International Wave

High Speed Optical Transport to key European Datacentres

Open Access Networks

Overview

Bandwidth demand continues to grow across the globe. With advances in technology driving flexibility and affordability, wavelength services are now a key part of networks, facilitating the delivery of big data, ultra-high-definition video, Internet of Things applications and the expanding universe of cloud-based applications.

Enet's International Wave delivers low cost, secure, high-speed, transparent connectivity between selected Dublin and European datacentres with guaranteed bandwidth. Dedicated capacity is assured along a defined, fixed route. Automated pricing is available from Dublin to FLAP (Frankfurt, London, Amsterdam and Paris), Marseilles and Milan datacentres.

International Wave is ideal for carriers, wholesalers and enterprises.

Technical Description

International Wave enables a high bandwidth, Layer 1, point-to-point circuit between selected datacentres. Layer 1 is the lowest level of technical complexity for telecommunications services, avoiding switching, routing and decision-making of data across the network.

It makes very efficient use of bandwidth with low contention and fewer network elements.

Service is provided as:

- 10Gbps or 100Gbps circuit capacities with Optical or Ethernet handoff

- Guaranteed bandwidth: No sharing, with a distinct optical channel

- High Quality: Dedicated, uncontended capacity, guaranteeing line rate speed, with minimal packet loss, latency or other degraded performance

- Predictable Low Latency: with minimal jitter along a specific route

Solution
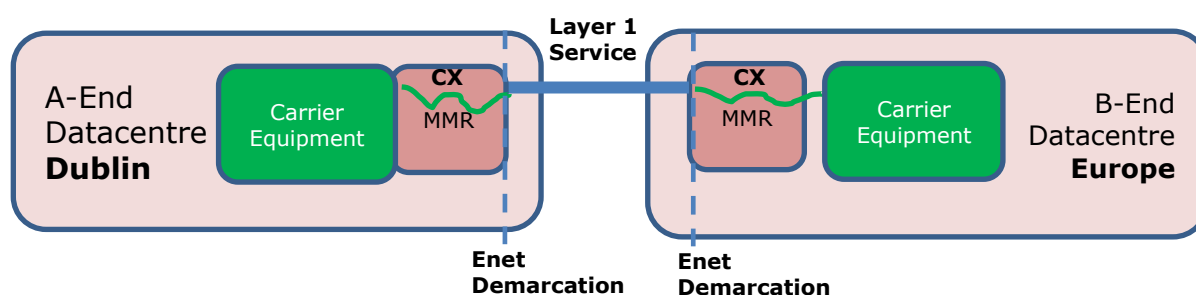
Standard service handoff is LanPhy. Service will be handed off to the Carrier between the nominated datacentres as an optical termination at both the A-End and B-Ends' Meet Me Rooms (MMR).

The Carrier should arrange with datacentre management for the requisite MMR Cross Connects (CX) to their co-located equipment.

Diversity/Protection

The standard Solution is configured as an unprotected standalone wavelength.   If protection or diversity is required, clients have the option to purchase:

- *Protected Service* with dual paths and a Single handoff
- *Diverse Service* with two primary circuits with diverse routing and dual handover where the Carrier manages failover configuration

Both solutions are subject to network design and availability.

SLAs
This is a proactively managed service.
- Enet NOC will make reasonable efforts to inform the Carrier of any general systems outage that may affect Service
- The Service availability target is based on route distance
- One-way latency of less than *16.5ms* for FLAP, Milan, Marseilles (others on request)
- Mean Time-to-Repair is dependent on whether the fault is fibre based or not

Carrier Benefits
- Edge Applications are supported from our selected Dublin datacentres
- Uncontended, flexible and large capacity connection between data centers
- No congestion
- Full protocol transparency with no MTU size limitations
- Less network equipment and network complexity with lower operational costs
- Port-to-port security and privacy for critical data
- Point-to-point, end-to-end dedicated bandwidth
- Increased reliability using Protected or Diverse physical access options

Responsibilities

Enet is responsible for
- provisioning the wavelength(s) between the service demarcation points
- Making reasonable efforts to advise the customer within 45 minutes of fault discovery

The Carrier is responsible for
- Arranging MMR cross connections directly with the datacentre(s)
- the operation and maintenance of the services
- owning the relationship with the end-user and point of contact for any enquiries
- Raising trouble tickets with the Enet NOC for suspected fault conditions
- Management of failover on circuits with diversity

Summary

Product Features	Description
Bandwidths	10Gbps, 100Gbps
Wavelength at Handoff Port	1310 nm, 1550nm
Protection/Diversity	**Default** is Unprotected with no network or client protection **Optional** Protected or Diverse connections
Availability	Max of 99.5% for unprotected single wavelength (<1000km)
TTR target	System Fault: 8 clock hours Terrestrial Fibre Repair: 26 clock hours Submarine Fibre Repair: 11 calendar days
NOC Support	24 x 7 x 365
Delivery Lead time	22 working days, subject to capacity *
Supported Protocols/Standards	Lan Phy (Ethernet) as standard Wan Phy OTU

*Expedited delivery is available on a chargeable basis.

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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