BIER Egress Protection

draft-chen-bier-egress-protect-01

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Overview

Updates to Previous Versions
- More details on differences from MoFRR
- Some editorial change

Normally, using BIFT, C sends traffic to D, sending it to CE 4.


Config D's backup H to protect D on D.

D distributes D's backup H to D's neighbors C, G by IGP.

C, G build EP-BIFT for D with D's backup H.

D fails: using EP-BIFT for D, C sends traffic to D's backup H, sending it to CE.

<table>
<thead>
<tr>
<th>BFR-id (Sl:Bitstring)</th>
<th>F-BM</th>
<th>BFR-NBR (Next Hop)</th>
<th>{EP, BE=BFER} (Backup info)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(0:00001)</td>
<td>00001</td>
<td>NULL</td>
<td>EP=1, BE-BFER=H</td>
</tr>
<tr>
<td>2(0:00010)</td>
<td>00110</td>
<td>F</td>
<td>EP=0, BE-BFER=0</td>
</tr>
<tr>
<td>3(0:00100)</td>
<td>00110</td>
<td>F</td>
<td>EP=0, BE-BFER=0</td>
</tr>
<tr>
<td>4(0:01000)</td>
<td>01000</td>
<td>H</td>
<td>EP=0, BE-BFER=0</td>
</tr>
<tr>
<td>5(0:10000)</td>
<td>10000</td>
<td>B</td>
<td>EP=0, BE-BFER=0</td>
</tr>
</tbody>
</table>
Differences from MoFRR

BIER Egress Protection (EP)
- One path from source to egress

MoFRR
- Two disjoint paths (primary, backup) from source to egress
- Two path carry the same traffic

BIER EP uses less network resources than MoFRR
Next Steps

- Comments
- Adoption