NetVanta 3200

Modular Access Router Supporting up to Two T1s of Bandwidth

Product Features

- Modular Network Interface Module (NIM) offering flexibility

- Modular Dial Backup Interface Module (DIM) guaranteeing bandwidth

- Stateful inspection firewall for network security

- Quality of Service (QoS) for delay-sensitive traffic like Voice over IP (VoIP)

- Optional DSX-1 interface supplies TDM voice transport

- Comprehensive PPP dial backup scheme prevents network downtime

- VLAN Trunking (802.1Q) for routing between VLANs

- Network Address Translation (NAT) for IP Address Concealing

- Optional Virtual Private Network (VPN) for secure corporate connectivity across the Internet

- Recognizable Command Line Interface (CLI) and intuitive Web-based Graphical User Interface (GUI)

- Built-in DSU/CSU for circuit protection

- Feature-rich ADTRAN® Operating System (AOS)

- Industry-leading five-year North American warranty

The NetVanta® 3000 Series of modular access routers is designed for cost-effective Internet access, corporate Frame Relay, point-to-point connectivity, ADSL, and VPN. The NetVanta 3000 Series currently consists of the NetVanta 3200, 3205, and 3305 with a variety of interchangeable NIMs and DIMs.

Modular Hardware

The NetVanta 3200 is a single-slot, single-Ethernet standalone unit in a plastic housing. A single slot within any of the NetVanta 3000 Series will house a variety of NIMs and DIMs, which include a 56/64k, T1/FT1, T1/FT1 with DSX-1, Dual T1s, E1/FE1, E1/FE1 with G.703, ADSL, SHDSL, or a Serial interface. For dial backup, an analog modem DIM or an ISDN BRI DIM is available for preventing downtime by dialing around a failed circuit to any PPP-compliant device.

Standards Protocols

The versatile hardware platform of the NetVanta 3200 is further complemented by the AOS. The AOS allows for the support of static and default routes, demand routing, and allows for 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 Wide Area Network (WAN) links to multiple ISPs, guaranteeing a wide-area connection.

Security

For added security, AOS provides a powerful, high-performance stateful inspection firewall. It will examine all incoming and outgoing packets against the security policies established by the IT manager. In addition, the firewall 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. With the AOS Enhanced Feature Pack Upgrade, the NetVanta 3000 Series adds the support for IPSec-compliant VPN. The NetVanta 3200 supports up to five simultaneous VPN tunnels, while supporting encryption

algorithms like DES, 3DES, and AES. With this upgrade, the NetVanta 3200 is fully compatible with other IPSec VPN-equipped NetVanta products.

QoS

QoS is also supported for delay-sensitive traffic like VoIP or video. To prioritize mission-critical traffic and control network congestion, the NetVanta 3200 uses Low Latency Queuing, Weighted Fair Queuing (WFQ), Class-based WFQ, and DiffServ marking to establish priority of IP packets routed over the WAN.

VoIP Ready

In combination with the QoS features, a specialized Session Initiation Protocol (SIP) Application Layer Gateway (ALG) allows SIP traffic to traverse Network Access Translation (NAT)-enabled firewalls. For an enterprise network, 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.

Administration

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

ADTRAN, the leader in WAN connectivity, offers reliable equipment that increases network performance, lowers cost, and positions networks for the future. In addition, these products are backed by an industry-leading five-year North American warranty, free firmware downloads, and world-class technical support from ADTRAN.

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NetVanta® 3200

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Physical Interface
- **NIM:** 56/64k, T1/FT1, T1/FT1 with DSX-1, Dual T1, E1/FE1, E1/FE1 with G.703, ADSL, SHDSL, and Serial
- **DIM:** Analog Modem and ISDN BRI (U and S/T)
- **LAN:** Auto-sensing 10/100Base-T Full Duplex (RJ-45)
- Console Port

Diagnostics LEDs
- Power
- **WAN:** link, transmit, receive
- **LAN:** link, transmit, receive
- **Dial backup:** transmit and receive

Processor and Memory
- 80 MHz, Motorola MPC 866
- **RAM:** 32 MB
- **FLASH:** 16 MB

Security
Firewall
- Stateful Inspection Firewall
- Denial of Service (DoS) Protection
- Access Control Lists
- Application Level Gateways (ALGs)

Network Address Translation
- Basic NAT (1:1), NAPT (Many:1), and 1:1 Port Translation
- NAT compatible SIP ALG

Secure Management
- Multi-level access control
- RADIUS AAA
- TACACS+
- SSH CLI and SSL GUI
- Port Authentication (802.1x)

Optional Virtual Private Network (VPN)
- **IPSec Tunnel Mode:** 5 Tunnels
- **Encryption:** DES, 3DES, and AES
- **Diffie Hellman Group Support:**
  - **Group 1:** MODP 768
  - **Group 2:** MODP 1024
- **Hash Algorithms:** MD5-HMAC and SHA1-HMAC
- **Authentication Mechanisms:**
  - XAUTH
  - X.509 Digital certificates
  - Preshared keys
  - Secure ID
  - DSS Signatures
- **Key Management:** IKE (ISAKMP/Oakley)
- **IKE Modes:**
  - Main
  - Aggressive
  - Perfect Forward Secrecy
  - Mode Config
- Dead Peer Detection
- NAT Traversal V2

Quality of Service (QoS)
- Class-based Weighted Fair Queuing, Low Latency, and Weighted Fair Queuing
- DiffServ Packet Marking and Recognition
- Frame Relay Fragmentation

Protocols
- eBGP/iBGP
- OSPF
- RIP (v1 and v2)
- Demand Routing
- GRE
- IGMP v2
- ATM (ADSL)
- Frame Relay
- Multilink Frame Relay
- PPP
- PPPoE
- PPPoA
- RFC 1483
- Multilink PPP
- HDLC
- PPP Dial Backup
- PAP and CHAP
- Multihoming

Frame Relay
- Point-to-point
- RFC 1490 Encapsulation (Multiprotocol Over Frame Relay)
- LMI types: LMI, ANSI (Annex D), CCITT (Annex A) and Static

DHCP
- Client, Server, and Relay

Administration
- Familiar Command Line Interface (CLI)
- Web-based GUI
- n-Command® support
- SNMP v3
- SYSLOG logging
- Email alerts (SMTP)
- Policy statistics

Environment
- **Operating Temperature:** 0° to 50 °C (32° to 122 °F)
- **Storage Temperature:** -20° to 70 °C (-4° to 158 °F)
- **Relative Humidity:** Up to 95%, non-condensing

Physical
- **Chassis:** Self-standing, plastic enclosure
- **Dimensions:** 1.625" H, 9" W, 6.375" D
- **Weight:** 2 lbs.
- **Power:** 12 VDC, 800 mA, 6 watts max. (120 VAC AC to DC power adapter included)

Agency Approvals
- FCC Part 68
- Industry Canada CS03
- UL and Canadian UL (CUL), IEC/EN, CSA
- CE Mark
- RoHS ("E" versions)

Ordering Information

Equipment	Part #
Systems	
NetVanta 3200 Chassis	1202860E1
with 56/64k NIM	4200861L1
with T1/FT1 NIM	4200862L1
with T1/FT1+DSX-1 NIM	4200863L1
NetVanta 3200 Chassis with VPN	4200860E2
VPN Software Upgrade	1950860E2