NetVanta 1335

Multiservice Access Router

Product Features

- Multiservice access router with integrated Layer 2/3 Power over Ethernet (PoE) switch

- *RapidRoute*™ technology for greater performance

- Supports up to two T1s worth of bandwidth

- 24-port, Fast Ethernet Layer 2/3 switching

- Gigabit SFP/1000Base-T Ethernet port(s) support stacking capability

- Link Aggregation, GVRP, and LLDP

- MAC-based port security

- Voice Quality Monitoring (VQM) and Mean Opinion Score (MOS) prediction

- Network Address Translation (NAT)-compatible Session Initiation Protocol (SIP) Application Layer Gateway (ALG) for Voice over IP (VoIP)

- Inherent URL filtering

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

- Wi-Fi® Access Controller for centralized management of NetVanta Wireless Access Points (WAPs)

- Cable diagnostics identifies a short or open twisted pair

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

- 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 2/3 PoE switch, firewall, VPN appliance, DSU/CSU, and a Wi-Fi® Access Controller, all in one platform. In addition, the NetVanta 1335, injected with *RapidRoute* technology, delivers enhanced performance necessary for IP telephony, corporate connectivity and Internet access, even with advanced services enabled.

Modular Hardware

The NetVanta 1335 is a modular, 1U-high, rack-mountable metal chassis that offers a single slot to house any of the NetVanta Series of Network Interface Modules (NIMs) and Dial backup Interface Modules (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 2/3 switch. In addition, the NetVanta 1335 also offers an 802.3af PoE version, delivering the full 15 watts per port.

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 Local Area Network (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 are used with four egress queues per port. For the Wide Area Network (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 QoS end-to-end connection.

VoIP Ready

In combination with the QoS features, a specialized SIP 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.

The NetVanta 1335 also deploys VQM to capture MOS, jitter, delay, and packet loss statistics necessary to troubleshoot VoIP calls over the WAN. This powerful, yet graphically intuitive, diagnostic tool allows for quick isolation of network issues to ensure superior call quality.

Wi-Fi

Wi-Fi your NetVanta network with the addition of the NetVanta 150 WAP. The NetVanta 1335 includes a built-in WiFi Access Controller, allowing you to centrally managed all the NetVanta 150's from a single location. In addition, with the Virtual Access Point (VAP) capability within the NetVanta 150, this wireless product has the ability to segment a wireless network like that of the wired. This business-class wireless product is perfect for the corporate environment in need of a secure, integrated Wireless LAN (WLAN) solution. When combined with the NetVanta 150, the NetVanta 1335 is the perfect LAN and WLAN, centrally managed solution.

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 authentication using TACACS+, RADIUS or RSA SecurID. For data integrity and added security, the NetVanta 1335 supports 100 IPSec VPN tunnels using DES, 3DES or AES encryption.

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.

Administration

The ADTRAN Operating System (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.

Smart Solutions for a Connected World.

ADTRAN®

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Product Specifications

Interfaces

Network Interface Modules (NIMs)

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

Dial Backup Interface Modules (DIMs)

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

24 Ethernet Ports

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

24 PoE Ports (Optional)

- 802.3af and Legacy (15.4 watts/port)
- 370 total watts
- Power provided over Ethernet data leads

Gigabit Ethernet Port(s)

- Two combo Gigabit Ethernet ports supporting both 10/100/1000 Base-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, PoE Status

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 remote 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

Processor and Memory

- 266 MHz Freescale MPC 8248
- 128MB DRAM
- 32MB 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
- Multi-VRF CE
- PPP
- Multilink PPP
- PPPoE
- PPPoA
- IGMP v2
- RFC 1483
- HDLC
- PPP Dial Backup
- PAP and CHAP
- Multihoming
- VRRP

Quality of Service (QoS)

- Low Latency Queuing
- Weighted Fair Queuing
- Class-based Weighted Fair Queuing
- DiffServ aware/marking
- Frame Relay Fragmentation (FRF.12)
- Traffic Monitoring (NetFlow 9)

Class of Service (CoS)

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

Voice Quality Monitoring (VQM)

- Mean Opinion Score (MOS) prediction
- Jitter, Delay and Packet Loss
- Past and Active Calls

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
- TACACS+
- RADIUS AAA
- SSH CLI and SSL GUI

Network Access Control

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

Content Filtering

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

Virtual Private Network (VPN)

- **IPSec Tunnel Mode:** 100 Tunnels
- **Encryption:** DES, 3DES, and AES
- **Authentication Mechanisms:** XAUTH, Digital Certificates, Pre-Shared Keys, and SecurID

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

DHCP

- Client, Server, and Relay

Administration

- Familiar Command Line Interface (CLI)
- Web-based Graphical User Interface (GUI)
- n-Command® support
- SNMP v3
- SYSLOG Logging
- Email alerts (SMTP)
- Policy Statistics
- TCL Scripting
- Flash Provisioning

Diagnostics

- Port mirroring
- Ping
- Cable diagnostics
- Traceroute
- LLDP (802.1ab)

Physical

Non-PoE Versions

- **Chasis**: 1U, rackmountable metal enclosure
- **Dimensions**: 1.73" H, 17.2" W, 9.5" D
- **Weight**: 7 lbs.
- **Auto-ranging Power**: 110-250 VAC, 50/60 Hz, 36 watts

PoE Versions

- **Chasis**: 1U, rackmountable metal enclosure
- **Dimensions**: 1.73" H, 17.2" W, 13" D
- **Weight**: 12 lbs.
- **Auto-ranging Power**: 110-250 VAC, 50/60 Hz, 450 watts

Agency Approvals

- FCC Part 15 Class A
- CE Mark
- FCC Part 68
- RoHS
- WEEE
- FCC Part 15 Subpart C 15.207, 15.247
- FCC Part 15 Subpart E 15.407
- ICES-003 Class A
- CE Mark
  - ETS 300 328 2.4 GHZ
  - ETS 301 893 5.4 GHZ
  - ETS 301 489 EMC
  - EN60950-1/EC60950-1
  - EN55022, EN55024
- AS/NZS CISPR 22 Class A (Australia & New Zealand)
- AS/NZS 4771 (C-tick)
- Industry Canada CS03
- UL Listed UL60950-1
- UL Listed (Canadian Electrical Code/CSA 22.2 No. 60950-1)

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Ordering Information

Equipment	Part #
NetVanta 1335	1700515E2
NetVanta 1335 with PoE	1700525E2

NetVanta 1335 and NetVanta 1335 PoE back view