



Managed Ethernet

Reliable, scalable and affordable local Ethernet transport throughout the metro areas of Ireland using MAN fibre ring

Definition

The Metro Ethernet Product is delivered locally via a MAN fibre ring network, diversely routed (east and west) to the Enet co-location facility with capabilities for onward connectivity. High-bandwidth Ethernet transport is available in a variety of bandwidths.

Service Description

The Metro Ethernet product is delivered to the End-User premises over an Ethernet transport layer with handover via an Ethernet NTU (Network Termination Unit). High-bandwidth Ethernet transport is available in bandwidths up to 10Gbps with several COS options.

| Bandwidth | Bandwidth Type | Access Media |
|--------------|----------------|---------------------------------|
| 2Mb to 10Gb | Symmetrical | Fibre (On-net) |
| 10Mb to 10Gb | Symmetrical | Fibre (On-net & Extended Reach) |
| 2Mb to 1Gb | Symmetrical | Wireless |
| Up to 100Mb | Asymmetrical | EoVDSL |

Product types

Managed Ethernet

Enet installs their demarcation device (NTU) at the End-User site to provide pro-active end-to-end fault management.

Coronavirus COVID-19

Where a Fibre or “wires-only” termination is required, please review the MAN Metro Ethernet Point-to-Point Fibre document. This details the **Long Line Fibre** solution which provides unmanaged last mile access with no Enet managed NTU installed. This product is low engagement and will help you continue installations during COVID-19.

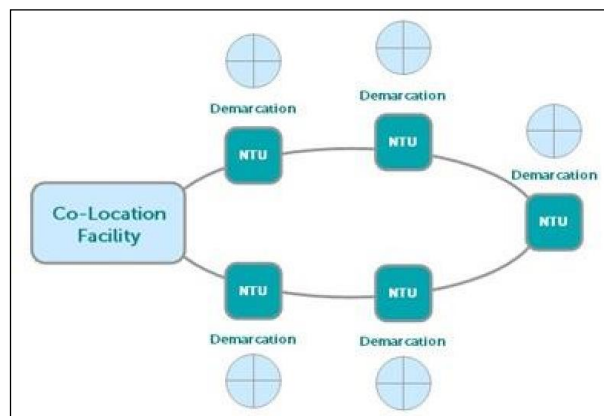
- MTU (Maximum Transmission Unit) set at 2000 bytes as standard. Higher jumbo frame sizes available on request.
- 100 MAC address limit per Layer 2 circuit is standard. More MAC addresses available on request.
- Provider Bridge (IEEE 802.1ad PB) is the default configuration for service handoff.
- EPL, EVPL, E-Access-EPL and E-Access-EVPL supported
- Handoffs to Carrier on MAN using Layer 2 aggregated IEEE 802.1ad interconnect
- Metro traffic uses RSTP or G.8032 as the protection mechanism.
- GigE is the default handoff. 10GigE handoff can be supported on request.

| | Technical Specification |
|--|---|
| Protocols and Standards | <ul style="list-style-type: none"> ✓ IEEE 802.1D MAC bridges — including .1p Priority ✓ IEEE 802.3ad LACP ✓ IEEE 802.1Q VLAN |
| Flexibility | ✓ Bandwidth can be upgraded as required |
| Customer Support | ✓ 24x7x365 Network Operations Centre support |
| Handoff | ✓ To Carrier on MAN using Layer 2 aggregated IEEE 802.1ad interconnection |
| MTU | ✓ 2000 bytes as standard (higher available on request) |
| MAC Addresses | ✓ Default of 100 |
| For services delivered with an Enet NTU, the following details apply | |
| Service Handoff | ✓ Provider Bridge (IEEE 802.1ad PB) is the default configuration |
| Presentation | ✓ Electrical RJ45 1000Mbps or Optical (LC default, SC) |
| Interface Type | ✓ 1000 Base-T, 1000 Base-LX, 1000 Base-LR. Other media available on request |
| Demarcation Point | ✓ For Managed Service, the port facing the End-User network on the Enet NTU |
| Power | ✓ The NTU uses a single AC power supply as standard. Dual power AC or DC are available on request. |

Service Delivery

- Fibre brought from the MAN to the End-User site and terminated on a fibre patch panel.
- Fibre brought from the Enet Colo to interconnect locations on the MAN and lit at minimum GbE.

The schematic below represents a Metro Managed Ethernet ring solution (E-Access EPL).



Enet Responsibilities

Enet is responsible for:

- Installation of the NTU (demarcation device) at the End-User's premises
- Provisioning an Ethernet solution from the End-User's premises to the Interconnect
- The operation and maintenance of the Ethernet service
- Acquiring the public wayleave for civil elements of the service
- Assigning the VLAN identifiers on the Layer 2 aggregated interconnect corresponding to the desired Ethernet bandwidth

This document is for illustrative purposes only, detailed specifications will be agreed at the time of purchase.

Carrier Responsibilities

The Carrier is responsible for:

- Allocating adequate rack space for installation of the fibre patch panel and the Enet NTU, and ensuring a clean protected power supply for the NTU
- Shaping the traffic in line with the purchased traffic profile
- The operation and maintenance of the services purchased by the End-User
- Owning the relationship with the End-User
- Acting as the point-of-contact for any End-User enquiries

Glossary

- NTU Network Terminating Unit
- UPS Universal Power Supply
- MTU Maximum Transmission Unit
- MAN Metropolitan Area Network
- MAC Media Access Control
- S-VLAN Service-Virtual Local Area Network
- LCAS Link Capacity Adjustment Scheme
- EPL Ethernet Private Line
- EVPL Ethernet Virtual Private Line
- Colo Colocation Site

Further Information

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