



draft-ietf-lsr-flex-algo

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Flex-Algo Exclude SRLG

- New constraint added to the flex-algo calculation
- Allows links to be excluded from the topology based on their SRLGs
- Use case:
 - Two disjoint paths through the network
 - Flow one to exclude SRLG X
 - Flow two to exclude SRLG Y
 - Single SRLG failure does not affect both flows
 - Can be achieved through the “affinity exclude”, but SRLGs are already provisioned in many cases

Flex-Algo Exclude SRLG (cont.)

- ISIS Flexible Algorithm Exclude SRLG Sub-TLV
- OSPF Flexible Algorithm Exclude SRLG Sub-TLV
- New rule during calculation:

“Check if any exclude SRLG rule is part of the Flex-Algorithm definition. If such exclude rule exists, check if the link is part of any SRLG that is also part of the SRLG exclude rule. If the link is part of such SRLG, the link **MUST** be pruned from the computation.”

ISIS FAD Leaking – Problem Statement

- ISIS FAD Leaking was following the RFC7981 and used the originator's S-bit to control the Router Capability TLV flooding scope
- FAD election uses ISIS System-ID
- When Router Capability TLV is leaked the System-ID of the originator is not available anymore

ISIS FAD Leaking – Solution

- The ISIS FAD Sub-TLV has an area scope
- The Router Capability TLV in which the FAD Sub-TLV is present MUST have the S-bit clear
- ISIS L1/L2 router MAY be configured to re-generate the winning FAD from level 2 to level 1 area
- The re-generation of the FAD Sub-TLV from level 2 to level 1 is determined by the L1/L2 router, not by the originator of the FAD advertisement in the level 2
- Re-generated FAD Sub-TLV will be advertised in the the level 1 Router Capability TLV originated by the L1/L2 router
- L1/L2 router MUST NOT re-generate any FAD Sub-TLV from level 1 to level 2

Next Steps ...

- Initial version introduced in July 2017
- WG adoption in May 2018
- Multiple implementations available
- Multi vendor interoperability tested
- Draft has been stable for some time
- We are considering to close the draft and ask for the WG LC
- The draft provides the Flex-algo framework and new additions are expected – can be done in separate documents.