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

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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
• 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

<table>
<thead>
<tr>
<th>Service PW</th>
<th>AC</th>
<th>DNI PW</th>
<th>Forwarding Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>Active</td>
<td>Up</td>
<td>Service PW &lt;-&gt; AC</td>
</tr>
<tr>
<td>Active</td>
<td>Standby</td>
<td>Up</td>
<td>Service PW &lt;-&gt; DNI PW</td>
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<tr>
<td>Standby</td>
<td>Active</td>
<td>Up</td>
<td>DNI PW &lt;-&gt; AC</td>
</tr>
<tr>
<td>Standby</td>
<td>Standby</td>
<td>Up</td>
<td>Drop all packets</td>
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