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ETHERNET SERVICE SPECIFICATION OVERVIEW

The PacketFabric network is an Ethernet based platform which facilitates direct, private, and secure interconnections between any two or more participants, in a cost-effective, reliable, and highly scalable manner. This is accomplished through MEF-compliant implementations of Carrier Ethernet technologies and techniques, controlled by automation systems which have been developed in-house, specifically for PacketFabric's network.

SERVICE	SERVICE FEATURES
Interfaces	**Physical Interfaces Supported:** ■ Gigabit Ethernet □ 1000BASE-LX (10km) □ 1000BASE-EX (40km) □ 1000BASE-ZX (80km) ■ 10 Gigabit Ethernet □ 10GBASE-LR (10km) □ 10GBASE-ER (40km) □ 10GBASE-ZR (80km) ■ 40 Gigabit Ethernet □ 40GBASE-LR4 (10km) □ 40GBASE-ER4 (40km) ■ 100 Gigabit Ethernet □ 100GBASE-CWDM4 (2km) □ 100GBASE-LR4 (10km) □ 100GBASE-ER4 (40km)
	Maximum Transmission Unit (MTU) Support: ■ 9000 bytes Tagged Frames ■ 9000 bytes Untagged Frames
	Duplex Support: 1G, 10G, 40G, 100G - Auto Negotiated / Full Duplex

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Ethernet Private Line (EPL) Service:

PacketFabric's Ethernet Private Line (EPL) Service is a reliable, more flexible, higher bandwidth alternative to traditional private lines. EPL services enables customers to use any VLANs or Ethernet control protocol across the service, without coordination from PacketFabric.

SERVICE	SERVICE FEATURES
Ethernet Private Line (EPL)	**Duplex Support:** Tag Protocol IDs: 0x88a8, 0x8100, 0x9100
	Supported Ethernet Layer 2 Control Protocols (L2CP) Destination MAC adresses: LACP/LAMP - 01:80:C2:00:00:02 Link OAM - 01:80:C2:00:00:02 ESMC - 01:80:C2:00:00:02 802.1X - 01:80:C2:00:00:03 E-LMI - 01:80:C2:00:00:07 Provider Bridge Group Address - 01:80:C2:00:00:08 Provider Bridge MVRP Address - 01:80:C2:00:00:0D LLDP - 01:80:C2:00:00:0E PTP Peer Delay - 01:80:C2:00:00:0E
	VLAN Support: VLANs 1-4094, Untagged
	Quality of Service Marking: Support preservation of IP Precedence / DSCP Bits: Yes Support preservation of 802.1p Bits: Yes
	MAC Addresses Per Endpoint: Unlimited
	Broadcast, Unknown Unicast, Multicast (BUM) Traffic Support: All BUM traffic is transported end-to-end
	Dedicated Bandwidth Available UNI-to-UNI: Yes
	Core/Backbone Service Resilience: EPL service is protected with Node+Link Fast Reroute technology, ensuring sub-50ms service restoration.

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Ethernet Virtual Private Line (EVPL) Service:

PacketFabric's Ethernet Virtual Private Line (EVPL) Service provides an Ethernet Virtual Connection (EVC) between two customer locations, similar to Ethernet Private Line service, but with the added flexibility to multiplex multiple services (EVCs) on a single UNI at the customer interface.

SERVICE	SERVICE FEATURES
Ethernet Virtual Private Line (EVPL)	**Ethernet and IP Header Support:** Tag Protocol IDs: 0x88a8, 0x8100, 0x9100
	Untagged Support: Untagged port handoffs are available, the selection of an untagged port means this port is not eligible to be configured for tagged services.
	Tagged VLAN Support: VLANs 1-4095 Selectable and available for handoff at each port
	Quality of Service Marking: Support preservation of IP Precedence / DSCP Bits: Yes
	MAC Addresses Per Endpoint: 1024
	Broadcast, Unknown Unicast, Multicast (BUM) Traffic Support: Service is permitted to consist of 10% BUM traffic
	Dedicated Bandwidth Available UNI-to-UNI: Yes
	Core/Backbone Service Resilience: EPL service is protected with Node+Link Fast Reroute technology, ensuring sub-50ms service restoration. **Local Port Resilience:** EVPLs may be multihomed to multiple PacketFabric PE devices within the same facility using MC-LAG.