



## Dark Fibre

*High-specification fibre deployed in resilient ring topologies in metro areas throughout Ireland.*

### Definition

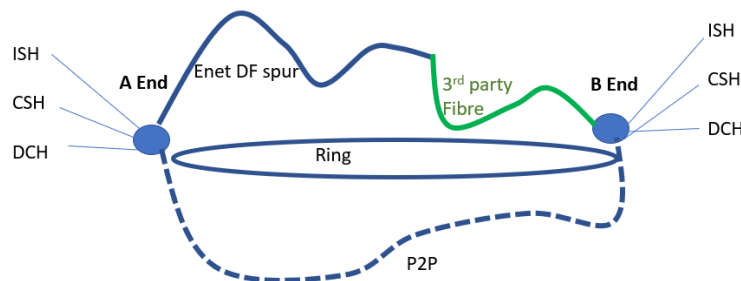
Enet's Dark Fibre is a carrier class product comprising of end-to-end unlit fibre, to provide telecoms services for Carriers and for their End-Users. It facilitates provision of Carrier Backbone DWDM networks, Ethernet Services and supports bandwidth intensive business applications for End-Users (video, voice and data).

It gives you maximum control and flexibility, allowing your network to scale-up as your bandwidth requirements grow, with virtually limitless capacity. Latency is minimised as traffic is sent directly from point A to point B.

Dark Fibre can also be used to facilitate physical redundancy in the Access Network *last mile* as part of a Carrier or End-User's disaster recovery/business continuity plan. In addition, security and privacy are ensured, as your resultant network is physically dedicated to your business and not shared at any point.

The Dark Fibre product is available as a fibre pair, fibre pairs or single fibre strand in the access network as a

- point-to-point fibre on a spur
- full fibre ring



### Product Description

Enet operates over 90 Metropolitan Area Networks (MANs) across Ireland via its 5,400km fibre network, and the spare fibre capacity is available as Dark Fibre for licensed Carriers. Enet also has a significant Dark Fibre connection to over 16 data centers on its Dublin Metro Ring as well as access to third party fibre networks for off-net extensions.

The main features of the Enet Dark Fibre Product are as follows:

- Fibre strand, pair or pairs on a ring or point-to-point available
- Minimum length licenced is 250m
- Charging is by the metre and there are annual "drop" charges
- Fibre provided subject to availability on a case-by-case basis
- Additional Dark Fibre can be installed subject to commercial consideration
- Nationwide footprint via Enet MANs supplemented by Off-net fibre where feasible
- Dark Fibre access at multiple datacentre

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

## Service Delivery

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**Connectivity** – Dark Fibre is delivered on a ring or point-to-point unlit fibre. Termination on SC connectors is standard but we can terminate using Customer requested connectors (e.g. APC connectors to minimise reflectance). Enet can provide connectivity at a multitude of locations as it owns and operates an extensive MAN fibre network.

Enet access includes a dark fibre network in Dublin, with interconnection at key data centers that enable transit to global carriers and service providers. We also provide the option of 3<sup>rd</sup> party Fibre connectivity. Connection can be made to any combination of A and B End requirements (Carrier or End User Sites) with comprehensive ISH, CSH and DSH interconnectivity.

It is subject to availability on a case-by-case basis. Enet will try to ensure to ensure service on the requested route if there is no fibre by installation of new Enet Dark Fibre or the use of 3<sup>rd</sup> party fibre. Enet will advise the Carrier of any additional charges for such alternatives at the time of request.

**Superior Network Performance** - High performance, low loss and low latency is ensured with high quality single mode fibre and the use of experienced best-in-class jointing practices to minimise optical losses and to minimise operational disruption during routine maintenance.

	Features
<b>Fibre Type</b>	Single Mode: ITU-TG.652 C/D
<b>Quality testing</b>	ILM and ODTR tests at 1310nm, 1550nm and 1625nm wavelengths
<b>Termination</b>	SC-UPC Connectors as standard

## Enet Responsibilities

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Enet is responsible for:

- Provisioning Dark Fibre from the A-End to B-End
- The operation and maintenance of the Dark Fibre Product
- Acquiring the public wayleave for civil elements of the service
- Quality Checks using ILM and ODTR tests at 1310nm, 1550nm and 1625nm wavelengths

**Note:** For Private Wayleaves, Enet will take full operational responsibility for wayleave application and establishment on behalf of the Carrier. It is our experience that for certain sites the intervention of the leaseholder is essential to completion of the process and therefore the carrier would need to retain final responsibility for private wayleave.

## Customer Responsibilities

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The Carrier is responsible for ensuring:

- Connection and termination of the Dark Fibre to the Carrier's or End-User's equipment
- Costs for any civils, Road Opening Licenses, management with Local Authorities and Enet supervision
- Retaining final responsibility for private wayleaves
- Immediately reporting any faults to the NOC, as this is a passive product and not actively monitored
- Dark Fibre is for Carrier's own use and not for selling or sub-letting to third parties

## Glossary

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- APC Angled Physical Contact connection
- CSH Customer Sited Handover
- DCH Data Centre Handover
- DTS Desk Top Survey
- DWDM Dense Wave Division Multiplexing
- ID Internal Diameter
- ILM Insertion Loss Measurement
- ISH In-Span Handover
- IBH In-Building Handover
- MAN Metropolitan Area Network
- NOC Network Operations Centre
- OD External Diameter
- OTDR Optical Time Domain Reflectometry
- uPVC Unplasticised Poly Vinyl Chloride (Vinyl)

## Further Information

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### Quotations

A quotation for service can be submitted via an email to the [quoterequests@enet.ie](mailto:quoterequests@enet.ie). Enet will provide the Carrier with a formal Quote based on a Desktop Survey (DTS). If the DTS is insufficient, a full field survey is required to prove the route (Rod and Rope, Chamber checks etc.). The Carrier is not charged for this provided the Order goes ahead.

As carriers can have varying service and commercial requirements, Enet offer a range of commercial options including standard lease and long-term IRU agreements etc.

### Ordering and Provisioning

The Carrier should contact their Account Manager for all aspects of Order management (availability, ordering, support, cessation of service and billing).

### Drop Charges

As well as recurring meterage charges, Enet has Drop Connection charges for the A and B ends. A Drop is defined as:

- The chamber, duct and civils connecting to a premises or location off the MAN network
- The point of entry to the Enet Colo/location that has been brought on to the MAN network.

Note that a single cable terminating at a site incurs a single drop charge, irregardless of the number of dark fibres in the cable

### Further information

Contact your Enet Account Manager or contact us at:

Telephone: + 353 (0)61 274000

Webpage: [www.enet.ie](http://www.enet.ie)