Segment Routing Header encapsulation for In-situ OAM Data

Zafar Ali - Cisco Systems (zali@cisco.com) – Presenter
Rakesh Gandhi - Cisco Systems (rgandhi@cisco.com)
Clarence Filsfils - Cisco Systems (cfilsfil@cisco.com)
Frank Brockners – Cisco Systems (fbrockne@cisco.com)
Nagendra Kumar - Cisco Systems (naikumar@cisco.com)
Carlos Pignataro – Cisco Systems (cpignata@cisco.com)
Cheng Li – Huawei (chengli13@huawei.com)
Mach(Guoyi) Chen- Huawei (mach.chen@huawei.com)
Gaurav Dawra – LinkedIn (gdawra.ietf@gmail.com)
History of the Draft

• The work started in October 2018.
• It was first presented in the Spring WG in November 2018.
• It has been presented in IPPM and 6man WGs (a multiple times).
Summary of the Draft

• Defines how iOAM data fields defined in [I-D.ietf-ippm-ioam-data] are transported in SRv6 Networks.

• iOAM data field are carried in the SRH, using a single pre-allocated SRH TLV.

• Defines procedure for the Ingress node.

• Defines processing at the Segment Endpoint Node.

• Defines procedure for the Egress node.

• The draft does not introduce any new procedure or iOAM encoding defined in IPPM WG.
Procedure – Ingress Node

• Ingress node MAY insert the IOAM TLV in the SRH of the data packet.

• Based on the size of the segment list (SL), the ingress node pre-allocates space in the IOAM TLV.

• The ingress node MAY also insert the IOAM data about the local information in the IOAM TLV in the SRH.
Procedure – SR Segment Endpoint Node

• If an IOAM TLV is present in the SRH and is supported by the segment Endpoint node, the SR segment endpoint node MAY add local node data at the pre-allocated position in the IOAM TLV.
Procedure – Egress Node

• The processing of IOAM TLV at the Egress node is similar to the processing of IOAM TLV at the SR Segment Endpoint Node.

• The Egress node telemeters the IOAM data to an external entity.
Next Steps

• The authors would like the WG feedback.