

# Upstream mapping in Echo Request

draft-ankur-mpls-upstream-mapping-00

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# Agenda

- Problem Statement
- Introduction
- Update

# Problem Statement

- Co-routed LSP is not working
- MPLS ping – no response
- MPLS traceroute – downstream path
- Upstream ?

# Introduction

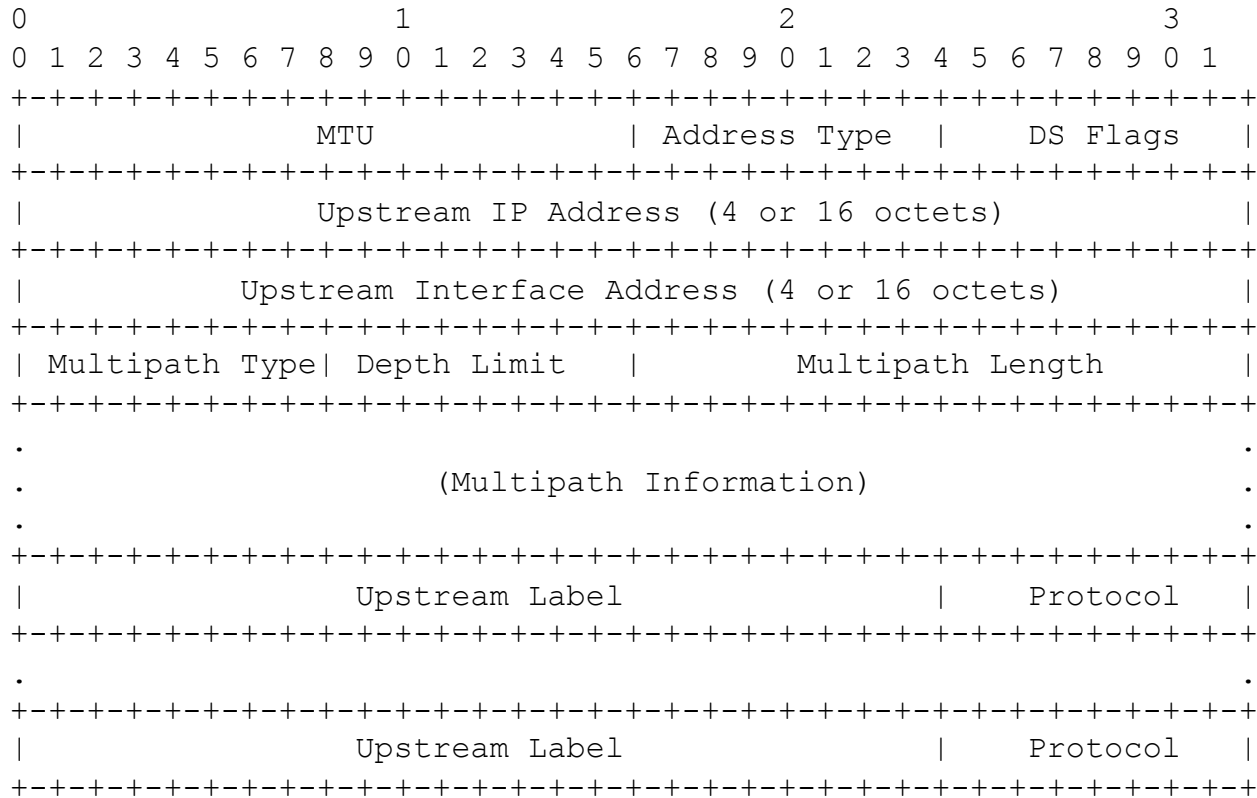
- Add upstream information to trace-route when trace-route is sent over a co-routed network path.

# Updates

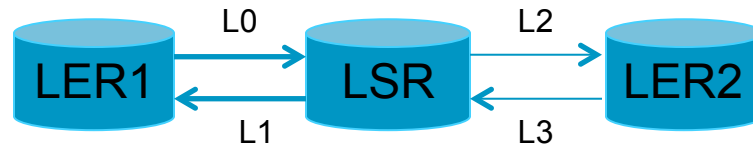
- Updates trace-route mechanism defined in RFC 4379
- Verify both DSMap and UpStream Map (UPMap)

# UPMap

- Similar to DSMap the UPMap TLV will have following information

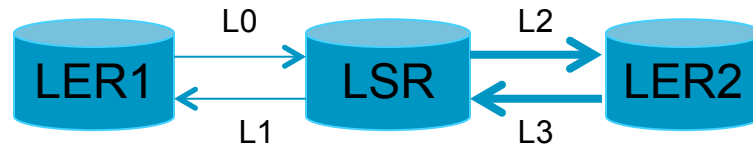


# Theory of Ops



- LER1 sends packet with DSMap for Label L0 and UPMap for L1
- LSR validates DSMap
  - If DSMap doesn't match return DSMap mis-match.
- LSR “validates” UPMap
  - If UPMap does not match return UPMap mis-match
  - If both UPMap and DSMap do not match return both Maps as mis-match
  - If both match send UPMap information for L3

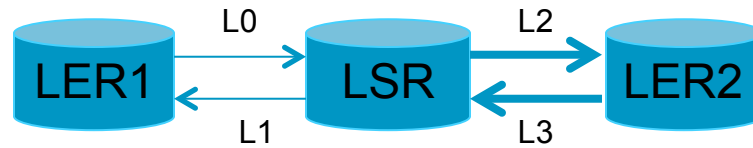
# Theory of Ops (cont.)



- LER1 receives the trace-route reply message
  - Copies the DSMap for L2 and UPMMap for L3 and sends it to LER2
- LER2 validates DSMap.
  - If DSMap doesn't match return DSMap mis-match.
- LER2 “validates” UPMMap



# Help



- How to truly validate the upstream path?