P2MP PW Protection For MPLS-TP Network

draft-liu-pwe3-mpls-tp-p2mp-pw-protection-00

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83th IETF Meeting in Paris
Motivation

- **Requirements and applications**
  - Req.63: It must be possible to provide protection for MPLS-TP data plane without any IP forwarding capability in RFC 5654.
  - MPLS-TP data plane should be independent of its control plane.
  - For p2mp service, it may be bad to set up a return path for each branch path.

- **Purpose of this draft**
  - This draft provides a protection solution for p2mp service without IP forwarding capability, control plane, return path;
• Service flow: CE1 → A → B, C → D, F → CE2, CE3;
• E: backup node of D, F;
• D, F is protector node for each other;
Forwarding pw failure

failure message: D → E → F
service flow: F → E → D → CE2
Egress node failure

failure message: E → F

service flow: F → E → CE2

Path with traffic
Path without traffic
Attachment Circuit (AC) Failure

failure message: D → E
service flow: D → E → CE2
Status Message

<table>
<thead>
<tr>
<th>Res</th>
<th>PW Status</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>status code</td>
<td></td>
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</table>

PW Status: indicate type of message;

Status code:

0xTT: Forwarding pw failure;
0xYY: Egress node failure;
0xZZ: Attachment Circuit(AC) failure;
Next steps

1 Solicit comments and questions for this draft;
2 Update the draft according to comments and questions in the future;

thank you!