RSVP-TE Extensions to Exchange MPLS-TP LSP Identifiers

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draft-zhang-ccamp-mpls-tp-rsvpte-ext-tunnel-num-01

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Problem Statement

- Mis-Connectivity Defect (RFC6371)
- A sink MEP identifies a mis-connectivity defect based on the comparison of the expected MEP_ID (pre-stored) and received MEP_ID (inserted in the proactive CC-V OAM packet).
- A1/Z9 needs to configure each other's MEP_ID before sending the proactive CC-V OAM packet
- The format of the MEP_ID : Global_ID::Node_ID::Tunnel_Num::LSP_Num (RFC6370)
- Gap Analysis
- Statically configured LSPs, A1/Z9 can configure each other's MEP_ID by GAP messages (<u>draft-fbb-mpls-gach-adv-00</u>)
- Dynamically established LSPs
 - A1 needs to configure the tunnel number configured at Z9 node (co-routed bidirectional LSP)
 - A1/Z9 needs to know each other's Global_ID (co-routed/associated bidirectional LSP)
 - The above information are not covered by the current signaling protocol

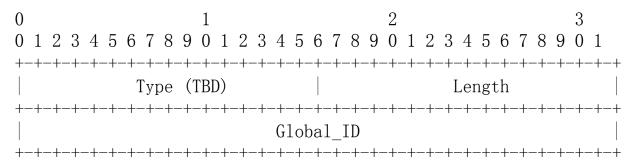
Focusing on the control plane solution

Protocol Extensions

- LSP ATTRIBUTES object
 - ✓LSP Attribute Flags, one new bit defined: "LSP identifier indication"
 - ✓ Two new TLVs
 - ➤ Connection TLV (appear in Path/Resv message of co-routed bidirectional LSP)
 - L bit is set, The value carried in "Destination Tunnel Num" must be configured at Z9
 - L bit not set, "Destination Tunnel Num" can be empty/filled by the recommended value 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

➤Global_ID TLV

- For co-routed bidirectional LSP, it can appear in Path/Resv message
- For associated bidirectional LSP, only appears in the Path message



Thanks George, Lou, Venkatesan, Jaihari, and Muliu for the discussion of the solution

Next Steps

- Updated based on the discussions
 - ✓ Be individual?
 - ✓ As an input to <u>draft-ietf-ccamp-rsvp-te-mpls-tp-oam-ext-07</u>?
- Comments/Feedback?

