

BFD MIB Extensions for MPLS and MPLS-TP Networks

draft-vkst-bfd-mpls-mib-00

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Motivation

- The existing BFD MIB [draft-ietf-bfd-mib-10] models the BFD protocol functionality to support neighbor monitoring in IP networks. It does not support the requirements for usage of BFD over MPLS and MPLS-TP networks

Introduction

- This draft defines extensions to the BFD-STD-MIB to configure BFD for MPLS and MPLS-TP paths
- Objects described in the MIB will support the functionalities for BFD over MPLS [RFC 5884] and Proactive CC-CV-RDI for MPLS-TP using BFD [draft-ietf-mpls-tp-cc-cv-rdi-06]
- The MIB defines the following
 - Extensions to BFD Session table
 - Extensions to BFD Session Performance table

BFD MIB Extensions

- BFD Session Extension Table
 - Objects defined to identify BFD session parameters catering to MPLS/MPLS-TP networks
 - Session Role (Active/Passive)
 - Session Mode (CC/CV)
 - Timer Negotiation Flag – To enable/disable timer negotiation
 - Objects to associate the BFD session to the MPLS or MPLS-TP paths
 - Map Type – To specify the type of path being monitored (Non-TE LSP / TE LSP / PW / MEP)
 - Map pointer – Row pointer to associate the BFD session to the respective instance of the path being monitored
- BFD Session Performance Table Extensions
 - Performance counters for Mis-connectivity defects, Loss of Continuity defects, Remote Defect Indications

Usage of existing object bfdSessType

- Existing value “multiHopOutOfBandSignaling” of the object bfdSessType in BFD-STD-MIB will be used to identify OOB bootstrap mechanism for BFD session

Example

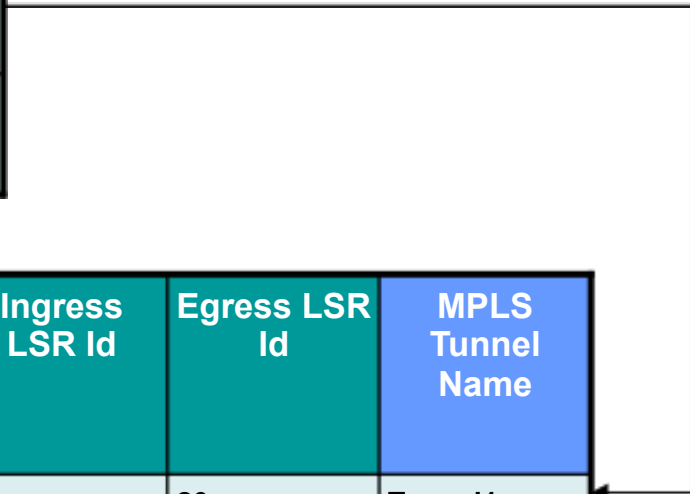
Example: BFD Session for MPLS TE tunnel

BFD Session Index	Session Role	Session Mode	Timer Negotiate	Map Type	Map Pointer
1	1	1	True	3	mplsTunnelName. 100.1.10.20

BFD Session Extension Table

Tunnel Index	Tunnel Instance	Ingress LSR Id	Egress LSR Id	MPLS Tunnel Name
100	1	10	20	Tunnel1

Standard MPLS Tunnel Table



Next Steps

- Does the WG find this work useful and satisfying for the chartered items towards BFD MIB module for MPLS and MPLS-TP networks?
 - If so, we ask that the WG accept draft-vkst-bfd-mpls-mib-00 as WG document
- Additional comments/reviews are requested

Thank You