NetVanta 873

Carrier Ethernet Network Termination

Ethernet is the undisputed, global choice for Metro Access Networks (MANs) and Local Access Networks (LANs). However, existing copper access networks do not facilitate an end-to-end high-bandwidth connection, creating a bottleneck. This bottleneck is the first mile of access. This refers to the access link (most often a TDM-based copper circuit) from the business customer's office LAN to their service provider's MAN. ADTRAN® affords service providers the ability to remove this bottleneck through the utilization of an improved data transmission standard. This standard, ITU-T G.998.2, is known as Ethernet in the First Mile (EFM). ADTRAN EFM over Copper (EoCu) defines a way to effectively and universally bond together, lower bandwidth copper loops or pairs of wires creating a Carrier Ethernet access connection.

This innovative EoCu solution enables service providers to extend packet-based business-class services beyond the reach of their fiber network by leveraging the existing investment of copperbased TDM business services assets. This means leveraging the full advantages of TDM, the most understood, successful, and ubiquitous business service infrastructure. Due to budget restrictions and time to market requirements, deploying fiber to address uneven or disperse service demand is not feasible, leaving a large percentage of businesses to rely on copper business access.

The ADTRAN EoCu solution is comprised of the NetVanta® 800 family of NTU and can be launched from our Total Access® 3000 and Total Access 5000 platforms. The NetVanta 830 Series NTU delivers enhanced data rate capabilities to deliver up to 45 Mbps of Ethernet service over bonded e.SHDSL. The NetVanta 810 Series NTU leverages the existing copperbased TDM business services assets to rapidly extend Ethernet service to any customer who currently uses DS1 or E1 service. The NetVanta 873 can EFM bond up to three DS3 connections to deliver up to 134 Mbps of Carrier Ethernet service. Quality of Service Flexibility and Assurance The NetVanta 800 Series deliver packet flow capabilities certified compliant per the Metro Ethernet Forum. These packet flow capabilities offer the traffic classification and bandwidth profiling capabilities required to offer customers a flexible, tiered service offer. In addition to this highly configurable, granular bandwidth selection toolset enabling Quality of Service (QoS) options, these same network termination points support the standards-based measurement and monitoring capabilities required to maintain a carrier-grade Ethernet network. All of this allows providers to create and meet customer SLA agreements.

Reliable Service Connection Mechanisms

In the event a single loop fails, the NetVanta 800 offers resiliency, maintaining traffic over the remaining active loops in order to maintain service. Once the failed loop is operational again, the NetVanta will automatically detect its availability and return the loop to the bonded group, providing the original provisioned customer bandwidth. When deployed through the Total Access 5000, these NTUs tap into an unparalleled array of copper loop diagnostic tools that afford an even greater service assurance level.

Simplified Service Delivery

In order to improve service time to market and reduce deployment costs, the NetVanta 800 Series delivers a feature set designed to simplify service deployment and maintenance. ADTRAN Total Access EMS employs EZ-Ethernet Provisioning, minimizing the number of steps to provision a new service. The EIA-232 craft port enables local access for configuration and status information. A management VLAN is used to remotely configure and collect status information. The compact chassis and flexible deployment options offer wallmount or rackmount for superior flexibility. When wallmounted, any NetVanta 800 only occupies a 17-inch by 10-inch area of the customer's telephone wiring closet. For rackmount installations, custom 19-inch rackmount shelves are available.



Smart Solutions for a Connected World.



 3-port EFM (g.Bond) bonded DS3

 Up to 134 Mbps of resilient Carrier Ethernet service

Product Features

- Certified MEF9, 14 Traffic Management Compliant
- 1 RMU stackable with wallmount or rackmount options
- Rapid deployment via EZ-Ethernet Provisioning
- Standards-based
 OAM supported
- Monitoring, fault detection, and loopback functions
- Flexible Bandwidth management
- Performance monitoring with threshold alarms
- Configurable queuing for CoS support
- Command Line Interface (CLI)
- Traffic storm protection to prevent service interruptions due to broadcast, multicast, unicast or L2CP traffic
- Small Form-factor Pluggable (SFP) 1000Base-X Ethernet
- Autosensing 10/100 Base-T Ethernet connections
- Industry-leading warranty



ADTRAN, Inc.

901 Explorer Boulevard Huntsville, AL 35806

P.O. Box 140000 Huntsville, AL 35814-4000

> 256 963 8000 voice 256 963 8030 fax

General Information 800 9ADTRAN info@adtran.com www.adtran.com

Pre-Sales

Technical Support 888 5ADTRAN support@adtran.com www.adtran.com/support

Where to Buy 800 827 0807 www.adtran.com/where2buy

> Post-Sales **Technical Support** 800 726 8663 support@adtran.com www.adtran.com/support

Regional Offices

Dallas, TX 972 830 9070 Denver, CO 303 471 9150 Kansas Citv. KS 800 471 8649 Newark NJ 800 471 8656 Ontario, Canada 416 290 0585 Quebec, Canada 877 923 8726 San Antonio, TX 888 223 7671

International Inquiries

+1 256 963 8716 voice +1 256 963 6300 fax international@adtran.com www.adtran.com/international



ADTRAN is an ISO 9001, ISO 14001 and a TL 9000 certified supplier.

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NetVanta[®] 873



3-port EFM over DS3



Product Specifications

Physical Interface

- Network Interface: DS3 75 ohm BNC
- Customer: Four autosensing 10/100Base-T Ethernet
 - RJ-45
 - Auto MDI/MDIX
- Auto-Rate
- Auto-Duplex

Gigabit Ethernet Interface

- Interface type: 1000 Base-X
- Connector: Single SFP
- Compliance: 802.3, 802.1D, 802.10
- Management: Console port
- DB-9
- EIA-232

Diagnostic LEDs

- Power/Alarm LED

Features

- E-Line support
- Mini jumbo frame support (1700 Bytes)
- Efficient EFM bonding
- Q in Q
- Flexible bandwidth profiles for rate limiting
- Traffic classification options include CE-VLAN, port, p-bit, DSCP
- SNMP support

Standards Compliant

- IEEE 802.1p priority marking
- IEEE 802.1d dynamic/transparent bridging
- IEEE 802.1g VLAN tagging
- IEEE 802.3-ah EFM standard
- IEEE 802.3u Ethernet
- MEF 9,14

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Management & Administration

- Craft interface (Local, EIA-232)
- Remote firmware upgrades
- Local: YMODEM through craft port
- Remote: Managed through Total Access[®] 5000
- Flow through provisioning via Total Access EMS
- Supports OAM management status and loopback messaging
- Configuration script download

Environment

- Operating Temperature: -40 C to +65 C (32 to 122 F)
- **Storage Temperature:** -40 C to + 85 C (-4 to 158 F)
- Relative Humidity: Up to 95%, noncondensing

Physical

- Dimensions: 44 mm (1.7 in.) H, 437 mm (17.2 in.) W, 254 mm (10.0 in.) D
- Weight: 3.6 kg
- DC Power: -48 VDC or +/-24 VDC (A or B power feed)

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
- S043.2

Ordering Information

Equipment	Part #
NetVanta 873	1200639G1
48VDC Power Supply, US Cord	1202470E1
48VDC Power Supply, EU Cord	1202470E2
48VDC Power Supply, UK Cord	1202470G3
48VDC Power Supply, AUS Cord	1202470L4

- DS3 loop status for each loop
- Ethernet LED