Clarify BFD Session Bootstrap over MPLS LSP

draft-mirsky-mpls-bfd-bootstrap-clarify

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Bootstrap BFD session over MPLS LSP

- Because of PHP RFC 5884 defined how to use LSP Ping to bootstrap BFD session
- RFC 5884 does not specify Reply mode setting when LSP Ping is used to bootstrap the BFD session
- RFC 5884 requires that the egress LER sends its BFD control packet before it transmits MPLS LSP Echo reply, if required
- RFC 5884 does not specify how the ingress LER MAY handle BFD Discriminator TLV if one included in the MPLS LSP Echo reply sent by the egress LER:
 - if try to match with any of active BFD sessions for the same <MPLS LSP, FEC>, then what to do if no match found

Proposed clarification

- Sender:
 - SHOULD set Reply mode to "No reply"
 - MAY set Reply mode to "Reply via an IPv4/IPv6 UDP packet"
 - MUST NOT set Reply mode to "Reply via an IPv4/IPv6 UDP packet with Router Alert"
 - MUST ignore BFD Discriminator TLV if present in MPLS LSP Echo reply
- Responder:
 - SHOULD NOT include BFD Discriminator TLV in MPLS LSP Echo reply

Destination IPv6 Address

[RFC4291] defines ::1/128 as the single IPv6 loopback address. Considering that this specification updates Section 7 of [RFC5884] regarding the selection of an IPv6 destination address for a BFD Control message:

- For IPv6, the IPv6 loopback address ::1/128 SHOULD be used
- The sender of an echo request MAY select the IPv6 destination address from the 0:0:0:0:0:FFFF:7F00/104 range
- To exercise all paths in an ECMP environment, the entropy other than the IP destination address SHOULD use the Entropy Label [RFC6790] to discover multiple alternate paths in an MPLS network

Next steps

- Welcome comments, questions, and cooperation
- WG adoption

Thank you!