Dual-Homing Protection for MPLS-TP Pseudowires

draft-ietf-pals-mpls-tp-dual-homing-protection-02

draft-ietf-pals-mpls-tp-dual-homing-coordination-02
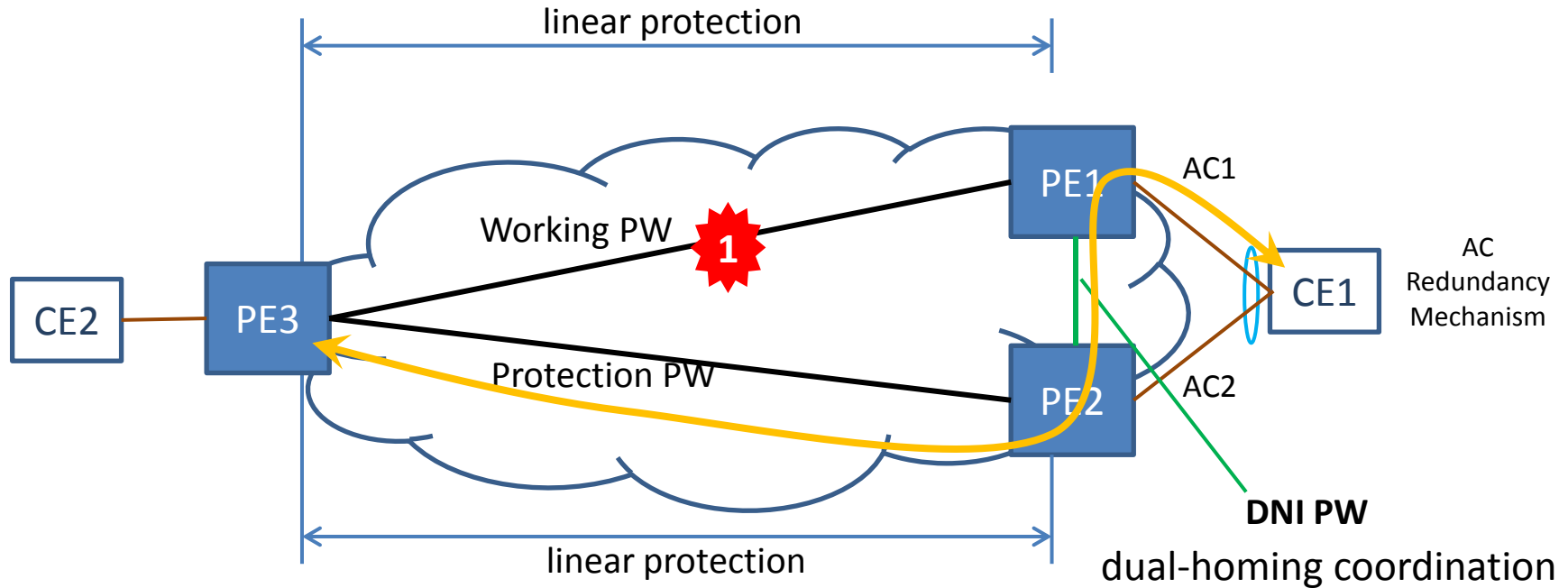
Weiqiang Cheng, L. Wang, H. Li (China Mobile)

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Dual-homing PW Protection Overview

- Local protection
  - Avoid AC switchover due to PW failure
  - Avoid PW switchover due to AC failure
- DNI PW to carry protection traffic
- Coordination between dual-homing PEs

Dual-homing PW Protection Drafts

- draft-ietf-pals-mpls-tp-dual-homing-protection

  - Framework and typical scenarios of dual-homing PW protection

- draft-ietf-pals-mpls-tp-dual-homing-coordination

  - Protocol extensions and mechanisms of dual-homing PW protection

- Both framework and protocol documents are adopted in April 2015

Recent Updates

- Version -01 of both documents submitted in October 2015

  – Minor editorial changes

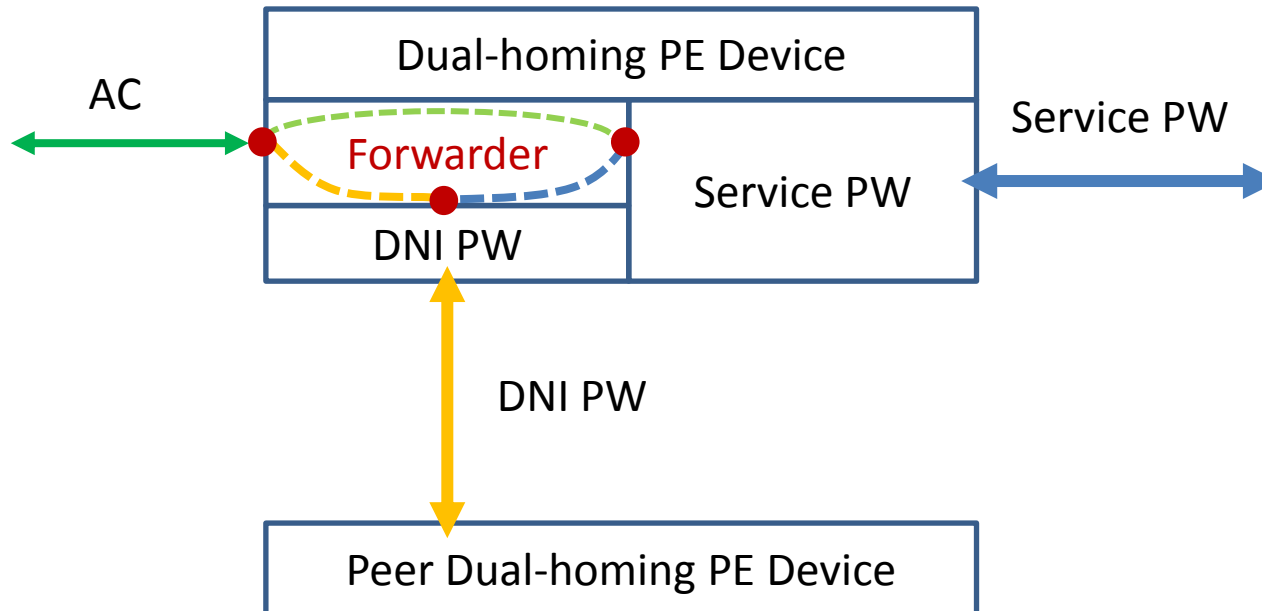# Recent Updates (Cont.)

- Version -02 of framework document

  - Editorial changes

  - Framework document is quite stable

- Version -02 of protocol document

  - Generalize the use of Dual-node Switching TLV

    - Now can be sent by either the protection PE or the working PE

  - Improve the specification of protection procedures

  - Editorial changes

Next Steps

- Collect feedbacks on the new revisions

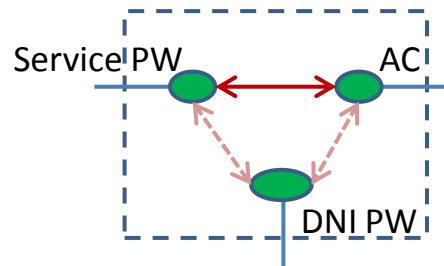- Move toward WG last call

Backup Slides

PE Architecture Update

- DNI PW between dual-homing PEs can carry traffic during failure

- Forwarder is responsible for switching traffic between AC, service PW and DNI PW.

General Procedures

- Dual-homing PEs need to exchange PW state and switchover coordination request to synchronize the protection switching

- Forwarding behavior of dual-homing PE is determined by:
  - Status of Service PW
  - Status of AC
  - Status of DNI PW

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