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

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

Bob Briscoe, BT
Toby Moncaster, independent
Michael Menth, Uni Tuebingen
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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](#)
  - intended status: proposed standard (obsoletes RFC5696)
  - exec summary: changes requested by IESG
    applied changes before & after I-D deadline
    final check with w-g

<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>

Glossary
NM = Not Marked
ThM = Threshold Marked
ETM = Excess Traffic Marked
PCN-ingress behaviour

• moved out of edge-behaviours
• rewritten to match architecture

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

• extra step
   – if (PCN-packet && ECT)
     MUST do one of
     • tunnel OR layer (Default)
     • drop CE (NOT RECOMMENDED)
     • drop (NOT RECOMMENDED)
     • other RFC4774-compliant action

2. police
   – PCN-flow policing [see *-edge-behaviour]
     • rejected flows
     • packet-rate above flowspec
   – 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