PCE for Mirror Binding

draft-chen-pce-mbinding-00

Huaimo Chen (Futurewei)
Bruno Decraene (Orange)
Gyan S. Mishra (Verizon)
Aijun Wang (China Telecom)
Xufeng Liu (IBM)
Lei Liu (Fujitsu)

IETF 115
Overview

SR path with Binding (BSID with a list of SIDs for another path segment):
1. PCE sends Binding to node N
2. Node N replaces BSID in packet with the list of SIDs and sends packet along the path segment defined by the list of SIDs
3. Extensions: PCE sends Binding with N to N’s neighbors
Capability of distributing Binding for Protection

When PCE and PCC establish a session, exchange capabilities of distributing Binding.

PATH_SETUP_TYPE_CAPABILITY TLV contains:
- PST = TBD1: Binding SID with List of SIDs (path) for a node for protecting binding SID of the node.
- BSID-D sub-TLV contains parameters

```
<p>|          Type = TBD2         |           Length=4            |
|---------------------------------------------------------------|</p>
<table>
<thead>
<tr>
<th>Reserved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flags</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
</tbody>
</table>

BSID_DISTRIBUTION_PROTECTION_CAPABILITY (BSID-D) sub-TLV

When PCECC is used, B is defined in Flags of the PCECC-CAPABILITY sub-TLV
B = 1: Binding for protection.
Extensions to RP/SRP Object

RP/SRP object contains:

- **PATH-SETUP-TYPE TLV** with **PST = TBD1** for mirroring/distributing binding
- **Node ID TLV**: identifier of the node

```
| Type = 28 | Length = 4 |
+-----------+-----------+
| Reserved  | PST = TBD1 |
+-----------+-----------+
```

```
| Type = TBDa | Length (4/6) |
+-------------+--------------+
| Node ID (4/6 octets) |
+---------------------+
```

Node ID: 4/6-octet field contains the OSPF/IS-IS node (or router) identifier (ID) of the (protected) node.
Next Step

• Comments