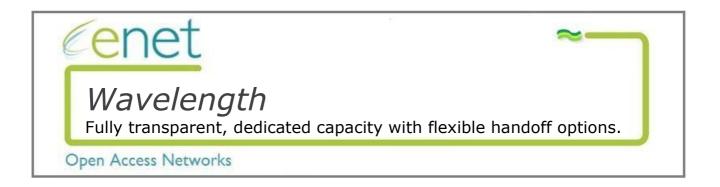
Wave WebPD V2.2



## **Overview**

Enet's Wavelength product provides optical transport all across Ireland. It is ideal for meeting enterprise, Carriers and government IT organisations network demands for increased speed, reliability, scalability and operational efficiency. Data, voice and IP traffic is transmitted on our dedicated WDM network with the security and dependability of a private network without the operational complexity. It is a cost-effective alternative to lighting and managing Dark Fiber.

Wavelength enables a very high connectivity (10G and 100G) point-to-point circuit between customer sites, data centers and key core sites. As a Layer 1 product, it makes efficient use of bandwidth with increased resiliency, low contention and fewer network elements on a custom designed network solution. Services built upon a Wavelength product are transported through a dedicated, secure and high-availability connection, port to port.

Wavelength is widely available both as a local and national solution across our WDM enabled MANs and with ready access to Near-net sites. Customers can plan their network, with high capacity under their full control, a choice of standard handoff interfaces with enhanced availability through diverse routing options.

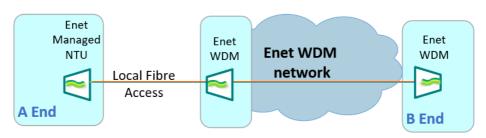


Figure 1 Managed Wavelength with on-site NTU Termination

# **Technical Description**

Enet's Wavelength product offers dedicated, flexible and high-capacity connections for Carriers' backhaul networks or for service between customer sites. The wavelength is built across Enet's nationwide WDM network. Connections can be made with Enet's existing local fibre network and Near-net extensions can be built if required. Service is provided as:

- Wavelength service with fibre hand-off
- Managed Wavelength with on-site Enet NTU termination

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Dedicated handoff can be provided at a customer's site, Colocation or Datacenter. Standard service termination is on software configurable SFP interface modules. Demarcation is on the customer side of the managed NTU, at the customer-rack patch panel in a Colo or a port in the datacenter meet-me-room (MMR).

You can lease the wavelengths you require without being responsible for the end-to-end management, and access to support 24/7. The Wavelength product is configured as a standalone wavelength. Where you require resilience, two individual wavelength circuits can be used in tandem as worker/protected paths and switched over by the Carrier in case of a failure.

For Near-Net orders, Enet has an established track record for delivery where civils and/or equipment installations are required.

Wavelength Product Features	Description
Bandwidths	10Gbps, 100Gbps
Client Interface Types	SFP 1Gb LAN Phy  LX 1310nm up to 10Km  EX 1550nm up to 40km  ZX 1550nm up to 80km  SFP 10Gb LAN / WAN Phy  LR 1310nm up to 10Km  ER 1550nm up to 40km  ZR 1550nm up to 80km  100Gb uses 100GBASE-LR4  SDH details available on request
Launch Power	-1 to -6dBm
Receiver Sensitivity	-1 to -11dBm
Wavelength at Handoff Port	1310 nm, 1550nm
Protection	<ul> <li>Unprotected, no network or client protection</li> <li>Load Sharing, two interfaces with dual physically diverse unprotected connections (the Carrier performs switching)</li> </ul>
Availability	99.5% unprotected single wavelength, 99.99% with diverse paths
Supported Protocols/Standards	Ethernet, SDH & OTN. 100G uses LANphy only Other client signals available on request

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### **Benefits**

#### For Carriers:

Uncontended, flexible and large capacity connection to data centers and core sites

- Full protocol transparency
- No MTU size limitations
- No congestion
- Tight control over service latency
- Proactive monitoring that reduces network management costs
- Less network equipment and network complexity with lower operational costs

#### For Customers:

- Fast low-latency service
- Port-to-port security and privacy for critical data
- Point-to-point, end-to-end dedicated bandwidth
- Reliability and survivability
- The optional of extra protection through diverse physical access routing

## Responsibilities

#### Enet is responsible for

- Building the service to the demarcation points
- providing test results to the carrier (on request)
- commissioning & testing the wavelength(s) between the service demarcation points
- the operation and maintenance of the Wavelength service
- supplying, installing, connecting, operating & maintaining the Enet NTU where fitted
- acquiring any public wayleave required for civil elements of the service (for near net )

### The Carrier is responsible for

- 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
- ensuring adequate rack space for the fibre patch panel and Enet NTU where required
- provisioning a clean, protected power supply for the NTU
- Failover to diverse circuits
- Connecting Enet NTU to its own equipment
- Nominating single /dual power NTU

## **Further Information**

Should you require any further features, please contact Enet and we'll be happy to discuss your requirements, please contact your Enet Account Manager or Enet at:

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Telephone: + 353 (0)61 274000

Webpage: www.Enet.ie