Enhanced Alternate Marking Method

draft-zhou-ippm-enhanced-alternate-marking-11

Online, Nov 2022, IETF 115

Tianran Zhou
Giuseppe Fioccola
Weidong Li
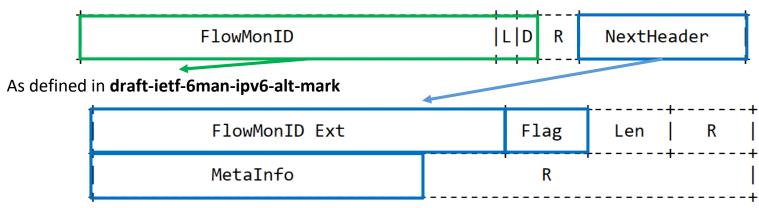**Huawei**

Yisong Liu
China Mobile

Shinyoung Lee
LG U+

Mauro Cociglio
Telecom Italia

How To Augment Alternate-Marking

- Alternate Marking (RFC8321bis, RFC8889bis) is an hybrid PM method.
  - It can be used to measure packet loss, latency, and jitter on live traffic.
  - **RFC8321bis** requires one or two bits to mark consecutive batches of packets.
  - **RFC8889bis** allows a flexible performance management approach

- However, there are some pending points to explore:
  - In some protocols, no additional bit can be used.
  - Deployment experience requirements (e.g. entropy of the pseudo-random FlowMonID).
  - Implementation of the whole framework, included multipoint measurements.

This draft aims to consider all these aspects and generalize the AltMark Data Fields for all the transport protocols:

As defined in **draft-ietf-6man-ipv6-alt-mark**

The extended data fields can be used for several applications:
1. **shortest marking periods** of single marking method for thicker packet loss measurements.
2. **more dense delay measurements** than double marking method (down to each packet).
3. **increase the entropy of flow monitoring identifier** by extending the size of FlowMonID.
4. **automatically set up the backward direction** flow monitoring.
5. (further extensions to explore)

Thank You

Comments are welcome!