

# Signaling MSD (Maximum SID Depth) using ISIS

**draft-tantsura-isis-segment-routing-msd-01**

Jeff Tantsura

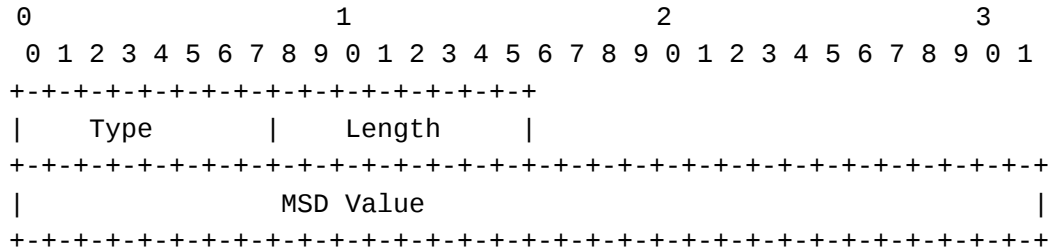
Uma Chunduri  
Ericsson Inc.

# Signaling MSD Using ISIS

- For a controller/PCE to know various nodes/links MSD "Maximum SID Depth" of the node or link where SR tunnel exits over – ingress node/node expanding binding SID
- A controller/PCE should never use a tunnel with a label depth exceeding that supported by a node/link
  - Ingress node != BGP-LS or PCEP speaker
- PCEP SR extensions [[I-D.ietf-pce-segment-routing](#)] has defined MSD, to signal in SR PCE Capability TLV, METRIC Object, however requires:
  - PCEP session with the node
  - Signals only node MSD
- With MSD values present in LSDB it's advertised through BGP-LS as defined in [[I-D.tantsura-idr-bgp-ls-segment-routing-msd](#)]
- Similar solution for ospf is described in [[I-D.tantsura-ospf-segment-routing-msd](#)]
- Do not confuse with RLD - Readable Label Depth as defined in [[I-D.ietf-mpls-spring-entropy-label](#)]

# How?

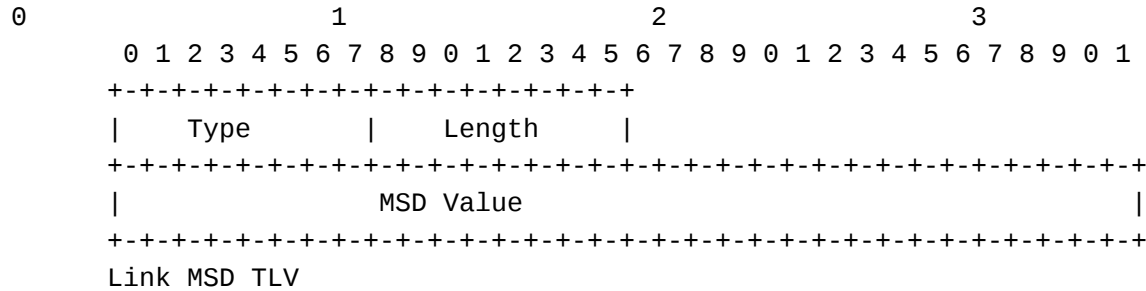
- Node MSD TLV



Node MSD TLV

- Type: request to IANA to allocate a sub-TLV type code from ISIS Router Capability TLVs Registry
- Value: 0-254.
  - 0 xx Lack of ability to push MSD of any depth
  - Value represented SHOULD be the lowest value that node can support

## ■ Link MSD sub-TLV



- Type: request to IANA to allocate a sub-TLV type code from IS extended reachability TLV (22) and MT IS TLV (222) registry.
- Value: 0-254.
  - 0 xx Lack of ability to push MSD of any depth
- This sub-TLV is optional



## Next Steps:

- WG Adoption?

Thank you!