

draft-koike-mpls-tp-temporal- hitless-psm-04

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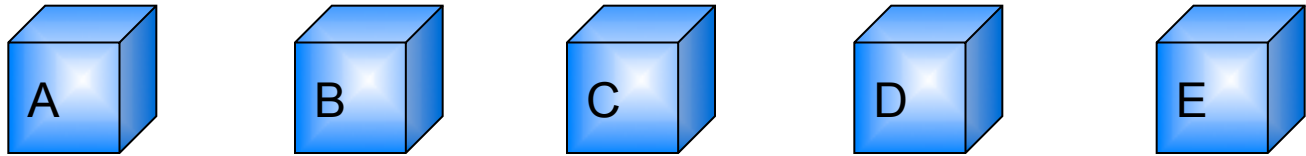
Overview

- Backgrounds and detailed requirements of new hitless and temporal path segment monitoring based on section 3.8 of RFC6371(MPLS-TP OAM framework)
- Elaborates differences from Sub Path Maintenance Element (SPME)
- Relevance for OAM tools:
 - Intended for on-demand (temporal) OAM functions.
 - In particular, mandatory for performance monitoring (LM and DM) to localize a degraded point in a transport path
- Further considerations on
 - Single- vs. Multi-level monitoring
 - Independency from pro-active OAM functions
 - Flexibility in setting of segment
- Applicable in both per-node and per-interface model

Updates from ver. 3

- Added a new term Hitless Path Segment Monitoring (HPSM)
- Added an issue in case of pre-configuration of SPMEs : Arbitrary segment monitoring is impossible
- Reflected minor comments in off-line discussion

Additional issue in pre-configuration of SPMEs



1) Nesting

MEP-MEP

LB1=120 LB1=120 LB1=120 LB2=130

SPME1

LB1=200 LB1=200 LB2=210

SPME2

LB1=300 LB2=310

OK

2) Not nesting

MEP-MEP

LB1=199 LB1=199 LB1=199 LB1=299

SPME1

LB2=200 LB2=? LB2=?

SPME2

LB3=300 LB3=310 LB2=320

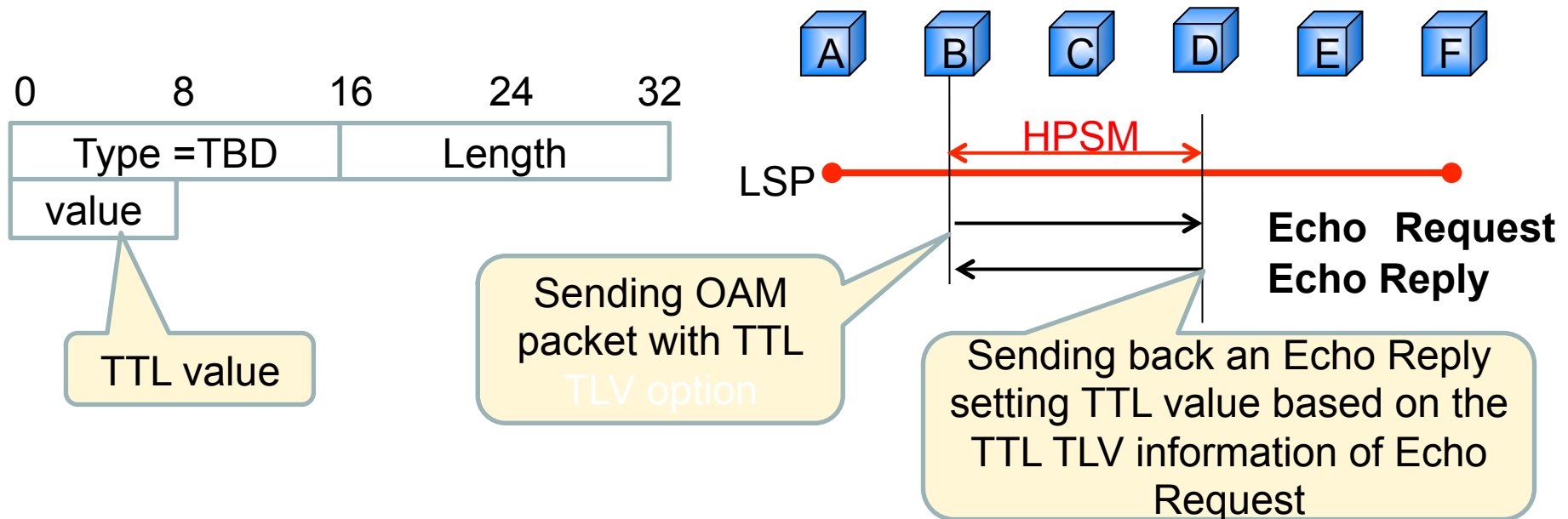
NA

SPME is limited to a nesting layer stacking which restricts patterns of segment

One of the possible solutions for HPSM

be applied for HPSM

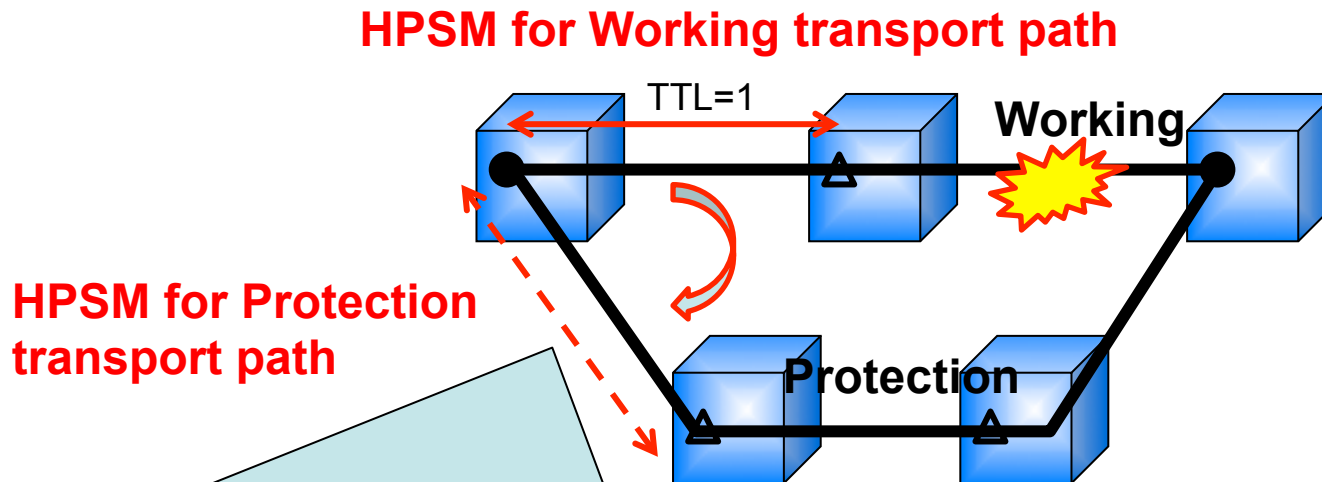
Definition of Time-to-Live TLV for LSP-Ping Mechanisms



distance to the peer monitoring entity

to refine requirements of HPSM

- In case of protection, HPSM is not required to switch from working path to protection path because working path and protection path are different.
- Accordingly, TTL change is not problematic in protection SW



**Automatic switching of HPSM is not required
(TTL re-discovery is not required in case of protection SW)**

Next steps

- Solicit further comments on ver.4
- Clarify the required behavior of HPSM when a protection switching occurs during its monitoring
- Ask for WG poll

Thank you