

# Dual-Homing Coordination for MPLS-TP Pseudowires

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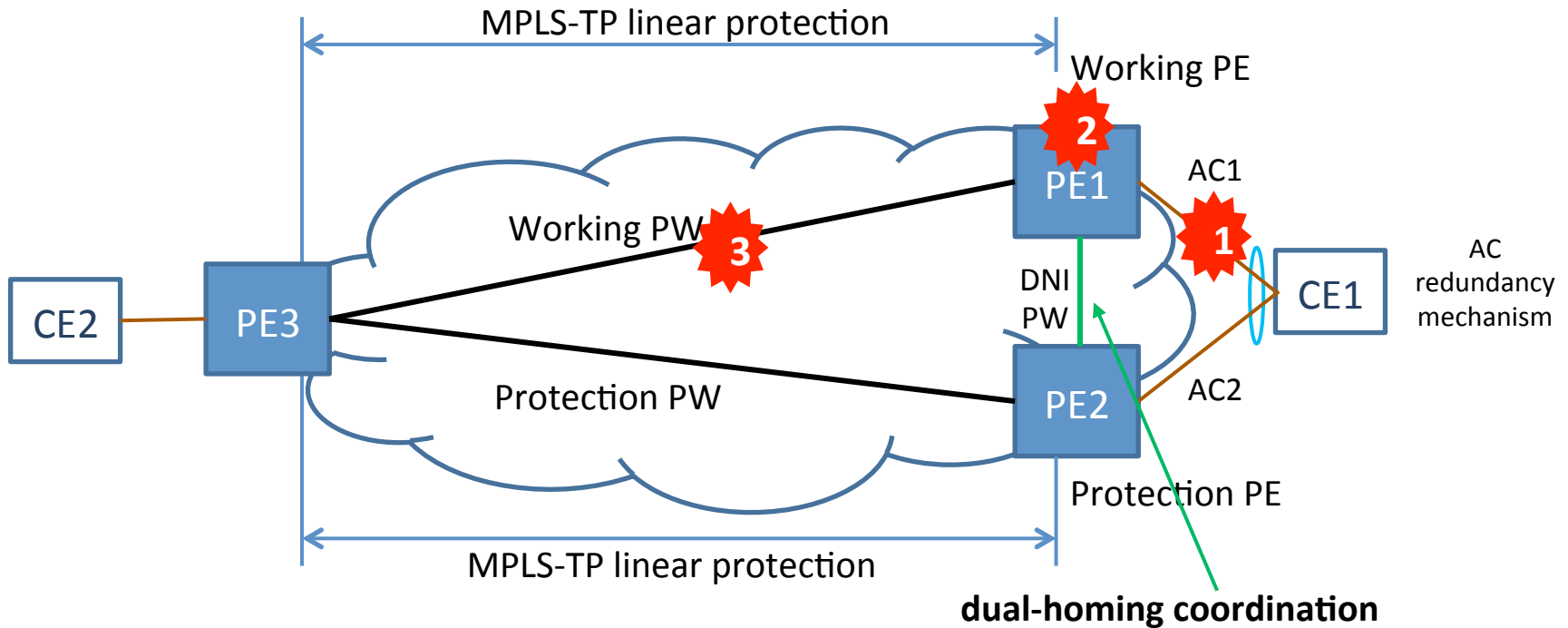
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# Background

- Work was presented in IETF 88 and 90
- Split the draft according to PWE3 chairs' suggestion:
  - Framework and scenarios of dual-homing PW protection
  - **Protocol extensions for dual-homing protection with static MPLS-TP PWs**

# Typical Scenario



- Provide protection for:
  - AC failure
  - PE failure
  - PSN network failure

# Proposed Solution

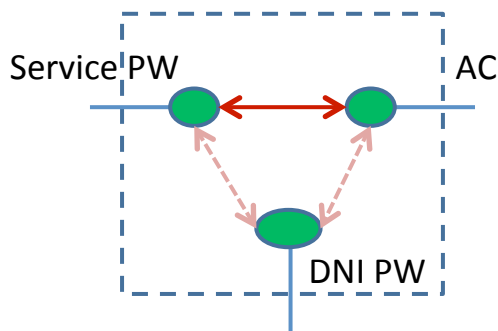
- Linear protection is deployed between the single-homing PE and the dual-homing PEs
  - Single homing PE side, just like normal linear protection
  - Dual-homing PE side, working and protection PWs are terminated on working and protection PEs respectively
- Dual-Node Interconnection (DNI) PW for traffic bridging between the dual-homing PEs during failure
  - Enable local protection

# Proposed Solution (Cont.)

- New Dual-Homing Coordination (DHC) message for synchronization/coordination between dual-homing PEs
  - A new ACh type
- Two new TLVs
  - *PW State TLV* for PW state synchronization
  - *Dual-Node Switching TLV* for switchover coordination

# Procedures

- Dual-homing PEs determine the forwarding status of service PW based on local and remote states
  - PW State TLV is exchanged periodically using the DHC message
  - Dual-Node Switching TLV can be exchanged for manual switch
- Forwarding behavior of dual-homing PEs is determined by:



Service PW	AC	DNI PW	Forwarding Behavior
Active	Active	Up	Service PW <-> AC
Active	Standby	Up	Service PW <-> DNI PW
Standby	Active	Up	DNI PW <-> AC
Standby	Standby	Up	Drop all packets

# Next Steps

- Solicit comments from WG
- WG adoption?