

MetroEthernet Standard

Easy access to high performance network connections



VectorFibre MetroEthernet Standard provides highly reliable, high-performance carrier grade network connections for your business that are as easy as plugging into your office LAN. MetroEthernet Standard is designed to carry all your basic application data, so you can use WAN strategically for business growth.

Underpinning this is the assurance that VectorFibre MetroEthernet is the first suite of connectivity services in New Zealand to achieve certification by the MetroEthernet Forum (MEF), the international standardisation body for Ethernet. You also get additional options for bandwidth, availability, service configuration and tagging.

How it works

MetroEthernet Standard is a Layer 2 data service that use an Ethernet Virtual Connection (EVC), to provide fully symmetrical, low-latency connect between your sites. The EVC can be provisioned in a point-to-point, or multipoint-to-multipoint configuration. This allows you to easily establish the particular connectivity relationships you require between sites.

Multiple Virtual Local Area Networks (VLANs) can be applied to any EVC, allowing you to partition your traffic (e.g. by user group) into separate, secure data streams. Customer Edge(CE)-VLAN ID Preservation (Q-in-Q) is supported, enabling your CE-VLAN IDs to pass untouched through the MetroEthernet network for use within your own domain.



This service is internationally certified for performance and reliability by the Metro Ethernet Forum.

Business benefits

Internationally certified service

MEF certification gives you consistent quality. Our MetroEthernet network supports all features of carrier grade Ethernet solutions.

Flexibility

You get services that closely match your requirements with multiple configuration and service options to choose from, enabling you to manage costs and performance effectively.

Ease and simplicity

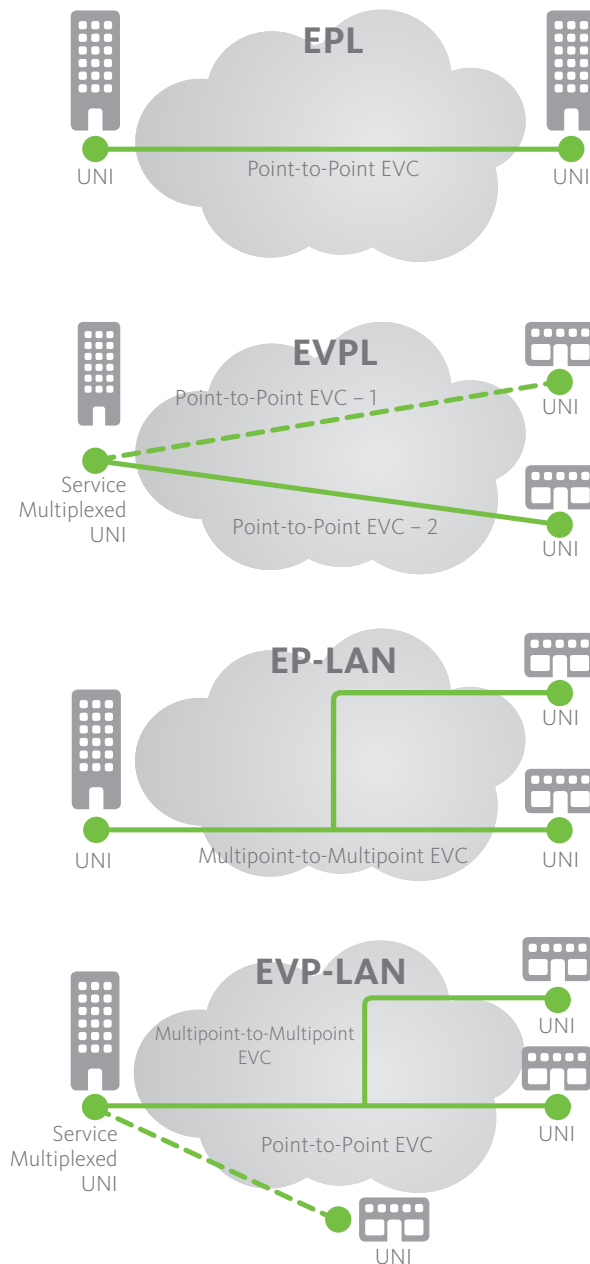
There is a standard fixed monthly charge regardless of the geographic location of your customer (within a metro area). The end-to-end service construct makes it easy to manage moves adds and changes.

Highly scalable

No more complex service charges as you can move between 10Mbit/s to 10Gbit/s with the same service characteristics.

Technology overview

MetroEthernet Standard services use an Ethernet Virtual Connection that can be configured as Ethernet Private Line (EPL), Ethernet Virtual Private Line (EVPL), Ethernet Virtual Private Local Area Network (EVP-LAN) or Ethernet LAN (EP-LAN). Each service is a separate EVC, ensuring that traffic is secure between the sites. Additional options such as service frame format (tagging), higher service availability and configuration can be chosen for any of the services.



Additional information about the above service types is contained in the MetroEthernet Options Service Profile

Service specification

EVC attributes	EPL	EVPL	EP-LAN	EVP-LAN
Bandwidth Profile Type	Committed Information Rate(CIR)			
Bandwidth Profile	10, 20, 25, 30, 50, 75, 100, 200, 250, 300, 500, 750 Mbit/s 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 Gbit/s per EVC			
Rate Enforcement	Ingress rate policing with Excess Burst Size of 1500ms			
EVC Maximum Transmission Unit (MTU) size	9000 bytes			
CE-VLAN ID Preservation	Yes			
CE-VLAN CoS Preservation	Yes			
Unicast Frame Delivery	Deliver Unconditionally			
Multicast Frame Delivery	Deliver Unconditionally			
Broadcast Frame Delivery	Deliver Unconditionally			
Layer 2 Control Protocol	Tunnel IEEE 802.3x MAC Control Frames			
	Tunnel IEEE 802.1x Port Authentication			
	Tunnel Generic Attribute Registration Protocol (GARP)			
	Tunnel Spanning Tree Protocol (STP)			
	Tunnel a protocol multicasted to all bridges in a bridged LAN			
	Tunnel Link OAM			
	Tunnel STP (Cisco BDPU)			
	Tunnel CDP			
	Tunnel VTP			
Tunnel* or Peer Link Aggregation Control Protocol (LACP)				

UNI Attributes*	EPL	EVPL	EP-LAN	EVP-LAN
UNI Speed	100 Mbit/s, 1Gbit/s, 10Gbit/s			
Physical Medium	100 Mbit/s – IEEE 802.3u 100Base – T* (Copper) 1 Gbit/s – IEEE 802.3ab 1000Base – T* (Copper) 1 Gbit/s – IEEE 802.3z 1000Base – SX 1 Gbit/s – IEEE 802.3z 1000Base – LX 1 Gbit/s – IEEE 802.3z 1000Base – BX-U/D 1 Gbit/s – IEEE 802.3z 1000Base – EX 1 Gbit/s – IEEE 802.3z 1000Base – ZX 10 Gbit/s – IEEE 802.3ae 10GBase – SR* 10 Gbit/s – IEEE 802.3ae 10GBase – LR 10 Gbit/s – IEEE 802.3ae 10GBase – ER			
Mode*	Full Duplex* or Auto			
MAC Layer	IEEE 802.3 - 2005			
Service Frame Format	Untagged, single tag (802.1Q), double tag (802.1AD)			
MAC Address Limit	500 Higher limit may be available on request	500	500	500
UNI MTU Size	2000 bytes for UNI speed of 100 Mbit/s, 9000 bytes for UNI speed of 1 Gbit/s and above.			
Service Multiplexing	No	Supported	No	Supported
Bundling	No	Yes or No	No	Yes or No
All-to-one Bundling	Yes	No	Yes	No

*Default values

Service Performance	
Availability	99.9%
Frame delay	< 20 ms
Frame jitter	< 10 ms
Frame loss	< 0.1%

To find out more about the additional options, visit www.vectorfibre.co.nz.



To get the full benefit of MEF certified MetroEthernet Standard for your business call Vector Communications on **0800 826 436** or email contactus@vector.co.nz