PCEP Extensions for Enhanced Errors and Notifications

PCE WG, IETF96, Berlin, Germany

draft-ietf-pce-enhanced-errors-02.txt

H. Pouyllau (helia.pouyllau@thalesgroup.com)
R. Theillud (remi.theillaud@marben-products.com)
J. Meuric (julien.meuric@orange.com)
Xian Zhang (zhang.xian@huawei.com)
Draft Objective + Status

• **Draft Objective:**
  – Identifying/classifying possible PCEP behaviors in case of error/notification;
  – Proposing extensions to PCEP so as to ensure predefined PCEP behaviors.

• **Draft history:**
  – Accepted as WG in July, 2010;
  – Updated to -01 in July, 2012;
  – Dormant since then;
  – Revived to -02;
Draft Recap

Behavior Classification

* In case of error

<table>
<thead>
<tr>
<th>Error criticality \ Value</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>propagation (No Propagation) (Required)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 (low)</td>
<td>Type 1</td>
<td>Type 4</td>
</tr>
<tr>
<td>1 (medium)</td>
<td>Type 2</td>
<td>Type 5</td>
</tr>
<tr>
<td>2 (high)</td>
<td>Type 3</td>
<td>Type 6</td>
</tr>
</tbody>
</table>

* In case of notification

<table>
<thead>
<tr>
<th>Notification type value \ Value</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>propagation (No Propagation) (Required)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 (non request-specific)</td>
<td>Type 1</td>
<td>Type 3</td>
</tr>
<tr>
<td>1 (request-specific)</td>
<td>Type 2</td>
<td>Type 4</td>
</tr>
</tbody>
</table>

Extensions Proposed

• **Time-to-Live object (TTL):** to limit the number of PCEP peer receiving this message;
• **Diffusion-LIST object (DLO):** specifying the list of peers or domains that this message must be propagated to;

Rules & Use cases

• **Section 5.5.3:** the new rules applying to existing RFCs;
• **Section 6:** Error and notification scenarios;
Diff: 02 from the last version(01)

• -v01 is technically sound;
• Updates are mainly efforts to increase readability;
  – Re-structured some of the sections;
  – Added Tables to different types of error/notify behaviors;
  – Other efforts: proof-reading, RFC2119 language tidy-up, resolved todo item(s);
Next Step

• Some work planned:
  – Some update on the scenario section is needed;
  – Final check on security, manageability and IANA section; (any volunteer on the first two?)
  – Get WG LC within a couple of IETF meetings

• Please review this draft and check:
  – If you have comments?
  – If your previous comments are not addressed properly?