

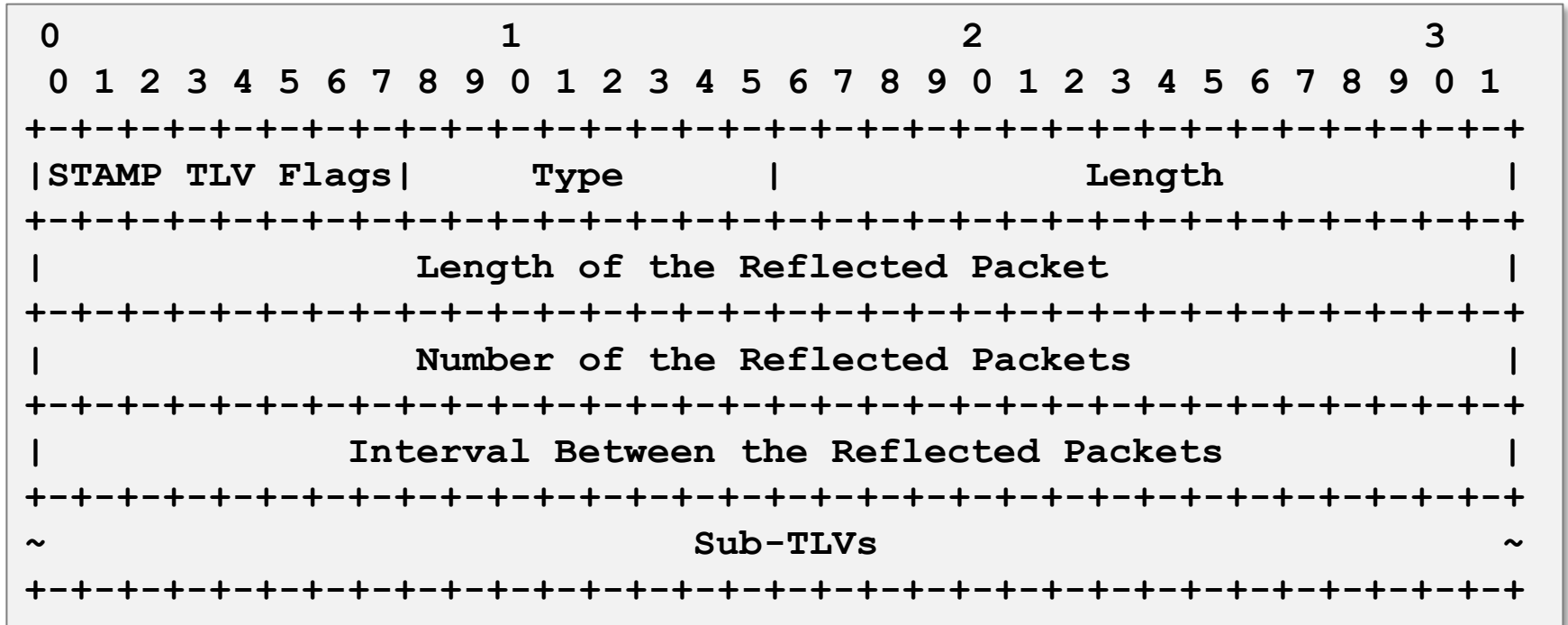
Simple Two-way Active Measurement Protocol (STAMP) Extensions

draft-mirsky-ippm-asymmetrical-pkts

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Reflected Test Packet Control TLV



Length of the Reflected Packet – in octets

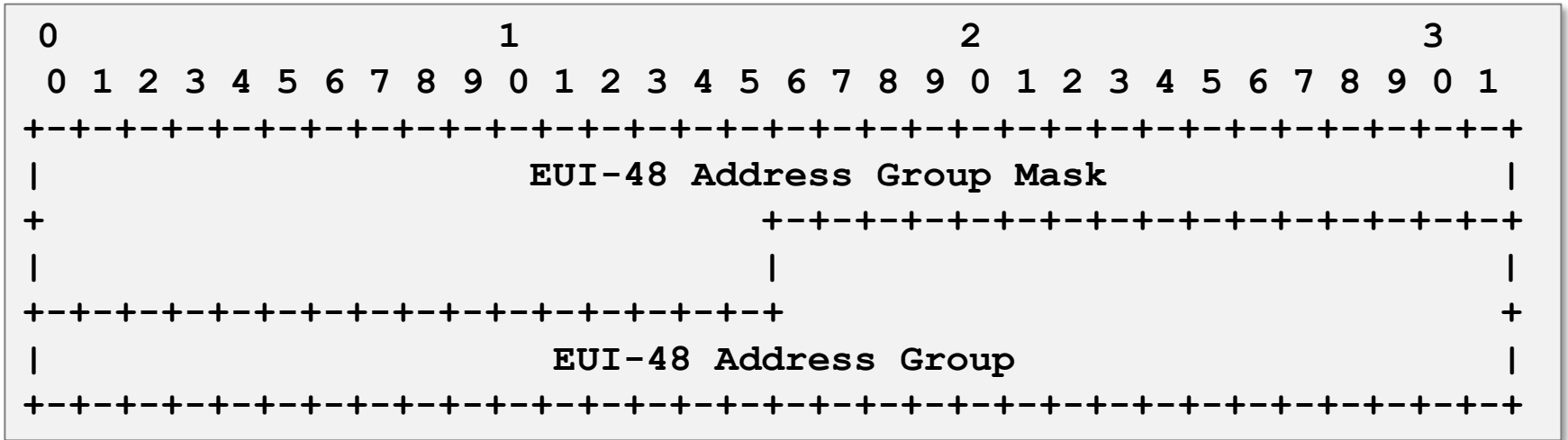
Number of the Reflected Packets – unsigned integer. (Do we need to set an upper limit?)

Interval Between the Reflected Packets – in nanoseconds

Performance Monitoring in a Multicast Network

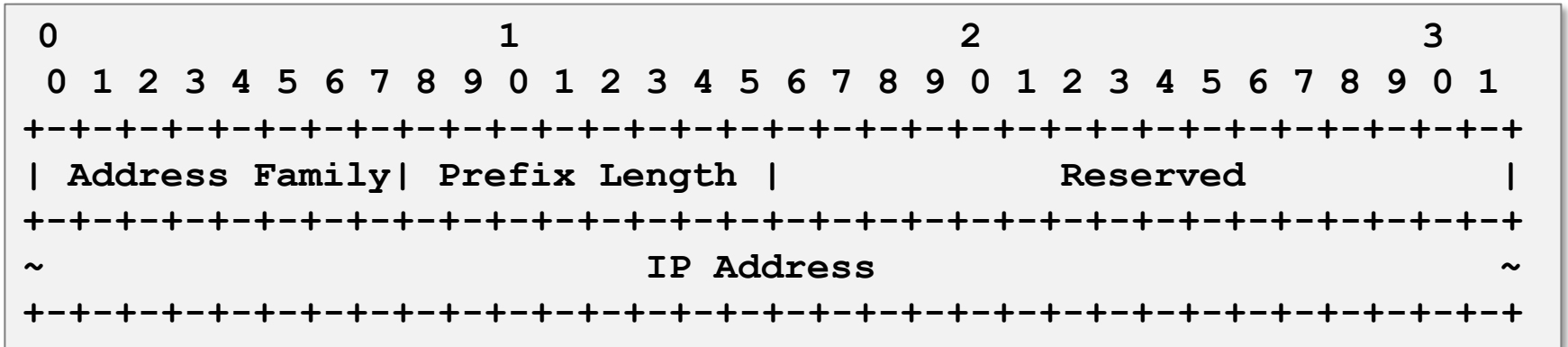
- Usually, an operator is interested in only one-way downstream performance metrics
 - Use the Reflected Packet Control TLV with Number of the Reflected Packets set to 0
- Significant number (thousands, tens of thousands) of reflected STAMP test packets arrive as the Session-Sender in a very short time
 - Either suppress test packet reflection or use an Address Group sub-TLV
- An ability to measure performance over a multicast network to a sub-set of the members of the given multicast distribution tree is beneficial
 - Use an Address Group TLV
- If a reflected packet is not transmitted, how to collect measured performance metrics?
 - Management plane, e.g., IPFIX or based on STAMP YANG data model.
 - Fetch using a STAMP extension? An open question.

Layer 2 Address Group Sub-TLV



- Defines the applicability of the Reflected Test Packet Control TLV
 If (Session-Reflector MAC Address & EUI-48 Address Group Mask == EUI-48 Address Group)
 Reflected Test Packet Control TLV is applicable

Layer 3 Address Group Sub-TLV



- Defines the applicability of the Reflected Test Packet Control TLV
 If (Session-Reflector IP Address/Prefix Length == IP Address/Prefix Length)
 Reflected Test Packet Control TLV is applicable

Next steps

- PM in a multicast environment:
 - Session-Reflector as STAMP Attenuator
 - Session-Reflector as STAMP Amplifier
- One-way measurement collection
- Welcome your questions, comments, and cooperation

Thank You!