

NetVanta Routers

Solutions to Empower Your Network



Making the smart connection for your business.

The success of your business depends on making the right connections. Whether you work remotely or in a company with thousands of employees, you need a network that can scale to the demands of a continuously connected world. At ADTRAN, we understand the power of connecting people and businesses, and we know every connection must be reliable, secure, and fast. For that reason, we developed the NetVanta family of access routers to provide your business with a wealth of diverse networking solutions.

Our portfolio of business-class networking equipment is perfect for corporate branch offices or in multi-site networks. These solutions address today's highest networking priorities, including bandwidth expansion, Voice over IP (VoIP) migration, network security, and Wireless LAN (WLAN).

■ **Bandwidth Expansion**

ADTRAN offers a breadth of products from fixed-port and modular access routers to multiservice routers performing multiple networking functions. The products range in bandwidth from E1, ADSL, Ethernet, or up to two DS3s of performance. The ADSL-to-Ethernet access routers support innovative ADSL2+ technology for further reach and higher bandwidth up to 25Mbps.

■ **VoIP Migration**

NetVanta makes it easy to transition your network to accommodate bandwidth-intensive applications. ADTRAN's series of routers are VoIP-ready with Quality of Service (QoS), Class of Service (CoS), SIP Transparent Proxy, Net Flow 9 Traffic Monitoring, and Voice Quality Monitoring

(VQM). Traffic Monitoring is for collecting and measuring network traffic patterns, while VQM is a graphically-intuitive interface displaying captured data for Mean Opinion Score (MOS), jitter, delay, and packet loss statistics necessary to troubleshoot VoIP calls.

■ **Wireless LAN**

A comprehensive wireless networking solution is available for organizations that need business-class features, security and reliability at an affordable price. The NetVanta Series features a standards-based WLAN solution as part of an industry-unique, all-in-one access platform and centralized control architecture for easy deployment and management. WLANs from ADTRAN are Power over Ethernet (PoE) capable; have the

ability to segment wireless networks through the use of Virtual Access Points (VAPs); and can disable SSID broadcasts. The enhanced security features combined with ease-of-use and outstanding technical support make it perfect for businesses of all sizes.

■ **Network Security**

The NetVanta Series of routers provides a stringent line of defense against common security threats to your network. The security portfolio features a stateful inspection firewall to protect against Denial of Service (DoS) and other unauthorized access attempts; and optional IPSec-compliant Virtual Private Network (VPN) with DES/3DES/AES encryption to secure transmissions across a public infrastructure.

Introducing the Revolutionary RapidRoute Technology from ADTRAN...

RapidRoute technology interprets session traffic to deliver faster processing cycles and rapid routing decisions. Even with processor-intensive services enabled like VQM, QoS, NAT, firewall, and VPN; NetVanta platforms utilizing *RapidRoute* technology outperform the competition and can accommodate larger bandwidth applications. *RapidRoute* Technology is featured in the NetVanta 3448 and 1335 from ADTRAN's Multiservice Access Router Series, and in the NetVanta 3430, 4305, 4430, and 5305 from the Modular Access Router Series.

The value-rich alternative you can count on.

Multiservice Routers

Delivering greater throughput, the NetVanta 3448 and NetVanta 1335 Multiservice Access Routers offer a variety of networking functionality wrapped into a single chassis. These VoIP-ready, all-in-one routers include a modular Wide Area Network (WAN) interface, IP router, Power over Ethernet (PoE) switch (Layer 2 or Layer 3), firewall, and VPN. The NetVanta 1335 takes this integration concept one step further by including an 802.11a/b/g Wireless Access Point (WAP). In addition to the convenience and ease-of-use of a single platform, these multi-function routers contribute to a reduced Total Cost of Ownership (TCO).

Modular Routers

ADTRAN's industry-leading series of NetVanta 3000/4000/5000 Modular Routers is designed for cost-effective Internet access, MPLS, Frame Relay, Ethernet services, point-to-point, ADSL, and VPN connectivity. These full-featured solutions support line rates ranging from E1, ADSL, Ethernet, or up to two DS3s, at a cost that is significantly lower than other name-brand routers. The NetVanta 3000 Series is a full-featured, low-cost, access router platform that fits seamlessly into your existing network. For higher-bandwidth applications, the NetVanta 4000 Series offers access routing that supports up to eight T1s/E1s in a single



platform. The NetVanta 5000 Series offers access routing for large-bandwidth applications supporting up to two DS3s of performance.

Fixed-port Routers

The NetVanta family of Fixed-port Access Routers offers a cost-effective, secure, business-class solution for broadband networks. The fixed-port routers include the NetVanta 3100 Series for Ethernet access and the most advanced ADSL2+ technology.



Wireless Access Points

Wi-Fi your NetVanta network with the NetVanta 150 Wireless Access Point (WAP) or the NetVanta 1335 with Wi-Fi. Both solutions provide 802.11a/b/g radio support at speeds up to 54 Mbps and advanced security features like 802.1x authentication, WPA, WPA2, and the disabling of SSID broadcasts. Through the use of Virtual Access Points (VAPs), these wireless products have the ability to segment a wireless network securely. Together, these business-class wireless products are perfect for the corporate environment in need of a secure, integrated Wireless LAN (WLAN) solution.



NetVanta Routers

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Multiple networking functions – a single box solution.

The NetVanta Series of Multiservice Access Routers offers a variety of networking functions wrapped into a single, compact device. These integrated, all-in-one, versatile platforms are capable of both dedicated and switched access, solving a multitude of different applications. These solutions are perfect for bandwidth-intensive applications like IP telephony or for reliable corporate connectivity and Internet access.

The Power of Integration

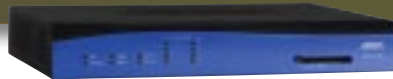
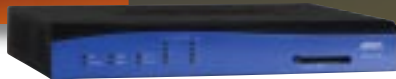
With the integration of multiple networking functions, the NetVanta 3448 and NetVanta 1335 perform services such as IP routing, switching, firewall, Virtual Private Networking (VPN), and even 802.11a/b/g Wi-Fi. These platforms are modular in nature and can accommodate a wealth of Wide Area Network (WAN) interfaces depending on your connection needs. These integrated, all-in-one solutions simplify installation, configuration, and troubleshooting, and reduce the number of devices to be managed while eliminating excess cabling costs.

Accelerating Performance and Flexibility

The NetVanta 3448 has the added features of a fully managed, non-blocking, eight-port 802.3af-compliant Power over Ethernet (PoE) switch. It can power any 802.3af-compliant PoE device, including IP phones, Wireless Access Points (WAPs), or security cameras. The NetVanta 3448 also delivers high-performance throughput with ADTRAN's *RapidRoute* technology for bandwidth-intensive applications, including Voice over IP (VoIP) and digital video. Combined with its compact size and low cost, this platform is the perfect high-performance, versatile solution.

The Speed of Layer 3 and the Freedom of Wi-Fi

The NetVanta 1335 integrates a modular IP access router; 24-port, PoE, Layer 3 switch; firewall; VPN appliance; and even 802.11a/b/g wireless access; all in one compact platform. This Wi-Fi Certified radio can support rates up to 54Mbps and offers a full suite of business-class security needs like WPA/WPA2, 802.1x user authentication, and Virtual Access Points (VAPs), the equivalent of wireless VLANs. This unique platform also delivers enhanced-performance necessary for IP telephony, corporate connectivity and Internet access, even with advanced services enabled.



NetVanta 3448

- Multiservice router with integral 8-port, Layer 2 Ethernet Switch
- Dual 10/100Base-T Ethernet ports for LAN segmentation or broadband backup
- Supports up to 500 IPSec VPN tunnels (optional)
- Voice Quality Monitoring (VQM) for Mean Opinion Score (MOS), jitter, delay and packet loss statistics (optional)

NetVanta 3448 PoE

- Multiservice router with integral 8-port, Layer 2 Ethernet Switch
- 802.3af PoE switch delivering 15.4 watts per port
- Dual 10/100Base-T Ethernet ports for LAN segmentation or broadband backup
- Supports up to 500 IPSec VPN tunnels and VQM (optional)
- VQM for MOS, jitter, delay and packet loss statistics (optional)

NetVanta 1335

- Multiservice router with integral 24-port, Layer 3 Ethernet Switch
- Dual Gigabit/SFP module slots for uplink or stacking
- Cable diagnostics identify an open or short per twisted pair
- Supports up to 500 IPSec VPN tunnels
- VQM for MOS, jitter, delay and packet loss statistics

Significantly reduce your Total Cost of Ownership (TCO) with a single platform that accomplishes multiple networking functions. Multiservice access routers are affordable routing, switching, firewall, VPN, and Wi-Fi solutions for business-class networking needs.



Voice Quality Monitoring reduces the time and pain of troubleshooting, by monitoring trends within the network, including: Mean Opinion Score (MOS), Jitter, Delay, and Packet Loss.

NetVanta Multiservice Access Routers

- Modular platforms supporting an IP access router, Ethernet switch (Layer 2 or Layer 3), firewall, and VPN
- Performance-enhanced with *RapidRoute* technology
- Bandwidth ranging from E1, ADSL, and Ethernet
- Single Network Interface Module (NIM) slot supporting all current NIMs and Dial Backup Interface Modules (DIMs)
- CompactFlash slot for auto-provisioning (flash-provisioning)
- Integral stateful inspection firewall protects against Denial of Service (DoS) attempts
- VoIP-ready with Quality of Service (QoS), Class of Service (CoS), and SIP ALG
- Ideal for MPLS, Ethernet, Frame Relay, Multilink Frame Relay, PPP, PPPoE, Multilink PPP, PPPoA, or ATM (ADSL NIM) networks
- Inherent URL filtering or Websense integration
- Wi-Fi Access Controller for centralized management of NetVanta Wireless Access Points (WAPs)
- Local survivability for SIP phones



NetVanta 1335 PoE

- Multiservice router with integral 24-port, Layer 3 Ethernet Switch
- 802.3af PoE switch delivering 15.4 watts per port
- Dual Gigabit/SFP module slots for uplink or stacking
- Cable diagnostics identify an open or short per twisted pair
- Supports up to 500 IPSec VPN tunnels
- VQM for MOS, jitter, delay and packet loss statistics



NetVanta 1335 Wi-Fi

- Multiservice router with integral 24-port, Layer 3 Ethernet Switch
- 802.11a/b/g Dual Radio Wireless Access Point (WAP)
- Single Gigabit/SFP module slot for uplink or stacking
- Supports up to 500 IPSec VPN tunnels
- VQM for MOS, jitter, delay and packet loss statistics

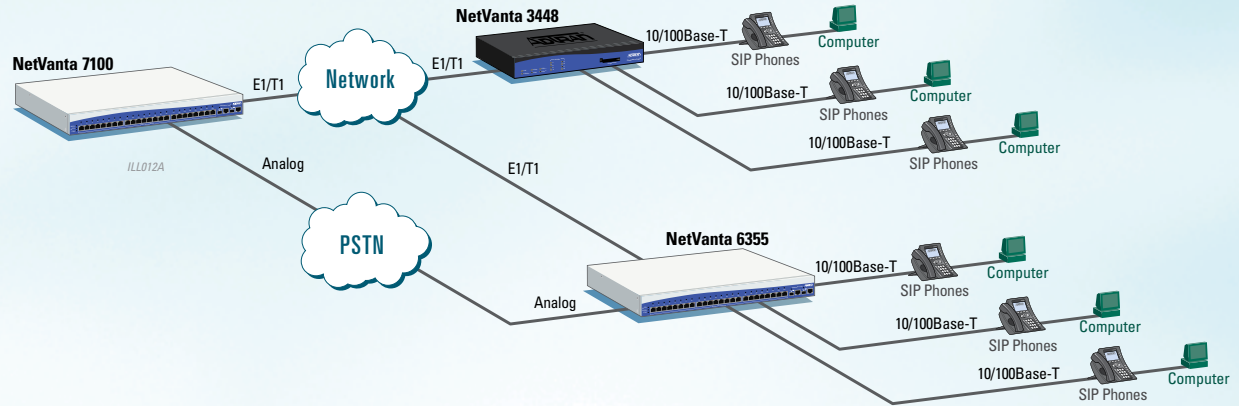


NetVanta 1335 Wi-Fi and PoE

- Multiservice router with integral 24-port, Layer 3 Ethernet Switch
- 802.11a/b/g dual radio WAP
- 802.3af PoE switch delivering 15.4 watts per port
- Single Gigabit/SFP module slot for uplink or stacking
- Supports up to 500 IPSec VPN tunnels and VQM

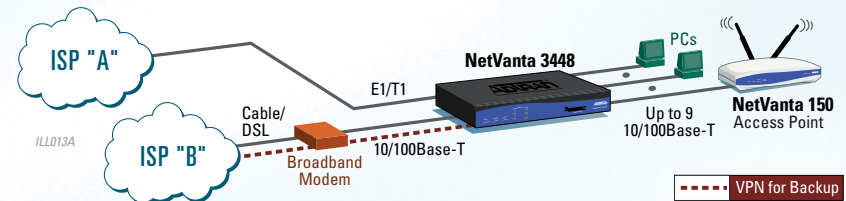
Multi-site SIP Networking with Local Survivability

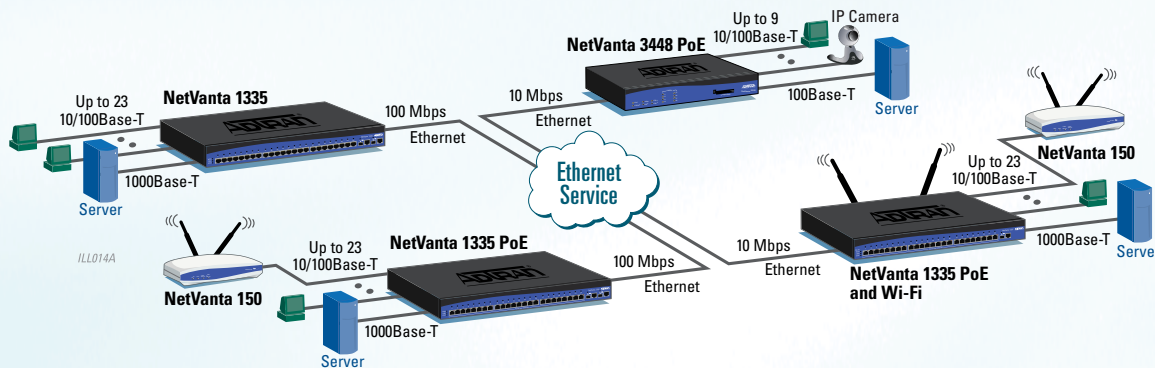
The ADTRAN NetVanta 7100 IP PBX supports SIP networking between multiple locations. With SIP networking, businesses can connect multiple sites and have three- to four-digit dialing, local call routing, and on-net calls for toll bypass. In the event of a network outage and the VoIP network is unreachable, the remote NetVanta 3448 and 6355 provide local survivability by continuing to route intra-office calls, or where provisioned, directly to a local PSTN guaranteeing phone service.



Internet Access with Broadband Backup

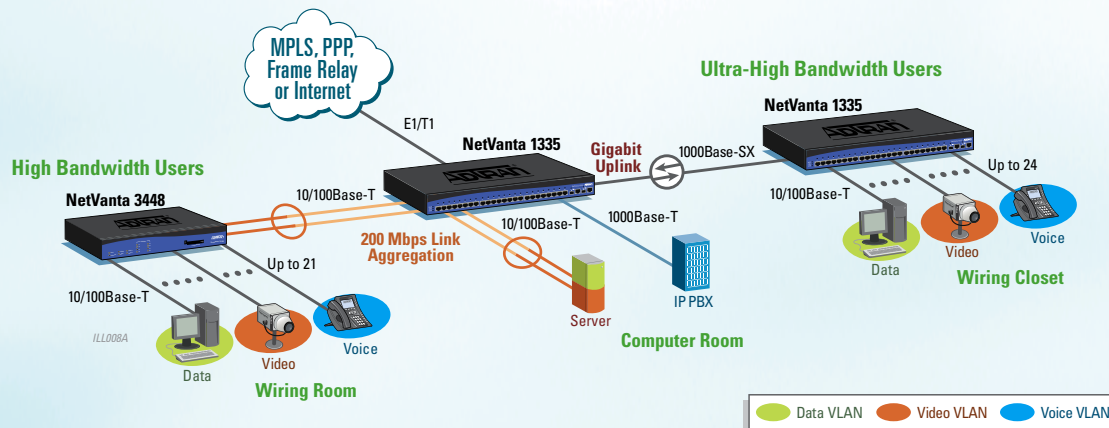
By using any one of the available Ethernet interfaces, NetVanta routers can utilize a broadband Internet connection for high-speed backup. In the event that the main circuit is lost, corporate communication can continue by seamlessly redirecting traffic to the broadband connection. In addition, to maintain secure, private communication over the public Internet, the NetVanta router can establish a VPN.





High-speed Ethernet Services

NetVanta Multiservice Access Routers are performance-enhanced platforms that meet the demands for high-speed Ethernet service. The NetVanta 1335 allows fast Layer 3 switching to occur between sites and throughout the network. With additional 802.3af PoE capabilities, NetVanta routers can power various IP endpoints such as Wireless Access Points (WAPs), surveillance cameras, and IP phones, up to 15.4 watts per port.



VLAN and Layer 3 Switching

The NetVanta 1335 provides managed switching features, like Virtual LAN (VLAN) trunking and GVRP, to ease the configuration of larger VLAN networks. Up to 24 Fast Ethernet ports may be configured for 802.1Q VLAN functionality to provide separation of broadcast domains and functional work areas, while Layer 3 switching capabilities are used for high-speed inter-VLAN switching. The 1000Base-T or fiber Small Formfactor Pluggable (SFP) Gigabit uplink ports can be used for VLAN trunking to another switch or for link redundancy.

Providing your connectivity needs today, while preparing for future growth.

ADTRAN's NetVanta Series of Modular Access Routers are designed to meet your needs for secure, cost-effective Internet access; MPLS; Frame Relay; point-to-point; ADSL; and Virtual Private Networking (VPN). NetVanta 3000, 4000, and 5000 routers provide all the necessary components to engineer a complete LAN/WAN connectivity solution between headquarters and branch offices.

Choose the High-Value Alternative

This family of modular access routers combines access routing and wide area connectivity into a single, compact chassis. These devices are perfect for Internet access, public and private Frame Relay, private IP, leased-line connections, MPLS, VPN, and Carrier Ethernet. Without compromising quality or performance, NetVanta routers represent a reliable, high-value alternative compared to other access router brands. A lower acquisition cost, combined with high-performance, best-of-class technical

support, free firmware updates, and an industry-leading warranty add up to a lower Total Cost of Ownership (TCO).

A Flexible Modular Platform

These modular devices accommodate a wealth of Network Interface Modules (NIMs) supporting line rates from E1s to ADSL and dual DS3. In addition, Dial Backup Interface Modules (DIMs) are available as plug-ons, providing ISDN BRI S/T and U and analog network restoration.

Answering Your Networking Needs

The NetVanta 3000 Series of modular access routers is the most cost-effective way to integrate voice and data over a common circuit. These versatile platforms are complete turnkey solutions with unsurpassed performance. Ideal for larger bandwidth requirements, the NetVanta 4000 Series includes multi-slot access routers supporting up to eight E1s. Our most powerful modular router, the NetVanta 5305 is a six-slot, dual-Ethernet IP access router supporting up to two DS3s of bandwidth.



NetVanta 3200/3205

- Single NIM slot, single-Ethernet
- Terminates one E1 of bandwidth
- Supports up to five IPSec VPN tunnels (optional)
- Desktop (NetVanta 3200) and rackmount (NetVanta 3205) versions available



NetVanta 3305

- Dual NIM slot, dual-Ethernet
- Terminates up to two E1s of bandwidth
- Supports up to 100 IPSec VPN tunnels (optional)
- Inherent URL filtering or Websense integration



NetVanta 3430

- Single NIM slot, dual-Ethernet
- Performance-enhanced platform supporting *RapidRoute*
- Terminates up to one E1 of bandwidth
- Supports up to 500 IPSec VPN tunnels and VQM (optional)
- Inherent URL filtering or Websense integration
- Wi-Fi Access Controller for centralized management of NetVanta WAPs

“NetVanta 3430’s performance shows that the product’s design has the processing power to handle high packet rates, even when security services are active and vying for processor cycles”

*Kevin Tolly,
President/CEO/Founder
The Tolly Group*



NetVanta Modular Access Routers

- Modular platforms accommodate a wide range of network interfaces and dial backup options
- Perfect for MPLS, Frame Relay, Multilink Frame Relay, PPP, Multilink PPP, PPPoE, PPPoA, RFC 1483, ADSL, and Ethernet-based networks
- Bandwidth range includes E1, ADSL, Ethernet, and up to two DS3s of performance
- Stateful inspection firewall and Quality of Service (QoS) included as standard on all models
- Optional standards-based IPsec VPN tunneling secures Internet communication
- Optional dial backup minimizes network downtime (NetVanta 3000 and 4000)
- Optional G.703 port for PBX connectivity (NetVanta 3000 and 4000)
- Recognizable Command Line Interface (CLI) and user-friendly Web-based Graphical User Interface (GUI)
- Local survivability for SIP phones



NetVanta 4305

- Three-slot (one Wide Module and two NIM slots), dual-Ethernet
- Performance-enhanced platform supporting *RapidRoute*
- Terminates up to eight E1s of bandwidth
- Supports up to 1,000 IPsec VPN tunnels and VQM (optional)
- Inherent URL filtering or Websense integration
- Wi-Fi Access Controller for centralized management of NetVanta WAPs



NetVanta 4430

- Three-slot (one Wide Module and two NIM slots), dual-Ethernet
- Performance-enhanced platform supporting *RapidRoute*
- Terminates up to eight E1s of bandwidth or 100 Mbps Carrier Ethernet
- Supports up to 1,000 IPsec VPN tunnels and VQM (optional)
- Inherent URL filtering or Websense integration
- Wi-Fi Access Controller for centralized management of NetVanta WAPs

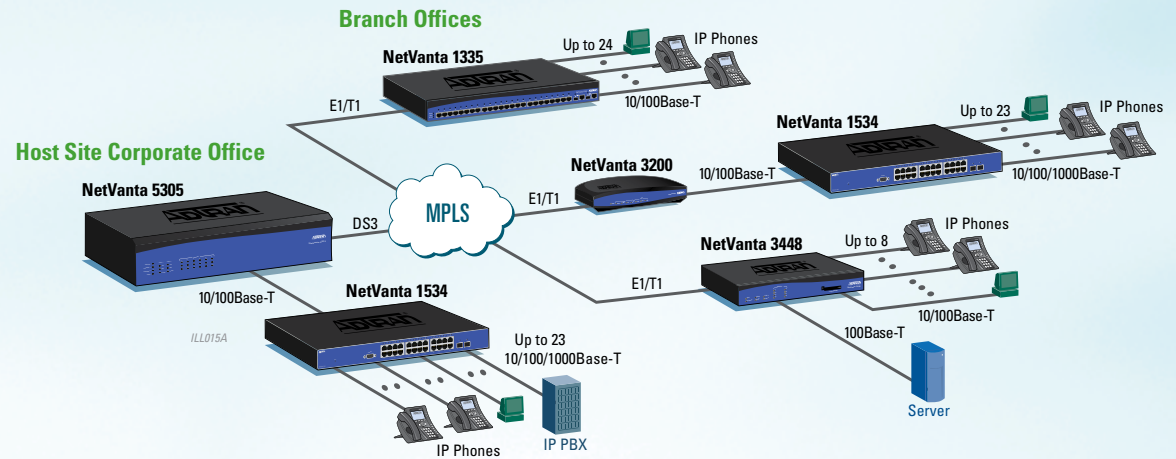


NetVanta 5305

- Six wide slots and dual-Ethernet
- Performance-enhanced platform supporting *RapidRoute*
- Terminates up to two unchannelized DS3s of bandwidth
- Supports up to 2,000 IPsec VPN tunnels and VQM (optional)
- Wi-Fi Access Controller for centralized management of NetVanta Wireless Access Points (WAP)

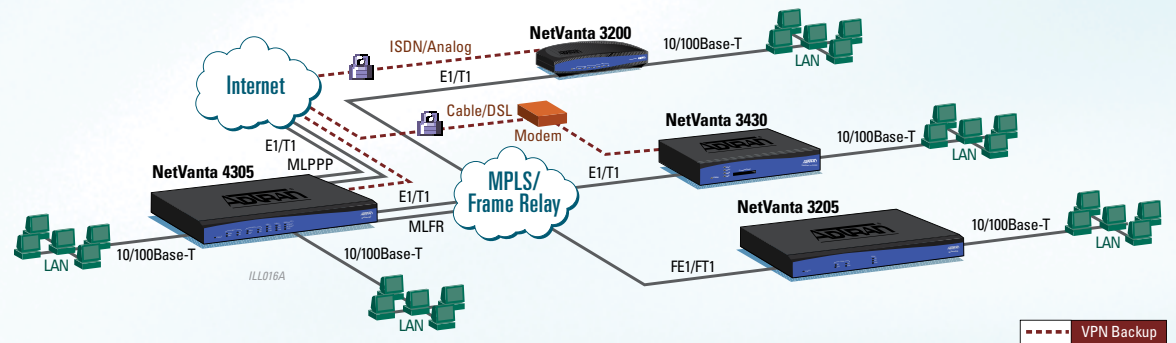
Quality of Service for VoIP Networks

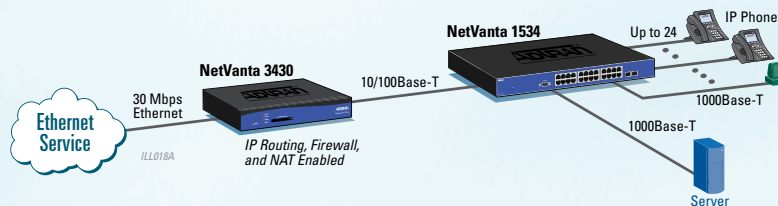
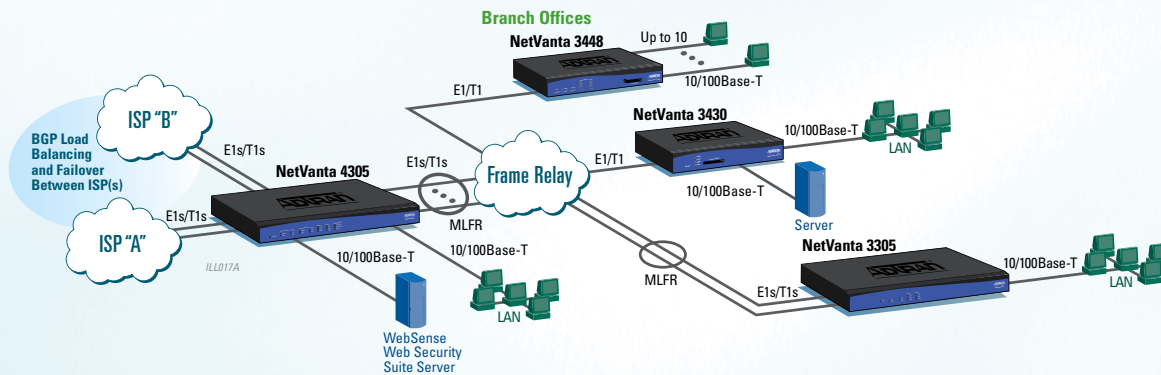
NetVanta routers and switches offer Quality of Service (QoS) for prioritizing delay-sensitive, mission-critical traffic, such as Voice over IP (VoIP). These routers prioritize traffic using Low Latency, Weighted Fair, or Class-based Weighted Fair queuing. NetVanta platforms with an integrated switch also support 802.1p Class of Service (CoS) standards, using Weighted Round Robin and Strict Priority queuing. In addition, all NetVanta routers are Session Initiation Protocol (SIP) aware to traverse NAT-enabled firewalls. To monitor and troubleshoot VoIP issues, Voice Quality Monitoring (VQM) is a graphically-intuitive interface to track Mean Opinion Score (MOS), jitter, delay and packet loss statistics.



Multi-T1 Internet Access and Corporate Frame Relay

The NetVanta 4305 access router offers cost-effective Internet access, corporate Frame Relay, point-to-point connectivity, and Virtual Private Networking (VPN) in applications requiring up to eight T1s. Multilink PPP or Multilink Frame Relay support high-bandwidth, point-to-point IP or Internet applications, aggregating up to eight T1s. Residing in a 1U-high chassis, the NetVanta 4305 offers routing, Wide Area Network (WAN) termination, firewall, VPN, and dial backup.





Load Balancing and Failover Using BGP

For an automated approach to load balancing and failover, NetVanta routers can share bandwidth between ISPs using Border Gateway Protocol (BGP). With BGP, “best route” routing decisions are made automatically between ISPs. In the event that one connection is lost, the NetVanta router switches traffic over to the remaining ISP in service. This maximizes bandwidth usage and provides a high-speed disaster recovery scheme, if needed. In addition, for a safe and controlled Internet surfing experience, NetVanta routers integrate with Websense, a leading provider in Web content filtering.

High-Speed Ethernet Service

The NetVanta 3430 is a perfect platform to meet the high-performance needs of a high-speed Ethernet service. With its revolutionary *RapidRoute* technology to interpret session traffic, the performance-injected NetVanta 3430 delivers faster processing cycles and rapid routing decisions. Even with processor-intensive services enabled, like NAT, Firewall, and VPN, the NetVanta 3430 with *RapidRoute* outperforms the competition and can accommodate larger-bandwidth applications.

Answering the growing demand for secure access to sensitive corporate data.

ADTRAN's NetVanta Series of Fixed-port Access Routers offers cost-effective IP routing solutions for business-class broadband networks. Based on the widely deployed ADTRAN Operating System (AOS), this family of routers offers a robust feature set with standards-based routing functionality and addresses the growing need for secure access to corporate information resources over the Internet.

Work Remotely, Work Securely

NetVanta Fixed-port Access Routers are designed for high-speed, cost-effective connectivity for remote offices, telecommuters, and mobile users. These small, security routers ensure your remote employees can work without the security concerns normally associated with shared networks.

Guarantee Bandwidth with Disaster Recovery

The NetVanta 3100 Series offers the best of both worlds by supplying an Ethernet or ADSL WAN interface, four-port fully managed switch, and an analog port for a disaster recovery scheme or to dial-in for remote management. These products are full-featured, low-cost alternatives perfect for secure Internet access or high-speed corporate connectivity using broadband access such as DSL or cable.

Higher Bandwidth

The NetVanta 3130 is a fixed-port, business-class ADSL router with an integrated Fast Ethernet four-port switch. It supports today's most advanced ADSL technology, ADSL2+, for applications taking advantage of its extending reach and higher bandwidth, up to 25Mbps. The NetVanta 3130 is perfect for Small- to Medium-sized Business (SMB) applications. No matter if they are bundled with a carrier service or employee deployed, they deliver secure, high-speed corporate connectivity.



NetVanta 3120

- Fixed-port Ethernet-to-Ethernet access router
- One Ethernet WAN interface
- Full-featured, managed four-port Ethernet switch
- Optional analog interface for dial backup or remote management
- Supports up to five IPSec VPN tunnels and VQM
- Wi-Fi Access Controller for centralized management of NetVanta WAPs



NetVanta 3130

- Fixed-port ADSL-to-Ethernet access router
- One ADSL/ADSL2/ADSL2+ WAN interface
- Full-featured, managed four-port Ethernet switch
- Optional analog interface for dial backup or remote management
- Supports up to five IPSec VPN tunnels and VQM
- Wi-Fi access controller for centralized management of NetVanta WAPs

"ADTRAN's NetVanta 2000 Series is perfect for HIPAA compliance. These products are cost-effective, offer an easy-to-use Graphical User interface, and provide the security necessary for healthcare customers."

*Jody McCook,
Business Technology Consultant
CTS*



NetVanta Fixed-port Access Routers

- Affordable routing and switching solutions for business broadband networks
- Innovative ADSL2+ technology provides further reach and higher bandwidth up to 25Mbps
- Integral stateful inspection firewall protects against Denial of Service (DoS) attempts
- Optional standards-based IPSec VPN tunneling secures Internet communications
- Interoperable with other NetVanta products and many carrier-based DSL service offerings
- Recognizable Command Line Interface (CLI) and user-friendly Web-based Graphical User Interface (GUI)



NetVanta 150



Wi-Fi your NetVanta network with the NetVanta 150 Wireless Access Point (WAP). Providing concurrent 802.11a/b/g support at speeds up to 54Mbps, it's perfect for the corporate environment needing a secure, integrated WLAN solution.

Today, IP business communication requires the flexibility of wireless, and the assurance of a secure, protected network.



NetVanta 3G NIM

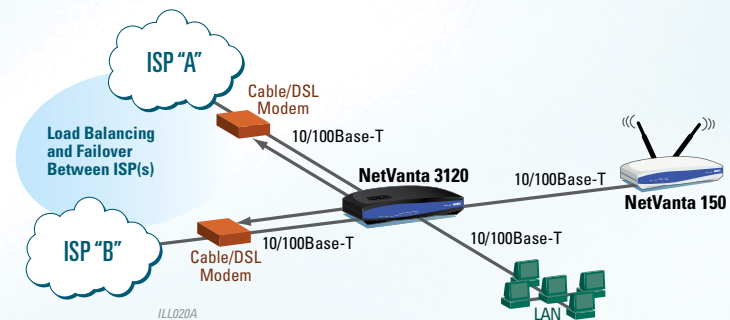
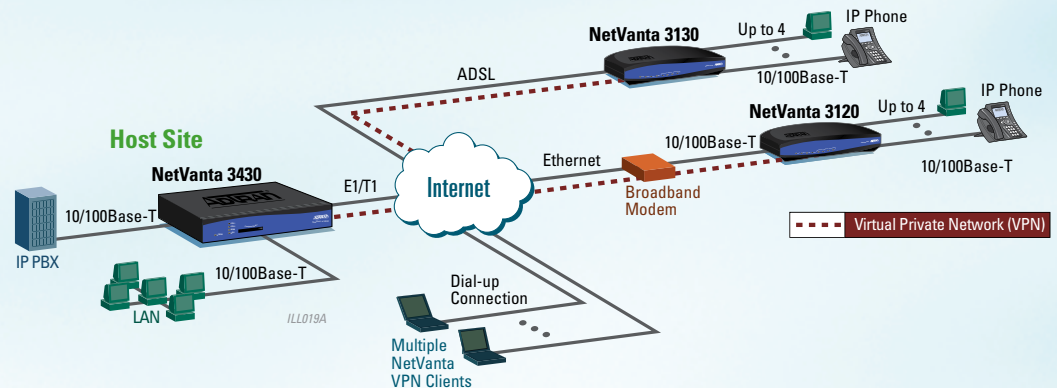
With the use of the NetVanta 3G NIM, NetVanta routers can use 3G CDMA cellular service as a primary WAN connection, or as a backup/disaster recovery link. As a primary WAN connection, 3G is perfect for mobile or temporary sites needing connectivity or for locations where wired service is unavailable.

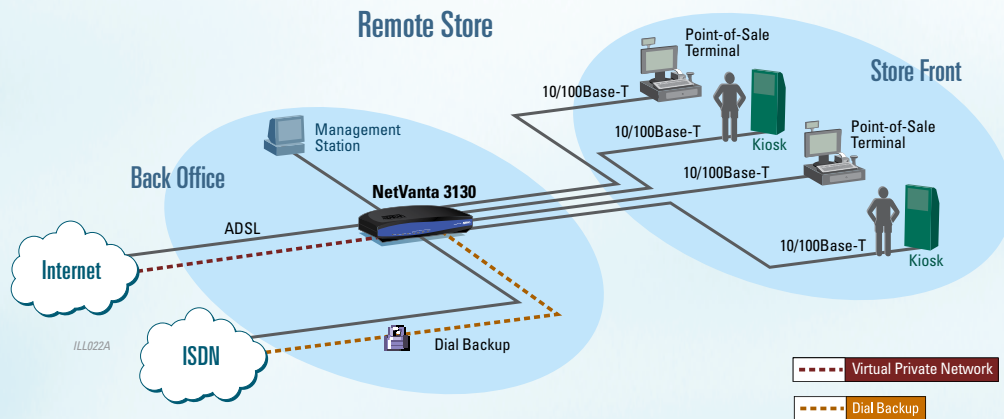
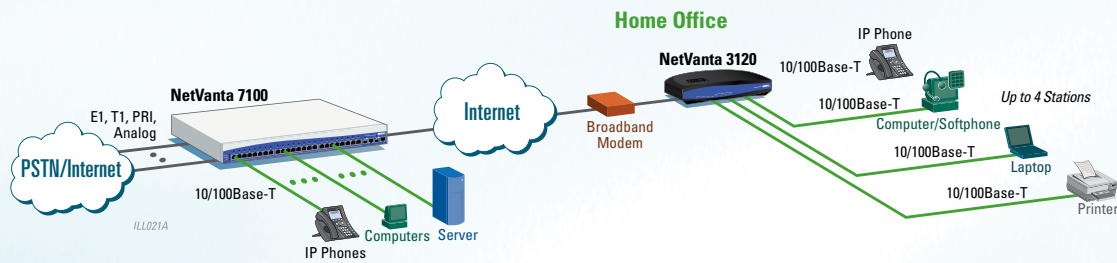
Secure Internet Access

NetVanta Fixed-port Routers provide a robust, cost-effective, secure Internet access solution to protect corporate networks from security breaches. These broadband access products provide a first line of defense with a stateful inspection firewall and the option to communicate through a secure Virtual Private Network (VPN) tunnel. Together, these dedicated devices reduce recurring Wide Area Network (WAN) costs, improve data security, increase network performance and availability, and simplify overall network operations.

Equal Cost Load Balancing and Failover

For the Small- to Medium-sized Business (SMB) that needs guaranteed bandwidth, the NetVanta Series can share bandwidth between two Internet Service Providers (ISPs), by using “equal cost” load balancing. This eliminates the need to purchase a rarely used, dormant backup link as a dedicated disaster recovery scheme. Data is transported to either ISP until one of the connections is lost. Then, data is automatically re-routed over the failover link, until service is restored. This maximizes bandwidth, allows for full usage of prepaid circuits, and provides a high-speed disaster recovery scheme if needed.





VoIP for Telecommuters

SMBs with the need for up to 50 IP phone stations can link multiple sites together using ADTRAN's industry-unique and award-winning NetVanta 7100. The NetVanta 7100 can provide centralized Voice over IP (VoIP) telephony service such as voice mail and auto attendant. The NetVanta 3120 provides connectivity that is ideal for remote telecommuters and home offices, and supports Voice Quality Monitoring (VQM) for Mean Opinion Score (MOS), jitter, delay, and packet loss statistics.

Higher Bandwidth with Business Continuity

Business continuity is critical to ensure a pleasant shopping experience and eliminate the possibility of lost revenue. In the event of the primary WAN circuit going down, the NetVanta Series can guarantee bandwidth for credit card transactions and inventory management by dialing around the failed connection using the built-in analog modem on the NetVanta 3130. For bandwidth-consuming applications, the ADSL link allows for higher-bandwidth and greater performance. These devices can be managed remotely, which eliminates the need for regional technical expertise.

Delivering a variety of modules to support a breadth of network applications.



NetVanta NIM and DIM

NetVanta Wide Module



NetVanta 3G NIM

A single NetVanta NIM slot can house both a NIM and DIM together. The NetVanta NIM is a *plug-in* form factor and can carry a NetVanta DIM, which is a *plug-on* form factor to the NIM. The NetVanta wide modules are supported in the NetVanta 4305 and 5305. Both modules are field installable and remotely configurable.

A Flexible, Modular Platform

Access slots in each NetVanta chassis support a variety of NetVanta Network Interface Modules (NIMs), Dial Backup Interface Modules (DIMs) or Wide Modules to terminate the wide area connection.

Network Interface Modules (NIMs)

- **E1/FE1**—Terminates a full E1 or a fractional E1 for Frame Relay or PPP networks
- **E1/FE1 + G.703**—Offers a full E1 or fractional E1 interface, plus an additional G.703 interface to drop-off voice traffic to a PBX
- **ADSL**—Supports ADSL over POTS (Annex A and Annex B), including ADSL2 and ADSL2+ at rates up to 25Mbps
- **SHDSL**—Terminates a single 200 kbps to 2312 kbps G.991.2 SHDSL link for Frame Relay or PPP networks.
- **Serial**—Supports a V.35, EIA-530, or X.21 (V.11) interface for synchronous operations up to 4Mbps
- **3G**—Supports 3G CDMA cellular service from Verizon and Sprint, and can be used as a primary WAN connection, or as a backup/disaster recovery link.*

*Supported router platform dependent on carrier service.

- **T1/FT1**—Terminates a full T1 or a fractional T1 for Frame Relay or PPP networks
- **T1/FT1+ DSX-1**—Offers full T1 or fractional T1 interface, plus an additional DSX-1 interface to drop-off voice traffic to a PBX
- **Dual T1**—Terminates two individual T1s/FT1s or two T1s aggregated together using Multilink PPP or Multilink Frame Relay
- **56/64 kbps**—A WAN interface for a single 56k or 64k Digital Data System (DDS) network

Dial Backup Interface Modules (DIMs)

- **ISDN BRI S/T**—Restoral via Euro-ISDN at 64 kbps
- **ISDN BRI U**—Restoral via the PSTN at 64 kbps
- **Analog Modem**—V.90 restoral and remote dial-in configuration and management

Wide Modules

- **Octal T1/E1**—Terminates up to eight individual T1/E1s, or up to eight T1/E1s aggregated using Multilink PPP or Multilink Frame Relay
 - **Unchannelized T3**—Provides BNC interfaces for a single unchannelized T3
 - **HSSI**—Provides a single, high-speed serial interface with rates up to 44.2 Mbps
- Dial Backup Interface Modules (DIMs)

NetVanta Access Router Product Comparison

● Supported – Not Applicable or Unavailable	Multiservice Access Routers		Modular Access Routers						Fixed-port Access Routers	
	NetVanta® 3448	NetVanta 1335	NetVanta 3200/3205	NetVanta 3305	NetVanta 3430	NetVanta 4305	NetVanta 4430	NetVanta 5305	NetVanta 3120	NetVanta 3130
Ports and Slots										
Modular NIM Slot(s)	1	1	1	2	1	2	2	–	–	–
Modular Wide Slot(s)	–	–	–	–	–	1	1	6	–	–
Maximum Bandwidth	1 E1	1 E1	1 E1	2 E1s	1 E1	8 E1s	8 E1s	48 E1s or 2 DS3s	–	–
ADSL Interface(s)	Optional	Optional	Optional	Optional	Optional	Optional	Optional	–	–	1
Onboard Ethernet Interface(s)	2	–	1	2	2	2	1	2	1	–
Ethernet Switch Port(s)	8	24	–	–	–	–	–	–	4	4
SFP/Gigabit Ethernet Interface(s)	–	Wi-Fi (1) non Wi-Fi (2)	–	–	–	–	2	–	–	–
Features and Capabilities										
Stateful Inspection Firewall	●	●	●	●	●	●	●	●	●	●
Quality of Service (QoS)	●	●	●	●	●	●	●	●	●	●
Voice Quality Monitoring (VQM)	Optional	●	–	–	Optional	Optional	Optional	Optional	●	●
Power over Ethernet (PoE)	Optional	Optional	–	–	–	–	–	–	–	–
802.11a/b/g Wireless	–	Optional	–	–	–	–	–	–	–	–
Wireless Access Controller Capable*	●	●	●	–	●	●	●	●	●	●
IPSec VPN Support	Optional	●	Optional	Optional	Optional	Optional	Optional	Optional	●	●
Maximum VPN Tunnels	500	500	5	100	500	1,000	1,000	2,000	5	5
n-Command Support	●	●	●	●	●	●	●	●	●	●

*Allows centralized management of NetVanta Wireless Access Points

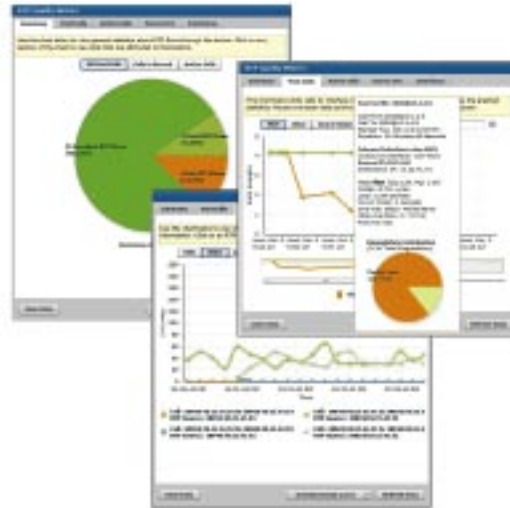
Router Management: Configure, manage, and update... our routers make it easy to manage your network.

Familiar Command Line Interface

The NetVanta Router Series is a standards-based solution that merges seamlessly into existing networks, and is easy to configure and operate. The NetVanta Command Line Interface (CLI) mimics the *de facto* industry standard, and is both familiar and easy to use. The CLI supports multiple configuration scripts to simplify setup of local and remote units. Other management options include RADIUS, SSH, SNMP, and a Web-based Graphical User Interface (GUI).

Ease of Use, Diagnostics, and Web Security

The NetVanta Series of routers is designed to make implementation, deployment, and maintenance simple, resulting in saved time and money for your network. NetVanta routers include a Web-based GUI setup wizard with a set of pre-determined parameters to quickly prepare the unit for operation; a troubleshooting and diagnostics webpage that details any errors or problems in configuration and offers possible suggestions; and native URL filtering. Used in conjunction with the top-visited website reporting feature, administrators can easily adjust the URL filtering policies to allow or deny specific websites or categories of content.



Voice Quality Monitoring is a graphically intuitive interface offering easy-to-read dashboards to view critical statistics, including results of RTP monitoring of past and active calls.

Voice Quality Monitoring — Supercharging Quality of Service

As voice and data networks converge into a single communications network, Quality of Service (QoS) is of the utmost importance. QoS allows a network to provide better service to selected traffic and enables the network to handle both mission-critical and best effort traffic on the same infrastructure. However,

what happens when there are problems with voice quality on this new converged network? The answer lies in Voice Quality Monitoring (VQM).

VQM moves beyond QoS and can save network administrators, value-added resellers, managed service providers and carriers time in the troubleshooting process. In essence, VQM allows the network administrator to examine the full data stream and identify problem areas down to the packet level in an easy-to-use, graphically intuitive interface. To better understand how VQM can supercharge your QoS, reduce both the time and pain associated with troubleshooting, and provide the ability to monitor trends within the network, visit www.adtran.com/vqm

Comprehensive Network Management

For more comprehensive management of your NetVanta-based network, ADTRAN offers n-Command. This ADTRAN-designed network management system streamlines network operation, administration, and management offering an intuitive, user-friendly, menu-driven interface.

- Manage firmware revisions
- Push firmware upgrades and configuration changes to remote sites
- Backup and restore configurations
- Restore configurations based on event
- Manage security policies and Access Control Lists (ACLs)



Recognized and trusted: ADTRAN routers are the smart alternative for your network.

ADTRAN, Inc. is a leading global supplier of networking and communications equipment with an innovative portfolio of more than 1,700 solutions for use in the last mile of today's telecommunications networks. Widely deployed by carriers, distributed enterprises and Small- to Medium-sized Businesses (SMB), ADTRAN solutions enable voice, data, video, and Internet communications across copper, fiber and wireless network infrastructures. Our solutions are currently in use by every major U.S. service provider and many global ones, as well as by thousands of public, private and governmental organizations worldwide.

Simple, Reliable, and Affordable

When you need a networking solution that fits the unique connectivity requirements of your business, ADTRAN is the smart alternative. Our product portfolio offers a breadth of solutions, including a product suite that is tailored to the specific needs of SMB and distributed enterprise customers. With ADTRAN's award-winning and innovative NetVanta switches, routers, multiservice access routers, VPN solutions, wireless, and IP Telephony products, it is easy to find a quality solution that is perfect for your specific network needs.

Every product is backed by an industry-leading warranty, best-in-class telephone technical support from our team of degreed engineers, and is eligible for free firmware upgrades. As a TL 9000 3.0 and ISO 9001:2000 certified supplier supporting next-generation quality standards, the company maintains in-house labs for reliability, component and compliance testing — all with a focus toward customer satisfaction.

High-touch Customer Support and Training

- **Customizable Installation and Maintenance Services Program.** The ADTRAN product warranty includes a return-to-factory repair and replacement program and free technical phone support. Technical support engineers are accessible for both pre- and post-sales support.
- **Comprehensive Training and Certification Services.** ADTRAN provides innovative training solutions designed with a focus toward varying skill levels and job functions. Professional certification programs are designed to help customers structure and individualize continuing education needs. Access to the certification and training programs includes both free and fee-based options. Sessions are available both on- and off-site, using Instructor-Led Training (ILT); Computer-Based Training (CBT); or virtual classroom training with real-time, Web-enabled classes.

Training and Certification
www.adtran.com/training



IP Communication Platform with IP Phones
NetVanta 7100, 7060



IP Business Gateway for Trunking and Hosted VoIP
NetVanta 6000 Series



Multiservice Access Router
NetVanta 3448, 1335



IP Business Gateways for Business Trunking
Total Access 900/900e Series



Modular Access Router
NetVanta 3000, 4000, 5000



Fixed-port Access Router
NetVanta 3100



Ethernet Switch
NetVanta 1200s and 1500s



Wireless Access Point
NetVanta 150



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