

MPLS-TP OAM Toolset

draft-fang-mpls-tp-oam-toolset-01.txt

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Objectives

- Objectives:
 - Provide an overview of IETF MPLS-TP OAM tools
- Intended category: Informational
- Status:
 - 00 and 01 draft issued before IETF 80
 - 01 draft presented in IETF 80 MPLS WG
 - Plan to merge with tp-oam-analysis draft

Draft Content

- Overview of MPLS-TP OAM Requirements
 - Architectural Requirements
 - Functional Requirements
- MPLS-TP OAM Mechanisms and Toolset Summary
 - In-band OAM Mechanisms
 - Fault Management Toolset
 - Performance Monitoring Toolset
- OAM Toolset Utilization and Protocol Definitions
 - Connectivity Check and Connectivity Verification
 - Diagnostic Tests and Lock Instruct
 - Lock Reporting
 - Alarm Reporting and Link down Indication
 - Remote Defect Indication
 - Packet Loss and Delay Measurement
- IANA assigned code points under G-Ach
 - Using Experimental Code Point in production networks is not appropriate and carry the risk of code point collision.

IETF MPLS-TP OAM (FM and PM) Toolset

MPLS-TP Fault Management (FM) OAM Functions

	OAM Functions	Protocol Definitions	IETF WG documents
Proactive FM OAM Functions	MPLS-TP Identifiers conformant to existing ITU and compatible with existing IP/MPLS	Identifiers	draft-ietf-mpls-tp-identifiers
	Remote Defect Indication (RDI)	Bidirectional Forwarding Detection (BFD) extensions	draft-ietf-mpls-tp-cc-cv-rdi
	Alarm Indication Signal (AIS)	AIS message under G-Ach	draft-ietf-mpls-tp-fault
	Link Down Indication (LDI)	Flag in AIS message	
	Lock Report (LKR)	LKR message under G-Ach	
	Config MPLS-TP OAM using LSP Ping	LSP-Ping	draft-ietf-mpls-lsp-ping-mpls-tp-oam-conf
On demand FM OAM Functions	Continuity Verification (CV)	LSP Ping and BFD Extensions	draft-ietf-mpls-tp-on-demand-cv
	Loopback (LBM/LBR)	1) In-band Loopback in G-Ach or 2) LSP Ping extensions	draft-ietf-mpls-tp-li-lb
	Lock Instruct (LI)	In-band Lock messages in G-ACh	

MPLS-TP Performance Management (PM) OAM Functions

	OAM Functions	Protocol definitions	IETF WG documents
Proactive PM OAM Functions and On demand PM OAM Functions	Packet loss measurement (LM)	LM and DM query messages	draft-ietf-mpls-tp-loss-delay-profile
	Packet delay measurement (DM)	LM and DM query messages	
	Throughput measurement	Supported by LM	
	Delay Variation measurement	Supported by DM	

Next Steps

- Merge with draft-ietf-mpls-tp-oam-analysis