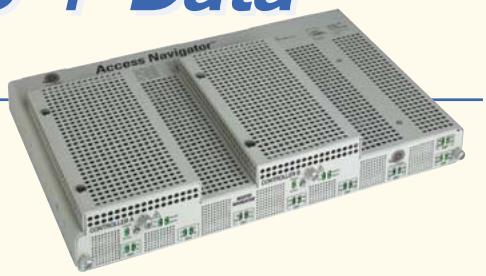
Access Navigator/GR303 + Data Host



Release 1.8

Part Number: 930-0201

Optimize T1 access facilities and maximize Class 5 switch port capacity

In today's competitive telecommunications environment, extending capital budgets and lowering operating costs are often the keys to survival. The Access Navigator®/GR-303 + Data Host can help carriers utilize existing resources more efficiently – slashing recurring T1 backhaul costs and reducing the required number of Class 5 switch ports. It also allows carriers to provide service to a greater number of customers without additional infrastructure investment.

The Access Navigator combines Telcordia™ compliant GR-303 oversubscription with a 1/0 Digital Cross-connect System (DCS) for grooming and concentrating voice and data traffic. GR-303 allows the service provider to oversubscribe T1 backhaul voice circuits by as much as 16:1 without losing GR-303 trunk redundancy. Using the 1/0 cross-connect capabilities, the service provider can efficiently groom multiple fractional T1s into fully utilized T1s, resulting in as much as 8:1 savings in T1 backhaul links. These two features combined allow the service provider to maximize utilization of T1 backhaul facilities; free unused bandwidth in fractional T1 links to service new/additional customers; and oversubscribe voice circuits to reduce the demand on Class 5 switch port capacity.

With its small footprint and low power requirements, the Access Navigator can be used in applications where traditional large, expensive DCS platforms would be impractical. This opens up a wide range of applications from the network core, to the network edge, and into the customer premises.

The Access Navigator is designed to help service providers optimize their existing architectures and open additional revenue-generating opportunities, including:

- Reduction in recurring T1 backhaul expenses (remote to central office)
- T1 1/0 grooming for cell site daisy-chaining (wireless)
- GR-303 oversubscription of voice channels (central office)
- Class 5 switch port optimization (central office)
- DCS augmentation or replacement (central office)
- DLC T1/fractional T1 offload (remote)
- Maximized router port utilization (network)
- Cost and rack space constrained 1/0 cross-connect applications (collocations, POPs, CEVs)

Key Features:

- Provides up to 32 DS1s (768 DS0s) per system
- Installs in small 1.5 RU footprint
- Supports low 65 W power consumption
- Offers carrier-quality redundant CPU logic, BITS clocking, and power inputs
- Complies with standard Telcordia GR-303 voice concentration (from 1:1 to 1:16)
- Compatible with Lucent, Nortel, and Siemens Class 5 switches (supports CLASS℠ features)
- Allows enhanced alarm capabilities, remote management options, performance statistics, T1 BERT testing
- Enables pass-through management of remote Access Bank® II and Adit® 600

CarrierAccess®

Technical Specifications

GR-303 + Data Host Components:

- 8 Quad T1 framer cards (4 to 32 T1s per system)
- 2 redundant controller cards
- Telcordia-compliant GR-303 software preloaded into flash memory
- Chassis with redundant power inputs

DS1 Network/Tributary Interface:

- Quad DS1s per line card, hot-swappable
- Line rate: 1.544 Mbps ± 32 ppm
- Line code: B8ZS and AMI
- Framing: D4 (SF) and ESF
- DS1 receive sensitivity: -28 dBsx to +3 dBsx
- Line build-outs: DSX-1 (0-550 ft) CSU (0 dB, -7.5 dB, -15 dB, -22.5 dB)
- ANSI T1.403 Sec 6 & 7 (jitter, pulse mask transmission, receive sensitivity, framing formats) and T1.107a
- Built-in CSU with loopback and BERT for DS1 testing
- AT&T 62411 (Stratum 4 Enhanced T1 CPE)

Clocking:

- Primary and secondary DS1 sources
- External BITS clock
- Internal Stratum 4 clock
- Automatic system clock switching and holdover

Management:

- RS-232/V.24 async craft port
- 10Base-T Ethernet port
- SNMP (RFC 1406 Telcordia standard DS1 MIBs)
- CLI from both local async port and remote Telnet sessions
- Software download via TFTP or XModem

Alarms:

- Critical, major and minor alarm levels
- DS1 alarms for LOS, LOF, Receive AIS, and Receive RAI
- Output signal: relay contact closures and LED indication
- Alarm inputs from dry contact closures

Power:

- Dual -48 VDC power inputs: -42 to -60 VDC @ 1.5 A
- Power dissipation: 65 W fully equipped
- Solid-state (fuseless) overvoltage and overcurrent protection

Regulatory Approvals:

- USA
  - UL 1950, 3rd Edition
  - FCC Part 15, Class A
  - FCC Part 68
  - NEBS Level-3 for type 2 and 4 equipment
    - GR-63-CORE
    - GR-1089-CORE
- Canada
  - CSA C22.2 No. 60950-00
  - ICES-003, Class A
  - CS-03

Physical:

- 2.63 in (H) x 17 in (W) x 13.5 in (D)
- 6.68 cm (H) x 43.18 cm (W) x 34.29 cm (D)
- Weight: 10 lb (4.54 kg)
- Mounts in both 19-in (48.26 cm) and 23-in (58.42 cm) racks

Environment:

- Operating temperature: 23 °F to 113 °F (-5 °C to 45 °C)
- Solid-state over-temperature protection
- Humidity: 0% to 95% (non-condensing)
- Altitude: 0 to 10,000 ft (0 to 3,048 m)

CarrierAccess®

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