



Dedicated Internet Access (DIA)

Reliable, scalable high capacity wholesale internet access transport

Definition

Dedicated Internet Access (DIA) is a business grade product providing a private, dedicated connection to the Internet solely for your business. DIA avoids having to share internet access with other users or suffer network congestion from increased traffic. It provides a guaranteed and reliable upstream and downstream bandwidth at all times to ensure a high-quality file transfer, video conferencing and VoIP experience.

DIA high-capacity internet access transport is available in a variety of bandwidths up to 1Gbps, with speeds higher than 1Gb available on request. This service is suitable for corporate enterprises seeking to establish a high performance, reliable connection to the Internet.

DIA is delivered nationally via our local fibre or licensed microwave access networks. DIA circuits are routed via our national transport network to our core ISP sites, where they are handed off to Internet Exchanges and Tier 1 IP Transit carriers in Dublin.



The Enet-managed NTU at the end-user premises provides Enet with visibility of the port traffic.

For **Managed Failover**, Enet uses a specific pre-configured NTU to provide automatic failover to a secondary access circuit.

Service Description

DIA is delivered to the customer through an Ethernet transport layer and handed over via an Ethernet NTU. The main features are:

- DIA is delivered using the key Access Media/last mile types of **Fibre and Wireless**
- A wide range of **Symmetrical bandwidths** (Fibre and Wireless) ranging from 10Mbps to 1Gbps
- **No bandwidth sharing** on customer links, user dedicated
- **Unlimited access, no usage limit** (Fixed monthly rental is charged for the service).
- **Static IP addresses available as standard** (Provider assigned (by Enet or Provider independent)
- Both Aggregation node and backhaul are fully redundant; Managed Failover can be used to ensure automated failover in the access network
- Static or BGP routing options available

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

Note: The RSP will be assigned a **/30** static subnet as standard (*which provides one (1) usable customer IP address and three (3) Enet network addresses*). Greater subnets are available such as **/29**, **/28** etc.

Available terminations include:

Bandwidth	Presentation at the customer premises
N x 2Mb, N x 10Mb, N x 100Mb	Electrical termination – RJ45
N x 1Gbe	Electrical / optical termination – RJ45 or LC/PC
10 Gbe	Optical termination – LC/PC

Service Delivery

DIA is provided over our Fibre or Licensed Microwave access (last mile) network delivered from the end customer site and through our National or Regional ISP Core over the architecture shown in Figure 1

Feature	Details	DIA (Default)	Optional
Product Type	DIA: over Fibre or Wireless	Y	
	Managed Failover: over Fibre or Wireless	N	Y
Solution Type	Link IP, Static IP or Dynamic BGP (see Product Document for details)	Y	
Access Media	Fibre or Wireless	Y	
	Copper VDSL FTTC	N	Y*
Bandwidth	10Mb to 1Gb (dependent on Access Media)	Y	
Guaranteed Throughput?	Fibre / Wireless	Y	
	Copper VDSL FTTC (Rate Adaptive)	N	Y
Layer 2	DIA: NTU device installed by Enet (Fibre and Wireless) Single Power AC (Default): Additional charges may apply for DC or Dual power	Y	
Customer site CPE	Managed Failover: Juniper SRX routers come fully installed and configured	N	Y
Default IP Address Blocks	- IPv4 and IPv6 addresses available	Y	
	- /30 default (one Carrier/customer usable) for IPv4: greater also available	Y	
	- /127 for IPv6 (PA) or /56 if operator subnet		
Routing Options	Static or Dynamic BGP	Y	
Max MTU Size	1500 Bytes	Y	
Handoff (Fibre and Wireless)	Default fibre handoff at Customer premises is a 1000BaseT port on NTU Options for optical 1000BaseSX, LX & 10GBase-LR (fibre) are available	Y	

*This is an asymmetrical bandwidth service delivered as FTTC in the last mile but with its own dedicated backhaul to the IP transit providers.

Option: Diversity

No business wants to experience an outage. Where potential downtime is not just an inconvenience to your operations, but can fundamentally impact your business, you need to consider a diverse and redundant design solution.

The scale and type of diversity is critical to the success of diverse connections. Your company can still suffer downtime if, for example, both ways to connect share an entry point into the customer building. If a shared path is damaged, your service will go down, even if other elements are diverse. With Enet's **six-element diversity plan**, you can avoid this by understanding the full suite of diversity we can provide.

Diversity can be assured using a Primary Fibre and Secondary Fibre or Wireless, with the benefit of defined Price Reductions where both are ordered together. Our Tech Pre-Sales Team are more than happy to assist on the design of your specific diversity solution options.

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See Enet's **Six Element Diversity Plan** below for guidance:

	Critical	Nice to have	Not required
1. Diverse element 1 : Dual NTU			
2. Diverse element 2 : Dual Building Egress / Ingress			
3. Diverse element 3 : Dual Local Access			
4. Diverse element 4 : Dual Local PoP(s)			
5. Diverse element 5 : Protected Backhaul			
6. Diverse element 6 : Dual NNI			

Option: Managed Failover

Add further capability to Enet's Diversity product to provide seamless failover to your diverse circuit.

Enet can provide and install a managed preconfigured NTU for the primary circuit. If the primary circuit fails, this automatically switches to the secondary circuit (and switchback on service restoration)

- Requires no setup knowledge from end-user
- Active - Passive solution
- Can be added to existing circuits (with DIA, On or Off-Net)

Option: DDoS Protection

Internet access has become a critical element of the business process of many companies and as such, has become a target for hackers. Almost anybody can launch a DDoS attack against your company, which could potentially paralyse your company's everyday work for hours, weeks, or months.

DDoS Protection is a high-quality robust service, protecting your company by detecting and mitigating DDoS attacks that target a customer's network. DDoS mitigation includes for example: Volumetric Attacks, Carpet Bombing and Resource Exhaustion. To ensure swift and efficient mitigation close to the source, the DDoS Protection platform is strategically located and globally distributed.

Enet has made available a DDoS Protection add on service to DIA to help ensure additional protection for your services and can offer:

- Unlimited mitigation for ordered bandwidth (c.10Mb-1Gb)
- Pro-active Automatic detection supported by:
 - Premium "always on" mitigation
 - Traffic is permanently routed through nearest scrubbing centre
- Protection using specific IP prefixes
- Secure Uplink (incoming traffic mitigation)
- Bandwidth Upgrade options available

Enet Responsibilities

Enet is responsible for:

- provisioning the Internet Service from the customer site to the ISP Core Network
- operating and maintaining both the network and the connection to the Internet Service
- acquiring the public wayleave for civil elements of the service
- assigning the requested bandwidth and IP addresses

Carrier Responsibilities

The Carrier is responsible for:

- allocating adequate rack space for installation of fibre patch panel and Enet NTU/Managed Router
- provisioning a clean, protected power supply for the NTU
- shaping the traffic in line with the purchased traffic profile
- supporting the product past the demarcation point (port) on the Enet NTU/Managed Router

Glossary

- IP Internet Protocol
- MTU Maximum Transmission Unit
- NTU Network Terminating Unit
- PA Provider Assigned

Further Information

Quotations

A quotation for service can be submitted via an email to the quoterequests@Enet.ie

Ordering and Provisioning

Orders should be emailed to the Enet Sales Support Team at salesupportteam@Enet.ie. The Sales team will provide Service eligibility checks for the service. Note that excess charges may apply.

Further information

Contact your Enet Account Manager or contact us at:

Telephone: + 353 (0)61 274000

Webpage: www.Enet.ie