

DetNet

OAM Functions for the Service Sub-Layer

[draft-varga-detnet-service-sub-layer-oam](#)

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DetNet OAM Functions for The Service Sub-Layer

- Intended status:
 - Informational
- Actual version:
 - draft-varga-detnet-service-sub-layer-oam-00

This draft has been submitted as an individual contribution to OAM discussions, in particular, to kick-off Working Group discussions on introducing OAM functions for the DetNet service sub-layer. It is also up to the Working Group discussions to which draft parts of this contribution may go, if any.

- Abstract:
 - Operation, Administration, and Maintenance (OAM) tools are essential for a deterministic network. The DetNet architecture [RFC8655] has defined two sub-layers: (1) DetNet service sub-layer and (2) DetNet forwarding sub-layer. OAM mechanisms exist for the DetNet forwarding sub-layer, nonetheless, OAM for the service sub-layer requires a new mechanism. This draft introduces OAM related procedures for the DetNet service sub-layer functions.

OAM for The Service Sub-Layer

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- Requirements on OAM for DetNet Service Sub-layer
 - Discover DetNet relay nodes in a DetNet network.
 - Collect DetNet service sub-layer specific information from DetNet relay nodes, e.g.: configuration/operation/status
 - Applicable to both DetNet data planes: (i) MPLS and (ii) IP.
- DetNet PING
 - Two types of OAM packets: (1) DetNet-Echo-Request and (2) DetNet-Echo-Reply
 - Relay node roles:
 - DetNet PING originator node,
 - Intermediate DetNet service sub-layer node,
 - DetNet PING targeted node.
 - OAM processing defined at the DetNet service sub-layer
 - PRF, PEF, POF, relay node without PREOF

Main challenge for e2e OAM:
forwarding sub-layer segments are terminated at
relay nodes providing service sub-layer functions.

Summary – Next Steps

- Discussion on the list / bi-weekly OAM calls:
 - Proposed changes/clarifications (thanks!)
 - Update/move section “Requirements” to OAM-framework
- Next Steps
 - Looking for further comments, discussions

Thanks ...