



Performance by Design

OMNIFlex

www.bayly.com



COMPACT T1/E1 ACCESS PLATFORM

Integrates T1/E1, V.35/RS422 and Ethernet into a single compact unit

Provides T1/E1 link redundancy for disaster recovery and protection switching

OMNIFlex is an intelligent high-speed platform that integrates digital cross-connect switching, data port multiplexing, Ethernet access, analog voice compression, bit error testing and remote management into a compact package. Engineered for high reliability and wide operating temperature range, OMNIFlex is ideal for edge-of-network grooming and backhaul optimization, especially in environmentally harsh conditions. The unit occupies only one rack mount space which, in combination with front access to all field connections, makes OMNIFlex suitable for the smallest cell site and base station installations.

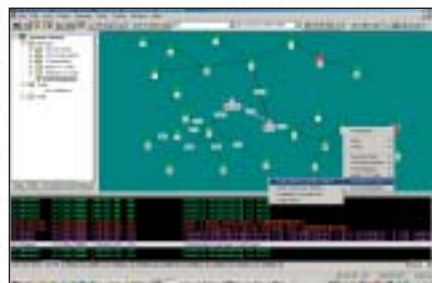
Wireless network operators, Internet Service Providers (ISP's) and carriers can deploy OMNIFlex in a variety of applications. These include cell site and E911 backhaul, customer premise integrated access device (IAD) and public network interconnection. OMNIFlex can also be used to protect T1/E1 lines for disaster recovery and alternate path routing solutions. OMNIFlex supports transport over TDM and ATM facilities and can be directly connected to leased lines using built-in CSU's.

FEATURES

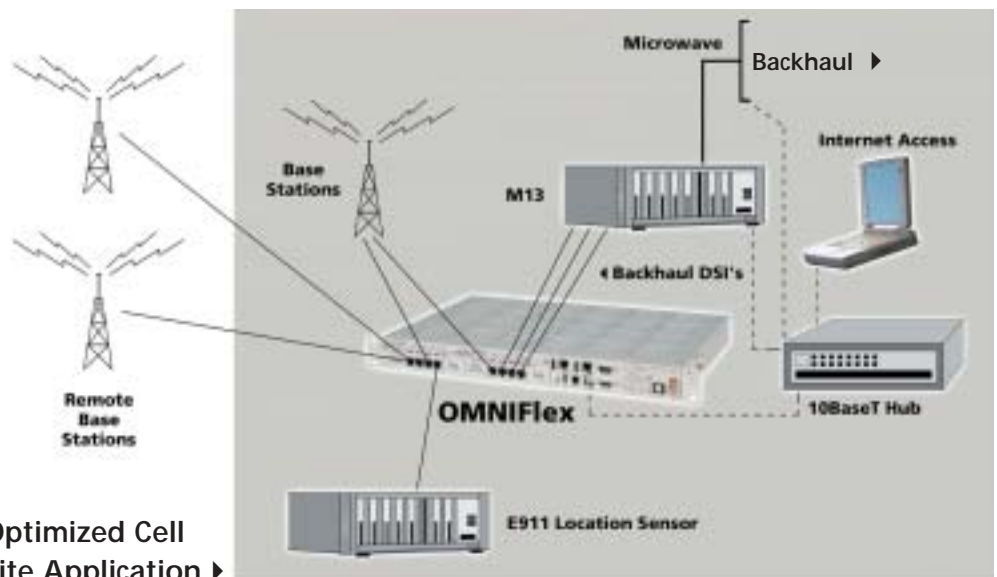
- 8 ports in 1 rack mount space
- Integrated T1 CSU's
- DS1/0 (E1/0) cross-connect
- Integrated DSU's
- IP Management Gateway
- ATM over T1/E1
- POTS voice port
- ADPCM voice compression
- T1/E1 bit error rate testing (BERT)
- Front access to field connections
- Remote SNMP management
- Telnet
- Low power consumption

BENEFITS

- Reduces T1/E1 backhaul costs by 50%, or more
- Reduces equipment costs
- Integrates CSU, DSU, 1/0 cross-connect and voice compression into a single unit
- Manages co-located devices and reduces overhead bandwidth costs
- Provides T1/E1 performance data records to maintain network uptime



OMNIFlex NMS screen showing network display and alarm log



Optimized Cell Site Application

APPLICATIONS

- T1/E1 leased line cost reduction
- Network optimization
- GSM and E911 overlay
- ATM transport over T1/E1

OMNIFlex ACCESS PLATFORM

- Optimize transport facilities at the DSO level
- Integrate multi-technologies and multi-interfaces
- Analog voice compression
- Element management



COMPACT SIZE = FLEXIBILITY

A single compact unit accepts one or two modules that each provide T1/E1 cross-connect, CSU, DSU, management, voice compression and bit error rate testing.

OMNIFlex SPECIFICATIONS

Network Ports	T1	E1
Line Rate:	1.544 Mbps, +/- 30 ppm	2.048 Mbps, +/- 50 ppm
Line Code:	AMI or B8ZS	HDB3
Framing:	D4, ESF per TR54016 and TR62411	ITU G.704
Equalization:	DSX-1, CSU line build out A,B,C	Up to 6 dB of cable loss
Line Impedance:	110 ohm balanced	75 ohm unbalanced or 120 ohm balanced
Synchronization:	Internal, or external from any T1 port	Internal, or external from any E1 port
Performance Monitoring:	ANSI T1.403	ITU G.821
LED Alarm Indicators:	T1 Major and Minor	E1 Prompt and Service
Alarm Contacts:	Dry Form C, Major and Minor	Dry Form C, Prompt and Service
Connectors:	RJ48C	BNC (75 ohm), RJ45 (120 ohm)
Loopback:	Local and remote per T1 port Loop-up and loop-down as per T1.403	Local and remote per E1 port
Regulatory:	FCC part 15, Class B FCC Part 68 DOC CS-03 UL 1950, CSA	BAPT 221 ZV MU9, IEC 950 EN41003, EN5022 Class B EN50082-1, EN5082-2, EN60950 CTR 12/13, NTR 4

DATA PORTS

- Synchronous: Nx56/64 Kbps, N=1-24 (T1), N=1-30 (E1)
V.35, RS422 interfaces, DCE, M34 (V.35),
DB25 (RS530) and DB37 (RS449) connectors
- Ethernet: 10BaseT with RJ45 connector, 64Kbps

CROSS-CONNECT

- Routing: Any time slot to any other time slot, non-blocking
- Routing Tables: 1 active and 7 backup
- Switching: Upon T1/E1 alarm, time-of-day or manual intervention

VOICE PORT

- Type: 2-wire loop start with integrated ring generator
- Access: Mapped to a user-selected time slot channel

VOICE COMPRESSION

- Format: 2:1 ADPCM
- Compatibility: G.726
- Capacity: 48 channels compressed to 24 (T1), 60 channels compressed to 30 (E1)

CONFIGURATIONS

- 8xT1/CSU or 8xE1
- 6xT1/CSU + 2 data ports or 6xE1 + 2 data ports
- T1/E1 bit error rate testing (BERT)
- Optional analog voice port
- Optional ADPCM voice compression

MANAGEMENT

- SNMP: Bayly custom MIB enabling management of all ports, routing tables and T1/E1 performance data. Ability to manage other co-located devices.
- NMS: OMNIFlex PC-based management software provides remote configuration control of all units and automatic T1/E1 alarm reporting.
- LAN Interface: 10BaseT, PPP ports, RJ45 connectors
- Bayly RACS: VT100, RS232, 9600 bps, RJ12 connector
- Remote Access: Via multipoint management channel (64 Kbps for SNMP, 9600 bps for VT100) Management channel echoed on all T1/E1 ports Supports Telnet
- Compatibility: Alcatel 5620 NMS, standards-based SNMP software

GENERAL

- DC power Input: 20 to 60 VDC, + or - ground
- Power Rating: 12 watts for an 8 port system
- Environmental: Operating temperature: -20°C to +70°C (-5°F to +160°F)
Humidity: to 95%, non-condensing
- Dimensions: 1.75" H x 17" W x 12.75" D (4.45 x 43.2 x 32.4 cm)
- Mounting: 19 or 23/24 inch equipment rack

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