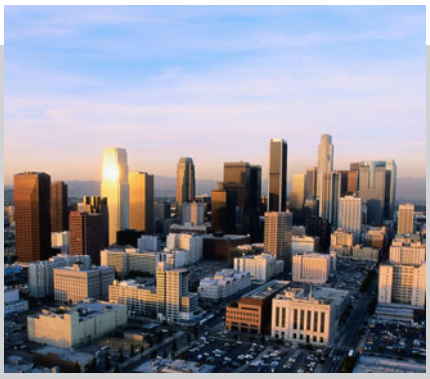
Ethernet Transport Services for Metro Access Networks



Ethernet allows you to offer services and capabilities that your customers demand, such as VPNs, 10/100 Mbps or Gigabit Switched and Private Line. Ethernet, however, needs to co-exist with other services, such as voice and private lines—typically offered over SONET networks. The Metropolis® DMX Access Multiplexer product family helps leverage existing SONET-based infrastructure by adding Ethernet capabilities incrementally, which helps improve profitability while lowering your operating costs.

Ethernet is the foundation for the next-generation Gigabit Ethernet (GbE) interface, as well as the emerging 10-GbE technology. With demand for services on the rise, Ethernet protocol will continue to be a mainstay of the corporate LAN environment for the foreseeable future.

While offering Ethernet service alone can enhance your revenue potential, you can also support voice and private line via SONET to increase your ability to deliver revenue-generating services. An Ethernet card allows you to incrementally add Ethernet services as you scale your network. In order to provide these new services, you must bridge the bandwidth gap between the LANs and the WAN/MAN networks.

The Lucent Technologies Metropolis® DMX product family introduces Ethernet into WAN/MAN through the highly reliable SONET layer, effectively combining mature, cost-effective data and optical networking layers into one stable platform. Its Ethernet interfaces connect directly to your customers' routers, VPN servers, Voice over IP (VoIP) gateways and other IP service devices. Ethernet traffic is transported on a reliable, protected optical network, enabling Quality of Service (QoS.) Committed Information Rate (CIR) and Peak Information Rate (PIR) billing options give you the opportunity to offer different classes of Ethernet services, from highly reliable Ethernet private line to basic Internet access.

This architecture helps make services such as VoIP more reliable and easier to deliver. The Metropolis® DMX offers you high-density 10/100 auto-negotiating and line rate GbE interfaces to help support the needs of your customers.

Metropolis® DMX products combine data and optical networking into one stable platform

Each Metropolis® DMX product is a compact, yet highly-scalable system designed for the metro access environment, where it can connect LANs to core backbone networks. It is a hybrid Ethernet/SONET platform that can give you multiservice growth from traditional TDM voice/private line services to Ethernet over SONET transport – with improved data networking efficiency.

The Metropolis® DMX offers you simplicity and Quality of Service

A single Metropolis® DMX Ethernet service pack can simultaneously satisfy multiple QoS requirements. It offers reliable data throughput for high-availability services. Internet-quality transport is supported by efficiently utilizing bandwidth to increase revenue opportunities for bursty IP services. Ethernet transport services can be allocated in STS-1 (~50Mbps) increments, allowing quick and easy service provisioning and helping to reduce bandwidth constraints associated with inverse multiplexing.

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Ethernet traffic is then passed over a 1Tbps backplane and onto a unidirectional or bi-directional path or line-switched ring at speeds up to OC-192. The integrated design offers you dramatic cost savings opportunities, making it a good choice for metro access applications where cost and reliability concerns are paramount.

The Metropolis® DMX family supports more than just Ethernet

A wide range of interfaces offers you a variety of network service possibilities at a cost-point that helps make metro a profitable market. The Metropolis® DMX can support your migration from existing voice and private line services to new Ethernet transport services. Depending on the model selected, supported interfaces may include:

- DS-1/E1
- DS-3/EC-1
- TransMUX
- OC-3
- OC-12
- OC-48
- OC-192
- 10/100 and GbE

Metropolis® DMX can increase the range of possible service deployment opportunities with outside plant hardening, co-location certification, and Rural Utility Standards (RUS). It can also be deployed in multi-ring hub solutions or in reduced footprint Customer Premises Equipment (CPE) configurations.

The Metropolis® DMX Access Multiplexers can help simplify metro networks, eliminating the need for separate routers or data switches. They are enhanced multiservice-over-SONET platforms with high-speed Fast Ethernet (10/100Mbps) and GbE (1000Mbps) connections. They help increase your revenue-generating opportunities by enabling next-generation Ethernet services and supporting existing voice and private line traffic.

To learn more about our comprehensive portfolio, please contact your Lucent Technologies Sales Representative or call 1-888-426-2252.

Visit our web site at http://www.lucent.com.

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