MAC Withdraw Signaling for static PW

draft-boutros-l2vpn-mac-wd-02.txt

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Brief History

• This draft was first introduced in 2011
• We are increasingly seeing demand for this solution from the field for static PW deployments (more on this later)
• Reviving this work
• Added a new author
Solution Overview

• MAC withdraw signaling for dynamic PW is described in RFC 4762. It mitigates black holing of the traffic when dual-homed MTU-s switches over to standby PW

• RFC 6478 describes PW status exchange in-band over the OAM channel with acknowledgements from the receiver. The draft uses the similar mechanisms for MAC withdraw signaling.
MAC Withdraw signal

- Sent over OAM channel with sequence number and MAC list TLV as defined in RFC 4762.
- Receiving PE sets the ACK bit in the response
- In absence of ACK, sender retries 3 times at one second interval
- An ACK receipt with higher sequence is implicit ACK for all lower sequence sends
- MAC List Optimization is supported as per http://tools.ietf.org/html/draft-ietf-l2vpn-vpls-ldp-mac-opt-08
MAC Withdraw signaling – use case

- Primary spoke PW
- Standby spoke PW
- Mesh PW
- MAC withdraw signal
Use case

• MPLS-TP deployments are taking hold in access networks
• Static provisioning for PWs dovetails to static LSPs
• This necessitates need for PW status (already an RFC) as well as MAC withdraw signaling for H-VPLS deployments with dual-homing
Summary

• Request to adopt as WG document
• Reserve ACH channel type 0x28
• Comments?