RAW multidomain extensions draft-bernardos-raw-multidomain-00

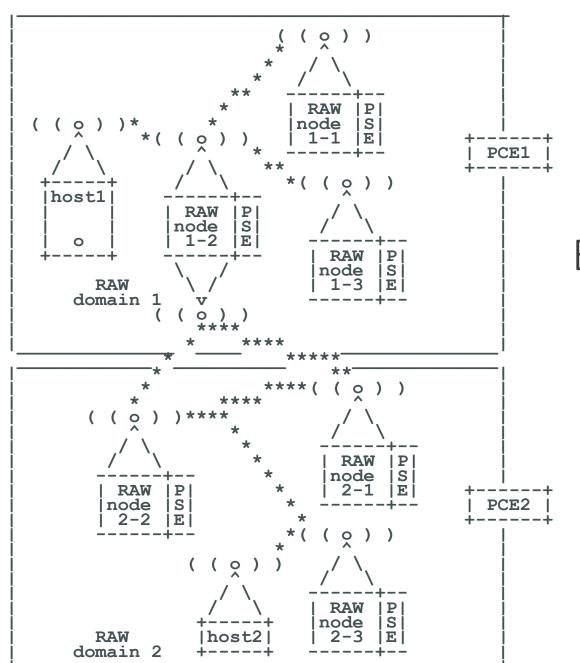
Presenter: Carlos J. Bernardos

Authors: Carlos J. Bernardos, Alain Mourad

RAW - IETF 113

Aim and scope

- Current scope of the WG is mostly focused on single-domain
- There are scenarios requiring multidomain RAW
 - where hosts are connected to different RAW domains and they need to communicate to each other with certain reliability and/or availability guarantees
 - E.g., in large factories where networks might be organized in domains (per production lines or building/sites)
- Goal is to explore current RAW multi-domain gaps (arch, OAM, etc) and propose solutions





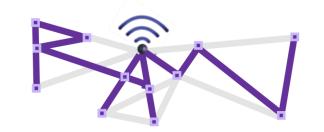
Exemplary scenario

Proposed extensions

```
RAW | P
                            PCE2
Inode ISI
                                           |node |S|
                                                         |node |S
 1-2 |E|
1. Path compute req
(src=node1-2,
 dst=node2-3, SLA)
                    2. Path compute req
                    (src={node2-1,node2-2})
                    dst=node2-3)
                    · · · · · · · · · · > I
                    3. Path compute resp
                    ({tracks2}, {links_quality})
4. Path compute resp
({{tracks1}},{tracks2}},
 PSE=\{node2-1, node2-2\},\
 {SLA1,SLA2})
      [< · · · · · · · · · · · |
       |5.RAW inter-domain path
       ({{tracks1,tracks2}}, {SLA1,SLA2})
           | 6.RAW inter-domain path ACK
       7.RAW OAM(flow/track,SLA1)
 <...>i<...>
                                    7.RAW OAM(flow/track, SLA1)
                                            <..>|<..> <..>|<..>
                8.RAW OAM (flow/track, metrics)
```



Summary and next steps



- Is there interest in this problem in the WG?
 - Many gaps to identify and address (e.g., OAM)
 - Potential new protocol work needed
 - Relation to DETNET

Please share your comments on the ML