Framework of Operations, Administration and Maintenance (OAM) features for DetNet
draft-ietf-detnet-oam-framework

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Updates

• Welcome Balazs Varga and Janos Farkas
• Bi-weekly calls discussing DetNet OAM – thanks to Janos for leading
• The most significant updates in sections:
  • Integrated OAM requirements for DetNet Service Sub-layer from draft-varga-detnet-service-sub-layer-oam based on the WG decision
  • DetNet OAM Requirements section:
    • General
    • DetNet Forwarding Sub-layer
    • DetNet Service Sub-layer
General Requirements for DetNet OAM

• OAM session between DetNet MEPs
• Proactive and on-demand monitoring and measurement OAM methods
• Support unidirectional OAM methods, e.g., continuity check, packet delay and packet loss measurement
• Support OAM for bi-directional DetNet flows
Requirements for DetNet OAM at the Forwarding Sub-layer

• Support PMTUD
• Support RDI
• Support monitoring levels for resources allocated to the given DetNet flow. For example, buffer allocation, transmit scheduler calendar
• Support monitoring of any sub-path traversed by the particular DetNet flow
Requirements for DetNet OAM at the Service Sub-layer

- OAM functions for the DetNet service sub-layer
- Support the discovery of DetNet relay nodes
- Support the discovery of Packet Replication, Elimination and Order preservation sub-function locations in the DetNet domain
- Support the collection of DetNet service sub-layer specific information
- Support the ability exercising functionality of Packet Replication, Elimination, and Order preservation functions
- Support the use of Alarm Indication Signal between DetNet relay nodes
- Support performance monitoring in a DetNet service sub-layer with PREOF in use
Issues found with the latest version

• Hybrid OAM [RFC7799] is often represented by on-path telemetry methods like the IOAM and Alternate Marking. Telemetry information can be collected and transported in-band and out-of-band relative to the monitored data flow. Currently, the relevant requirement is:
  
  DetNet OAM MAY support hybrid performance measurement methods.

  Proposal - make the support of hybrid measurement methods mandatory.

• Propose splitting the following requirement into two – proactive and on-demand OAM:
  
  DetNet OAM MUST support proactive and on-demand OAM monitoring and measurement methods

• It seems that general requirements related to unidirectional performance measurement methods, #4 and #10, are duplicates.
  
  Proposal – remove the first sentence in #11
Next steps

• Continue bi-weekly discussions on DetNet OAM and the framework draft in particular
• Your comments, suggestions are always welcome
• The draft is stable - WG LC?

Thank you