

# GMPLS RSVP-TE extensions for OAM Configuration

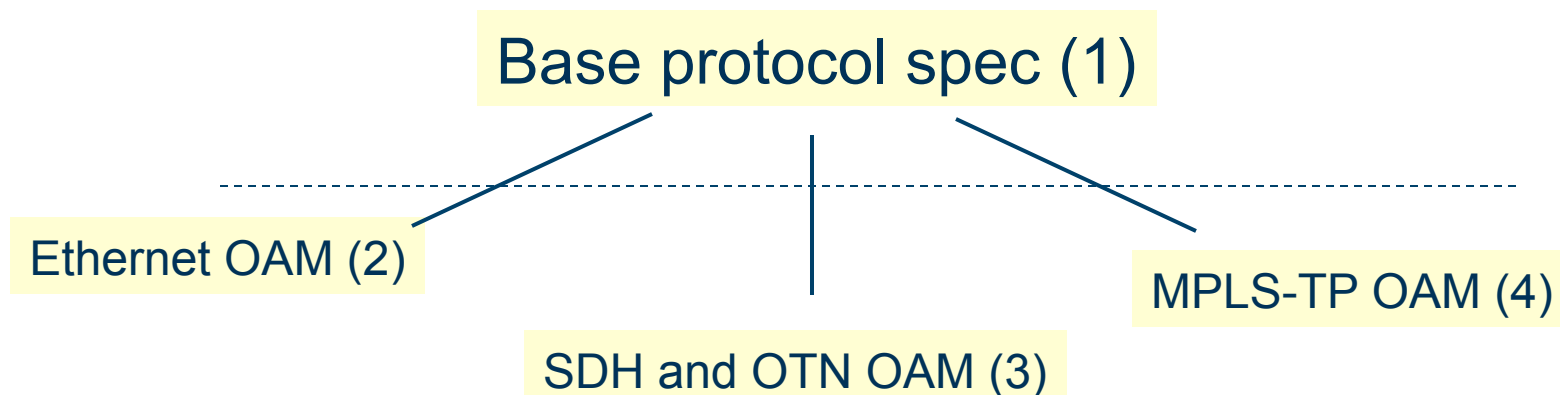
# Background, Motivation and Objectives

- Extend GMPLS CP to configure OAM entities
  - Useful for any GMPLS controlled transport network
  - Also a requirement for MPLS-TP LSPs
- Avoid two separate management/configuration steps: connection setup followed by OAM configuration
  - Additional delay and processing
  - Prone to misconfiguration errors
- Need to extend RSVP-TE signaling
  - Maintenance entity identification parameters
  - Configure OAM parameters (e.g., monitoring frequency)
  - OAM control (e.g., admin down, disable/enable)

# CCAMP Documents

1. draft-ietf-ccamp-oam-configuration-fwk
2. draft-ietf-ccamp-rsvp-te-eth-oam-ext
3. draft-ietf-ccamp-rsvp-te-sdh-otn-oam-ext
4. draft-ietf-ccamp-rsvp-te-mpls-tp-oam-ext

**4 CCAMP WG  
documents**



# Next Steps

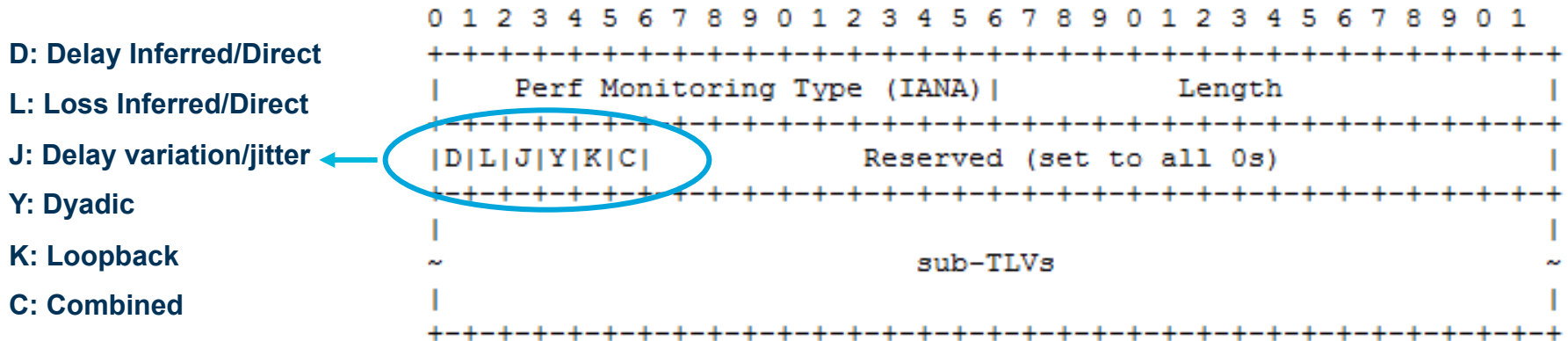
1. draft-ietf-ccamp-oam-configuration-fwk
  - Stable, minor updates and two new OAM Function flags added
    - FMS, PM/Throughput Measurement
  - Ready for WG LC
  
2. draft-ietf-ccamp-rsvp-te-eth-oam-ext
  - Ready for WG LC
  
3. draft-ietf-ccamp-rsvp-te-sdh-otn-oam-ext
  - Ready for WG LC
  
4. draft-ietf-ccamp-rsvp-te-mpls-tp-oam-ext
  - Stable, minor updates to increase the readability and to align to:
    - draft-ietf-mpls-loss-delay
    - draft-ietf-mpls-tp-cc-cv-rdi
  - Ready for WG LC

# Changes on MPLS-TP OAM configuration draft [1]

- Major changes in the following sections in order to de-emphasize BFD and have the same visibility for the whole set of tools:
  - Section 1 – Introduction
  - Section 2 – Overview of MPLS OAM
  - Section 3 - Theory of Operations
- Changes in BFD configuration:
  - **CC&CV functions** are now part of the same functionality, it is not possible anymore to activate them separately
  - **Detect Multiplier** has been deleted from the configurable parameters because it has been fixed to value 3 in [draft-ietf-mpls-tp-cc-cv-rdi-05](#)
  - **Encapsulation** capability flags: allow to set either G-ACh encapsulation or UDP encapsulation
  - **Bidirectional/Unidirectional** flag

# Changes on MPLS-TP OAM configuration draft [2]

- New **“Performance Monitoring TLV”** in order to allow configuration flags for Loss, Delay and Throughput Measurements that can't be handled in the corresponding sub-TLVs. Such flags are aligned with [draft-ietf-mpls-loss-delay-04](#)



- Loss and Delay TLV are now sub-TLV of the new Performance monitoring TLV
- Loss and Delay sub-TLVs have been updated in order to conform to the new version of [draft-ietf-mpls-loss-delay-04](#)