

# EPE OAM

# IETF 105

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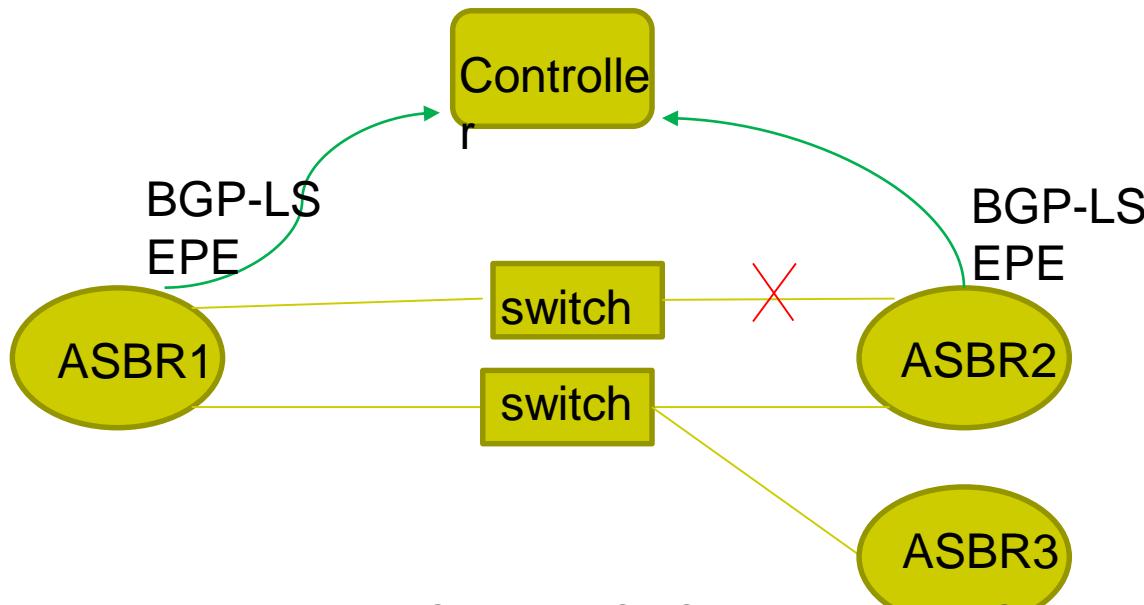




# Agenda

- Background
- Problem statement
- Updates from previous version
- Next Steps

# Background



- BGP-LS EPE advertises PeerNodeSID, PeerSetSID and PeerAdjSID to the controller which are used to produce SR paths
- The mpls ping/traceroute provide ability to validate the synchronization between BGP-LS advertisement, the forwarding state programmed on the router and actual forwarding behavior
- Controller/head-end
  - Sends the FEC
  - ASBR1 validates the control plane state from BGP based on FEC
  - Prepares "Downstream detailed mapping TLV" with forwarding information to be verified on next router ASBR2/ASBR3



# Updates from last revision

- FEC definition for PeerNodeSID to include multiple sets of local/remote interfaces
- Optimization for PeerSetSID definition
- Security Considerations

# Target FEC stack definitions for PeerNodeSID

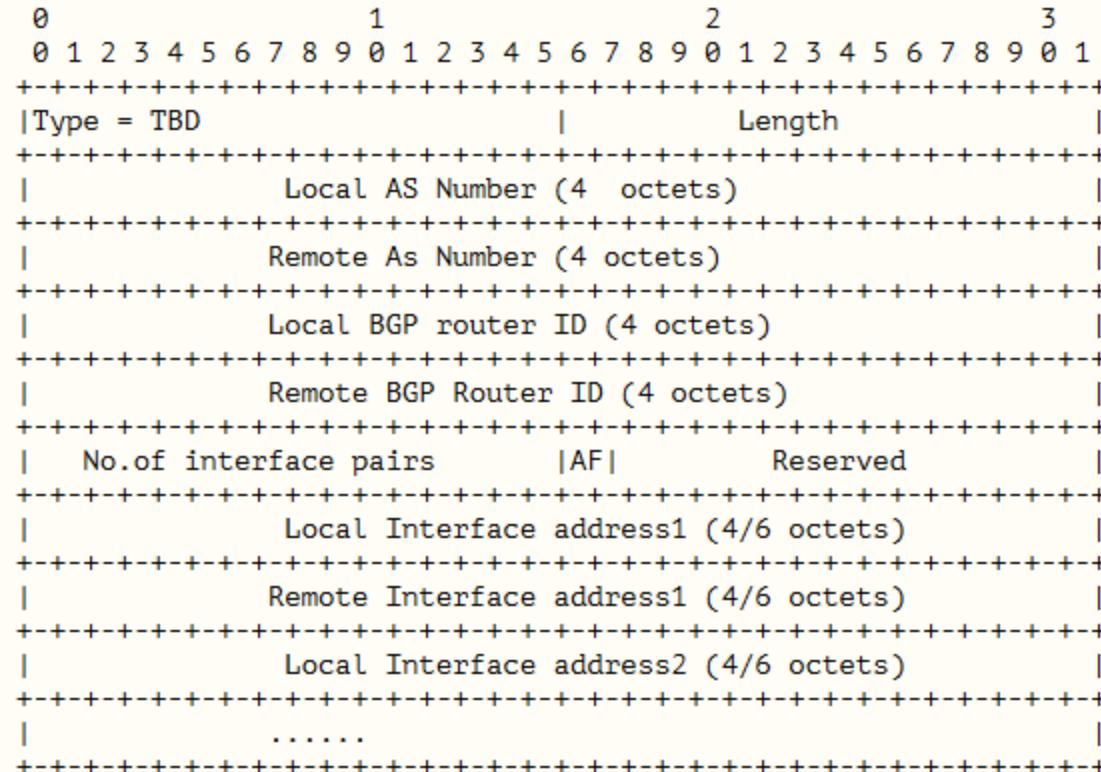


Figure 2: PeerNodeSID Sub-TLV

# Target FEC stack definitions for PeerSetSID



0	1	2	3
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
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Type = TBD		Length	
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Local AS Number (4 octets)			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Local BGP router ID (4 octets)			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
No.of elements in set		Reserved	
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Remote As Number (4 octets)			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Remote BGP Router ID (4 octets)			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
No.of interface pairs	AF	Reserved	
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Local Interface address1 (4/6 octets)			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Remote Interface address1 (4/6 octets)			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Local Interface address2 (4/6 octets)			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			
.....			
+++++-----+-----+-----+-----+-----+-----+-----+-----+-----+			

Figure 3: PeerSetSID Sub-TLV



# Summary & Next steps

- Request review and comments
- WG adoption



# Thank you