

# STAMP Extensions for Reflecting STAMP Packet IP Headers

[draft-ietf-ippm-stamp-ext-hdr-07](#)

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# Agenda

- Requirements
- Updates
- Summary
- Implementation
- Next Steps

# Requirements, Goals, and Scope

## Requirements:

- STAMP Extensions to Reflect packet IP headers:
  - ✓ Hop-by-hop and edge-to-edge measurements
  - ✓ Two-way and one-way measurements

## Goals:

- Leverage the existing implementation of the extension headers on midpoint nodes
  - ✓ Midpoint nodes are agnostics to STAMP

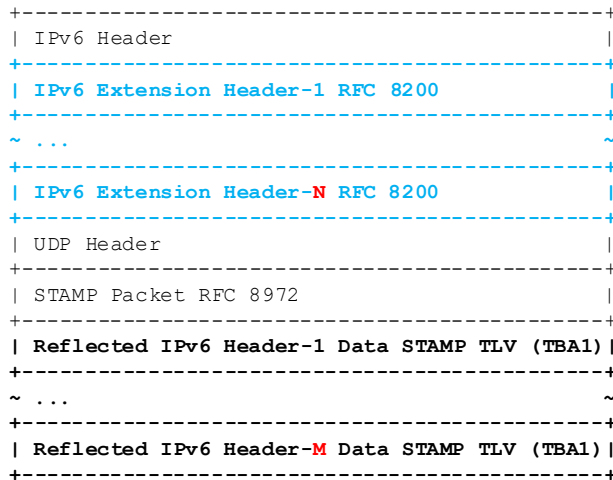
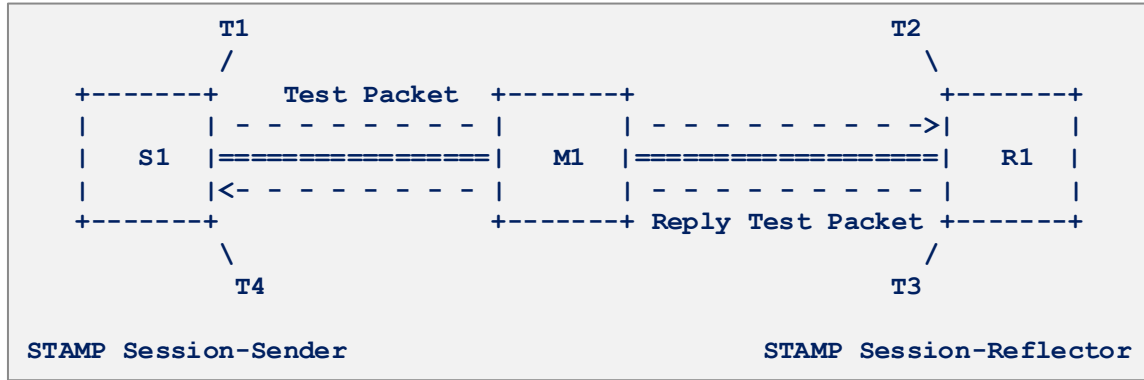
## Scope:

- STAMP [RFC8762] and STAMP Extensions [RFC8972]
- IPv6 Extension Headers [RFC8200]
- IPv4 and IPv6 headers: [RFC791] and [RFC8200]

# Updates

- Recall that draft-ietf-ippm-stamp-ext-hdr was split into two drafts:
  1. IPv4/IPv6 Data plane - draft-ietf-ippm-stamp-ext-hdr
  2. MPLS Data plane - draft-gandhi-ippm-stamp-mpls-hdr
- Review comments from William
  - Clarifications for processing the extension headers and fixed IPv6 headers
- Review comments from Footer
  - Various minor clarifications

# STAMP TLV Extension for IPv6 Data plane



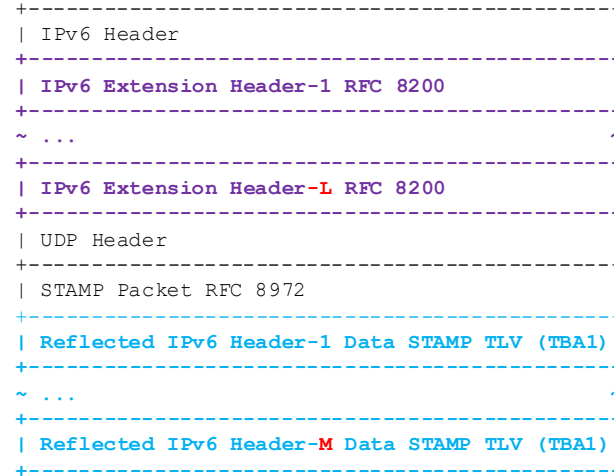
Session-Sender Test Packet

1. Transmit



Pre-allocated  
Empty TLVs  
in the same  
order

4. Reflect



Session-Reflector Test Packet

3. New Ext headers  
(two-way  
measurement)



2. Copy  
Extension  
headers in  
STAMP  
TLVs

# Implementation

An open-source implementation of the STAMP [RFC8762] is available in Teaparty.

- <https://github.com/cerfcast/teaparty>

An implementation of the solution in this document is available at the following location:

- <https://github.com/cerfcast/teaparty/commit/393abf9357a6c2439877d9bcf2dc426dd89c7158>

And there is also support for the reflected IPv6 extension header TLV data in the Wireshark dissector:

- <https://github.com/cerfcast/teaparty/commit/fb74e2e02396e9bb3ead017e8d9a0c187e3573e2>

And there is also support for tools for testing reflected IPv6 extension header TLV data:

- [https://github.com/cerfcast/teaparty/tree/main/testing\\_data#testing-reflected-ipv6-extension-header-data](https://github.com/cerfcast/teaparty/tree/main/testing_data#testing-reflected-ipv6-extension-header-data)

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# Next Steps

- Welcome your review comments and suggestions
- Ready for WG LC

Thank you!