Carrier Ethernet (CE) or Metro Ethernet (ME) access continues to gain acceptance as a business class service delivery technology. Carrier Ethernet service dramatically reduces the complexity required to deploy Layer 2 services such as transparent LAN services and Layer 2 VPNs. In addition CE allows the delivery of managed Layer 3 services, such as voice and video. Carrier Ethernet enables carriers to lower operating costs as a result of a reduction in network management complexity. Carrier Ethernet provides operators the ability to effectively extend and scale customer deployment with reliable, flexible Class of Service (CoS) and Quality of Service (QoS) control.

In order to support Ethernet over Fiber (EoF) services delivery, the ADTRAN® NetVanta® Carrier Ethernet Network Termination Unit (NTU) portfolio, which already includes Ethernet over Copper (EoCu) and Ethernet over TDM (EoTDM) solutions, introduces the NetVanta 8044. The NetVanta 8044 is a Gigabit Ethernet NTU or Ethernet Access Gateway (EAG). This NTU will support point to point deployment for Gigabit Ethernet services from the Total Access® 5000 Carrier Ethernet Access Platform or any other Ethernet service platform that support standards based EoF implementations. The ADTRAN EoF solution is a MEF compliant solution supporting familiar operations tools based on both Connectivity Fault Management (CFM) and Performance Monitoring (PM) EthOAM standards as well as authentication standards such as RADIUS and TACACS+.
NetVanta 8044

Carrier Ethernet Network Termination

Front Panel Interfaces
- Four 10/100/1000 BaseT Ethernet interface via RJ-45
- Four Gigabit Ethernet interface via SFP cages, angled to reduce overall product depth and improve cable management
- 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

Physical Dimensions
- Desk, rack and wall mountable
- Rack mountable solution in 19" or 23" wide telecom racks
- Height: 1.7 inches (44mm)
- Width: 17.2 inches (437mm)
- Depth: 10.7 inches; 11.85 inches with fiber guide (254mm; 301mm with fiber guide)
- Weight: 6 lbs (2.75 kg)

Power Supply and Power Consumption
- Wide mouth AC powering version
  - IEC cord set options for US/CDN, EU and Australian 10 A/240 V plug
  - 110 – 250 V at 50 or 60 Hz
- Ground/Earth provided via Post & Lug type connector
- Typical power consumption is 14 to 18W maximum

Environmental Hardening
- Operating Temperature: -40°C to 65 °C
- Storage Temperature: -40°C to 85 °C
- Relative Humidity: GR-63-CORE 5% to 95%, non-condensing

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 (O-in-Q)
  - Manipulation based on 802.1p and DSCP fields
  - STAG TPID provisioning supports 802.1ad and 802.1Q standards
- Port based service support
- Services Scale and Flexibility
  - MEF 9, 14 compliant EPL, EVPL, ELAN, ETREE
  - 8 Queues and Strict Priority Schedulers
  - Configurable EtherType and TPID for service flexibility
- VLAN IDs 0 – 4095; EVC configurable in the range of 1 – 4094
- Configurable MTU from 1500 to 9k Jumbo frame in four bytes increments
- 4k active MAC address; Ability to disable MAC learning
- 1k EVC per device
- Ingress policers (tr3CM) per device, CIR and EIR settings to 64kbs granularity, Configurable Burst through EBS, CBS settings
- Egress shaping per port

Fault and Performance Management
- IEEE 802.3ah Link OAM
- IEEE 802.1ag Connectivity Fault Management (CFM)
- IETF TWAMP Layer 3 Performance Monitoring

Security
- TACAS+ Authentication, Authorization
- RADUIS Authentication, Authorization
- SSHv1/v2 and SFTP (2010)
- SNMPv1/v2 (today), SNMPv3 (2011)

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 4094
  - Secure Shell (SSH) via any secure client/server application (2010)
- Total Access EMS, element management system
  - SNMPv1/2, SNMPv3 (future)
  - TL1 or XML (future) gateway

Ordering Information

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>NetVanta 8044 AC version</td>
<td>1172804G1</td>
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</tbody>
</table>

Supported Small Form Factor Pluggables (SFPs) for this product may be found at www.adtran.com/sfp

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