Improved OSPF Database Exchange Procedure
draft-hegde-lsr-better-idbx

IETF 118

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Problem

- When C Restarts, it will leave stale LSAs in other nodes which have full adjacencies to B & E
- When C comes-up, B and E use old LSAs and assume adjacency with C is bi-directional
Solution

• Neighbors of Restarting router
  • Do not bring-up adjacency with C until
    • Latest LSA with Seq no higher than stale LSA received

• Stale LSA List
  • Similar to LSReq List
  • Internal to the node, not exposed to neighbors
  • When an LSA with lower seq No received from originating neighbor, the local database LSA is marked Stale
Solution

C-------------------E

DBD: LSA A origin:C  ------>
  Sequence:X

          DBD: LSA A Origin:C
           <------  Sequence:Y

LSReq LSA A,
origin C  ------>

  Modified Procedure
  <------ Add LSA A to Stale LSA List

  <------ LSA  A, Origin C, Seq:Y
C re-originating self LSA
LSA A, Origin C, -------> Remove Stale
Seq:Y+1

LSA A, Origin C
From Stale LSA List,

  Bring adjacency to Full state if
both LS Request list and Stale LSA
list are empty.
Next Steps

- Request for review and comments
- Request WG adoption
Thank you