

I E T F[®]

100th Singapore

draft-ietf-mpls-spring-entropy-label-07

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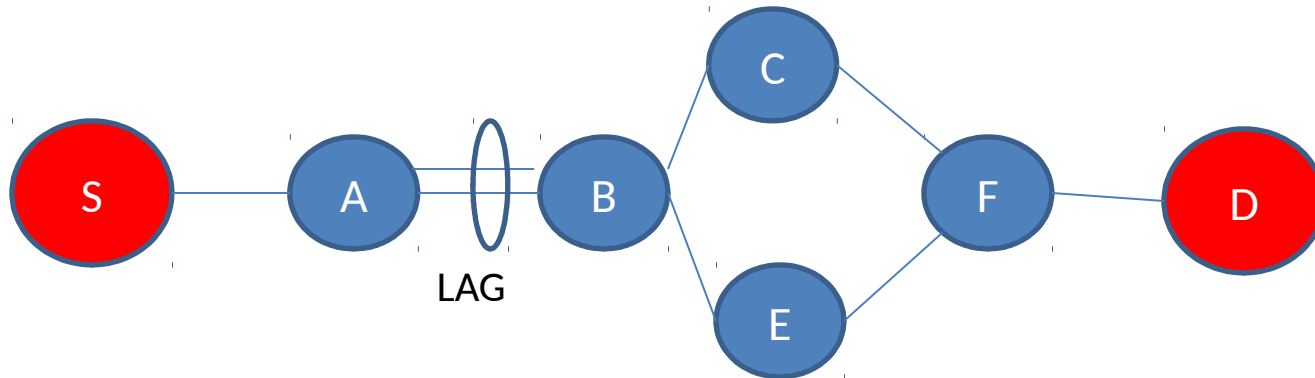
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Purpose of the draft

- Provide entropy to achieve a good loadbalancing of flows on top of SR/SRTE tunnels



On S, SRTE tunnel to D: {AdjSID_FD; NodeSID_F; AdjSID_AB}

- Main challenge: manage the label stacking
 - Where to insert the ELI/EL ? We usually insert it behind the tunnel label

A bit of history...

- Feb 2014: first version of the individual draft
 - -00: Lists the possible solutions
 - -01: Recommends « EL at readable stack depth » as the proposed solution
- March 2015: IETF WG document
- May 2016: WG last call -> failed
 - Main disagreements:
 - definitions of RLD, ELC
 - Proposed insertion of EL does not take into account all considerations
- April 2017: resolution proposed starting -05
- -06 and -07 improves the text

So what are the big changes ?

- The recommended solution DOESN'T change
 - Inserting one or multiple ELI/ELs at a readable label stack depth
- The new draft provides a clear definition of the RLD:
 - ELRD (instead of RLD) defined as the number of MPLS labels a router can:
 - Read in an MPLS packet received on its incoming interface (starting from the top of the stack) and
 - Use in its loadbalancing function

So what are the big changes ?

- A router can advertise an ERLD value only if it is entropy label capable
 - This means that from a protocol perspective, we do not need anymore an ELC+RLD but only the ERLD
- Binding SID should have an ELC flag to propagate the ELC of the associated tunnel
 - Otherwise we do not know if we can insert an ELI/EL behind a binding SID

So what are the big changes ?

- The draft does not impose an algorithm to insert the EL/ELIs.
 - It rather describes some criteria that could be taken into account: ERLD, segment type...
 - It encourages simple implementations

Conclusion

- The new version addresses the concern raised during the WGLC.
- It is time to close the work:
 - We need implementations [⌘]
- A new WGLC seems to be necessary to ensure that everyone agrees on the content.