

# IPFIX Alternate-Marking Information

draft-ietf-opsawg-ipfix-alt-mark-00

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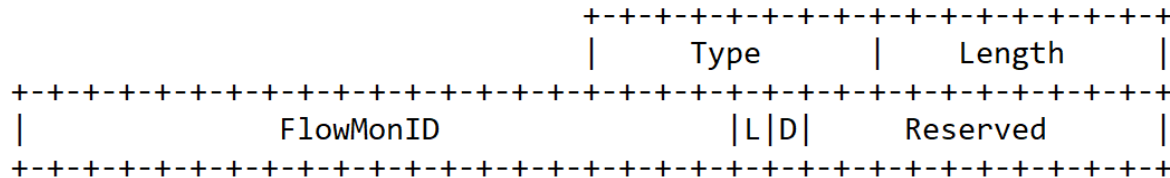
Thomas Graf  
**Swisscom**

Giuseppe Fioccola  
Tianran Zhou  
**Huawei**

Fabrizio Milan  
Massimo Nilo  
**Telecom Italia**

# IPFIX Alternate-Marking IEs (1/2)

RFC 9343 defines the IPv6 option containing the FlowMonID, Loss (L) and Delay (D) flags



For data decomposition, the packet header sections (e.g. RFC9343 IPv6 AltMark EH), are being exposed as part of `ipPayloadPacketSection(IE314)`.

- The IPv6 payload follows the IPv6 header and EHs are considered part of the payload.

For data correlation and aggregation, both existing and new IPFIX entities are employed.

- A flow can be identified using IEs such as `Hostname`, `sourceIPv4Address(IE8)` or `sourceIPv6Address(IE27)`, `sourceTransportPort(IE7)`, `destinationIPv4Address(IE12)` or `destinationIPv6Address(IE28)`, `destinationTransportPort(IE11)`, `protocolIdentifier(IE4)`,...
- Since new Flow Keys can be "promoted" from specific non-key fields, **FlowMonID**, **Loss flag** and **Delay flag** are considered Flow Key fields.
- It is also defined the **PeriodID**, which is needed for Alternate-Marking measurement correlation as per [draft-ietf-ippm-alt-mark-deployment](#).

# IPFIX Alternate-Marking IEs (2/2)

For measurements, the packet count can be done with:

- `octetDeltaCount(IE1)` or `packetDeltaCount(IE2)`.

While, to calculate delay,

- either `flowStartSeconds(IE150)`, `flowStartMilliseconds(IE152)`, `flowStartMicroseconds(IE154)` or `flowStartNanoseconds(IE156)`, can be used depending on timestamp granularity requirements.
- It is also possible to use `flowEndSeconds(IE151)`, `flowEndMilliseconds(IE153)`, `flowEndMicroseconds(IE155)` or `flowEndNanoseconds(IE157)`.

This document requests IANA to create a new registry called “IPFIX Alternate-Marking” and include FlowMonID, Loss and Delay flag and PeriodID.

# Next Steps

Questions from Med Boucadair after WG Adoption about the operation mode (clarifications to be added in the next version):

- With Alternate Marking (RFC 9341, RFC 9342), each node needs to export the packet counters and timestamps at each period for the monitored flow.
- To identify and export telemetry data for an AltMark monitored flow, it is needed a combination of already existing IEs and new IEs, which are introduced in this draft.

Comments are always welcome!

## Thank You