OAM for Deterministic Networks with IP Data Plane

draft-mirsky-detnet-ip-oam

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IP DetNet OAM

- Split draft-mirsky-detnet-oam:
  - draft-mirsky-detnet-mpls-oam
  - draft-mirsky-detnet-ip-oam

- Since PREOF is not used in DetNet IP, existing IP OAM, e.g., Ping, Traceroute, BFD, should work

- DetNet flow in IP identified by 6-tuple:
  - Destination IP address
  - Source IP address
  - IP protocol
  - Destination port
  - Source port
  - DiffServ Code Point (DSCP)

- All active IP OAM protocols run over UDP and are identified by their respective well-known destination port numbers

- Challenge – ensure that IP OAM is in-band with a DetNet IP flow
Keep IP OAM in-band

• Mapping IP OAM to DetNet IP flow
• DetNet IP interworking with DetNet MPLS or TSN
  • DetNet IP flow over Foo
    • IP OAM must be treated as the monitored DetNet IP flow
  • DetNet IP flow mapped to/from Foo
    • IP OAM – Foo OAM interworking to provide e2e OAM visibility, e.g., RFC 7023 MPLS and Ethernet OAM Interworking
Next steps

• DetNet IP OAM over:
  – DetNet MPLS tunnel
  – TSN domain

• Your comments, suggestions, questions always welcome and greatly appreciated

Thank you!