



# NetVanta 3305

Multi-slot Access Router Supporting up to Three T1s of Bandwidth

## Product Features

- Dual interchangeable Network Interface Modules (NIMs)
- Dual auto-sensing 10/100Base-T interfaces for LAN segmentation
- Stateful inspection firewall for network security
- Quality of Service (DoS) for delay-sensitive traffic like Voice over IP (VoIP)
- Voice Quality Monitoring (VQM) and Mean Opinion Score (MOS) prediction
- Inherent URL filtering
- Optional QSX-1 interface supplies TQM voice transport
- Comprehensive PPP dial backup scheme prevents network downtime
- VLAN Trunking (802.1Q) for routing between VLANs
- Recognizable Command Line Interface (CLI) and intuitive Web-based Graphical User Interface (GUI)
- Network Address Translation (NAT) for IP Address Concealing
- Optional VPN for secure corporate connectivity across the Internet
- Industry-leading support, service and 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 Virtual Private Networking (VPN). The NetVanta 3000 Series currently consists of the NetVanta 3200, 3205, and 3305 with a variety of interchangeable NIMs and Dial Backup Modules (DIMs).

### Modular Hardware

The NetVanta 3305 is a dual-slot, dual-Ethernet 1U high, rackmountable metal enclosure. A single slot within any of the NetVanta 3000 Series will house a variety of NIMs and DIMs. 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 3305 is further complemented with the ADTRAN Operating System (AOS). The AOS allows for the support of static and default routes, demand and policy-based routing, and allows for fast, accurate network convergence using routing protocols such as BGP, OSPF, and RIP. In addition, the AOS terminates MPLS, Frame Relay, Multilink Frame Relay, PPP, Multilink PPP, PPPoE, PPPoA, RFC 1483, and HDLC Wide Area Network (WAN) protocols. Multihoming is also available to provide redundant or backup WAN links to multiple ISPs, guaranteeing a wide-area connection.

### QoS

QoS is also supported for delay-sensitive traffic like VoIP or video. To prioritize mission-critical traffic and control network congestion, the NetVanta 3305 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 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.

### Security

For added security, 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.

In addition, the AOS is capable of providing an inherent URL-filtering package without the use of an external server. URL filtering is another level of security that allows system administrators to restrict Internet access by permitting or denying specific URLs. This URL-filtering feature also includes the ability to produce top website reports of the most frequently requested websites, allowing system administrators to modify the URL filter lists.

The NetVanta 3305 also supports up to 500 simultaneous VPN tunnels, while supporting encryption algorithms like DES, 3DES, and AES. By supporting IPsec, the NetVanta 3305 is fully compatible with other IPsec VPN-equipped NetVanta products.

### Administration

The AOS offers both a CLI that mimics the widely deployed, industry *de facto* standard and an intuitive Web-based GUI with step-by-step configuration wizards.



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# NetVanta 3305



## Multi-slot Access Router Supporting up to Three T1s of Bandwidth

### Physical Interface

- **Dual NIM:** E1/E1, E1/E1 with 6.703, ADSL, SHDSL, Serial, T1/T1, T1/T1 with DSX-1, Dual T1, and S6/4K
- **DIM:** ISDN BRI (U and S/T)
- **Dual LAN:** Auto-sensing 10/100Base-T Full Duplex (RJ-45)
- Console Port

### Diagnostics LEDs

- Power
- Dual WAN: link, transmit, receive
- Dual LAN: link, transmit, receive
- Dual Dial backup: transmit and receive

### Processor and Memory

- 120 MHz, Motorola MPC 866
- RAM: 64 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), NAT (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)

### Content Filtering

- Inherent URL filter
- Top website reports
- Integration with Websense

### Optional Virtual Private Network (VPN)

- IPsec Mode: 100 Tunnels
- Encryption: DES, 3DES, and AES
- Authentication Mechanisms:
  - XAUTH
  - Secure ID
  - X.509 Digital certificates
  - DSS Signatures
- Preshared keys

### Quality of Service (QoS)

- Class-based Weighted Fair Queuing, Low Latency, and Weighted Fair Queuing
- DiffServ Packet Marking and Recognition
- Frame Relay Fragmentation
- Traffic Monitoring (NetFlow 9)

### Frame Relay

- Point-to-point
- RFC 1909 Encapsulation
- LMI types: LMI, ANSI (Annex D), QCTT (Annex A) and Static

### Administration

- Familiar Command Line Interface (CLI)
- Web-based GUI
- Syslog logging
- e-Command support
- Email alerts (SMTP)
- SNMP v2
- Policy statistics
- TCL Scripting

### DHCP

- Client, Server, and Relay

### Protocols

- uBGP/IBGP
- OSPF
- RIP (v1 and v2)
- PIM Sparse Mode
- Demand Routing
- Policy-based Routing
- GRE
- ATM (ADSL)
- Frame Relay
- Multicast Frame Relay
- Multi-VRF CE
- PPP
- Multicast PPP
- PPPoE
- PPPoA
- ISMP v2
- RFC 1483
- HDLC
- PPP Dial Backup
- PAP and CHAP
- Multihoming

### 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: 1U—3.2cm W, 43.8cm H, 19.5cm D
- Weight: 3 kilograms
- Power: 100-250 VAC, 50/60 Hz, 6 W max.

### Agency Approvals

- FCC Part 68
- CE Mark
- Industry Canada C360
- RoHS
- UL & Canadian UL (CUL), IEC/EN, CSA
- Australian C-tick (Chassis), A-tick (NIMs)

## Ordering Information

Equipment	Part #
<b>NetVanta 3305 Chassis</b> with US Power with International Power	1202880E1 4200880E1/N
<b>NetVanta 3305 Chassis with VPN</b> with US Power with International Power	4200880E2 4200880E2/N
<b>Enhanced Feature Pack</b> VPN Upgrade	4200368E1
<b>Modules</b>	
NetVanta E1/E1 NIM	1200880E1
NetVanta E1/E1 with 6.703 NIM	1200879E1
NetVanta ADSL NIM (Annex A)	1200880E1
NetVanta ADSL NIM (Annex B)	1200880E1
NetVanta SHDSL NIM (Annex A)	1200939E1
NetVanta SHDSL NIM (Annex B)	1200937E1
NetVanta T1/T1 NIM	1202883L1
NetVanta T1/T1 NIM (NEBS III)	1200862L2/M/CS
NetVanta T1/T1 with DSX-1 NIM	1202883L1
NetVanta Dual T1 NIM	1200472L1
NetVanta ISDN BRI "U" DIM	1200886L1
NetVanta ISDN BRI "S/T" DIM	1200475L1
NetVanta Serial DIM	1200888L1

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