

Encapsulation of Simple TWAMP (STAMP) for Pseudowires in MPLS Networks

draft-gandhi-mpls-stamp-pw-00

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Agenda

- Requirements and Scope
- Summary of Procedure
- Next Steps

Requirements and Scope

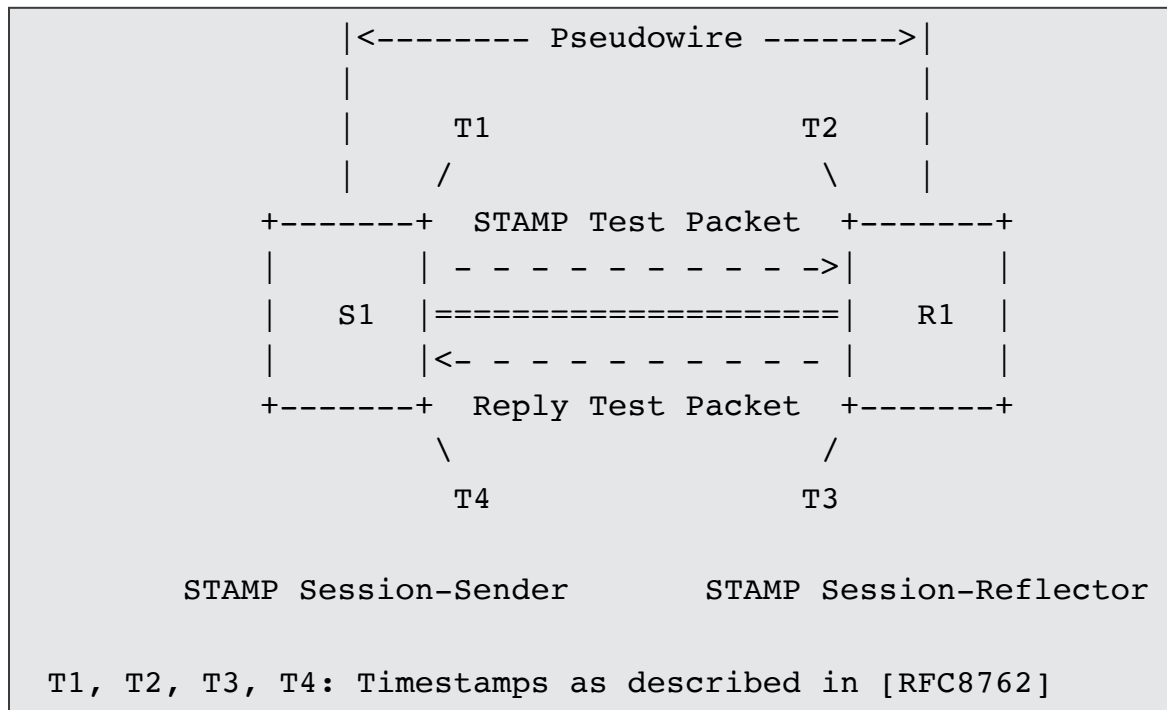
Requirements:

- Encapsulation of STAMP test packets for MPLS PWs
 - Packets with or without IP/UDP header
- STAMP test packets to follow the same (ECMP) path as data traffic

Scope:

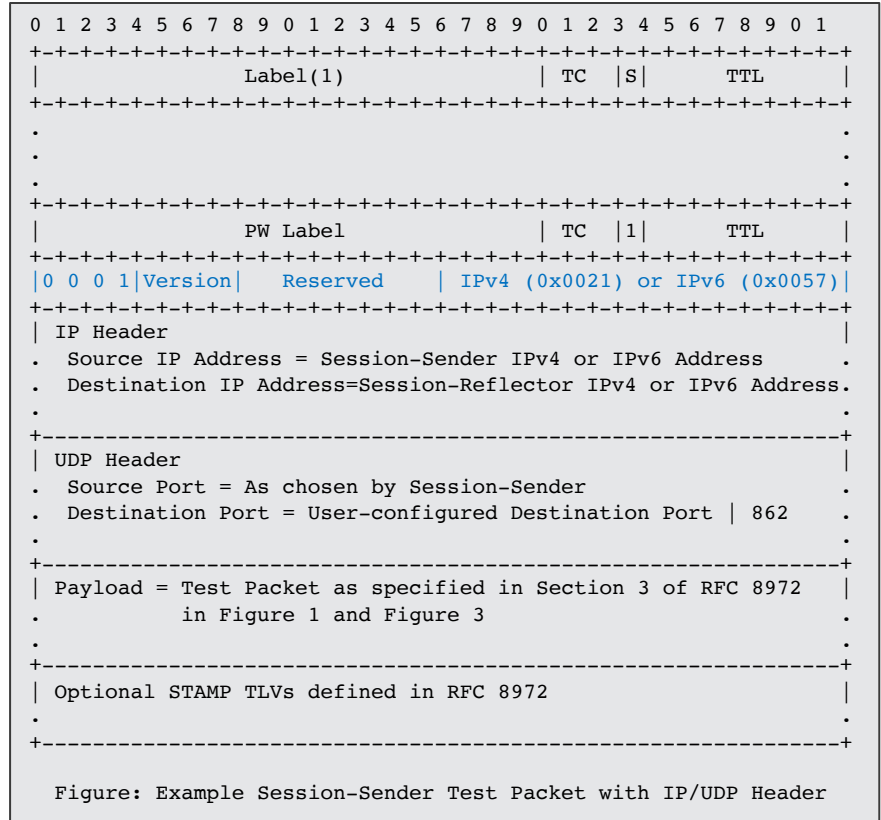
- STAMP [RFC 8762]
- STAMP Extensions [RFC 8972]
- P2P and (In Future) P2MP MPLS PWs

Reference Topology



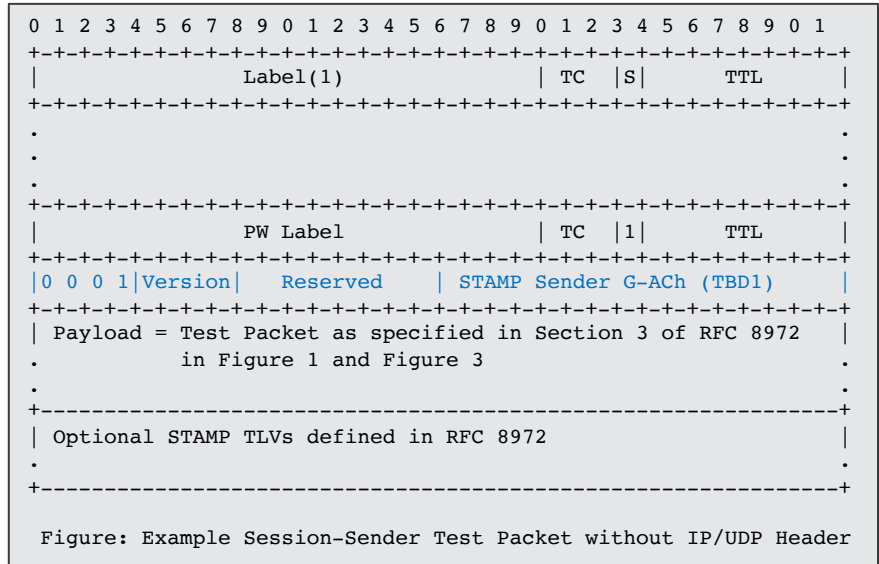
STAMP Session-Sender Test Packet with IP/UDP Header

- Session-Sender test packets are encapsulated with MPLS header using the same label stack as the PW traffic.
- Existing PW Generic Associated Channel (G-ACh) Type for IPv4 or IPv6 to encapsulate the Session-Sender test packets with IP/UDP header.



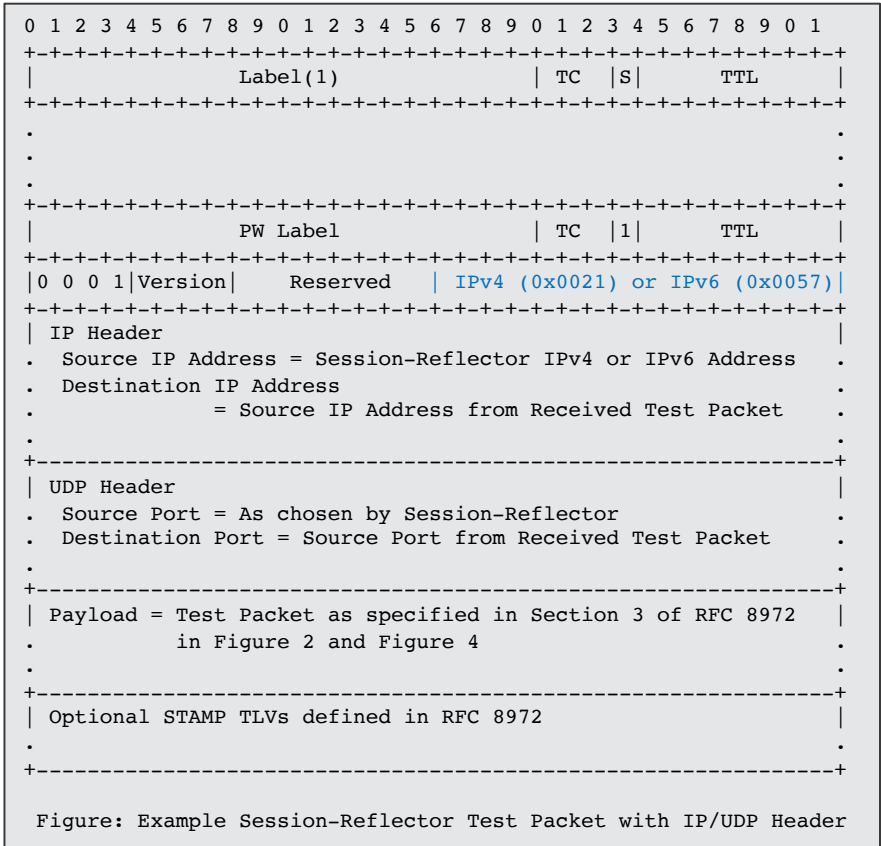
STAMP Session-Sender Test Packet without IP/UDP Header

- Session-Sender test packets are encapsulated with MPLS header using the same label stack as the PW traffic.
- New PW Generic Associated Channel (G-ACh) Type for STAMP Sender (value TBD1) to encapsulate the Session-Sender test packets without IP/UDP header.



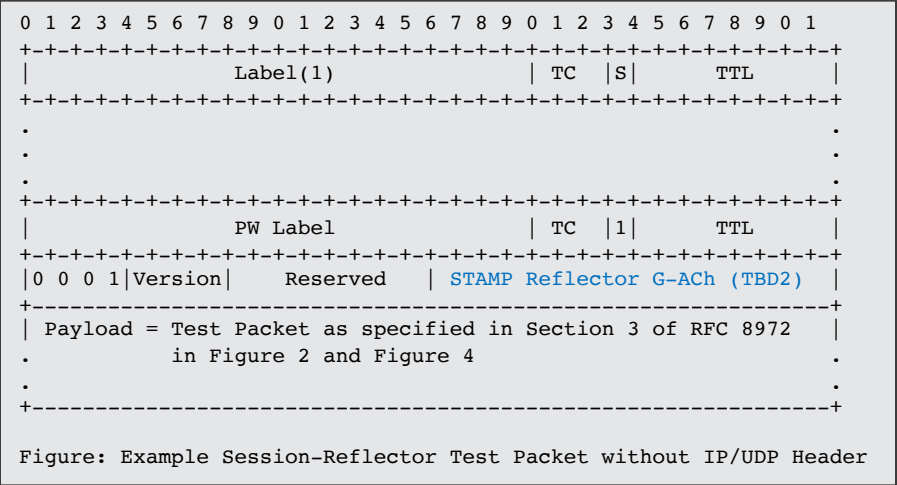
STAMP Session-Reflector Test Packet with IP/UDP Header

- Session-Reflector test packets are encapsulated with MPLS header using the same label stack as the traffic in the reverse direction of a bidirectional PW.
- Existing PW Generic Associated Channel (G-ACh) Type for IPv4 or IPv6 to encapsulate the Session-Reflector test packets with IP/UDP header.



STAMP Session-Reflector Test Packet without IP/UDP Header

- Session-Reflector test packets are encapsulated with MPLS header using the same label stack as the traffic in the reverse direction of a bidirectional PW.
- **New PW Generic Associated Channel (G-ACh) Type for STAMP Reflector (value TBD2) to encapsulate the Session-Reflector test packets without IP/UDP header.**



STAMP Session-Reflector Test Packet

- Session-Reflector test packet is sent with an IP/UDP header if the Session-Sender test packet is received with an IP/UDP header, otherwise, it is sent without an IP/UDP header.
- Session-Sender and Session-Reflector test packet formats do not have a way to discriminate them.
 - With IP/UDP Header:
 - Different destination UDP port numbers in the Session-Sender and Session-Reflector test packets discriminate them.
 - Without IP/UDP Header:
 - Different G-ACh types in the Session-Sender and Session-Reflector test packets discriminate them.

Next Steps

- Welcome your comments and suggestions
- WG MPLS or PALS?
- Requesting WG adoption

Thank you