

## HOW IT WORKS

MetroEthernet Premium is a Layer 2 data service that uses an Ethernet Virtual Connection (EVC), to provide fully symmetrical, low-latency connection 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.

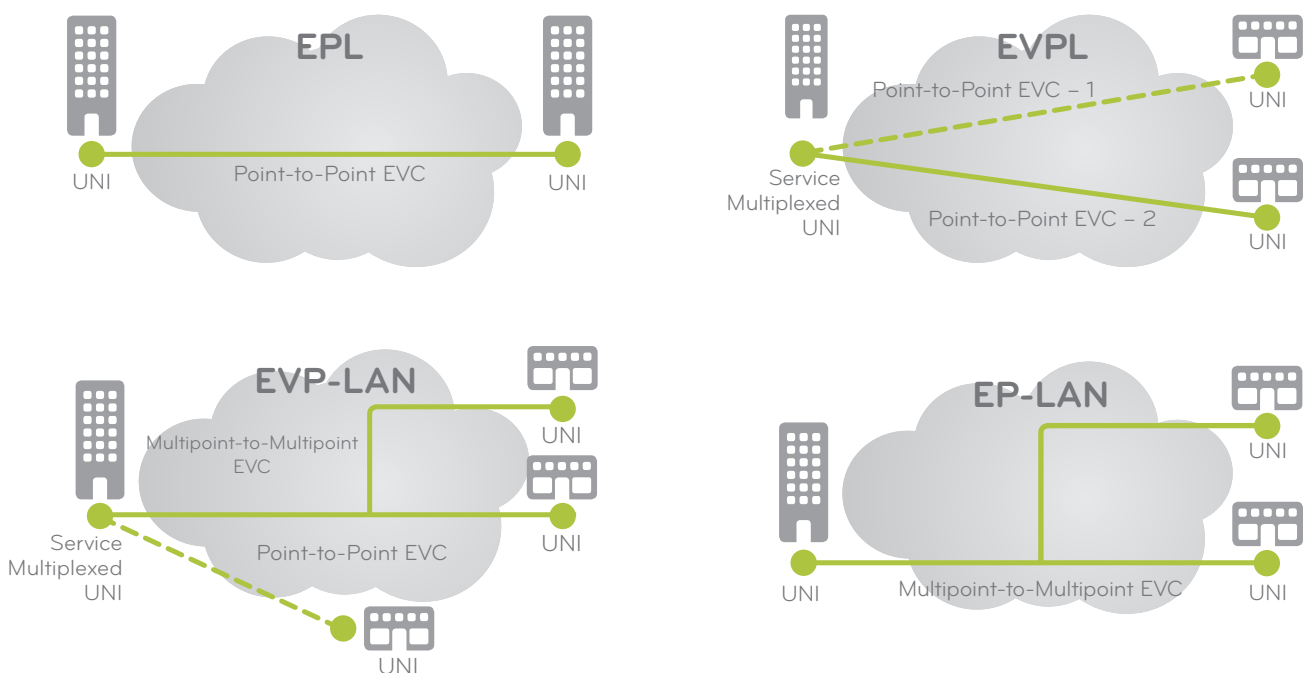
Multiple Virtual Local Area Networks (VLANs) can be applied to any EVC, allowing you to partition your traffic (e.g. by user group) into separate, secure data streams. Customer Edge(CE)-VLAN ID Preservation (Q-in-Q) is supported, enabling your CE-VLAN IDs to pass untouched through the MetroEthernet network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



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

## TECHNOLOGY OVERVIEW

MetroEthernet Premium 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.



## SERVICE SPECIFICATIONS

EVC Attributes	EPL	EVPL	EP-LAN	EVP-LAN
Bandwidth Profile Type	Committed Information Rate(CIR)			
Bandwidth Profile	10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500, 600, 700, 800, 900 Mbit/s 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 Gbit/s per EVC			
Rate Enforcement	Ingress rate policing at Layer 1 with 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		Discard IEEE 802.3x MAC Control Frames	
	Tunnel IEEE 802.1x Port Authentication		Discard IEEE 802.1x MAC Port Authentication	
	Tunnel Generic Attribute Registration Protocol (GARP)		Discard Generic Attribute Registration Protocol (GARP)	
	Tunnel Spanning Tree Protocol (STP)		Discard Spanning Tree (STP)	
	Tunnel a protocol multicasted to all bridges in a bridged LAN		Discard a protocol multicasted to all bridges in a bridged LAN	
	Tunnel Link OAM		Discard Link OAM	
	Tunnel STP (Cisco BDPU)		Discard STP (Cisco BDPU)	
	Tunnel CDP		Discard CDP	
	Tunnel VTP		Discard VTP	
	Tunnel* or Discard Link Aggregation Control Protocol (LACP)		Tunnel or Discard* Link Aggregation Control Protocol (LACP)	

# METROETHERNET PREMIUM™

TECHNICAL  
PROFILE

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 – 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

\*\* Applicable only for Service Multiplexed UNI with minimum of 1Gbit/s UNI speed

## SERVICE PERFORMANCE

Availability	99.9%
Frame delay	≤5ms <sup>1</sup>
Frame jitter	≤2ms <sup>1</sup>
Frame loss	< 0.1%

To find out more about the additional options, visit [www.vectorcomms.co.nz](http://www.vectorcomms.co.nz)

<sup>1</sup> Within the same Metro area.

All service performance values applicable for 99.9% of the frames within a measurement interval of five minutes.



To get the full benefit of MEF certified MetroEthernet Premium for your business call  
Vector Communications on 0800 826 436 or email [contactus@vector.co.nz](mailto:contactus@vector.co.nz) today.