ADTRAN INC
Form 10-K
February 28, 2007
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D. C. 20549

FORM 10-K

FOR ANNUAL AND TRANSITION REPORTS

PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Fiscal Year Ended December 31, 2006

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

Commission file number 0-24612

ADTRAN, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**63-0918200**
(State of Incorporation)	***(I.R.S. Employer Identification Number)***

901 Explorer Boulevard

Huntsville, Alabama 35806-2807 **(256) 963-8000**
(Address of principal executive offices, including zip code) **(Registrant s telephone number, including area code)**
Securities registered pursuant to Section 12(b) of the Act: Common Stock, $.01 par value

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

---

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one)

Large Accelerated Filer x Accelerated Filer ¨ Non-accelerated Filer ¨

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

The aggregate market value of the registrant s outstanding common stock held by non-affiliates of the registrant on June 30, 2006 was $1,463,441,447 based on a closing market price of $22.43 as quoted on the NASDAQ National Market. There were 69,322,068 shares of common stock outstanding as of February 23, 2007.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Annual Meeting of Stockholders to be held on May 8, 2007 are incorporated herein by reference in Part III.

Table of Contents

ADTRAN, Inc.

Annual Report on Form 10-K

For the Fiscal Year Ended December 31, 2006

Table of Contents

Table of Contents

PART I

ITEM 1. BUSINESS

Overview

ADTRAN develops and provides network access solutions for communications networks. Widely deployed by carriers, small and mid-sized businesses and enterprises, our solutions enable voice, data, video, and Internet communications across copper, fiber and wireless networks. Many of these solutions are currently in use by every major U.S. service provider and many global ones, as well as by many public, private and governmental organizations worldwide.

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

Products and Services

We maintain two operating divisions based on our product and service offerings: the Carrier Networks Division and the Enterprise Networks Division. These divisions serve two distinct markets and support sales in the United States and in other countries around the world, operating as two reportable segments. In 2006, sales of Carrier Networks products accounted for 75.4% of revenue, while sales of Enterprise Networks products accounted for 24.6%. Sales to countries outside of the United States are included in these aggregate divisional figures, but when accounted for separately, comprise 6.8% of total revenue. For more financial information about these divisions and geographic areas, see Note 9 to the Consolidated Financial Statements included in this report.

Our Carrier Networks division provides products used by service providers to deliver voice, data and video services from their equipment, whether it is located in a central office or remote terminal location, to a customer s premises. Our Enterprise Networks division provides products used by enterprise customers to construct voice, data and video networks within an enterprise customer s site or distributed sites. Our combined product portfolio for both divisions consists of approximately 1,600 high-speed network access and communication devices. In both service provider and enterprise networks, these products are used primarily, but not exclusively, in the last mile, or local loop, of a service provider s network, and in local area networks of a customer s premises. The last mile is that segment of the network that connects end-user subscribers to a service provider s closest facility by either copper or fiber. Local area networks are that segment connecting routers, switches, PCs, printers, phones, faxes, and other communications devices within a given building or campus. Our products typically connect two ends of a circuit, and serve to transmit, route, and/or switch the data, voice, and/or video traffic traveling across that circuit. The bandwidth requirements of the circuit, along with the type of technology being used, determine the type of equipment needed.

In February, 2006, we extended the capabilities of our Carrier Networks Division through the acquisition of Resilient Packet Ring (RPR) and Metro Ethernet technologies from Luminous Networks for $0.4 million. This was a strategic investment to support our Carrier Ethernet solutions. Gigabit speeds are also increasingly becoming commonplace throughout the access network, making bandwidth intensive services, such as Internet Protocol Television (IPTV), available across the entire subscriber base. This acquisition has allowed us to support the growing Ethernet services market by adding the acquired platforms to our Ethernet solutions portfolio.

Both of our divisions are positioned with product and service offerings that compete in many segments of the global telecommunications industry, and, specifically, in the areas of Ethernet and Internet Protocol (IP) based networks.

For a discussion of risks associated with our products see Risk Factors We must continue to update and improve our products and develop new products in order to compete and to keep pace with improvements in the telecommunications technology, in Item 1A of this report.

Network Connectivity for Next Generation Services

We develop, market, and support high-speed network access solutions for use across IP, Asynchronous Transfer Mode (ATM), and Time Division Multiplex (TDM) architectures in both wireline and wireless network applications. Our solutions are used to deploy new broadband networks, and to upgrade slower, established networks utilizing copper, fiber, and wireless technologies both in the United States and abroad.

Today s networks have undergone a fundamental shift from voice-centric technologies to data-centric technologies. When voice was the dominant type of traffic in the network, networks were engineered to carry voice first, and then integrated data into that architecture as necessary. Today, data is the dominant traffic type, and networks are evolving to transport data, voice and video in an integrated architecture. As networks migrate toward integrated communications and entertainment services, service providers and businesses alike are transitioning their networks to packet-based technologies, such as Ethernet and IP.

Table of Contents

We have historically classified our products into three separate categories as follows:

Systems

High bit-rate Digital Subscriber Line (HDSL)/T1

Digital Business Transport (DBT)

The **Systems** category includes our three primary growth areas, consisting of the broadband access, optical access and internetworking product lines. Our broadband access area is comprised of IP and ATM based Digital Subscriber Line Access Multiplexers (DSLAMs) including our Total Access 5000 multi service access and aggregation platform. Broadband access products are used by service providers to deliver broadband services from their central office or remote terminal locations to a customer s premises.

Our optical access area is comprised of optical access multiplexer products including our family of Opti products. Optical access products are used to deliver higher bandwidth services, or to aggregate large numbers of low bandwidth services for transportation across fiber optic infrastructure. Internetworking products are used by enterprise customers to construct voice, data and video networks. Our internetworking area is comprised of IP access routers, Ethernet switches, Internet security/firewall appliances, IP Private Branch Exchange (PBX) products, and multi-service access gateways. The Systems category also includes M13/STS-1 multiplexers, narrowband access platforms, 303 concentrator products, wireless backhaul grooming products, inverse multiplexing over ATM (IMA) concentrators, integrated access devices (IADs), and related access equipment.

Our **HDSL/T1** category includes products that are predominately used to deliver business services, such as T1/E1, fractional T1/E1, and Symmetrical HDSL (SHDSL) across a carrier s facilities to a business customer s premises. Products in this category include carrier-based HDSL, HDSL2, and HDSL4 solutions for the central office, outside plant, and customer premises, global TDM-based SHDSL solutions, and license-free wireless radios, as well as enterprise-based T1/E1/T3 Data Service Units/Channel Service Units (DSU/CSUs) and multiplexers.

Our **DBT** category includes products used to deploy Integrated Services Digital Network (ISDN), Digital Data Service (DDS), and Frame Relay services. Products include our range-extension DDS and ISDN (Total Reach®) technologies, four-wire DDS and ISDN loop technologies, DDS DSU/CSUs, and ISDN terminal adapters.

Products within each of these categories are further segmented within our Carrier Networks and Enterprise Networks divisions.

In January 2007, we announced we would begin reporting new product categories in order to increase transparency in major product areas. The new product categories to be reported will be

Loop Access

Carrier Systems

Business Networking

See Note 9 of Notes to the Consolidated Financial Statements in this report for further information regarding the new product categories.

Carrier Networks

As carrier services evolve to next generation networks, our Carrier Networks Division delivers copper and fiber-based solutions that enable these services. Our customer base includes all of the major U.S. incumbent local exchange carriers (ILECs), many independent operating companies, competitive local exchange carriers (CLECs), and wireless service providers. We have focused on opportunities in North America, with

increasing emphasis on expanding into the Asia-Pacific region, Canada, Latin America, and Europe, the Middle East and Africa (EMEA).

Services enabled using our systems include traditional voice services, Voice over Internet Protocol (VoIP), Video over IP, high speed Internet access (HSIA), data services based upon frame relay, TDM, ATM, and Ethernet networks, connecting the network with user components such as switches, routers, IADs, PBX and key telephone systems.

Today s telecommunications networks are transitioning from traditional TDM and circuit-switched technology to IP-based packet networks that offer services such as Internet access, VoIP, and IPTV. We design solutions that allow service providers to leverage existing network assets, by providing a migration path to new broadband technologies and services.

Competition from cable and wireless providers has forced the traditional wireline providers to react with price incentives, service bundling, and network investments and modifications. To offer higher speed DSL services in support of delivering Internet access and IPTV, the wireline providers are shortening copper loop lengths in order to increase bandwidth and gain a competitive advantage.

Table of Contents

Our outside plant DSLAMs and Multi Service Access Platforms (MSAPs) are used to shorten copper loop lengths so that wireline providers can deliver higher-speed network services. With these platforms wireline providers can offer higher Internet access speeds as well as VoIP and IPTV. ADTRAN optical technologies also enable subscriber access solutions for Fiber-To-The-Node (FTTN) and Fiber-To-The-Curb (FTTC) architectures. Many ADTRAN platforms offer Gigabit Ethernet capability, increasing rates within the access network.

Advanced IP Services

For the wireline provider, broadband access via DSL provides the ability to increase bandwidth and improve the quality of service. Our DSLAMs are available in models that are temperature hardened for use in harsh, outside plant environments and provide support for legacy ATM networks as well as Ethernet for delivering advanced IP services. These products are used in high-density central office applications, along with lower density applications that include remote terminals and outside plant deployments. In 2006, we introduced the Total Access 5000, a multiservice access and aggregation platform that bridges the gap between existing and next-generation networks. This system supports emerging services such as IPTV and VoIP across both copper and fiber interfaces while simultaneously supporting legacy services including basic POTS and DS1.

Additionally, we provide an optical access platform designed to support network bandwidths up to OC-48 (2.5 Gbps), which provides a migration strategy toward an IP network. Optical access equipment is used by wireless and wireline service providers to expand network capacity in the last mile, to upgrade their networks to support next-generation services, and to improve backhaul efficiency. This enables service providers to more efficiently handle network traffic by consolidating multiple circuits into a single facility.

Voice and Data Services

High-bit-rate Digital Subscriber Line (HDSLx) is a common technique for delivering bandwidth at rates of 1.544 Mbps (known as the DS1 or T1 rate) for both infrastructure support and business customer services. The T1 interface is universally accepted throughout the United States, and HDSLx is the most common method of delivering the T1 interface in nearly every application. ADTRAN s HDSLx products are manufactured in varying configurations for use in every major DS1 deployment platform for voice and data services.

High-speed Business-Class Services

Symmetric High-bit-rate Digital Subscriber Loop (SHDSL) products were developed to provide symmetrical solutions for the transport of high-speed business-class services. The International Telecommunications Union (ITU) and the European Telecommunications Standards Institute (ETSI) have established standards for 2-wire and 4-wire SHDSL solutions.

We contributed significantly to ITU and ETSI SHDSL standards. Because of this involvement, we delivered the industry s first SHDSL customer device. Our SHDSL products, like many of our products, are standards-based, which ensures interoperability with other standards-based products.

Metro Ethernet Services

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

Ethernet over Copper Services

Recent improvements in SHDSL technology have enabled higher bandwidth services to be delivered over the same copper pair, up to 5.7 Mbps. This advancement is commonly referred to eSHDSL. Additionally business customers are increasing their demand for Ethernet services globally. We have introduced Ethernet over Copper products that enable our carrier customers to deploy high speed Ethernet services in places where fiber deployments are not currently available and new construction is not cost effective. These products bond together multiple pairs of available copper to provide higher speed and more resilient services.

High-Speed Mobile Services

With the ongoing growth of multimedia and mobile devices, consumer demand for higher speed mobile services is significantly increasing. As a result, wireless carriers are requiring tools to efficiently backhaul these services across their access networks. We have developed a set of products that enable both wired and wireless backhaul of this data.

We offer a set of license-free, fixed wireless microwave radios known as TRACER®. License-free fixed wireless installations are permanent or temporary point-to-point microwave radio links classified as unlicensed by the Federal Communications Commission (FCC). Our TRACER® Series radios support voice and data over broadband Ethernet; DS3; and dual, quad, and octal T1/E1 networks. Installed by a service provider or a business, fixed wireless links serve to overcome geographic barriers, establish emergency communications, or improve the efficiency of service providers backhaul operations.

Table of Contents

We also offer a set of products that backhaul wireless data over fiber and copper facilities. These products are designed to optimize network performance and perform bandwidth management functions. Our OPTI product family is a SONET/SDH based platform delivering DS1, DS3, OC-3, OC-12, OC-48, and Ethernet connectivity to cellular sites. The MX family of multiplexers delivers DS1s, DS3, and Ethernet services offering full DS0 control and visibility.

Multiplexers

ADTRAN multiplexers perform the function of merging 28 DS1 (1.544 Mbps) circuits onto a single DS3 (45 Mbps) circuit for transport to the central office. These devices are used to provide cable management and simplified network management for a service provider s network. Our systems also provide backhaul solutions to deliver voice and data applications over wireless networks. Our multiplexers optimize backhaul and provide access for remote management of equipment located in field-based locations that once required personnel dispatches. These devices provide a migration path from TDM systems to Ethernet/IP networks and also support techniques for bonding multiple physical circuits into a single virtual circuit.

Loop Deployment

We offer a line of plug-in transmissions, repeater, extensions, and termination devices for T1, E1, ISDN and DSS services in a variety of form factors to fit our customers needs. These products extend digital services over twisted copper pairs, and include diagnostic tools to aide carriers in resolving service delivery issues.

Network Management

As networks become more complex, the need for carrier class management systems becomes apparent to ensure operational efficiencies. We develop and support systems to centralize the configuration, provisioning, and management of our network access products. These systems are used to configure, monitor, and control ADTRAN equipment installed on local loop circuits. The systems ensure communication with the service provider s central management system to reduce technician dispatches and operating costs.

Enterprise Networks

Our Enterprise Networks Division specializes in internetworking solutions to help small-to-midsized businesses (SMB) implement high-speed voice, data, Internet, and video connectivity over wide and local area networks. Domestic and global businesses, academic organizations, and distributed enterprises with branch offices use these products to implement high-speed communications between geographically dispersed locations or employees. These products are typically installed in equipment rooms, switching closets, or on desktops of users, and help to connect headquarters, branch offices, telecommuters, and mobile users to corporate information resources.

Marketed under the brand name NetVanta®, these products include: integrated switch-routers; managed Layer 2 and Layer 3 Fast Ethernet, Gigabit, and Power over Ethernet (PoE) switches; IP access routers; multiservice access routers; Internet security appliances; and VoIP phone systems. The Enterprise Network products typically replace or connect to the user s equipment, such as telephones, PBXs, fax machines, computers, and videoconferencing gear. These products deliver high speed connectivity, ranging from 56/64 Kbps to one gigabit over wireline, fiber, and wireless facilities. Products range from simple, single-circuit termination units to more complex IAD s, Ethernet switches, switch-routers, access routers, multiplexers, Virtual Private Network (VPN) devices, and firewalls. Functionality ranges from low-cost, unmanaged devices to modular, remotely manageable devices. Emergency service restoration is offered for a number of platforms.

Our equipment permits customers to satisfy the connectivity needs of many applications (data, voice, videoconferencing, or combined data/voice). In wide area networks using multiple transmission technologies to support different geographic locations, the customer can usually obtain all the necessary equipment from us. In local area networks requiring switching, routing, and VPN, the customer can also usually obtain all the necessary equipment from us. Many of the products available from the Enterprise Networks Division have applications in service provider networks as well. These products are typically installed by the service provider at the customer premises as part of a bundled service package.

We consider the SMB networking market to be businesses with 1,000 or fewer employees and distributed enterprises as those businesses with multiple sites, each housing 1,000 or less employees. These businesses use our internetworking product set to implement a converged, cost-efficient, high-speed network for voice, data and Internet services. Our product set includes Ethernet switches, integrated switch-routers, fixed port and multiservice access routers, and VPN/Internet security appliances.

We view the development and implementation of a centralized operating system as critical to our success in internetworking markets. As such, the ADTRAN Operating System (AOS) is incorporated into our internetworking product lines, simplifying product development efforts and shortening time to market for new products and features. It also offers the LAN-to-WAN integration, ensuring common configuration practices, policies, protection schemes, and management interfaces enterprise-wide. NetVanta switches, routers, and integrated switch-routers are fully VoIP-ready devices.

Table of Contents

IP Access Routing

ADTRAN access routers move data between networked computers over public or private IP, Frame Relay, or leased-line infrastructures. These devices include features to route traffic between multiple destinations, secure the network against cyber attacks, secure the privacy of data as it is transported across the Internet, and restore communications in the event of equipment or network failure. ADTRAN access routers provide Internet access, and interconnect corporate locations over IP, Frame Relay, Point to Point Protocol, MultiProtocol Label Switching, or leased-line infrastructures, then route data to a destination LAN computer.

Our NetVanta router products include multiservice access routers, modular access routers, fixed-port routers, and integrated switch-routers. All of these products are VoIP-ready with end-to-end quality of service, provide secure network connections using a firewall, protect data as it is transported across the Internet using VPN, restore communications in the event of equipment or network failure and provide growth for future applications.

Multiservice Access Gateways for Hosted PBX and VoIP

ADTRAN multiservice access gateways are used to deliver carrier VoIP applications. These products offer a single, cost-effective platform for delivering hosted PBX, Internet, and other VoIP services to business customers. With this functionality, service provider customers can quickly enable their networks for VoIP deployment, lowering their communications costs. VoIP represents an important revenue opportunity for service providers seeking to add new, more attractive service offerings in order to retain and expand their subscriber base.

ADTRAN multiservice access gateways combine the voice functionality of our IADs with IP routing, security and quality of service features required for VoIP networks. These solutions allow carriers to expedite deployments of VoIP, Session Initiation Protocol trunking and hosted PBX applications to small, medium, and large enterprise customers.

The Total Access 900 and 900e Series allow ILECs and CLECS to implement IP network architecture for hosted VoIP service offerings. In 2006, we introduced several new multiservice access gateways for higher bandwidth customer applications. These products incorporate networking features into a system to deliver IP voice, high speed internet, and higher-capacity data networking -without the traditional expense and delays of a multi-box installation.

These solutions reduce telecommunications costs by collapsing multiple voice and data circuits into lower cost architecture. This convergence the integration of multiple technologies into a single service or platform also simplifies network administration and enables new features and services. These multiservice access gateways also incorporate the ADTRAN Operating System, providing

network management capabilities for hosted deployments.

Fiber Connectivity

Our optical transport products for the enterprise support (1) point-to-point fiber termination, where the customer seeks to connect intra-campus buildings over a fiber optic cable; and (2) copper-to-fiber conversion, where the customer seeks to connect existing copper-wired buildings to fiber optic cable.

Leased-Line Connectivity

Leased-line networks, which provide dedicated point-to-point circuits leased from the service provider, are widely deployed in businesses. Circuits are available for DDS at speeds of 56 Kbps, ISDN at 128 Kbps, T1 at 1.544 Mbps, E1 at 2.048 Mbps, and T3 at 45 Mbps. We supply routing and network management equipment in each of these technology categories for data, voice, and video applications.

Configuration and Network Management Tools

We develop and support network productivity tools and systems to centralize the configuration and management of our internetworking products. These tools aid in the management of networks powered by ADTRAN internetworking products.

Service and Support

In addition to our product portfolio, we offer technical support services to help ensure that we are responsive to our customers who have deployed networking and infrastructure solutions. We provide pre- and post-sales telephone technical support and a variety of training options. We offer installation and maintenance services designed to protect customers networks from unnecessary downtime. ADTRAN Custom Extended Services, which we refer to as ACES , guarantees priority access to technical support engineers and on-site product replacement in as few as four hours, depending on the service plan selected. Our service and support offerings are available to customers in both our Carrier Networks and Enterprise Networks Division.

Customers

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

Table of Contents

Customers of our **Carrier Networks Division** in the United States include all of the major ILEC s, large and small independent telephone companies, competitive service providers, Internet service providers (ISPs), long distance service providers (known as Interexchange Carriers or IXCs), and wireless service providers. Worldwide, this division also serves incumbent carriers and competitive service providers in selected regions.

ILECs and most other service providers require product approval prior to adopting a vendor s products for use in their networks. We are involved in a constant process of submitting new and succeeding generations of products for approval and ADTRAN products are widely deployed in service provider networks. However, we cannot be certain that we will obtain these approvals in the future, or that sales of these products will continue to occur. Further, any attempt by an ILEC or other service provider to seek out additional or alternative suppliers, or to undertake, as permitted under applicable regulations, the production of these products internally, could have a material adverse effect on our operating results.

Customers within our **Enterprise Networks Division** are classified as end users, and include a large number of private and public organizations in numerous vertical markets. The markets most often include: finance, retail, food service, government, education, healthcare, manufacturing, military, transportation, hospitality, and energy/utility. However, because the majority of the products from this division are sold through indirect sales channels, we reach those end user customers through a network of partners. The partners are comprised of several large technology distributors and numerous value-added resellers, as described in Distribution, Sales and Marketing below.

Our major customers include the following:

AT&T Inc. (formerly SBC Communications, Inc., now includes AT&T Inc. and BellSouth Corporation)
Embarq Corporation (formerly Sprint Corporation)
Ingram Micro, Inc.
Qwest Communications International
Tech Data Corporation
Verizon Communications, Inc.
Walker and Associates, Inc.
Windstream Communications (formerly Alltel Corporation wireline services business)

Single customers comprising more than 10% of our revenue in 2006 include AT&T Inc. (formerly SBC Communications, Inc.; now includes AT&T Inc. and BellSouth Corporation) at 24%, Embarq Corporation (formerly Sprint Corporation) at 13% and Verizon Communications, Inc. at 13%. No other customer accounted for 10% or more of our sales in 2006.

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

Distribution, Sales and Marketing

We sell our **Carrier Networks** products in the United States through a combination of a direct sales organization and a distribution network. The direct sales organization supports major accounts and has offices located throughout the United States. Sales to most competitive service providers and independent telephone companies are fulfilled through a combination of direct sales and major technology distribution companies.

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

The majority of **Enterprise Networks** products are sold in the United States through a non-exclusive distribution network that consists, at the top level, of several major technology distributors, such as Tech Data, Ingram Micro, Jenne Distributors, Windstream, and Embarq. These organizations then distribute to an extensive network of value-added resellers, system integrators, and carrier end users.

Value-added resellers and system integrators may be affiliated with us as channel partners, or they may purchase from a distributor in an unaffiliated fashion. Affiliated partners participate with us at various program levels based on sales volume and other factors to receive benefits such as product discounts, co-op advertising funds, technical support, and training. We maintain field offices nationwide to support distributors, value-added resellers and system integrators. The Enterprise Networks Division also maintains a direct sales organization to generate demand within selected end user accounts.

Table of Contents

Outside of the United States, both Carrier and Enterprise products are sold through distribution arrangements customized for each region. Each region is supported by an ADTRAN field office that offers sales and support functions, and in some cases, warehousing and manufacturing support.

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

Research and Development

Rapidly changing technologies, evolving industry standards, changing customer requirements, and continuing developments in telecommunications service offerings characterize the markets for our products. Our continuing ability to adapt to these changes, and to develop new and enhanced products, is a significant factor in maintaining or improving our competitive position and our prospects for growth.

During 2006, 2005, and 2004, product development expenditures totaled $70.7 million, $62.7 million, and $67.4 million, respectively. Because our product development activities are an important part of our strategy and because of rapidly changing technology and evolving industry standards, we expect to sustain, and possibly increase, product development activities each year. To date, all product development costs have been charged to expense when incurred.

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

We develop most of our products internally, although we sometimes license intellectual property rights for use in certain products. Internal development gives us more control over design and manufacturing issues related to our products and closer control over product cost. Our ability to continually reduce product costs is an important part of our overall business strategy. Our product development efforts are often centered on entering a market with improved technology, with products offered at a price point lower than established market prices. We then compete for market share. We continually re-engineer successive generations of the product to improve margin.

Product development activities center on products to support both existing and emerging technologies in the telecommunications industry in segments of our markets that we consider viable revenue opportunities. We are actively engaged in developing and refining technologies to support data, voice, and video transport over TDM, ATM, and IP network architectures. Our work involves Ethernet transport, DSL transport (VDSL2, ADSL2+, ADSL, SHDSL, and HDSLx), fiber optic transport, access routing, Ethernet switching, integrated access and network management and services.

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

Additionally, in 2006, we established a new research and development office in Mountain View, California, as a result of the acquisition of certain assets of Luminous Networks. This location is specifically focused on the continued development of products and services for the Carrier Ethernet market, such as Resilient Packet Ring and Metro Ethernet Forum technologies. Our fiber optics design engineers in our Phoenix, Arizona office continue to work on optical access technologies for the Total Access 3000 and Total Access 5000 platforms, Optical DSLAMs, TDM Mulitplexers, and Optical Line Cards.

Many telecommunications issues, processes, and technologies are governed by standards development organizations (SDOs). These SDOs consist of representatives from various manufacturers, service providers, and testing laboratories working to establish specifications and compliance guidelines for emerging telecommunications technologies. We are an active participant in several SDOs, and have assisted with the development of worldwide standards in many technologies, especially DSL. A significant contributor to both HDSL2 and SHDSL standards, we developed much of the technology incorporated into these standards.

We are also involved in other standards development efforts related to maximizing the bandwidth potential of the copper pair to enable new applications. We contributed to the development of the new second generation Very-high-data-rate Digital Subscriber Line (VDSL2) ITU-Telecommunications (ITU-T) standard. Upon completion of the various wireline telecommunications standards, the industry-wide interoperability and performance testing requirements become the responsibility of the DSL Forum. We have continued our contributions toward ADSL2+ and VDSL2 development through our work in the DSL Forum.

7

Table of Contents

Our efforts in industry standards also extend beyond the copper loop. We continue to be involved in the definition of Ethernet Networks by participating in the Institute of Electrical and Electronics Engineers (IEEE) group standardizing Operations and Maintenance. We are participating in the Alliance for Telecommunications Industry Solutions (ATIS) focus group on next-generation network standards and the new ATIS IPTV Interoperability Forum (IIF). We are also a member of FSAN (Full Service Access Network) and contributed to the refinement of the GPON (Gigabit Passive Optical Network) standard.

For a discussion of risks associated with our research and development activities, see Risk Factors We must continue to update and improve our products and develop new products in order to compete and to keep pace with improvements in the telecommunications technology and Risk Factors We do not engage in long-term research and development processes, and as a consequence may miss certain market opportunities enjoyed by larger companies with substantially greater research and development efforts , in Item 1A of this report.

Manufacturing and Operations

The principal steps in our manufacturing process are the purchase and management of materials, assembly, testing, final inspection, packing, and shipping. We purchase parts and components for the assembly of some products from a large number of suppliers through a worldwide sourcing program. In addition, we have continued to shift to a process of allowing contract manufacturers to purchase the majority of materials that they use in the assembly of our products. Certain key components used in our products are currently available from only one source, and other key components are available from only a limited number of sources. In the past, we have experienced delays in the receipt of certain key components, which has resulted in delays in related product deliveries. We attempt to manage these risks through developing alternative sources, through engineering efforts designed to obviate the necessity of certain components, and by maintaining close personal contact and building long-term relationships with our suppliers.

We rely on subcontractors in Asia for assembly and testing of certain printed circuit board assemblies, sub-assemblies, chassis, enclosures and equipment shelves, and to purchase some of the raw materials used in such assemblies. We typically manufacture our low-volume, high-mix, or complex product assemblies at our manufacturing site in Huntsville, Alabama. We continue to build and test all new product prototypes and initial production units for all products in Huntsville, and then later transfer the production of high-volume, low-mix assemblies to our subcontractors. Subcontract assembly operations can lengthen production cycle times, but we believe we can respond more rapidly to uncertainties in incoming order rates by selecting assembly subcontractors having significant reserve capacity and flexibility. We have consolidated our subcontractors into two who have proven to be flexible and able to meet our quality requirements.

The reliance on third-party subcontractors for the assembly of our products involves several risks, including the unavailability of, or interruptions in access to, certain process technologies and reduced control over product quality, delivery schedules, manufacturing yields, and costs. These risks may be exacerbated by economic or political uncertainties, terrorist actions, or by natural pandemics in foreign countries in which our subcontractors may be located. We currently have limited foreign exchange risks, as we conduct the majority of all transactions with foreign vendors or customers in United States dollars.

Most shipments of products to customers occur from our facilities in Huntsville, Alabama. Our facilities are certified pursuant to ISO 9001:2000, TL 9000 Release 3.0, ISO 14001, and certain other telephone company standards, including those relating to emission of electromagnetic energy and safety specifications.

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

Competition

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

The markets for our products are intensely competitive. Numerous competitors exist in each of our product segments. New manufacturers have also entered the markets in recent years, offering products that compete with ours. Under the intensely competitive conditions of the past few years, some of our competitors have consolidated or ceased operations. In addition, certain companies have, in recent years, increased consumer acceptance of alternative communications technologies, such as coaxial cable and cellular-based services, which compete with our products. Competition might further increase if new companies enter the market, or existing competitors expand their product lines.

8

Table of Contents

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

- The ability to help the customer solve networking problems within the confines of restrained capital budgets;
- The ability to offer globally competitive solutions against a different set of competitors than in the U.S.;
- The ability to deliver solutions that fit the distributed networking model being deployed by most service providers;
- The ability to deliver solutions for service provider networks as they increasingly focus on network transformation, convergence and integration of services;
- The ability to deliver solutions at attractive price points;
- The ability to deliver reliability and redundancy, especially for higher bandwidth products;
- The ability to adapt to new network technologies as they evolve;
- The ability to compete effectively against large firms with greater resources;
- The ability to deliver products when needed by the customer;
- The ability to deliver responsive customer service, technical support, and training; and
- The ability to assist customers requiring pre-assembled, turnkey systems.

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

- The ability to satisfy the customer s need for a cost-efficient alternative to established internetworking suppliers;
- The ability to satisfy the customer s need to utilize the most cost-effective combination of transmission technologies to connect geographically dispersed locations;
- The ability to increase network performance and lower the customer s cost for communications services and equipment;
- The ability to add capacity and migrate to new or different technologies without a major system upgrade;

The ability to continue to develop and support established platforms;

The ability to offer products to address new networking technologies in a timely manner;

The ability to deliver reliability and system backup, especially for higher bandwidth products;

The ability to adapt to new network technologies as they evolve;

The ability to deliver products when needed by the customer;

The ability to deliver responsive customer service, technical support, and training; and

The ability to assist customers requiring hands-on installation and maintenance.

Competitors in the carrier networks area include large, established firms such as Alcatel Lucent, Cisco Systems, Inc., Fujitsu Limited, Nortel Networks, Huawei, Ericcson, Tellabs and Siemens. There are a number of smaller, specialized firms with which we compete, such as ADC Telecommunications, Carrier Access Corporation, Zhone Technologies, and other privately held firms.

Competitors in the Enterprise Networks area include Cisco Systems, Inc, Juniper Networks, Avaya, Mitel, Nortel Networks, 3Com, Hewlett Packard, Enterasys Networks, Allied Telesyn, and other smaller companies. Some of these companies compete in a single product segment, while others compete across multiple product lines.

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

Backlog and Inventory

A substantial portion of our shipments in any fiscal period relate to orders received in that fiscal period and firm purchase orders released in that fiscal period by customers under agreements containing non-binding purchase commitments. Further, a significant percentage of orders require delivery within a few days. These factors result in very little order backlog or order flow visibility. We believe that because we fill a substantial portion of customer orders within the fiscal quarter of receipt, backlog is not a meaningful indicator of actual sales for any succeeding period.

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

Table of Contents

Employees

As of December 31, 2006, we had 1,559 full-time employees in the United States and 42 full-time employees in our international subsidiaries, located in Canada, Asia Pacific, Europe, and Australia. Of our total employees, 281 were in sales, marketing and service; 426 were in research and development; 775 were in manufacturing operations and quality assurance; and 119 were in administration. None of our employees are represented by a collective bargaining agreement, nor have we ever experienced any work stoppage. We believe that our relationship with our employees is good.

Intellectual Property

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

We have ownership of at least 193 patents related to our products and have approximately 88 additional patents pending. We will continue to seek additional patents from time to time related to our research and development activities. We do not derive any material amount of revenue from the licensing of our patents.

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

The telecommunications industry is characterized by the existence of an ever-increasing number of patent litigation and licensing activities. While there are currently no intellectual property lawsuits existing or pending by or against ADTRAN, it is possible that third parties may initiate litigation against us in the future, resulting in costly litigation and/or judgments. Any intellectual property infringement claims, or related litigation against or by us, could have a material adverse effect on our business and operating results.

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

Available Information

A copy of this Annual Report on Form 10-K, as well as our Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to these reports, are available free of charge on the Internet at our web site, www.adtran.com, as soon as reasonably practicable (generally, within one day) after we electronically file these reports with, or furnish these reports to, the Securities and Exchange Commission (SEC). The reference to our web site address does not constitute incorporation by reference of the information contained on the web site, which information should not be considered part of this document. You may also read and copy any materials we file with the SEC at the SEC s Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site (www.sec.gov) that contains our reports, proxy and information statements, and other information that we have filed electronically with the SEC.

ITEM 1A. RISK FACTORS

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

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

Table of Contents

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

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

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

- Fluctuations in demand for our products and services, especially with respect to telecommunications service providers;
- Changes in sales and implementation cycles for our products and reduced visibility into our customers spending plans and associated revenue;
- Our ability to maintain appropriate inventory levels and purchase commitments;
- Price and product competition in the communications and networking industries, which can change rapidly due to technological innovation;
- The overall movement toward industry consolidation among both our competitors and our customers;
- Variations in sales channels, product cost or mix of products sold;
- Manufacturing and customer lead times;
- Fluctuations in our gross margin, and the factors that contribute to this as described below;
- Our ability to achieve targeted cost reductions;
- The ability of our customers, channel partners, and suppliers to obtain financing or to fund capital expenditures;
- How well we execute on our strategy and operating plans; and
- Benefits anticipated from our investments in engineering, sales and marketing activities.

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

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

As a result of the many factors discussed in this report, our revenue for a particular quarter is difficult to predict and will fluctuate from quarter to quarter. Our net sales may grow at a slower rate than in previous quarters, or may decline. Our ability to meet financial expectations could also be affected if the variable sales patterns seen in prior quarters recur in future quarters. We have experienced periods of time during which manufacturing issues have delayed shipments, leading to variable shipping patterns. In addition, to the extent that manufacturing issues and any related component shortages result in delayed shipments in the future, and particularly in quarters in which we and our subcontractors are operating at higher levels of capacity, it is possible that revenue for a quarter could be adversely affected, and we may not be able to remediate the conditions within the same quarter.

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

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

We expect gross margin to vary over time, and our level of product gross margin may not be sustainable.

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

Changes in customer, geographic, or product mix, including the mix of configurations within each product group;

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

Our ability to reduce product cost;

Increases in material or labor cost;

Table of Contents

Excess inventory and inventory holding charges;

Obsolescence charges;

Changes in shipment volume;

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

Lower than expected benefits from value engineering;

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

Changes in distribution channels; and

Increased warranty cost.

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

The markets for our products are characterized by rapidly changing technology, evolving industry standards, and continuing improvements in the telecommunications service offerings of common service providers. If technologies or standards applicable to our products, or common service provider offerings based on our products, become obsolete or fail to gain widespread commercial acceptance, our existing products or products under development may become obsolete or unmarketable.

Moreover, the introduction of products embodying new technologies, the emergence of new industry standards, or changes in common service provider offerings could adversely affect our ability to sell our products. For instance, we offer a large number of products that apply primarily to the delivery of high-speed digital communications over the local loop over copper wire. We compete favorably with our competitors by developing a high-performance line of these products. We market products that apply to fiber optic transport in the local loop. We expect, however, that use of coaxial cable and mobile wireless access in place of local loop access will increase. Also, non-traditional providers, such as cable television companies, are increasing their presence in the local loop. To meet the requirements of these new delivery systems and to maintain our market position, we may have to develop new products or modify existing products.

Our sales and profitability in the past have, to a significant extent, resulted from our ability to anticipate changes in technology, industry standards and common service provider offerings, and to develop and introduce new and enhanced products. Our continu