition and cash flow.

***We are required to periodically evaluate the value of our long-lived assets, including the value of intangibles acquired and goodwill resulting from business acquisitions. Any future impairment charges required may adversely affect our operating results.***

Valuation of our long-lived assets requires us to make assumptions about future sales prices and sales volumes for our products. These assumptions are used to forecast future, undiscounted cash flows. Forecasting future business trends is difficult and subject to modification. Should actual market conditions differ or our forecasts change, we may be required to reassess long-lived assets and could record an impairment charge. Any impairment charge relating to long-lived assets would have the effect of decreasing our earnings or increasing our losses in such period.

***We may not fully realize the anticipated benefits of our restructuring plans. Our restructuring efforts may adversely affect our business and our operating results.***

We have undertaken restructuring efforts to realign our organization to better match our market opportunities, technology development initiatives and improve efficiencies. There can be no assurance that we will fully realize the anticipated benefits to future financial results from our efforts. This realignment could adversely affect our ability to execute our business strategy by diverting management's attention from normal daily operations, decreasing cash flow and operating results due to severance payments and facility termination costs, and could be disruptive to our business. If we fail to realize some or all of the expected benefits of this realignment, it could have an adverse effect on our results of operations, financial condition and cash flow.

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**Table of Contents*****Our success depends on attracting and retaining key personnel.***

Our business has grown significantly since its inception. Our success is dependent in large part on the continued employment of our executive officers, including Thomas R. Stanton, our Chief Executive Officer, and other key management personnel. The unplanned departure of one or more of these individuals could adversely affect our business. In addition, for ADTRAN to continue as a successful entity we must also be able to attract and retain key engineers and technicians whose expertise helps us maintain competitive advantages. We believe that our future success will depend, in large part, upon our ability to continue to attract, retain, train, and motivate highly-skilled employees who are in great demand. Stock option grants are designed to reward employees for their long-term contributions and to provide incentives for them to remain with us. Changes to our overall compensation program, including our stock option incentive program, may adversely affect our ability to retain key employees. Properly managing our continued growth, avoiding the problems often resulting from such growth and expansion, and continuing to operate in the manner which has proven successful to us to date will be critical to the future success of our business.

***Regulatory and potential physical impacts of climate change and other natural events may affect our customers and our production operations, resulting in adverse effects on our operating results.***

There is a growing political and scientific consensus that emissions of greenhouse gases continue to alter the composition of the atmosphere, affecting large-scale weather patterns and the global climate. It appears that some form of U.S. federal regulation related to greenhouse gas emissions may occur, and any such regulation could result in the creation of additional costs in the form of taxes or emission allowances. The impact of any future legislation, regulations or product specification requirements on our products and business operations is dependent on the design of the final mandate or standard, so we are unable to predict its significance at this time.

The potential physical impacts of climate change and other natural events on our customers, suppliers, and on our operations are highly uncertain, and will be particular to the circumstances developing in various geographical regions. These events may include changes in weather patterns (including drought and rainfall levels), water availability, storm patterns and intensities, ocean levels, temperature levels, earthquakes and tsunamis. These potential physical effects may adversely affect our revenues, costs, production and delivery schedules, and cause harm to our results of operations, financial condition and cash flow.

***While we believe our internal control over financial reporting is adequate, a failure to maintain effective internal control over financial reporting as our business expands could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price.***

Section 404 of the Sarbanes-Oxley Act of 2002 requires that we assess the effectiveness of our internal control over financial reporting as of the end of our fiscal year, and issue a report that states whether or not such internal control is effective. Compliance with these requirements requires significant cost and the commitment of time and staff resources. Expansion of our business, particularly in international geographies, will necessitate ongoing changes to our internal control systems, processes and information systems. We cannot be certain that as this expansion occurs, our current design for internal control over financial reporting will be sufficient to enable management or our independent registered public accounting firm to determine that our internal control is effective for any period, or on an ongoing basis. If we or our independent registered public accounting firm are unable to assert that our internal control over financial reporting is effective, we could lose investor confidence in the accuracy and completeness of our financial statements, which could have an adverse effect on our stock price.

***The price of our common stock has been volatile and may continue to fluctuate significantly.***

Our common stock is traded on the NASDAQ Global Select Market under the symbol ADTN. Since our initial public offering in August 1994, there has been, and may continue to be, significant volatility in the market for our common stock, based on a variety of factors, including factors listed in this section, some of which are beyond our control.

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***ITEM 1B. UNRESOLVED STAFF COMMENTS***

None.

***ITEM 2. PROPERTIES***

Our headquarters and principal administrative, engineering and manufacturing facilities are located on an 82-acre campus in Cummings Research Park in Huntsville, Alabama. Two office buildings serve both our Carrier Networks and Enterprise Networks Divisions. We lease engineering facilities in the U.S., Europe, and India that are used to develop products sold by our Carrier Networks Division. We lease engineering facilities in the U.S. and India that are used to develop products sold by our Enterprise Networks division.

In addition, we lease office space in North America, Latin America, EMEA, and the Asia-Pacific region, providing sales and service support for both of our divisions.

These cancelable and non-cancelable leases expire at various times through 2025. For more information, see Note 12 of the Notes to Consolidated Financial Statements included in this report.

We also have numerous sales and support staff operating from home-based offices serving both our Carrier Networks and Enterprise Networks Divisions, which are located within the United States and abroad.

***ITEM 3. LEGAL PROCEEDINGS***

We have been involved from time to time in litigation in the normal course of our business. We are not aware of any pending or threatened litigation matters that could have a material adverse effect on us.

***ITEM 4. MINE SAFETY DISCLOSURES***

Not applicable.

**Table of Contents****ITEM 4A. EXECUTIVE OFFICERS OF THE REGISTRANT**

Set forth below, in accordance with General Instruction G(3) of Form 10-K and Instruction 3 of Item 401(b) of Regulation S-K, is certain information regarding the executive officers of ADTRAN. Unless otherwise indicated, the information set forth is as of December 31, 2015.

<b>Thomas R. Stanton</b> 2007 to present	Age 51 Chief Executive Officer and Chairman of the Board
<b>Roger D. Shannon</b> 2015 to present  2006 2015	Age 50 Senior Vice President of Finance, Chief Financial Officer, Corporate Secretary and Treasurer Chief Financial Officer and Treasurer Steel Technologies LLC
<b>Michael K. Foliano</b> 2006 to present	Age 55 Senior Vice President of Global Operations
<b>Kevin P. Heering</b> 2014 to present 2010 2014	Age 44 Senior Vice President, Quality and Administration Vice President, Quality
<b>Raymond R. Schansman</b> 2015 to present 2006 2015	Age 59 Senior Vice President of Global Services and Support Senior Vice President and General Manager, Enterprise Networks
<b>Eduard Scheiterer</b> 2015 to present 2014 2015 2012 2014 2009 2012	Age 62 Senior Vice President, Engineering and Development Senior Vice President and Managing Director, International Markets Managing Director Adtran GmbH, a German wholly owned subsidiary of Adtran, Inc. Head of Broadband Access Nokia (formerly Nokia Siemens Networks), Germany
<b>Kevin W. Schneider</b> 2003 to present	Age 52 Vice President Chief Technology Officer
<b>James D. Wilson, Jr.</b> 2015 to present 2006 2015	Age 45 Senior Vice President of Technology and Strategy Senior Vice President and General Manager, Carrier Networks

There are no family relationships among our directors or executive officers. All officers are elected annually by, and serve at the discretion of, the Board of Directors of ADTRAN.



Table of Contents**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

ADTRAN's common stock is traded on the NASDAQ Global Select Market under the symbol ADTN. As of February 4, 2016, ADTRAN had 199 stockholders of record and approximately 6,707 beneficial owners of shares held in street name. The following table shows the high and low closing prices per share for our common stock as reported by NASDAQ for the periods indicated.

<b>Common Stock Prices</b>		
	<b>High</b>	<b>Low</b>
<b>2015</b>		
First Quarter	\$ 23.38	\$ 18.32
Second Quarter	\$ 19.27	\$ 15.98
Third Quarter	\$ 17.28	\$ 14.38
Fourth Quarter	\$ 17.52	\$ 14.46
<b>2014</b>		
First Quarter	\$ 27.24	\$ 24.27
Second Quarter	\$ 26.11	\$ 21.29
Third Quarter	\$ 23.17	\$ 20.53
Fourth Quarter	\$ 22.16	\$ 18.23

The following table shows the shareholder dividends paid in each quarter of 2015 and 2014. The Board of Directors presently anticipates that it will declare a regular quarterly dividend so long as the present tax treatment of dividends exists and adequate levels of liquidity are maintained.

<b>Dividends per Common Share</b>		
	<b>2015</b>	<b>2014</b>
First Quarter	\$ 0.09	\$ 0.09
Second Quarter	\$ 0.09	\$ 0.09
Third Quarter	\$ 0.09	\$ 0.09
Fourth Quarter	\$ 0.09	\$ 0.09

**Stock Repurchases**

The following table sets forth repurchases of our common stock for the months indicated.

<b>Period</b>	<b>Total Number of Shares</b>	<b>Average Price Paid per</b>	<b>Total Number of Shares Purchased as Part of</b>	<b>Maximum Number of Shares that May Yet Be Purchased</b>
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		<b>Purchased</b>	<b>Share</b>	<b>Publicly Announced Plans or Programs <sup>(1)</sup></b>	<b>Under the Plans or Programs</b>
October 1, 2015	October 31, 2015				5,848,725
November 1, 2015	November 30, 2015	22,600	\$ 15.54	22,600	5,826,125
December 1, 2015	December 31, 2015				5,826,125
Total		22,600		22,600	

<sup>(1)</sup> Since 1997, our Board of Directors has approved multiple share repurchase programs that have authorized open market repurchase transactions of up to 45.0 million shares of our common stock. On July 14, 2015, our Board of Directors authorized the repurchase of an additional 5.0 million shares of our common stock (bringing the total shares authorized for repurchase to 50.0 million), which will commence upon completion of the repurchase plan announced on May 14, 2014. This new authorization is being implemented through open market or private purchases from time to time as conditions warrant.

**Table of Contents****ITEM 6. SELECTED FINANCIAL DATA****Income Statement Data***(In thousands, except per share amounts)*

<i>Year Ended December 31,</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
Sales	600,064	630,007	641,744	620,614	717,229
Cost of sales	333,167	318,680	332,858	303,971	302,911
<b>Gross profit</b>	<b>266,897</b>	<b>311,327</b>	<b>308,886</b>	<b>316,643</b>	<b>414,318</b>
Selling, general and administrative expenses	123,542	131,958	129,366	134,523	124,879
Research and development expenses	129,876	132,258	131,055	125,951	100,301
<b>Operating income</b>	<b>13,479</b>	<b>47,111</b>	<b>48,465</b>	<b>56,169</b>	<b>189,138</b>
Interest and dividend income	3,953	5,019	7,012	7,657	7,642
Interest expense	(596)	(677)	(2,325)	(2,347)	(2,398)
Net realized investment gain	10,337	7,278	8,614	9,550	12,454
Other income (expense), net	(1,465)	1,175	(911)	183	(694)
Gain on bargain purchase of a business				1,753	
<b>Income before provision for income taxes</b>	<b>25,708</b>	<b>59,906</b>	<b>60,855</b>	<b>72,965</b>	<b>206,142</b>
Provision for income taxes	(7,062)	(15,286)	(15,061)	(25,702)	(67,565)
<b>Net income</b>	<b>\$ 18,646</b>	<b>\$ 44,620</b>	<b>\$ 45,794</b>	<b>\$ 47,263</b>	<b>\$ 138,577</b>

<i>Year Ended December 31,</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
Weighted average shares outstanding basic	51,145	55,120	59,001	63,259	64,145
Weighted average shares outstanding assuming dilution <sup>(1)</sup>	51,267	55,482	59,424	63,774	65,416
Earnings per common share basic	\$ 0.36	\$ 0.81	\$ 0.78	\$ 0.75	\$ 2.16
Earnings per common share assuming dilution <sup>(1)</sup>	\$ 0.36	\$ 0.80	\$ 0.77	\$ 0.74	\$ 2.12
Dividends declared and paid per common share	\$ 0.36	\$ 0.36	\$ 0.36	\$ 0.36	\$ 0.36

**Balance Sheet Data (In thousands)**

<i>At December 31,</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
Working capital <sup>(2)</sup>	\$ 238,143	\$ 232,080	\$ 277,335	\$ 337,979	\$ 329,311
Total assets	\$ 632,904	\$ 738,694	\$ 789,898	\$ 883,656	\$ 817,514
Total debt	\$ 28,900	\$ 30,000	\$ 46,500	\$ 46,500	\$ 47,000
Stockholders' equity	\$ 480,160	\$ 549,013	\$ 604,606	\$ 692,406	\$ 692,131

- (1) *Assumes exercise of dilutive stock options calculated under the treasury method. See Notes 1 and 13 of Notes to Consolidated Financial Statements.*
- (2) *Working capital consists of current assets less current liabilities.*

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***ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS***

**Overview**

ADTRAN, Inc. is a leading global provider of networking and communications equipment. Our solutions enable voice, data, video and Internet communications across a variety of network infrastructures. These solutions are deployed by many of the United States' and the world's largest SPs, distributed enterprises and small and medium-sized businesses, public and private enterprises, and millions of individual users worldwide.

Our success depends upon our ability to increase unit volume and market share through the introduction of new products and succeeding generations of products having lower selling prices and increased functionality as compared to both the prior generation of a product and to the products of competitors. An important part of our strategy is to reduce the cost of each succeeding product generation and then lower the product's selling price based on the cost savings achieved in order to gain market share and/or improve gross margins. As a part of this strategy, we seek in most instances to be a high-quality, low-cost provider of products in our markets. Our success to date is attributable in large measure to our ability to design our products initially with a view to their subsequent redesign, allowing both increased functionality and reduced manufacturing costs in each succeeding product generation. This strategy enables us to sell succeeding generations of products to existing customers, while increasing our market share by selling these enhanced products to new customers.

Our three major product categories are Carrier Systems, Business Networking and Loop Access.

**Carrier Systems** products are used by communications SPs to provide data, voice, and video services to consumers and enterprises. This category includes the following product areas and related services:

Broadband Access

Total Access 5000 Series of Multi-Service Access Node (MSANs)

hiX 5600 Series of MSANs

Total Access 1100/1200 Series of Fiber to the Node (FTTN) products

hiX 1100 Series of FTTN products

VDSL2 Vectoring based Digital Subscriber Line Access Multiplexer (DSLAM) products

ADTRAN 500 Series of FTTdp G.fast Distribution Point Units (DPU)

## Optical

Optical Networking Edge (ONE)

NetVanta 8000 Series of Fiber Ethernet Access Devices (EAD)

NetVanta 8400 Series of 10Gig Multi-service Edge Switches

OPTI-6100 and Total Access 3000 optical Multi-Service Provisioning Platforms (MSPP)

Pluggable Optical Products, including Small Form Factor Pluggable (SFP), 10-Gigabit Fiber Small Form Factor Pluggable (XFP), and SFP+

Time Division Multiplexed (TDM) systems

**Business Networking** products provide access to communication services and facilitate the delivery of cloud connectivity and enterprise communications to the small and mid-sized enterprise (SME) market. This category includes the following product areas and related services:

## Internetworking products

Total Access IP Business Gateways

Optical Network Terminals (ONTs)

Bluesocket virtual Wireless LAN (vWLAN)

NetVanta

Access Routers

Enterprise Session Border Controllers (eSBC)

Managed Ethernet Switches

IP Business Gateways

Unified Communications (UC) solutions

Carrier Ethernet Network Termination Equipment (NTE)

Carrier Ethernet Routers and Gateways

Network Management Solutions

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**Loop Access** products are used by carrier and enterprise customers for access to copper-based communications networks. This category includes the following product areas and related services:

High bit-rate Digital Subscriber Line (HDSL) products

Digital Data Service (DDS)

Integrated Services Digital Network (ISDN) products

In addition, we identify subcategories of product revenues, which we divide into Core products and Legacy products. Our Core products consist of Broadband Access and Optical products (included in Carrier Systems) and Internetworking products (included in Business Networking). Our Legacy products include HDSL products (included in Loop Access) and other products not included in the aforementioned Core products. Many of our customers are migrating their networks to deliver higher bandwidth services by utilizing newer technologies. We believe that products and services offered in our core product areas position us well for this migration. Despite occasional increases, we anticipate that revenues of many of our Legacy products, including HDSL, will decline over time; however, revenues from these products may continue for years because of the time required for our customers to transition to newer technologies.

Sales were \$600.1 million in 2015 compared to \$630.0 million in 2014 and \$641.7 million in 2013. Total sales of products in our three core areas, Broadband Access, Optical and Internetworking, decreased 3.3% in 2015 compared to 2014 and increased 2.8% in 2014 compared to 2013. Our gross profit margin was 44.5% in 2015 compared to 49.4% in 2014 and 48.1% in 2013. Net income was \$18.6 million in 2015 compared to \$44.6 million in 2014 and \$45.8 million in 2013. Earnings per share, assuming dilution, were \$0.36 in 2015 compared to \$0.80 in 2014 and \$0.77 in 2013. Earnings per share in 2015, 2014 and 2013 include the effect of the repurchase of 4.0 million, 3.7 million and 5.6 million shares of our stock in those years, respectively.

Our operating results have fluctuated on a quarterly basis in the past, and may vary significantly in future periods due to a number of factors, including customer order activity and backlog. Backlog levels vary because of seasonal trends, the timing of customer projects and other factors that affect customer order lead times. Many of our customers require prompt delivery of products. This requires us to maintain sufficient inventory levels to satisfy anticipated customer demand. If near-term demand for our products declines, or if potential sales in any quarter do not occur as anticipated, our financial results could be adversely affected. Operating expenses are relatively fixed in the short term; therefore, a shortfall in quarterly revenues could significantly impact our financial results in a given quarter.

Our operating results may also fluctuate as a result of a number of other factors, including a decline in general economic and market conditions, increased competition, customer order patterns, changes in product and services mix, foreign currency exchange rate movements, timing differences between price decreases and product cost reductions, product warranty returns, expediting costs, and announcements of new products by us or our competitors. Additionally, maintaining sufficient inventory levels to assure prompt delivery of our products increases the amount of inventory that may become obsolete and increases the risk that the obsolescence of this inventory may have an adverse effect on our business and operating results. Also, not maintaining sufficient inventory levels to assure prompt delivery of our products may cause us to incur expediting costs to meet customer delivery requirements, which may negatively impact our operating results in a given quarter.



Accordingly, our historical financial performance is not necessarily a meaningful indicator of future results, and, in general, management expects that our financial results may vary from period to period. See Note 14 of Notes to Consolidated Financial Statements for additional information. *For a discussion of risks associated with our operating results, see Item 1A of this report.*

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**Table of Contents****Critical Accounting Policies and Estimates**

An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, if different estimates reasonably could have been used, or if changes in the accounting estimate that are reasonably likely to occur could materially impact the results of financial operations. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements. These policies have been consistently applied across our two reportable segments: (1) Carrier Networks Division and (2) Enterprise Networks Division.

Revenue is generally recognized when persuasive evidence of an arrangement exists, delivery has occurred, the product price is fixed or determinable, collection of the resulting receivable is reasonably assured, and product returns are reasonably estimable. For product sales, revenue is generally recognized upon shipment of the product to our customer in accordance with the title transfer terms of the sales agreement, generally Ex Works, per International Commercial Terms. In the case of consigned inventory, revenue is recognized when the end customer assumes ownership of the product. Contracts that contain multiple deliverables are evaluated to determine the units of accounting, and the consideration from the arrangement is allocated to each unit of accounting based on the relative selling price and corresponding terms of the contract. We use vendor-specific objective evidence of selling price. When this evidence is not available, we are generally not able to determine third-party evidence of selling price because of the extent of customization among competing products or services from other companies. In these instances, we use best estimates to allocate consideration to each respective unit of accounting. These estimates include analysis of respective bills of material and review and analysis of similar product and service offerings. We record revenue associated with installation services when respective contractual obligations are complete. In instances where customer acceptance is required, revenue is deferred until respective acceptance criteria have been met. Contracts that include both installation services and product sales are evaluated for revenue recognition in accordance with contract terms. As a result, installation services may be considered a separate deliverable or may be considered a combined single unit of accounting with the delivered product. Generally, either the purchaser, ADTRAN, or a third party can perform the installation of our products. Sales taxes invoiced to customers are included in revenue, and represent less than one percent of total revenues. The corresponding sales taxes paid are included in cost of goods sold. Value added taxes collected from customers in international jurisdictions are recorded in accrued expenses as a liability. Revenue is recorded net of discounts. Sales returns are accrued based on historical sales return experience, which we believe provides a reasonable estimate of future returns.

A significant portion of Enterprise Networks products are sold in the United States through a non-exclusive distribution network of major technology distributors. These organizations then distribute or provide fulfillment services to an extensive network of VARs and SIs. VARs and SIs may be affiliated with us as a channel partner, or they may purchase from the distributor on an unaffiliated basis. Additionally, with certain limitations, our distributors may return unused and unopened product for stock-balancing purposes when these returns are accompanied by offsetting orders for products of equal or greater value.

We carry our inventory at the lower of cost or market, with cost being determined using the first-in, first-out method. We use standard costs for material, labor, and manufacturing overhead to value our inventory. Our standard costs are updated on at least a quarterly basis and any variances are expensed in the current period;

therefore, our inventory costs approximate actual costs at the end of each reporting period. We write down our inventory for estimated obsolescence or unmarketable inventory by an amount equal to the difference between the cost of inventory and the estimated fair value based upon assumptions about future demand and market conditions. If actual future demand or market conditions are less favorable than those projected by management, we may be required to make additional inventory write-downs. Our reserve for excess and obsolete inventory was \$26.7 million and \$24.7 million at December 31, 2015 and 2014, respectively. Inventory disposals charged against the reserve were \$0.2 million, \$2.1 million and \$0.4 million for the years ended December 31, 2015, 2014 and 2013, respectively.

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For purposes of determining the estimated fair value of our stock option awards on the date of grant, we use the Black-Scholes Model. This model requires the input of certain assumptions that require subjective judgment. These assumptions include, but are not limited to, expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors. Because our stock option awards have characteristics significantly different from those of traded options, and because changes in the input assumptions can materially affect the fair value estimate, the existing model may not provide a reliable, single measure of the fair value of our stock option awards. For purposes of determining the estimated fair value of our performance-based restricted stock unit (RSU) awards on the date of grant, we use a Monte Carlo Simulation valuation method. The RSUs are subject to a market condition based on the relative total shareholder return of ADTRAN against all of the companies in the NASDAQ Telecommunications Index and vest at the end of a three-year performance period. The fair value of restricted stock issued to our Directors is equal to the closing price of our stock on the date of grant. Management will continue to assess the assumptions and methodologies used to calculate the estimated fair value of stock-based compensation. Circumstances may change and additional data may become available over time, which could result in changes to these assumptions and methodologies and thereby materially impact our fair value determination. If factors change in future periods, the compensation expense that we record may differ significantly from what we have recorded in the current period.

We estimate our income tax provision or benefit in each of the jurisdictions in which we operate, including estimating exposures related to examinations by taxing authorities. We also make judgments regarding the realization of deferred tax assets, and establish valuation allowances where we believe it is more likely than not that future taxable income in certain jurisdictions will be insufficient to realize these deferred tax assets. Our estimates regarding future taxable income and income tax provision or benefit may vary due to changes in market conditions, changes in tax laws, or other factors. If our assumptions, and consequently our estimates, change in the future, the valuation allowances we have established may be increased or decreased, impacting future income tax expense. At December 31, 2015 and 2014 respectively, the valuation allowance was \$7.3 million and \$7.5 million. As of December 31, 2015, we have state research tax credit carry-forwards of \$4.2 million, which will expire between 2016 and 2030. These carry-forwards were caused by tax credits in excess of our annual tax liabilities to an individual state where we no longer generate sufficient state income. In addition, as of December 31, 2015, we have a deferred tax asset of \$8.7 million relating to net operating loss carry-forwards which will expire between 2016 and 2030. These carry-forwards are the result of acquisitions in 2009 and in 2011. The acquired net operating losses are in excess of the amount of estimated earnings. We believe it is more likely than not that we will not realize the full benefits of our deferred tax asset arising from these credits and net operating losses, and accordingly, have provided a valuation allowance against them. This valuation allowance is included in non-current deferred tax liabilities in the accompanying balance sheets.

We establish reserves to remove some or all of the tax benefit of any of our tax positions at the time we determine that the positions become uncertain. We adjust these reserves, including any impact on the related interest and penalties, as facts and circumstances change.

Our products generally include warranties of 90 days to ten years for product defects. We accrue for warranty returns at the time revenue is recognized based on our estimate of the cost to repair or replace the defective products. We engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers. Our products continue to become more complex in both size and functionality as many of our product offerings migrate from line card applications

to total systems. The increasing complexity of our products will cause warranty incidences, when they arise, to be more costly. Our estimates regarding future warranty obligations may change due to product failure rates, material usage, and other rework costs incurred in correcting a product failure. In addition, from time to time, specific warranty accruals may be recorded if unforeseen problems arise. Should our actual experience relative to these factors be worse than our estimates, we will be required to record additional warranty expense. Alternatively, if we provide for more reserves than we require, we will reverse a portion of such provisions in future periods. The liability for warranty obligations totaled \$8.7 million and \$8.4 million at December 31, 2015 and 2014, respectively. These liabilities are included in accrued expenses in the accompanying consolidated balance sheets.

Pension benefit plan obligations are based on various assumptions used by our actuaries in calculating these amounts. These assumptions include discount rates, compensation rate increases, expected return on plan assets, retirement rates, and mortality rates. Actual results that differ from the assumptions and changes in assumptions could affect future expenses and obligations. Our net pension liability totaled \$7.6 million and \$10.2 million at December 31, 2015 and 2014, respectively. This liability is included in other non-current liabilities in the accompanying Consolidated Balance Sheets.

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We evaluate the carrying value of goodwill during the fourth quarter of each year and between annual evaluations if events occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount. When evaluating whether goodwill is impaired, we first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. If we determine that the two-step quantitative test is necessary, then we compare the fair value of the reporting unit to which the goodwill is assigned to the reporting unit's carrying amount, including goodwill. If the carrying amount of the reporting unit exceeds its fair value, then the amount of the impairment loss is measured. Our assessment of relevant qualitative factors enabled us to confirm that the fair value of the reporting unit exceeded the carrying amount in 2015; therefore, we did not complete a quantitative assessment. As a result, there were no impairment losses recognized during 2015, 2014 or 2013.

**Results of Operations**

The following table presents selected financial information derived from our consolidated statements of income expressed as a percentage of sales for the years indicated.

<i>Year Ended December 31,</i>	<i>2015</i>	<i>2014</i>	<i>2013</i>
<b>Sales</b>			
Carrier Networks Division Enterprise Networks Division	83.2%	81.0%	78.0%
Enterprise Networks Division	16.8	19.0	22.0
<b>Total sales</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Cost of sales	55.5	50.6	51.9
<b>Gross profit</b>	<b>44.5</b>	<b>49.4</b>	<b>48.1</b>
Selling, general and administrative expenses	20.6	20.9	20.2
Research and development expenses	21.6	21.0	20.4
<b>Operating income</b>	<b>2.2</b>	<b>7.5</b>	<b>7.6</b>
Interest and dividend income	0.7	0.8	1.1
Interest expense	(0.1)	(0.1)	(0.4)
Net realized investment gain	1.7	1.2	1.3
Other income (expense), net	(0.2)	0.2	(0.1)
<b>Income before provision for income taxes</b>	<b>4.3</b>	<b>9.5</b>	<b>9.5</b>
Provision for income taxes	(1.2)	(2.4)	(2.3)
<b>Net income</b>	<b>3.1%</b>	<b>7.1%</b>	<b>7.1%</b>

**2015 Compared to 2014****Sales**

Our sales decreased 4.8% from \$630.0 million in 2014 to \$600.1 million in 2015. The decrease in sales is primarily attributable to a \$16.5 million decrease in sales of our Internetworking products, a \$10.8 million decrease in sales of our HDSL and other legacy products, and a \$3.9 million decrease in sales of our Broadband Access products.

Carrier Networks sales decreased 2.1% from \$510.4 million in 2014 to \$499.4 million in 2015. The decrease in sales is primarily attributable to decreases in sales of Broadband Access products and HDSL and other legacy products. The decrease in sales of our Broadband Access products is primarily attributable to decreased sales in the EMEA region and the impact of the strengthening U.S. dollar against the Euro. The decreases in sales of HDSL and other legacy products in North America have been expected as customers continue to upgrade their networks to deliver higher bandwidth services by migrating to newer technologies, including to our core products from our Broadband Access, Internetworking and Optical product lines. While we expect that revenues from HDSL and our other legacy products will continue to decline over time, these revenues may continue for years because of the time required for our customers to transition to newer technologies.

Enterprise Networks sales decreased 15.9% from \$119.6 million in 2014 to \$100.7 million in 2015. The decrease is attributable to a decrease in sales of our Internetworking products. The decrease in sales of our Internetworking products for this division is primarily attributable to weakness in sales of IP gateway products to the CLEC and MSO markets. Internetworking product sales attributable to Enterprise Networks were 93.8% and 93.6% of the division's sales in 2015 and 2014. Legacy products primarily comprise the remainder of Enterprise Networks sales. Enterprise Networks sales as a percentage of total sales decreased from 19.0% in 2014 to 16.8% in 2015.

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International sales, which are included in the Carrier Networks and Enterprise Networks amounts discussed above, decreased 27.3% from \$248.6 million in 2014 to \$180.7 million in 2015. International sales, as a percentage of total sales, decreased from 39.5% in 2014 to 30.1% in 2015. The decrease in international sales is primarily attributable to decreases in sales in the EMEA region, Latin America, and the Asia-Pacific region.

Carrier Systems product sales decreased \$9.3 million in 2015 compared to 2014 primarily due to a \$3.9 million decrease in Broadband Access product sales and a \$6.6 million decrease in legacy product sales. The decrease in Carrier Systems product sales is primarily attributable to the factors discussed above.

Business Networking product sales decreased \$17.3 million in 2015 compared to 2014 primarily due to a \$17.6 million decrease in Internetworking product sales in the EN division, partially offset by a \$1.1 million increase in Internetworking product sales in the CN division. The changes in sales of our Internetworking products in both of our divisions are primarily attributable to the factors discussed above.

Loop Access product sales decreased \$3.4 million in 2015 compared to 2014 primarily due to a \$2.5 million decrease in HDSL product sales, which is further discussed above.

## **Cost of Sales**

As a percentage of sales, cost of sales increased from 50.6% in 2014 to 55.5% in 2015. The increase is primarily attributable to the strengthening of the U.S. dollar against the Euro, growth in our service-related material sales in the U.S. market, and customer and product mix.

Carrier Networks cost of sales increased from 52.3% of sales in 2014 to 58.1% of sales in 2015. The increase in Carrier Networks cost of sales as a percentage of sales is primarily attributable to the strengthening of the U.S. dollar against the Euro, growth in our service-related material sales in the U.S. market, and customer and product mix.

Enterprise Networks cost of sales decreased from 43.1% of sales in 2014 to 42.8% of sales in 2015. The decrease in Enterprise Networks cost of sales as a percentage of sales is primarily attributable to product to services mix.

An important part of our strategy is to reduce the product cost of each succeeding product generation and then to lower the product's price based on the cost savings achieved. This may cause variations in our gross profit percentage due to timing differences between the recognition of cost reductions and the lowering of product selling prices.

## **Selling, General and Administrative Expenses**

Selling, general and administrative expenses decreased 6.4% from \$132.0 million in 2014 to \$123.5 million in 2015. Selling, general and administrative expenses include personnel costs for administration, finance, information systems, human resources, sales and marketing, and general management, as well as rent, utilities, legal and accounting expenses, bad debt expense, advertising, promotional material, trade show expenses, and related travel costs. The decrease in selling, general and administrative expenses is primarily attributable to decreases in compensation expense, travel expense, and independent contractor expense, partially offset by an increase in professional services and restructuring charges.

Selling, general and administrative expenses as a percentage of sales decreased from 20.9% for the year ended December 31, 2014 to 20.6% for the year ended December 31, 2015. Selling, general and administrative expenses as a percentage of sales will generally fluctuate whenever there is a significant fluctuation in revenues for the periods being compared.



## **Research and Development Expenses**

Research and development expenses decreased 1.8% from \$132.3 million in 2014 to \$129.9 million in 2015. The decrease in research and development expenses is primarily attributable to decreases in compensation expense and independent contractors, partially offset by an increase in engineering and testing expense and restructuring charges.

Research and development expenses as a percentage of sales increased from 21.0% for the year ended December 31, 2014 to 21.6% for the year ended December 31, 2015. Research and development expenses as a percentage of sales will fluctuate whenever there are incremental product development activities or a significant fluctuation in revenues for the periods being compared.

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We expect to continue to incur research and development expenses in connection with our new and existing products and our expansion into international markets. We continually evaluate new product opportunities and engage in intensive research and product development efforts which provide for new product development, enhancement of existing products and product cost reductions. We may incur significant research and development expenses prior to the receipt of revenues from a major new product group.

### **Interest and Dividend Income**

Interest and dividend income decreased from \$5.0 million in 2014 to \$4.0 million in 2015. The decrease in interest and dividend income is primarily attributable to a reduction in the average rate of return on our investments as well as a decrease in our average investment balances.

### **Interest Expense**

Interest expense, which is primarily related to our taxable revenue bond, decreased from \$0.7 million in 2014 to \$0.6 million in 2015. The decrease is primarily attributable to a reduction in the principal and the impact of an interest rate reduction, which occurred during the first quarter of 2014. See **Financing Activities** in **Liquidity and Capital Resources** below for additional information on our taxable revenue bond.

### **Net Realized Investment Gain**

Net realized investment gain increased from \$7.3 million in 2014 to \$10.3 million in 2015. The increase in realized investment gains is primarily attributable to larger gains from the sale of equity securities in 2015. See **Investing Activities** in **Liquidity and Capital Resources** below for additional information.

### **Other Income (Expense), net**

Other income (expense), net, comprised primarily of miscellaneous income, gains and losses resulting from foreign currency exchange rate movements, and investment account management fees, changed from \$1.2 million of income in 2014 to \$1.5 million of expense in 2015. The change is primarily attributable to a \$2.4 million gain recorded in the fourth quarter of 2014 related to the settlement of working capital items from an acquisition transaction that closed in 2012.

### **Income Taxes**

Our effective tax rate increased from 25.5% in 2014 to 27.5% in 2015. The increase in the effective tax rate between the two periods is primarily attributable to a foreign tax benefit from the elimination of a valuation allowance in 2014, partially offset by a benefit from the closure of an audit and a higher R&D credit in 2015.

### **Net Income**

As a result of the above factors, net income decreased from \$44.6 million in 2014 to \$18.6 million in 2015. As a percentage of sales, net income decreased from 7.1% in 2014 to 3.1% in 2015.

### **2014 Compared to 2013**

#### **Sales**

Our sales decreased 1.8% from \$641.7 million in 2013 to \$630.0 million in 2014. The decrease in sales is primarily attributable to a \$27.2 million decrease in sales of our HDSL and other legacy products and a \$12.2 million decrease in sales of our Internetworking products, partially offset by a \$27.9 million increase in sales of our Broadband Access products.

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Carrier Networks sales increased 1.9% from \$500.7 million in 2013 to \$510.4 million in 2014. The increase in sales is primarily attributable to increases in sales of Broadband Access products, Internetworking products, and Optical products, partially offset by a decrease in sales of our HDSL and other legacy products. The increase in sales of our Broadband Access products is primarily attributable to an increase in hiX product sales in the EMEA region. The increase in sales of our Internetworking products is primarily attributable to increases in Carrier Ethernet sales and FTTP ONT sales to carriers in North America. The increase in sales of our Optical products is primarily attributable to increased sales of Optical products for broadband access globally and increased sales of our OPTI-6100 products to a domestic tier 1 carrier for Ethernet services to enterprises for wireless backhaul. The decreases in sales of HDSL and other legacy products in North America have been expected as customers continue to upgrade their networks to deliver higher bandwidth services by migrating to newer technologies, including to our core products from our Broadband Access, Internetworking and Optical product lines. While we expect that revenues from HDSL and our other legacy products will continue to decline over time, these revenues may continue for years because of the time required for our customers to transition to newer technologies.

Enterprise Networks sales decreased 15.2% from \$141.0 million in 2013 to \$119.6 million in 2014. The decrease is attributable to a decrease in sales of our Internetworking products. The decrease in sales of our Internetworking products for this division is primarily attributable to softer demand in North America and an inventory reduction, primarily at two distribution partners. Internetworking product sales attributable to Enterprise Networks were 93.6% of the division's sales in 2014 and 2013. Legacy products primarily comprise the remainder of Enterprise Networks sales. Enterprise Networks sales as a percentage of total sales decreased from 22.0% in 2013 to 19.0% in 2014.

International sales, which are included in the Carrier Networks and Enterprise Networks amounts discussed above, increased 33.9% from \$185.7 million in 2013 to \$248.6 million in 2014. International sales, as a percentage of total sales, increased from 28.9% in 2013 to 39.5% in 2014. The increase in international sales is primarily attributable to increases in sales in the EMEA region and Latin America, partially offset by a decrease in sales in the Asia-Pacific region.

Carrier Systems product sales increased \$14.8 million in 2014 compared to 2013 primarily due to a \$27.9 million increase in Broadband Access product sales, partially offset by a \$12.8 million decrease in legacy product sales. The increase in Carrier Systems product sales is primarily attributable to the factors discussed above.

Business Networking product sales decreased \$11.9 million in 2014 compared to 2013 primarily due to a \$19.9 million decrease in Internetworking product sales in the EN division, partially offset by a \$7.7 million increase in Internetworking product sales in the CN division. The changes in sales of our Internetworking products in both of our divisions are primarily attributable to the factors discussed above.

Loop Access product sales decreased \$14.7 million in 2014 compared to 2013 primarily due to a \$13.8 million decrease in HDSL product sales, which is further discussed above.

**Cost of Sales**

As a percentage of sales, cost of sales decreased from 51.9% in 2013 to 50.6% in 2014. The decrease is primarily attributable to improving gross margins in our international business, primarily related to lower product costs, partially offset by shifts in domestic customer mix and a higher services mix.

Carrier Networks cost of sales decreased from 53.4% of sales in 2013 to 52.3% of sales in 2014. The decrease in Carrier Networks cost of sales as a percentage of sales is primarily attributable to improving gross margins in our international business, partially offset by shifts in domestic customer mix and a higher services mix.

Enterprise Networks cost of sales decreased from 46.3% of sales in 2013 to 43.1% of sales in 2014. The decrease in Enterprise Networks cost of sales as a percentage of sales is primarily attributable to shifts in customer mix and lower product costs.

An important part of our strategy is to reduce the product cost of each succeeding product generation and then to lower the product's price based on the cost savings achieved. This may cause variations in our gross profit percentage due to timing differences between the recognition of cost reductions and the lowering of product selling prices.

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### **Selling, General and Administrative Expenses**

Selling, general and administrative expenses increased 2.0% from \$129.4 million in 2013 to \$132.0 million in 2014. Selling, general and administrative expenses include personnel costs for administration, finance, information systems, human resources, sales and marketing, and general management, as well as rent, utilities, legal and accounting expenses, bad debt expense, advertising, promotional material, trade show expenses, and related travel costs. The increase in selling, general and administrative expenses is primarily attributable to increases in travel expenses, marketing expenses, contract services, and legal expenses, partially offset by a decrease in compensation expense. The increase in travel and marketing expenses is primarily attributable to our increased participation in trade shows in the U.S. and the EMEA region.

Selling, general and administrative expenses as a percentage of sales increased from 20.2% for the year ended December 31, 2013 to 20.9% for the year ended December 31, 2014. Selling, general and administrative expenses as a percentage of sales will generally fluctuate whenever there is a significant fluctuation in revenues for the periods being compared.

### **Research and Development Expenses**

Research and development expenses increased 0.9% from \$131.1 million in 2013 to \$132.3 million in 2014. The increase in research and development expenses is primarily attributable to increases in compensation costs and travel expenses, partially offset by a decrease in independent contractor expense.

Research and development expenses as a percentage of sales increased from 20.4% for the year ended December 31, 2013 to 21.0% for the year ended December 31, 2014. Research and development expenses as a percentage of sales will fluctuate whenever there are incremental product development activities or a significant fluctuation in revenues for the periods being compared.

We expect to continue to incur research and development expenses in connection with our new and existing products and our expansion into international markets. We continually evaluate new product opportunities and engage in intensive research and product development efforts which provide for new product development, enhancement of existing products and product cost reductions. We may incur significant research and development expenses prior to the receipt of revenues from a major new product group.

### **Interest and Dividend Income**

Interest and dividend income decreased from \$7.0 million in 2013 to \$5.0 million in 2014. The decrease in interest and dividend income is primarily attributable to an \$18.3 million reduction of restricted funds that serves as a collateral deposit against our taxable revenue bond during the first quarter of 2014 and a reduction in the interest rate of that investment from 4.8% to 1.6% (see [Interest Expense](#) below for corresponding decrease in the interest rate of our taxable revenue bond). See [Financing Activities](#) in [Liquidity and Capital Resources](#) below for additional information on our taxable revenue bond.

### **Interest Expense**

Interest expense, which is primarily related to our taxable revenue bond, decreased from \$2.3 million in 2013 to \$0.7 million in 2014. The decrease is primarily attributable to a \$16.5 million principal payment made on our taxable revenue bond during the first quarter of 2014. In connection with this payment, we negotiated a reduction in the interest rate of that bond from 5.0% to 2.0%, and, as noted above, a reduction in the interest rate on the collateral

supporting the bond. See [Financing Activities](#) in [Liquidity and Capital Resources](#) below for additional information on our taxable revenue bond.

### **Net Realized Investment Gain**

Net realized investment gain decreased from \$8.6 million in 2013 to \$7.3 million in 2014. The decrease in realized investment gains is primarily attributable to lower gains from the sale of equity securities in 2014. See [Investing Activities](#) in [Liquidity and Capital Resources](#) below for additional information.

### **Other Income (Expense), net**

Other income (expense), net, comprised primarily of miscellaneous income, gains and losses resulting from foreign currency exchange rate movements, and investment account management fees, changed from \$0.9 million of expense in 2013 to \$1.2 million of income in 2014. The change is primarily attributable to a \$2.4 million gain recorded in the fourth quarter of 2014 related to the settlement of working capital items from an acquisition transaction that closed in 2012, partially offset by investment account management fees.

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**Table of Contents****Income Taxes**

Our effective tax rate increased from 24.7% in 2013 to 25.5% in 2014. The increase in the effective tax rate between the two periods is primarily attributable to two years of research tax credits being recognized in 2013, partially offset by an additional foreign tax benefit from the elimination of a valuation allowance recorded in 2014. Based upon our results of operations in 2014 and expected profitability in future years in a certain international jurisdiction, we concluded that it is more likely than not certain foreign deferred tax assets will be realized.

**Net Income**

As a result of the above factors, net income decreased from \$45.8 million in 2013 to \$44.6 million in 2014. As a percentage of sales, net income was 7.1% in 2013 and 2014.

**Liquidity and Capital Resources***Liquidity*

We intend to finance our operations with cash flow from operations. We have used, and expect to continue to use, the cash generated from operations for working capital, purchases of treasury stock, shareholder dividends, and other general corporate purposes, including (i) product development activities to enhance our existing products and develop new products and (ii) expansion of sales and marketing activities. We believe our cash and cash equivalents, investments and cash generated from operations to be adequate to meet our operating and capital needs for at least the next 12 months.

At December 31, 2015, cash on hand was \$84.6 million and short-term investments were \$34.4 million, which placed our short-term liquidity at \$118.9 million. At December 31, 2014, our cash on hand of \$73.4 million and short-term investments of \$46.9 million placed our short-term liquidity at \$120.4 million. The decrease in short-term liquidity from 2014 to 2015 primarily reflects the timing of short-term cash management requirements.

*Operating Activities*

Our working capital, which consists of current assets less current liabilities, increased 2.6% from \$232.1 million as of December 31, 2014 to \$238.1 million as of December 31, 2015. The quick ratio, defined as cash and cash equivalents, short-term investments, and net accounts receivable, divided by current liabilities, increased from 1.75 as of December 31, 2014 to 2.06 as of December 31, 2015. The current ratio, defined as current assets divided by current liabilities, increased from 2.95 as of December 31, 2014 to 3.57 as of December 31, 2015. The changes in our working capital, quick ratio and current ratio are primarily attributable to a decrease in accounts payable, income taxes payable, and an increase in inventory, partially offset by a decrease in short-term investments, accounts receivable, and other receivables. The decrease in income taxes payable is primarily attributable to tax payments made in foreign jurisdictions during 2015. The decrease in short term investments is primarily attributable to share repurchases during 2015.

Net accounts receivable decreased 18.7% from \$88.5 million at December 31, 2014 to \$71.9 million at December 31, 2015. Our allowance for doubtful accounts was \$0.1 million at December 31, 2014 and \$19 thousand at December 31, 2015. Quarterly accounts receivable DSO decreased from 57 days as of December 31, 2014 to 48 days as of December 31, 2015. The change in net accounts receivable and DSO is due to changes in customer mix and the timing of sales and collections during the quarter. Certain international customers can have longer payment terms than U.S. customers. Other receivables decreased from \$33.3 million at December 31, 2014 to \$19.3 million at December 31,



2015. The decrease in other receivables is primarily attributable to the timing of filing returns and collections of value-added tax receivables in our international subsidiaries and the collection of a receivable for additional consideration due from NSN for settlement of the working capital items at December 31, 2014. Other receivables will also fluctuate due to the timing of shipments and collections for materials supplied to our contract manufacturers during the quarter.

Quarterly inventory turnover decreased from 3.5 turns as of December 31, 2014 to 3.3 turns as of December 31, 2015. Inventory increased 6.5% from December 31, 2014 to December 31, 2015. We expect inventory levels to fluctuate as we attempt to maintain sufficient inventory in response to seasonal cycles of our business ensuring competitive lead times while managing the risk of inventory obsolescence that may occur due to rapidly changing technology and customer demand.

Accounts payable decreased 13.7% from \$56.4 million at December 31, 2014 to \$48.7 million at December 31, 2015. Accounts payable will fluctuate due to variations in the timing of the receipt of supplies, inventory and services and our subsequent payments for these purchases.

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**Table of Contents***Investing Activities*

Capital expenditures totaled approximately \$11.8 million, \$11.3 million and \$8.2 million for the years ended December 31, 2015, 2014 and 2013, respectively. These expenditures were primarily used to purchase computer hardware, software, manufacturing and test equipment, and building improvements.

Our combined short-term and long-term investments decreased \$95.1 million from \$327.6 million at December 31, 2014 to \$232.4 million at December 31, 2015. This decrease reflects the impact of our cash needs for share repurchases, shareholder dividends, equipment acquisitions, as well as net realized and unrealized losses, and amortization of net premiums on our combined investments, partially offset by additional funds available for investment provided by our operating activities and stock option exercises by our employees.

We invest all available cash not required for immediate use in operations primarily in securities that we believe bear minimal risk of loss. At December 31, 2015, these investments included corporate bonds of \$57.6 million, municipal fixed-rate bonds of \$26.4 million, asset-backed bonds of \$19.2 million, mortgage/agency-backed bonds of \$15.4 million and government bonds of \$35.4 million. At December 31, 2014, these investments included corporate bonds of \$111.3 million, municipal fixed-rate bonds of \$127.8 million and municipal variable rate demand notes of \$2.5 million. As of December 31, 2015, our corporate bonds, municipal fixed-rate bonds, asset-backed bonds, mortgage/agency-backed bonds, and government bonds were classified as available-for-sale and had a combined duration of 1.5 years with an average credit rating of A+. Because our bond portfolio has a high quality rating and contractual maturities of a short duration, we are able to obtain prices for these bonds derived from observable market inputs, or for similar securities traded in an active market, on a daily basis.

Our long-term investments decreased 29.4% from \$280.6 million at December 31, 2014 to \$198.0 million at December 31, 2015. Long-term investments at December 31, 2015 and December 31, 2014 included an investment in a certificate of deposit of \$30.0 million, which serves as collateral for our revenue bond, as discussed below. We have investments in various marketable equity securities classified as long-term investments at a cost of \$31.6 million and \$26.4 million, and with a fair value of \$34.3 million and \$38.3 million, at December 31, 2015 and December 31, 2014, respectively.

Long-term investments at December 31, 2015 and 2014 also included \$12.8 million and \$16.3 million, respectively, related to our deferred compensation plan, and \$1.3 million and \$1.5 million, respectively, of other investments carried at cost, consisting of interests in two private equity funds and an investment in a privately held telecommunications equipment manufacturer.

We review our investment portfolio for potential other-than-temporary declines in value on an individual investment basis. We assess, on a quarterly basis, significant declines in value which may be considered other-than-temporary and, if necessary, recognize and record the appropriate charge to write-down the carrying value of such investments. In making this assessment, we take into consideration qualitative and quantitative information, including but not limited to the following: the magnitude and duration of historical declines in market prices, credit rating activity, assessments of liquidity, public filings, and statements made by the issuer. We generally begin our identification of potential other-than-temporary impairments by reviewing any security with a fair value that has declined from its original or adjusted cost basis by 25% or more for six or more consecutive months. We then evaluate the individual security based on the previously identified factors to determine the amount of the write-down, if any. For the years ended December 31, 2015, 2014, and 2013, we recorded charges of \$0.2 million, \$0.1 million and \$25 thousand, respectively, related to the other-than-temporary impairment of certain publicly traded equity securities and our deferred compensation plan assets.



**Table of Contents***Financing Activities*

In conjunction with an expansion of our Huntsville, Alabama, facility, we were approved for participation in an incentive program offered by the State of Alabama Industrial Development Authority (the Authority). Pursuant to the program, on January 13, 1995, the Authority issued \$20.0 million of its taxable revenue bonds and loaned the proceeds from the sale of the bonds to ADTRAN. The bonds were originally purchased by AmSouth Bank of Alabama, Birmingham, Alabama (the Bank). Wachovia Bank, N.A., Nashville, Tennessee (formerly First Union National Bank of Tennessee) (the Bondholder), which was acquired by Wells Fargo & Company on December 31, 2008, purchased the original bonds from the Bank and made further advances to the Authority, bringing the total amount outstanding to \$50.0 million. An Amended and Restated Taxable Revenue Bond (Amended and Restated Bond) was issued and the original financing agreement was amended. The Amended and Restated Bond bears interest, payable monthly. The interest rate is 2% per annum. The Amended and Restated Bond matures on January 1, 2020, and is currently outstanding in the aggregate principal amount of \$28.9 million. The estimated fair value of the bond using a level 2 valuation technique at December 31, 2015 was approximately \$28.7 million, based on a debt security with a comparable interest rate and maturity and a Standard & Poor's credit rating of AAA. We are required to make payments to the Authority in amounts necessary to pay the interest on the Amended and Restated Bond. Included in long-term investments at December 31, 2015 is \$30.0 million which is invested in a restricted certificate of deposit. These funds serve as a collateral deposit against the principal of this bond, and we have the right to set-off the balance of the Bond with the collateral deposit in order to reduce the balance of the indebtedness.

In conjunction with this program, we are eligible to receive certain economic incentives from the state of Alabama that reduce the amount of payroll withholdings that we are required to remit to the state for those employment positions that qualify under the program. We realized economic incentives related to payroll withholdings totaling \$1.3 million for each of the years ended December 31, 2015, 2014 and 2013.

We made a principal payment of \$1.1 million and \$16.5 million for the years ended December 31, 2015 and 2014, respectively, and we anticipate making a principal payment in 2016. At December 31, 2015, \$1.0 million of the bond debt was classified as a current liability in accounts payable in the Consolidated Balance Sheets.

*Dividends*

During 2015, 2014 and 2013, we paid shareholder dividends totaling \$18.4 million, \$19.9 million and \$21.4 million, respectively. The Board of Directors presently anticipates that it will declare a regular quarterly dividend so long as the present tax treatment of dividends exists and adequate levels of liquidity are maintained. The following table shows dividends paid to our shareholders in each quarter of 2015, 2014 and 2013.

	<b>Dividends per Common Share</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
First Quarter	\$ 0.09	\$ 0.09	\$ 0.09
Second Quarter	\$ 0.09	\$ 0.09	\$ 0.09
Third Quarter	\$ 0.09	\$ 0.09	\$ 0.09
Fourth Quarter	\$ 0.09	\$ 0.09	\$ 0.09

*Stock Repurchase Program*

Since 1997, our Board of Directors has approved multiple share repurchase programs that have authorized open market repurchase transactions of up to 45.0 million shares of our common stock. On July 14, 2015, our Board of

Directors authorized the repurchase of an additional 5.0 million shares of our common stock (bringing the total shares authorized for repurchase to 50.0 million), which will commence upon completion of the repurchase plan announced on May 14, 2014. This new authorization will be implemented through open market or private purchases from time to time as conditions warrant. For the years 2015, 2014 and 2013, we repurchased 4.0 million shares, 3.7 million shares and 5.6 million shares, respectively, for a cost of \$66.2 million, \$80.6 million and \$124.3 million, respectively, at an average price of \$16.68, \$21.96 and \$22.16 per share, respectively. We currently have the authority to purchase an additional 5.8 million shares of our common stock under the current plans approved by the Board of Directors.

*Stock Option Exercises*

To accommodate employee stock option exercises, we issued 0.1 million shares of treasury stock for \$1.0 million during the year ended December 31, 2015, 0.1 million shares of treasury stock for \$2.8 million during the year ended December 31, 2014, and 0.2 million shares of treasury stock for \$3.6 million during the year ended December 31, 2013.

**Table of Contents***Off-Balance Sheet Arrangements and Contractual Obligations*

We do not have off-balance sheet financing arrangements and have not engaged in any related party transactions or arrangements with unconsolidated entities or other persons that are reasonably likely to materially affect liquidity or the availability of or requirements for capital resources.

We have various contractual obligations and commercial commitments. The following table sets forth, in millions, the annual payments we are required to make under contractual cash obligations and other commercial commitments at December 31, 2015.

**Contractual Obligations**

<i>(In millions)</i>	<b>Total</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>After 2019</b>
Long-term debt	\$ 28.9	\$ 1.0	\$	\$	\$	\$ 27.9
Interest on long-term debt	2.3	0.6	0.6	0.6	0.5	
Purchase obligations	102.2	99.8	1.7	0.6	0.1	
Operating lease obligations	13.7	3.8	3.1	1.8	0.9	4.1
<b>Totals</b>	<b>\$ 147.1</b>	<b>\$ 105.2</b>	<b>\$ 5.4</b>	<b>\$ 3.0</b>	<b>\$ 1.5</b>	<b>\$ 32.0</b>

We are required to make payments necessary to pay the interest on the Amended and Restated Bond, currently outstanding in the aggregate principal amount of \$28.9 million. The bond matures on January 1, 2020, and bears interest at the rate of 2% per annum. Included in long-term investments are \$30.0 million of restricted funds, which is a collateral deposit against the principal amount of this bond. We made a principal payment of \$1.1 million and \$16.5 million for the years ended December 31, 2015 and 2014, respectively. We anticipate making a principal payment in 2016. At December 31, 2015 and 2014, \$1.0 million and \$1.2 million, respectively, of the bond debt were classified as a current liability in accounts payable in the Consolidated Balance Sheets. See Note 8 of Notes to Consolidated Financial Statements for additional information.

Purchase obligations primarily relate to open purchase orders to our contract manufacturers, component suppliers, and other vendors.

We have committed to invest up to an aggregate of \$7.9 million in two private equity funds, and we have contributed \$8.4 million as of December 31, 2015, of which \$7.7 million has been applied to these commitments. The additional \$0.2 million commitment has been excluded from the table above due to uncertainty of when it will be applied.

We also have obligations related to uncertain income tax positions that have been excluded from the table above due to the uncertainty of when the related expense will be recognized. See Note 9 of Notes to Consolidated Financial Statements for additional information.

**Effect of Recent Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers* (ASU 2014-09), which supersedes the revenue recognition requirements in Topic 605, *Revenue Recognition*, including most industry-specific revenue recognition guidance throughout the

Industry Topics of the Codification. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. In August 2015, the FASB issued ASU 2015-14, which deferred the effective date of ASU 2014-09 to fiscal years beginning after December 31, 2017, including interim periods within those years. ASU 2014-09 allows for either full retrospective or modified retrospective adoption. We are currently evaluating the transition method that will be elected and the impact that the adoption of ASU 2014-09 will have on our financial position, results of operations and cash flows.

In April 2015, the FASB issued Accounting Standards Update No. 2015-05, *Intangibles – Goodwill and Other Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Fees Paid in a Cloud Computing Arrangement* (ASU 2015-05), which provides guidance on accounting for fees paid by a customer in a cloud computing arrangement. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. ASU 2015-05 is effective for annual reporting periods beginning after December 15, 2015, including interim periods within those years. Early adoption is permitted. The guidance may be applied either prospectively to all arrangements entered into or materially modified after the effective date or retrospectively. We do not believe the adoption of ASU 2015-05 will have a material impact on our financial position, results of operations and cash flows.

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In July 2015, the FASB issued Accounting Standards Update No. 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory* (ASU 2015-11). Currently, Topic 330, Inventory, requires an entity to measure inventory at the lower of cost or market. Market could be replacement cost, net realizable value, or net realizable value less an approximately normal profit margin. ASU 2015-11 does not apply to inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out (FIFO) or average cost. ASU 2015-11 requires an entity to measure in scope inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. ASU 2015-11 is effective for annual reporting periods beginning after December 15, 2016, including interim periods within those years. The guidance should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. We do not believe the adoption of ASU 2015-05 will have a material impact on our financial position, results of operations and cash flows.

In November 2015, the FASB issued Accounting Standards Update No. 2015-17, *Balance Sheet Classification of Deferred Taxes* (ASU 2015-17). ASU 2015-17 amends the existing guidance on income taxes to require the classification of all deferred tax assets and liabilities as non-current on the balance sheet. ASU 2015-17 is effective for fiscal years beginning after December 15, 2016, including interim periods within those years. Early adoption is permitted. The guidance may be applied either prospectively, for all deferred tax assets and liabilities, or retrospectively to all periods presented. We have not selected a transition method or determined whether to early adopt ASU 2015-17 in 2016. Other than the revised balance sheet presentation of current deferred tax assets and liabilities, we do not believe the adoption of ASU 2015-17 will have a material impact on our financial position, results of operations and cash flows.

**Subsequent Events**

On January 19, 2016, the Board declared a quarterly cash dividend of \$0.09 per common share to be paid to shareholders of record at the close of business on February 4, 2016. The quarterly dividend payment was \$4.4 million and was paid on February 18, 2016.

On February 8, 2016, the Board appointed Anthony Melone as a director filling a previously existing vacancy until the 2016 Annual Meeting of Stockholders.

During the first quarter and as of February 24, 2016, we have repurchased 0.6 million shares of our common stock through open market purchases at an average cost of \$18.38 per share. We currently have the authority to purchase an additional 5.2 million shares of our common stock under the current plan approved by the Board of Directors.

We are currently evaluating the way the Company's chief operating decision maker reviews and measures performance of the business. The conclusions of this evaluation may have an impact on our future presentation of our reportable segments.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We are exposed to financial market risks, including changes in interest rates, foreign currency rates and prices of marketable equity and fixed-income securities. The primary objective of the large majority of our investment activities is to preserve principal while at the same time achieving appropriate yields without significantly increasing risk. To achieve this objective, a majority of our marketable securities are investment grade, fixed-rate bonds, and municipal



money market instruments denominated in U.S. dollars. Our investment policy provides limitations for issuer concentration, which limits, at the time of purchase, the concentration in any one issuer to 5% of the market value of our total investment portfolio.

We maintain depository investments with certain financial institutions. Although these depository investments may exceed government insured depository limits, we have evaluated the credit worthiness of these financial institutions, and determined the risk of material financial loss due to exposure of such credit risk to be minimal. As of December 31, 2015, \$80.8 million of our cash and cash equivalents, primarily certain domestic money market funds and foreign depository accounts, were in excess of government provided insured depository limits.

As of December 31, 2015, approximately \$169.6 million of our cash and investments may be directly affected by changes in interest rates. We have performed a hypothetical sensitivity analysis assuming market interest rates increase or decrease by 50 basis points (bps) for an entire year, while all other variables remain constant. At December 31, 2015, we held \$62.8 million of cash and variable-rate investments where a change in interest rates would impact our interest income. A hypothetical 50 bps decline in interest rates as of December 31, 2015 would reduce annualized interest income on our cash and investments by approximately \$0.3 million. In addition, we held \$106.1 million of fixed-rate bonds whose fair values may be directly affected by a change in interest rates. A hypothetical 50 bps increase in interest rates as of December 31, 2015 would reduce the fair value of our fixed-rate bonds by approximately \$0.8 million.

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As of December 31, 2014, interest income on approximately \$258.4 million of our cash and investments was subject to being directly affected by changes in interest rates. We performed a hypothetical sensitivity analysis assuming market interest rates increase or decrease by 50 bps for an entire year, while all other variables remain constant. A hypothetical 50 bps decline in interest rates as of December 31, 2014 would have reduced annualized interest income on our cash, money market instruments, floating rate corporate bonds and municipal variable rate demand notes by approximately \$0.5 million. In addition, a hypothetical 50 bps increase in interest rates as of December 31, 2014 would have reduced the fair value of our municipal and corporate bonds by approximately \$1.1 million.

We are exposed to changes in foreign currency exchange rates to the extent that such changes affect our revenue and gross margin on revenue derived from some international customers, expenses, and assets and liabilities held in non-functional currencies related to our foreign subsidiaries. Our primary exposures to foreign currency exchange rates are with our Mexican subsidiary, whose functional currency is the United States dollar, our German subsidiary, whose functional currency is the Euro, and our Australian subsidiary, whose functional currency is the Australian dollar. We are exposed to changes in foreign currency exchange rates to the extent of our German subsidiaries use of contract manufacturers and raw material suppliers whom we predominately pay in U.S. dollars. As a result, changes in currency exchange rates could cause variations in gross margin in the products that we sell in the EMEA region.

We have certain international customers who are invoiced or pay in a non-functional currency. Changes in the monetary exchange rates used to invoice such customers versus the functional currency of the entity billing such customers may adversely affect our results of operations and financial condition. To manage the volatility relating to these typical business exposures, we may enter into various derivative transactions, when appropriate. We do not hold or issue derivative instruments for trading or other speculative purposes. All non-functional currencies billed would result in a combined hypothetical gain or loss of \$0.1 million if the U.S. dollar weakened or strengthened 10% against the billing currencies. Any gain or loss may be partially mitigated by these derivative instruments.

As of December 31, 2015, we had no material contracts, other than accounts receivable, accounts payable, and loans to a subsidiary, denominated in foreign currencies. As of December 31, 2015, we had no forward contracts outstanding.

For further information about the fair value of our available-for-sale investments and our derivative and hedging activities as of December 31, 2015, see Notes 3 and 4 of Notes to Consolidated Financial Statements.

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***ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA***

The following consolidated financial statements are contained in this report.

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**Report of Independent Registered Public Accounting Firm**

To Board of Directors and Stockholders of ADTRAN, Inc.:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of ADTRAN, Inc. and its subsidiaries at December 31, 2015 and December 31, 2014 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, 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 these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Report On Internal Control Over Financial Reporting*. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ PricewaterhouseCoopers LLP

Birmingham, Alabama  
February 24, 2016

**Table of Contents****Financial Statements****ADTRAN, INC.****Consolidated Balance Sheets (In thousands, except per share amounts)****December 31, 2015 and 2014**

<b>ASSETS</b>	<b>2015</b>	<b>2014</b>
<b>Current Assets</b>		
Cash and cash equivalents	\$ 84,550	\$ 73,439
Short-term investments	34,396	46,919
Accounts receivable, less allowance for doubtful accounts of \$19 and \$136 at December 31, 2015 and 2014, respectively	71,917	88,502
Other receivables	19,321	33,295
Inventory, net	91,533	85,948
Prepaid expenses and other current assets	10,145	5,891
Deferred tax assets, net	18,924	17,095
<b>Total Current Assets</b>	<b>330,786</b>	<b>351,089</b>
Property, plant and equipment, net	73,233	74,828
Deferred tax assets, net	18,091	17,694
Goodwill	3,492	3,492
Other assets	9,276	10,942
Long-term investments	198,026	280,649
<b>Total Assets</b>	<b>\$ 632,904</b>	<b>\$ 738,694</b>

**LIABILITIES AND STOCKHOLDERS EQUITY**

<b>Current Liabilities</b>		
Accounts payable	\$ 48,668	\$ 56,414
Unearned revenue	16,615	22,762
Accrued expenses	12,108	11,077
Accrued wages and benefits	12,857	13,855
Income tax payable, net	2,395	14,901
<b>Total Current Liabilities</b>	<b>92,643</b>	<b>119,009</b>
Non-current unearned revenue	7,965	10,948
Other non-current liabilities	24,236	30,924
Bonds payable	27,900	28,800
<b>Total Liabilities</b>	<b>152,744</b>	<b>189,681</b>

Commitments and contingencies (see Note 12)

**Stockholders Equity**

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Common stock, par value \$0.01 per share; 200,000 shares authorized;

79,652 shares issued and 49,558 shares outstanding at December 31, 2015 and 79,652 shares issued and 53,431 shares outstanding at December 31, 2014	797	797
Additional paid-in capital	246,879	241,829
Accumulated other comprehensive loss	(8,969)	(75)
Retained earnings	906,772	907,751
Less treasury stock at cost: 30,094 and 26,221 shares at December 31, 2015 and 2014, respectively	(665,319)	(601,289)
<b>Total Stockholders Equity</b>	<b>480,160</b>	<b>549,013</b>
<b>Total Liabilities and Stockholders Equity</b>	<b>\$ 632,904</b>	<b>\$ 738,694</b>

*See notes to consolidated financial statements.*

**Table of Contents****ADTRAN, INC.****Consolidated Statements of Income (In thousands, except per share amounts)****Years ended December 31, 2015, 2014 and 2013**

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Sales	\$ 600,064	\$ 630,007	\$ 641,744
Cost of sales	333,167	318,680	332,858
<b>Gross Profit</b>	<b>266,897</b>	<b>311,327</b>	<b>308,886</b>
Selling, general and administrative expenses	123,542	131,958	129,366
Research and development expenses	129,876	132,258	131,055
<b>Operating Income</b>	<b>13,479</b>	<b>47,111</b>	<b>48,465</b>
Interest and dividend income	3,953	5,019	7,012
Interest expense	(596)	(677)	(2,325)
Net realized investment gain	10,337	7,278	8,614
Other income (expense), net	(1,465)	1,175	(911)
<b>Income before provision for income taxes</b>	<b>25,708</b>	<b>59,906</b>	<b>60,855</b>
Provision for income taxes	(7,062)	(15,286)	(15,061)
<b>Net Income</b>	<b>\$ 18,646</b>	<b>\$ 44,620</b>	<b>\$ 45,794</b>
Weighted average shares outstanding basic	51,145	55,120	59,001
Weighted average shares outstanding diluted	51,267	55,482	59,424
Earnings per common share basic	\$ 0.36	\$ 0.81	\$ 0.78
Earnings per common share diluted	\$ 0.36	\$ 0.80	\$ 0.77

*See notes to consolidated financial statements.*



**Table of Contents****ADTRAN, INC.*****Consolidated Statements of Comprehensive Income (In thousands)******Years ended December 31, 2015, 2014 and 2013***

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Net Income	\$ 18,646	\$ 44,620	\$ 45,794
Other Comprehensive Loss, net of tax:			
Net unrealized gains (losses) on available-for-sale securities	(7,032)	(1,773)	629
Defined benefit plan adjustments	1,862	(4,866)	1,061
Foreign currency translation	(3,724)	(4,189)	(2,205)
<b>Other Comprehensive Loss, net of tax</b>	<b>\$ (8,894)</b>	<b>\$ (10,828)</b>	<b>\$ (515)</b>
<b>Comprehensive Income, net of tax</b>	<b>\$ 9,752</b>	<b>\$ 33,792</b>	<b>\$ 45,279</b>

*See notes to consolidated financial statements.*

**Table of Contents****ADTRAN, INC.****Consolidated Statements of Changes in Stockholders' Equity (In thousands)****Years ended December 31, 2015, 2014 and 2013**

	Common Shares	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income	Total Stockholders' Equity
<b>Balance, December 31, 2012</b>	<b>79,652</b>	<b>\$ 797</b>	<b>\$ 224,517</b>	<b>\$ 861,465</b>	<b>\$ (405,641)</b>	<b>\$ 11,268</b>	<b>\$ 692,406</b>
Net income				45,794			45,794
Other comprehensive loss, net of tax						(515)	(515)
Dividend payments				(21,412)			(21,412)
Dividends accrued for unvested restricted stock units				(23)			(23)
Stock options exercised: 191 shares				(762)	4,391		3,629
RSUs and restricted stock vested: 26 shares			(248)	(611)	611		(248)
Purchase of treasury stock: 5,608 shares					(124,267)		(124,267)
Income tax effect of stock compensation arrangements			169				169
Stock-based compensation expense			9,073				9,073
<b>Balance, December 31, 2013</b>	<b>79,652</b>	<b>\$ 797</b>	<b>\$ 233,511</b>	<b>\$ 884,451</b>	<b>\$ (524,906)</b>	<b>\$ 10,753</b>	<b>\$ 604,606</b>
Net income				44,620			44,620
Other comprehensive loss, net of tax						(10,828)	(10,828)
Dividend payments				(19,947)			(19,947)
Dividends accrued for unvested restricted stock units				(19)			(19)
Stock options exercised: 147 shares				(558)	3,397		2,839
RSUs and restricted stock vested: 35 shares			(326)	(796)	796		(326)
Purchase of treasury stock: 3,669 shares					(80,576)		(80,576)

Income tax effect of stock compensation arrangements			81					<b>81</b>
Stock-based compensation expense			8,563					<b>8,563</b>
<b>Balance, December 31, 2014</b>	<b>79,652</b>	<b>\$ 797</b>	<b>\$ 241,829</b>	<b>\$ 907,751</b>	<b>\$ (601,289)</b>	<b>\$ (75)</b>	<b>\$ 549,013</b>	
Net income				18,646				<b>18,646</b>
Other comprehensive loss, net of tax						(8,894)		<b>(8,894)</b>
Dividend payments				(18,449)				<b>(18,449)</b>
Dividends accrued for unvested restricted stock units				(7)				<b>(7)</b>
Stock options exercised: 60 shares				(402)	1,363			<b>961</b>
RSUs and restricted stock vested: 34 shares			(69)	(767)	767			<b>(69)</b>
Purchase of treasury stock: 3,967 shares					(66,160)			<b>(66,160)</b>
Income tax effect of stock compensation arrangements			(1,593)					<b>(1,593)</b>
Stock-based compensation expense			6,712					<b>6,712</b>
<b>Balance, December 31, 2015</b>	<b>79,652</b>	<b>\$ 797</b>	<b>\$ 246,879</b>	<b>\$ 906,772</b>	<b>\$ (665,319)</b>	<b>\$ (8,969)</b>	<b>\$ 480,160</b>	

*See notes to consolidated financial statements.*

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ADTRAN, INC.

**Consolidated Statements of Cash Flows (In thousands)****Years ended December 31, 2015, 2014 and 2013**

	2015	2014	2013
<b>Cash flows from operating activities</b>			
Net income	\$ 18,646	\$ 44,620	\$ 45,794
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	14,245	14,845	14,628
Amortization of net premium on available-for-sale investments	2,402	4,360	5,956
Net realized gain on long-term investments	(10,337)	(7,278)	(8,614)
Net loss on disposal of property, plant and equipment	644	142	3
Stock-based compensation expense	6,712	8,563	9,073
Deferred income taxes	(692)	(5,526)	(4,058)
Tax impact of stock option exercises	(40)	81	169
Excess tax benefits from stock-based compensation arrangements	(3)	(63)	(158)
Change in operating assets and liabilities:			
Accounts receivable, net	14,918	(3,910)	(6,742)
Other receivables	11,704	(19,298)	(348)
Inventory	(6,877)	2,144	9,502
Prepaid expenses and other assets	(5,070)	(3,818)	752
Accounts payable	(5,826)	9,973	5,206
Accrued expenses and other liabilities	(10,289)	(166)	(15,146)
Income taxes payable, net	(11,590)	11,168	3,747
<b>Net cash provided by operating activities</b>	<b>18,547</b>	<b>55,837</b>	<b>59,764</b>
<b>Cash flows from investing activities</b>			
Purchases of property, plant and equipment	(11,753)	(11,256)	(8,173)
Proceeds from disposals of property, plant and equipment	183	1	
Proceeds from sales and maturities of available-for-sale investments	280,435	230,019	343,567
Purchases of available-for-sale investments	(188,921)	(142,695)	(261,625)
<b>Net cash provided by investing activities</b>	<b>79,944</b>	<b>76,069</b>	<b>73,769</b>
<b>Cash flows from financing activities</b>			
Proceeds from stock option exercises	961	2,839	3,629
Purchases of treasury stock	(66,160)	(80,576)	(124,267)
Dividend payments	(18,449)	(19,947)	(21,412)
Payments on long-term debt	(1,100)	(16,500)	
Excess tax benefits from stock-based compensation arrangements	3	63	158

<b>Net cash used in financing activities</b>	<b>(84,745)</b>	<b>(114,121)</b>	<b>(141,892)</b>
Net increase (decrease) in cash and cash equivalents	13,746	17,785	(8,359)
Effect of exchange rate changes	(2,635)	(2,644)	(1,800)
<b>Cash and cash equivalents, beginning of year</b>	<b>73,439</b>	<b>58,298</b>	<b>68,457</b>
<b>Cash and cash equivalents, end of year</b>	<b>\$ 84,550</b>	<b>\$ 73,439</b>	<b>\$ 58,298</b>
Supplemental disclosure of cash flow information			
Cash paid during the year for interest	\$ 598	\$ 758	\$ 2,325
Cash paid during the year for income taxes	\$ 20,139	\$ 9,856	\$ 15,431
Supplemental disclosure of non-cash investing activities			
Purchases of property, plant and equipment included in accounts payable	\$ 598	\$ 467	\$ 444

*See notes to consolidated financial statements.*

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**Notes to Consolidated Financial Statements**

**Note 1 Nature of Business and Summary of Significant Accounting Policies**

ADTRAN, Inc. is a leading global provider of networking and communications equipment. Our solutions enable voice, data, video and Internet communications across a variety of network infrastructures. These solutions are deployed by many of the United States' and the world's largest SPs, distributed enterprises and small and medium-sized businesses, public and private enterprises, and millions of individual users worldwide.

**Principles of Consolidation**

Our consolidated financial statements include ADTRAN and its wholly owned subsidiaries. All inter-company accounts and transactions have been eliminated in consolidation.

**Changes in Classifications**

We reclassified \$2.3 million from other receivables to accounts receivable and \$0.8 million from inventory to prepaid expenses and other current assets at December 31, 2014 to conform to the current period presentation.

**Out of Period Adjustment**

In connection with the preparation of our Consolidated Financial Statements, we recorded corrections of certain out of period, immaterial misstatements that occurred in prior periods, the most significant of which resulted in an increase in Other Expense of \$1.3 million in the first quarter of 2015. The aggregate impact of the corrections was a \$0.3 million reduction to pre-tax income for the year ended December 31, 2015 and was not material to the current or prior year's annual results.

**Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expense during the reporting period. Our more significant estimates include the obsolete and excess inventory reserves, warranty reserves, customer rebates, determination of the deferred revenue components of multiple element sales agreements, estimated costs to complete obligations associated with deferred revenues, estimated income tax provision and income tax contingencies, the fair value of stock-based compensation, impairment of goodwill, valuation and estimated lives of intangible assets, estimated pension liability, fair value of investments, and the evaluation of other-than-temporary declines in the value of investments. Actual amounts could differ significantly from these estimates.

**Cash and Cash Equivalents**

Cash and cash equivalents represent demand deposits, money market funds, and short-term investments classified as available-for-sale with original maturities of three months or less. We maintain depository investments with certain financial institutions. Although these depository investments may exceed government insured depository limits, we have evaluated the credit worthiness of these applicable financial institutions, and determined the risk of material financial loss due to the exposure of such credit risk to be minimal. As of December 31, 2015, \$80.8 million of our cash and cash equivalents, primarily certain domestic money market funds and foreign depository accounts, were in

excess of government provided insured depository limits.

**Financial Instruments**

The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents, accounts receivable, and accounts payable approximate fair value due to the immediate or short-term maturity of these financial instruments. The carrying amount reported for bonds payable was \$28.9 million, compared to an estimated fair value of \$28.7 million, based on a debt security with a comparable interest rate and maturity and a Standard & Poor's credit rating of AAA.

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Investments with contractual maturities beyond one year, such as our municipal variable rate demand notes, may be classified as short-term based on their highly liquid nature and because such marketable securities represent the investment of cash that is available for current operations. Despite the long-term nature of their stated contractual maturities, we routinely buy and sell these securities and we believe we have the ability to quickly sell them to the remarketing agent, tender agent, or issuer at par value plus accrued interest in the event we decide to liquidate our investment in a particular variable rate demand note. All income generated from these investments was recorded as interest income. We have not been required to record any losses relating to municipal variable rate demand notes.

Long-term investments represent a restricted certificate of deposit held at cost, deferred compensation plan assets, corporate bonds, municipal fixed-rate bonds, asset-backed bonds, mortgage/agency backed bonds, government bonds, marketable equity securities, and other equity investments. Marketable equity securities are reported at fair value as determined by the most recently traded price of the securities at the balance sheet date, although the securities may not be readily marketable due to the size of the available market. Unrealized gains and losses, net of tax, are reported as a separate component of stockholders' equity. Realized gains and losses on sales of securities are computed under the specific identification method and are included in current income. We periodically review our investment portfolio for investments considered to have sustained an other-than-temporary decline in value. Impairment charges for other-than-temporary declines in value are recorded as realized losses in the accompanying consolidated statements of income. All of our investments at December 31, 2015 and 2014 are classified as available-for-sale securities. See Note 3 of Notes to Consolidated Financial Statements for additional information.

**Accounts Receivable**

We record accounts receivable at net realizable value. Prior to issuing payment terms to a new customer, we perform a detailed credit review of the customer. Credit limits and payment terms are established for each new customer, and are reviewed periodically based on customer collection experience and other financial factors, for revision. At December 31, 2015, three customers accounted for 37.3% of our total accounts receivable. At December 31, 2014, two customers accounted for 24.5% of our total accounts receivable.

We maintain an allowance for doubtful accounts for losses resulting from the inability of our customers to make required payments. We regularly review the allowance for doubtful accounts and consider factors such as the age of accounts receivable balances, the current economic conditions that may affect a customer's ability to pay, significant one-time events and our historical experience. If the financial condition of a customer deteriorates, resulting in an impairment of their ability to make payments, we may be required to record an allowance for doubtful accounts. If circumstances change with regard to individual receivable balances that have previously been determined to be uncollectible (and for which a specific reserve has been established), a reduction in our allowance for doubtful accounts may be required. Our allowance for doubtful accounts was \$19 thousand and \$0.1 million at December 31, 2015 and December 31, 2014, respectively.

**Other Receivables**

Other receivables are comprised primarily of amounts due from subcontract manufacturers for product component transfers, accrued interest on investments and on a restricted certificate of deposit, amounts due from various jurisdictions for value-added tax, and amounts due from employee stock option exercises. At December 31, 2014, other receivables also included a receivable due from NSN related to working capital items settled during the fourth quarter of 2014 and collected in January 2015.

**Inventory**



Inventory is carried at the lower of cost or market, with cost being determined using the first-in, first-out method. Standard costs for material, labor and manufacturing overhead are used to value inventory. Standard costs are updated at least quarterly; therefore, inventory costs approximate actual costs at the end of each reporting period. We establish reserves for estimated excess, obsolete or unmarketable inventory equal to the difference between the cost of the inventory and the estimated fair value of the inventory based upon assumptions about future demand and market conditions. When we dispose of excess and obsolete inventories, the related disposals are charged against the inventory reserve. See Note 5 of Notes to Consolidated Financial Statements for additional information.

### **Property, Plant and Equipment**

Property, plant and equipment, which is stated at cost, is depreciated using the straight-line method over the estimated useful lives of the assets. We depreciate building and land improvements from five to 39 years, office machinery and equipment from three to seven years, engineering machinery and equipment from three to seven years, and computer software from three to five years. Expenditures for repairs and maintenance are charged to expense as incurred. Betterments that materially prolong the lives of the assets are capitalized. Gains and losses on the disposal of property, plant and equipment are recorded in operating expenses. See Note 6 of Notes to Consolidated Financial Statements for additional information.

**Table of Contents****Liability for Warranty**

Our products generally include warranties of 90 days to ten years for product defects. We accrue for warranty returns at the time revenue is recognized based on our estimate of the cost to repair or replace the defective products. We engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers. Our products continue to become more complex in both size and functionality as many of our product offerings migrate from line card applications to total systems. The increasing complexity of our products will cause warranty incidences, when they arise, to be more costly. Our estimates regarding future warranty obligations may change due to product failure rates, material usage, and other rework costs incurred in correcting a product failure. In addition, from time to time, specific warranty accruals may be recorded if unforeseen problems arise. Should our actual experience relative to these factors be worse than our estimates, we will be required to record additional warranty expense. Alternatively, if we provide for more reserves than we require, we will reverse a portion of such provisions in future periods. The liability for warranty obligations totaled \$8.7 million and \$8.4 million at December 31, 2015 and 2014, respectively. These liabilities are included in accrued expenses in the accompanying consolidated balance sheets.

A summary of warranty expense and write-off activity for the years ended December 31, 2015, 2014 and 2013 is as follows:

<b>Year Ended December 31, (In thousands)</b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>
Balance at beginning of period	\$ 8,415	\$ 8,977	\$ 9,653
Plus: Amounts charged to cost and expenses	2,998	3,103	4,051
Less: Deductions	(2,674)	(3,665)	(4,727)
<b>Balance at end of period</b>	<b>\$ 8,739</b>	<b>\$ 8,415</b>	<b>\$ 8,977</b>

**Pension Benefit Plan Obligations**

We maintain a defined benefit pension plan covering employees in certain foreign countries. Pension benefit plan obligations are based on various assumptions used by our actuaries in calculating these amounts. These assumptions include discount rates, compensation rate increases, expected return on plan assets, retirement rates and mortality rates. Actual results that differ from the assumptions and changes in assumptions could affect future expenses and obligations.

**Stock-Based Compensation**

We have two Board and stockholder approved stock option plans from which stock options and other awards are available for grant to employees and directors. All employee and director stock options granted under our stock option plans have an exercise price equal to the fair market value of the award, as defined in the plan, of the underlying common stock on the grant date. There are currently no vesting provisions tied to performance or market conditions for any option awards. Vesting for all outstanding option grants is based only on continued service as an employee or director of ADTRAN. All of our outstanding stock option awards are classified as equity awards.

Under the provisions of our approved plans, we made grants of performance-based restricted stock units to certain of our executive officers in 2015, 2014, and 2013. The restricted stock units are subject to a market condition based on

the relative total shareholder return of ADTRAN against all the companies in the NASDAQ Telecommunications Index and vest at the end of a three-year performance period. The restricted stock units are converted into shares of common stock upon vesting. Depending on the relative total shareholder return over the performance period, the executive officers may earn from 0% to 150% of the number of restricted stock units granted. The fair value of the award is based on the market price of our common stock on the date of grant, adjusted for the expected outcome of the impact of market conditions using a Monte Carlo Simulation valuation method. The recipients of the restricted stock units also earn dividend credits during the performance period, which will be paid in cash upon the issuance of common stock for the restricted stock units.

Stock-based compensation expense recognized in 2015, 2014 and 2013 was approximately \$6.7 million, \$8.6 million and \$9.1 million, respectively. As of December 31, 2015, total compensation cost related to non-vested stock options, restricted stock units and restricted stock not yet recognized was approximately \$14.8 million, which is expected to be recognized over an average remaining recognition period of 2.7 years. See Note 2 of Notes to Consolidated Financial Statements for additional information.

**Table of Contents****Impairment of Long-Lived Assets**

We review long-lived assets used in operations for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and the undiscounted cash flows estimated to be generated by the asset are less than the asset's carrying value. An impairment loss would be recognized in the amount by which the recorded value of the asset exceeds the fair value of the asset, measured by the quoted market price of an asset or an estimate based on the best information available in the circumstances. There were no impairment losses recognized during 2015, 2014 or 2013.

**Goodwill and Purchased Intangible Assets**

We evaluate the carrying value of goodwill during the fourth quarter of each year and between annual evaluations if events occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount. When evaluating whether goodwill is impaired, we first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. If we determine that the two-step quantitative test is necessary, then we compare the fair value of the reporting unit to which the goodwill is assigned to the reporting unit's carrying amount, including goodwill. If the carrying amount of the reporting unit exceeds its fair value, then the amount of the impairment loss is measured. There were no impairment losses recognized during 2015, 2014 or 2013. Purchased intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is recorded over the estimated useful lives of the respective assets, which is 2.5 to 14 years.

**Research and Development Costs**

Research and development costs include compensation for engineers and support personnel, outside contracted services, depreciation and material costs associated with new product development, the enhancement of current products, and product cost reductions. We continually evaluate new product opportunities and engage in intensive research and product development efforts. Research and development costs totaled \$129.9 million, \$132.3 million and \$131.1 million for the years ended December 31, 2015, 2014 and 2013, respectively.

**Other Comprehensive Income**

Other comprehensive income consists of unrealized gains (losses) on available-for-sale securities, reclassification adjustments for amounts included in net income related to impairments of available-for-sale securities and realized gains (losses) on available-for-sale securities, defined benefit plan adjustments and foreign currency translation adjustments.

The following table presents changes in accumulated other comprehensive income, net of tax, by component for the years ended December 31, 2013, 2014 and 2015:

	<b>Unrealized Gains (Losses) on Available- for-Sale Securities</b>	<b>Defined Benefit Plan Adjustments</b>	<b>Foreign Currency Adjustments</b>	<b>Total</b>
<i>(In thousands)</i>				

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<b>Balance at December 31, 2012</b>	<b>\$ 10,108</b>	<b>\$ (1,952)</b>	<b>\$ 3,112</b>	<b>\$ 11,268</b>
Other comprehensive income (loss) before reclassifications	5,508	1,061	(2,205)	4,364
Amounts reclassified from accumulated other comprehensive income	(4,879)			(4,879)
<b>Balance at December 31, 2013</b>	<b>\$ 10,737</b>	<b>\$ (891)</b>	<b>\$ 907</b>	<b>\$ 10,753</b>
Other comprehensive income (loss) before reclassifications	2,363	(4,866)	(4,189)	(6,692)
Amounts reclassified from accumulated other comprehensive income	(4,136)			(4,136)
<b>Balance at December 31, 2014</b>	<b>\$ 8,964</b>	<b>\$ (5,757)</b>	<b>\$ (3,282)</b>	<b>\$ (75)</b>
Other comprehensive income (loss) before reclassifications	(844)	1,589	(3,724)	(2,979)
Amounts reclassified from accumulated other comprehensive income	(6,188)	273		(5,915)
<b>Balance at December 31, 2015</b>	<b>\$ 1,932</b>	<b>\$ (3,895)</b>	<b>\$ (7,006)</b>	<b>\$ (8,969)</b>

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The following tables present the details of reclassifications out of accumulated other comprehensive income for the years ended December 31, 2015, 2014 and 2013:

*(In thousands)*

Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income	2015
		Affected Line Item in the Statement Where Net Income Is Presented
Unrealized gains (losses) on available-for-sale securities:		
Net realized gain on sales of securities	\$ 10,348	Net realized investment gain
Impairment expense	(203)	Net realized investment gain
Defined benefit plan adjustments actuarial losses	(396)	(1)
Total reclassifications for the period, before tax	9,749	
Tax (expense) benefit	(3,834)	
<b>Total reclassifications for the period, net of tax</b>	<b>\$ 5,915</b>	

(1) Included in the computation of net periodic pension cost. See Note 10 of Notes to Consolidated Financial Statements.

*(In thousands)*

Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income	2014
		Affected Line Item in the Statement Where Net Income Is Presented
Unrealized gains (losses) on available-for-sale securities:		
Net realized gain on sales of securities	\$ 6,895	Net realized investment gain
Impairment expense	(115)	Net realized investment gain
Total reclassifications for the period, before tax	6,780	
Tax (expense) benefit	(2,644)	
<b>Total reclassifications for the period, net of tax</b>	<b>\$ 4,136</b>	

*(In thousands)*

Details about Accumulated Other Comprehensive	Amount Reclassified from Accumulated Other	2013
		Affected Line Item in the

Income Components	Comprehensive Income	Statement Where Net Income Is Presented
Unrealized gains (losses) on available-for-sale securities:		
Net realized gain on sales of securities	\$ 8,023	Net realized investment gain
Impairment expense	(25)	Net realized investment gain
Total reclassifications for the period, before tax	7,998	
Tax (expense) benefit	(3,119)	
<b>Total reclassifications for the period, net of tax</b>	<b>\$ 4,879</b>	

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The following tables present the tax effects related to the change in each component of other comprehensive income for the years ended December 31, 2015, 2014 and 2013:

<i>(In thousands)</i>	<b>Before-Tax Amount</b>	<b>2015 Tax (Expense) Benefit</b>	<b>Net-of-Tax Amount</b>
Unrealized gains (losses) on available-for-sale securities	\$ (1,384)	\$ 540	\$ (844)
Reclassification adjustment for amounts included in net income	(9,749)	3,834	(5,915)
Defined benefit plan adjustments	2,303	(714)	1,589
Foreign currency translation adjustment	(3,724)		(3,724)
<b>Total Other Comprehensive Income (Loss)</b>	<b>\$ (12,554)</b>	<b>\$ 3,660</b>	<b>\$ (8,894)</b>

<i>(In thousands)</i>	<b>Before-Tax Amount</b>	<b>2014 Tax (Expense) Benefit</b>	<b>Net-of-Tax Amount</b>
Unrealized gains (losses) on available-for-sale securities	\$ 3,874	\$ (1,511)	\$ 2,363
Reclassification adjustment for amounts included in net income	(6,780)	2,644	(4,136)
Defined benefit plan adjustments	(7,052)	2,186	(4,866)
Foreign currency translation adjustment	(4,189)		(4,189)
<b>Total Other Comprehensive Income (Loss)</b>	<b>\$ (14,147)</b>	<b>\$ 3,319</b>	<b>\$ (10,828)</b>

<i>(In thousands)</i>	<b>Before-Tax Amount</b>	<b>2013 Tax (Expense) Benefit</b>	<b>Net-of-Tax Amount</b>
Unrealized gains (losses) on available-for-sale securities	\$ 9,030	\$ (3,522)	\$ 5,508
Reclassification adjustment for amounts included in net income	(7,998)	3,119	(4,879)
Defined benefit plan adjustments	1,061		1,061
Foreign currency translation adjustment	(2,205)		(2,205)
<b>Total Other Comprehensive Income (Loss)</b>	<b>\$ (112)</b>	<b>\$ (403)</b>	<b>\$ (515)</b>





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**Table of Contents****Income Taxes**

The provision for income taxes has been determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for income taxes represents income taxes paid or payable for the current year plus the change in deferred taxes during the year. Deferred taxes result from the difference between financial and tax bases of our assets and liabilities and are adjusted for changes in tax rates and tax laws when such changes are enacted. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized.

We establish reserves to remove some or all of the tax benefit of any of our tax positions at the time we determine that the positions become uncertain. We adjust these reserves, including any impact on the related interest and penalties, as facts and circumstances change.

**Foreign Currency**

We record transactions denominated in foreign currencies on a monthly basis using exchange rates from throughout the year. Assets and liabilities denominated in foreign currencies are translated at the balance sheet dates using the closing rates of exchange between those foreign currencies and the functional currency with any transaction gains or losses reported in other income (expense). Our primary exposures to foreign currency exchange rate movements are with our Mexican subsidiary, whose functional currency is the United States dollar, German subsidiary, whose functional currency is the Euro, and our Australian subsidiary, whose functional currency is the Australian dollar. Adjustments resulting from translating financial statements of international subsidiaries are recorded as a component of accumulated other comprehensive income (loss).

**Revenue Recognition**

Revenue is generally recognized when persuasive evidence of an arrangement exists, delivery has occurred, the product price is fixed or determinable, collection of the resulting receivable is reasonably assured, and product returns are reasonably estimable. For product sales, revenue is generally recognized upon shipment of the product to our customer in accordance with the title transfer terms of the sales agreement, generally Ex Works, per International Commercial Terms. In the case of consigned inventory, revenue is recognized when the end customer assumes ownership of the product. Contracts that contain multiple deliverables are evaluated to determine the units of accounting, and the consideration from the arrangement is allocated to each unit of accounting based on the relative selling price and corresponding terms of the contract. We use vendor-specific objective evidence of selling price. When this evidence is not available, we are generally not able to determine third-party evidence of selling price because of the extent of customization among competing products or services from other companies. In these instances, we use best estimates to allocate consideration to each respective unit of accounting. These estimates include analysis of respective bills of material and review and analysis of similar product and service offerings. We record revenue associated with installation services when respective contractual obligations are complete. In instances where customer acceptance is required, revenue is deferred until respective acceptance criteria have been met. Contracts that include both installation services and product sales are evaluated for revenue recognition in accordance with contract terms. As a result, installation services may be considered a separate deliverable or may be considered a combined single unit of accounting with the delivered product. Generally, either the purchaser, ADTRAN, or a third party can perform the installation of our products. Shipping fees are recorded as revenue and the related cost is included in cost of sales. Sales taxes invoiced to customers are included in revenues, and represent less than one percent of total revenues. The corresponding sales taxes paid are included in cost of goods sold. Value added taxes collected from customers in international jurisdictions are recorded in accrued expenses as a liability. Revenue is

recorded net of discounts. Sales returns are accrued based on historical sales return experience, which we believe provides a reasonable estimate of future returns.

A portion of Enterprise Networks products are sold to a non-exclusive distribution network of major technology distributors in the United States. These large organizations then distribute or provide fulfillment services to an extensive network of VARs and SIs. VARs and SIs may be affiliated with us as a channel partner, or they may purchase from the distributor in an unaffiliated fashion. Additionally, with certain limitations our distributors may return unused and unopened product for stock-balancing purposes when such returns are accompanied by offsetting orders for products of equal or greater value.

We participate in cooperative advertising and market development programs with certain customers. We use these programs to reimburse customers for certain forms of advertising, and in general, to allow our customers credits up to a specified percentage of their net purchases. Our costs associated with these programs are estimated and included in marketing expenses in our consolidated statements of income. We also participate in rebate programs to provide sales incentives for certain products. Our costs associated with these programs are estimated and accrued at the time of sale, and are recorded as a reduction of sales in our consolidated statements of income.

**Table of Contents****Unearned Revenue**

Unearned revenue primarily represents customer billings on our maintenance service programs and unearned revenues relating to multiple element contracts where we still have contractual obligations to our customers. We currently offer maintenance contracts ranging from one to five years, primarily on Enterprise Networks Division products sold through distribution channels. Revenue attributable to maintenance contracts is recognized on a straight-line basis over the related contract term. In addition, we provide software maintenance and a variety of hardware maintenance services to Carrier Networks Division customers under contracts with terms up to ten years. When we defer revenue related to multiple-element contracts where we still have contractual obligations, we also defer the related costs. Deferred costs are included in prepaid expenses and other assets and totaled \$5.2 million and \$0.8 million at December 31, 2015 and 2014, respectively.

**Other Income (Expense), Net**

Other income (expense), net, is comprised primarily of miscellaneous income and expense, gains and losses on foreign currency transactions, and investment account management fees. For the year ended December 31, 2014, other income (expense), net included a \$2.4 million gain related to the settlement of working capital items from an acquisition transaction that closed in 2012.

**Earnings per Share**

Earnings per common share, and earnings per common share assuming dilution, are based on the weighted average number of common shares and, when dilutive, common equivalent shares outstanding during the year. See Note 13 of Notes to Consolidated Financial Statements for additional information.

**Dividends**

During 2015, 2014 and 2013, we paid shareholder dividends totaling \$18.4 million, \$19.9 million and \$21.4 million, respectively. The Board of Directors presently anticipates that it will declare a regular quarterly dividend so long as the present tax treatment of dividends exists and adequate levels of liquidity are maintained. The following table shows dividends paid to our shareholders in each quarter of 2015, 2014 and 2013.

	<b>Dividends per Common Share</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
First Quarter	\$ 0.09	\$ 0.09	\$ 0.09
Second Quarter	\$ 0.09	\$ 0.09	\$ 0.09
Third Quarter	\$ 0.09	\$ 0.09	\$ 0.09
Fourth Quarter	\$ 0.09	\$ 0.09	\$ 0.09

On January 19, 2016, the Board of Directors declared a quarterly cash dividend of \$0.09 per common share to be paid to shareholders of record at the close of business on February 4, 2016. The ex-dividend date was February 2, 2016 and the payment date was February 18, 2016. The quarterly dividend payment was \$4.4 million.

**Business Combinations**

We use the acquisition method to account for business combinations. Under the acquisition method of accounting, we recognize the assets acquired and liabilities assumed at their fair value on the acquisition date. Goodwill is measured

as the excess of the consideration transferred over the net assets acquired. Costs incurred to complete the business combination, such as legal, accounting or other professional fees, are charged to general and administrative expenses as they are incurred.

### **Recently Issued Accounting Standards**

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers* (ASU 2014-09), which supersedes the revenue recognition requirements in Topic 605, *Revenue Recognition*, including most industry-specific revenue recognition guidance throughout the Industry Topics of the Codification. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. In August 2015, the FASB issued ASU 2015-14, which deferred the effective date of ASU 2014-09 to fiscal years beginning after December 31, 2017, including interim periods within those years. ASU 2014-09 allows for either full retrospective or modified retrospective adoption. We are currently evaluating the transition method that will be elected and the impact that the adoption of ASU 2014-09 will have on our financial position, results of operations and cash flows.

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In April 2015, the FASB issued Accounting Standards Update No. 2015-05, *Intangibles – Goodwill and Other Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Fees Paid in a Cloud Computing Arrangement* (ASU 2015-05), which provides guidance on accounting for fees paid by a customer in a cloud computing arrangement. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. ASU 2015-05 is effective for annual reporting periods beginning after December 15, 2015, including interim periods within those years. Early adoption is permitted. The guidance may be applied either prospectively to all arrangements entered into or materially modified after the effective date or retrospectively. We do not believe the adoption of ASU 2015-05 will have a material impact on our financial position, results of operations and cash flows.

In July 2015, the FASB issued Accounting Standards Update No. 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory* (ASU 2015-11). Currently, Topic 330, Inventory, requires an entity to measure inventory at the lower of cost or market. Market could be replacement cost, net realizable value, or net realizable value less an approximately normal profit margin. ASU 2015-11 does not apply to inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out (FIFO) or average cost. ASU 2015-11 requires an entity to measure in scope inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. ASU 2015-11 is effective for annual reporting periods beginning after December 15, 2016, including interim periods within those years. The guidance should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. We do not believe the adoption of ASU 2015-05 will have a material impact on our financial position, results of operations and cash flows.

In November 2015, the FASB issued Accounting Standards Update No. 2015-17, *Balance Sheet Classification of Deferred Taxes* (ASU 2015-17). ASU 2015-17 amends the existing guidance on income taxes to require the classification of all deferred tax assets and liabilities as non-current on the balance sheet. ASU 2015-17 is effective for fiscal years beginning after December 15, 2016, including interim periods within those years. Early adoption is permitted. The guidance may be applied either prospectively, for all deferred tax assets and liabilities, or retrospectively to all periods presented. We have not selected a transition method or determined whether to early adopt ASU 2015-17 in 2016. Other than the revised balance sheet presentation of current deferred tax assets and liabilities, we do not believe the adoption of ASU 2015-17 will have a material impact on our financial position, results of operations and cash flows.

**Note 2 Stock Incentive Plans***Stock Incentive Program Descriptions*

On January 23, 2006, the Board of Directors adopted the ADTRAN, Inc. 2006 Employee Stock Incentive Plan (2006 Plan), which authorized 13.0 million shares of common stock for issuance to certain employees and officers through incentive stock options and non-qualified stock options, stock appreciation rights, restricted stock and restricted stock units. The 2006 Plan was adopted by stockholder approval at our annual meeting of stockholders held on May 9, 2006. Options granted under the 2006 Plan typically become exercisable beginning after one year of continued employment, normally pursuant to a four-year vesting schedule beginning on the first anniversary of the grant date, and have a ten-year contractual term. The 2006 Plan was replaced on May 13, 2015 by the ADTRAN, Inc. 2015 Employee Stock Incentive Plan (2015 Plan). Expiration dates of options outstanding at December 31, 2015 under the 2006 Plan range from 2016 to 2025.

Our stockholders approved the 2010 Directors Stock Plan (2010 Directors Plan) on May 5, 2010, under which 0.5 million shares of common stock have been reserved. This plan replaces the 2005 Directors Stock Option Plan. The 2010 Directors Plan provides that the Company may issue stock options, restricted stock and restricted stock units to our non-employee directors. Stock awards issued under the 2010 Directors Plan normally become vested in full on the first anniversary of the grant date. Options issued under the 2010 Directors Plan have a ten-year contractual term. Expiration dates of options outstanding under both plans at December 31, 2015 range from 2016 to 2019.

On January 20, 2015, the Board of Directors adopted the 2015 Plan, which authorizes 7.7 million shares of common stock for issuance to certain employees and officers through incentive stock options and non-qualified stock options, stock appreciation rights, restricted stock and restricted stock units. The 2015 Plan was adopted by stockholder approval at our annual meeting of stockholders held on May 13, 2015. Restricted stock and restricted stock units granted under the 2015 Plan reduce the shares authorized for issuance under the 2015 Plan by 2.5 shares of common stock for each share underlying the award. Options granted under the 2015 Plan typically become exercisable beginning after one year of continued employment, normally pursuant to a four-year vesting schedule beginning on the first anniversary of the grant date, and have a ten-year contractual term. Expiration dates of options outstanding at December 31, 2015 under the 2015 Plan are in the year 2025.

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The following table summarizes stock-based compensation expense related to stock options, RSUs and restricted stock for the years ended December 31, 2015, 2014 and 2013, which was recognized as follows:

<i>(In thousands)</i>	2015	2014	2013
<b>Stock-based compensation expense included in cost of sales</b>	<b>\$ 280</b>	<b>\$ 479</b>	<b>\$ 465</b>
Selling, general and administrative expense	3,261	4,185	4,443
Research and development expense	3,171	3,899	4,165
<b>Stock-based compensation expense included in operating expenses</b>	<b>6,432</b>	<b>8,084</b>	<b>8,608</b>
<b>Total stock-based compensation expense</b>	<b>6,712</b>	<b>8,563</b>	<b>9,073</b>
Tax benefit for expense associated with non-qualified options	(862)	(1,157)	(1,298)
<b>Total stock-based compensation expense, net of tax</b>	<b>\$ 5,850</b>	<b>\$ 7,406</b>	<b>\$ 7,775</b>

At December 31, 2015, total compensation cost related to non-vested stock options not yet recognized was approximately \$13.3 million, which is expected to be recognized over an average remaining recognition period of 2.8 years.

*Stock Options*

The following table is a summary of our stock options outstanding as of December 31, 2014 and 2015 and the changes that occurred during 2015:

<i>(In thousands, except per share amounts)</i>	Number of Options	Weighted Average Exercise Price	Weighted Avg. Remaining Contractual Life in Years	Aggregate Intrinsic Value
<b>Options outstanding, December 31, 2014</b>	<b>6,981</b>	<b>\$ 23.62</b>	<b>6.45</b>	<b>\$ 10,625</b>
Options granted	1,204	\$ 15.35		
Options exercised	(60)	\$ 16.00		
Options forfeited	(289)	\$ 20.86		
Options expired	(728)	\$ 27.75		
<b>Options outstanding, December 31, 2015</b>	<b>7,108</b>	<b>\$ 21.97</b>	<b>6.42</b>	<b>\$ 3,284</b>
<b>Options vested and expected to vest, December 31, 2015</b>	<b>6,954</b>	<b>\$ 22.09</b>	<b>6.35</b>	<b>\$ 3,094</b>
<b>Options exercisable, December 31, 2015</b>	<b>4,506</b>	<b>\$ 24.29</b>	<b>4.93</b>	<b>\$ 978</b>



All of the options above were issued at exercise prices that approximated fair market value at the date of grant. At December 31, 2015, 6.7 million options were available for grant under the shareholder approved plans.

The aggregate intrinsic values in the table above represent the total pre-tax intrinsic value (the difference between ADTRAN's closing stock price on the last trading day of 2015 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on December 31, 2015. The amount of aggregate intrinsic value will change based on the fair market value of ADTRAN's stock.

The total pre-tax intrinsic value of options exercised during 2015, 2014 and 2013 was \$0.1 million, \$0.7 million and \$1.1 million, respectively. The fair value of options fully vesting during 2015, 2014 and 2013 was \$6.6 million, \$7.7 million and \$7.7 million, respectively.

The following table further describes our stock options outstanding as of December 31, 2015:

Range of Exercise Prices	Options Outstanding			Options Exercisable Options	
	Options Outstanding at 12/31/15 (In thousands)	Weighted Avg. Remaining Contractual Life in Years	Weighted Average Exercise Price	Exercisable at 12/31/15 (In thousands)	Weighted Average Exercise Price
\$14.88 - 16.96	1,628	8.03	\$ 15.32	430	\$ 15.27
\$16.97 - 18.97	1,798	8.02	\$ 18.14	827	\$ 17.63
\$18.98 - 23.46	1,290	2.65	\$ 23.08	1,288	\$ 23.08
\$23.47 - 29.71	967	7.43	\$ 24.15	536	\$ 24.38
\$29.72 - 41.92	1,425	5.29	\$ 31.94	1,425	\$ 31.94
	<b>7,108</b>			<b>4,506</b>	

**Table of Contents***Restricted Stock and RSUs*

Under the 2015 Plan, awards other than stock options, including restricted stock and RSUs, may be granted to certain employees and officers. The number of shares of common stock earned by a recipient pursuant to the RSUs is subject to a market condition based on ADTRAN's relative total shareholder return against all companies in the NASDAQ Telecommunications Index at the end of a three-year performance period. Depending on the relative total shareholder return over the performance period, the recipient may earn from 0% to 150% of the shares underlying the RSUs, with the shares earned distributed upon the vesting of the RSUs at the end of the three-year performance period. The fair value of the award is based on the market price of our common stock on the date of grant, adjusted for the expected outcome of the impact of market conditions using a Monte Carlo Simulation valuation method. A portion of the granted RSUs also vest and the underlying shares become deliverable upon the death or disability of the recipient or upon a change of control of ADTRAN, as defined by the 2015 Plan. The recipients of the RSUs receive dividend credits based on the shares of common stock underlying the RSUs. The dividend credits are vested and earned in the same manner as the RSUs and are paid in cash upon the issuance of common stock for the RSUs.

The following table is a summary of our RSUs and restricted stock outstanding as of December 31, 2014 and 2015 and the changes that occurred during 2015:

<i>(In thousands, except per share amounts)</i>	<b>Number of shares</b>	<b>Weighted Average Grant Date Fair Value</b>
<b>Unvested RSUs and restricted stock outstanding, December 31, 2014</b>	<b>104</b>	<b>\$ 22.81</b>
RSUs and restricted stock granted	57	\$ 17.47
RSUs and restricted stock vested	(38)	\$ 20.71
RSUs and restricted stock forfeited	(12)	\$ 23.10
Adjustments to shares granted due to shares earned at vesting	(5)	\$ 19.90
<b>Unvested RSUs and restricted stock outstanding, December 31, 2015</b>	<b>106</b>	<b>\$ 21.09</b>

At December 31, 2015, total compensation cost related to the non-vested portion of RSUs and restricted stock not yet recognized was approximately \$1.5 million, which is expected to be recognized over an average remaining recognition period of 1.9 years.

*Valuation and Expense Information*

We use the Black-Scholes option pricing model (Black-Scholes Model) for the purpose of determining the estimated fair value of stock option awards on the date of grant. The Black-Scholes Model requires the input of certain assumptions that involve judgment. Because our stock options have characteristics significantly different from those of traded options, and because changes in the input assumptions can materially affect the fair value estimate, existing models may not provide reliable measures of fair value of our stock options. We use a Monte Carlo Simulation valuation method to value our performance-based RSUs. The fair value of restricted stock issued is equal to the closing price of our stock on the date of grant. We will continue to assess the assumptions and methodologies used to

calculate the estimated fair value of stock-based compensation. If circumstances change, and additional data becomes available over time, we may change our assumptions and methodologies, which may materially impact our fair value determination.

The stock option pricing model requires the use of several assumptions that impact the fair value estimate. These variables include, but are not limited to, the volatility of our stock price and employee exercise behaviors. There were no changes made during 2015 to the methodology used to determine our assumptions.

The weighted-average estimated fair value of stock options granted to employees during the years ended December 31, 2015, 2014 and 2013 was \$4.28 per share, \$6.31 per share and \$8.35 per share, respectively, with the following weighted-average assumptions:

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Expected volatility	34.57%	39.05%	39.92%
Risk-free interest rate	1.81%	1.79%	1.71%
Expected dividend yield	2.35%	1.90%	1.52%
Expected life (in years)	6.23	6.33	6.36

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We based our estimate of expected volatility for the years ended December 31, 2015, 2014 and 2013 on the sequential historical daily trading data of our common stock for a period equal to the expected life of the options granted. The selection of the historical volatility method was based on available data indicating our historical volatility is as equally representative of our future stock price trends as is our implied volatility. We have no reason to believe the future volatility of our stock price is likely to differ from its past volatility.

The risk-free interest rate assumption is based upon implied yields of U.S. Treasury zero-coupon bonds on the date of grant having a remaining term equal to the expected life of the options granted. The dividend yield is based on our historical and expected dividend payouts. The expected life of our stock options is based upon historical exercise and cancellation activity of our previous stock-based grants with a ten-year contractual term.

The RSU pricing model also requires the use of several significant assumptions that impact the fair value estimate. The estimated fair value of the RSUs granted to employees during the years ended December 31, 2015, 2014 and 2013 was \$17.64 per share, \$22.11 per share and \$27.72 per share, respectively, with the following assumptions:

	2015	2014	2013
Expected volatility	31.34%	36.40%	38.83%
Risk-free interest rate	1.20%	0.96%	0.61%
Expected dividend yield	2.35%	1.89%	1.52%

Stock-based compensation expense recognized in our Consolidated Statements of Income for the years ended December 31, 2015, 2014 and 2013 is based on RSUs and options ultimately expected to vest, and has been reduced for estimated forfeitures. Estimates for forfeiture rates are based upon historical experience and are evaluated quarterly. We expect our forfeiture rate for stock option awards to be approximately 3.7% annually. We estimated a 0% forfeiture rate for our RSUs and restricted stock due to the limited number of recipients and historical experience for these awards.

**Note 3 Investments**

At December 31, 2015, we held the following securities and investments, recorded at either fair value or cost:

<i>(In thousands)</i>	Amortized Cost	Gross Unrealized		Fair Value / Carrying Value
		Gains	Losses	
Deferred compensation plan assets	\$ 11,325	\$ 1,575	\$ (66)	\$ 12,834
Corporate bonds	58,328	20	(734)	57,614
Municipal fixed-rate bonds	26,414	28	(18)	26,424
Asset-backed bonds	19,281	2	(44)	19,239
Mortgage/Agency-backed bonds	15,463	1	(91)	15,373
Government bonds	35,646		(248)	35,398
Marketable equity securities	31,643	4,301	(1,693)	34,251
<b>Available-for-sale securities held at fair value</b>	<b>\$ 198,100</b>	<b>\$ 5,927</b>	<b>\$ (2,894)</b>	<b>\$ 201,133</b>
<b>Restricted investment held at cost</b>				<b>30,000</b>

<b>Other investments held at cost</b>	<b>1,289</b>
<b>Total carrying value of available-for-sale investments</b>	<b>\$ 232,422</b>

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At December 31, 2014, we held the following securities and investments, recorded at either fair value or cost:

<i>(In thousands)</i>	Amortized Cost	Gross Unrealized Gains	Losses	Fair Value / Carrying Value
Deferred compensation plan assets	\$ 13,897	\$ 2,409	\$ (12)	\$ 16,294
Corporate bonds	111,261	186	(186)	111,261
Municipal fixed-rate bonds	127,341	480	(34)	127,787
Municipal variable rate demand notes	2,465			2,465
Marketable equity securities	26,399	12,395	(539)	38,255
<b>Available-for-sale securities held at fair value</b>	<b>\$ 281,363</b>	<b>\$ 15,470</b>	<b>\$ (771)</b>	<b>\$ 296,062</b>
<b>Restricted investment held at cost</b>				<b>30,000</b>
<b>Other investments held at cost</b>				<b>1,506</b>
<b>Total carrying value of available-for-sale investments</b>				<b>\$ 327,568</b>

As of December 31, 2015, corporate and municipal fixed-rate bonds had the following contractual maturities:

<i>(In thousands)</i>	Corporate bonds	Municipal fixed-rate bonds	Asset-backed bonds	Mortgage / Agency-backed bonds	Government bonds
Less than one year	\$ 14,852	\$ 19,544	\$	\$	\$
One to two years	23,364	4,982	238	1,000	2,949
Two to three years	19,398	1,679	6,126	2,495	17,264
Three to five years		219	9,337		15,185
Five to ten years			3,235	603	
More than ten years			303	11,275	
<b>Total</b>	<b>\$ 57,614</b>	<b>\$ 26,424</b>	<b>\$ 19,239</b>	<b>\$ 15,373</b>	<b>\$ 35,398</b>

Our investment policy provides limitations for issuer concentration, which limits, at the time of purchase, the concentration in any one issuer to 5% of the market value of our total investment portfolio.

We review our investment portfolio for potential other-than-temporary declines in value on an individual investment basis. We assess, on a quarterly basis, significant declines in value which may be considered other-than-temporary and, if necessary, recognize and record the appropriate charge to write-down the carrying value of such investments. In making this assessment, we take into consideration qualitative and quantitative information, including but not limited to the following: the magnitude and duration of historical declines in market prices, credit rating activity, assessments of liquidity, public filings, and statements made by the issuer. We generally begin our identification of potential other-than-temporary impairments by reviewing any security with a fair value that has declined from its original or adjusted cost basis by 25% or more for six or more consecutive months. We then evaluate the individual security based on the previously identified factors to determine the amount of the write-down, if any. For each of the

years ended December 31, 2015, 2014 and 2013, we recorded a charge of \$0.2 million, \$0.1 million and \$25 thousand, respectively, related to the other-than-temporary impairment of certain marketable equity securities and our deferred compensation plan assets.

Realized gains and losses on sales of securities are computed under the specific identification method. The following table presents gross realized gains and losses related to our investments for the years ended December 31, 2015, 2014 and 2013:

**Year Ended December 31,**

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Gross realized gains	\$ 10,906	\$ 7,586	\$ 8,932
Gross realized losses	\$ (569)	\$ (308)	\$ (318)

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The following table presents the breakdown of investments with unrealized losses at December 31, 2015:

<i>(In thousands)</i>	Continuous Unrealized Loss Position for Less than 12 Months		Continuous Unrealized Loss Position for 12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Deferred compensation plan assets	\$ 1,243	\$ (53)	\$ 92	\$ (13)	\$ 1,335	\$ (66)
Corporate bonds	35,952	(566)	3,042	(168)	38,994	(734)
Municipal fixed-rate bonds	9,160	(18)			9,160	(18)
Asset-backed bonds	16,857	(44)			16,857	(44)
Mortgage/Agency-backed bonds	15,216	(91)			15,216	(91)
Government bonds	35,397	(248)			35,397	(248)
Marketable equity securities	14,364	(1,564)	374	(129)	14,738	(1,693)
<b>Total</b>	<b>\$ 128,189</b>	<b>\$ (2,584)</b>	<b>\$ 3,508</b>	<b>\$ (310)</b>	<b>\$ 131,697</b>	<b>\$ (2,894)</b>

The following table presents the breakdown of investments with unrealized losses at December 31, 2014:

<i>(In thousands)</i>	Continuous Unrealized Loss Position for Less than 12 Months		Continuous Unrealized Loss Position for 12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Deferred compensation plan assets	\$ 49	\$ (3)	\$ 278	\$ (9)	\$ 327	\$ (12)
Corporate bonds	31,021	(186)			31,021	(186)
Municipal fixed-rate bonds	30,339	(34)			30,339	(34)
Marketable equity securities	4,824	(478)	208	(61)	5,032	(539)
<b>Total</b>	<b>\$ 66,233</b>	<b>\$ (701)</b>	<b>\$ 486</b>	<b>\$ (70)</b>	<b>\$ 66,719</b>	<b>\$ (771)</b>

The increase in unrealized losses during 2015, as reflected in the table above results from changes in market positions associated with our equity investment portfolio. At December 31, 2015, a total of 594 of our marketable equity securities were in an unrealized loss position.



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We have categorized our cash equivalents and our investments held at fair value into a three-level fair value hierarchy based on the priority of the inputs to the valuation technique for the cash equivalents and investments as follows: Level 1 - Values based on unadjusted quoted prices for identical assets or liabilities in an active market; Level 2 - Values based on quoted prices in markets that are not active or model inputs that are observable either directly or indirectly; Level 3 - Values based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. These inputs include information supplied by investees.

<i>(In thousands)</i>	Fair Value Measurements at December 31, 2015 Using			
	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Cash equivalents</b>				
Money market funds	\$ 1,271	\$ 1,271	\$	\$
Commercial paper	11,696		11,696	
<b>Cash equivalents</b>	<b>12,967</b>	<b>1,271</b>	<b>11,696</b>	
<b>Available-for-sale securities</b>				
Deferred compensation plan assets	12,834	12,834		
<b>Available-for-sale debt securities</b>				
Corporate bonds	57,614		57,614	
Municipal fixed-rate bonds	26,424		26,424	
Asset-backed bonds	19,239		19,239	
Mortgage/Agency-backed bonds	15,373		15,373	
Government bonds	35,398	35,398		
<b>Available-for-sale marketable equity securities</b>				
Marketable equity securities technology industry	5,384	5,384		
Marketable equity securities other	28,867	28,867		
<b>Available-for-sale securities</b>	<b>201,133</b>	<b>82,483</b>	<b>118,650</b>	
<b>Total</b>	<b>\$ 214,100</b>	<b>\$ 83,754</b>	<b>\$ 130,346</b>	<b>\$</b>

<i>(In thousands)</i>	Fair Value Measurements at December 31, 2014 Using			
	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Cash equivalents</b>				
Money market funds	\$ 1,163	\$ 1,163	\$	\$

<b>Available-for-sale securities</b>				
Deferred compensation plan assets	16,294	16,294		
<b>Available-for-sale debt securities</b>				
Corporate bonds	111,261		111,261	
Municipal fixed-rate bonds	127,787		127,787	
Municipal variable rate demand notes	2,465		2,465	
<b>Available-for-sale marketable equity securities</b>				
Marketable equity securities technology industry	9,661	9,661		
Marketable equity securities other	28,594	28,594		
<b>Available-for-sale securities</b>	<b>296,062</b>	<b>54,549</b>	<b>241,513</b>	
<b>Total</b>	<b>\$ 297,225</b>	<b>\$ 55,712</b>	<b>\$ 241,513</b>	<b>\$</b>

The fair value of our Level 2 securities is calculated using a weighted average market price for each security. Market prices are obtained from a variety of industry standard data providers, security master files from large financial institutions, and other third-party sources. These multiple market prices are used as inputs into a distribution-curve-based algorithm to determine the daily market value of each security.

Our municipal variable rate demand notes have a structure that implies a standard expected market price. The frequent interest rate resets make it reasonable to expect the price to stay at par. These securities are priced at the expected market price.

**Table of Contents****Note 4 Derivative Instruments and Hedging Activities**

We have certain international customers who are billed in their local currency. Changes in the monetary exchange rates may adversely affect our results of operations and financial condition. When appropriate, we enter into various derivative transactions to enhance our ability to manage the volatility relating to these typical business exposures. We do not hold or issue derivative instruments for trading or other speculative purposes. Our derivative instruments are recorded in the Consolidated Balance Sheets at their fair values. Our derivative instruments do not qualify for hedge accounting, and accordingly, all changes in the fair value of the instruments are recognized as other income (expense) in the Consolidated Statements of Income. The maximum contractual period for our derivatives is currently less than twelve months. Our derivative instruments are not subject to master netting arrangements and are not offset in the Consolidated Balance Sheets.

As of December 31, 2015, we had no forward contracts outstanding.

The fair values of our derivative instruments recorded in the Consolidated Balance Sheet as of December 31, 2015 and 2014 were as follows:

<i>(In thousands)</i>	<b>Balance Sheet</b>		
	<b>Location</b>	<b>2015</b>	<b>2014</b>
Derivatives Not Designated as Hedging Instruments (Level 2):			
Foreign exchange contracts asset derivatives	Other receivables	\$	\$ 249
Foreign exchange contracts liability derivatives	Accounts payable	\$	\$ (10)

The change in the fair values of our derivative instruments recorded in the Consolidated Statements of Income during the years ended December 31, 2015 and 2014 were as follows:

<i>(In thousands)</i>	<b>Income Statement</b>		
	<b>Location</b>	<b>2015</b>	<b>2014</b>
Derivatives Not Designated as Hedging Instruments:			
Foreign exchange contracts	Other income (expense)	\$ 511	\$ 1,852

**Note 5 Inventory**

At December 31, 2015 and 2014, inventory was comprised of the following:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>
Raw materials	\$ 34,223	\$ 34,831
Work in process	2,893	3,750
Finished goods	54,417	47,367
<b>Total Inventory, net</b>	<b>\$ 91,533</b>	<b>\$ 85,948</b>

We establish reserves for estimated excess, obsolete, or unmarketable inventory equal to the difference between the cost of the inventory and the estimated fair value of the inventory based upon assumptions about future demand and market conditions. At December 31, 2015 and 2014, raw materials reserves totaled \$17.5 million and \$16.9 million, respectively, and finished goods inventory reserves totaled \$9.2 million and \$7.8 million, respectively.

**Table of Contents****Note 6 Property, Plant and Equipment**

At December 31, 2015 and 2014, property, plant and equipment were comprised of the following:

<i>(In thousands)</i>	2015	2014
Land	\$ 4,575	\$ 4,575
Building and land improvements	25,667	22,374
Building	68,301	68,301
Furniture and fixtures	17,347	16,468
Computer hardware and software	76,389	74,603
Engineering and other equipment	112,132	109,501
<b>Total Property, Plant and Equipment</b>	<b>304,411</b>	<b>295,822</b>
Less accumulated depreciation	(231,178)	(220,994)
<b>Total Property, Plant and Equipment, net</b>	<b>\$ 73,233</b>	<b>\$ 74,828</b>

Depreciation expense was \$12.3 million, \$12.5 million and \$12.2 million in 2015, 2014, and 2013, respectively.

**Note 7 Goodwill and Intangible Assets**

Goodwill, all of which relates to our acquisition of Bluesocket, Inc. and is included in our Enterprise Networks division, was \$3.5 million at December 31, 2015 and 2014. We evaluate the carrying value of goodwill during the fourth quarter of each year and between annual evaluations if events occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount. We have elected to first assess the qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit to which the goodwill is assigned is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step impairment test. If we determine that it is more likely than not that its fair value is less than its carrying amount, then the two-step impairment test will be performed. Based on the results of our qualitative assessment in 2015, we concluded that it was not necessary to perform the two-step impairment test. There have been no impairment losses recognized since the acquisition in 2011.

Intangible assets are included in other assets in the accompanying Consolidated Balance Sheets and include intangible assets acquired in conjunction with our acquisition of Objectworld Communications Corporation on September 15, 2009, Bluesocket, Inc. on August 4, 2011, and the NSN BBA business on May 4, 2012.

The following table presents our intangible assets as of December 31, 2015 and 2014:

<i>(In thousands)</i>	2015			2014		
	Gross Value	Accumulated Amortization	Net Value	Gross Value	Accumulated Amortization	Net Value
Customer relationships	\$ 5,828	\$ (2,627)	\$ 3,201	\$ 6,310	\$ (2,136)	\$ 4,174
Developed technology	5,720	(4,329)	1,391	6,005	(3,577)	2,428
Intellectual property	2,340	(1,854)	486	2,340	(1,520)	820

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Trade names	270	(265)	5	270	(205)	65
Other	11	(11)		12	(11)	1
<b>Total</b>	<b>\$ 14,169</b>	<b>\$ (9,086)</b>	<b>\$ 5,083</b>	<b>\$ 14,937</b>	<b>\$ (7,449)</b>	<b>\$ 7,488</b>

Amortization expense was \$1.9 million, \$2.3 million and \$2.4 million for the years ended December 31, 2015, 2014 and 2013, respectively.

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As of December 31, 2015, the estimated future amortization expense of intangible assets is as follows:

<i>(In thousands)</i>	<b>Amount</b>
2016	\$ 1,657
2017	1,150
2018	694
2019	301
2020	279
Thereafter	1,002
<b>Total</b>	<b>\$ 5,083</b>

**Note 8 Alabama State Industrial Development Authority Financing and Economic Incentives**

In conjunction with an expansion of our Huntsville, Alabama, facility, we were approved for participation in an incentive program offered by the State of Alabama Industrial Development Authority (the Authority). Pursuant to the program, on January 13, 1995, the Authority issued \$20.0 million of its taxable revenue bonds and loaned the proceeds from the sale of the bonds to ADTRAN. The bonds were originally purchased by AmSouth Bank of Alabama, Birmingham, Alabama (the Bank). Wachovia Bank, N.A., Nashville, Tennessee (formerly First Union National Bank of Tennessee) (the Bondholder), which was acquired by Wells Fargo & Company on December 31, 2008, purchased the original bonds from the Bank and made further advances to the Authority, bringing the total amount outstanding to \$50.0 million. An Amended and Restated Taxable Revenue Bond (Amended and Restated Bond) was issued and the original financing agreement was amended. The Amended and Restated Bond bears interest, payable monthly. The interest rate is 2% per annum. The Amended and Restated Bond matures on January 1, 2020, and is currently outstanding in the aggregate principal amount of \$28.9 million. The estimated fair value of the bond using a level 2 valuation technique at December 31, 2015 was approximately \$28.7 million, based on a debt security with a comparable interest rate and maturity and a Standard & Poor's credit rating of AAA. We are required to make payments to the Authority in amounts necessary to pay the interest on the Amended and Restated Bond. Included in long-term investments at December 31, 2015 is \$30.0 million which is invested in a restricted certificate of deposit. These funds serve as a collateral deposit against the principal of this bond, and we have the right to set-off the balance of the Bond with the collateral deposit in order to reduce the balance of the indebtedness.

In conjunction with this program, we are eligible to receive certain economic incentives from the state of Alabama that reduce the amount of payroll withholdings that we are required to remit to the state for those employment positions that qualify under the program. We realized economic incentives related to payroll withholdings totaling \$1.3 million for each of the years ended December 31, 2015, 2014 and 2013.

We made a principal payment of \$1.1 million and \$16.5 million for the years ended December 31, 2015 and 2014, respectively. At December 31, 2015, \$1.0 million of the bond debt was classified as a current liability in accounts payable in the Consolidated Balance Sheets.

**Note 9 Income Taxes**

A summary of the components of the provision for income taxes for the years ended December 31, 2015, 2014 and 2013 is as follows:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Current</b>			
Federal	\$ 7,504	\$ 7,626	\$ 15,641
State	279	599	2,041
International	(29)	12,587	1,437
<b>Total Current</b>	<b>7,754</b>	<b>20,812</b>	<b>19,119</b>
<b>Deferred</b>			
Federal	(585)	(1,083)	(3,606)
State	(66)	(123)	(412)
International	(41)	(4,320)	(40)
<b>Total Deferred</b>	<b>(692)</b>	<b>(5,526)</b>	<b>(4,058)</b>
<b>Total Provision for Income Taxes</b>	<b>\$ 7,062</b>	<b>\$ 15,286</b>	<b>\$ 15,061</b>



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Our effective income tax rate differs from the federal statutory rate due to the following:

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Tax provision computed at the federal statutory rate	35.00%	35.00%	35.00%
State income tax provision, net of federal benefit	4.86	2.69	3.98
Federal research credits	(12.55)	(4.05)	(9.24)
Foreign taxes	2.10	(7.26)	(2.93)
Tax-exempt income	(1.94)	(1.25)	(1.11)
State tax incentives	(5.04)	(2.21)	(2.19)
Stock-based compensation	6.91	3.06	2.97
Domestic production activity deduction	(3.17)	(1.15)	(1.80)
Other, net	1.30	0.69	0.07
<b>Effective Tax Rate</b>	<b>27.47%</b>	<b>25.52%</b>	<b>24.75%</b>

Income before provision for income taxes for the years ended December 31, 2015, 2014 and 2013 is as follows:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>
U.S. entities	\$ 27,400	\$ 23,812	\$ 51,752
International entities	(1,692)	36,094	9,103
<b>Total</b>	<b>\$ 25,708</b>	<b>\$ 59,906</b>	<b>\$ 60,855</b>

Income before provision for income taxes for international entities reflects income based on statutory transfer pricing agreements. This amount does not correlate to consolidated international revenues, many of which occur from our U.S. entity.

Deferred income taxes on the balance sheet result from temporary differences between the amount of assets and liabilities recognized for financial reporting and tax purposes. The principal components of our current and non-current deferred taxes are as follows:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>
<b>Current deferred tax assets</b>		
Accounts receivable	\$ 7	\$ 53
Inventory	12,558	10,405
Accrued expenses	6,359	6,637
<b>Total Current Deferred Tax Assets</b>	<b>18,924</b>	<b>17,095</b>
<b>Non-current deferred tax assets</b>		
Accrued expenses		1,232
Deferred compensation	5,072	6,424

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Stock-based compensation	4,704	5,832
Uncertain tax positions related to state taxes and related interest	1,026	1,176
Pensions	5,729	4,844
Foreign losses	5,389	3,547
State losses and credit carry-forwards	4,187	4,023
Federal loss and research carry-forwards	5,886	6,998
Valuation allowance	(7,250)	(7,463)
<b>Total Non-current Deferred Tax Assets</b>	<b>24,743</b>	<b>26,613</b>
<b>Total Deferred Tax Assets</b>	<b>\$ 43,667</b>	<b>\$ 43,708</b>
Non-current deferred tax liabilities		
Property, plant and equipment	\$ (3,315)	\$ (3,632)
Accrued expenses	(2,791)	
Intellectual property	(476)	(711)
Investments	(70)	(4,576)
<b>Total Non-current Deferred Tax Liabilities</b>	<b>\$ (6,652)</b>	<b>\$ (8,919)</b>
<b>Net Deferred Tax Assets</b>	<b>\$ 37,015</b>	<b>\$ 34,789</b>

At December 31, 2015 and 2014, non-current deferred taxes related to our investments and our defined benefit pension plan, reflect deferred taxes on the net unrealized gains on available-for-sale investments and deferred taxes on unrealized losses in our pension plan. The net change in non-current deferred taxes associated with these items, a deferred tax benefit of \$3.7 million and \$3.3 million in 2015 and 2014, respectively, is recorded as an adjustment to other comprehensive income, presented in the Consolidated Statements of Comprehensive Income.

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Based upon our results of operations in 2015 and expected profitability in future years in a certain international jurisdiction, we concluded that it is more likely than not certain foreign deferred tax assets will be realized. A reversal of the valuation allowance on these deferred tax assets, which includes a change in estimate of the years beginning balance, resulted in a deferred income tax benefit totaling \$4.6 million in 2014. As of December 31, 2015, the remaining valuation allowance primarily relates to deferred tax assets related to state credit carry-forwards from tax credits in excess of our annual tax liability to an individual state where we do not generate sufficient state income to offset the credit and net operating losses in foreign jurisdictions. We believe it is more likely than not that we will not realize the full benefits of the deferred tax assets arising from these losses and credits, and accordingly, we have provided a valuation allowance against these deferred tax assets. The deferred tax assets for foreign and domestic carry-forwards, unamortized research and development costs, and state credit carry-forwards of \$16.3 million will expire between 2016 and 2030. The loss carry-forwards were acquired through acquisitions in 2009 and 2011. We will continue to assess the realization of our deferred tax assets and related valuations allowances. We do not provide for U.S. income tax on undistributed earnings of our foreign operations, whose earnings are intended to be permanently reinvested. These earnings are not required to service debt or fund our U.S. operations. It is impracticable to determine the amount of any unrecognized deferred tax liability for temporary differences related to investments in foreign subsidiaries.

During 2015, 2014 and 2013, we recorded an income tax benefit (expense) of (\$40) thousand, \$0.1 million and \$0.2 million, respectively, as an adjustment to equity. This deduction is calculated on the difference between the exercise price of stock option exercises and the market price of the underlying common stock upon exercise.

The change in the unrecognized income tax benefits for the years ended December 31, 2015, 2014 and 2013 is reconciled below:

<i>(In thousands)</i>	<i>2015</i>	<i>2014</i>	<i>2013</i>
<b>Balance at beginning of period</b>	<b>\$ 3,334</b>	<b>\$ 3,240</b>	<b>\$ 2,926</b>
Increases for tax position related to:			
Prior years			89
Current year	280	522	549
Decreases for tax positions related to:			
Prior years	(29)		
Settlements with taxing authorities	(103)		(141)
Expiration of applicable statute of limitations	(945)	(428)	(183)
<b>Balance at end of period</b>	<b>\$ 2,537</b>	<b>\$ 3,334</b>	<b>\$ 3,240</b>

As of December 31, 2015, 2014, and 2013, our total liability for unrecognized tax benefits was \$2.5 million, \$3.3 million, and \$3.2 million, respectively, of which \$1.8 million, \$2.6 million, and \$2.5 million, respectively, would reduce our effective tax rate if we were successful in upholding all of the uncertain positions and recognized the amounts recorded. We classify interest and penalties recognized on the liability for unrecognized tax benefits as income tax expense. As of December 31, 2015, 2014 and 2013, the balances of accrued interest and penalties were \$0.9 million, \$1.0 million and \$1.0 million, respectively.

We do not anticipate a single tax position generating a significant increase or decrease in our liability for unrecognized tax benefits within 12 months of this reporting date. We file income tax returns in the U.S. federal and various state jurisdictions and several foreign jurisdictions. We are currently under audit by the Internal Revenue

Service. Generally, we are not subject to changes in income taxes by any taxing jurisdiction for the years prior to 2013.

**Table of Contents****Note 10 Employee Benefit Plans***Pension Benefit Plan*

We maintain a defined benefit pension plan covering employees in certain foreign countries.

The pension benefit plan obligations and funded status at December 31, 2015 and 2014, are as follows:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>
<b>Change in projected benefit obligation:</b>		
Projected benefit obligation at beginning of period	\$ (30,507)	\$ (23,354)
Service cost	(1,314)	(1,189)
Interest cost	(615)	(836)
Actuarial gain (loss)	2,325	(8,166)
Benefit payments	81	2
Effects of foreign currency exchange rate changes	3,179	3,036
Projected benefit obligation at end of period	\$ (26,851)	\$ (30,507)
<b>Change in plan assets:</b>		
Fair value of plan assets at beginning of period	\$ 20,338	\$ 20,773
Actual return on plan assets	988	2,315
Effects of foreign currency exchange rate changes	(2,113)	(2,750)
Fair value of plan assets at end of period	\$ 19,213	\$ 20,338
<b>Funded (unfunded) status at end of period</b>	<b>\$ (7,638)</b>	<b>\$ (10,169)</b>

The accumulated benefit obligation was \$25.1 million and \$29.2 million at December 31, 2015 and 2014, respectively. The decrease in the accumulated benefit obligation and the change in actuarial gain (loss) is primarily attributable to an increase in the discount rate used in 2015 to determine the accumulated benefit obligation.

The net amounts recognized in the balance sheet for the unfunded pension liability as of December 31, 2015 and 2014 are as follows:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>
Current liability	\$	\$
Non-current liability	(7,638)	(10,169)
<b>Total</b>	<b>\$ (7,638)</b>	<b>\$ (10,169)</b>

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The components of net periodic pension cost and amounts recognized in other comprehensive income for the years ended December 31, 2015, 2014 and 2013 are as follows:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Net periodic benefit cost:</b>			
Service cost	\$ 1,314	\$ 1,189	\$ 1,198
Interest cost	615	836	745
Expected return on plan assets	(1,011)	(1,086)	(1,010)
Amortization of actuarial losses	407		
<b>Net periodic benefit cost</b>	<b>1,325</b>	<b>939</b>	<b>933</b>
<b>Other changes in plan assets and benefit obligations recognized in other comprehensive income:</b>			
Net actuarial (gain) loss	(2,303)	7,052	(1,061)
Amortization of actuarial losses	(396)		
<b>Amount recognized in other comprehensive income</b>	<b>(2,699)</b>	<b>7,052</b>	<b>(1,061)</b>
<b>Total recognized in net periodic benefit cost and other comprehensive income</b>	<b>\$ (1,374)</b>	<b>\$ 7,991</b>	<b>\$ (128)</b>

The amounts recognized in accumulated other comprehensive income as of December 31, 2015 and 2014 are as follows:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>
Net actuarial (gain) loss	\$ 5,245	\$ 7,943

The defined benefit pension plan is accounted for on an actuarial basis, which requires the selection of various assumptions, including an expected rate of return on plan assets and a discount rate. The expected return on our German plan assets that is utilized in determining the benefit obligation and net periodic benefit cost is derived from periodic studies, which include a review of asset allocation strategies, anticipated future long-term performance of individual asset classes, risks using standard deviations and correlations of returns among the asset classes that comprise the plans' asset mix. While the studies give appropriate consideration to recent plan performance and historical returns, the assumptions are primarily long-term, prospective rates of return.

Another key assumption in determining net pension expense is the assumed discount rate to be used to discount plan obligations. The discount rate has been derived from the returns of high-quality, corporate bonds denominated in Euro currency with durations close to the duration of our pension obligations.

The weighted-average assumptions that were used to determine the net periodic benefit cost for the years ended December 31, 2015, 2014 and 2013 are as follows:

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Discount rates	2.20%	3.70%	3.50%
Rate of compensation increase	2.25%	2.25%	2.25%
Expected long-term rates of return	5.40%	5.40%	5.40%

The weighted-average assumptions that were used to determine the benefit obligation at December 31, 2015 and 2014:

	<b>2015</b>	<b>2014</b>
Discount rates	2.64%	2.20%
Rate of compensation increase	2.25%	2.25%

Actuarial gains and losses are recorded in accumulated other comprehensive income. To the extent unamortized gains and losses exceed 10% of the higher of the market-related value of assets or the projected benefit obligation, the excess is amortized as a component of net periodic pension cost over the remaining service period of active participants. We estimate that \$0.2 million will be amortized from accumulated other comprehensive income into net periodic pension cost in 2016 for the net actuarial loss.

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We do not anticipate making a contribution to this pension plan in 2016. The following pension benefit payments, which reflect expected future service, as appropriate, are expected to be paid to participants:

<i>(In thousands)</i>		
2016		\$ 242
2017		401
2018		563
2019		739
2020		999
2021	2025	5,054
<b>Total</b>		<b>\$ 7,998</b>

We have categorized our cash equivalents and our investments held at fair value into a three-level fair value hierarchy based on the priority of the inputs to the valuation technique for the cash equivalents and investments as follows: Level 1 - Values based on unadjusted quoted prices for identical assets or liabilities in an active market; Level 2 - Values based on quoted prices in markets that are not active or model inputs that are observable either directly or indirectly; Level 3 - Values based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. These inputs include information supplied by investees.

<i>(In thousands)</i>	Fair Value Measurements at December 31, 2015 Using			
	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents	\$ 3	\$ 3	\$	\$
<b>Available-for-sale securities</b>				
Bond funds:				
Corporate bonds	11,633	11,633		
Government bonds	1,960	1,960		
Equity funds:				
Large cap blend	4,604	4,604		
Large cap value	258	258		
Balanced fund	755	755		
<b>Available-for-sale securities</b>	<b>19,210</b>	<b>19,210</b>		
<b>Total</b>	<b>\$ 19,213</b>	<b>\$ 19,213</b>	<b>\$</b>	<b>\$</b>





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<i>(In thousands)</i>	Fair Value Measurements at December 31, 2014 Using			
	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents	\$ 4	\$ 4	\$	\$
<b>Available-for-sale securities</b>				
<b>Bond funds:</b>				
Corporate bonds	12,587	12,587		
Government bonds	2,172	2,172		
<b>Equity funds:</b>				
Large cap blend	4,488	4,488		
Large cap value	268	268		
Balanced fund	819	819		
<b>Available-for-sale securities</b>	<b>20,334</b>	<b>20,334</b>		
<b>Total</b>	<b>\$ 20,338</b>	<b>\$ 20,338</b>	<b>\$</b>	<b>\$</b>

Our investment policy includes various guidelines and procedures designed to ensure assets are invested in a manner necessary to meet expected future benefits earned by participants. The investments guidelines consider a broad range of economic conditions. Central to the policy are target allocation ranges by asset class, which is currently 75% for bond funds and 25% for equity funds.

The objectives of the target allocations are to maintain investment portfolios that diversify risk through prudent asset allocation parameters, achieve asset returns that meet or exceed the plans' actuarial assumptions, and achieve asset returns that are competitive with like institutions employing similar investment strategies.

The investment policy is periodically reviewed by us and a designated third-party fiduciary for investment matters. The policy is established and administered in a manner that is compliant at all times with applicable government regulations.

*401(k) Savings Plan*

We maintain the ADTRAN, Inc. 401(k) Retirement Plan (Savings Plan) for the benefit of our eligible employees. The Savings Plan is intended to qualify under Sections 401(a) and 401(k) of the Internal Revenue Code of 1986, as amended (Code), and is intended to be a "safe harbor" 401(k) plan under Code Section 401(k)(12). The Savings Plan allows employees to save for retirement by contributing part of their compensation to the plan on a tax-deferred basis. The Savings Plan also requires us to contribute a "safe harbor" amount each year. We match up to 4% of employee contributions (100% of an employee's first 3% of contributions and 50% of their next 2% of contributions), beginning on the employee's one year anniversary date. In calculating our matching contribution, we only use compensation up to the statutory maximum under the Code (\$265 thousand for 2015). All contributions under the Savings Plan are 100% vested. Expenses recorded for employer contributions and plan administration costs for the Savings Plan amounted to approximately \$4.7 million, \$4.5 million and \$4.5 million in 2015, 2014 and 2013, respectively.

*Deferred Compensation Plans*

We maintain four deferred compensation programs for certain executive management employees and our Board of Directors.

For our executive management employees, the ADTRAN, Inc. Deferred Compensation Program for Employees is offered as a supplement to our tax-qualified 401(k) plan and is available to certain executive management employees who have been designated by our Board of Directors. This deferred compensation plan allows participants to defer all or a portion of certain specified bonuses and up to 25% of remaining cash compensation, and permits us to make matching contributions on a discretionary basis, without the limitations that apply to the 401(k) plan. To date, we have not made any matching contributions under this plan. We also maintain the ADTRAN, Inc. Equity Deferral Program for Employees. Under this plan, participants may elect to defer all or a portion of their vested Performance Share awards to the Plan. Such deferrals shall continue to be held and deemed to be invested in shares of ADTRAN stock unless and until the amounts are distributed or such deferrals are moved to another deemed investment pursuant to an election made by the Participant.

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For our Board of Directors, we maintain the ADTRAN, Inc. Deferred Compensation Program for Directors. This program allows our Board of Directors to defer all or a portion of monetary remuneration paid to the Director, including, but not limited to, meeting fees and annual retainers. We also maintain the ADTRAN, Inc. Equity Deferral Program for Directors. Under this plan, participants may elect to defer all or a portion of their vested employer stock awards. Such deferrals shall continue to be held and deemed to be invested in shares of ADTRAN stock unless and until the amounts are distributed or such deferrals are moved to another deemed investment pursuant to an election made by the Director.

We have set aside the plan assets for all plans in a rabbi trust (Trust) and all contributions are credited to bookkeeping accounts for the participants. The Trust assets are subject to the claims of our creditors in the event of bankruptcy or insolvency. The assets of the Trust are deemed to be invested in pre-approved mutual funds as directed by each participant, and the participant's bookkeeping account is credited with the earnings and losses attributable to those investments. Benefits are scheduled to be distributed six months after termination of employment in a single lump sum payment or annual installments paid over a three or ten year term. Distributions will be made on a pro rata basis from each of the hypothetical investments of the Participant's account in cash. Any whole shares of ADTRAN, Inc. common stock that are distributed will be distributed in-kind.

Assets of the Trust are deemed invested in mutual funds that cover an investment spectrum ranging from equities to money market instruments. These mutual funds are publicly quoted and reported at fair value. The fair value of the assets held by the Trust and the amounts payable to the plan participants are as follows:

<b>(In thousands)</b>	<b>2015</b>	<b>2014</b>
<b><u>Fair Value of Plan Assets</u></b>		
Long-term Investments	\$ 12,834	\$ 16,294
<b>Total Fair Value of Plan Assets</b>	<b>\$ 12,834</b>	<b>\$ 16,294</b>
 <b><u>Amounts Payable to Plan Participants</u></b>		
Non-current Liabilities	\$ 12,834	\$ 16,294
<b>Total Amounts Payable to Plan Participants</b>	<b>\$ 12,834</b>	<b>\$ 16,294</b>

Interest and dividend income of the Trust have been included in interest and dividend income in the accompanying 2015, 2014 and 2013 Consolidated Statements of Income. Changes in the fair value of the plan assets held by the Trust have been included in accumulated other comprehensive income in the accompanying 2015 and 2014 Consolidated Balance Sheets. Changes in the fair value of the deferred compensation liability are included as selling, general and administrative expense in the accompanying 2015, 2014 and 2013 Consolidated Statements of Income. Based on the changes in the total fair value of the Trust's assets, we recorded deferred compensation income (expense) in 2015, 2014 and 2013 of \$0.3 million, \$(0.7) million and \$(2.8) million, respectively.

*Retiree Medical Coverage*

We provide medical, dental and prescription drug coverage to one retired former officer and his spouse, for his life, on the same terms as provided to our active officers, and to the spouse of a former deceased officer for up to 30 years. At December 31, 2015 and 2014, this liability totaled \$0.2 million.

**Note 11 Segment Information and Major Customers**

We operate in two reportable segments: (1) the Carrier Networks Division and (2) the Enterprise Networks Division. The accounting policies of the segments are the same as those described in the Nature of Business and Summary of Significant Accounting Policies (see Note 1) to the extent that such policies affect the reported segment information. We evaluate the performance of our segments based on gross profit; therefore, selling, general and administrative expense, research and development expenses, interest income and dividend income, interest expense, net realized investment gain/loss, other income/expense and provision for taxes are reported on an entity-wide basis only. There are no inter-segment revenues.

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The following table presents information about the reported sales and gross profit of our reportable segments for each of the years ended December 31, 2015, 2014 and 2013. Asset information by reportable segment is not reported, since we do not produce such information internally.

**Sales and Gross Profit by Market Segment**

<i>(In thousands)</i>	2015		2014		2013	
	Sales	Gross Profit	Sales	Gross Profit	Sales	Gross Profit
Carrier Networks	\$ 499,402	\$ 209,284	\$ 510,373	\$ 243,211	\$ 500,733	\$ 233,206
Enterprise Networks	100,662	57,613	119,634	68,116	141,011	75,680
<b>Total</b>	<b>\$ 600,064</b>	<b>\$ 266,897</b>	<b>\$ 630,007</b>	<b>\$ 311,327</b>	<b>\$ 641,744</b>	<b>\$ 308,886</b>

**Sales by Product**

Our three major product categories are Carrier Systems, Business Networking and Loop Access.

**Carrier Systems** products are used by communications SPs to provide data, voice, and video services to consumers and enterprises. This category includes the following product areas and related services:

## Broadband Access

Total Access 5000 Series of Multi-Service Access Node (MSANs)

hiX 5600 Series of MSANs

Total Access 1100/1200 Series of Fiber to the Node (FTTN) products

hiX 1100 Series of FTTN products

VDSL2 Vectoring based Digital Subscriber Line Access Multiplexer (DSLAM) products

ADTRAN 500 Series of FTTdp G.fast Distribution Point Units (DPU)

## Optical

Optical Networking Edge (ONE)

NetVanta 8000 Series of Fiber Ethernet Access Devices (EAD)

NetVanta 8400 Series of 10Gig Multi-service Edge Switches

OPTI-6100 and Total Access 3000 optical Multi-Service Provisioning Platforms (MSPP)

Pluggable Optical Products, including Small Form Factor Pluggable (SFP), 10-Gigabit Fiber Small Form Factor Pluggable (XFP), and SFP+

Time Division Multiplexed (TDM) systems

**Business Networking** products provide access to communication services and facilitate the delivery of cloud connectivity and enterprise communications to the small and mid-sized enterprise (SME) market. This category includes the following product areas and related services:

Internetworking products

Total Access IP Business Gateways

Optical Network Terminals (ONTs)

Bluesocket virtual Wireless LAN (vWLAN)

NetVanta

Access Routers

Enterprise Session Border Controllers (eSBC)

Managed Ethernet Switches

IP Business Gateways

Unified Communications (UC) solutions

Carrier Ethernet Network Termination Equipment (NTE)

Carrier Ethernet Routers and Gateways

Network Management Solutions

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**Loop Access** products are used by carrier and enterprise customers for access to copper-based communications networks. This category includes the following product areas and related services:

High bit-rate Digital Subscriber Line (HDSL) products

Digital Data Service (DDS)

Integrated Services Digital Network (ISDN) products

The table below presents sales information by product category for the years ended December 31, 2015, 2014 and 2013:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Carrier Systems	\$ 433,373	\$ 442,664	\$ 427,850
Business Networking	139,693	156,980	168,871
Loop Access	26,998	30,363	45,023
<b>Total</b>	<b>\$ 600,064</b>	<b>\$ 630,007</b>	<b>\$ 641,744</b>

In addition, we identify subcategories of product revenues, which we divide into core products and legacy products. Our core products consist of Broadband Access and Optical products (included in Carrier Systems), and Internetworking products (included in Business Networking). Our legacy products include HDSL products (included in Loop Access) and other products not included in the aforementioned core products.

The table below presents subcategory revenues for the years ended December 31, 2015, 2014 and 2013:

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Core Products</b>			
Broadband Access (included in Carrier Systems)	\$ 364,537	\$ 368,464	\$ 340,560
Optical (included in Carrier Systems)	56,615	55,374	55,615
Internetworking (NetVanta & Multi-service Access Gateways) (included in Business Networking)	135,720	152,223	164,422
<b>Subtotal</b>	<b>\$ 556,872</b>	<b>\$ 576,061</b>	<b>\$ 560,597</b>
<b>Legacy Products</b>			
HDSL (does not include T1) (included in Loop Access)	25,349	27,829	41,666
Other products (excluding HDSL)	17,843	26,117	39,481
<b>Subtotal</b>	<b>\$ 43,192</b>	<b>\$ 53,946</b>	<b>\$ 81,147</b>
<b>Total</b>	<b>\$ 600,064</b>	<b>\$ 630,007</b>	<b>\$ 641,744</b>

The following table presents sales information by geographic area for the years ended December 31, 2015, 2014 and 2013. International sales correlate to shipments with a non-U.S. destination.

<i>(In thousands)</i>	<b>2015</b>	<b>2014</b>	<b>2013</b>
United States	\$ 419,366	\$ 381,382	\$ 455,996
Germany	111,666	150,987	97,151
Other international	69,032	97,638	88,597
<b>Total</b>	<b>\$ 600,064</b>	<b>\$ 630,007</b>	<b>\$ 641,744</b>

Customers comprising more than 10% of revenue can change from year to year. Single customers comprising more than 10% of our revenue in 2015 included three customers at 20%, 17% and 14%. Single customers comprising more than 10% of our revenue in 2014 included two customers at 21% and 14%. Single customers comprising more than 10% of our revenue in 2013 included two customers at 17% and 14%. No other customer accounted for 10% or more of our sales in 2015, 2014 or 2013. Our five largest customers, other than those with more than 10 percent of revenues disclosed above, can change from year to year. These customers represented 14%, 22%, and 22% of total revenue in 2015, 2014 and 2013, respectively. Revenues in this disclosure do not include distributor agents, who predominately provide fulfillment services to end users. In such cases where known, that revenue is associated with the end user.

As of December 31, 2015, long-lived assets, net totaled \$73.2 million, which includes \$68.8 million held in the United States and \$4.4 million held outside the United States. As of December 31, 2014, long-lived assets, net totaled \$74.8 million, which includes \$70.0 million held in the United States and \$4.8 million held outside the United States.

**Table of Contents****Note 12 Commitments and Contingencies**

In the ordinary course of business, we may be subject to various legal proceedings and claims, including employment disputes, patent claims, disputes over contract agreements and other commercial disputes. In some cases, claimants seek damages or other relief, such as royalty payments related to patents, which, if granted, could require significant expenditures. Although the outcome of any claim or litigation can never be certain, it is our opinion that the outcome of all contingencies of which we are currently aware will not materially affect our business, operations, financial condition or cash flows.

We lease office space and equipment under operating leases which expire at various dates through 2025. As of December 31, 2015, future minimum rental payments under non-cancelable operating leases with original maturities of greater than 12 months are as follows:

<i>(In thousands)</i>	
2016	\$ 3,827
2017	3,155
2018	1,773
2019	869
Thereafter	4,121
<b>Total</b>	<b>\$ 13,745</b>

Rental expense was \$4.9 million, \$4.7 million and \$4.8 million for the years ended December 31, 2015, 2014 and 2013, respectively.

**Note 13 Earnings per Share**

A summary of the calculation of basic and diluted earnings per share (EPS) for the years ended December 31, 2015, 2014 and 2013 is as follows:

<i>(In thousands, except for per share amounts)</i>		<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Numerator</b>				
Net Income		\$ 18,646	\$ 44,620	\$ 45,794
<b>Denominator</b>				
Weighted average number of shares basic		51,145	55,120	59,001
Effect of dilutive securities:				
Stock options		81	304	390
Restricted stock and restricted stock units		41	58	33
Weighted average number of shares diluted		<b>51,267</b>	<b>55,482</b>	<b>59,424</b>
Net income per share basic		\$ 0.36	\$ 0.81	\$ 0.78
Net income per share diluted		\$ 0.36	\$ 0.80	\$ 0.77

For each of the years ended December 31, 2015, 2014 and 2013, 6.1 million, 4.4 million and 3.2 million stock options were outstanding but were not included in the computation of that year's diluted EPS because the options' exercise prices were greater than the average market price of the common shares, therefore making them anti-dilutive under the treasury stock method.

**Table of Contents****Note 14 Summarized Quarterly Financial Data (Unaudited)**

The following table presents unaudited quarterly operating results for each of our last eight fiscal quarters. This information has been prepared on a basis consistent with our audited financial statements and includes all adjustments, consisting only of normal recurring adjustments, considered necessary for a fair presentation of the data.

**Unaudited Quarterly Operating Results**

*(In thousands, except for per share amounts)*

<b>Three Months Ended</b>	<b>March 31, 2015</b>	<b>June 30, 2015</b>	<b>September 30, 2015</b>	<b>December 31, 2015</b>
Net sales	\$ 142,835	\$ 160,138	\$ 158,078	\$ 139,013
Gross profit	\$ 65,563	\$ 68,246	\$ 70,649	\$ 62,439
Operating income	\$ 1,963	\$ 644	\$ 8,072	\$ 2,800
Net income	\$ 3,317	\$ 2,544	\$ 7,067	\$ 5,718
Earnings per common share	\$ 0.06	\$ 0.05	\$ 0.14	\$ 0.12
Earnings per common share assuming dilution <sup>(1)</sup>	\$ 0.06	\$ 0.05	\$ 0.14	\$ 0.12

<b>Three Months Ended</b>	<b>March 31, 2014</b>	<b>June 30, 2014</b>	<b>September 30, 2014</b>	<b>December 31, 2014</b>
Net sales	\$ 147,004	\$ 176,129	\$ 162,892	\$ 143,982
Gross profit	\$ 77,790	\$ 86,797	\$ 78,257	\$ 68,483
Operating income	\$ 11,298	\$ 19,339	\$ 12,495	\$ 3,979
Net income	\$ 9,607	\$ 14,395	\$ 11,326	\$ 9,292
Earnings per common share	\$ 0.17	\$ 0.26	\$ 0.21	\$ 0.17
Earnings per common share assuming dilution <sup>(1)</sup>	\$ 0.17	\$ 0.26	\$ 0.21	\$ 0.17

<sup>(1)</sup> Assumes exercise of dilutive stock options calculated under the treasury stock method.

**Note 15 Related Party Transactions**

We employed the law firm of our director emeritus for legal services. All bills for services rendered by this firm were reviewed and approved by our Chief Financial Officer. We believe that the fees for such services are comparable to those charged by other firms for services rendered to us. The services of our director emeritus ended with his death on September 7, 2014. For the years ended 2014 and 2013, we incurred fees of \$0.1 million for these legal services.

**Note 16 Subsequent Events**

On January 19, 2016, the Board declared a quarterly cash dividend of \$0.09 per common share to be paid to shareholders of record at the close of business on February 4, 2016. The quarterly dividend payment was \$4.4 million and was paid on February 18, 2016. In July 2003, our Board of Directors elected to begin declaring quarterly dividends on our common stock considering the tax treatment of dividends and adequate levels of Company liquidity.

On February 8, 2016, the Board appointed Anthony Melone as a director filling a previously existing vacancy until the 2016 Annual Meeting of Stockholders.

During the first quarter and as of February 24, 2016, we have repurchased 0.6 million shares of our common stock through open market purchases at an average cost of \$18.38 per share. We currently have the authority to purchase an additional 5.2 million shares of our common stock under the current plan approved by the Board of Directors.

We are currently evaluating the way the Company's chief operating decision maker reviews and measures performance of the business. The conclusions of this evaluation may have an impact on our future presentation of our reportable segments.

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***ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE***

None.

***ITEM 9A. CONTROLS AND PROCEDURES***

- (a) *Internal control over financial reporting.* Section 404 of the Sarbanes-Oxley Act of 2002 requires management to include in this Annual Report on Form 10-K a report on management's assessment of the effectiveness of our internal control over financial reporting, as well as a report from our independent registered public accounting firm on the effectiveness of internal control over financial reporting. Management's report on internal control over financial reporting is included below and the related report from our independent registered public accounting firm is located in Item 8 "Financial Statements and Supplementary Data" of this report.
- (b) *Evaluation of disclosure controls and procedures.* Our Chief Executive Officer and Chief Financial Officer are responsible for establishing and maintaining disclosure controls and procedures (as defined in the Securities Exchange Act of 1934 Rules 13a-15(e) and 15d-15(e)) for the company. Our Chief Executive Officer and Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures as of the end of the period covered by this annual report, have concluded that our disclosure controls and procedures are effective.
- (c) *Changes in internal control over financial reporting.* There were no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter 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**

Management of ADTRAN, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. ADTRAN's internal control over financial reporting is 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. ADTRAN's internal control over financial reporting 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 ADTRAN;

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 ADTRAN are being made only in accordance with authorizations of management and directors of ADTRAN; and

provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of ADTRAN'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.

Management assessed the effectiveness of ADTRAN's internal control over financial reporting as of December 31, 2015. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework (2013)*.

Based on our assessment and those criteria, management has concluded that ADTRAN maintained effective internal control over financial reporting as of December 31, 2015.

The effectiveness of our internal control over financial reporting has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.



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***ITEM 9B. OTHER INFORMATION***

None.

**PART III**

***ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE***

Information relating to nominees for director of ADTRAN and compliance with Section 16(a) of the Securities Exchange Act of 1934 is set forth under the captions Proposal 1 Election of Directors, Section 16(a) Beneficial Ownership Reporting Compliance and Corporate Governance, respectively, in the Proxy Statement for the Annual Meeting of Stockholders to be held on May 11, 2016. Such information is incorporated herein by reference. The definitive Proxy Statement will be filed with the Securities and Exchange Commission no later than 120 days after December 31, 2015. Information relating to the executive officers of ADTRAN, pursuant to Instruction 3 of Item 401(b) of Regulation S-K and General Instruction G(3) of Form 10-K, is set forth at Part I, Item 4A of this report under the caption Executive Officers of the Registrant. This information is incorporated herein by reference.

**Code of Ethics**

We have adopted the ADTRAN, Inc. Code of Conduct, which applies to all employees, officers and directors of ADTRAN. The Code of Conduct meets the requirements of a code of ethics as defined by Item 406 of Regulation S-K, and applies to our Chief Executive Officer, Chief Financial Officer (who is both our principal financial and principal accounting officer), as well as all other employees, as indicated above. The Code of Conduct also meets the requirements of a code of conduct under NASDAQ listing standards. The Code of Conduct is posted on our website at [www.adtran.com](http://www.adtran.com) under the links Investor Relations Corporate Governance Code of Conduct. We intend to disclose any amendments to the Code of Conduct, as well as any waivers for executive officers or directors, on our website at [www.adtran.com](http://www.adtran.com).

***ITEM 11. EXECUTIVE COMPENSATION***

Information required by this Item 11 relating to executive compensation and other matters is set forth under the captions Executive Compensation, Director Compensation and Corporate Governance in the Proxy Statement referred to in Item 10. This information is incorporated herein by reference.

***ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS***

Information relating to ownership of common stock of ADTRAN by certain persons is set forth under the caption *Share Ownership of Principal Stockholders and Management* in the Proxy Statement referred to in Item 10 above. Such information is incorporated herein by reference. Information regarding securities authorized for issuance under equity compensation plans of ADTRAN is set forth under the caption *Equity Compensation Plan Information* in the Proxy Statement referred to in Item 10. This information is incorporated herein by reference.

***ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE***

Information relating to existing or proposed relationships or transactions between ADTRAN and any affiliate of ADTRAN is set forth under the captions *Certain Relationships and Related Transactions* and *Corporate Governance* in the Proxy Statement referred to in Item 10. This information is incorporated herein by reference.

***ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES***

Information relating to ADTRAN's principal accountant's fees and services is set forth under the caption *Principal Accountant Fees and Services* in the Proxy Statement referred to in Item 10. This information is incorporated herein by reference.

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**PART IV**

***ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES***

Documents Filed as Part of This Report.

1. Consolidated Financial Statements

The consolidated financial statements of ADTRAN and the report of independent registered public accounting firm thereon are set forth under Part II, Item 8 of this report.

Consolidated Balance Sheets as of December 31, 2015 and 2014

Consolidated Statements of Income for the years ended December 31, 2015, 2014 and 2013

Consolidated Statements of Comprehensive Income for the years ended December 31, 2015, 2014 and 2013

Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2015, 2014 and 2013

Consolidated Statements of Cash Flows for the years ended December 31, 2015, 2014 and 2013

Notes to Consolidated Financial Statements

2. Consolidated Financial Statement Schedule

Schedule II - Valuation and Qualifying Accounts

3. Exhibits

The following exhibits are filed with or incorporated by reference in this report. Where such filing is made by incorporation by reference to a previously filed registration statement or report, such registration statement or report is identified in parentheses. We will furnish any exhibit upon request to: ADTRAN, Inc., Attn: Investor Relations, 901 Explorer Boulevard, Huntsville, Alabama 35806. There is a charge of \$0.50 per page to cover expenses for copying and mailing.

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<b>Exhibit Number</b>	<b>Description</b>
2.1	Asset Sale and Purchase Agreement dated 11 December 2011 Regarding the Sale and Purchase of the NSN DSLAM, GPON and ACI Products and the Related Services Businesses.
3.1	Certificate of Incorporation, as amended (Exhibit 3.1 to ADTRAN's Registration Statement on Form S-1, No. 33-81062 (the Form S-1 Registration Statement)).
3.2	Bylaws, as amended (Exhibit 3.1 to ADTRAN's Current Report on Form 8-K filed October 16, 2007).
10.1	Documents relative to the \$50,000,000 Taxable Revenue Bond, Series 1995 (ADTRAN, Inc. Project) issued by the Alabama State Industrial Development Authority, consisting of the following: <ul style="list-style-type: none"> <li>(a) First Amended and Restated Financing Agreement dated April 25, 1997, among the State Industrial Development Authority, a public corporation organized under the laws of the State of Alabama (the Authority), ADTRAN and First Union National Bank of Tennessee, a national banking corporation (the Bondholder) (Exhibit 10.1(a) to ADTRAN's Quarterly Report on Form 10-Q for the quarter ended March 31, 1997 (the 1997 Form 10-Q)).</li> <li>(b) First Amended and Restated Loan Agreement dated April 25, 1997, between the Authority and ADTRAN (Exhibit 10.1(b) to the 1997 Form 10-Q).</li> <li>(c) First Amended and Restated Specimen Taxable Revenue Bond, Series 1995 (ADTRAN, Inc. Project) (Exhibit 10.1(c) to the 1997 Form 10-Q).</li> <li>(d) First Amended and Restated Specimen Note from ADTRAN to the Bondholder, dated April 25, 1997 (Exhibit 10.1(d) to the 1997 Form 10-Q).</li> <li>(e) Amended and Restated Investment Agreement dated January 3, 2002 between ADTRAN and First Union National Bank (successor-in-interest to First Union National Bank of Tennessee (the Successor Bondholder)) (Exhibit 10.1(e) to ADTRAN's Annual Report on Form 10-K for the year ended December 31, 2002 (the 2002 Form 10-K)).</li> <li>(f) Resolution of the Authority authorizing the amendment of certain documents, dated April 25, 1997, relating to the \$50,000,000 Taxable Revenue Bond, Series 1995 (ADTRAN, Inc. Project) (Exhibit 10.1(f) to the 1997 Form 10-Q).</li> </ul>

(g) Resolution of ADTRAN authorizing the First Amended and Restated Financing Agreement, the First Amended and Restated Loan Agreement, the First Amended and Restated Note, and the Investment Agreement (Exhibit 10.1(g) to the 1997 Form 10-Q).

(h) Amendment to First Amended and Restated Financing Agreement and First Amended and Restated Loan Agreement dated January 3, 2002 between ADTRAN and the Successor Bondholder (Exhibit 10.1(h) to the 2002 Form 10-K).

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**Exhibit**

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**Description**

10.3 Management Contracts and Compensation Plans:

- (a) Amended and Restated 1996 Employees Incentive Stock Option Plan, as amended by the First, Second and Third Amendments thereto (Exhibit 10.3(a) to the 2002 Form 10-K).
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- (i) ADTRAN, Inc. 2005 Directors Stock Option Plan (Exhibit 10.1 to ADTRAN's Form 8-K filed on May 20, 2005).
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- (o) ADTRAN, Inc. Deferred Compensation Program for Directors, as amended and restated as of June 1, 2010 \*
- (p) ADTRAN, Inc. Equity Deferral Program for Employees, as amended and restated as of October 1, 2011 \*
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- (r) Employment Agreement, dated October 29, 2015, between Roger Shannon and ADTRAN, Inc. \*

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23*	Consent of PricewaterhouseCoopers LLP.
24*	Powers of Attorney.
31*	Rule 13a-14(a)/15d-14(a) Certifications.
32*	Section 1350 Certifications.
101.INS**	XBRL Instance Document
101.SCH**	XBRL Taxonomy Extension Schema Document
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB**	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document

\* Filed herewith

\*\* Pursuant to Regulation S-T, this interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.



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**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 on February 24, 2016.

**ADTRAN, Inc.**

**(Registrant)**

By: /s/ Roger D. Shannon  
Roger D. Shannon  
Senior Vice President of Finance,  
Chief Financial Officer, Corporate Secretary  
and Treasurer  
(Principal Accounting Officer)

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 indicated on February 24, 2016.

<b>Signature</b>	<b>Title</b>
/s/ Thomas R. Stanton Thomas R. Stanton	Chief Executive Officer and Chairman of the Board
/s/ H. Fenwick Huss* H. Fenwick Huss	Director
/s/ William L. Marks* William L. Marks	Director
/s/ Balan Nair* Balan Nair	Director
/s/ Roy J. Nichols * Roy J. Nichols	Director
/s/ Kathryn A. Walker* Kathryn A. Walker	Director

\*By: /s/ Roger D. Shannon  
Roger D. Shannon as Attorney in Fact

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## ADTRAN, INC.

## SCHEDULE II

## VALUATION AND QUALIFYING ACCOUNTS

Column A	Column B Balance at Beginning of Period	Column C Charged to Costs & Expenses	Column D Deductions	Column E Balance at End of Period
<i>(In thousands)</i>				
<b><i>Year ended December 31, 2015</i></b>				
Allowance for Doubtful Accounts	\$ 136	19	136	\$ 19
Inventory Reserve	\$ 24,682	2,225	232	\$ 26,675
Warranty Liability	\$ 8,415	2,998	2,674	\$ 8,739
Deferred Tax Asset Valuation Allowance	\$ 7,463	81	294	\$ 7,250
<b><i>Year ended December 31, 2014</i></b>				
Allowance for Doubtful Accounts	\$ 130	23	17	\$ 136
Inventory Reserve	\$ 22,993	2,549	860	\$ 24,682
Warranty Liability	\$ 8,977	3,103	3,665	\$ 8,415
Deferred Tax Asset Valuation Allowance	\$ 8,842	283	1,662	\$ 7,463
<b><i>Year ended December 31, 2013</i></b>				
Allowance for Doubtful Accounts	\$ 6	136	12	\$ 130
Inventory Reserve	\$ 11,957	11,457	421	\$ 22,993
Warranty Liability	\$ 9,653	4,051	4,727	\$ 8,977
Deferred Tax Asset Valuation Allowance	\$ 10,939	(1,056)	1,041	\$ 8,842

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**ADTRAN, INC.**

**INDEX OF EXHIBITS**

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