



## Access60®

T1/E1 Integrated Access Device



The Access60 T1/E1 integrated access device (IAD) from Telco Systems® is specifically designed to help service providers deploy a full range of services – such as Plain Old Telephone Service (POTS), fractional T1, legacy data applications.

This IAD supports the transport of voice, data, image and video, and offers an inexpensive, modular migration path to emerging technologies, applications and carrier services.

The Access60 provides capacity for up to ten T1 or eight E1 trunks and up to 120 POTS lines. This IAD device offers 12 user application module slots and redundant AC or DC power as well as redundant configuration, management and maintenance (CMM) module support.

### Abundant Applications

The Access60 is configurable in a variety of ways, from a simple primary multiplexer for drop-and-insert functionality to sophisticated digital cross-connects for concentration and grooming. POTS, E&M, FXS and FXO voice application modules support

- the connection of telephones and private branch exchanges (PBX) to a central office
- a PBX to another PBX using tie lines
- extensions for telephones in remote points of presence (POPs) or branch offices
- modem or fax access

### Redundant Architecture

The Access60 uses a distributed architecture design that removes the inherent limitations of centralized architectures, providing a scalable system with no single point of failure. Reliability is enhanced through route diversity, protection switching and system redundancy. Users can choose the level of network availability required for their application through various redundancy options. In the Access60, network service module redundancy (1:N) and power supply redundancy (1:1) protect against hardware failures. The 1:N T1/E1 facility redundancy protects against network failures. The Access60 can switch traffic to an alternate facility in the event of a link failure, with priority bumping to improve the cost-effectiveness of redundant, point-to-point configurations.

### System and Network Management

The Access60 supports two management options: ASCII VT100 terminal and SNMP which are accessible by a front panel serial port, internal modem connection or optional Ethernet interface. SNMP provides alarms and access to configuration and text parameters for remote network management. In addition, utilities such as TELNET, the Trivial File Transfer Protocol (TFTP) and the flash memory card assist in the ease of software and configuration downloads.

- Economical service delivery to small and medium-sized business customers
- Competitive local exchange applications for service providers
- Scalable, network access
  - dramatically reduces access costs
  - efficient use of available bandwidth
- Flexible, redundant architecture supports critical business applications:
  - transaction processing
  - service bureaus
  - information access across WANs
- Integrates voice, synchronous or asynchronous data, image and video services
- T1/E1 digital access (DSX & CSU functionality)
- 1:1 or 1:N protection on T1/E1 trunks
- Supports D4, ESF
- SNMP or VT100 menu driven management
- Non-volatile, flash memory for downloading configuration and upgrades
- System reconfiguration upon a T1/E1 failure
- Multiple redundant clock inputs; Int, Ext, DDS, recovered and application module
- All modules hot swappable



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## T1/E1 Integrated Access Device

### Specifications

- Scalable up to 120 DS0 (64 kbps) channels
- Digital cross-connect up to 10 T1s, 20 fractional T1s, 8 E1s, or 16 fractional E1s
- Automated facility backup and restoral
- Meets ITU and North American standards

**Slots** 16 (12 available)

**Voice Ports per Chassis** 120

**Distributed Architecture** Yes

**Protection**

1:1 Power;

1:1 T1/E1

1:N T1/E1

### Interfaces

#### T1/E1 Interfaces

- 10 Ports per Chassis, Single T1, Single E1, Dual T1, Dual E1

#### Analog Voice Interfaces

- 2/4-wire E&M/TO: 6 port
- 2-wire FXS/PLAR/FXSDN: 6, 12 port
- 2-wire FXS/PLAR/FXSDN/DPO with Battery Reversal: 12 port
- 2-wire FXO/MRD/DPT: 6 port

#### Data Interfaces

- Synch Subrate Digital Multiplexer: 5 port
- Office Channel Unit (OCUDP): 5 port
- Digital Signal Zero (DS0-DP) 5 port
- Universal Synchronous Data: 4 port
- Async Subrate module (ADM) 6 port

### Applications

- Voice and Data over Multi-T1/E1 T1 or E1 Cross-Connects

- Utilities/Wireless Backhaul

### Management

- Embedded SNMP
- ASCII Terminal
- Telnet
- Remote Alarm Reporting,
- Built-in Modem

### General

Dimensions 8.75" x 17.5" x 12" (HxWxD)  
22.2cm x 44.5cm x 30.5cm

Power Supply -48 Vdc, w/RG,  
110/220 Vac w/ RG

Operating Temp 32°F to 122°F (0°C to 50°C)  
Relative Humidity Up to 90%, non-condensing

### Ordering Information

Part Number	Description
M6000-04-3	Access60 5RU Chassis (includes 621-0014 rackmount kit)
M6013-20-3	T1 Dual LIU/DSX w/Cross-connect
M6013-20-3P	T1 Dual LIU/DSX w/Cross-connect (includes 820-DS12-P2-036 net. Int. Cbl)
M6013-21-3	T1 Dual LIU with Integral CSU and Cross-Connect
M6013-21-3P	T1 Dual LIU with Integral CSU and Cross-Connect (inc 820-DS12-P2-036 Net Int Cbl)
M6015-22-3	Dual E1 LIU
M6024-00-3	Access60 5RU CMM for M6000-04-3 Chassis
M6025-10-4	5RU Access 60 CMM w/Ethernet Port (10BT Rear Port)
M6025-10-4P	Access60 5RU CMM w/10-BaseT Ethernet for M6000-04-3 & M6000-0-3 Chassis
M6041-60-3	6-Port 2- or 4-Wire E&M/TO with Extended Range
M6043-60-3	6-Port FXS TR Std
M6045-60-2	Six-Port 2-Wire FXO/MRD/DPT
M6045-6A-2	Six-Port 2-Wire FXO/MRD/DPT w/BT3 impedance
M6070-50-2	5-port DSO-DP
M6071-50-2	5-port Synchronous Subrate Digital Multiplexer (SRDM)
M6073-60-2	6-port Subrate Asynchronous Digital Multiplexer (ADM)
M6074-50-3	Five-Port Office Channel Unit - Data Port (OCU-DP) (TR Std)
M6077-40-2	Four-port Universal Synchronous Data (USD) Module
M6077-40-2P	Four-port Univ. Synchronous Data (USD) Module w/Adapters
M6096-15-4	110-265 Vac, 50/60 Hz PSU/RG for 5RU Chassis
M6097-10-7	-48VDC SGL WIDE PS W/RG/PSBITE