

# **OAM for Deterministic Networks with MPLS Data Plane**

draft-ietf-detnet-mpls-oam

Greg Mirsky  
Mach Chen  
Balazs Varga

IETF-115 November 2022

# Update

- Addressing WGLC comments. Many thanks to Ethan and Tianran for their thorough reviews, constructive comments, and thoughtful suggestions

# DetNet MPLS OAM

DetNet OAM, like PW OAM, uses PW Associated Channel Header defined in [RFC4385]. At the same time, a DetNet PW can be viewed as a Multi-Segment PW, where DetNet service sub-layer functions are at the segment endpoints. However, DetNet service sub-layer functions operate per packet level (not per segment level). These per-packet level characteristics of PREOF require additional fields for proper OAM packet processing.



# Next steps

- Complete addressing WG LC comments

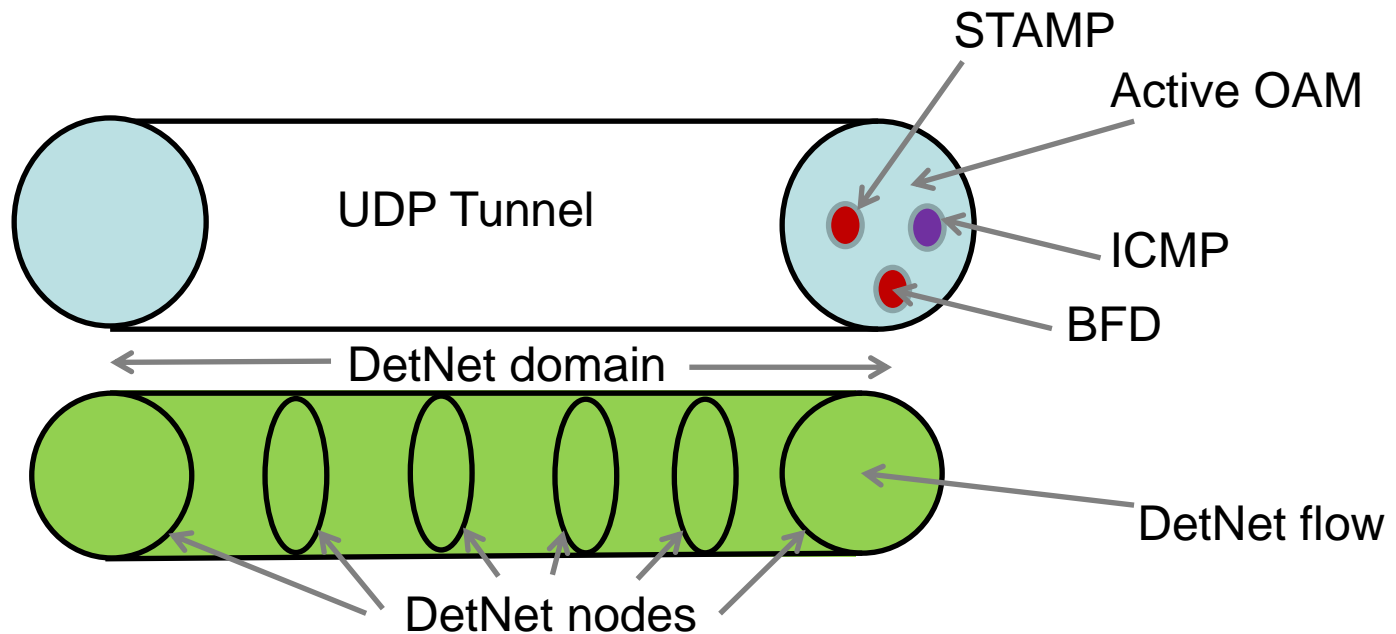
# **OAM for Deterministic Networks with IP Data Plane**

draft-ietf-detnet-ip-oam

Greg Mirsky  
Mach Chen  
David Black

# Active OAM Using IP-in-UDP Encapsulation

IP active OAM is realized through several protocols. Some protocols use UDP transport, while ICMP is a network-layer protocol. The amount of operational work mapping IP OAM protocols to the monitored DetNet flow can be reduced by using an IP/UDP tunnel to carry IP test packets. Then, to ensure that OAM packets traverse the same set of nodes and links, the IP/UDP tunnel MUST be mapped to the monitored DetNet flow. Note that the DetNet domain for the test packet is seen as a single IP link in such a case. As a result, transit DetNet IP nodes cannot be traced using the usual traceroute procedure, and a modification of the traceroute may be required.



# Next steps

- Your comments, suggestions, questions always welcome and greatly appreciated
- WG LC?

Thank you!