Export User Flow Telemetry Data by Postcard Packets

draft-song-ippm-postcard-based-telemetry-02

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What’s New

- Position PBT-I as an independent mode of IOAM in addition to the trace and E2E modes.
- Propose using data set ID to replace the data type bitmap
  - Name Space ID + Data Template ID
- Clarify the approaches of generating flow ID
- Propose the Postcard Format
  - RAW Export
  - IPFIX standard (Preferred)
Passport-based INT: IOAM

- Instruction
- Data
- User packet

- Forwarding performance impact
- Packet size inflation
- Encapsulation
- Security
- Drop awareness & localization

Self-describing
Export overhead
Configuration overhead
Postcard-based INT: PBT-M

Data as postcards

Forwarding performance impact
Packet size inflation
Encapsulation
Security
Drop localization

Data correlation
Export overhead
Configuration overhead
Postcard-based INT: PBT-I

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

Data as postcards
PBT-I Instruction Header Format

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<td>Next Header</td>
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<td>Reserved</td>
<td>Hop Count</td>
<td></td>
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<tr>
<td>Flow ID</td>
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<td>Data Type Bitmaps (Optional Extension)</td>
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Next Steps

- Request for WG adoption