Adit 600

Release 9.4
Multi-Service Delivery Terminal

Key Benefits :

• Single, 2 rack unit high, half-width wide, chassis provides the functionality of channel banks, channel/data service units (CSU/DSU), cross-connects, routers, subrate multiplexers, voice over IP (VoIP) gateways and digital loop carrier terminals

• Two Adit 600 chassis can be mounted side-by-side in a 2RU rack space

• Expandable architecture allows service providers to scale across service types, network architectures, and bandwidth requirements enabling a dynamic service delivery environment and provide a future-ready service migration path

• New revenue-generating services can be added easily by installing a new service card

• Remote management options enable operational efficiencies and provide high service availability to small and medium business customers

• Supports TDM and IP migration strategies on single reliable platform

Adit 600 Multi-service Delivery Terminal provides converged IP or TDM services in a scalable platform

With over 100,000 units in service, the Adit® 600 Multi-service Delivery Terminal is the ideal platform to provide carrier-quality broadband voice and data services for a wide range of applications. It combines multi-network access and multi-service delivery capabilities into one platform. The result is an extremely cost-effective, compact, and flexible solution for wireline, wireless, and IP network applications.

The Adit 600 combines the functions of an 18 T1/E1 digital cross-connect with DS0 voice interfaces, IP and voice routers, digital Centrex, and a variety of standard data interfaces. The Adit 600 replaces and integrates a range of network functions into a single chassis, including: channel banks, CSUs/DSUs, cross-connects, routers, sub-rate multiplexers, VoIP gateways, and digital loop carrier terminals.

Hot-swappable service cards provide the physical, electrical, and logical connections for analog line terminations, PBX interfaces, LAN to WAN connectivity, serial interfaces, and network access. Any service card can be placed in any of the six available slots.

Modular functionality and customer interface types include IP Router, long reach FXS, FXO/DPT, E&M/TO, V.35, RS-232, OCU-DP, ISDN BRI, Terminal Server Router (TSR), P-Phone (Meridian Digital Centrex), Single-channel POTS, ADPCM, and T1 or E1. In addition, the Customer Media Gateway (CMG) Service Cards enable the Adit 600 to deliver converged IP voice and data services. With the installation of a CMG, CMG-01 or CMG-02 Service Card, VoIP services can be added to existing data or voice services, providing a unique mix of IP and TDM voice and data services. And the Adit 600 is Rural Utility Services (RUS) listed.

Service Capacities for Adit 600 :

T1/E1	ISDN-BRI	OCU-DP	V.35	RS-232 (synchro-nous)	IP Router	VoIP CMG Router	Ethernet VoIP Gateway - T1/E1	Terminal Server Router (TSR)	FXO/ FXS	P-phone	POTS (single channel)	E&M/TO
18	40	24	12	12	6	5	4	24	48	47	6	24

Key Features :

• Allows any service connection or network access line to be deployed in any slot

• Provides integrated 18 T1 or E1 port digital cross-connect for service grooming and restoration

• Supplies integrated dual T1/E1 CSU/DSUs, RS-232, Telnet, and SNMP management on the Controller Card

• VoIP services support with the CMG, CMG-01 and CMG-02 Service Cards

• Enables remote SNMP and Telnet provisioning, monitoring, and testing of services and network conditions

• Supports remote terminal management via Access Navigator® Facility Data Link connectivity

• Integrated AC or DC power supply with battery charger for eight-hour backup

• Line and power protection without fans or fuses ensure years of reliable services

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Technical Specifications for the Adit 600 Multi-service Delivery Terminal

Components :
- Adit 600 chassis with six Service Card slots, single Controller Card slot and one Power Supply slot
- Power supply options:
  - Combination 115 VAC/-48 VDC Power Supply/Charger
  - Combination 230 VAC/-48 VDC Power Supply/Charger
  - 24 VDC Power Supply
- Dual T1 Controller or Dual E1 Controller
- Service cards available include (see separate specification sheets for each):
  - 8-channel FXO/DPT Voice Service Card
  - 8-channel FXS 8C Voice Service Card
  - 2-, 4-, and 8-channel ISDN BRI Service Cards
  - Single and Quad-Port OCU-DP Service Cards
  - Octal P-Phone Service Card
  - Order Wire Single-Channel POTS Service Card
  - Quad 4-Wire E&M/TO Service Card
  - Dual RS-232 Synchronous Data Service Card (limited configuration supported)
  - Dual V.35 Service Card with V.54 test capability
  - Quad DS1/E1 Network Access/Digital Cross-Connect Service Card
  - Quad DS1 ADPCM Service Card
  - IP Router Service Card
  - Quad-Port Terminal Server Router (TSR) Service Card
  - Customer Media Gateway (CMG) Service Card (VoIP)
  - Customer Media Gateway-01 (CMG-01) Service Card (VoIP)
  - Customer Media Gateway-02 (CMG-02) Service Card (VoIP)

Management :
- SNMP management over 10Base-T customer WAN bandwidth or dedicated DS0
- Remote management over T1 ESF Facility Data Link or dedicated DS0
- Hitless remote upgrade capable

Network Interface :
- Dual T1/E1 included with T1/E1 Controller
- Framing for T1: SF (D4) or ESF
- Line code for T1: B8ZS and AMI
- Framing for E1: 16 Frame with or without CRC
- Line code for E1: AMI and HDB3

Network Standards :
- ANSI/TIA T1.403 ESF FDL
- T1.403-1995

Clocking :
- T1/E1 reference timing with hold-over
- Internal Stratum 4E clock with hold-over

Alarms :
- External Alarm: 6-pin connector (rear), one input, two outputs for major/minor alarms
- T1: LOS, BPV, Yellow, LOF, AIS

Testing & Diagnostics :
- Configurable for CSU or NIU loopback codes, or disabled
- V.54 loop codes, QRSS, 2047, 2E20-1, 2E15-1 Test Patterns

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Power :
- Standard 115 VAC /-48 VDC Power Supply/Charger
  - Power supply with integrated battery charger
  - AC power: 90 to 135 VAC, 60 Hz
  - DC power: -42 to -60 VDC @ 3.5 A max
  - Maximum power: 115 W
  - Battery backup unit option (for external mounting)
- Optional 230 VAC/-48 VDC Power Supply/Charger
  - Power supply with integrated battery charger
  - AC power: 190 to 254 VAC, 47-63 Hz
  - DC power: -48 to -60 VDC @ 2.5 A max
  - Maximum power: 90 W
  - Battery backup unit option (for external mounting)
- Optional 24 VDC Power Supply
  - Power supply with ringing generator
  - DC power: 21 to 29 VDC @ 6 A max
  - Maximum power: 90 W

Regulatory Approvals :
- USA
  - UL60950
  - FCC Part 15, Class A
  - FCC Part 68
  - RUS Listed
  - Designed to meet NEBS Level-3
    - GR-63-CORE
    - GR-1089-CORE
- Canada
  - CSA C22.2 No. 60950-00
  - ICES-003, Class A
  - CS-03
- European Union (CE Mark)
  - EN60950
  - EN55022, Class A
  - EN55024, Immunity
  - EN 300 386 V1.3.1
  - EN61000-3-2, Harmonics
  - EN61000-3-3, Flicker
  - CTR 12 and 13
- Australia/New Zealand (ITE Applications only)
  - C-Tick (Datacom)
  - AS/NZS 60950
  - AS/NZS CISPR22, Class A
- Brazil
  - Anatel-certified for specific telecom applications

Physical :
- Wall mount bracket (included)
- Rack mount option: dual side-by-side 19 in (48.26 cm) or 23 in (58.42 cm) rack
- Dimensions:
  - 3.5 in (H) {2RU} x 8.5 in (W) x 12 in (D)
  - 8.9 cm (H) x 21.6 cm (W) x 30.5 cm (D)
- Weight: 11.8 lb (5.35 kg) maximum (fully loaded)

Environment :
- Operating temperature range: 32 °F to 104 °F (0 °C to 40 °C)
- Storage temperature range: -40 °F to 158 °F (-40 °C to 70 °C)
- Cooling method is by free air convection and requires long axis of unit to be mounted horizontally
- Maximum operating altitude: 10,000 ft (3,048 m)
- Maximum non-operating altitude: 40,000 ft (12,192 m)
- Relative humidity (non-condensing) range: 0% to 95%

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