NetVanta 1335

Multiservice Access Router

Product Features

- Multiservice Access Router with integrated Layer 3 switch
- Wire-speed performance for IP Telephony, corporate connectivity and Internet access
- Supports up to two T1s worth of bandwidth
- 24-port Fast Ethernet
- Two Gigabit SFP/1000Base-T Ethernet uplink ports support stacking capability
- Stacking up to 16 switches using a single IP address to manage
- 8.8 Gbps switching capacity, non-blocking
- Link Aggregation, GVRP and LLDP
- MAC-based port security
- SIP ALG for NAT traversal in VoIP applications
- IPSec VPN for secure corporate connectivity across the Internet
- Onboard hardware encryption accelerator
- Easily recognizable Command Line Interface (CLI)
- Intuitive Web-based Graphical User Interface (GUI)
- Free firmware updates
- Industry-leading five-year North American warranty

The NetVanta® 1335 Multiservice Access Router is a performance-enhanced platform that addresses the need of multiple networking devices in a single compact platform. The NetVanta 1335 integrates a modular IP access router, 24-port Layer 3 Ethernet switch, firewall, VPN appliance, and DSU/CSU, all in one platform. In addition, the NetVanta 1335 delivers the throughput required for IP telephony, corporate connectivity and internet access, even with advance services enabled like QoS, NAT, firewall, and VPN.

Modular Hardware

The NetVanta 1335 is a modular, 1U-high, rackmountable metal chassis that offers a single-slot to house any of the NetVanta Series of Network Interface Modules (NIMs) and Dial backup Interface Module (DIMs). The NetVanta 1335 also includes two Gigabit SFP/1000Base-T Ethernet interfaces for uplink or stacking capabilities and a fully managed, non-blocking, 24-port, Layer 3 switch.

Standards Protocols

Based on the ADTRAN® Operating System (AOS), the NetVanta 1335 allows for the support of standards-based switching and routing functions. Switching features include 802.1Q VLANs, Storm Control, 802.1D and 802.1w Spanning/Rapid Spanning Tree, Link Aggregation, Port Mirroring, GVRP, and Link Layer Discovery Protocol (LLDP) to auto-discover neighboring Ethernet devices. For IP routing it enables fast, accurate network convergence using routing protocols such as BGP, OSPF, RIP, static and default routes, and demand routing. In addition, the NetVanta 1335 terminates MPLS, ATM (ADSL), Frame Relay, Multilink Frame Relay, PPP, Multilink PPP, and HDLC WAN protocols.

Quality of Service (QoS)

The NetVanta 1335 supports QoS to prioritize mission-critical traffic and control network congestion at various layers of the OSI model. On the LAN, the NetVanta 1335 offers 802.1p and DiffServ Class of Service (CoS). To assign priority to traffic, Weighted Round Robin and Strict Priority Queuing is used with four egress queues per port. For the WAN, DiffServ marking, Low Latency Queuing, Weighted Fair Queuing (WFQ), and Class-based WFQ provide priority for IP packets routed over the WAN. Together these features offer a powerful end-to-end QoS story.

VoIP Ready

In combination with the QoS features, a specialized SIP Application Layer Gateway (ALG) allows SIP traffic to traverse NAT-enabled firewalls. For corporate 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 NetVanta 1335 provides a powerful, high performance stateful inspection firewall to stop intruders and common Denial of Service (DoS) attacks. In addition, a variety of data security features including MAC-based port security, SSH and SSL for encrypted user login, and user access authentication using TACACS+, RADIUS or RSA SecurID. For data integrity and added security, the NetVanta 1335 supports 500 IPSec VPN tunnels using DES, 3DES or AES encryption.

Administration

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

ADTRAN®

NetVanta® 1335

Multiservice Access Router

Interfaces

Network Interface Modules (NIMs)

- 56/64k
- T1/FT1
- Dual T1
- ADSL
- T1/FT1 with DSX-1
- E1/FE1
- E1/FE1 with G.703
- Serial (V.35, X.21/V.11)

Dial Backup Interface Modules (DIMs)

- Analog Modem
- ISDN BRI 'U' and 'ST'

24 Fast Ethernet Ports

- 10/100 Base-T
- Auto-Duplex
- Auto-Rate
- Auto-MDI/MDI-X

Gigabit Ethernet Port

- Two combo Gigabit Ethernet ports supporting both 10/100/1000Base-T and SFP slots for copper or optical connectivity
- Auto-Duplex
- Auto-Rate
- Auto-MDI/MDI-X

Status LEDs

- Power
- **WAN:** Link, Activity, Alarm, Test
- **DBU:** Link, In DBU, Alarm, Test
- **Ethernet Port Status:** Link, Activity

Switching Performance

- Non-blocking
- 8,000 MAC Addresses
- 16-MB memory shared by all ports
- 8.8 Gbps maximum forwarding bandwidth
- Layer 3 switching for 16 networks

Spanning Tree Support

- 802.1D Spanning Tree
- 802.1w Rapid Spanning Tree

VLAN Support

- Port based VLANs
- 802.1Q tagged trunked VLANS
- Support for up to 255 active VLANs
- Inter-VLAN routing
- GARP VLAN Registration Protocol (GVRP)

Link Aggregation

- 802.3ad link aggregation
- Support for six trunk groups
- Trunk groups consist of up to eight access ports

Routing Performance

- 266 MHz Freescale MPC 8248
- 128 MB DRAM
- 32 MB Flash
- 45,000 PPS
- CompactFlash® slot

Protocols

- eBGP/iBGP
- OSPF
- RIP (v1 and v2)
- PIM Sparse Mode
- Demand Routing
- Policy-based Routing
- GRE
- ATM (ADSL)
- Frame Relay
- Multilink Frame Relay
- Layer 3 Backup
- PPP
- Multilink PPP
- PPPoE
- PPPoA
- IGMP v2
- RFC 1483
- HDLC
- PPP Dial Backup
- PAP and CHAP
- Multihoming

Quality of Service

- Low Latency Queuing
- Weighted Fair Queuing
- Class-based Weighted Fair Queuing
- DiffServ aware/marking
- Frame Relay Fragmentation (FRF.12)

Class of Service

- Enforces 802.1p priorities
- Four output queues per egress port
- Weighted Round Robin
- Strict Priority Queuing

Test drive a NetVanta Series router today!
Take the CLI challenge online at:
www.adtran.com/CLIchallenge

Security

- 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 Port Translation
- NAT compatible SIP ALG

Secure Management

- Multi-level access control
- RADIUS AAA
- TACACS+
- SSH CLI and SSL GUI

Network Access Control

- Port authentication (802.1x)
- MAC-based port security

Content Filtering

- Integration with Websense®

Virtual Private Network (VPN)

- **IPSec Tunnel Mode:** 500 Tunnels
- **Encryption:** DES, 3DES, and AES
- **Diffie Hellman Group Support:** Group 1: MODP 768 and Group 2: MODP 1024
- **Hash Algorithms:** MD5-HMAC and SHA1-HMAC
- **Authentication Mechanisms:** XAUTH, Digital Certificates, Preshared keys, and SecurID

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

Diagnostics

- Port Mirroring
- Ping
- Traceroute
- LLDP (802.1ab)

Environment

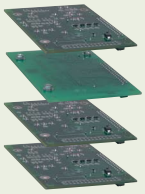
- **Operating Temperature:** 0° to 50 °C (32° to 122 °F)
- **Storage Temperature:** -20° to 70 °C (-4° to 158 °F)
- **Relative Humidity:** Up to 95%, non-condensing

Physical

- **Chassis:** 1U, 19" rackmountable metal enclosure
- **Dimensions:** 1.75" H, 17.25" W, 9.25" D
- **Weight:** 7 lbs.
- **Auto-ranging Power:** 110-250 VAC, 50/60 Hz, 36 watts

Agency Approvals

- FCC Part 15 Class A
- CE Mark
- C-tick
- RoHS
- FCC Part 68
- UL 1950/CSA
- WEEE

NetVanta Network Interface Modules (NIMs)		
	T1/FT1 NIM	Terminates a full T1 or a fractional T1
	T1/FT1 + DSX-1 NIM	Offers full T1 or fractional T1 interface, plus addtional DSX-1 interface to drop-off voice traffic to a PBX
	Dual T1/FT1 NIM	Terminates two individual T1s/FT1s or two T1s aggregated together
	56/64 kbps NIM	A WAN interface for single 56k or 64k Digital Data System (DDS) network
	Serial Interface NIM	Supports a V.35, EIA-530, or X.21 (V.11) interface for synchronous operations up to 4 Mbps
	E1/FE1 NIM	Terminates a full E1 or fractional E1
	E1/FE1 + G.703 NIM	Offers full E1 or fractional E1 interface, plus additonal G.703 interface to drop-off voice traffic to a PBX
	ADSL NIM	Supports ADSL over POTS (Annex A), including ADSL2 and ADSL2+ at rates up to 25 Mbps
NetVanta Dial Backup Interface Modules (DIMs)		
	ISDN BRI "U" Interface DIM	Restoral via the PSTN at 64 kbps
	ISDN BRI "S/T" Interface DIM	Restoral via Euro-ISDN at 64 kbps
	Analog DIM	V.90 restoral and remote dial-in configuration and management
	Serial DIM	Restoral via an external modem

Ordering Information

Equipment	Part #
NetVanta 1335	1700515E2

www.adtran.com/routers

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TL 9000 TELECOMMUNICATIONS
ISO 9001:2000 QUALITY
ISO 14001 ENVIRONMENT

ADTRAN is an ISO 9001, ISO 14001, and a TL 9000 certified supplier.

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