

MAC Withdraw Signaling for static PW

draft-ietf-pals-mpls-tp-mac-wd-00.txt

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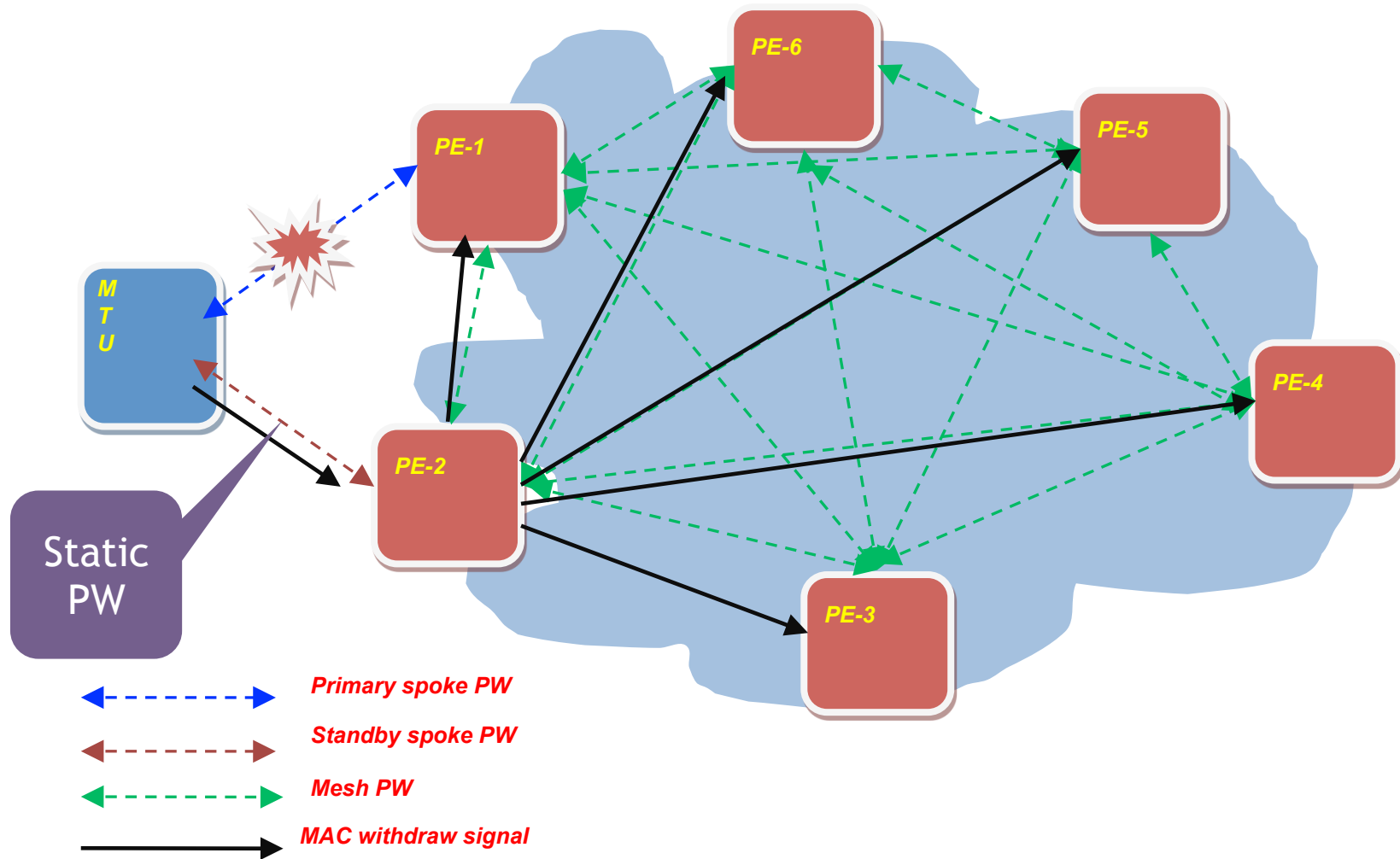
Brief History

- This draft was first introduced in 2011
- Service Providers requesting this feature
- Detailed presentation well received at IETF-88
- The work moved back and forth between PWE3 and L2VPN WG, finally reaching to last call stage in L2VPN WG.
- The latest update addresses comments received recently

Solution Overview

- MAC withdraw signaling mitigates black-holing due to PW switchover
- This draft describes MAC withdraw signaling over static PWs based on
 - dynamic MAC withdraw signaling methods described in RFC 4762 and
 - inband signaling over OAM channel scheme described in RFC 6478

MAC Withdraw signaling – use case



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

Response to comments

- General Comment: Concern on the scheme that does not guarantee the MAC WD signal delivery – Seq# and only 3
 - General Comment: Concern on the scheme that does not guarantee the MAC WD signal delivery –

retries. Best Effort scheme with retries to increase probability of delivery in the face of

lossy

network. But MAC WD is an optimization to avoid black-holing. Existing alternates suffice, such as –

to elapsed time. So no need to keep retrying for ever

Response to comments (2)

- General Comment: Concern on MTU exceed
 - General Comment: Concern on MTU exceed when long list of MAC addresses
- Response/Update:
 - Use the wildcard i.e. “empty” MAC list
 - Split the MAC list on MTU boundary. Each WD (with its own ACK and header) independent signal

Response to comments (3)

- General Comment: Concern on out-of-order delivery of sequenced WD signal and how to detect the wrap
 - ~~Response/Update:~~ General Comment: Concern on out-of-order delivery of sequenced WD signal and how to detect the wrap
 - ~~Response/Update:~~
 - Current scheme of higher precedence, fits the bill Seq# to take the
 - ~~Seq# of precedence wraps per RFC 4385~~ # is ignored but
ACK'd
- anyway.

Response to comments (4)

- General Comment: Fixed interval 3 retries in absence of ACK receipt may be a problem – especially in lossy network or scaled configuration
- Response/Update:

exponential backoff should be used for retries

Summary of changes

feedback was received. It helped clarify the draft.

- Only major comments are addressed in this presentation

cases, with explicit explanation while in other cases, correcting the behavior.

Summary

- Comments?