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

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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.