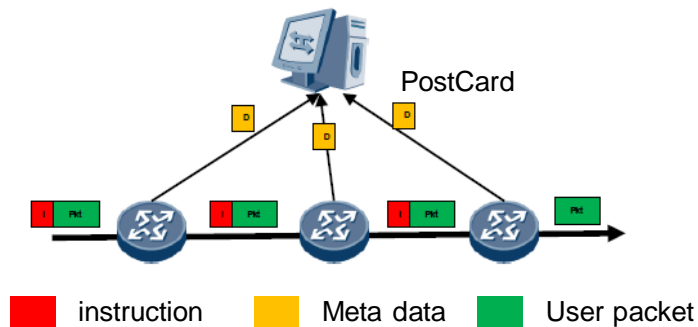Postcard Based Telemetry for **Insitu Flow Information Telemetry**
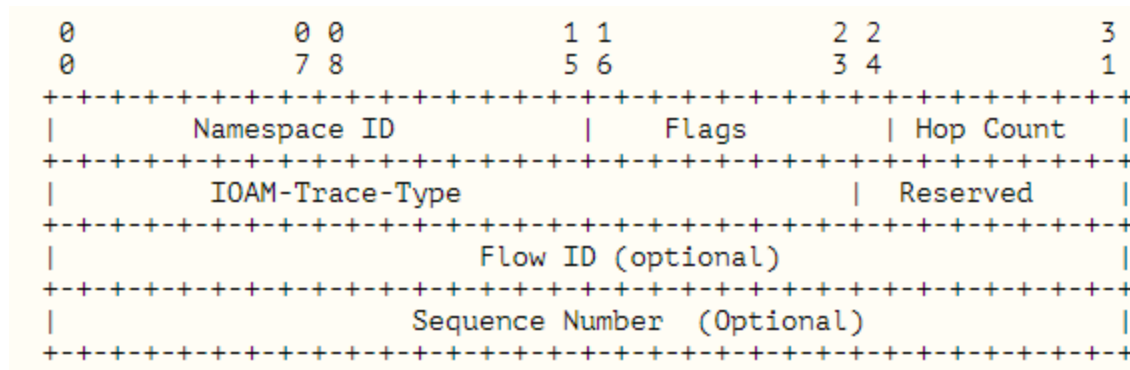
IETF 105, Montreal

Postcard Based Telemetry

- **Separate the Telemetry Instruction Header and the Meta data.**
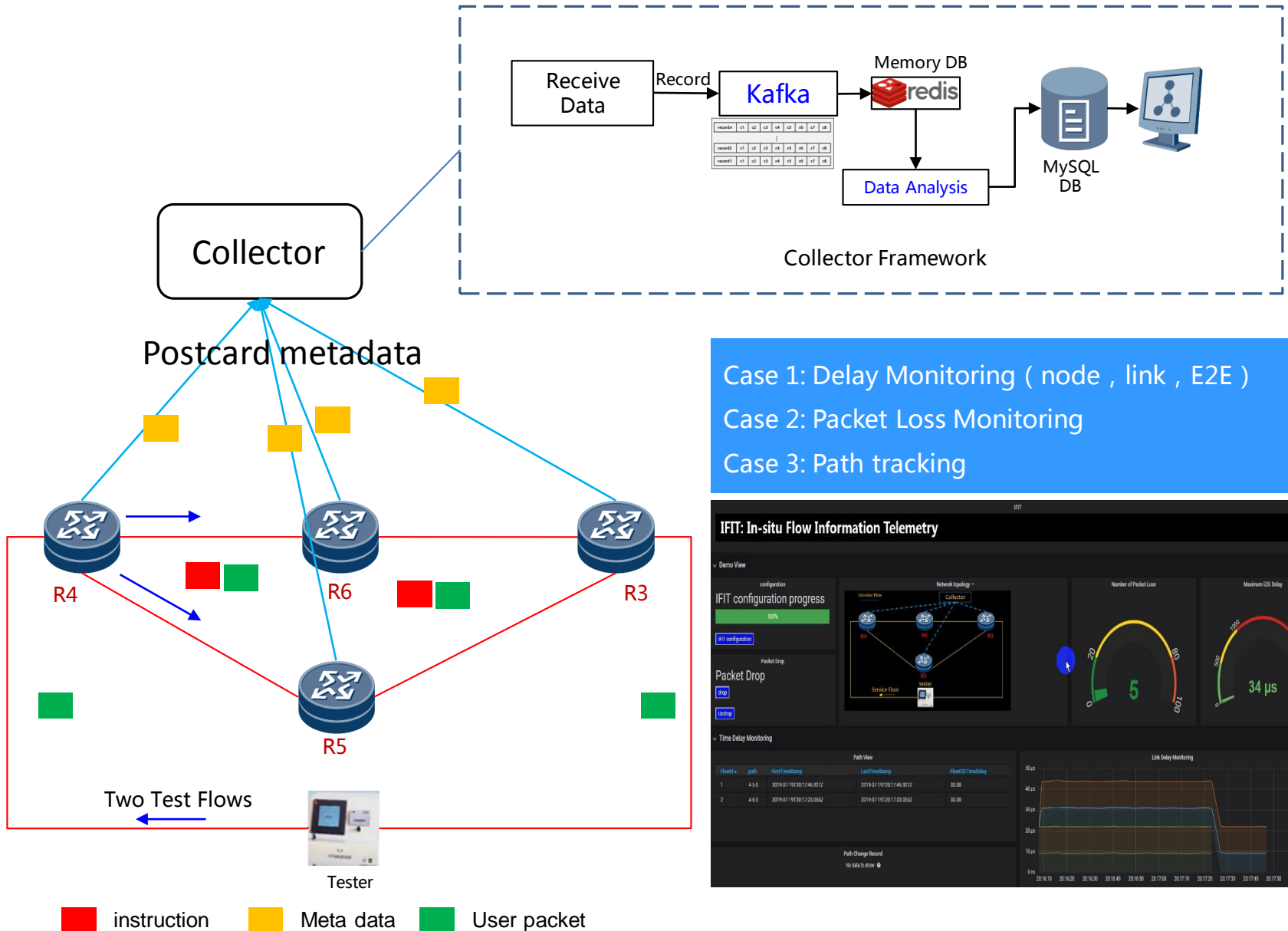- **Postcard will ship out the meta data hop by hop.**

PostCard

- Detect the location of packet loss.
- Fixed packet header
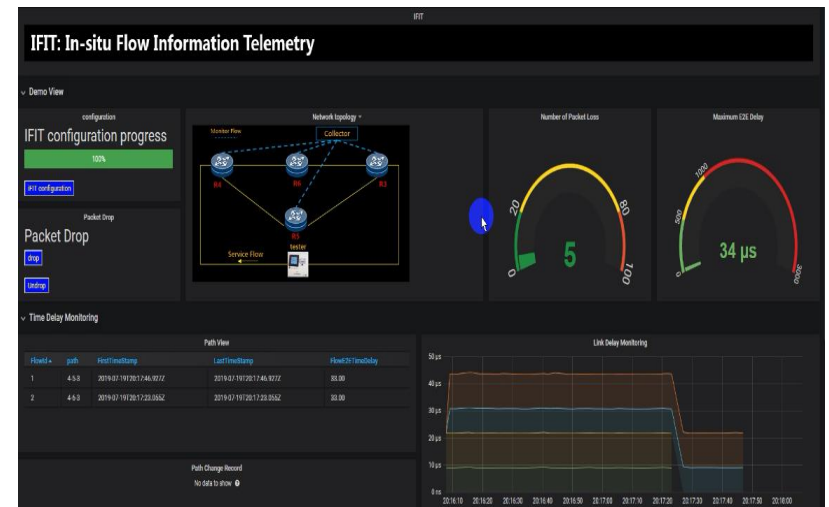- Differentiate the QoS priority for the metadata from user traffic

instruction   Meta data   User packet

```
 0               0 0             1 1             2 2             3
 0               7 8             5 6             3 4             1
 +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
 |          Namespace ID         |    Flags      | Hop Count     |
 +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
 |          IOAM-Trace-Type                      |   Reserved    |
 +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
 |                       Flow ID (optional)                      |
 +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
 |                    Sequence Number  (Optional)                |
 +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

Postcard-based On-Path Flow Data Telemetry (https://datatracker.ietf.org/doc/draft-song-ippm-postcard-based-telemetry)

Architecture

Collector Framework

Postcard metadata

Two Test Flows

Tester

| instruction | Meta data | User packet |

Case 1: Delay Monitoring (node , link , E2E)

Case 2: Packet Loss Monitoring

Case 3: Path tracking

Thanks