

LDP Extensions for Optimized MAC Address Withdrawal in VPLS model 3 supporting Qualified learning

draft-chen-l2vpn-vpls-mac-opt-qualified-01

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Introduction

- This draft describes a problem and a solution to optimize the MAC flush procedure in VPLS model 3 ([RFC4664])supporting qualified learning ([RFC4762]).

Problem statement(I)

- There are two MAC address withdraw mechanisms in IETF.
 - RFC4762
 - Draft-ietf-l2vpn-vpls-ldp-mac-opt
- Comparison of the existing MAC address withdraw mechanism

Mechanism	Comparison
RFC4762	The basic MAC address withdraw mechanism in VPLS.
Draft-ietf-l2vpn-vpls-ldp-mac-opt	Extend RFC4762 to Optimize MAC address withdraw in H-VPLS.

Problem statement(II)

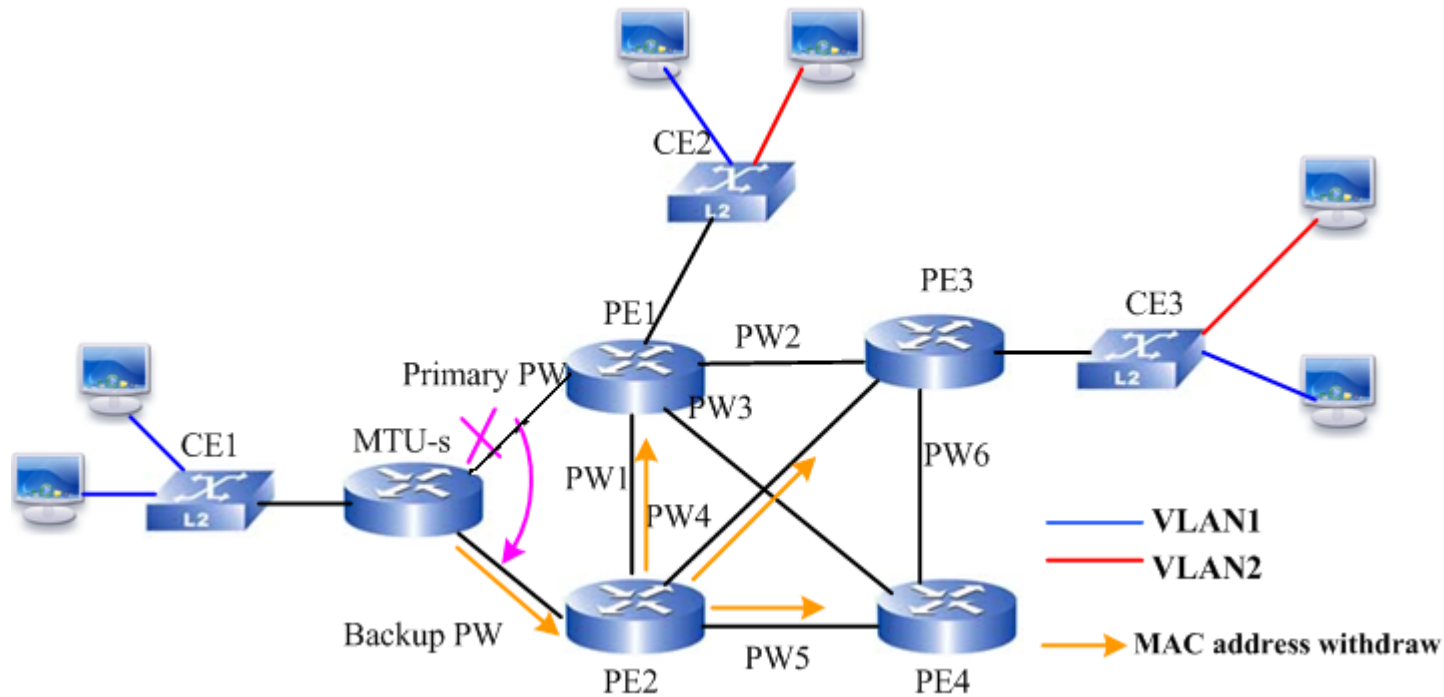
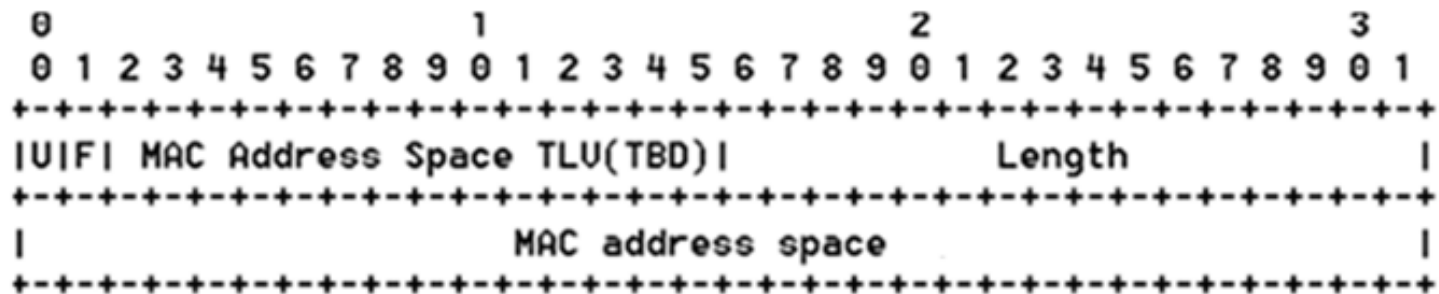


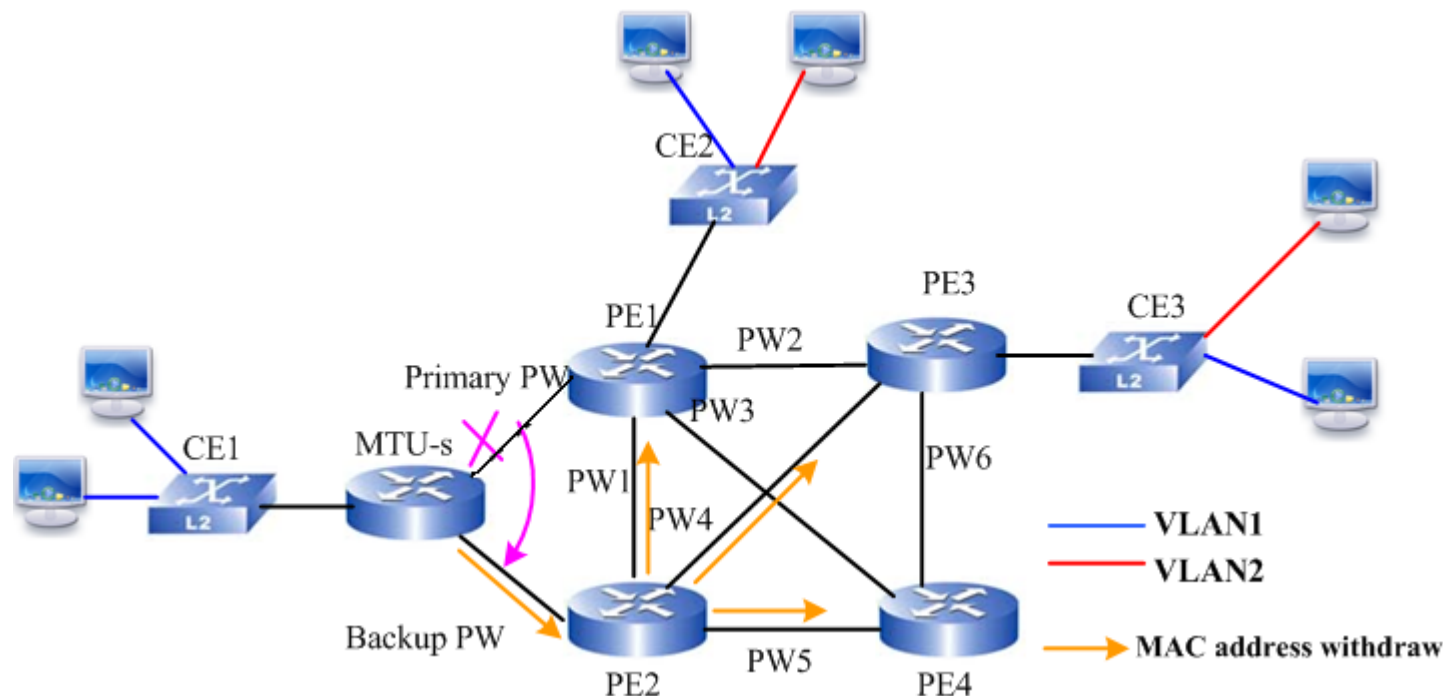
Figure1: MAC address withdraw mechanism defines in existing drafts

- As per the processing rules defined in both RFC4762 and Draft-ietf-l2vpn-vpls-ldp-mac-opt , PEs flush the MAC address belonging to the unaffected MAC address in qualified learning model.

Solutions(I)

- Use of optional MAC Address Space TLV in LDP Address Withdraw Message.
- MAC Address Space TLV





Benefits

- Quick convergence
 - Narrows the scope of MAC address flush.
 - When PEs receive the message with MAC Address Space TLV , they flush only the MAC addresses belonging to the MAC address space affected by topology change.

Next Step

- The authors would like to request more WG feedbacks

Thank you