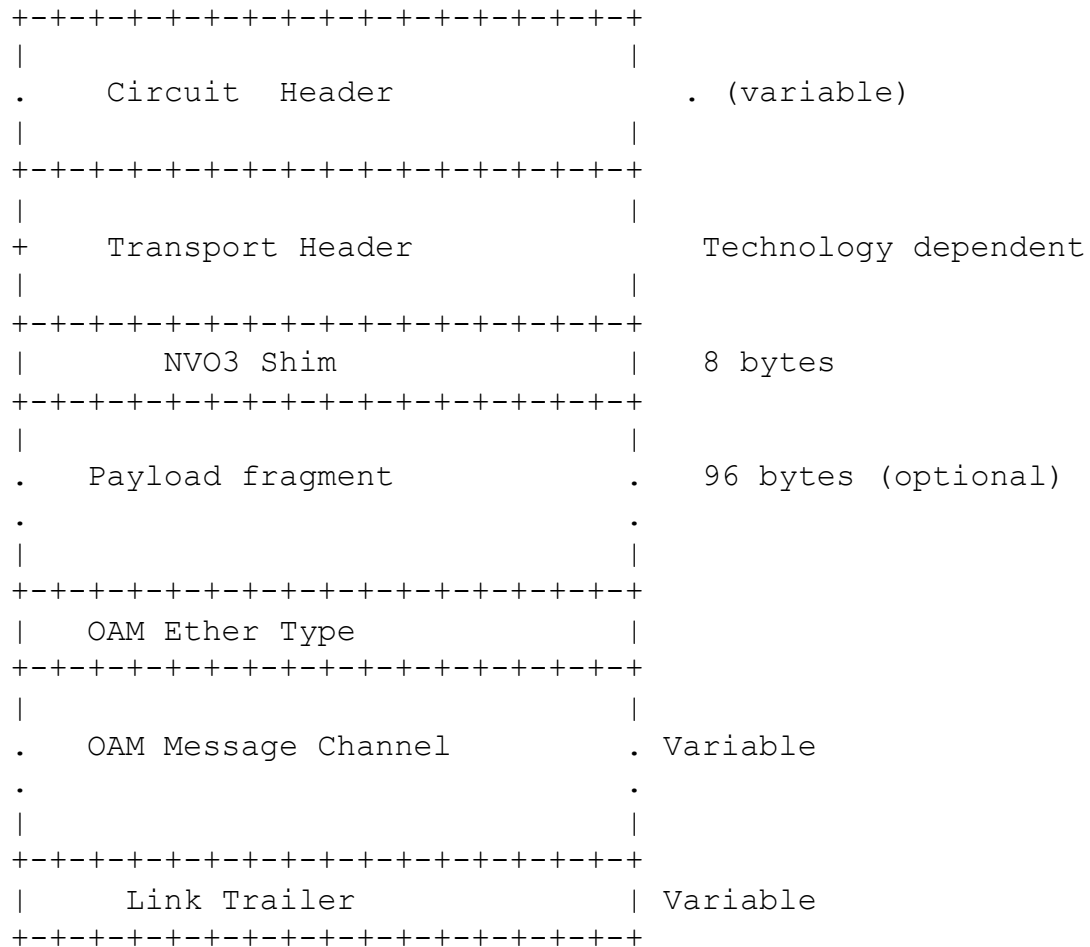


Draft-tissa-nv03

Deepak Kumar

OAM Frame



OAM Frame

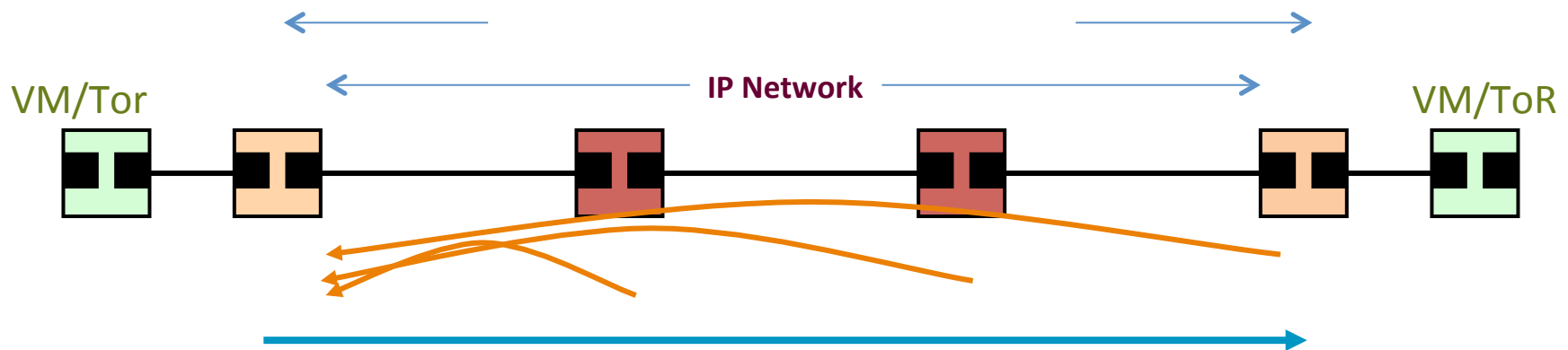
- O bit to punt OAM packet
- Optional F bit to add Payload fragment to run OAM inside data packet to cover end to end test (Required during DCI or distributed L2 Vtep and L3 vtep gateway in intra-dc scenario)
- OAM Ether Type = 0x8902
- OAM Message Channel – TRILL OAM based RFC
- Existing VxLAN Hardware backward compatible if O bit based punt is not supported (option to check based on Etype)

OAM Message Channel

- CCM Frame (optional implementation)
- Loopback Message and Response
- PathTrace Message and Response
- LinkTrace Message and Response (New Addition to be uploaded to allow user to send Single Frame to verify end to end path and all underlay switch are OAM capable)
- Delay and Loss Measurement can also be supported (No new procedure need to be defined)
- Use all TLVs from TRILL and 802.1ag so has ability to send out of band to controller instead of destination switch.

Provide Ingress Interface and Egress Interface information (more powerful than simple underlay traceroute) and must requirement for ip unnumbered underlay.

Link Trace



Input to Link Trace

- Real customer Traffic 96 bytes or hashing tuples and input vlan and interface
- Send the packet formed with 96 bits of customer data and Link Trace OAM channel to hardware and hardware adds vtep header, outer header with O bit set.
- Intermediate node based on O bit does punt and forward in hardware, Punted packet reply with Ingress Interface on which it receives and Egress interface with which it forwarded out of switch
- Terminating vtep look at O bit and punt the packet for final reply and don't forward
- Terminating Vtep reply with Link Trace reply with Ingress Interface