



# NetVanta 3448



## Product Features

- Multiservice Access Router supporting V.35/X21 to E1
- Wire-speed performance for IP Telephony, corporate connectivity, and Internet access
- Integral eight-port non-blocking Ethernet switch, with PoE option
- Standards-based routing/switching protocols based on the widely deployed NetVanta Series
- Feature-rich ADTRAN Operating System (AOS)
- CompactFlash® slot for downloading configuration files and new firmware
- Stateful inspection firewall for network security
- Onboard hardware encryption accelerator
- Optional IPSec VPN for secure corporate connectivity across the Internet
- Recognizable Command Line Interface (CLI) eliminates retraining
- User-friendly Web-based Graphical User Interface (GUI)
- NAT-compatible SIP ALG for VoIP

## Multiservice Access Router

As a Multi-service Access Router, the NetVanta 3448 delivers the high-packet through-put required for IP Telephony, corporate connectivity, and Internet access. This performance-enhanced platform delivers wire-speed throughput, even with advanced services like QoS, NAT, Firewall, and VPN-enabled.

### Modular Hardware

The NetVanta 3448 is a modular, 1U-high, rack-mountable metal chassis that offers a single-slot to house any of the NetVanta 3000 Series NIMs and DIMs, which include a E1/FE1, E1/FE1 with G.703, SHDSL, ADSL, Serial, T1/FT1, T1/FT1 with DSX-1, Dual T1, and 56/64k interface. For dial backup, an ISDN BRI U-interface, S/T-interface, or Serial DIM are available preventing downtime by dialing around a failed circuit to any PPP-compliant device. The NetVanta 3448 also includes two 10/100Base-T Ethernet interfaces and a fully managed, non-blocking, eight-port switch which can be separately powered to yield an 802.3af-compliant PoE Switch delivering a full 15.4 watts per port.

### Standards Protocols

Complementing the versatile hardware, the ADTRAN Operating System (AOS) allows for the support of standards-based switching, VLAN tagging, static and default routes, demand routing. This enables fast, accurate network convergence using routing protocols such as BGP, OSPF, and RIP. In addition, the AOS terminates Frame Relay, Multilink Frame Relay, PPP, Multilink PPP, and HDLC WAN protocols. Multihoming is also available to provide redundant or backup WAN links to multiple ISPs, guaranteeing a wide-area connection.

### Quality of Service (QoS)

QoS is also supported for delay-sensitive traffic like VoIP or video. To prioritize mission-critical traffic and control network congestion, the NetVanta 3448 uses Low

Latency Queuing, Weighted Fair Queuing (WFQ), Class-based WFQ, and DiffServ marking to establish the priority of IP packets routed over the WAN.

### VoIP Ready

In combination with the QoS features, a specialized SIP Application Layer Gateway (ALG) allows SIP traffic to traverse NAT-enabled firewalls. For enterprise networks, this interoperability allows IP PBXs, phones, and other SIP-based devices to set up, tear down, and pass voice and call control messages seamlessly through the integral NAT-enabled firewall.

### Security

The AOS provides a powerful, high performance stateful inspection firewall that can identify and protect against common Denial of Service (DoS) attacks like TCP syn flooding, IP spoofing, ICMP redirect, ping of death, and IP reassembly problems.

The NetVanta 3448 supports up to 500 simultaneous IPSec VPN tunnel, and encryption algorithms like DES, 3DES, and AES. By supporting IPSec, the NetVanta 3448 is fully compatible with other IPSec VPN-equipped NetVanta products.

### Administration

The AOS offers a standard Command Line Interface (CLI) that mimics the widely adopted, industry *de facto* standard. The sequence of commands to configure similar devices is almost identical, virtually eliminating training costs associated with relearning a new operating system or costly industry certifications. The CLI also allows for configuration scripts to be used, saved, and downloaded as a quick and easy recovery mechanism. In addition, an intuitive Web-based GUI provides step-by-step configuration wizards, management capability, and the ability to upload firmware updates.

