

NetVanta 3458

Multiservice Access Router Supporting Metro Ethernet and up to Four T1s of Bandwidth

Product Features

- Modular access router supporting up to four T1s
- RapidRoute technology for greater performance
- Integral eight-port nonblocking Ethernet switch, with Power over Ethernet (PoE) option
- Voice Quality Monitoring (VQM) and Mean Opinion Score (MOS) prediction
- Inherent URL filtering
- Standards-based routing/ switching protocols
- Feature-rich ADTRAN Operating System (AOS)
- IPv6 ready
- CompactFlash slot for autoprovisioning
- Stateful inspection firewall for network security
- Optional IPSec Virtual Private Network (VPN) for secure corporate connectivity across the Internet
- Onboard hardware encryption accelerator
- Recognizable Command Line Interface (CLI) and intuitive Web-based Graphical User Interface (GUI)
- Network Address Translation (NAT)-compatible Session Initiation Protocol (SIP)
 Application Layer Gateway (ALG) for Voice over IP (VoIP)
- Wi-Fi Access Controller for centralized management of NetVanta Wireless Access Points (WAPs)

The NetVanta 3458 is an ideal solution for multi-T1 and Metro Ethernet deploy-

ments. This modular access router uses *RapidRoute* technology to deliver the high-packet throughput required for IP telephony, corporate connectivity, and Internet access. Supporting up to 4 T1s worth of bandwidth and 40 Mbps for Metro Ethernet throughput, as well as providing 8 PoE switch ports for LAN connectivity, this performance-enhanced platform delivers wire-speed throughput, even with advanced services enabled like Quality of Service (QoS), NAT, firewall, and VPN.

Modular Hardware

The NetVanta 3458 is a modular, 1U-high, rackmountable metal chassis that offers two 10/100Base-T Ethernet interfaces for WAN access LAN segmentation, DMZ, or even broadband backup. The dual-slot chassis houses any of the NetVanta Series Network Interface Modules (NIMs) and Dial Backup Interface Modules (DIMs). For dial backup, an analog modem DIM or an ISDN BRI DIM is available, preventing downtime by dialing around a failed circuit to any PPP-compliant device. The NetVanta 3458 also includes two 10/100Base-T Ethernet interfaces and a fully managed, eight-port switch which can be powered to yield an 802.3af-compliant PoE switch delivering a full 15.4 watts per port.

Standards Protocols

Complementing the versatile hardware, the AOS allows for the support of standards-based switching, Virtual LAN (VLAN) tagging, static and default routes, and demand routing. This enables fast, accurate network convergence using routing protocols such as BGP, OSPF, and RIP. In addition, the AOS terminates Ethernet, MPLS, Frame Relay, Multilink Frame Relay, PPP, Multilink PPP, 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.

OoS

QoS is also supported for delay-sensitive traffic like VoIP or video. To prioritize mission-critical traffic and control network congestion, the NetVanta 3458 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 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. The NetVanta 3458 also deploys VQM to capture MOS, jitter, delay, and packet loss statistics necessary to trouble-shoot VoIP calls over the WAN. This powerful, yet graphically intuitive, diagnostic tool allows for quick isolation of network issues to ensure superior call quality.

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.

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 3458 also supports up to 500 simultaneous IPSec VPN tunnels and encryption algorithms like DES, 3DES, and AES. By supporting IPSec, the NetVanta 3458 is fully compatible with other IPSec VPN-equipped NetVanta products.

Administration

The AOS offers both a GUI and a CLI for configuration and management. The Webbased GUI provides ease of management including step-by-step configuration wizards. The CLI mimics the widely deployed industry *de facto* standard.





International Department U.S. Headquarters

901 Explorer Boulevard Huntsville, Alabama 35806 www.adtran.com/global

+1 256 963 8000 +1 256 963 6300 fax international@adtran.com

International Customer Service

+1 256 963 8716

Asia—Beijing, China

+86 10 8527 5011 +86 10 8527 5010 fax sales.china@adtran.com

Asia—Hong Kong

+852 3187 7111 +852 2116 4084 fax sales.asia@adtran.com

Asia—Bangkok, Thailand

+66 2 610 3724 +66 2 610 3601 fax sales.asia@adtran.com

Asia—Singapore

+65 6232 2305 +65 6232 2888 fax sales.asia@adtran.com

Australia/New Zealand— Melbourne, Australia

+61 3 9658 0500 +61 3 9658 0599 fax sales.australia@adtran.com

Australia/New Zealand— Sydney, Australia

+61 2 8456 0101 +61 2 8456 0105

sales.australia@adtran.com

Canada Headquarters-Toronto, Ontario

+1 877 923 8726 +1 514 989 3198 fax

+1 905 625 2515 +1 905 625 2511 fax sales.canada@adtran.com

Canada—Montreal, Quebec

+1 877 923 8726 +1 514 940 2888 +1 514 989 3198 fax sales.canada@adtran.com

European Regional Headquarters—United Kingdom

+44 (0) 1189 317080 sales.europe@adtran.com

MEA Headquarters— Middle East and Africa

+97126228007 +97126228024 fax sales.mea@adtran.com

Mexico and Central America

+1 256 963 3321 U.S.

+1 52 55 4525 1633 Mexico sales.mexico@adtran.com

Caribbean and Latin America

+1 256 963 4177 U.S. sales.cala@adtran.com

+1 256 963 4177 U.S. sales.caribbean@adtran.com

> +1 256 963 9185 U.S. +1 55 19 2512 0661 Brazil sales.brazil@adtran.com

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NetVanta 3458

Multiservice Access Router

Product Specifications

Physical Interface

- NIM: 56/64k, T1/FT1, T1/FT1 with DSX-1, Dual T1, 3G Cellular, E1/FE1, E1/FE1 with G.703, ADSL, SHDSL,
- DIM: Analog Modem and ISDN BRI (U and S/T)
- LAN: Two auto-sensing 10/100Base-T ports (RJ-45)
- Switch: Eight-port, Auto-sensing Ethernet Switch 10/100Base-T Full Duplex (Optional PoE support)

Diagnostics LEDs

- Status
- Ethernet 1
- WAN
- Ethernet 2
- DBU

Memory

- RAM: 128 MB
- FLASH: 32 MB
- CompactFlash Slot

Protocols

- BGP/iBGP
- OSPF
- RIP (v1 and v2)
- PIM Sparse Mode
- Demand Routing
- Policy-based Routing ■ GRE
- PPP Dial Backup
- Multi-VRF CE
- VRRP
- Layer 3 Backup
- Multihoming

- PPP
- Multilink PPP
- PPPoF
- PPPoA
- IGMP v2
- RFC 1483
- HDLC
- ATM (ADSL)
- Frame Relay
- PAP and CHAP
- Multilink Frame Relay

Quality of Service

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

Voice Quality Monitoring (Optional)

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

Administration

- Email Alerts (SMTP)
- Policy Statistics
- TCL Scripting
- Flash Provisioning
- Web-based GUI
- SNMP v3

- n-Command Support
- SYSLOG Logging

Firewall

- Stateful Inspection Firewall
- DoS Protection
- Access Control Lists
- ALGs

Network Address Translation

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

Secure Management

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

Content Filtering

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

Optional VPN

- IPSec Tunnel Mode: 500 Tunnels
- Encryption: DES, 3DES, and AES
- Authentication Mechanisms: XAUTH, Digital certificates, Pre-Shared Keys, and Secure ID

Environment

- Operating Temperature: 0° to 50 °C
- Storage Temperature: -20° to 70 °C
- Relative Humidity: Up to 95%, non-condensing

Physical

- Chassis: 1U rackmountable metal enclosure
- Dimensions: 3.175 cm H, 43.815 cm W, 19.685 cm D
- Weight: 3.4 kg.
- Power: 100-250 VAC, 50/60 Hz, 6 W max.

Agency Approvals

- FCC Part 68
- Industry Canada CS03
- UL & Canadian UL (CUL), IEC/EN, CSA
- CE Mark ■ RoHS 9 ("E" versions)

Ordering Information

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Equipment	Part #
NetVanta 3458	1200824G1#IN
NetVanta 3458 EFP	4200824G2#IN
NetVanta 3458 PoE	4200824G11#240
NetVanta 3458 PoE EFP	4200824G12#240
NetVanta 3458 PoF Ungrade	4200825G1#240

DHCP

Client, Server, and Relay



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