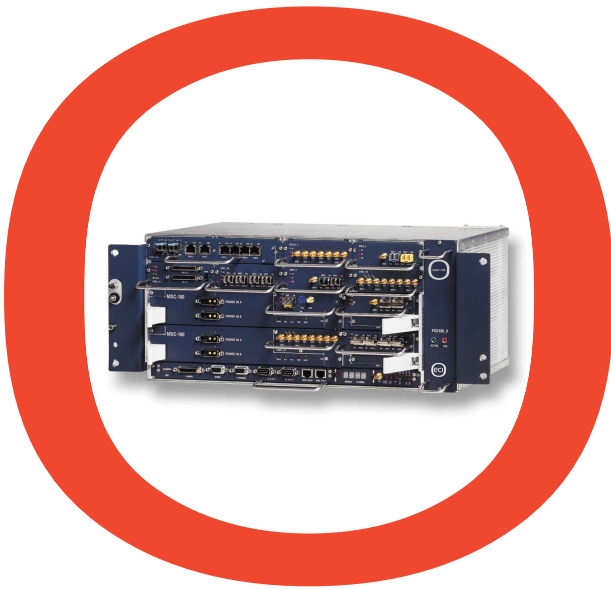# XDM®-100
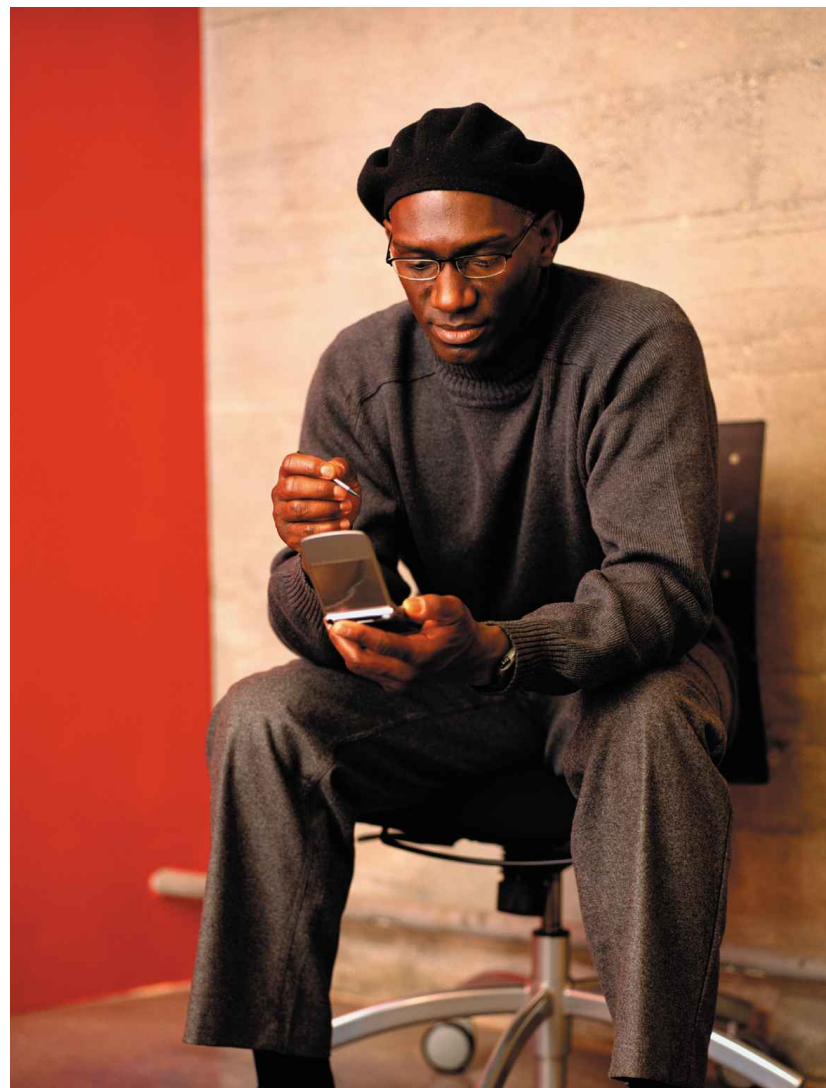# Miniature MSPP for Metro-Access and Cellular Networks

- **Versatile and modular** – supports SDH/SONET, PDH/Async and Ethernet interfaces up to a capacity of 20 Gbps, all packed into a 200 mm-high unit

- **New revenue-generating** opportunities with the provision of data services

- **Compact and resilient** – suitable for a wide range of outdoor and indoor installations

- **Significant savings** – cost-effective, pay-as-you-grow solution that adapts to market demands

Small but powerful, the XDM-100 is an intelligent MSPP for network migration to new and advanced services.

PRODUCT NOTE

The flexibility of the
XDM-100
allows you to increase
network capacity as
demand grows.
Start with a low initial
investment for
small bandwidth
requirements and
build-as-you-grow
to full capacity.

XDM®-100 – INNOVATION AND COST-EFFECTIVENESS IN A SMALL PACKAGE

Today's cellular and access networks require add-on service capability for traffic arriving from base-station cells (2G, 2.5G, 3G), SDH/SONET optical rings, chains, point-to-point connections, and radio links. Operators are also expected to provide broadband services to business customers over the same infrastructure. The XDM-100 delivers all these demands and much more, for a lot less than you imagined. Designed to provide a swift response to evolving networking requirements, it brings greater levels of flexibility to metropolitan and cellular networks.

GENUINE MSPP

With the advent of new technologies and equipment, service providers can respond to growing traffic and service needs while reducing power consumption, space requirements and overall cost. Multiservice Provisioning Platforms (MSPPs) are thus emerging as the most feasible and cost-effective for metro-access networks.

ECI Telecom's XDM-100 processes voice and data services over SDH/SONET and Ethernet. This multipurpose network element has emerged as a solid solution for the more focused and highly cost-sensitive access and cellular markets.

Because MSPPs play a critical role in the journey from legacy to next-generation networks, the XDM-100 allows carriers to leverage their SDH/SONET installed base while offering an increasing mix of services to their customers. With its high modularity and flexibility of interfaces, the XDM-100 preserves the high availability and quality of networking services.

When you need to expand the range and bandwidth of your service offerings (digital video, SDH/SONET, IP, GbE, SAN, etc.) in the metro-access and metro-edge, the XDM-100 can provide a response to even higher capacity demands. By adding CWDM capability (cost option), you increase your network throughput for a variety of service offerings, from 100 Mbps to 2.7 Gbps.

XDM-100 FEATURES AND BENEFITS

In an era of uncertainty, the XDM-100 delivers a cost-effective and affordable mix of Ethernet, SDH/SONET PDH/Async and CWDM services, which result in new revenue-generating opportunities. The system offers tangible benefits:

○ Gradual in-service capacity expansion based on service provisioning needs. An optical connection operating at a specific STM/OC rate can be upgraded from STM-1/OC-3 to STM-4/16 or OC-12/48 without affecting traffic. This high adaptability and build-as-you-grow™ architecture leads to savings in OPEX and CAPEX

○ Sublambda grooming results in high utilization of existing fibers and top efficiency in transmission of different types of services

○ Multi-ADM and cross-connect functionality make it ideal for deployment in flexible network topologies, including ring, mesh or star

○ Suitable for indoor and outdoor enclosures and for harsh environments thanks to its extended operating temperature range of up to 45 °C/113 °F

○ CWDM provisioning of up to 16 wavelengths, for broader offering of converged services

SCALABLE NETWORK APPLICATIONS

The XDM-100 exceptional capacity and modularity, combined with its small footprint and economical cost, make it ideal for a variety of metro-access and cellular applications.
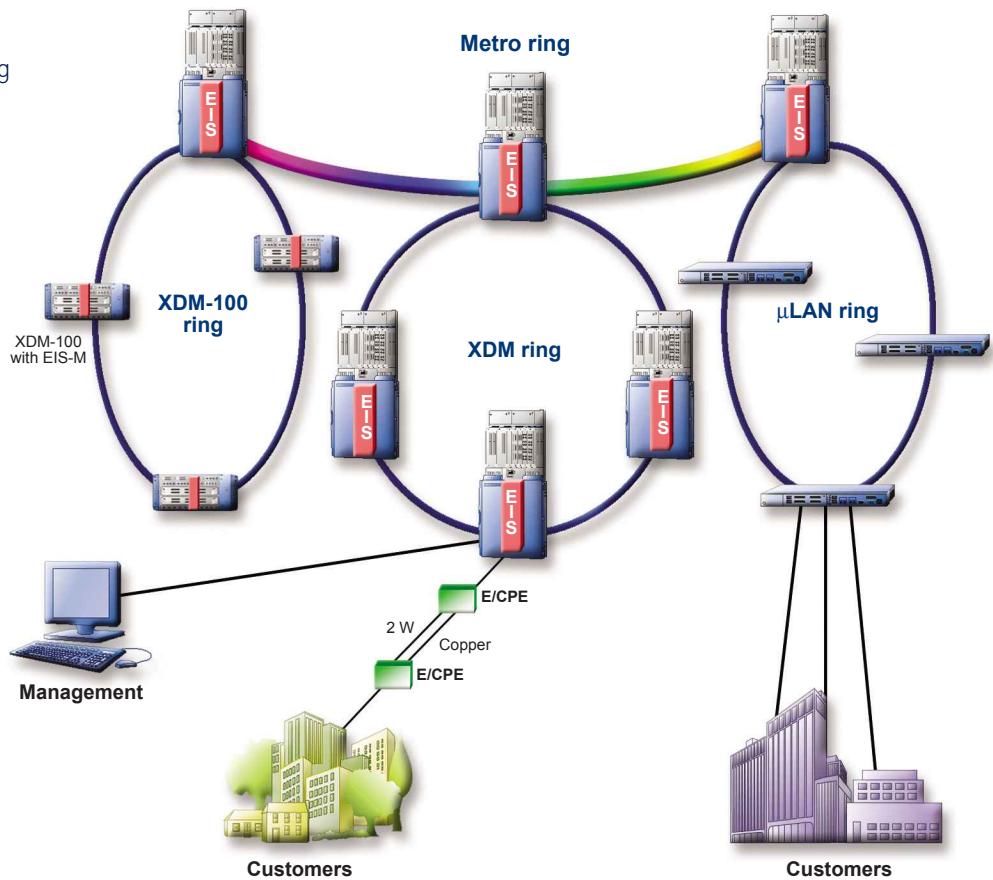
Data Applications

Ethernet services have been the driving force in the telecommunications industry in recent years, providing a new approach to data service provisioning and connectivity. This has brought about exceptional growth in the demand for larger bandwidth at lower costs.

The XDM-100 is the ideal transmission solution for emerging Ethernet-based applications. Equipped with the Ethernet Interface and Switching Module (EIS M), the platform makes the most of existing network infrastructures and provides genuine data-centric services, including:

○ Ethernet Virtual Private Lines service

○ Ultrahigh bandwidth Internet connectivity

○ QoS and SLA assurances

○ Statistical multiplexing for handling bursty traffic and supporting dynamic bandwidth utilization
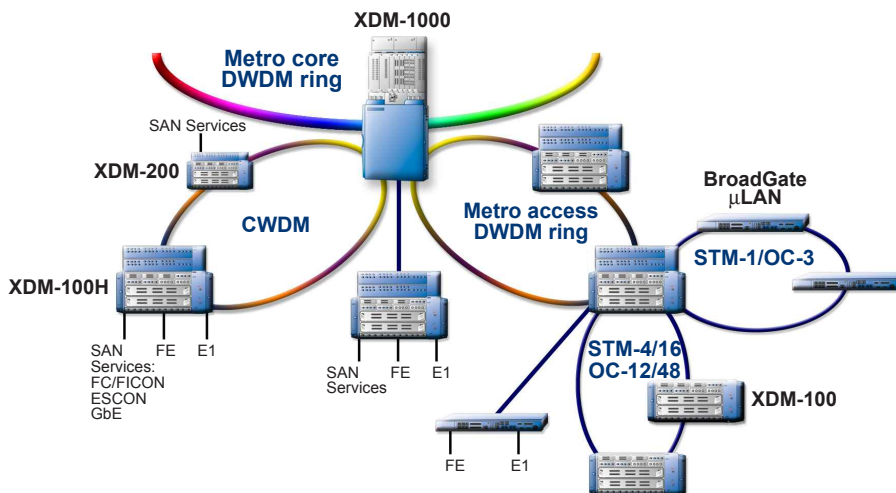
The XDM-100 equipped with the EIS-M is part of the overall XDM data-aware architecture, providing seamless service delivery from metro-core down to customers premises.

Metro-access Applications

Metro-access networks are characterized by the increasing demand by residential and business customers for higher bandwidth to support voice, data and video services.
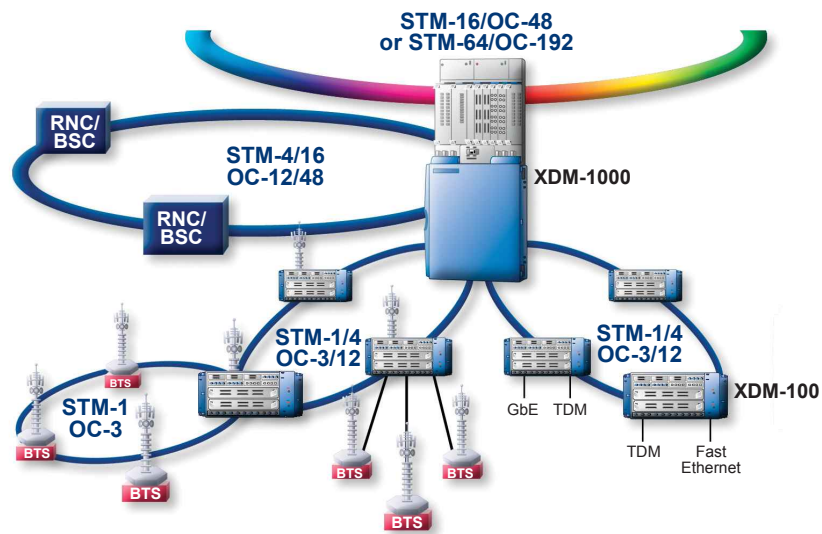
The compact XDM-100 offers scalable STM-1/4/16 or OC-3/12/48 aggregation of access traffic in multiring and point-to-point topologies. The platform adds/drops various PDH/Async, SDH/SONET, Gigabit Ethernet (GbE) and Fast Ethernet services at local Points of Presence (POPs). It also provides a service layer, which terminates WAN links and consolidates Ethernet traffic arriving from the local access network. Traffic can then be transported to local GbE interfaces or routed to the metro-core network.

Cellular Applications

Cellular networks are a vital part of today's global communications infrastructure. The XDM-100 is optimized for cellular applications, transporting traffic from the hub BTS/Node B (PDH/ASYNC) to the RAN. Traffic is aggregated to higher levels via TM-1 and ADM-1 multiplexers. This feature has a great impact on radio access networks. Moreover, the XDM-100:

O Provides closure of multiple STM-1 rings (BTS/Node B collector rings)

O Closes higher bitrate rings towards BSC/RNC sites (STM-4/16 rings)

O Handles efficiently advanced data services (WLAN, IP migration) and additional data services provided by cellular operators

XDM®-100
Miniature MSPP for Metro-Access and Cellular Networks

TECHNICAL SPECIFICATIONS

Interfaces, Bitrates and Topologies

SDH tributary interfaces	STM-1, STM-4, STM-16
SONET tributary interfaces	OC-3, OC-12, OC-48
PDH/Async tributaries	E1, E3, DS-3
Data-aware interfaces	10/100/1000 Mbps Ethernet
Topologies	Ring, chain, mesh

System Capacities

SDH/SONET	48 x STM-1/OC-3 24 x STM-4/OC-12 2 (option for 4) x STM-16/OC-48
PDH/Async	168 x E1, 24 x E3, 24 x DS-3

CWDM Specifications (Cost Option)

Number of channels	4, 8, 16
Max. distance	Over 100 km
Channel spacing (nm)	20
Continuous 2R/3R transponder, 100 Mbps to 2.7 Gbps	STM-1/4/16, OC-3/12/48, digital video, Ethernet, GbE, Fiber Channel, ESCON, FICON, etc.
CWDM combiner	2 x GbE/FC/FICON to 2.7 Gbps OTN

Other Specifications

Power input	-40 V dc to -75 V dc
Max. power dissipation	550 W
Operating temperature range	-5 °C to +45 °C 23 °F to 113 °F
Operating RH range	5% to 95%
Environmental standards	ETS 300 019-1-3 Class 3.2 ETS 300 019-1-1 Class 1.2 ETS 300 019-1-2 Class 2.3
Safety	EN 60950/2000 according to LVD Directive 72/23/EEC EN 60825-1&2
Management	End-to-end management of all layers and services
Physical dimensions	200/275 (H) x 443 (W) x 231 (D) mm 7.9/10.8 (H) x 17.4 (W) x 9.1 (D) in

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