BIER OAM Requirements

draft-mirsky-bier-oam requirements

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Motivation

 While working on BIER Ping (draftkumarzheng-bier-ping) authors realized need to collect requirements towards on-demand continuity check and connectivity verification instrument and BIER OAM, in general, in one document

Requirements

- BIER OAM independent from BIER transport layer
- Any BFR implicitly serves as MEP
- SDN-azation of BIER OAM
- Proactive and on-demand OAM created equal
- BIER, effectively, is unidirectional and so should be its OAM
- OAM is about what is going in the transport layer and thus it must be in-band with data traffic
- Bi-directional OAM is important too (CC-CV, out-of-band FMS)
- Proactive continuity check, e.g. p2mp BFD

Requirements (cont.)

- No fragmentation and hence PMTUD is required
- BFIR may need to monitor BFER availability and hence RDI is required
- Passive and Active Performance Measurement OAM are complimentary instruments in BIER OAM toolbox
- Unidirectional PM to calculate throughput, loss, delay and delay variation metrics
- Fault Management Signals like Alarm Indication Signal to suppress client layer alarms when server layer fault detected
- BIER survivability may use protection switching and restoration

Next steps

- Welcome comments from the WG
- Asking WG to consider draft adoption