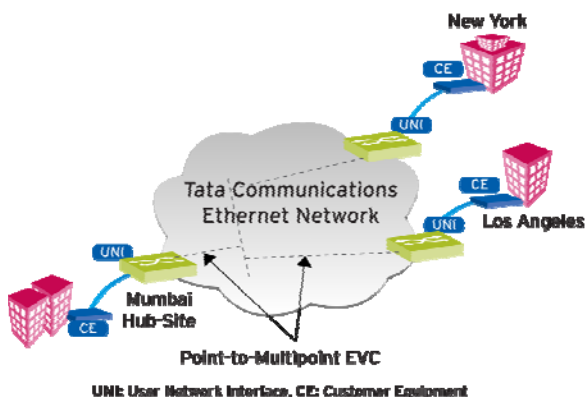


DEDICATED POINT TO MULTIPOINT ETHERNET

Data Sheet



- MEF-9 and MEF-14 certification
- Empowering choice with unparalleled flexibility
- Customer premise to customer premise is standard SLA parameter
- MAC addressing

Tata Communications' Dedicated Point to Multipoint Ethernet service is an enterprise Layer 2 Ethernet switched service that utilizes MAC addresses within the Ethernet frame to direct traffic. The service, available globally as well as nationally throughout India, is part of Tata Communications' comprehensive offering of WAN Ethernet services, enabling enterprises to select or combine the most appropriate Ethernet service for their needs.

This service features:

- Point to multipoint configuration
- Choice of ring protected or unprotected circuits
- Transparent pipe
- MAC addresses
- A single priority service with frames forwarded in the order received

Dedicated Point to Multipoint service is ideally suited for transmitting content to multiple customers simultaneously, such as a media enterprise streaming content to many subscribers. The aggregated pipe between the customer and the Tata Communications hub site enables customers to reap cost savings on these network segments.

Certifications and Standards Compliance

Dedicated Point to Multipoint Ethernet features MEF-9 and MEF-14 certifications, indicating compliance with the international standards developed by the Metro Ethernet Forum (MEF), a global industry alliance of more than 120 organizations including telecommunications service providers, cable operators, MSOs, network equipment, test vendors, labs and software manufacturers, semiconductors vendors, and testing organizations. MEF develops technical specifications and implementation agreements to promote interoperability and deployment of carrier-grade Ethernet worldwide.



MAC Learning

MAC addresses are unique frame identifiers, which can be universally used to forward traffic within a network. An alternative to VLAN based services, MAC based services offer simplified implementation without the coordination. When customers change equipment or add new network sites, Dedicated Point to Multipoint Ethernet will automatically update the changes, eliminating the need for any interaction between customers and the service provider. Finally, by using the MAC address as a forwarding technique, users may add or change their own VLAN identifiers without coordination with Tata Communications.

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Features and Benefits

Feature	Details	Benefits
Choice of bandwidth	<ul style="list-style-type: none"> 2-100 Mb in 2 Mb increments 50 – 1,000 Meg in 50 Meg increments 	Enhanced ability of customers to match bandwidth requirements with exact bandwidth purchases.
Choice of interface handoffs	Fast-E interface: <ul style="list-style-type: none"> 10BaseTx 100BaseTx (copper RJ45) 100BaseFx (fiber, SM/MM 1310nm) Gig-E interface: <ul style="list-style-type: none"> 1000BaseLX (fiber, SM, 1310nm) 1000BaseSX (fiber, MM, 850nm) 1000BaseTx (copper RJ45) (case-by-case) 	Bandwidth growth without changing interfaces. Port flexibility based on future growth. Offering choice based on fiber vs. copper preference. Broad selection of handoffs between customer and Tata Communications.
Choice of frame sizes	Standard frame sizes (64-1518) and jumbo frame sizes (64-9,000 bytes) on request.	Improved efficiencies of routers and bandwidth usage.
Committed bandwidth	Committed Information Rate (CIR).	Certainty for customer that ordered bandwidth is always available for use.
Non service-affecting upgrades	Bandwidth can be upgraded without service interruption, without changing ports.	Seamless growth, improved business continuity, cost reduction.
MEF 9 and MEF 14 certified	Follows the recommendations of the Metro Ethernet Forum (MEF) and tested to conform to the MEF standards.	Independently tested and certified to conform to the international standards of the MEF. Visit www.metroethernetforum.com for details.
MAC address learning	The network learns the customers' unique MAC addresses and uses the same MAC addresses to deterministically forward traffic across the network.	Simplifies addition of new sites, requiring no VLAN coordination. Scaling network becomes a "plug and play" effort.
Dedicated private network	Single customer in an Ethernet pipe.	Customers are insulated from any performance issues adversely impacting other customers. Absolutely no "shared" links. Enhanced security compared with security on shared networks.

Service and Support

Tata Communications offers customers a competitive Service Level Agreement (SLA). The SLA, based on a calendar month, includes the following:

- Uptime**
 - Protected circuit – 99.9%
 - Hybrid circuit – 99.7% (portions of the circuit are protected and portions are unprotected)
 - Unprotected circuit – 99.5%
- Packet delivery ratio**
 - 99.97%
- Latency**
 - Calculated based on actual path purchased
- Jitter**
 - Not to exceed 15 ms.
- Applicability**
 - Customer premise to customer premise (equipment installed on customer premises)

* Please refer to the SLA Schedule for the most current SLA parameters.

Priority Point to Point Ethernet complies with the following standards:

Service Feature	Standard Supported	Service Feature	Standard Supported
Service protection	MEF 2	Service performance conformance	MEF 14
Service description	MEF 6	Customer interface and frame format	IEEE 802.3, MEF 13
EMS & NMS profile	MEF 7, MEF 15	QoS/CoS	IEEE 802.1P, IEEE 802.1Q
Service capabilities conformance	MEF 9	SLA service performance	ITU-T Y.1731
Service performance characteristics	MEF 10.1	Transport	ITU-T G.707, G.7041, G.7042, IEEE 802.1ad

For More Information

For more information about Dedicated Point to Multipoint Ethernet or other Tata Communications Ethernet services, please visit www.tatacommunications.com.

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