Adtran

Data sheet

NetVanta 3000 Series

3140

Fixed port secure access ethernet router

Gigabit | eSBC Ready | VQM

Benefits

- **600 Mbps router with three Gigabit ethernet interfaces**
- **Provides capability for ethernet redundancy**
- **Voice Quality Monitoring (VQM) and Mean Opinion Score (MOS) prediction**
- **Utilizes standards-based routing protocols utilized by the widely deployed NetVanta Series**
- **Compatible with industry-leading Softswitches and call agents**
- **Dynamic bandwidth allocation affords more efficient utilization**
- **Stateful unspection firewall for network security**
- **Quality of Service (QoS) for delay and jitter-sensitive traffic like VoIP**
- **Supports 802.1q virtual LAN (VLAN) trunking**
- **Optional IPSec virtual private network (VPN) for secure corporate connectivity across the internet**
- **Command line interface (CLI) mimics Industry De Facto standard**
- **Network address translation (NAT) for IP address concealment**
- **Wi-Fi® access controller for centralized management of NetVanta wireless access points (WAPs)**
- **Feature-rich Adtran® operating system (AOS)**
- **Available in desktop or rack mountable versions**
- **Industry-leading, North American five-year warranty**
- **Optional full featured eSBC for robust network security and voice interoperability**

Overview

The NetVanta® 3140 is a fixed-port, high-performance ethernet router supporting converged access and high-quality voice services. It provides three routed, autosensing Gigabit ethernet interfaces. This product is ideal for carrier service offerings and enterprise- class internet access for secure, high-speed corporate connectivity. The NetVanta 3140 is available as either a desktop or rack-mount able platform.

Flexibility and redundancy

The NetVanta 3140 is ideal for multiple applications where ethernet redundancy is needed, given the three gigabit ports that can be either LAN or WAN facing. This can be achieved with two ethernet-delivered access services providing immediate failover to the active link anytime a link-down event occurs. Many deployments still feature separate voice and data networks, and the NetVanta 3140 is a perfect fit. With a single WAN link, the other two gigabit interfaces can accomplish this.

Standards protocols

The versatility of the hardware platform is complemented by the AOS. The AOS allows for the support of static and default routes, demand and policy-based routing and fast, accurate network convergence using routing protocols such as BGP, OSPF, RIP, and PIM sparse mode for multicast routing. Multihoming is also available to provide redundant or backup WAN links to multiple ISPs, guaranteeing a WAN connection.

Hierarchal QoS

QoS is supported for delay-sensitive traffic like VoIP or video. To prioritize mission-critical traffic and control network congestion, the NetVanta 3140 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

The NetVanta 3140 is VoIP-ready with QoS, Class of service (CoS), Session initiation protocol (SIP) transparent proxy, Net flow 9 traffic monitoring, and VQM. traffic monitoring is for collecting and measuring network traffic patterns, while VQM is an intuitive interface that displays captured data for Mean opinion score (MOS), jitter, delay, and packet loss statistics necessary to troubleshoot VoIP calls. This powerful yet graphically intuitive diagnostic tool allows for quick isolation of network issues to ensure superior call quality.

3140

Enterprise Session Border Control (eSBC)

The NetVanta 3140 can provide optional eSBC functionality delivering a truly converged application platform at the customer premises. This feature is becoming mandatory in today's service deployment to normalize, secure, and troubleshoot the SIP-to-SIP communication between a carrier network and the customer's SIP-compliant equipment.

Security

The AOS provides a powerful, high-performance stateful inspection firewall. 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.

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. The 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 3140 also adds support for IPSec-compliant VPN. It supports encryption algorithms like DES, 3DES, and AES. With this upgrade, the NetVanta 3140 is fully compatible with other IPSec VPN-equipped NetVanta products.

Management

The NetVanta 3140 Series can be remotely managed by Adtran n-Command® MSP. n-Command MSP offers the ability to discover devices, make mass configuration changes or firmware upgrades, backup/restore configuration, and generate inventory reports for asset management. It also offers VoIP VQM and reporting, as well as an industry-leading, easy-to-use, Graphical User Interface (GUI). The NetVanta 3140 is available in rack-mountable, and desktop versions; and is backed by an industry-leading warranty.

Administration

The AOS offers an intuitive web-based GUI that provides step-by-step configuration wizards, management capability, and the ability to upload firmware updates. In addition, it has 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 configuration scripts to be used, saved, and downloaded as a quick and easy recovery mechanism.

Product specifications

Physical interfaces

- Ethernet
- Full Duplex
- Auto-Negotiation
- RJ-45
- USB 2.0
- One Port
- Console Port
- Three Gigabit Ethernet Interfaces (WAN/LAN Support)
- Supports 802.1q VLAN Trunking
- EIA-232 Providing Local Management and Configuration (via a DB-9 Female Connector)

Diagnostic LEDs

- Stat (Power)
- Gig 1, Gig 2, Gig 3 (Ethernet)
- USB

Protocols

- EBGP/iBGP
- RIP (v1 and V2)
- PIM Sparse Mode
- IGMP V2
- GRE
- PPP Dial Backup
- PAP and CHAP
- Multi-VRF CE
- VRRP
- Policy-Based Routing
- OSPF
- PPPoE
- Multilink PPPoE
- Demand Routing
- RFC 1483
- Multihoming
- Layer 3 Backup
- TWAMP

Quality of Service (QoS)
- Low Latency and Weighted Fair Queuing (WFQ)
- Class-Based WFQ
- DiffServ Packet Marking and Recognition
- Traffic Monitoring (NetFlow 9)

Voice Quality Monitoring (VQM)
- Mean Opinion Score (MOS) Prediction
- Jitter, Delay and Packet Loss
- Past and Active Calls

Traffic and network quality monitoring
- ICMP and TWAMP Probes and Tracks
- One-Way Delay
- Round-Trip Loss and Delay
- Inter-Packet Delay Variance
- Traffic Flow Collection and Analysis
- Packet Capture

Administration
- Familiar Command Line Interface (CLI)
- Web-Based GUI
- n-Command Support
- SNMP V2 and V3
- SYSLOG Logging
- Email Alerts (SMTP)
- Policy Statistics
- TCL Scripting
- Login Privilege Levels
- Telnet, Craft/Console Port, SSH, Ping, Trace Route and NTP

DHCP
- Client, Server and Relay

Firewall
- Stateful Inspection Firewall
- Denial of Service (DOS) Protection
- Access Control Lists
- Application Level Gateways
- Packet Filtering

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

NAT traversal and remote survivability
- B2BUA
- SIP Registrar for IP Phones
- SIP Proxy With Survivability
- Transparent/Stateful/Outbound

Content filtering
- Inherent URL Filtering
- Top Website Reports
- Integration With Websense

Secure management
- Multi-Level Access Control
- TACACS+
- RADIUS AAA
- SSH CLI and SSL GUI
- Port Authentication (802.1x)

VPN (optional)
- IPSec Tunnel Mode: 500 Tunnels
- Encryption: DES, 3DES and AES
- Authentication Mechanisms: XAUTH, Digital Certificates, Pre-shared Keys and Secure ID

Environment
- Operating Temperature: 32° to 122° F (0° to 50° C)
- Storage Temperature: -40° to 158° F (-20° to 70° C)
- Relative Humidity: Up to 95%, Non-Condensing

Physical and power
- NetVanta 3140
  - Self Standing, Desktop Plastic Enclosure
  - Dimensions: 1.63 in. x 9 in. x 6.38 in. (H x W x D), (4.14 cm x 22.86 cm x 16.21 cm)
  - Weight: 1 lbs. (.45 kg)
  - Power: DC (12 VDC, 1.0 A)
- NetVanta 3140 RM
  - 1U Metal Rackmount
  - Dimensions: 1.72 in. x 8.4 in. x 8 in. (H x W x D), (4.36 cm x 21.3 cm x 20.3 cm)
  - Weight: 3 lbs. (1.4 kg)
  - Power: AC (Auto-ranging, 100 to 250 VAC, 50/60 Hz, 0.4 A Maximum)

Agency approvals
- FCC Part 15 Class A
- CE Mark
- UL & Canadian UL
- RoHS
- C-Tick for Australia and New Zealand

3140

Ordering information

Equipment	Part No.
NetVanta 3140 Desktop	1700340F1
NetVanta 3140	1700341F1
NetVanta 3140 Desktop With VPN and VQM	4700340F2
NetVanta 3140 With VPN and VQM	4700341F2
VPN and VQM Software Upgrade	1950340F2
19 in. Rackmount Brackets*	1700511F1
19 in. Dual Mounting Tray*	1700508F1
Wall Mount*	1200884G1
Dual Wall Mount*	1700512F1
NetVanta 3140 With SBC, 5 Calls	4700341F2#5
NetVanta 3140 With SBC, 10 Calls	4700341F2#10
NetVanta 3140 With SBC, 25 Calls	4700341F2#25
NetVanta 3140 With SBC, 50 Calls	4700341F2#50
NetVanta 3140 With SBC, 100 Calls	4700341F2#100
NetVanta 3140 With SBC, 300 Calls	4700341F2#300
Software	
NetVanta 3140 SBC Upgrade, 5 Calls	1963SBCF5
NetVanta 3140 SBC Upgrade, 10 Calls	1963SBCF10
NetVanta 3140 SBC Upgrade, 25 Calls	1963SBCF25
NetVanta 3140 SBC Upgrade, 50 Calls	1963SBCF50
NetVanta 3140 SBC Upgrade, 100 Calls	1963SBCF100
NetVanta 3140 SBC Upgrade, 300 Calls	1963SBCF300

* Accessories apply to NetVanta 3140 (non-desktop version) only

Updated February 5, 2025