draft-ketant-lsr-ospf-reverse-metric-01

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Recap

• First presented in IETF 101 London as draft-ketant-ospf-reverse-metric
• RFC 8500 ISIS Reverse Metric covers similar functionality
• RFC 8042 OSPF Two Part Metric covers partial functionality for broadcast/LAN links

• This draft covers OSPF reverse metric functionality for other than broadcast/LAN links
Reminder : What does this draft propose?

• Enables an OSPFv2/v3 router to signal its neighbour the “reverse-metric” that the neighbour should use on the link toward itself

• R1 does reverse-metric signalling towards its neighbour R2 via link-local mechanism

• The neighbour R2 modifies the metric in its Router-LSA for its link to R1

• Only R1 and R2 need to support this draft; other routers are not involved and will start using the updated metric on the link from R2 → R1
How is this done?

• New Reverse Metric and Reverse TE Metric TLVs are introduced for Link-Local-Signalling

<table>
<thead>
<tr>
<th>O-bit</th>
<th>H-bit</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>reverse metric value is an offset to be added to existing original metric by receiver</td>
<td>the absolute value of reverse metric is to be used only when larger than the existing original metric by receiver</td>
<td>included in the LLS block of the Hello message while the reverse-metric value is to be signalled</td>
</tr>
</tbody>
</table>

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-----------------------------------------------+
<table>
<thead>
<tr>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTID</td>
<td>Flags [O</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-----------------------------------------------+
| Type | Length |
|-----------------------------------------------|
| Flags | [O|H] | RESERVED | Reverse TE Metric |
|-----------------------------------------------|
Updates since IETF 101 London

• Introduced MTID support
• Introduced ability to also signal reverse TE metric via a similar TLV
• Fixed minor editorial and content issues reported from reviews
Next Steps ...

• Asking for WG adoption