

MetroNID[®] GT

Demarcation at the edge of the network provides assured, end-to-end SLAs and standards-based management to deliver carrier-grade Ethernet and IP services for even the most demanding applications.

Intelligent Demarcation

Typical point-to-point links or hub and spoke networks have limited scalability and density. Accedian Networks' MetroNID GT, with its ring networking capabilities, provides service providers with reliability, overcomes operational, management and performance limitations, eliminates points of failure, creates redundancy and ensures quality of service (QoS). Furthermore, as gigabit Ethernet and packet-based networking becomes the standard for business services, networks are expected to deliver carrier-grade QoS but service providers are facing the challenge of visibility in the network – the ability to identify, isolate and to quickly resolve issues to minimize the impact on services. This is where Accedian's industry leading high performance service creation and service assurance functionality comes into play.

Agile and resilient, the MetroNID GT allows network operators to deliver business Ethernet services through fiber efficient, and highly resilient G.8032v2 ring architecture, and allows for the monetization of their networks, while keeping costs in check and protecting existing revenue streams.



Product Highlights

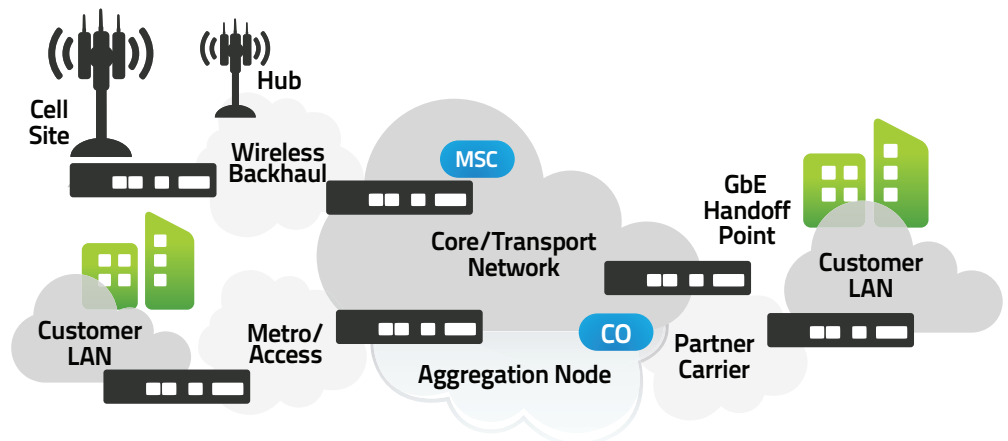
Proprietary Hardware Design

- 1 μ s measurement resolution
- Ultra-low delay performance
- Ideal for assuring real-time services

Service Assurance and Creation Features

- Establish SLA-backed Ethernet services, point-to-point and multi-point
- Enhanced fast and flexible service creation by mapping any VLAN IDs to the same EVC.
- 1-way delay and delay variation, throughput, packet loss, availability and usage statistics

Test Set and Monitoring System Support



MetroNID GT Demarcation Device

High-performance MetroNID GT units provide carrier-grade demarcation within metro and access networks. Designed for cellular hubs, aggregation nodes, and subscriber CPE, MetroNIDs segment, monitor and bridge diverse networks, delivering high-density OAM and performance monitoring visibility. Available with integrated GPS receiver and Synchronous Ethernet PHY options.

Unlike store-and-forward architectures, Fast-PAA's proprietary silicon design provides wire-speed pass-through performance without adding delay or delay variation, while at the same time providing microsecond measurement resolution and real-time processing for every packet flowing through the unit.

With MEF 9+14 and NEBS Level 3 compliancy, MetroNID GT units are truly carrier-grade. A variety of mounting options ease installation at customer premises, cell sites, central offices and aggregation nodes.

Interfaces



MetroNID GT

- **2 x 10/100/1000Mbps RJ-45**
 - 10/100/1000Mbps (10/100/1000 Base TX) RJ-45 Connectors: supports Auto-negotiation and Auto MDIX
- **2 x 10/100/1000Mbps SFP**
 - 10/100/1000Mbps (10/100/1000 Base TX/FX/LX/SX) SFP Connectors: supports a wide range of SFPs including copper SFPs

MetroNID GT-S

- **4 x 10/100/1000Mbps SFP**
 - 10/100/1000Mbps (10/100/1000 Base TX/FX/LX/SX) SFP Connectors: supports a wide range of SFPs including copper SFPs

Applies to all units:

- Mix and match assignable ports for Client, Network and Monitoring functions

Management port:

- **10/100Mbps RJ-45**
 - 10/100Mbps (10/100 Base TX) RJ-45 Connectors: supports Auto-negotiation and Auto MDIX

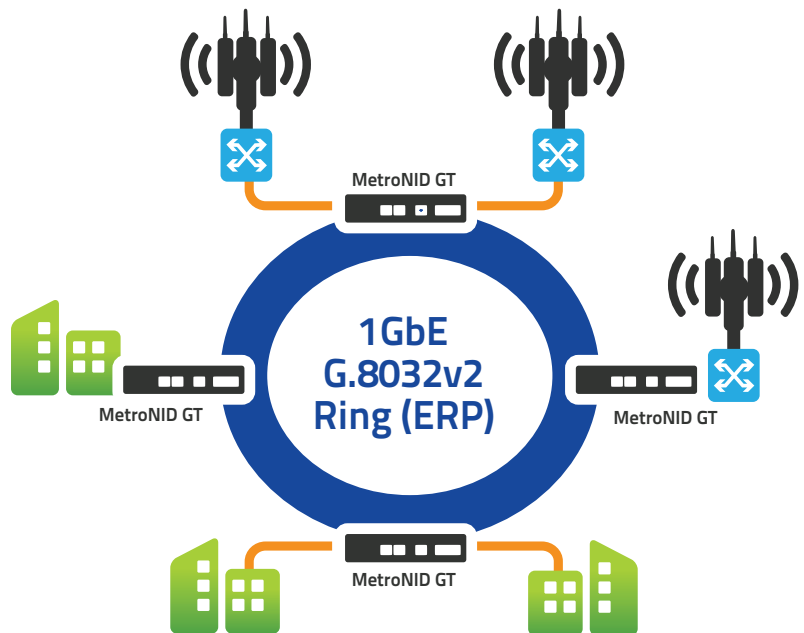
MetroNID GT with GPS/SYNC Ethernet

- **Integrated GPS receive and Synchronous Ethernet PHY Options**
- **Mix and Match with Client/Network ports**

Feature Highlights

1GbE Ring Protection with EVC Add/Drop Service Delivery

Leveraging high performance ring protection based upon ITU-T G.8032v2 with sub 50ms failover switching, the Accedian MetroNID GT can be used to extend highly resilient protected Ethernet services to support Carrier Ethernet applications including Mobile Backhaul and Business Services. The ITU-T G.8032v2 support for the MetroNID GT can be used standalone to deliver protected 10/100/1000 Mbps services to cell sites or subscriber locations.



Service Assurance and Testing Functionality

PAA™ and SLA-Meter™

High-performance, hardware-assisted demarcation devices monitor and measure delay, delay variation, frame loss and continuity, including 1-way performance validation with microsecond resolution. Multi-flow, multi-service, multi-site performance assurance enables real-time SLA assurance over any network. Devices also support point-to-point, multipoint, ring and mesh topologies, as well as unicast and multicast testing.

Y.1564 Automated Service Activation Testing

Enhanced test suite that allows simultaneous service activation testing at Layer 2 and 3 of up to 8 classes of service or 8 distinct single-CoS services. Based on the methodology defined in ITU-T Y.1564, it enables verification of both service configuration and performance parameters (CIR, EIR, EMIX, frame delay, frame delay variation and frame loss, one-way and two-way measurements and availability).

RFC-2544 Automated Test Suite and Reports

Advanced tool based on the RFC-2544 standard that can be used to measure and diagnose throughput, delay, delay variation, frame loss, and back-to-back efficiency.

Intelligent Loopbacks

In-service Layer 1, 2, 3 and 4 loopbacks per-flow, defined by VLAN, Service-Level, MAC/IP addresses or any combination of Layer 2, 3 and 4 header criteria. Units respond to in-band loop-up commands from most third-party Ethernet test sets and monitoring systems, as well as via ITU-T Y.1731 standards & IEEE 802.3ah.

Per-Flow Statistics

Real-time statistics of any Layer 2, 3 and 4 flow (VLAN, ToS, CoS, MAC, IP, TCP/UDP).

Tapping and Monitoring

Single or dual monitor ports providing filtered, real-time access to unidirectional or bidirectional traffic.

Service Creation and Traffic Conditioning

Service Mapping

Service mapping applies C/S VLAN tags (selective push) and/or configurable service class to traffic meeting detailed Layer 2, 3 and 4 criteria. Fast and flexible VLAN to EVC mapping enables mapping an arbitrary set of VLANs to the same EVC.

Bandwidth Policing

Upstream and downstream CIR/EIR limits by filtering criteria or for all traffic. Facilitates Carrier Ethernet service provisioning and on-demand/incremental service upgrades.

Wire-Speed Filtering

Filtering of wire speed traffic at Layer 1, 2, 3 and 4 (L2CP, BDPU, per VLAN, Ethertype, Protocol type, MAC, IP, User Defined).

Switch-Free Aggregation

Delay-free, multi-port aggregation modes by implementing a full mesh connectivity between the ports. Protected pair and ITU-T G.8032v2 protected ring also supported.

General Functionality

Jumbo Frames Support

All functions support Jumbo Frames up to 10,240 bytes at all rates (10/100/1000 Mbps).

Plug & Go™

Automated zero-touch provisioning, auto-configuration and inventory tracking capabilities. Available in LAN-Link and Ring Topologies.

SNMP v1 and v2c

SNMP v1 and v2c support for monitoring, alarms, OSS integration.

Dry-Contact Inputs

Units support 2 dry-contact inputs accessible through an RJ-45 connector.

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