Support Postcard-Based Telemetry for SRv6 OAM

draft-song-6man-srv6-pbt-01

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Problem Statement

- On-path data telemetry in SRv6 is important for OAM and application-aware services
  - IOAM, PBT...
- Requirement for encapsulating extra instruction/metadata is challenging
  - Heavy overhead in addition to SRH
  - Encapsulation ambiguity
Solution: PBT-M

- Forwarding performance impact
- Packet size inflation
- Encapsulation
- Security
- Drop localization
- Data correlation
- Export overhead
- Configuration overhead

Data as postcards

Postcard INT (PBT-M)
SRH with PBT Mark Flag

```
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-----------------------------------------------+
| Next Header | Hdr Ext Len | Routing Type | Segments Left |
+-----------------------------------------------+
| Last Entry  | T | Flags       | Tag           |
+-----------------------------------------------+
```

Segment List[] & TLV
Post Card Packets Correlation

- Common methods described in [I-D.song-ippm-postcard-based-telemetry]
- SRH can help to order the postcards
- Optional flow ID (for flow correlation) and sequence number (for packet correlation) can be included as TLVs in SRH
Next Steps

- Request for WG adoption