

# Framework of Operations, Administration and Maintenance (OAM) for DetNet

draft-theoleyre-detnet-oam-support

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# Structure

- Terminology
  - OAM methods – per RFC 7799 definitions
  - MEP and MIP – not often used at IETF but used by other SDOs (should we map them)
- Operation
- Administration
- Maintenance
- Requirements

# Source, updates, and other WG's OAM work

- draft-theoleyre-detnet-oam-support
  - was presented at IETF-109 meeting
- Updates since the meeting:
  - Hybrid OAM in DetNet
  - Requirements for OAM in DetNet
- OAM for DetNet with MPLS data plane, previously included the list of requirements for DetNet OAM, now lists Framework of OAM for DetNet as informative reference
- OAM for DetNet with IP data plane linked to the Framework of OAM for DetNet by the informative reference

# Hybrid OAM in DetNet

- RFC 7799
  - Hybrid OAM combines passive and active measurement methods
- On-path telemetry
  - IOAM
  - Alternate Marking method (RFC 8321)
- Telemetry information
  - Originate
  - Collect and transport
- IOAM Tracing
  - End-to-end
  - Hop-by-hop
- Direct Export
  - An intermediate node sends the telemetry information out-of-band
- Hybrid Two-Step
  - A Follow-up packet collects the telemetry information by traversing the path traversed by the trigger data packet

# Requirements

- Every DetNet node MUST act as MEP, i.e, act as the source and destination of an OAM session
- It SHOULD be possible to initialize DetNet OAM session from a central controller
- DetNet OAM MUST include proactive and on-demand methods, e.g., BFD, ping, and traceroute
- DetNet OAM MUST be in-band, whether active or hybrid
- DetNet OAM MUST support one-way measurements methods both one-sided and two-sided, i.e., relaying measurement results to the sender via out-of-band path
- DetNet OAM MUST support PMTU discovery
- DetNet OAM MUST support PREOF discovery and testing
- DetNet OAM MUST support methods to enable survivability of a domain, e.g., protection switchover

# Next steps

- Comments, suggestions, and contributed material are always welcome and much appreciated
- WG adoption?

Thank you