Simple TWAMP (STAMP) Extensions for Segment Routing Networks

draft-ietf-ippm-stamp-srpm-06

Rakesh Gandhi - Cisco Systems (rgandhi@cisco.com) - Presenter
Clarence Filsfils - Cisco Systems (cfilsfil@cisco.com)
Daniel Voyer - Bell Canada (daniel.voyer@bell.ca)
Mach(Guoyi) Chen - Huawei (mach.chen@huawei.com)
Bart Janssens - Colt (Bart.Janssens@colt.net)
Richard Foote - Nokia (footer.foote@nokia.com)

Agenda

- Updates in Revision 06
- STAMP-based Work in other WGs
- Next Steps

Updates in Revision 06

1. Verification (V) Check Flag in STAMP TLV – Address comment from Rick Ringel (Spirent)
    a. Added text for Stateless Reflector that can not follow the instruction in the received TLV (e.g., Counters for Direct Measurement TLV)
2. Addressed review comments from Greg
    a. Added clarification texts for the V Flag, Destination Address TLV, and Return Path TLV
3. Added IANA early allocation codepoints
4. Minor editorial changes
5. Currently no open issues

STAMP-based Work in other WGs

draft-ietf-spring-stamp-srpm

- Performance Measurement Using Simple TWAMP (STAMP) for Segment Routing Networks

draft-gandhi-spring-stamp-enhanced-srpm

- Enhanced Performance Measurement Using Simple TWAMP in Segment Routing Networks

draft-gandhi-mpls-stamp-pw

- Encapsulation of Simple TWAMP (STAMP) for Pseudo-Wires in MPLS Networks

Next Steps

- Currently no open issues
- Requesting WG LC

Thank you

Backup

STAMP Destination Node Address TLV

Destination Node Address TLV (Type 9):

- Indicates the address of the intended destination of the Session-Sender test packet
- Included for example when Session-Sender test packet is sent with IPv4 destination address in 127/8 range or with IPv6 address ::1/128

V Flag:

- Session-Reflector that supports this TLV, MUST transmit reply test packet with Error V (Verification Check Failed) set in the STAMP TLV Flags field if it is not the intended destination of the received Session-Sender test packet or drop the test packet based on the V flag set to 0 or 1 in the received test packet, respectively

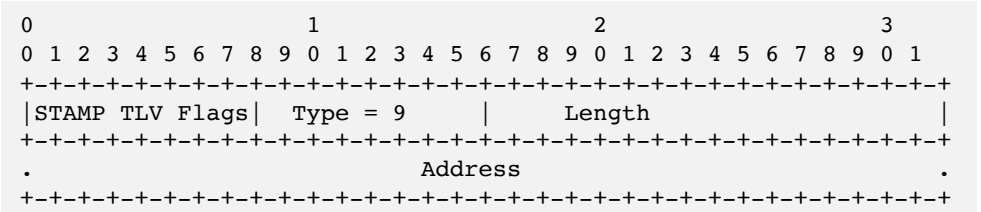

Figure: Destination Node Address TLV Format

STAMP Return Path TLV

Return Path TLV (Type 10) to carry Sub-TLV:

Return Path Sub-TLV Types:

- Type (value 1): Return Path Control Code. Reply test packet based on the control code flags:
  - 0x0: No Reply Requested
  - 0x1: Reply Requested on the Same Link
- Type (value 2): Return Address. Destination address for the reply; different than the Source Address in the Session-Sender test packet
- Type (value 3): SR-MPLS Label Stack of the Return Path
- Type (value 4): SRv6 Segment List of the Return Path
- Type (value 5): Structured SRv6 Segment List of the Return Path

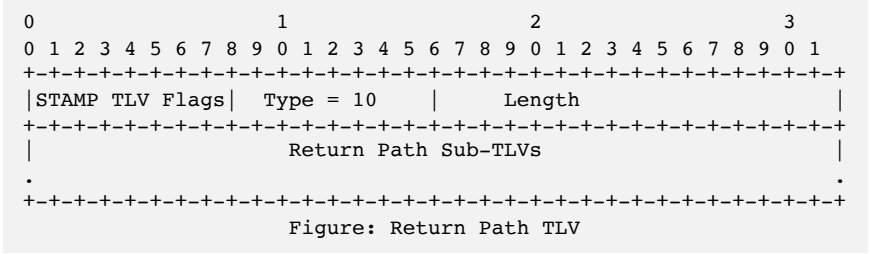

Figure: Return Path TLV

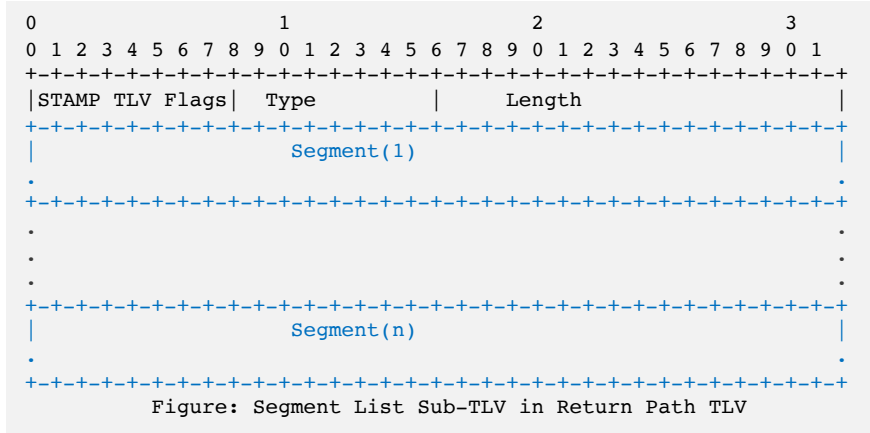

Figure: Segment List Sub-TLV in Return Path TLV

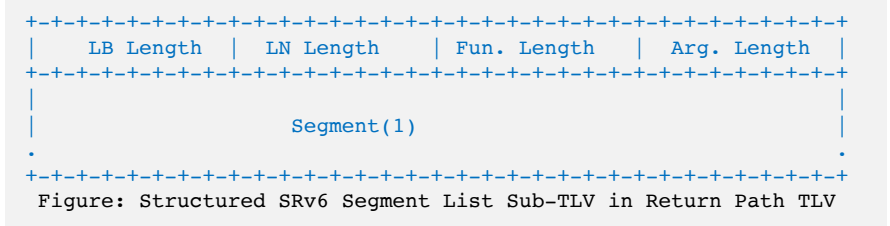

Figure: Structured SRv6 Segment List Sub-TLV in Return Path TLV

Thank you