

Simple TWAMP (STAMP) Extensions for Segment Routing Networks

draft-ietf-ippm-stamp-srpm-03

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)

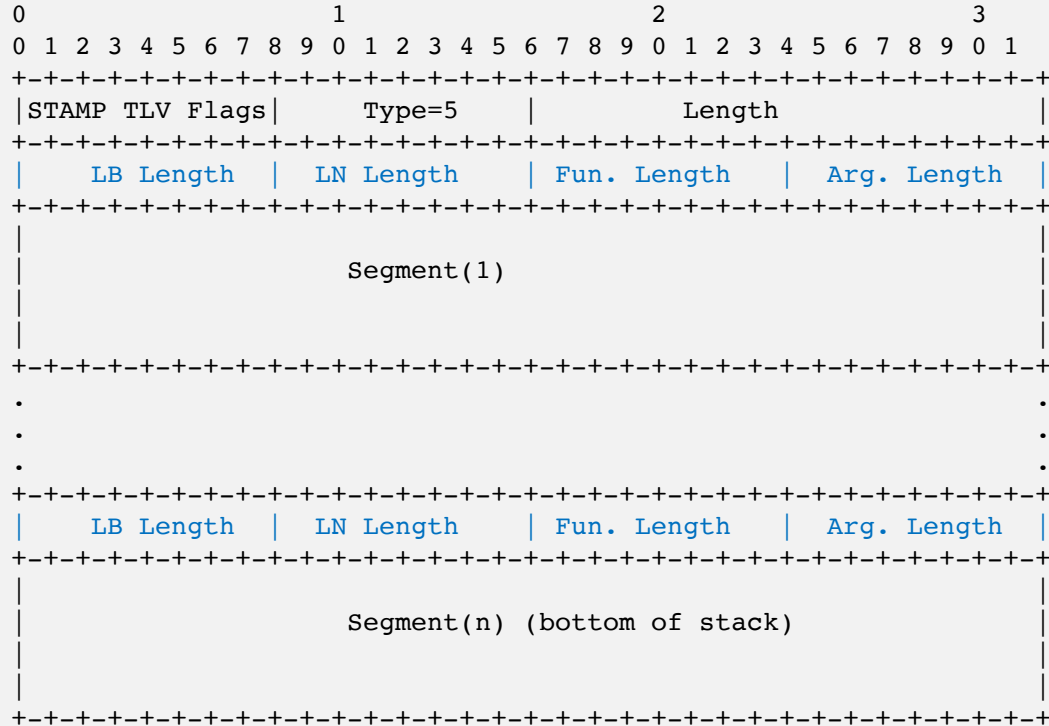
Agenda

- Updates in Revision 03
- STAMP-based Work in other WGs
- Next Steps

Updates in Revision 03

- ✓ Updated usage of D (Wrong Destination) Flag in Destination Node Address TLV
 - ✓ D (Wrong Destination with Reply Required)
 - ✓ D (Wrong Destination with No Reply Required)
- ✓ Added [Structured SRv6 Segment List Sub-TLV](#) in Return Path TLV
- ✓ Minor editorial changes
- ✓ Currently no open issues

Structured SRv6 Segment List Sub-TLV in Return Path TLV



- LB Length: SRv6 SID Locator Block (LB) length in bits.
- LN Length: SRv6 SID Locator Node (LN) length in bits.
- Fun. Length: SRv6 SID Function length in bits.
- Arg. Length: SRv6 SID Arguments length in bits.

Figure 7: Structured SRv6 Segment List Sub-TLV in Return Path TLV

STAMP-based Work in other WGs

draft-ietf-spring-stamp-srpm

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

draft-ietf-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 Pseudowires in MPLS Networks

Next Steps

- Early IANA codepoint request for TLV Types for Interop
- Welcome your comments and suggestions

Thank you

Backup

STAMP Destination Node Address TLV

Destination Node Address TLV (value TBA1):

- Indicates the address of the intended destination of the Session-Sender test packet
- SHOULD be included when Session-Sender test packet is sent with IPv4 destination address in 127/8 range or with IPv6 address ::1/128 (e.g. sweeping ECMP paths)
- Session-Reflector that supports this TLV, MUST transmit reply test packet with Error D (Wrong Destination) 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 D flag set to 0 or 1 in the received test packet, respectively

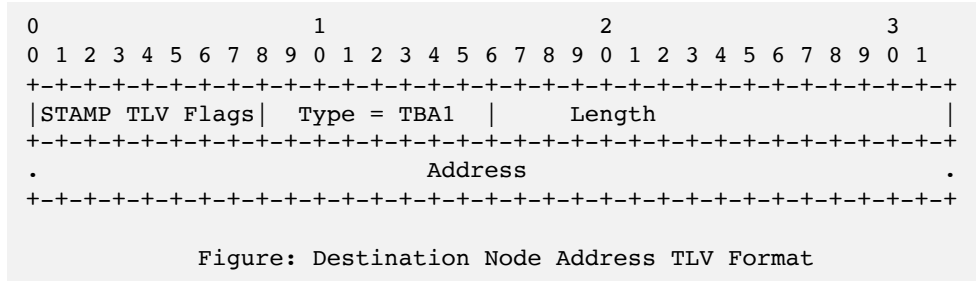


Figure: Destination Node Address TLV Format

STAMP Return Path TLV

Return Path TLV (value TBA2) 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

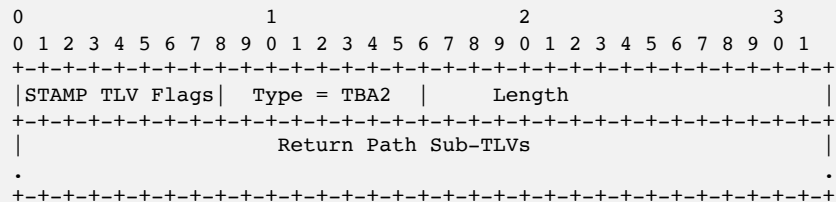


Figure: Return Path TLV

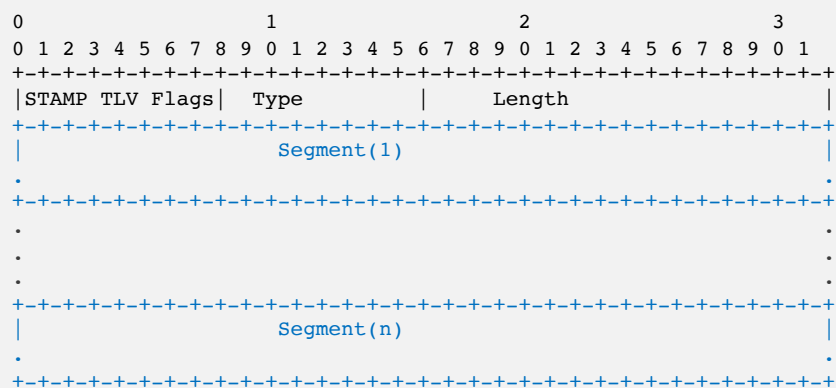
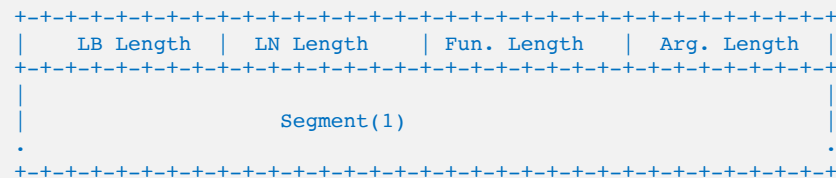


Figure: Segment List Sub-TLV in Return Path TLV



Thank you