

NetVanta

8008

Gigabit Multi-Service Edge Switch



Benefits

- Supports highly scalable multi-rate Gigabit business service delivery
- Supports standard 1 Gbps and upto 5Gbps Carrier Ethernet service delivery
- Supports 4G/LTE expansion services inclusive of indoor small cell deployments
- Hardened for cell site deployment; both extreme temperature and metallic interface isolation
- Certified MEF 2.0 compliant ensuring robust support for SLA-based carrier Ethernet services
- Enhanced lightning protection enables cell site tower deployment
- SLA management via Ethernet OAM-based troubleshooting and performance monitoring tools
- Resilient access support via Link Protection
- Supports IPTV video service delivery

Overview

Gigabit services delivery in particular present challenges to the service provider as they look to preserve a high quality of experience while battling network congestion. This fact drives the need for Carrier Ethernet solutions that can effectively support a mix of SLA-based business Ethernet services along with services for backhaul and mobile traffic.

The ADTRAN® NetVanta® 8008 is a versatile, multi-service, multi-rate Gbps Carrier Ethernet switch purpose-built for deployment at the customer edge. This Ethernet Network Termination Equipment (NTE) brings together the value of several ADTRAN solutions to deliver advance Ethernet QoS-based business services.

The core Ethernet access features of this product include a powerful Ethernet processor, four flexible SFP interfaces of which two can run at speeds of 2.5Gbps and four 10/100/1000 Mbps electrical interfaces. Power can be delivered by two redundant DC sources. Additionally, ADTRAN provides external AC adapters to provide the DC power. To feed the flexible bandwidth management; Ethernet flow mapping, prioritization and tagging; as well as the versatile management options make the NetVanta an excellent choice as a premium Ethernet service termination solution.

This Carrier Ethernet-centric solution uniquely delivers residential broadband applications such as IPTV by supporting IGMPv3 and DHCP Option 82 or IPv6 LDRA. The NetVanta 8008 also supports dozens of Gigabit-level Internet services. The NetVanta 8008 simultaneously supports the delivery of IPTV and robust Ethernet services.

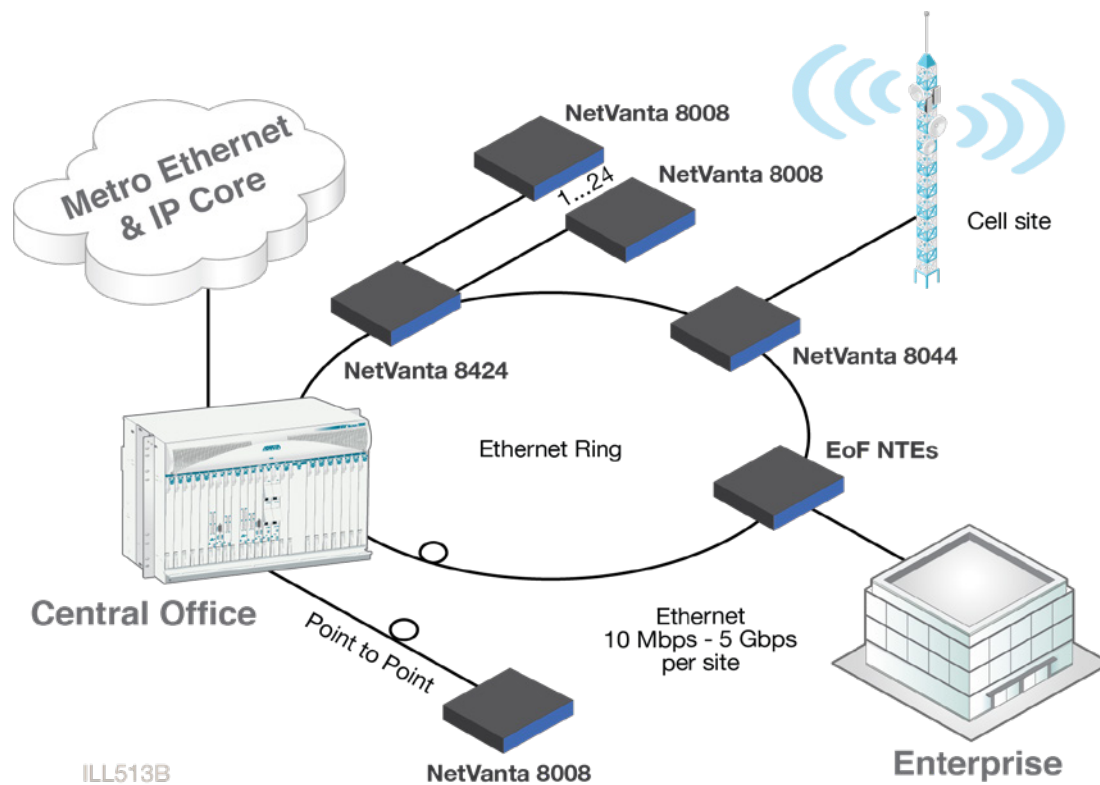
In order to support small cell backhaul applications collocated with business Ethernet and/or premium residential broadband services, these solutions allow an operator to recover network clocking at the customer site using only packet transport via a variety of methods.

There are some unique NetVanta 8008 applications including:

- Feeding the WAN connection via a GPON SFP, allowing the same access technology to be used for both residential and business applications.
- Using it as an aggregation device to deliver 2.5 Gbps point-to-point Ethernet links.
- Utilize Link Aggregation to deliver a 5 Gbps WAN connection to a business or residence.



NETVANTA 8008



Product Specifications

Front Panel Interfaces

- Four 10/100/1000 Base-T Interface Version Via RJ-45
- Two 1 Gigabit Ethernet interfaces via SFP Cages
- Two 2.5 Gigabit Ethernet interfaces via SFP Cages
- All Ethernet Ports may be used for either Network WAN or Customer-side LAN Connections
- 100BaseX SFP also Supported to allow Fast Ethernet Fiber Lease
- DB9 Local Craft Port for Support of RS-232 Interface for Local Management
- Field-replaceable Fan Module

Physical Dimensions

- Desk, Rack and Wall Mountable
- Rack-Mountable Solution in 482.6 mm or 584.2 mm Wide Telecom Racks
- 44 mm x 219 mm x 273 mm (1.7 in. x 8.6 in. x 9.0 in.) (H x W x D)
- **Weight:** 4 pounds

Power Supply, Power Consumption, Heat Dissipation

- Redundant, Dual A and B Power Feed +24VDC/-48 VDC
- Ground/Earth Provided via Post- and Lug-type Connector
- Typical Power Consumption is 17Watts, and 19 Watts with the Fan Tray installed.

Operations and Maintenance

Environmental Hardening

- **Operating Temperature:**
 - With Fan Module (Remote/Cabinet Environments) -40° C to 65° C (40° F to 149° F)
 - Without Fan Module (controlled/central office environments) -40° C to 50° C (40° F to 122° F)
- **Storage Temperature:** -40° C to 85° C (-40° F to 185° F)
- **Relative Humidity:** GR-63-CORE Five Percent to 95 Percent, Non-condensing
- Enhanced Metallic Interface Voltage Surge Protection and Isolation

Ethernet Services Support

- **Classification of Traffic Based on:**
 - Per UNI Port, CE VLAN ID (C-tag) and/or CE
 - VLAN P-Bits, Source and/or Destination MAC Address, DSCP Fields
 - Single Stack VLAN and Double Stack VLANs (Q-in-Q)
- Manipulation Based on 802.1p and DSCP Fields
- STAG TPID Provisioning Supports 802.1ad and 802.1Q Standards
- Port-based Service Support
- Service Scale and Flexibility
- MEF 9, 14, 20, 23.1, 30, 33 Compliant E-Line, E-LAN, E-Tree, E-Access
- Eight Queues, Strict Priority and/or Weighted Fair Queue Schedulers
- Configurable to EtherType and TPID for Service Flexibility
- VLAN IDs 0 – 4095; EVC Configurable in the Range of 2 – 4,094
- Supports 10k Jumbo Frame in Four Byte Increments
- 8k Active MAC Address; Ability to Disable MAC Learning
- Ingress Policers (tr3CM), CIR and EIR Settings to 64 Kbps Granularity, Configurable Burst through EBS and CBS Settings
- Egress Shaping per Port

IPTV Support

- Internet Group Management Protocol v2 and v3
- Dynamic Host Configuration Protocol support with Option 82
- Lightweight DHCPv6 Relay Agent support

Security

- TACACS+ Authentication, Authorization
- RADUIS Authentication, Authorization
- SSHv1/v2 and SFTP Clock Synchronization/Recovery
- ADTRAN Differential and Adaptive Timing Methods
- Synchronous Ethernet Support for Frequency

Regulatory Agency Approvals

- FCC Part 15 Class A
- FCC Part 68
- UL 60950, CAN/CSA C22.2 No. 60950
- EN 60950, IEC 60950, AS 3260/ AS NZS60950
- NEBS Level 3
- RoHS 2002/95/EC
- ITU-T K21:2000

Basic Device Management

- Common Operational Model (i.e. FCAPS) used for Every Ethernet Access Method
- Local Management via DB-9 RS232 or via a 10/100/1000 Copper Port
- Telnet via an IP-Based Connection
 - Inband Management on any VLAN from 2 to 4,094
- ADTRAN Advanced Operational Environment Service Management System
 - TL1 or XML (Future) Gateway
- The Unit can be Managed by and Report to up to 16 Different Users Simultaneously
 - Accounts of Existing and New Users can be Defined/ Changed Remotely, using a Dedicated RADIUS or TACACS+ Server.
 - The Current Date and Time can be Retrieved from a Centralized Location by Synchronizing with a (an)
 - ◆ NTP (Network Timing Protocol) Server
- Software Upgrades and Configuration Files can be Downloaded/Uploaded to/from NTE Via SFTP, FTP, X-Modem, and Y-Modem

Ordering Options

| Hardware Options | Part No. |
|---|------------------------|
| NetVanta 8008 Multi-Service Edge Switch | 1174808F1 |
| NetVanta 8008 Fan Module | 1174862F1 |
| Mounting Options | |
| 19" Rack Mount, One NetVanta 8008 | 1174865F1 |
| 19" Side-by-Side, Two NetVanta 8008 | 1174867F1 |
| 23" Side-by-Side, Two NetVanta 8008 | 1174867F1 |
| 23" Rack Mount, One NetVanta 8008 | 1700509G1 1174865F1 |
| Wall Mount, One NetVanta 8008 | 1174866F1 |



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