Encoding 3 PCN-States in the IP header using a single DSCP

draft-ietf-pcn-3-in-1-encoding-10.txt

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status

- Encoding 3 PCN-States in the IP header using a single DSCP
  - IESG cleared: [draft-ietf-pcn-3-in-1-encoding-10.txt](draft-ietf-pcn-3-in-1-encoding-10.txt)
  - intended status: proposed standard (obsoletes RFC5696)
  - exec summary: changes requested by IESG
    applied changes before & after I-D deadline
    final check with w-g

Glossary
NM = Not Marked
ThM = Threshold Marked
ETM = Excess Traffic Marked

<table>
<thead>
<tr>
<th>DSCP</th>
<th>00</th>
<th>10</th>
<th>01</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline RFC 5696</td>
<td>DSCPn</td>
<td>Not-PCN</td>
<td>NM</td>
<td>EXP</td>
</tr>
<tr>
<td>3-in-1</td>
<td>DSCPn</td>
<td>Not-PCN</td>
<td>NM</td>
<td>ThM</td>
</tr>
</tbody>
</table>
PCN-ingress behaviour

1. classify
   - if (filterspec matches an admitted flow)
     define as PCN-packet

2. extra step
   - if (PCN-packet && ECT)
     MUST do one of
     • tunnel OR layer (Default)
     • drop CE (NOT RECOMMENDED)
     • other RFC4774-compliant action
   - if (Not-PCN-packet && PCN-DSCP && ECT)
     MUST do one of
     • re-mark to Non-PCN-DSCP (Default DSCP=000000)
     • tunnel; re-mark outer to Non-PCN-DSCP
     • drop (NOT RECOMMENDED)
   - in all cases, SHOULD log, MAY alarm

3. color
   - MUST set PCN-DSCP
   - MUST set NM

4. rate-meter
   - [see *-edge-behaviour]
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Q&A