

# Simple, secure site connection

Share information between your business sites with reliable, flexible and affordable connections.

## Key benefits

- A flexible, modular, scalable networking solution for all organisations.
- New billing layout, with charges on a site-by-site basis.
- Leverages standard Ethernet ports for simpler access at lower cost.
- Fibre, NBN or Digital Subscriber Line (DSL) for high speed access.
- Provides a single reporting platform with advanced usage and QoS reporting.

## Introduction

Optus Evolve IP VPN provides flexible, scalable and reliable private IP-based Virtual Private Network (VPN) services, allowing organisations to combine voice, video and data applications onto a single network. Based on Optus' new generation common packet core network, this is the ideal environment for bandwidth-intensive, jitter and latency sensitive converged business applications.

Optus Evolve IP VPN is a fully meshed, any-to-any layer 3 VPN using Multi-Protocol Label Switching (MPLS).

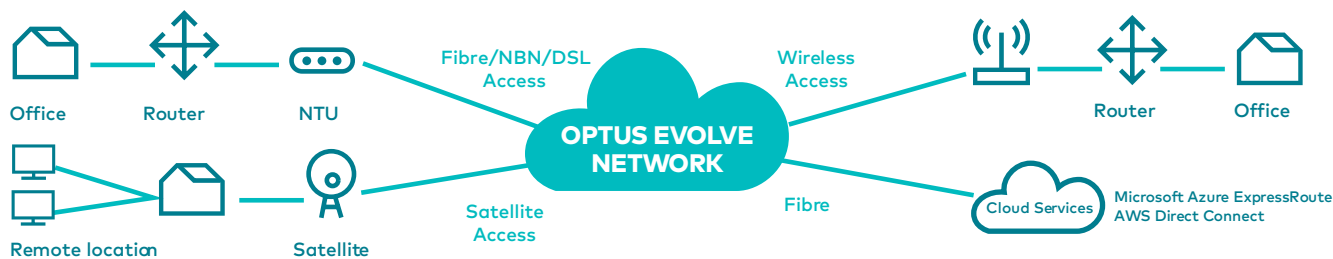
Optus Evolve IP VPN is a core module of the Optus Evolve communications suite that integrates seamlessly with other components to provide a total communications solution. Its modular design means you can change your configuration as your business needs change – without rebuilding your network.

## Simple any-to-any Ethernet connections

The anywhere, anytime nature of business today is putting increasing demands on corporate networks; data and applications that have traditionally resided on the head office Local Area

**This is Enterprise.**  
**This is Optus.**

**Yes** **OPTUS**



Network (LAN), increasingly need to be extended out to remote users such as branch offices, mobile workers and business partners.

Unlike point-to-point leased line private networks, the switched nature of an MPLS IP VPN makes it simple to add and change connections between locations with minimal overhead; transferring complex routing from an organisation's internal network to the Optus Evolve network.

With Optus Evolve IP VPN, the customer edge (CE) router simply connects to the provider edge (PE) router over Ethernet, introducing a 'plug and play' concept to connected businesses – standardising and maintaining network equipment.

### Smart integration of voice, data and video

Real-time applications such as voice and video require low latency, stable jitter and Quality of Service (QoS) enabled IP connectivity. For optimal delivery of these time sensitive services the network needs to be aware of what the application is and its importance

across the network. Optus Evolve IP VPN is an applicationaware network that allows you to segment and prioritise your critical data traffic from the edge all the way through the core using end-to-end implementation of Diff Serv (DSCP).

### Enhanced reporting, better insights

Optus Evolve IP VPN provides enhanced reporting via the Optus eCare portal. The Optus eCare reporting engine is highly versatile, delivering reporting on customisable time periods, and allowing you to drill down through the network to expose how individual links are performing.

### Cloud connectivity

Optus Evolve IP VPN customers can connect directly to Microsoft Azure ExpressRoute and AWS Direct Connect. This allows you to leverage the Optus Evolve network to reliably and conveniently connect to your cloud services rather than connecting over the public Internet.

## Access Types

**Fibre Access:** Access\_CE Ethernet over Carrier Ethernet; EoUEF Ethernet over Uecom Fibre connect via direct fibre; EoAMCOM Ethernet over Amcom and EoTWEA\_F, EoMLLe Ethernet over Extended Access Fibre connect via 3rd party fibre.

**Digital Subscriber Line (DSL) Access:** EoBDSL Ethernet over Business grade DSL connect symmetrical high speed DSL (SHDSL) via a dedicated Unbundled Local Loop (ULL); EoDSL Ethernet over DSL connects ADSL via a ULL; EoTWEA\_C Ethernet over Extended Access Copper connects via 3rd party BDSL; EoEDSL Ethernet over Extended DSL connects ADSL via an active public switched telephone network (PSTN) service.

**Other Access types:** EoNBN Ethernet over NBN connects via NBN Co FTTP, FTTN, FTTB, FTTC, HFC or wireless network; EoNBN\_Enterprise Ethernet provides Ethernet over NBN's on-demand Layer 2 Fibre access delivering symmetrical speeds upto 1 Gbps; EoSatellite Ethernet over Satellite connects via the Optus Satellite network; WIP VPN Plus access using Optus 3G/4G mobile wireless network.

## Core network latency#

	BRI	SYD	CAN	MELB	ADEL	PERTH
Brisbane		18	29	32	41	73
Sydney	18		16	18	30	61
Canberra	29	16		16	27	59
Melbourne	32	18	16		16	46
Adelaide	41	30	27	16		32
Perth	73	61	59	46	32	

Feature	Description
Target availability (single access)	99.95% Access_CE/EoUEF/ 99.95% EoBDSL/EoC, 99.9% EoNBN/EoNBN_EE, 99.9% EoAmcom/EoTWEA_F /EoMLLe, 99.8% EoTWEA_C, 99.6% EoDSL, 99.2% EoEDSL, 99.8% EoSatellite n/a WIP VPN Plus
Target availability (dual access)	99.97% diverse EoUEF/Access_CE links (single NTU), 99.97% (Access_CE or EoUEF)/EoDSL (dual NTU), 99.99% (Access_CE or EoUEF)/(EoBDSL or EoC) (dual NTU)
QoS	Six classes offered for classification, Gold-real time (rt), Gold-non real time (nrt), Silver-nrt1, Silver-nrt2, Silver-nrt3, Bronze
Network monitoring	24 x 7 x 365
Customer support	Via the Optus Business Service Desk - 134 315

Access Type	Fibre					DSL					NBN					Satellite	Wireless		
	Access_CE	EoUEF	EoAMCOM	EoTWEA_F	EoMLLe	EOC	EoBDSL	EoDSL	EoTWEA_C	EoEDSL	EoNBN FTTP	FTTC	FTTB/FTTN	Fixed Wireless	HFC	Enterprise Ethernet	EoSatellite	WIP VPN Plus	
General																			
Max MTU size (bytes)	1570	1574	1500	1596	1600	1566	1508	1500	1518	1492	1574/1552 <sup>****</sup>	1574/1552 <sup>****</sup>	1574/1552 <sup>****</sup>	1440	1500/1482 <sup>****</sup>	8950	1480	1500	
Interface																			
Customer port speed (bit/s)	10/100/1000M																	10/100M	3G/4G
Customer interface type	10/100/1000 BaseT (RJ45) or 1000BaseLX (SMF)			10/100/1000 BaseT (RJ45), 1000 Base SX, 1000 Base LX	100/1000 BaseT (RJ45), 1000 Base FX/LX, 1000 Base LX	10/100/1000 BaseT (RJ45)										100/1000 BaseT (RJ45), 1000 BaseLX, 1000 Base - SX	10/100BaseT (R45)	3G/4G	
Optus eCare Reporting																			
QoS reports	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	
Jitter, packet loss	Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					No	Yes with Optus Evolve MRS		
Latency (RTT)	Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					No	Yes with Optus Evolve MRS		
Link status (availability)	Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes <sup>***</sup>	Yes		
Bandwidth utilisation	Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes <sup>***</sup>	Yes		
Fault reporting management	Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes <sup>***</sup>	Yes		
Trending/NBAR report	Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes with Optus Evolve MRS					Yes <sup>***</sup>	No		
Routing Protocol																			
BGPv4	Yes					Yes	Yes <sup>AA</sup>	Yes <sup>AA</sup>	Yes	No	Yes					No	Yes		
RIPv2	Yes					Yes					Yes					Yes	Yes		
Static	Yes					Yes					Yes					Yes	Yes		
Network Configuration																			
Hub and Spoke	Yes					Yes					Yes					No	Yes	No	
QoS available	Yes					Yes					Yes					No	Yes	No	
No. of QoS classes	6					6					6					6	6		
DiffServe (DSCP)	Yes					Yes					Yes					Yes	Yes		

<sup>AA</sup> BGPv4 available between CPE-PE where NTU is bridged

<sup>\*\*\*\*</sup> EoNBN MLS Service

<sup>\*\*\*</sup> eCare only reports on Optus Evolve Satellite NNI components. # Indicative average round trip time (RTT)

## To get started, talk to an Optus Account Manager today

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