

# Metropolis® ADM MultiService Mux



A feature rich and cost effective platform that seamlessly blends your next generation data and traditional TDM services onto one metro network.

## Benefits

- A scalable multiservice platform to meet your future network growth
- Increases revenue potential through data/TDM service integration
- Helps achieve operational savings
- Enables efficient and reliable next-generation data services
- Offers seamless management integration

Alcatel·Lucent 

**This document, which refers to Lucent Technologies, was issued prior to our merger. It has not been modified to refer to Alcatel-Lucent since it is part of our archives.**

## A scalable multiservice platform to meet your future network growth

The Metropolis® ADM MultiService Mux is a next-generation optical multiservice platform that supports both traditional PDH/SDH services and next-generation data services over SDH. Designed to cost-effectively and reliably address a variety of applications and market needs, it supports the following configurations:

- Add/Drop Multiplexer
- Local Cross Connect
- Terminal Multiplexer
- STM-4/16/64 Multi-Ring Hub
- Ethernet aggregation and transport

The Metropolis® ADM offers a feature-rich, standards compliant, highly reliable and scalable platform. It leverages Lucent's expertise in optical networking and deep understanding of SDH networks accumulated through the well established WaveStar® ADM 16/1 platform. Rapid deployment is now possible with its easy to install and provision design, which means fast CAPEX recovery. Offered in either a Universal or Compact shelf, it fits in both metro core and metro access network layers with optimized STM-4, STM-16, and STM-64 line speed configurations.

## Increases revenue potential through data/TDM service integration

The Metropolis® ADM offers a versatile grow-as-you-go platform that supports a wide variety of services. With its fully non-blocking architecture, Metropolis ADM commands an unrivaled system capacity capable of terminating multiple rings in STM-64, STM-16, and STM-4 network applications. In addition, its leading PDH/SDH features support traditional revenue-generating services, while employing the Lucent Technologies TransLAN® Cards enable effective penetration into new Ethernet services market. The diverse portfolio of services include:

- PDH leased line access (DS1, E1, E3, DS3)
- SDH leased line access (STM-1o/e up to STM-64)
- Ethernet services:
  - Supports E/FE/GbE Ethernet data rates
  - Transparent transport of Ethernet traffic over SDH network
  - Supports Ethernet Private Line (EPL), Ethernet Virtual Private Line (EVPL), Ethernet Private LAN (EPLAN), and Ethernet Virtual Private Line (EVPLAN) services
  - Supports Ethernet PM and RTM (Round Trip delay Measurement) services

Key user applications include:

- Voice and broadband business data aggregation and transport
- Fast Ethernet (10/100BASE-T, 100BASE-LX10) and Gigabit Ethernet (GbE) LAN interconnect and VPN
- ISP router interconnects
- IPTV support with IGMP Snooping

Typical network applications include:

- **Central office** – grooms and hands off traffic to TDM and ATM switches and DWDM. Ethernet data can be cost-effectively handed off to core routers via GbE trunking support.
- **Hub office** – interconnects and terminates high-speed rings and grooms traffic for efficient bandwidth usage.
- **Access feeder** – closes and grooms multiple STM-1/4/16 access rings and cost effectively trunks Ethernet, Fast Ethernet, and GbE traffic.
- **Office parks** – offers scalable and cost-effective access services, such as voice and data interconnection and VoIP transport.

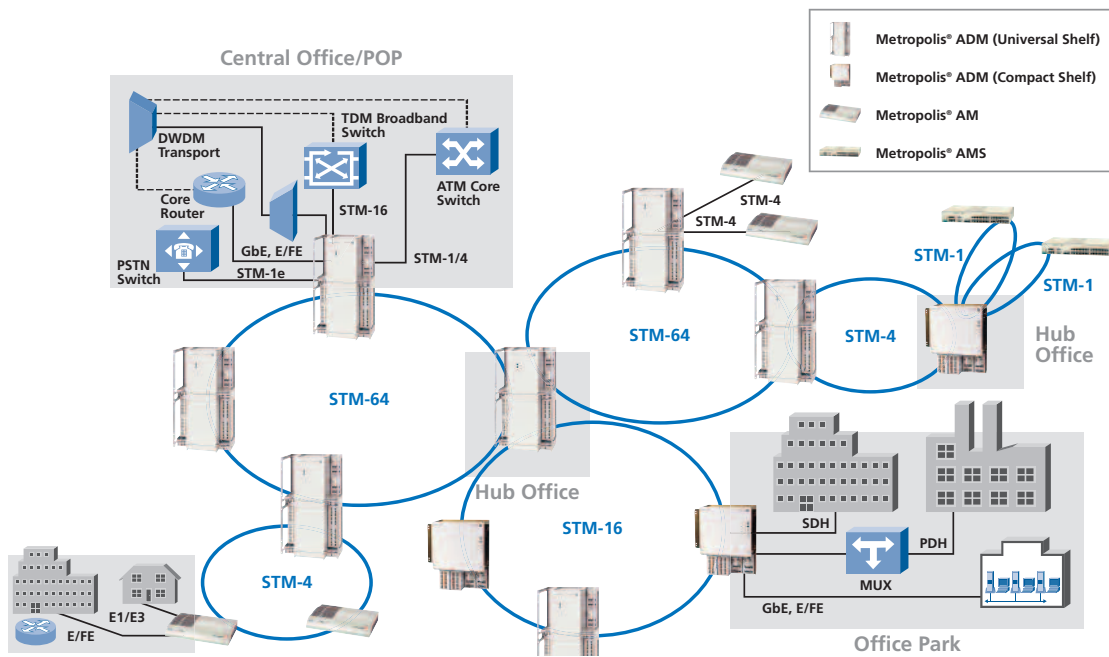
The Metropolis® ADM supports in-service upgrades from 2.5G to 10G which helps reduce initial investment and provides a highly scalable growth path that eliminates the need for forklift upgrades, allowing enhancements to the platform as demand dictates.

## Helps achieve operational savings

The Metropolis® ADM is managed under one common, well integrated management system as part of Lucent Technologies global transport solution. This helps to reduce staff training, improve deployment efficiency, and simplify maintenance procedures.



**The Metropolis® ADM (Compact and Universal shelf) combines the strengths of Ethernet and SDH into a flexible, high-density network element designed with full front accessibility.**



**The Metropolis® ADM offers multiple services for different types of network applications, and helps simplify your network architecture and management.**

The Metropolis® ADM is designed to avoid network overlays by combining high density PDH/SDH and cutting-edge Ethernet interfaces into one reliable multiservice platform. It fits onto a single 300mm deep shelf and provides full front access. Together with its high density cabling design, it offers a space-efficient, easily installed, low power consumption system.

By sharing hardware assets between the Universal and Compact shelves, the cost of stocking spares is greatly reduced. Moreover, pluggable optics (SFP/XFP) are incorporated such that you can engineer appropriate port reaches upon service order, avoiding over-engineering during installation.

**Enables efficient and reliable next-generation data services**

The Metropolis® ADM's incorporation of the industry renowned TransLAN® cards make it ideal for next-generation network upgrades. These cards provide innovative Ethernet technology for interconnecting end users, ISPs, and service providers while maintaining the reliability, interoperability and manageability of SDH networking. Ethernet packets are mapped into SDH frames using GFP (ITU G.7041). They are then transparently transported across virtual concatenated VC-12s, VC-3s or VC-4s.

The TransLAN® Cards support LCAS (ITU G.7042), to enable in-service bandwidth increases/decreases of virtually concatenated bandwidth, promoting efficient use of bandwidth and enhancing traffic protection capabilities.

The TransLAN Cards are MEF Certified, providing standards compliant L1/L2 Ethernet VPN functionality that includes:

- Point-to-point LAN Transport and Point-to-multipoint LAN Interconnect
- IEEE 802.1Q VLAN tagging/trunking and IEEE 802.1ad Provider Bridge VLAN tagging
- Traffic engineering for DiffServ QoS with CIR/PIR rate control (rate control, flow classification, queuing, scheduling)

**Offers seamless management integration**

The Metropolis® ADM is seamlessly managed by Lucent Technologies Optical Management Solution. This powerful, yet easy-to-use common network management platform offers fast end-to-end path provisioning, VPN provisioning, and real-time network monitoring on all Lucent SDH and SONET equipment.

**Your "multiservice power platform"**

The Metropolis® ADM MultiService Mux enhances and broadens your network's potential. Its innovative architecture, high-density interfaces, feature rich application offerings, and standards-based management options help you capture new revenue streams and facilitate cost-effective expansion of your customer base. Together with the advanced TransLAN® Card technology, the Metropolis® ADM helps increase your network's profitability while allowing you to capitalize on ever changing market demands.

## Features

### Offers cost-effective and scalable solution for STM-64, STM-16 and STM-4 wideband applications

### Supports multiservice metro needs with a single hardware platform

- Wideband multiplexer (STM-64/16/4 to E1 drop) with up to 20G low order cross-connect capabilities
- Large variety of services including, PDH, SDH, Ethernet
- Wide field of application from CO, to Access network, to CPE
- Full Optical Management Solution support

### Enables significant operational expense savings opportunities

Scalable platform:

- Commonality with circuit packs and software across the 2 shelf types
- Optimize the network architecture with flexibility of two types of shelves
- Spare part savings
- Feature commonality across the 2 shelf types
- 300mm deep shelves, with full front access and unique cabling design
- Low power consumption

### Enriches your existing SDH network with revenue generating data services

- The TransLAN® Card technology enables E/FE/GbE data services with:
  - Standard based VCAT, GFP, LCAS, and CIR/PIR rate shaping capabilities for Ethernet over SDH
  - Ethernet Private Line (EPL), Ethernet Virtual Private Line (EVPL), Ethernet Private LAN (EPLAN), and Ethernet Virtual Private Line (EVPLAN) services
  - IEEE 802.Q/ad VLAN Tagging mode
  - Traffic engineering for differentiated Ethernet Class of Service (CoS) service delivery
  - IPTV support with IGMP Snooping
  - VLAN Trunking
  - IEEE 802.3ah link-layer OAM

### Offers SDH-SONET interworking

- AU3/TU3 conversion

### Certifications

- CE Certified
- MEF9, MEF14 Certified (E-Line, E-LAN)

To learn more about our comprehensive portfolio, please visit our web site at <http://www.alcatel-lucent.com>.

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