IP Flow Information Export (IPFIX) Alternate-Marking Information Elements

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Recap

This document requests IANA to create new elements under the "IPFIX Information Elements" registry.

- With AltMark (RFC9341, RFC9342), each node must export telemetry data at each period for the monitored flow.
- It is needed a combination of already existing IEs and new IEs:
  - The existing IEs for the flow identification are: **source address**, **destination address**, **protocol** and **ports**.
  - The new IEs to complete the information to export, as per RFC9343, are:
    - **FlowMonID** (flow monitoring identifier)
    - **LossFlag** (Loss flag)
    - **DelayFlag** (Delay flag)
    - **PeriodNumber** (AltMark period ID)

Changes from -02 to -03

Suggestion from Benoit Claise has been addressed:

- New section on Performance Measurement Considerations
  - The Flow Keys used to define a flow are, at minimum, FlowMonID, LossFlag and DelayFlag. The traditional '5-tuple' Flow Key can also be combined.

  - The Flow Records are different for loss measurements and delay measurements, e.g.:
    - The flow record for loss measurements can be composed by the 5-tuple, the FlowMonID, the LossFlag, the PeriodNumber and the packetDeltaCount(IE2);
    - The flow record for delay measurements can be composed by the 5-tuple, the FlowMonID, the DelayFlag, the PeriodNumber and the flowStartMicroseconds(IE154), flowEndMicroseconds(IE155).

  - The AltMark marking, transit and unmarking nodes are Exporters and export the data record according to the periodicity or export policy.

  - The loss and delay metrics are computed on the NMS acting as Collector.

- Few editorial changes and name changes

Next Steps

- Preparing for the WGLC
- The companion documents in IPPM are also progressing (i.e. draft-ietf-ippm-alt-mark-deployment, draft-ietf-ippm-alt-mark-yang, draft-ietf-ippm-on-path-telemetry-yang)

Comments are always welcome!

Thank You