

MOSAIC

of Opportunities

2016 Annual Report

ADTRAN®



A MOSAIC OF OPPORTUNITIES

2016 ANNUAL REPORT

ADTRAN is an ISO 9001, ISO 14001, and a TL 9000 certified supplier. ADTRAN, Inc. is an Equal Opportunity Employer committed to utilizing Minority Business Enterprises (MBE), Woman-Owned Business Enterprises (WBE) and Disabled Veteran Business Enterprises (DVBE) whenever possible and practical for procurements supporting ADTRAN and our customers.

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Mosaic of Opportunities

Information is a powerful tool. It can be used in so many ways to better the lives of those who seek it. Today, some 3.5 billion people have Internet access and these connections are positively affecting how they live, work and play. However, 3.9 billion people remain without connectivity, driving the need for broadband on a global basis.

We depend on Internet access. It can be used to store and access information or as a means of communication between people and organizations. It is also a vast source of entertainment from games and books to movies and hobbies. Even more importantly, the Internet has redefined business. It is used as a primary means to pay bills, purchase commodities, make bank transactions and purchase goods and services.

ADTRAN is at the forefront of pushing the boundaries of Internet speed and access.

New industries have emerged to support the promotion of businesses on the Internet. It is revolutionizing industries like education and healthcare, enabling distance learning, telehealth and much, much more.

Because the Internet touches our everyday lives so much in today's world, and with this influence continuing to grow, having a connection is simply not enough. We want faster connections that will enable more interactivity and more collaboration. According to Broadbandtrends, in 2016 only six percent of subscribers had speeds of 100Mbps or greater. This is a long way from what people and businesses need. With an increasing number of over-the-top and streaming services, combined with mobile providers offering unlimited data, the need for high-speed ultra-broadband services has no end in sight. In fact, Broadbandtrends projects that the number of subscribers receiving speeds of 100Mbps or greater will increase to 34 percent by 2020, with the strongest growth coming in the 500Mbps – 1Gbps segment.

ADTRAN is at the forefront of pushing the boundaries of Internet speed and access. Everything we do is centered on enabling communities and connecting lives as we define the future network. We are enabling operators of all types around the globe to deploy services faster and more efficiently than ever before. We offer one of the most comprehensive broadband product portfolios on the market with solutions leveraging fiber, copper, coax and wireless access networks. These solutions are enabling our customers to take advantage of the mosaic of opportunities resulting from increasing network speed and agility.



Our focus remains on providing comprehensive access solutions with clear industry leadership in Gigabit fiber access and ultra-high speed broadband.



Our focus remains on providing comprehensive access solutions with clear industry leadership in Gigabit fiber access and ultra-high speed broadband. This, combined with the world's leading portfolio of virtualized access products, positions us to capitalize on the evolution in access as carriers around the world upgrade their infrastructure to meet customer demand.

During 2016, the telecom market experienced strong competition from Multi-Service Operators (MSOs) with the initial roll out of DOCSIS 3.1 promising ultra-broadband services to millions of customers. As a result, telecom carriers must quickly respond with faster technologies to remain

competitive. Next-generation technologies like Super-Vectoring and G.fast have been proven to be cost-effective alternatives for the delivery of multi-hundred Mbps or Gigabit services for customer connections, requiring only a fraction of the cost and time needed for full fiber builds. Going forward, 10G capabilities will emerge in access networks as we realize multi-10G NG-PON2 and eventually 25G/40G/100G. Furthermore, the promise of wireless ubiquity, the introduction of 5G, and millimeter wave technologies will help drive the need for ever-present, low-latency, high-speed broadband services in the future.

KEY FOCUS

1 **STRENGTHEN**
SOFTWARE CAPABILITIES

2 *BROADBAND ACCESS*
INNOVATION

3 **GROWTH IN**
SERVICES & SUPPORT





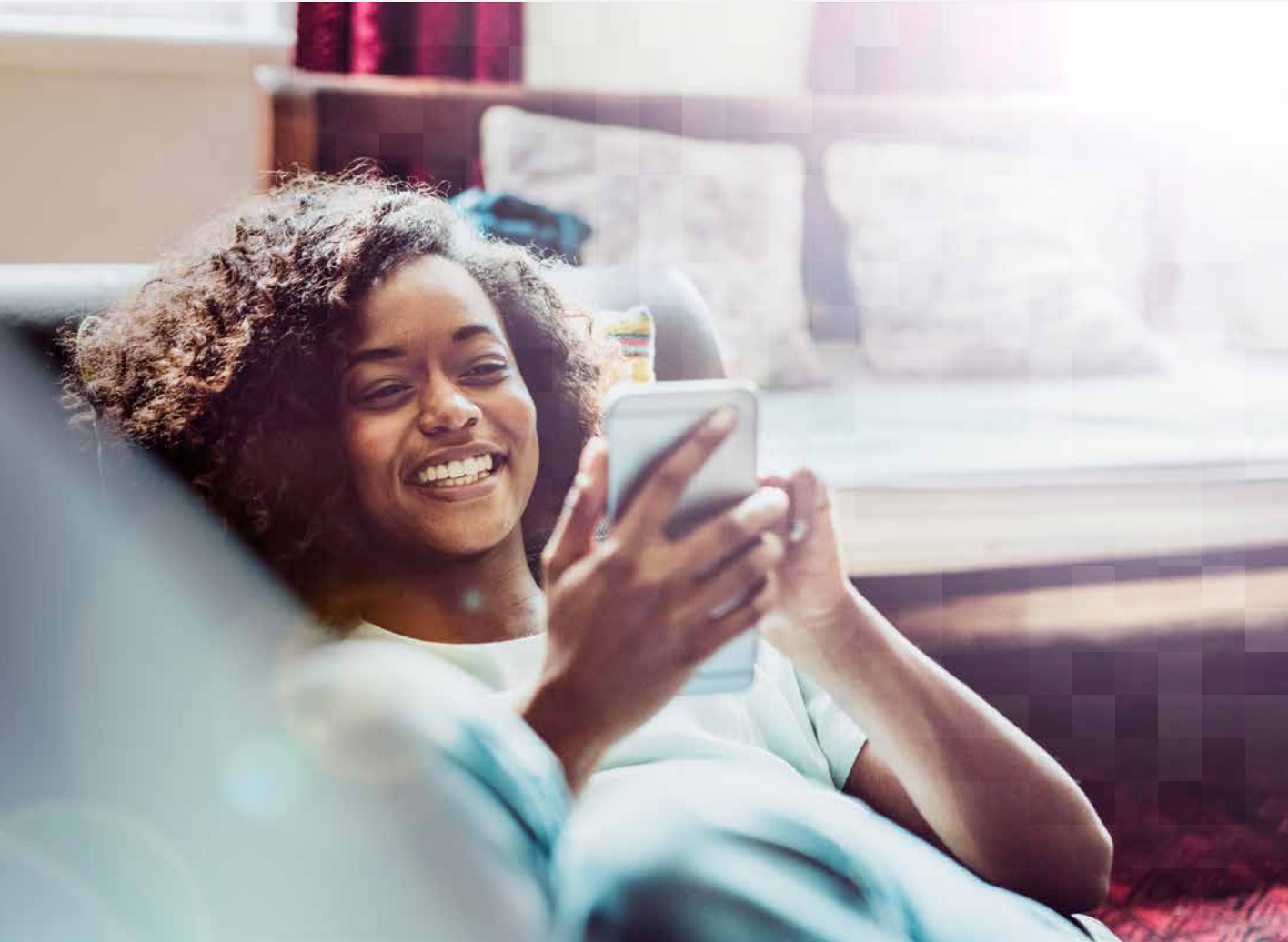
The Year in Review

As we look back on 2016, the growing competition among U.S.-based service providers helped drive our domestic business up 20 percent year-over-year. This enabled us to finish the year strong at \$637 million, up six percent over the previous year. We were also able to beat consensus revenue and earnings estimates all four quarters, further strengthening shareholder value. The second half of the year saw a resurgence in our international business, which contributed 21 percent of overall revenue for the year.

As previously reported, we functionally realigned our business in mid-2015 with three goals in mind:

- To strengthen our software capabilities and increase our position to address virtualized technologies spurred by Software Defined Networking (SDN) and Network Function Virtualization (NFV),
- To position the company to address the resurgence in broadband spending with innovative solutions in areas like NG-PON and G.fast, and
- To accelerate the growth in our services business by moving it into a separate segment with the ability to scale to meet the growing demand of our customers.

These changes have enabled us to increase productivity and efficiency, preparing us for the mosaic of opportunities that lie ahead.



Software & Virtualization



Strengthening our software capabilities and increasing our position to address virtualized technologies will be vitally important as we look to the future. As service providers continue to seek ways to deliver more bandwidth to their customers, the advantages of open, programmable and scalable networks afforded through SDN and

NFV are particularly attractive to larger Tier 1 customers. In fact, we have seen major barriers to market entry begin to erode as we move more features and functionality to software. We continue to place growing emphasis on our software development efforts moving forward as this enables us to provide an agile response to customer needs.

Our commitment to software development and virtualization was highlighted in 2016 through our introduction of Mosaic, the industry's first truly open Software Defined Access (SD-Access) services architecture, the Mosaic Cloud Platform, Mosaic OS and our first Programmable Network Functions (PNFs). We believe we are the only access vendor with SDN controls, software modularity and application virtualization. Our solution is also media and platform agnostic, making it even more appealing to customers beginning the transition to virtualized multi-vendor networks.

In less than one quarter after announcing these solutions, we had completed lab certification with a domestic Tier 1 provider and had begun work with other Tier 1 and 2 Communications Services Providers (CSPs) in the U.S., Europe, and the Middle East. By year end, this solution was selected for implementation by multiple Tier 1 carriers on a global basis and with additional lab trials underway.

Our focus on software development highlights the importance of our Research and Development (R&D) efforts. R&D is the cornerstone of future opportunities for our customers and ADTRAN. We are committed to innovation, investing approximately 20 percent of revenue in R&D on an annual basis. As a result of these efforts, we now proudly hold more than 500 active patents representing inventions in both the U.S. and abroad.



ADTRAN Mosaic is the industry's first truly open software defined (SD-Access) Services Architecture.

The Resurgence of Broadband

A supportive regulatory environment has created a number of opportunities for us as we look to the year ahead. The resurgence in broadband spending spurred by the CAF and CAF II programs, along with increased demand for faster-speed services by both residential and business customers, has created a wealth of opportunities. Tier 1 and Tier 2 service providers have accepted \$9 billion in price cap carrier CAF II funding beginning in 2016 that will run through 2020. ADTRAN's network solutions are ideally suited for CAF build-outs. We believe that the enactment of CAF II rate of return carrier regulations, which provide over \$5 billion in A-CAM support over a 10-year period to Tier 3 carriers, will also prove to be positive for us.

G.fast and Vectoring/Super-Vectoring technologies utilize existing copper plant to deliver speeds beyond 1Gbps. We bolstered our resources for G.fast development by almost 35 percent, resulting in increased customer momentum. As of year-end 2016, we had participated in more than 108 trials globally across six continents and, most importantly, celebrated customer awards in both the U.S. and Europe. Our G.fast product began shipping in late 2016 and we anticipate it will bring added momentum into the year ahead.

We have now shipped our 10 millionth vectoring-capable port, making vectoring the fastest-growing product in our company's history.



OVER **100** G.FAST TRIALS
ACROSS **SIX** CONTINENTS



10 GIGABIT PER SECOND
WORLD'S MOST ADVANCED FIBER-ACCESS SOLUTIONS



The demand for our vectoring products remains strong. We extended our vectoring capabilities in 2016 with the first lab shipments of the world's highest density Super-Vectoring product. We have now shipped our 10 millionth vectoring-capable port, making vectoring the fastest-growing product in our company's history. We are a leader in the world's largest vectoring project currently underway in Europe, and we have the dominant position in the largest vectoring project in the U.S., which began in 2016. We anticipate continued success with this product in the year ahead.

As the demand for bandwidth continues to grow, so too does the fiber opportunity. PON continues to perform very well for us and represented the fastest-growing product segment for us in 2016. This year marked

the initial deployment of our XGS-PON platform, a technology ADTRAN pioneered that completed standardization in June. It substantially changes the economics of 10G PON deployment for wireless backhaul and business services. Our NG-PON2 initiatives continue to move forward as we bring to market the world's most advanced fiber access solution using multi-wavelength TWDM-PON, Optical Network Terminals (ONTs) with tunable optics and SDN control. Our solution is unique in that it comprehensively addresses network growth by providing the easiest and most cost-effective way to support a common, converged fiber network delivering business, residential and wireless backhaul services.

Like traditional Telcos, MSOs are fighting to win broadband customers, presenting an attractive

opportunity for ADTRAN. We began increasing our focus on this space approximately two years ago and have experienced some traction in these accounts with our customer devices portfolio. In light of the sizable opportunity this market presents, we acquired CommScope's active fiber access product lines in mid-2016. This acquisition quickly opened up the addressable market and also provides us with a base of incumbency to leverage moving forward. We now offer multiple solutions for the MSO market ranging from business voice and customer premises equipment to Radio Frequency over Glass (RFoG) and Ethernet Passive Optical Networking (EPON) solutions for broadband services delivery. We also anticipate that Mosaic and our virtualized solutions will be beneficial as market penetration continues.



Now, in addition to acquiring our products, operators can purchase turnkey services enabling them to turn up services faster and more efficiently, speeding their time to market.



Services & Support

Services & Support (S&S) holds great potential for the future. As part of our business realignment, we moved S&S into a separate segment, enabling us to scale to meet the needs of our customers and accelerate growth.

The growing demand for ultra-broadband services has left many service providers turning to outside help for planning, engineering, implementation, and maintenance and support services. In turn, this has created a great opportunity for ADTRAN.

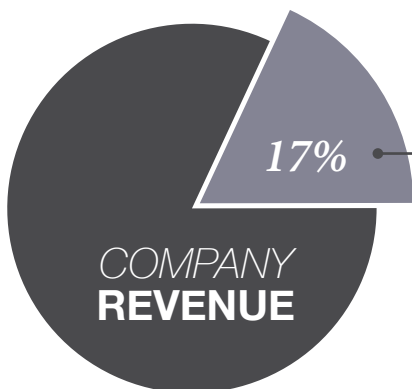
Now, in addition to acquiring our products, operators can purchase turnkey services enabling them to turn up services faster and more efficiently, speeding their time to market.

S&S set new revenue records in 2016, growing 53 percent and comprising 17 percent of company revenue. Demand is growing for our services at a healthy pace in both domestic markets and abroad, and we anticipate this trend to continue into the foreseeable future.

SERVICES & SUPPORT

RECORD REVENUE PERFORMANCE

53% GROWTH

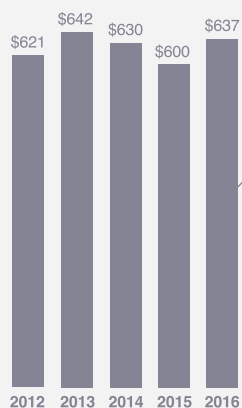


SERVICES & SUPPORT

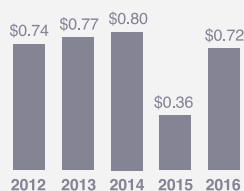
Financial Highlights

Company Financial Summary
(Dollars In Millions, Except Per Share Amounts)

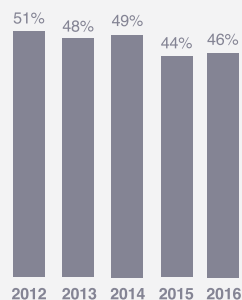
\$637M



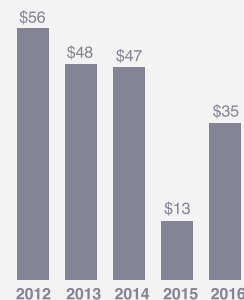
Annual Revenue



Annual Earnings
Per Share (Diluted)



Gross Margin



Operating Income

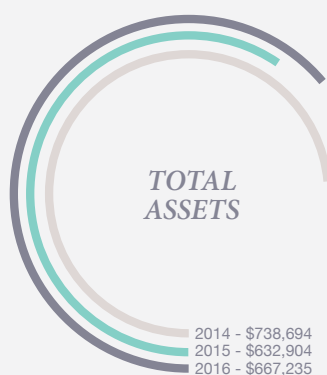
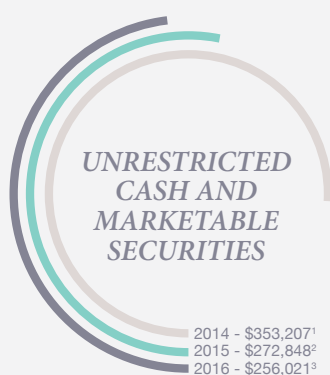
Consolidated Statements of Income Data

(In thousands, except per share amounts)

	2016	2015
Total sales	\$636,781	\$600,064
Income before provision for income taxes	\$46,895	\$25,708
Net income	\$35,229	\$18,646
Earnings per common share (Diluted)	\$0.72	\$0.36

Consolidated Balance Sheet Data

(In thousands)



¹ Net of \$81 million in stock repurchases and \$20 million in dividend payments during 2014

² Net of \$66 million in stock repurchases and \$18 million in dividend payments during 2015

³ Net of \$26 million in stock repurchases and \$18 million in dividend payments during 2016



2017 AND BEYOND

Looking ahead, we are entering 2017 with renewed optimism about the opportunities before us. The appetite for infrastructure development continues to grow. We believe the regulatory opportunities afforded by CAF II will continue to develop this year. Likewise, we look for our success in the technology and services areas mentioned above to continue to grow. We have a wealth of opportunities before us, and we must now capitalize on them, growing revenue and shareholder equity.

During the year ahead, we will work to capitalize on the many opportunities that lie before us and focus on our strategic goals, which include increasing market share in fixed-broadband access among our existing market segments, positioning the company to realize growth in software and services revenue contribution as the industry shifts to software and outsourcing services functions, and leveraging adjacent market opportunities, enabling us to broaden our addressable markets.

However, none of this will be attainable without our employees. I am continually amazed by the selfless devotion our employees display for our company. There is no challenge too large, and they continually strive for what is best for ADTRAN. We were proud to celebrate 30 years of success in 2016 – the result of the hard work and dedication of these individuals. We now look forward to the next 30 years and the great things the future holds. Thank you for a job well done!

Tom Stanton, Chairman & CEO
ADTRAN, Inc.

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This annual report contains forward-looking statements which reflect management’s best judgment based on factors currently known. However, these statements involve risks and uncertainties, including the successful development and market acceptance of new products, the degree of competition in the market for such products, the product and channel mix, component costs, manufacturing efficiencies, and other risks detailed in our annual report on Form 10-K for the year ended December 31, 2016. These risks and uncertainties could cause actual results to differ materially from those in the forward-looking statements included in this annual report.

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 2, 2017, ADTRAN had 187 stockholders of record and approximately 7,434 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.

Common Stock Prices

2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
High	\$20.47	\$20.43	\$19.74	\$23.15
Low	\$16.60	\$17.14	\$17.81	\$17.90
2015	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
High	\$23.38	\$19.27	\$17.28	\$17.52
Low	\$18.32	\$15.98	\$14.38	\$14.46

The following table shows the shareholder dividends paid in each quarter of 2016 and 2015. 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.

Dividends per Common Share

2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$0.09	\$0.09	\$0.09
2015	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$0.09	\$0.09	\$0.09

Stock Repurchases

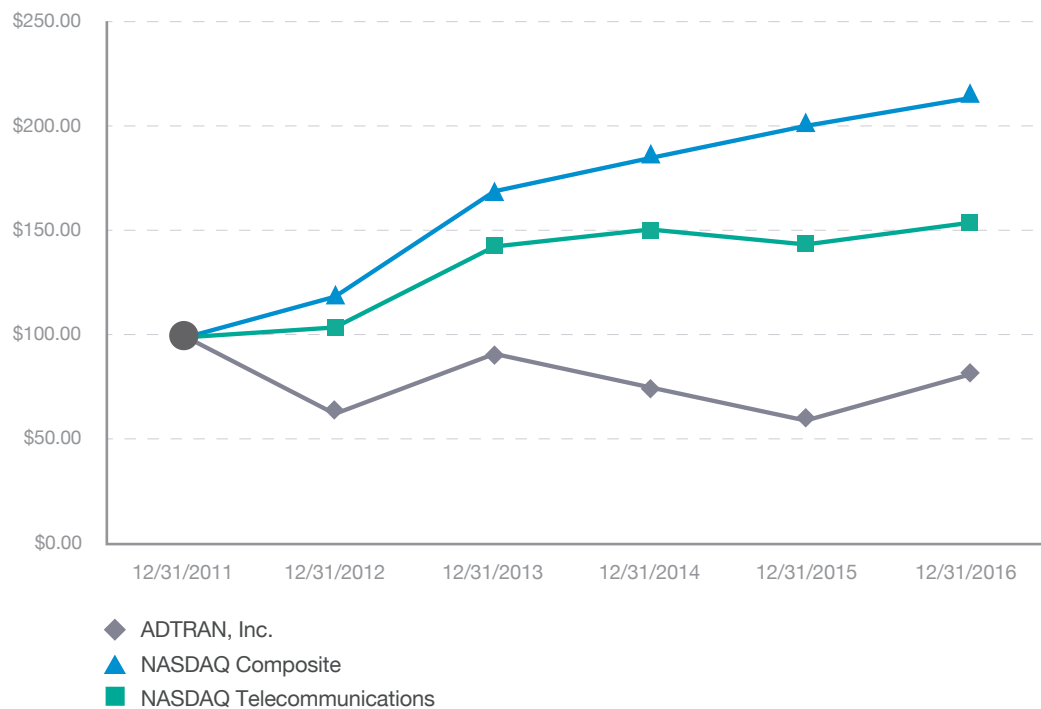
The following table sets forth repurchases of our common stock for the months indicated.

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs
October 1, 2016 – October 31, 2016	37,082	17.81	37,082	4,539,322
November 1, 2016 – November 30, 2016	124,414	18.00	124,414	4,414,908
December 1, 2016 – December 31, 2016	—	—	—	4,414,908
Total	161,496		161,496	

(1) Since 1997, our Board of Directors has approved multiple share repurchase programs that have authorized open market repurchase transactions of up to 50.0 million shares of our common stock, which will be implemented through open market or private purchases from time to time as conditions warrant.

Stock Performance Graph

Our common stock began trading on the NASDAQ National Market on August 9, 1994. The price information reflected for our common stock in the following performance graph and accompanying table represents the closing sales prices of the common stock for the period from December 31, 2011 through December 31, 2016, on an annual basis. The graph and the accompanying table compare the cumulative total stockholders' return on our common stock with the NASDAQ Telecommunications Index and the NASDAQ Composite Index. The calculations in the following graph and table assume that \$100 was invested on December 31, 2011 in each of our common stock, the NASDAQ Telecommunications Index and the NASDAQ Composite Index and also assume dividend reinvestment.



	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16
ADTRAN, Inc.	\$100.00	\$65.79	\$92.38	\$75.77	\$61.14	\$80.92
NASDAQ Composite	\$100.00	\$116.41	\$165.47	\$188.69	\$200.32	\$216.54
NASDAQ Telecommunications	\$100.00	\$102.78	\$143.40	\$149.42	\$144.02	\$153.88

Selected Financial Data

Income Statement Data

(In thousands, except per share amounts)

Year Ended December 31,	2016	2015	2014	2013	2012
Sales	\$636,781	\$600,064	\$630,007	\$641,744	\$620,614
Cost of sales	345,437	333,167	318,680	332,858	303,971
Gross profit	291,344	266,897	311,327	308,886	316,643
Selling, general and administrative expenses	131,805	123,542	131,958	129,366	134,523
Research and development expenses	124,804	129,876	132,258	131,055	125,951
Operating income	34,735	13,479	47,111	48,465	56,169
Interest and dividend income	3,918	3,953	5,019	7,012	7,657
Interest expense	(572)	(596)	(677)	(2,325)	(2,347)
Net realized investment gain	5,923	10,337	7,278	8,614	9,550
Other income (expense), net	(651)	(1,465)	1,175	(911)	183
Gain on bargain purchase of a business	3,542	—	—	—	1,753
Income before provision for income taxes	46,895	25,708	59,906	60,855	72,965
Provision for income taxes	(11,666)	(7,062)	(15,286)	(15,061)	(25,702)
Net income	\$35,229	\$18,646	\$44,620	\$45,794	\$47,263
Weighted average shares outstanding – basic	48,724	51,145	55,120	59,001	63,259
Weighted average shares outstanding – assuming dilution (1)	48,949	51,267	55,482	59,424	63,774
Earnings per common share – basic	\$0.72	\$0.36	\$0.81	\$0.78	\$0.75
Earnings per common share – assuming dilution (1)	\$0.72	\$0.36	\$0.80	\$0.77	\$0.74
Dividends declared and paid per common share	\$0.36	\$0.36	\$0.36	\$0.36	\$0.36

Balance Sheet Data

(In thousands)

At December 31,	2016	2015	2014	2013	2012
Working capital (2)	\$226,367	\$219,219	\$214,985	\$260,252	\$324,924
Total assets	\$667,235	\$632,904	\$738,694	\$789,898	\$883,656
Total debt	\$27,800	\$28,900	\$30,000	\$46,500	\$46,500
Stockholders' equity	\$479,517	\$480,160	\$549,013	\$604,606	\$692,406

(1) Assumes exercise of dilutive stock options calculated under the treasury method. See Notes 1 and 14 of Notes to Consolidated Financial Statements.

(2) Working capital consists of current assets less current liabilities. Prior year amounts have been recast to conform to the current period's presentation as a result of our early adoption of Accounting Standards Update 2015-17, Balance Sheet Classification of Deferred Taxes. See Note 1 of Notes to Consolidated Financial Statements.

Management's Discussion and Analysis of Financial Condition and Results of Operations

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 CSPs, 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.

In addition to reporting our Network Solutions and Services & Support segments, we report revenue across three categories—**Access & Aggregation**, **Customer Devices**, and **Traditional & Other Products**.

Access & Aggregation solutions are used by CSPs to connect their network infrastructure to their subscribers. This category includes software and hardware-based products and services that aggregate and/or originate access technologies. The portfolio of ADTRAN solutions within this category includes a wide array of modular or fixed physical form factors designed to deliver the best technology and economic fit based on the target subscriber density and environmental conditions.

The Access & Aggregation category includes product and service families such as:

- Total Access 5000 Series Fiber to the Premises (FTTP) and Fiber to the Node (FTTN) Multi-Service Access Nodes (MSAN)
- hiX 5600 Series fiber aggregation and FTTN MSAN
- Fiber to the Distribution Point (FTTdp) Optical Network Units (ONU)
- GPON, EPON and 10G PON Optical Line Terminals (OLT)
- Optical Networking Edge (ONE) aggregation
- IP Digital Subscriber Line Access Multiplexers (DSLAMs)
- Cabinet and Outside-Plant (OSP) enclosures and services
- Network Management and Cloud-based software platforms and applications
- Pluggable optical transceivers (i.e., SFP, SFP+, XFP, QSFP), cables and other miscellaneous materials
- Planning, engineering, program management, maintenance, installation and commissioning services to implement customer network solutions
- Other products and services that are generally applicable to Access & Aggregation

Customer Devices includes our products and services that provide end users access to CSP networks. Our Customer Devices portfolio includes a comprehensive array of service provider and enterprise hardware and software products and services.

The Customer Devices category includes products and services such as:

- Broadband customer premise solutions, including Passive Optical Network (PON) and point-to-point Ethernet Optical Network Terminals (ONTs)
- Radio Frequency over Glass (RFoG) MicroNodes
- Residential and business gateways
- Wi-Fi access points and associated powering and switching infrastructure

- Enterprise Session Border Controllers (eSBC)
- Branch office and access routers
- Carrier Ethernet services termination devices
- VoIP media gateways
- ProServices pre-sale and post-sale technical support
- Planning, engineering, program management, maintenance, installation and commissioning services to implement the customer devices solutions into consumer, small business and enterprise locations
- Other products and services that are generally applicable to customer devices

Traditional & Other Products generally includes a mix of prior generation technologies' products and services, as well as other products and services that do not fit within the Access & Aggregation or Customer Devices categories.

The Traditional & Other Products category includes products and services such as:

- Time Division Multiplexed (TDM) and Asynchronous Transfer Mode (ATM) based aggregation systems and customer devices
- HDSL, ADSL and other mature technologies used to deliver business and residential services over the CSP access and customer networks
- Other products and services that do not fit within the Access & Aggregation and Customer Devices categories

Sales were \$636.8 million in 2016, compared to \$600.1 million in 2015 and \$630.0 million in 2014. Our gross profit margin was 45.8% in 2016, compared to 44.5% in 2015 and 49.4% in 2014. Net income was \$35.2 million in 2016, compared to \$18.6 million in 2015 and \$44.6 million in 2014. Earnings per share, assuming dilution, were \$0.72 in 2016, compared to \$0.36 in 2015 and \$0.80 in 2014. Earnings per share in 2016, 2015 and 2014 include the effect of the repurchase of 1.4 million, 4.0 million and 3.7 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, foreign currency exchange rate movements, increased competition, customer order patterns, changes in product and services mix, 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 15 of Notes to Consolidated Financial Statements for additional information. For a discussion of risks associated with our operating results, see Item 1A of our Form 10-K for the year ended December 31, 2016.

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) Network Solutions and (2) Services & Support.

- 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 recorded as a reduction of revenue and accrued based on historical sales return experience, which we believe provides a reasonable estimate of future returns.

A significant portion of our 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 \$25.2 million and \$26.7 million at December 31, 2016 and 2015, respectively. Inventory disposals charged against the reserve were \$4.7 million, \$0.2 million and \$2.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.
- 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 performance stock unit (PSU) awards on the date of grant, we use a Monte Carlo Simulation valuation method. The PSUs 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 and restricted stock units (RSUs) is equal to the closing price of our stock on the business day immediately preceding the grant date. 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, 2016 and 2015 respectively, the valuation allowance was \$6.1 million and \$7.3 million. As of December 31, 2016, we have state research tax credit carry-forwards of \$3.9 million, which will expire between 2017 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, 2016, we have a deferred tax asset of \$7.3 million relating to net operating loss carry-forwards which will expire between 2017 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 that piece.

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 five 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 \$8.5 million and \$8.7 million at December 31, 2016 and 2015, 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 \$10.0 million and \$7.6 million at December 31, 2016 and 2015, respectively. This liability is included in other non-current liabilities in the accompanying Consolidated Balance Sheets.
- 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 value. 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 2016, 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.

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..

Year Ended December 31,	2016	2015	2014
Sales			
Products	82.5%	87.9%	88.8%
Services	17.5	12.1	11.2
Total sales	100.0	100.0	100.0
Cost of sales			
Products	42.5	49.0	45.7
Services	11.7	6.6	4.9
Gross profit	45.8	44.5	49.4
Selling, general and administrative expenses	20.7	20.6	20.9
Research and development expenses	19.6	21.6	21.0
Operating income	5.5	2.2	7.5
Interest and dividend income	0.6	0.7	0.8
Interest expense	(0.1)	(0.1)	(0.1)
Net realized investment gain	0.9	1.7	1.2
Other income (expense), net	(0.1)	(0.2)	0.2
Gain on bargain purchase of a business	0.6	—	—
Income before provision for income taxes	7.4	4.3	9.5
Provision for income taxes	(1.8)	(1.2)	(2.4)
Net income	5.5%	3.1%	7.1%

2016 Compared to 2015

Sales

Our sales increased 6.1% from \$600.1 million in 2015 to \$636.8 million in 2016. The increase in sales is primarily attributable to a \$38.6 million increase in Services & Support sales, partially offset by a \$1.9 million decrease in Network Solutions sales.

Network Solutions sales decreased 0.4% from \$527.4 million in 2015 to \$525.5 million in 2016. The decrease in sales in 2016 is primarily attributable to a decrease in sales of our Access & Aggregation products and Traditional & Other products, partially offset by an increase in sales of our Customer Devices products. The decrease in sales of our Access & Aggregation products is primarily attributable to a decrease in international hiX product sales, partially offset by an increase in OSP DSLAM sales. The increase in sales of our Customer Devices products is primarily attributable to increased sales of our FTTP ONT products. While we expect that revenues from Traditional & Other products will continue to decline over time, these revenues may fluctuate and continue for years because of the time required for our customers to transition to newer technologies.

Services & Support sales increased 53.2% from \$72.6 million in 2015 to \$111.3 million in 2016. The increase in sales in 2016 is primarily attributable to an increase in network installation services for Access & Aggregation products.

International sales, which are included in the Network Solutions and Services & Support amounts discussed above, decreased 25.0% from \$180.7 million in 2015 to \$135.4 million in 2016. International sales, as a percentage of total sales, decreased from 30.1% in 2015 to 21.3% in 2016. Our international revenues are affected to a great extent by the timing of network upgrade projects at our larger European and Latin American customers and by changes in foreign exchange rates in territories in which we sell our products and services. Throughout 2016, our largest European customer focused on completing network upgrade activities in regions outside of our footprint with them. However, we expect that once current projects are completed, future network upgrades will resume in the second half of 2017 within our geographic footprint with this customer. Additionally, after reaching a cyclical high in the second quarter of 2014, the value of the Euro currency relative to the U.S. dollar declined significantly throughout the second half of 2014 and in 2015. Though the Euro-USD exchange rate appears to have stabilized since reaching a low in the fourth quarter of 2015, it remains approximately 20% below the highs of 2014. This decline in the value of the Euro throughout 2015 and into 2016 significantly reduced the U.S. dollar value of revenue from our European sales.

Cost of Sales

As a percentage of sales, cost of sales decreased from 55.5% in 2015 to 54.2% in 2016. The decrease is primarily attributable to a regional revenue shift and customer and product mix, partially offset by a change in services mix, restructuring expenses and an increase in warranty expense related to a product recall caused by a defect in a part provided by a third party supplier.

Network Solutions cost of sales, as a percent of that segment's sales, decreased from 55.7% of sales in 2015 to 51.5% of sales in 2016. The decrease in Network Solutions cost of sales as a percentage of that segment's sales is primarily attributable to a regional revenue shift and customer and product mix, partially offset by restructuring expenses and an increase in warranty expense related to a product recall caused by a defect in a part provided by a third party supplier.

Services & Support cost of sales, as a percent of that segment's sales, increased from 54.1% of sales in 2015 to 67.2% of sales in 2016. The increase in Services & Support cost of sales as a percentage of that segment's sales is primarily attributable to an increase in network installation services, which have higher costs than maintenance and support services, and in restructuring expenses.

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 increased 6.7% from \$123.5 million in 2015 to \$131.8 million in 2016. 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 an increase in variable incentive compensation expense and use tax expense, partially offset by a decrease in professional services.

Selling, general and administrative expenses as a percentage of sales increased from 20.6% for the year ended December 31, 2015 to 20.7% for the year ended December 31, 2016. 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 3.9% from \$129.9 million in 2015 to \$124.8 million in 2016. The decrease in research and development expenses is primarily attributable to a decrease in compensation expense, lease expense and testing expense, partially offset by an increase in contract services. The decrease in compensation expense and lease expense in 2016 was primarily attributable to the consolidation of engineering resources that occurred during the second quarter of 2015.

Research and development expenses as a percentage of sales decreased from 21.6% for the year ended December 31, 2015 to 19.6% for the year ended December 31, 2016. 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 remained constant at \$3.95 million in 2015 and \$3.92 million in 2016.

Interest Expense

Interest expense, which is primarily related to our taxable revenue bond, remained consistent at \$0.6 million in 2015 and 2016, as we had no substantial change in our fixed-rate borrowing. 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 \$10.3 million in 2015 to \$5.9 million in 2016. The decrease in realized investment gains is primarily attributable to fewer gains from the sale of equity securities in 2016. 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, decreased from \$1.5 million of expense in 2015 to \$0.7 million of expense in 2016. The change is primarily attributable to gains on forward currency contracts during the fourth quarter of 2016.

Gain on Bargain Purchase of a Business

Gain on bargain purchase of a business is related to our acquisition of key fiber access products, technologies and service relationships from a third party on September 13, 2016. See note 2 of Notes to Consolidated Financial Statements for additional information.

Income Taxes

Our effective tax rate decreased from 27.5% in 2015 to 24.9% in 2016. The decrease in the effective tax rate between the two periods is primarily attributable to the benefit associated with the bargain purchase gain.

Net Income

As a result of the above factors, net income increased from \$18.6 million in 2015 to \$35.2 million in 2016. As a percentage of sales, net income increased from 3.1% in 2015 to 5.5% in 2016.

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 \$32.1 million decrease in Network Solutions sales, partially offset by a \$2.2 million increase in Services & Support sales.

Network Solutions sales decreased 5.7% from \$559.5 million in 2014 to \$527.4 million in 2015. The decrease in sales in 2015 is primarily attributable to a decrease in sales of our Customer Devices products and Traditional & Other products. The decrease in sales of our Customer Devices products is primarily attributable to weakness in sales of IP gateway products to the CLEC and MSO markets. While we expect that revenues from Traditional & Other products will continue to decline over time, these rev-

venues may fluctuate and continue for years because of the time required for our customers to transition to newer technologies. Network Solutions sales were also negatively impacted by the impact of the strengthening U.S. dollar against the Euro.

Services & Support sales increased 3.1% from \$70.5 million in 2014 to \$72.6 million in 2015. The increase in sales in 2015 is primarily attributable to an increase in network installation services for Access & Aggregation products.

International sales, which are included in the Network Solutions and Services & Support 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. Our international revenues are affected to a great extent by the timing of network upgrade projects at our larger European and Latin American customers and by changes in foreign exchange rates in territories in which we sell our products and services. After reaching a cyclical high in the second quarter of 2014, the value of the Euro currency relative to the U.S. dollar declined significantly throughout the second half of 2014 and in 2015. This decline in the value of the Euro throughout 2015 significantly reduced the U.S. dollar value of revenue from our European sales.

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.

Network Solutions cost of sales, as a percent of that segment's sales, increased from 51.5% of sales in 2014 to 55.7% of sales in 2015. The increase in Network Solutions cost of sales as a percentage of that segment's sales is primarily attributable to the strengthening of the U.S. dollar against the Euro, and customer and product mix.

Services & Support cost of sales, as a percent of that segment's sales, increased from 43.5% of sales in 2014 to 54.1% of sales in 2015. The increase in Services & Support cost of sales as a percentage of that segment's sales is primarily attributable to an increase in network installation services, which have higher costs, versus a greater mix of maintenance and support services in the prior period.

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.

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.

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, 2016, cash on hand was \$79.9 million and short-term investments were \$43.2 million, which resulted in available short-term liquidity of \$123.1 million, of which \$42.1 million was held by our foreign subsidiaries. At December 31, 2015, cash on hand was \$84.6 million and short-term investments were \$34.4 million, which resulted in available short-term liquidity of \$118.9 million, of which \$38.9 million was held by our foreign subsidiaries. The increase in short-term liquidity from December 31, 2015 to December 31, 2016 is primarily attributable to shifts among available investment option tenures to provide funds for our short-term cash needs.

Operating Activities

Our working capital, which consists of current assets less current liabilities, increased 3.3% from \$219.2 million as of December 31, 2015 to \$226.4 million as of December 31, 2016. The increase in our working capital is primarily attributable to an increase in accounts receivable and inventory, partially offset by an increase in accounts payable and accrued wages and benefits. The quick ratio, defined as cash and cash equivalents, short-term investments, and net accounts receivable, divided by current liabilities, decreased from 2.06 as of December 31, 2015 to 1.70 as of December 31, 2016. The decrease in the quick ratio is primarily attributable to an increase in accounts payable and accrued wages and benefits, partially offset by an increase in accounts receivable. The current ratio, defined as current assets divided by current liabilities, decreased from 3.37 as of December 31, 2015 to

2.79 as of December 31, 2016. The decrease in the current ratio is primarily attributable to an increase in accounts payable and accrued wages and benefits, partially offset by an increase in accounts receivable and inventory. The increase in accrued wages and benefits was primarily attributable to an increase in accrued variable incentive compensation.

Net accounts receivable increased 28.4% from \$71.9 million at December 31, 2015 to \$92.3 million at December 31, 2016. Our allowance for doubtful accounts was \$19 thousand at December 31, 2015 and nil at December 31, 2016. Quarterly accounts receivable DSO increased from 48 days as of December 31, 2015 to 52 days as of December 31, 2016. 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.

Annual inventory turnover decreased from 3.75 turns as of December 31, 2015 to 3.51 turns as of December 31, 2016. Inventory increased 14.8% from \$91.5 million at December 31, 2015 to \$105.1 million at December 31, 2016. 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 increased 58.9% from \$48.7 million at December 31, 2015 to \$77.3 million at December 31, 2016. 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.

Investing Activities

Capital expenditures totaled approximately \$21.4 million, \$11.8 million and \$11.3 million for the years ended December 31, 2016, 2015 and 2014, 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 \$13.1 million from \$232.4 million at December 31, 2015 to \$219.3 million at December 31, 2016. 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, 2016, these investments included corporate bonds of \$66.4 million, municipal fixed-rate bonds of \$11.8 million, asset-backed bonds of \$10.2 million, mortgage/agency-backed bonds of \$13.0 million, U.S. government bonds of \$29.8 million, foreign government bonds of \$3.7 million, and variable rate demand notes of \$11.9 million. 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. As of December 31, 2016, our corporate bonds, municipal fixed-rate bonds, asset-backed bonds, mortgage/agency-backed bonds, U.S. government bonds, foreign government bonds, and municipal variable rate demand notes were classified as available-for-sale and had a combined duration of 1.15 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 11.1% from \$198.0 million at December 31, 2015 to \$176.1 million at December 31, 2016. Long-term investments at December 31, 2016 and December 31, 2015 included an investment in a certificate of deposit of \$27.8 million and \$30.0 million, respectively, 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 \$30.6 million and \$31.6 million, and with a fair value of \$29.4 million and \$34.3 million, at December 31, 2016 and December 31, 2015, respectively.

Long-term investments at December 31, 2016 and 2015 also included \$14.6 million and \$12.8 million, respectively, related to our deferred compensation plan, and \$0.8 million and \$1.3 million, respectively, of other investments, 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, 2016, 2015, and 2014, we recorded charges of \$0.8 million, \$0.2 million and \$0.1 million, respectively, related to the other-than-temporary impairment of certain publicly traded equity securities, our deferred compensation plan assets, and our investments in two private equity funds.

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 \$27.8 million. The estimated fair value of the bond using a level 2 valuation technique at December 31, 2016 was approximately \$28.1 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, 2016 is \$27.8 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, 2016, 2015 and 2014.

We made principal payments of \$1.1 million for the years ended December 31, 2016 and 2015, respectively, and we anticipate making a principal payment in 2017. At December 31, 2016, \$1.0 million of the bond debt was classified as a current liability in accounts payable in the Consolidated Balance Sheets.

Dividends

During 2016, 2015 and 2014, we paid shareholder dividends totaling \$17.6 million, \$18.4 million and \$19.9 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 2016, 2015 and 2014.

Dividends per Common Share

2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$0.09	\$0.09	\$0.09
2015	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$0.09	\$0.09	\$0.09
2014	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$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 50.0 million shares of our common stock, which will be implemented through open market or private purchases from time to time as conditions warrant. For the years 2016, 2015 and 2014, we repurchased 1.4 million shares, 4.0 million shares and 3.7 million shares, respectively, for a cost of \$25.8 million, \$66.2 million and \$80.6 million, respectively, at an average price of \$18.29, \$16.68 and \$21.96 per share, respectively. We currently have the authority to purchase an additional 4.4 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 0.3 million shares of treasury stock for \$4.7 million during the year ended December 31, 2016, 0.1 million shares of treasury stock for \$1.0 million during the year ended December 31, 2015, and 0.1 million shares of treasury stock for \$2.8 million during the year ended December 31, 2014.

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, 2016.

Contractual Obligations

<i>(In millions)</i>	Total	2017	2018	2019	2020	After 2020
Long-term debt	\$27.8	\$1.0	\$—	\$—	\$26.8	\$—
Interest on long-term debt	1.5	0.5	0.5	0.5	—	—
Purchase obligations	184.5	183.4	0.8	0.3	—	—
Operating lease obligations	10.5	3.8	2.0	0.8	0.7	3.2
Totals	\$224.3	\$188.7	\$3.3	\$1.6	\$27.5	\$3.2

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 \$27.8 million. The bond matures on January 1, 2020, and bears interest at the rate of 2% per annum. Included in long-term investments are \$27.8 million of restricted funds, which is a collateral deposit against the principal amount of this bond. We made principal payments of \$1.1 million for the years ended December 31, 2016 and 2015. We anticipate making a principal payment in 2017. At December 31, 2016 and 2015, \$1.0 million of the bond debt was classified as a current liability in accounts payable in the Consolidated Balance Sheets. See Note 9 of Notes to Consolidated Financial Statements for additional information.

Purchase obligations primarily relate to open purchase orders to our contract manufacturers, component suppliers, service partners, 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, 2016, 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 10 of Notes to Consolidated Financial Statements for additional information.

Recently Issued Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (Topic 606) (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, and interim periods within those fiscal years, with early adoption permitted for reporting periods beginning after December 15, 2016. Subsequently, the FASB issued ASUs in 2016 containing implementation guidance related to ASU 2014-09, including: ASU 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net), which is intended to improve the operability and understandability of the implementation guidance on principal versus agent considerations; ASU 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, which is intended to clarify two aspects of Topic 606: identifying performance obligations and the licensing implementation guidance; ASU 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients, which contains certain provisions and practical expedients in response to identified implementation issues; and ASU 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers, which is intended to clarify the Codification or to correct unintended application of guidance. ASU 2014-09 allows for either full retrospective or modified retrospective adoption. We plan to adopt ASU 2014-09 and the related ASUs on January 1, 2018, and we are currently evaluating the transition method that will be elected. We are continuing to evaluate the potential impact of these ASUs, and we believe the most significant potential impact relates to our accounting for software license and installation services revenues. We do not believe there will be a significant impact to product or maintenance revenues.

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 that reporting period. The amendments should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. We adopted ASU 2015-05 in the first quarter of 2017, and there was no material impact on our financial position, results of operations and cash flows.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases (Topic 842) (ASU 2016-02). ASU 2016-02 requires an entity to recognize lease assets and lease liabilities on the balance sheet and to disclose key information about the entity's leasing arrangements. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. A modified retrospective approach is required. We anticipate the adoption of ASU 2016-02 will have a material impact on our financial position; however, we do not believe adoption will have a material impact on our results of operations. We believe the most significant impact relates to our accounting for operating leases for office space and equipment.

In March 2016, the FASB issued Accounting Standards Update No. 2016-09, Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting (ASU 2016-09). ASU 2016-09 simplifies several aspects of accounting for share-based compensation arrangements, including income tax effects, the classification of tax-related cash flows on the statement of cash flows, and accounting for forfeitures. ASU 2016-09 is effective for fiscal years beginning after December 15, 2016, including interim periods within those years. We adopted ASU 2016-09 in the first quarter of 2017, and there was no material impact on our financial position, results of operations and cash flows.

In January 2017, the FASB issued Accounting Standards Update No. 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment (ASU 2017-04). ASU 2017-04 simplifies the measurement of goodwill by eliminating step 2 of the goodwill impairment test. Under ASU 2017-04, entities will be required to compare the fair value of a reporting unit to its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. ASU 2017-04 is effective for annual or interim impairment tests performed in fiscal years beginning after December 15, 2019, with early adoption permitted for annual or interim impairment tests performed on testing dates after January 1, 2017. The amendments should be applied prospectively. We do not expect the adoption of ASU 2017-04 will have a material impact on our financial position, results of operations or cash flows.

During 2016, we adopted the following accounting standards, which had no material effect on our financial position, results of operations or 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 that reporting period. The amendments may be applied either prospectively to all arrangements entered into or materially modified after the effective date or retrospectively. We adopted ASU 2015-05 during the first quarter of 2016 and will apply the new standard prospectively. The adoption of ASU 2015-05 did not 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 elected to early adopt ASU 2015-17 during the fourth quarter of 2016, and we applied the guidance retrospectively to all periods presented. As a result, \$17.3 million and \$18.9 million were reclassified from current deferred tax assets to non-current deferred tax assets at December 31, 2016 and 2015, respectively.

Subsequent Events

On January 17, 2017, 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 2, 2017. The quarterly dividend payment was \$4.4 million and was paid on February 16, 2017. 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.

During the first quarter and as of February 24, 2017, we have repurchased 0.2 million shares of our common stock through open market purchases at an average cost of \$21.46 per share. We currently have the authority to purchase an additional 4.2 million shares of our common stock under the current plan approved by the Board of Directors.

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, 2016, \$77.9 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, 2016, approximately \$166.7 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, 2016, we held \$67.8 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, 2016 would reduce annualized interest income on our cash and investments by approximately \$0.3 million. In addition, we held \$98.9 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, 2016 would reduce the fair value of our fixed-rate bonds by approximately \$0.6 million.

As of December 31, 2015, interest income on approximately \$169.6 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, 2015 would have reduced annualized interest income on our cash, money market instruments, floating rate corporate bonds and municipal variable rate demand notes by approximately \$0.3 million. In addition, a hypothetical 50 bps increase in interest rates as of December 31, 2015 would have reduced the fair value of our municipal and corporate bonds by approximately \$0.8 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 rate movements are with our German subsidiary, whose functional currency is the Euro, our Australian subsidiary, whose functional currency is the Australian dollar, and our Mexican subsidiary, whose functional currency is the U.S. dollar. We are exposed to changes in foreign currency exchange rates to the extent of our German subsidiary's 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 \$0.3 million if the U.S. dollar weakened or strengthened 10% against the billing currencies. Any gain or loss would be partially mitigated by these derivative instruments.

As of December 31, 2016, we had no material contracts subject to currency revaluation, other than accounts receivable, accounts payable, and loans to a subsidiary, denominated in foreign currencies. As of December 31, 2016, we had forward contracts outstanding with notional amounts totaling €5.5 million (\$5.8 million), which mature in the first quarter of 2017. The fair value of these forward contracts was a net asset of approximately \$0.2 million as of December 31, 2016.

For further information about the fair value of our available-for-sale investments and our derivative and hedging activities as of December 31, 2016, see Notes 4 and 5 of Notes to Consolidated Financial Statements.

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, 2016 and December 31, 2015 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, 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 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.

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for deferred income taxes in 2016.

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.



PricewaterhouseCoopers LLP

Birmingham, Alabama
February 24, 2017

Financial Statements

ADTRAN, INC.

Consolidated Balance Sheets

December 31, 2016 and 2015

(In thousands, except per share amounts)

Assets	2016	2015
Current Assets		
Cash and cash equivalents	\$79,895	\$84,550
Short-term investments	43,188	34,396
Accounts receivable, less allowance for doubtful accounts of \$— and \$19 at December 31, 2016 and 2015, respectively	92,346	71,917
Other receivables	15,137	19,321
Income tax receivable, net	760	—
Inventory, net	105,117	91,533
Prepaid expenses and other current assets	16,459	10,145
Total Current Assets	352,902	311,862
Property, plant and equipment, net	84,469	73,233
Deferred tax assets, net	38,036	37,015
Goodwill	3,492	3,492
Other assets	12,234	9,276
Long-term investments	176,102	198,026
Total Assets	\$667,235	\$632,904
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$77,342	\$48,668
Unearned revenue	16,326	16,615
Accrued expenses	12,434	12,108
Accrued wages and benefits	20,433	12,857
Income tax payable, net	—	2,395
Total Current Liabilities	126,535	92,643
Non-current unearned revenue	6,333	7,965
Other non-current liabilities	28,050	24,236
Bonds payable	26,800	27,900
Total Liabilities	187,718	152,744
Commitments and contingencies (see Note 13)		
Stockholders' Equity		
Common stock, par value \$0.01 per share; 200,000 shares authorized; 79,652 shares issued and 48,472 shares outstanding at December 31, 2016 and 79,652 shares issued and 49,558 shares outstanding at December 31, 2015	797	797
Additional paid-in capital	252,957	246,879
Accumulated other comprehensive loss	(12,188)	(8,969)
Retained earnings	921,942	906,772
Less treasury stock at cost: 31,180 and 30,094 shares at December 31, 2016 and 2015, respectively	(683,991)	(665,319)
Total Stockholders' Equity	479,517	480,160
Total Liabilities and Stockholders' Equity	\$667,235	\$632,904

See notes to consolidated financial statements.

ADTRAN, INC.**Consolidated Statements of Income**

Years ended December 31, 2016, 2015 and 2014

<i>(In thousands, except per share amounts)</i>	2016	2015	2014
Sales			
Products	\$525,502	\$527,422	\$559,532
Services	111,279	72,642	70,475
Total Sales	636,781	600,064	630,007
Cost of Sales			
Products	270,695	293,843	288,015
Services	74,742	39,324	30,665
Total Cost of Sales	345,437	333,167	318,680
Gross Profit	291,344	266,897	311,327
Selling, general and administrative expenses	131,805	123,542	131,958
Research and development expenses	124,804	129,876	132,258
Operating Income	34,735	13,479	47,111
Interest and dividend income	3,918	3,953	5,019
Interest expense	(572)	(596)	(677)
Net realized investment gain	5,923	10,337	7,278
Other income (expense), net	(651)	(1,465)	1,175
Gain on bargain purchase of a business	3,542	—	—
Income before provision for income taxes	46,895	25,708	59,906
Provision for income taxes	(11,666)	(7,062)	(15,286)
Net Income	\$35,229	\$18,646	\$44,620
Weighted average shares outstanding—basic	48,724	51,145	55,120
Weighted average shares outstanding—diluted	48,949	51,267	55,482
Earnings per common share—basic	\$0.72	\$0.36	\$0.81
Earnings per common share—diluted	\$0.72	\$0.36	\$0.80

See notes to consolidated financial statements.

ADTRAN, INC.**Consolidated Statements of Comprehensive Income**

Years ended December 31, 2016, 2015 and 2014

<i>(In thousands)</i>	2016	2015	2014
Net Income	\$35,229	\$18,646	\$44,620
Other Comprehensive Loss, net of tax:			
Net unrealized losses on available-for-sale securities	(1,528)	(7,032)	(1,773)
Defined benefit plan adjustments	(1,122)	1,862	(4,866)
Foreign currency translation	(569)	(3,724)	(4,189)
Other Comprehensive Loss, net of tax	(3,219)	(8,894)	(10,828)
Comprehensive Income, net of tax	\$32,010	\$9,752	\$33,792

See notes to consolidated financial statements.

ADTRAN, INC.
Consolidated Statements of Changes in Stockholders' Equity

Years ended December 31, 2016, 2015 and 2014

<i>(In thousands)</i>	Common Shares	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income	Total Stockholders' Equity
Balance, December 31, 2013	79,652	\$797	\$233,511	\$884,451	\$(524,906)	\$10,753	\$604,606
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
PSUs 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				81
Stock-based compensation expense			8,563				8,563
Balance, December 31, 2014	79,652	797	241,829	907,751	(601,289)	(75)	549,013
Net income				18,646			18,646
Other comprehensive loss, net of tax						(8,894)	(8,894)
Dividend payments				(18,449)			(18,449)
Dividends accrued for unvested restricted stock units				(7)			(7)
Stock options exercised: 60 shares				(402)	1,363		961
PSUs and restricted stock vested: 34 shares			(69)	(767)	767		(69)
Purchase of treasury stock: 3,967 shares					(66,160)		(66,160)
Income tax effect of stock compensation arrangements			(1,593)				(1,593)
Stock-based compensation expense			6,712				6,712
Balance, December 31, 2015	79,652	797	246,879	906,772	(665,319)	(8,969)	480,160
Net income				35,229			35,229
Other comprehensive loss, net of tax						(3,219)	(3,219)
Dividend payments				(17,583)			(17,583)
Dividends accrued for unvested restricted stock units				(48)			(48)
Stock options exercised: 283 shares				(1,499)	6,216		4,717
PSUs and restricted stock vested: 42 shares			(142)	(929)	929		(142)
Purchase of treasury stock: 1,411 shares					(25,817)		(25,817)
Income tax effect of stock compensation arrangements			(475)				(475)
Stock-based compensation expense			6,695				6,695
Balance, December 31, 2016	79,652	\$797	\$252,957	\$921,942	\$(683,991)	\$(12,188)	\$479,517

See notes to consolidated financial statements.

ADTRAN, INC.**Consolidated Statements of Cash Flows**

Years ended December 31, 2016, 2015 and 2014

<i>(In thousands)</i>	2016	2015	2014
Cash flows from operating activities			
Net income	\$35,229	\$18,646	\$44,620
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	14,407	14,245	14,845
Amortization of net premium on available-for-sale investments	643	2,402	4,360
Net realized gain on long-term investments	(5,923)	(10,337)	(7,278)
Net loss on disposal of property, plant and equipment	22	644	142
Gain on bargain purchase of a business	(3,542)	—	—
Stock-based compensation expense	6,695	6,712	8,563
Deferred income taxes	(2,685)	(692)	(5,526)
Tax impact of stock option exercises	—	(40)	81
Excess tax benefits from stock-based compensation arrangements	(2)	(3)	(63)
Change in operating assets and liabilities:			
Accounts receivable, net	(21,302)	14,918	(3,910)
Other receivables	4,101	11,704	(19,298)
Inventory	(10,887)	(6,877)	2,144
Prepaid expenses and other assets	(7,108)	(5,070)	(3,818)
Accounts payable	26,722	(5,826)	9,973
Accrued expenses and other liabilities	8,792	(10,289)	(166)
Income taxes payable, net	(3,162)	(11,590)	11,168
Net cash provided by operating activities	42,000	18,547	55,837
Cash flows from investing activities			
Purchases of property, plant and equipment	(21,441)	(11,753)	(11,256)
Proceeds from disposals of property, plant and equipment	—	183	1
Proceeds from sales and maturities of available-for-sale investments	225,075	280,435	230,019
Purchases of available-for-sale investments	(209,172)	(188,921)	(142,695)
Acquisition of business	(943)	—	—
Net cash provided by (used in) investing activities	(6,481)	79,944	76,069
Cash flows from financing activities			
Proceeds from stock option exercises	4,717	961	2,839
Purchases of treasury stock	(25,817)	(66,160)	(80,576)
Dividend payments	(17,583)	(18,449)	(19,947)
Payments on long-term debt	(1,100)	(1,100)	(16,500)
Excess tax benefits from stock-based compensation arrangements	2	3	63
Net cash used in financing activities	(39,781)	(84,745)	(114,121)
Net increase (decrease) in cash and cash equivalents	(4,262)	13,746	17,785
Effect of exchange rate changes	(393)	(2,635)	(2,644)
Cash and cash equivalents, beginning of year	84,550	73,439	58,298
Cash and cash equivalents, end of year	\$79,895	\$84,550	\$73,439
Supplemental disclosure of cash flow information			
Cash paid during the year for interest	\$575	\$598	\$758
Cash paid during the year for income taxes	\$18,689	\$20,139	\$9,856
Supplemental disclosure of non-cash investing activities			
Purchases of property, plant and equipment included in accounts payable	\$2,103	\$598	\$467

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

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 CSPs, 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.

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 and network installations, 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, 2016, \$77.9 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 \$27.8 million, compared to an estimated fair value of \$28.1 million, based on a debt security with a comparable interest rate and maturity and a Standard & Poor's credit rating of AAA.

Investments with contractual maturities beyond one year, such as our 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 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, U.S. and foreign government bonds, variable rate demand notes, 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 review our investment portfolio quarterly 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, 2016 and 2015 are classified as available-for-sale securities. See Note 4 of Notes to Consolidated Financial Statements for additional information.

Accounts Receivable

We record accounts receivable at net realizable value. Prior to establishing payment terms for a new customer, we evaluate the credit risk of the customer. Credit limits and payment terms established for new customers are re-evaluated periodically based on customer collection experience and other financial factors. At December 31, 2016, three customers accounted for 63.3% of our total accounts receivable. At December 31, 2015, three customers accounted for 37.3% 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 nil and \$19 thousand at December 31, 2016 and December 31, 2015, 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.

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, market conditions and age. When we dispose of excess and obsolete inventories, the related disposals are charged against the inventory reserve. See Note 6 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 income. See Note 7 of Notes to Consolidated Financial Statements for additional information.

Liability for Warranty

Our products generally include warranties of 90 days to five 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. During 2016, we incurred an increase in warranty expense related to a product recall caused by a defect in a part provided by a third party supplier. The liability for warranty obligations totaled \$8.5 million and \$8.7 million at December 31, 2016 and 2015, 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, 2016, 2015 and 2014 is as follows:

(In thousands)

Year Ended December 31,	2016	2015	2014
Balance at beginning of period	\$8,739	\$8,415	\$8,977
Plus: Amounts charged to cost and expenses	8,561	2,998	3,103
Less: Deductions	(8,752)	(2,674)	(3,665)
Balance at end of period	\$8,548	\$8,739	\$8,415

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 incentive 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 stock awards. Vesting for all outstanding award 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 stock units to certain of our executive officers in 2016, 2015, and 2014. The performance 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 performance 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 performance stock units also earn dividend credits during the performance period, which are paid in cash upon the issuance of common stock for the restricted stock units.

Stock-based compensation expense recognized in 2016, 2015 and 2014 was approximately \$6.7 million, \$6.7 million and \$8.6 million, respectively. As of December 31, 2016, total compensation cost related to non-vested stock options, restricted stock units, performance stock units and restricted stock not yet recognized was approximately \$16.4 million, which is expected to be recognized over an average remaining recognition period of 2.9 years. See Note 3 of Notes to Consolidated Financial Statements for additional information.

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 2016, 2015 or 2014.

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. 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 2016, 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. 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 9 months 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 \$124.8 million, \$129.9 million and \$132.3 million for the years ended December 31, 2016, 2015 and 2014, 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, 2014, 2015 and 2016:

<i>(In thousands)</i>	Unrealized Gains (Losses) on Available-for-Sale Securities	Defined Benefit Plan Adjustments	Foreign Currency Adjustments	Total
Balance at December 31, 2013	\$10,737	\$(891)	\$907	\$10,753
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)
Balance at December 31, 2014	8,964	(5,757)	(3,282)	(75)
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)
Balance at December 31, 2015	1,932	(3,895)	(7,006)	(8,969)
Other comprehensive income (loss) before reclassifications	1,515	(1,229)	(569)	(283)
Amounts reclassified from accumulated other comprehensive income	(3,043)	107	—	(2,936)
Balance at December 31, 2016	\$404	\$(5,017)	\$(7,575)	\$(12,188)

The following tables present the details of reclassifications out of accumulated other comprehensive income for the years ended December 31, 2016, 2015 and 2014:

<i>(In thousands)</i>	2016	
Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income	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	\$5,408	Net realized investment gain
Impairment expense	(419)	Net realized investment gain
Defined benefit plan adjustments – actuarial losses	(156)	(1)
Total reclassifications for the period, before tax	4,833	
Tax (expense) benefit	(1,897)	
Total reclassifications for the period, net of tax	\$2,936	

(1) Included in the computation of net periodic pension cost. See Note 11 of Notes to Consolidated Financial Statements.

<i>(In thousands)</i>	2015	
Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income	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)	
Total reclassifications for the period, net of tax	\$5,915	

(1) Included in the computation of net periodic pension cost. See Note 11 of Notes to Consolidated Financial Statements.

<i>(In thousands)</i>	2014	
Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income	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)	
Total reclassifications for the period, net of tax	\$4,136	

The following tables present the tax effects related to the change in each component of other comprehensive income for the years ended December 31, 2016, 2015 and 2014:

<i>(In thousands)</i>	2016		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gains (losses) on available-for-sale securities	\$2,484	\$(969)	\$1,515
Reclassification adjustment for amounts related to available-for-sale investments	(4,989)	1,946	(3,043)
Defined benefit plan adjustments	(1,782)	553	(1,229)
Reclassification adjustment for amounts related to defined benefit plan adjustments included in net income	156	(49)	107
Foreign currency translation adjustment	(569)	—	(569)
Total Other Comprehensive Income (Loss)	\$(4,700)	\$1,481	\$(3,219)

<i>(In thousands)</i>	2015		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gains (losses) on available-for-sale securities	\$(1,384)	\$540	\$(844)
Reclassification adjustment for amounts related to available-for-sale investments	(10,145)	3,957	(6,188)
Defined benefit plan adjustments	2,303	(714)	1,589
Reclassification adjustment for amounts related to defined benefit plan adjustments included in net income	396	(123)	273
Foreign currency translation adjustment	(3,724)	—	(3,724)
Total Other Comprehensive Income (Loss)	\$(12,554)	\$3,660	\$(8,894)

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

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 German subsidiary, whose functional currency is the Euro, our Australian subsidiary, whose functional currency is the Australian dollar, and our Mexican subsidiary, whose functional currency is the U.S. 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 recorded as a reduction of revenue and accrued based on historical sales return experience, which we believe provides a reasonable estimate of future returns.

A portion of our 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.

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. 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 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 \$10.7 million and \$5.2 million at December 31, 2016 and 2015, 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 14 of Notes to Consolidated Financial Statements for additional information.

Dividends

During 2016, 2015 and 2014, we paid shareholder dividends totaling \$17.6 million, \$18.4 million and \$19.9 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 2016, 2015 and 2014.

Dividends per Common Share

2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$0.09	\$0.09	\$0.09
2015	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$0.09	\$0.09	\$0.09
2014	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	\$0.09	\$0.09	\$0.09	\$0.09

On January 17, 2017, 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 2, 2017. The ex-dividend date was January 31, 2017 and the payment date was February 16, 2017. 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 (Topic 606)* (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, and interim periods within those fiscal years, with early adoption permitted for reporting periods beginning after December 15, 2016. Subsequently, the FASB issued ASUs in 2016 containing implementation guidance related to ASU 2014-09, including: ASU 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*, which is intended to improve the operability and understandability of the implementation guidance on principal versus agent considerations; ASU 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*, which is intended to clarify two aspects of Topic 606: identifying performance obligations and the licensing implementation guidance; ASU 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*, which contains certain provisions and practical expedients in response to identified implementation issues; and ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*, which is intended to clarify the Codification or to correct unintended application of guidance. ASU 2014-09 allows for either full retrospective or modified retrospective adoption. We plan to adopt ASU 2014-09 and the related ASUs on January 1, 2018, and we are currently evaluating the transition method that will be elected. We are continuing to evaluate the potential impact of these ASUs, and we believe the most significant potential impact relates to our accounting for software license and installation services revenues. We do not believe there will be a significant impact to product or maintenance revenues.

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 that reporting period. The amendments should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. We adopted ASU 2015-05 in the first quarter of 2017, and there was no material impact on our financial position, results of operations and cash flows.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, *Leases (Topic 842)* (ASU 2016-02). ASU 2016-02 requires an entity to recognize lease assets and lease liabilities on the balance sheet and to disclose key information about the entity's leasing arrangements. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. A modified retrospective approach is required. We anticipate the adoption of ASU 2016-02 will have a material impact on our financial position; however, we do not believe adoption will have a material impact on our results of operations. We believe the most significant impact relates to our accounting for operating leases for office space and equipment.

In March 2016, the FASB issued Accounting Standards Update No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09). ASU 2016-09 simplifies several aspects of accounting for share-based compensation arrangements, including income tax effects, the classification of tax-related cash flows on the statement of cash flows, and accounting for forfeitures. ASU 2016-09 is effective for fiscal years beginning after December 15, 2016, including interim periods within those years. We adopted ASU 2016-09 in the first quarter of 2017, and there was no material impact on our financial position, results of operations and cash flows.

In January 2017, the FASB issued Accounting Standards Update No. 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* (ASU 2017-04). ASU 2017-04 simplifies the measurement of goodwill by eliminating step 2 of the goodwill impairment test. Under ASU 2017-04, entities will be required to compare the fair value of a reporting unit to its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. ASU 2017-04 is effective for annual or interim impairment tests performed in fiscal years beginning after December 15, 2019, with early adoption permitted for annual or interim impairment tests performed on testing dates after January 1, 2017. The amendments should be applied prospectively. We do not expect the adoption of ASU 2017-04 will have a material impact on our financial position, results of operations or cash flows.

During 2016, we adopted the following accounting standards, which had no material effect on our financial position, results of operations or 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 that reporting period. The amendments may be applied either prospectively to all arrangements entered into or materially modified after the effective date or retrospectively. We adopted ASU 2015-05 during the first quarter of 2016 and will apply the new standard prospectively. The adoption of ASU 2015-05 did not 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 elected to early adopt ASU 2015-17 during the fourth quarter of 2016, and we applied the guidance retrospectively to all periods presented. As a result, \$17.3 million and \$18.9 million were reclassified from current deferred tax assets to non-current deferred tax assets at December 31, 2016 and 2015, respectively.

2 Business Combinations

On September 13, 2016, we acquired key fiber access products, technologies and service relationships from subsidiaries of ComScope, Inc. for \$0.9 million in cash. This acquisition will enhance our solutions for the cable MSO industry and will provide cable operators with the scalable solutions, services and support they require to compete in the multi-gigabit service delivery market. This transaction was accounted for as a business combination. We have included the financial results of this acquisition in our consolidated financial statements since the date of acquisition. These revenues are included in the Network Solutions reportable segment, and in the Access & Aggregation and Customer Devices categories.

We recorded a bargain purchase gain of \$3.5 million, net of income taxes, subject to customary working capital adjustments between the parties. The bargain purchase gain represents the excess fair value of the net assets acquired over the consideration exchanged. We have assessed the recognition and measurement of the assets acquired and liabilities assumed based on historical and pro forma data for future periods and have concluded that our valuation procedures and resulting measures were appropriate. The gain is included in the line item "Gain on bargain purchase of a business" in the 2016 Consolidated Statements of Income.

The allocation of the purchase price to the estimated fair value of the assets acquired and liabilities assumed at the acquisition date, subject to working capital adjustments, is as follows:

(In thousands)

Assets	
Inventory	\$3,131
Property, plant and equipment	352
Intangible assets	4,700
Total assets acquired	8,183
Liabilities	
Accounts payable	(1,250)
Warranty payable	(61)
Accrued wages and benefits	(122)
Deferred income taxes	(2,265)
Total liabilities assumed	(3,698)
Total net assets	4,485
Gain on bargain purchase of a business, net of tax	(3,542)
Total purchase price	\$943

The details of the acquired intangible assets are as follows:

(In thousands)

	Value	Life (years)
Supply agreement	\$1,400	0.8
Customer relationships	1,200	6.0
Developed technology	800	10.0
License	500	1.3
Patent	500	7.3
Non-compete	200	2.3
Trade name	100	2.0
Total	\$4,700	

The actual revenue and net loss included in our Consolidated Statements of Income for the period September 13, 2016 to December 31, 2016 are as follows:

<i>(In thousands)</i>	September 13 to December 31, 2016
Revenue	\$2,768
Net loss	\$(805)

The following supplemental unaudited pro forma information presents the financial results as if the acquisition had occurred on January 1, 2015. This supplemental unaudited pro forma information does not purport to be indicative of what would have occurred had the acquisition been completed on January 1, 2015, nor is it indicative of any future results. Aside from revising the 2015 net income for the effect of the bargain purchase gain, there were no material, non-recurring adjustments to this unaudited pro forma information.

<i>(In thousands)</i>	2016	2015
Pro forma revenue	\$641,170	\$603,923
Pro forma net income	\$31,212	\$22,945

For the year ended December 31, 2016, we incurred acquisition and integration related expenses and amortization of acquired intangibles of \$1.0 million related to this acquisition.

3 Stock-Based Compensation

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 (RSUs). 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, 2016 under the 2006 Plan range from 2017 to 2024.

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. Under the 2010 Directors Plan, the Company may issue stock options, restricted stock and RSUs 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 at December 31, 2016 under the 2010 Directors Plan range from 2017 to 2019.

On January 20, 2015, the Board of Directors adopted the ADTRAN, Inc. 2015 Employee Stock Incentive Plan (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, performance stock units (PSUs), restricted stock and RSUs. The 2015 Plan was adopted by stockholder approval at our annual meeting of stockholders held on May 13, 2015. PSUs, restricted stock and RSUs 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 range from 2025 to 2026.

The following table summarizes stock-based compensation expense related to stock options, PSUs, restricted stock and RSUs for the years ended December 31, 2016, 2015 and 2014, which was recognized as follows:

<i>(In thousands)</i>	2016	2015	2014
Stock-based compensation expense included in cost of sales	\$389	\$280	\$479
Selling, general and administrative expense	3,341	3,261	4,185
Research and development expense	2,965	3,171	3,899
Stock-based compensation expense included in operating expenses	6,306	6,432	8,084
Total stock-based compensation expense	6,695	6,712	8,563
Tax benefit for expense associated with non-qualified options	(963)	(862)	(1,157)
Total stock-based compensation expense, net of tax	\$5,732	\$5,850	\$7,406

Stock-based compensation expense recognized in our Consolidated Statements of Income for the years ended December 31, 2016, 2015 and 2014 is based on stock options, PSUs, restricted stock and RSUs 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 options and RSUs to be approximately 3.7% annually. We estimated a 0% forfeiture rate for our PSUs and restricted stock due to the limited number of recipients and historical experience for these awards.

Stock Options

The following table is a summary of our stock options outstanding as of December 31, 2015 and 2016 and the changes that occurred during 2016:

<i>(In thousands, except per share amounts)</i>	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
Options outstanding, December 31, 2015	7,108	\$21.97	6.42	\$3,284
Options granted	19	\$18.24		
Options exercised	(283)	\$16.66		
Options forfeited	(93)	\$17.90		
Options expired	(413)	\$23.96		
Options outstanding, December 31, 2016	6,338	\$22.14	5.63	\$16,972
Options vested and expected to vest, December 31, 2016	6,276	\$22.20	5.60	\$16,606
Options exercisable, December 31, 2016	4,757	\$23.67	4.73	\$9,137

At December 31, 2016, total compensation cost related to non-vested stock options not yet recognized was approximately \$7.5 million, which is expected to be recognized over an average remaining recognition period of 2.1 years.

All of the options above were issued at exercise prices that approximated fair market value at the date of grant. At December 31, 2016, 5.6 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 2016 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, 2016. 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 2016, 2015 and 2014 was \$1.1 million, \$0.1 million and \$0.7 million, respectively. The fair value of options fully vesting during 2016, 2015 and 2014 was \$5.7 million, \$6.6 million and \$7.7 million, respectively.

The following table further describes our stock options outstanding as of December 31, 2016:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Options Outstanding at 12/31/16 (in thousands)	Weighted Avg. Remaining Contractual Life in Years	Weighted Average Exercise Price	Options Exercisable at 12/31/16 (in thousands)	Weighted Average Exercise Price
\$14.88 – 18.96	2,101	6.78	\$15.82	1,217	\$16.14
\$18.97 – 23.45	1,380	5.79	\$20.17	881	\$20.84
\$23.46 – 30.35	1,491	5.08	\$23.89	1,293	\$23.92
\$30.36 – 41.92	1,366	4.29	\$31.94	1,366	\$31.94
	6,338			4,757	

PSUs, restricted stock and RSUs

Under the 2015 Plan, awards other than stock options, including PSUs, restricted stock and RSUs, may be granted to certain employees and officers. Under our PSU program, the number of shares of common stock earned by a recipient pursuant to the PSUs 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 PSUs, with the shares earned distributed upon the vesting of the PSUs 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 PSUs 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 PSUs receive dividend credits based on the shares of common stock underlying the PSUs. The dividend credits are vested and earned in the same manner as the PSUs and are paid in cash upon the issuance of common stock for the PSUs. The fair value of restricted stock and RSUs is equal to the closing price of our stock on the business day immediately preceding the grant date. Restricted stock and RSUs vest ratably over one year and four year periods, respectively.

The following table is a summary of our PSUs, restricted stock and RSUs outstanding as of December 31, 2015 and 2016 and the changes that occurred during 2016:

(In thousands except per share amounts)	Number of Shares	Weighted Average Grant Date Fair Value
Unvested PSUs, restricted stock and RSUs outstanding, December 31, 2015	106	\$21.09
PSUs, restricted stock and RSUs granted	460	\$20.63
PSUs, restricted stock and RSUs vested	(46)	\$22.50
PSUs, restricted stock and RSUs forfeited	(1)	\$20.00
Unvested RSUs and restricted stock outstanding, December 31, 2016	519	\$20.51

At December 31, 2016, total compensation cost related to the non-vested portion of PSUs, restricted stock and RSUs not yet recognized was approximately \$8.9 million, which is expected to be recognized over an average remaining recognition period of 3.6 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 PSUs. The fair value of RSUs and 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 2016 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, 2016, 2015 and 2014 was \$5.22 per share, \$4.28 per share and \$6.31 per share, respectively, with the following weighted-average assumptions:

	2016	2015	2014
Expected volatility	34.79%	34.57%	39.05%
Risk-free interest rate	1.36%	1.81%	1.79%
Expected dividend yield	1.98%	2.35%	1.90%
Expected life (in years)	6.25	6.23	6.33

We based our estimate of expected volatility for the years ended December 31, 2016, 2015 and 2014 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 forfeiture activity of our previous stock-based grants with a ten-year contractual term.

The PSU pricing model also requires the use of several significant assumptions that impact the fair value estimate. The estimated fair value of the PSUs granted to employees during the years ended December 31, 2016, 2015 and 2014 was \$23.50 per share, \$17.64 per share and \$22.11 per share, respectively, with the following assumptions:

	2016	2015	2014
Expected volatility	29.79%	31.34%	36.40%
Risk-free interest rate	1.17%	1.20%	0.96%
Expected dividend yield	1.80%	2.35%	1.89%

4 Investments

At December 31, 2016, we held the following securities and investments, recorded at either fair value or cost:

<i>(In thousands)</i>	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value/ Carrying Value
Deferred compensation plan assets	\$12,367	\$2,271	\$(42)	\$14,596
Corporate bonds	66,522	64	(174)	66,412
Municipal fixed-rate bonds	11,799	12	(37)	11,774
Asset-backed bonds	10,201	19	(14)	10,206
Mortgage/Agency-backed bonds	13,080	15	(91)	13,004
U.S. government bonds	30,022	15	(270)	29,767
Foreign government bonds	3,729	2	(1)	3,730
Variable rate demand notes	11,855	—	—	11,855
Marketable equity securities	30,571	311	(1,503)	29,379
Available-for-sale securities held at fair value	\$190,146	\$2,709	\$(2,132)	\$190,723
Restricted investment held at cost				27,800
Other investments				767
Total carrying value of available-for-sale investments				\$219,290

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 Gains	Gross Unrealized Losses	Fair Value/ Carrying Value
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
Available-for-sale securities held at fair value	\$198,100	\$5,927	\$(2,894)	\$201,133
Restricted investment held at cost				30,000
Other investments held at cost				1,289
Total carrying value of available-for-sale investments				\$232,422

As of December 31, 2016, corporate bonds, municipal fixed-rate bonds, asset-backed bonds, mortgage/agency-backed bonds, U.S. government bonds, and foreign government bonds had the following contractual maturities:

<i>(In thousands)</i>	Corporate bonds	Municipal fixed-rate bonds	Asset-backed bonds	Mortgage/ Agency-backed bonds	U.S. government bonds	Foreign government bonds
Less than one year	\$18,912	\$8,321	\$—	\$—	\$1,701	\$2,400
One to two years	32,497	1,703	635	976	4,903	1,330
Two to three years	11,486	351	2,415	980	13,072	—
Three to five years	3,517	1,399	5,402	—	10,091	—
Five to ten years	—	—	1,600	2,060	—	—
More than ten years	—	—	154	8,988	—	—
Total	\$66,412	\$11,774	\$10,206	\$13,004	\$29,767	\$3,730

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, 2016, 2015 and 2014, we recorded a charge of \$0.8 million, \$0.2 million and \$0.1 million, 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, 2016, 2015 and 2014:

(In thousands)

Year Ended December 31,	2016	2015	2014
Gross realized gains	\$7,530	\$10,906	\$7,586
Gross realized losses	\$(1,607)	\$(569)	\$(308)

The following table presents the breakdown of investments with unrealized losses at December 31, 2016:

<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	\$294	\$(12)	\$245	\$(30)	\$539	\$(42)
Corporate bonds	32,562	(166)	2,722	(8)	35,284	(174)
Municipal fixed-rate bonds	8,936	(37)	—	—	8,936	(37)
Asset-backed bonds	2,986	(14)	—	—	2,986	(14)
Mortgage/Agency-backed bonds	7,842	(81)	1,239	(10)	9,081	(91)
U.S. government bonds	26,449	(270)	—	—	26,449	(270)
Foreign government bonds	924	(1)	—	—	924	(1)
Marketable equity securities	21,607	(1,200)	1,495	(303)	23,102	(1,503)
Total	\$101,600	\$(1,781)	\$5,701	\$(351)	\$107,301	\$(2,132)

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)
Total	\$128,189	\$(2,584)	\$3,508	\$(310)	\$131,697	\$(2,894)

The decrease in unrealized losses during 2016, as reflected in the table above, results from changes in market positions associated with our fixed income and equity investment portfolio. At December 31, 2016, a total of 293 of our marketable equity securities were in an unrealized loss position.

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 could include information supplied by investees.

Fair Value Measurements at December 31, 2016 Using

<i>(In thousands)</i>	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				
Money market funds	\$6,878	\$6,878	\$—	\$—
Commercial paper	17,222	—	17,222	—
Cash equivalents	24,100	6,878	17,222	—
Available-for-sale securities				
Deferred compensation plan assets	14,596	14,596	—	—
Available-for-sale debt securities				
Corporate bonds	66,412	—	66,412	—
Municipal fixed-rate bonds	11,774	—	11,774	—
Asset-backed bonds	10,206	—	10,206	—
Mortgage/Agency-backed bonds	13,004	—	13,004	—
U.S. government bonds	29,767	29,767	—	—
Foreign government bonds	3,730	—	3,730	—
Variable rate demand notes	11,855	—	11,855	—
Available-for-sale marketable equity securities				
Marketable equity securities— technology industry	3,374	3,374	—	—
Marketable equity securities—other	26,005	26,005	—	—
Available-for-sale securities	190,723	73,742	116,981	—
Total	\$214,823	\$80,620	\$134,203	\$—

Fair Value Measurements at December 31, 2015 Using

<i>(In thousands)</i>	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				
Money market funds	\$1,271	\$1,271	\$—	\$—
Commercial paper	11,696	—	11,696	—
Cash equivalents	12,967	1,271	11,696	—
Available-for-sale securities				
Deferred compensation plan assets	12,834	12,834	—	—
Available-for-sale debt securities				
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	—	—
Available-for-sale marketable equity securities				
Marketable equity securities— technology industry	5,384	5,384	—	—
Marketable equity securities—other	28,867	28,867	—	—
Available-for-sale securities	201,133	82,483	118,650	—
Total	\$214,100	\$83,754	\$130,346	\$—

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.

5 Derivative Instruments and Hedging Activities

We have certain customers and suppliers who are invoiced or pay in a non-functional currency. Changes in the monetary exchange rates may adversely affect our results of operations and financial condition, as these are remeasured to the functional currency through profit and loss. 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. Our derivative instruments are not subject to master netting arrangements and are not offset in the Consolidated Balance Sheets.

As of December 31, 2016, we had forward contracts outstanding with notional amounts totaling €5.5 million (\$5.8 million), which mature in the first quarter of in 2017.

The fair values of our derivative instruments recorded in the Consolidated Balance Sheet as of December 31, 2016 and 2015 were as follows:

<i>(In thousands)</i>	Balance Sheet Location	2016	2015
Derivatives Not Designated as Hedging Instruments (Level 2):			
Foreign exchange contracts – asset derivatives	Other receivables	\$159	—

The change in the fair values of our derivative instruments recorded in the Consolidated Statements of Income during the years ended December 31, 2016, 2015 and 2014 were as follows:

<i>(In thousands)</i>	Income Statement Location	2016	2015	2014
Derivatives Not Designated as Hedging Instruments:				
Foreign exchange contracts	Other income (expense)	\$724	\$511	\$1,852

6 Inventory

At December 31, 2016 and 2015, inventory was comprised of the following:

<i>(In thousands)</i>	2016	2015
Raw materials	\$40,461	\$34,223
Work in process	4,003	2,893
Finished goods	60,653	54,417
Total Inventory, net	\$105,117	\$91,533

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, 2016 and 2015, raw materials reserves totaled \$14.6 million and \$17.5 million, respectively, and finished goods inventory reserves totaled \$10.6 million and \$9.2 million, respectively.

7 Property, Plant and Equipment

At December 31, 2016 and 2015, property, plant and equipment were comprised of the following:

<i>(In thousands)</i>	2016	2015
Land	\$4,575	\$4,575
Building and land improvements	29,229	25,667
Building	68,301	68,301
Furniture and fixtures	18,477	17,347
Computer hardware and software	87,655	76,389
Engineering and other equipment	118,746	112,132
Total Property, Plant and Equipment	326,983	304,411
Less accumulated depreciation	(242,514)	(231,178)
Total Property, Plant and Equipment, net	\$84,469	\$73,233

Depreciation expense was \$12.0 million, \$12.3 million and \$12.5 million in 2016, 2015, and 2014, respectively.

8 Goodwill and Intangible Assets

Goodwill was \$3.5 million at December 31, 2016 and 2015, and was previously recorded in our Enterprise Networks reportable segment. As a result of our new reporting structure adopted in the first quarter of 2016, which is discussed further in Note 12, we reallocated goodwill from our Enterprise Networks reportable segment to our two, new reportable segments – Network Solutions and Services & Support. As a result, goodwill of \$3.1 million and \$0.4 million was reallocated to our Network Solutions and Services & Support reportable segments, respectively.

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 2016, 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. The following table presents our intangible assets as of December 31, 2016 and 2015:

<i>(In thousands)</i>	2016			2015		
	Gross Value	Accumulated Amortization	Net Value	Gross Value	Accumulated Amortization	Net Value
Customer relationships	\$6,899	\$(3,208)	\$3,691	\$5,828	\$(2,627)	\$3,201
Developed technology	6,444	(5,061)	1,383	5,720	(4,329)	1,391
Intellectual property	2,340	(2,129)	211	2,340	(1,854)	486
Supply agreement	1,400	(544)	856	—	—	—
License	500	(113)	387	—	—	—
Patent	500	(20)	480	—	—	—
Trade names	370	(285)	85	270	(265)	5
Non-compete	200	(26)	174	11	(11)	—
Total	\$18,653	\$(11,386)	\$7,267	\$14,169	\$(9,086)	\$5,083

Amortization expense was \$2.5 million, \$1.9 million and \$2.3 million for the years ended December 31, 2016, 2015 and 2014, respectively.

As of December 31, 2016, the estimated future amortization expense of intangible assets is as follows:

<i>(In thousands)</i>	Amount
2017	\$2,867
2018	1,168
2019	655
2020	621
2021	568
Thereafter	1,388
Total	\$7,267

9 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 \$27.8 million. The estimated fair value of the bond using a level 2 valuation technique at December 31, 2016 was approximately \$28.1 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, 2016 is \$27.8 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, 2016, 2015 and 2014.

We made principal payments of \$1.1 million for the years ended December 31, 2016 and 2015, respectively, and anticipate making a principal payment in 2017. At December 31, 2016, \$1.0 million of the bond debt was classified as a current liability in accounts payable in the Consolidated Balance Sheets.

10 Income Taxes

A summary of the components of the provision for income taxes for the years ended December 31, 2016, 2015 and 2014 is as follows:

<i>(In thousands)</i>	2016	2015	2014
Current			
Federal	\$12,733	\$7,504	\$7,626
State	1,141	279	599
International	477	(29)	12,587
Total Current	14,351	7,754	20,812
Deferred			
Federal	647	(585)	(1,083)
State	73	(66)	(123)
International	(3,405)	(41)	(4,320)
Total Deferred	(2,685)	(692)	(5,526)
Total Provision for Income Taxes	\$11,666	\$7,062	\$15,286

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

	2016	2015	2014
Tax provision computed at the federal statutory rate	35.00%	35.00%	35.00%
State income tax provision, net of federal benefit	3.93	4.86	2.69
Federal research credits	(8.15)	(12.55)	(4.05)
Foreign taxes	(0.34)	2.10	(7.26)
Tax-exempt income	(0.53)	(1.94)	(1.25)
State tax incentives	(2.77)	(5.04)	(2.21)
Stock-based compensation	2.53	6.91	3.06
Domestic production activity deduction	(2.23)	(3.17)	(1.15)
Bargain purchase	(2.64)	—	—
Other, net	0.08	1.30	0.69
Effective Tax Rate	24.88%	27.47%	25.52%

Income before provision for income taxes for the years ended December 31, 2016, 2015 and 2014 is as follows:

<i>(In thousands)</i>	2016	2015	2014
U.S. entities	\$54,077	\$27,400	\$23,812
International entities	(7,182)	(1,692)	36,094
Total	\$46,895	\$25,708	\$59,906

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>	2016	2015
Deferred tax assets		
Accounts receivable	\$—	\$ 7
Inventory	12,020	12,558
Accrued expenses	5,551	6,359
Investments	1,062	—
Deferred compensation	5,751	5,072
Stock-based compensation	4,724	4,704
Uncertain tax positions related to state taxes and related interest	762	1,026
Pensions	4,273	5,729
Foreign losses	6,486	5,389
State losses and credit carry-forwards	4,021	4,187
Federal loss and research carry-forwards	5,886	5,886
Valuation allowance	(6,149)	(7,250)
Total Deferred Tax Assets	44,387	43,667
Deferred tax liabilities		
Property, plant and equipment	(4,433)	(3,315)
Accrued expenses	—	(2,791)
Intellectual property	(1,918)	(476)
Investments	—	(70)
Total Deferred Tax Liabilities	(6,351)	(6,652)
Net Deferred Tax Assets	\$38,036	\$37,015

At December 31, 2016 and 2015, 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 \$1.5 million and \$3.7 million in 2016 and 2015, respectively, is recorded as an adjustment to other comprehensive income, presented in the Consolidated Statements of Comprehensive Income.

Based upon our results of operations in 2016 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. As of December 31, 2016, 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 \$16.4 million will expire between 2017 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. The net change in our valuation allowance from December 31, 2015 to December 31, 2016 was \$1.1 million.

As of December 31, 2016 and 2015, respectively, our cash and cash equivalents were \$79.9 million and \$84.6 million and short-term investments were \$43.2 million and \$34.4 million, which provided an available short-term liquidity of \$123.1 million and \$118.9 million. Of these amounts, our foreign subsidiaries held cash of \$42.1 million and \$38.9 million, respectively, representing approximately 34.2% and 32.7% of available short-term liquidity, which is used to fund on-going liquidity needs of these subsidiaries. We intend to permanently reinvest these funds outside the U.S. and our current business plans do not indicate a need to repatriate to fund domestic operations. However, if these funds were repatriated to the U.S. or used for U.S. operations, certain amounts related to the earnings and profits of foreign subsidiaries could be subject to U.S. tax for the incremental amount in excess of the foreign tax paid. Due to the timing and circumstances of repatriation of such earnings, if any, it is not practical to determine the amount of funds subject to repatriation or the associated unrecognized deferred tax liability related to the amount.

During 2016, 2015 and 2014, we recorded an income tax benefit (expense) of nil, \$(40) thousand and \$0.1 million, respectively, as an adjustment to equity. This 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, 2016, 2015 and 2014 is reconciled below:

<i>(In thousands)</i>	2016	2015	2014
Balance at beginning of period	\$2,537	\$3,334	\$3,240
Increases for tax position related to:			
Prior years	95	—	—
Current year	428	280	522
Decreases for tax positions related to:			
Prior years	—	(29)	—
Settlements with taxing authorities	—	(103)	—
Expiration of applicable statute of limitations	(834)	(945)	(428)
Balance at end of period	\$2,226	\$2,537	\$3,334

As of December 31, 2016, 2015, and 2014, our total liability for unrecognized tax benefits was \$2.2 million, \$2.5 million, and \$3.3 million, respectively, of which \$1.7 million, \$1.8 million, and \$2.6 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, 2016, 2015 and 2014, the balances of accrued interest and penalties were \$0.8 million, \$0.9 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 not 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.

11 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, 2016 and 2015, are as follows:

<i>(In thousands)</i>	2016	2015
Change in projected benefit obligation:		
Projected benefit obligation at beginning of period	\$(26,851)	\$(30,507)
Service cost	(1,211)	(1,314)
Interest cost	(720)	(615)
Actuarial gain (loss) - experience	431	247
Actuarial gain (loss) - assumptions	(2,628)	2,078
Benefit payments	52	81
Effects of foreign currency exchange rate changes	916	3,179
Projected benefit obligation at end of period	(30,011)	(26,851)
Change in plan assets:		
Fair value of plan assets at beginning of period	19,213	20,338
Actual return on plan assets	1,494	988
Effects of foreign currency exchange rate changes	(662)	(2,113)
Fair value of plan assets at end of period	20,045	19,213
Funded (unfunded) status at end of period	\$(9,966)	\$(7,638)

The accumulated benefit obligation was \$28.7 million and \$25.1 million at December 31, 2016 and 2015, respectively. The increase in the accumulated benefit obligation and the change in actuarial gain (loss) is primarily attributable to a decrease in the discount rate used in 2016 to determine the accumulated benefit obligation.

The net amounts recognized in the balance sheet for the unfunded pension liability as of December 31, 2016 and 2015 are as follows:

<i>(In thousands)</i>	2016	2015
Current liability	\$—	\$—
Non-current liability	(9,966)	(7,638)
Total	\$(9,966)	\$(7,638)

The components of net periodic pension cost and amounts recognized in other comprehensive income for the years ended December 31, 2016, 2015 and 2014 are as follows:

<i>(In thousands)</i>	2016	2015	2014
Net periodic benefit cost:			
Service cost	\$1,211	\$1,314	\$1,189
Interest cost	720	615	836
Expected return on plan assets	(1,057)	(1,011)	(1,086)
Amortization of actuarial losses	175	407	—
Net periodic benefit cost	1,049	1,325	939
Other changes in plan assets and benefit obligations recognized in other comprehensive income:			
Net actuarial (gain) loss	1,782	(2,303)	7,052
Amortization of actuarial losses	(156)	(396)	—
Amount recognized in other comprehensive income	1,626	(2,699)	7,052
Total recognized in net periodic benefit cost and other comprehensive income	\$2,675	\$(1,374)	\$7,991

The amounts recognized in accumulated other comprehensive income as of December 31, 2016 and 2015 are as follows:

<i>(In thousands)</i>	2016	2015
Net actuarial loss	\$6,871	\$5,245

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, 2016, 2015 and 2014 are as follows:

	2016	2015	2014
Discount rates	2.64%	2.20%	3.70%
Rate of compensation increase	2.00%	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, 2016 and 2015:

	2016	2015
Discount rates	1.90%	2.64%
Rate of compensation increase	2.00%	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 \$0.3 million will be amortized from accumulated other comprehensive income into net periodic pension cost in 2017 for the net actuarial loss.

We do not anticipate making a contribution to this pension plan in 2017. The following pension benefit payments, which reflect expected future service, as appropriate, are expected to be paid to participants:

<i>(In thousands)</i>	
2017	\$348
2018	515
2019	699
2020	964
2021	1,079
2022 – 2026	5,156
Total	\$8,761

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.

Fair Value Measurements at December 31, 2016 Using

<i>(In thousands)</i>	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	\$6	\$6	\$—	\$—
Available-for-sale securities				
Bond funds:				
Corporate bonds	12,546	12,546	—	—
Government bonds	2,037	2,037	—	—
Equity funds:				
Large cap blend	4,462	4,462	—	—
Large cap value	249	249	—	—
Balanced fund	745	745	—	—
Available-for-sale securities	20,039	20,039	—	—
Total	\$20,045	\$20,045	\$—	\$—

Fair Value Measurements at December 31, 2015 Using

<i>(In thousands)</i>	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	\$3	\$3	\$—	\$—
Available-for-sale securities				
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	—	—
Available-for-sale securities	19,210	19,210	—	—
Total	\$19,213	\$19,213	\$—	\$—

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, and 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 2016). 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 \$4.1 million, \$4.7 million and \$4.5 million in 2016, 2015 and 2014, 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 PSUs 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.

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 restricted 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 at December 31, 2016 and 2015 are as follows:

<i>(In thousands)</i>	2016	2015
Fair Value of Plan Assets		
Long-term Investments	\$14,596	\$12,834
Total Fair Value of Plan Assets	\$14,596	\$12,834
Amounts Payable to Plan Participants		
Non-current Liabilities	\$14,596	\$12,834
Total Amounts Payable to Plan Participants	\$14,596	\$12,834

Interest and dividend income of the Trust have been included in interest and dividend income in the accompanying 2016, 2015 and 2014 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 2016 and 2015 Consolidated Balance Sheets. Changes in the fair value of the deferred compensation liability are included as selling, general and administrative expense in the accompanying 2016, 2015 and 2014 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 2016, 2015 and 2014 of \$(1.3) million, \$0.3 million and \$(0.7) 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, 2016 and 2015, this liability totaled \$0.2 million.

12 Segment Information and Major Customers

In 2015, we realigned our organizational structure to better match our market opportunities, technological development initiatives, and improve efficiencies. During the first quarter of 2016, our chief operating decision maker requested changes in the information that he regularly reviews for purposes of allocating resources and assessing performance. As a result, beginning with the quarter ended March 31, 2016, we began reporting our financial performance based on two, new reportable segments—Network Solutions and Services & Support. Network Solutions includes hardware products and next-generation virtualized solutions used in service provider or business networks, as well as prior-generation products. Services & Support includes our suite of ProCloud managed services, network installation, engineering and maintenance services, and fee-based technical support and equipment repair/replacement plans.

We evaluate the performance of our new segments based on gross profit; therefore, selling, general and administrative expenses, research and development expenses, interest and dividend income, interest expense, net realized investment gain/loss, other income/expense and provision for taxes are reported on a company-wide, functional basis only. Historical financial information by reportable segment and category, as discussed below, has been recast to conform to our new reporting structure. There are no inter-segment revenues.

The following table presents information about the reported sales and gross profit of our reportable segments for each of the years ended December 31, 2016, 2015 and 2014. Asset information by reportable segment is not reported, since we do not produce such information internally.

<i>(In thousands)</i>	2016		2015		2014	
Sales and Gross Profit by Market Segment	Sales	Gross Profit	Sales	Gross Profit	Sales	Gross Profit
Network Solutions	\$525,502	\$254,807	\$527,422	\$233,579	\$559,532	\$271,517
Services & Support	111,279	36,537	72,642	33,318	70,475	39,810
Total	\$636,781	\$291,344	\$600,064	\$266,897	\$630,007	\$311,327

Sales by Category

In addition to our new reporting segments, we will also report revenue for the following three categories—Access & Aggregation, Customer Devices, and Traditional & Other Products.

The table below presents sales information by product category for the years ended December 31, 2016, 2015 and 2014:

<i>(In thousands)</i>	2016	2015	2014
Access & Aggregation	\$436,372	\$405,698	\$401,769
Customer Devices	137,608	125,565	138,051
Traditional & Other Products	62,801	68,801	90,187
Total	\$636,781	\$600,064	\$630,007

The following table presents sales information by geographic area for the years ended December 31, 2016, 2015 and 2014. International sales correlate to shipments with a non-U.S. destination.

<i>(In thousands)</i>	2016	2015	2014
United States	\$501,337	\$419,366	\$381,382
Germany	85,780	111,666	150,987
Other international	49,664	69,032	97,638
Total	\$636,781	\$600,064	\$630,007

Customers comprising more than 10% of revenue can change from year to year. Single customers comprising more than 10% of our revenue in 2016 included three customers at 24%, 19% and 12%. 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%. No other customer accounted for 10% or more of our sales in 2016, 2015 or 2014. 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 13%, 14%, and 22% of total revenue in 2016, 2015 and 2014, 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.

Additional Segment Information

As of December 31, 2016, long-lived assets, net totaled \$84.5 million, which includes \$79.9 million held in the United States and \$4.6 million held outside the United States. 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.

13 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 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, 2016, of which \$7.7 million has been applied to these commitments.

We lease office space and equipment under operating leases which expire at various dates through 2025. As of December 31, 2016, future minimum rental payments under non-cancelable operating leases with original maturities of greater than 12 months are as follows:

<i>(In thousands)</i>	
2017	\$3,788
2018	2,043
2019	847
2020	741
Thereafter	3,243
Total	\$10,662

Rental expense was \$4.2 million, \$4.9 million and \$4.7 million for the years ended December 31, 2016, 2015 and 2014, respectively.

14 Earnings per Share

A summary of the calculation of basic and diluted earnings per share (EPS) for the years ended December 31, 2016, 2015 and 2014 is as follows:

<i>(In thousands, except for per share amounts)</i>	2016	2015	2014
Numerator			
Net Income	\$35,229	\$18,646	\$44,620
Denominator			
Weighted average number of shares—basic	48,724	51,145	55,120
Effect of dilutive securities:			
Stock options	170	81	304
Restricted stock and restricted stock units	55	41	58
Weighted average number of shares—diluted	48,949	51,267	55,482
Net income per share—basic	\$0.72	\$0.36	\$0.81
Net income per share—diluted	\$0.72	\$0.36	\$0.80

For each of the years ended December 31, 2016, 2015 and 2014, 4.6 million, 6.1 million and 4.4 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.

15 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)

Three Months Ended	March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016
Net sales	\$142,204	\$162,701	\$168,890	\$162,986
Gross profit	\$65,794	\$78,955	\$75,808	\$70,787
Operating income	\$5,521	\$14,812	\$10,130	\$4,272
Net income	\$5,014	\$10,228	\$12,415	\$7,572
Earnings per common share	\$0.10	\$0.21	\$0.26	\$0.16
Earnings per common share assuming dilution (1)	\$0.10	\$0.21	\$0.26	\$0.16
Three Months Ended	March 31, 2015	June 30, 2015	September 30, 2015	December 31, 2015
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 (1)	\$0.06	\$0.05	\$0.14	\$0.12

(1) Assumes exercise of dilutive stock options calculated under the treasury stock method.

16 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 year ended 2014, we incurred fees of \$0.1 million for these legal services.

17 Subsequent Events

On January 17, 2017, 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 2, 2017. The quarterly dividend payment was \$4.4 million and was paid on February 16, 2017. 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.

During the first quarter and as of February 24, 2017, we have repurchased 0.2 million shares of our common stock through open market purchases at an average cost of \$21.46 per share. We currently have the authority to purchase an additional 4.2 million shares of our common stock under the current plan approved by the Board of Directors.

Directors and Executive Officers

Thomas R. Stanton

Chairman and Chief Executive Officer

H. Fenwick Huss

Director of the Company
Willem Kooyker Dean of the Zicklin School
of Business at Baruch College

William L. Marks

Director of the Company
Former Chairman of the Board and Chief Executive
Officer of Whitney Holding Corp. (the holding company
for Whitney National Bank of New Orleans)

Anthony J. Melone

Director of the Company
Former Executive Vice President and Chief Technology
Officer for Verizon Communications

Balan Nair

Director of the Company
Executive Vice President and Chief Technology Officer
of Liberty Global, Inc.

Roy J. Nichols

Director Emeritus
Founder and former President of
Nichols Research Corporation

Jacqueline H. Rice

Executive Vice President and Chief Risk and
Compliance Officer for Target Corporation

Kathryn A. Walker

Director of the Company
Managing Director for OpenAir Equity Partners

Michael K. Foliano

Senior Vice President
Global Operations

Kevin P. Heering

Senior Vice President
Quality and Administration

Roger D. Shannon

Senior Vice President of Finance,
Chief Financial Officer,
Corporate Secretary and Treasurer

Raymond R. Schansman

Senior Vice President
Global Services & Support

Eduard Scheiterer

Senior Vice President
Engineering and Development

James D. Wilson, Jr.

Senior Vice President
Technology and Strategy

Transfer Agent

American Stock Transfer and Trust Company
New York, NY

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP
Birmingham, Alabama

Special Counsel

Dentons US LLP
Atlanta, Georgia

Form 10-K

ADTRAN's 2016 Annual Report on Form 10-K
(without exhibits) as filed with the Securities and
Exchange Commission is available to stockholders
without charge upon written request to:

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ADTRAN, Inc.
901 Explorer Blvd.
P.O. Box 140000
Huntsville, Alabama 35814-4000
256 963-8220 or 256 963-7600
investorrelations@adtran.com (email)

Annual Meeting

The 2017 Annual Meeting of Stockholders will be held
at ADTRAN corporate headquarters, 901 Explorer
Boulevard, Huntsville, Alabama, on Wednesday,
May 10, 2017, at 10:30 a.m. Central time.



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Montreal and Mississauga, Canada

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Mexico City, Mexico

ADTRAN Networks & Services S. de R.L. de C.V.
Mexico City, Mexico

ADTRAN Peru S.R.L.
Lima, Peru

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Berlin, Bruchsal, Greifswald, Leipzig,
and Munich, Germany

ADTRAN Oy
Helsinki, Finland

ADTRAN M.E.P.E.
Athens, Greece

ADTRAN Networks India Private Limited
Hyderabad, India

ADTRAN Holdings Ltd.
Tel Aviv, Israel

ADTRAN S.R.L.
Milan, Italy

ADTRAN Sp. z.o.o.
Warsaw, Poland

ADTRAN s.r.o.
Bratislava, Slovakia

ADTRAN Switzerland GmbH
Zurich, Switzerland

Saudi Arabian Branch of ADTRAN International, Inc.
Riyadh, Saudi Arabia

ADTRAN GmbH Permanent Establishment
Tunis, Tunisia