MEF

Technical Specification
MEF 26.0.2

OVC Layer 2 Control Protocol Tunneling
Amendment to MEF 26

January 2011

Disclaimer

The information in this publication is freely available for reproduction and use by any recipient and is believed to be accurate as of its publication date. Such information is subject to change without notice and the Metro Ethernet Forum (MEF) is not responsible for any errors. The MEF does not assume responsibility to update or correct any information in this publication. No representation or warranty, expressed or implied, is made by the MEF concerning the completeness, accuracy, or applicability of any information contained herein and no liability of any kind shall be assumed by the MEF as a result of reliance upon such information.

The information contained herein is intended to be used without modification by the recipient or user of this document. The MEF is not responsible or liable for any modifications to this document made by any other party.

The receipt or any use of this document or its contents does not in any way create, by implication or otherwise:

    a) any express or implied license or right to or under any patent, copyright, trademark or trade secret rights held or claimed by any MEF member company which are or may be associated with the ideas, techniques, concepts or expressions contained herein; nor

    b) any warranty or representation that any MEF member companies will announce any product(s) and/or service(s) related thereto, or if such announcements are made, that such announced product(s) and/or service(s) embody any or all of the ideas, technologies, or concepts contained herein; nor

    c) any form of relationship between any MEF member companies and the recipient or user of this document.

Implementation or use of specific Metro Ethernet standards or recommendations and MEF specifications will be voluntary, and no company shall be obliged to implement them by virtue of participation in the Metro Ethernet Forum. The MEF is a non-profit international organization accelerating industry cooperation on Metro Ethernet technology. The MEF does not, expressly or otherwise, endorse or promote any specific products or services.

Table of Contents

List of Tables

1   Introduction

This document amends MEF 26[1] as described below. The purpose of this amendment is to define what it means to tunnel a Layer 2 Control Protocol on an Operator Virtual Connection.

2   New Terminology

Add the row shown in Table A to Table 1 in MEF 26 after the External Interface row.

L2CP Tun-neling	The process by which a frame containing a Layer 2 Control Pro-tocol is transferred between External Interfaces.	This docu-ment

Table A – New Row in Table 1

3   New Section 7.2.19

7.2.19   Layer 2 Control Protocol Tunneling

The Layer 2 Control Protocol Service Frame is described in MEF 10.2. [5]. An ENNI Frame with a Destination MAC Address shown in Table B is defined to be a Layer 2 Control Protocol ENNI Frame. Additional ways of denoting a Layer 2 Control Protocol ENNI Frame at a given ENNI can be agreed to by the two Operators involved in the given ENNI.

MAC Addresses[2]
01-80-C2-00-00-00 through 01-80-C2-00-00-0F
01-80-C2-00-00-20 through 01-80-C2-00-00-2F
01-80-C2-00-00-10

Table B – MAC Addresses that Identify a Layer 2 Control Protocol ENNI Frame

[R1B] When a L2CP Service Frame or L2CP ENNI Frame is tunneled, the frame **MUST** be delivered to all OVC End Points, other than the ingress OVC End Point, that are associated by the OVC and the format relationships detailed in Table C **MUST** be maintained.

[R2B] An ingress L2CP Service Frame that is not mapped to an existing OVC End Point **MUST NOT** be tunneled.

[R3B] An ingress L2CP ENNI Frame that is not mapped to an existing OVC End Point **MUST NOT** be tunneled.

In view of [R20], [R3B] means that an ingress L2CP ENNI Frame that does not have an S-Tag is not to be tunneled because the Operator has no information on which OVC to use to tunnel the frame.

---

[1]Metro Ethernet Forum, MEF 26, *External Network Network Interface (ENNI) – Phase 1*, January 2010.
[2]Hexadecimal canonical format

Ingress Interface	Egress Interface	Egress Frame Format[3]
UNI (L2CP Service Frame)	UNI (L2CP Service Frame)	Identical to the ingress frame.
UNI (L2CP Service Frame)	ENNI (L2CP ENNI Frame)	All fields from the Destination Address through the Payload of the ingress Service Frame present and unchanged. S-Tag added in after the Source Address.
ENNI (L2CP ENNI Frame)	UNI (L2CP Service Frame)	All fields from the Destination Address through the Payload except the S-Tag of the ingress ENNI Frame present and unchanged. No S-Tag is present.
ENNI (L2CP ENNI Frame)	ENNI (L2CP ENNI Frame)	All fields from the Destination Address through the Payload of the ingress ENNI Frame present. The content of the S-Tag can be changed while all other fields are unchanged.

Table C – Format Relationships for Tunneled L2CP Service and ENNI Frames

---

[3] The Frame Check Sequence in the egress frame might need to be recalculated.