I E T F

6man WG
IETF 106 – Singapore

draft-ietf-6man-spring-srv6-oam-01.txt

SRv6 OAM

Zafar Ali - Cisco Systems (zali@cisco.com) - Presenter
Clarence Filsfils - Cisco Systems (cfilsfil@cisco.com)
Satoru Matsushima – Softbank (satoru.matsushima@g.softbank.co.jp)
Daniel Voyer - Bell Canada (daniel.voyer@bell.ca)
Mach Chen – Huawei (mach.chen@huawei.com)

List of Contributors

- Nagendra Kumar ([naikumar@cisco.com)](mailto:naikumar@cisco.com)
- Carlos Pignataro (cpignata@cisco.com)
- Rakesh Gandhi (rgandhi@cisco.com)
- Darren Dukes (ddukes@cisco.com)
- Frank Brockners (fbrockne@cisco.com)
- Cheng Li (chengli13@huawei.com)
- John Leddy - Individual (john@leddy.net)
- Robert Raszuk - Bloomberg LP (robert@raszuk.net)
- Gaurav Dawra – LinkedIn (gdawra.ietf@gmail.com)
- Bart Peirens – Proximus (bart.peirens@proximus.com)
- Faisal Iqbal – Individual (faisal.ietf@gmail.com)

History of the Draft

- The first revision was posted in July 2017.

- 8 revisions since the individual draft submission.

- Actively discussed on the mailing list
  - Before and after adoption.

- Addressed all comments received.

Draft Summary

- The document describes how existing ICMP mechanisms can be used in SRv6 Network.

- The document defines SRH.Flags.O-bit
  - The O-bit is used to implement "timestamp, punt and forward" behavior.

- The document defines two OAM SIDs:
  - END.OP (OAM Endpoint with Punt)
  - END.OTP (OAM Endpoint with Timestamp and Punt)

Addressed Feedback Received Since IETF105

- Clarified processing of the O-Flag when SL = 0.

- Clarified ICMP Error handling.

- Editorial Changes

Summary of the Diffs

Clarified O-Flag processing when SL = 0 by making editorial changes to the pseudo code for O-bit processing.

Rest of the changes are also mainly editorial.

When N receives a packet whose IPv6 DA is S and S is a local SID, N executes the following pseudo-code, before the execution of the local SID S. Specifically:

S01.1. IF SRH.Flags.O-flag is one and local configuration permits THEN

a. Make a copy of the packet.

b. Send the copied packet, along with an accurate timestamp to the OAM process.

Deployment Status

- 6 deployments of the draft in the production networks
  - Softbank, China Telecom, Iliad, China Unicom, CERNET2, MTN Uganda

- More deployments not publicly disclosed.

Source: draft-matsushima-spring-srv6-deployment-status

Implementation Status

- Supported by at least 12 platforms with shipping implementation.

- Additional known implementations.

Source: draft-matsushima-spring-srv6-deployment-status

Interoperability Status

- In March 2019, the European Advanced Networking Test Center (EANTC) successfully validated multiple implementations of the drafts.

- Results for Multi-vendor Interoperability Testing was showcased at MPLS World congress in April 2019.

- Authors are aware of additional private interoperability testing between different vendors.

Source: draft-matsushima-spring-srv6-deployment-status

Next Steps

- Draft has been deployed in multiple production networks.

- Multiple interoperable implementations exist.

- Draft has been stable for quite sometime.

- The authors like to request the WG for the last call.