PSAMP MIB Status

Managed Objects for Packet Sampling
draft-ietf-ipfix-psamp-mib-00

A Status Report

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Overview

- Was draft-ietf-psamp-mib-06.txt
  - Moved to IPFIX WG due to closing of PSAMP WG
- Basic structure remained
- Integrated into the IPFIX MIB framework
- Selection/Filtering object aligned with
  - RFC5477, Information Model for Packet Sampling Exports
  - RFC5474, A Framework for Packet Selection and Reporting
MIB Structure

- Reduced from 4 groups of objects to 2
  - The sampling methods group
    - Defines all sampling methods and their parameters
  - The filtering methods group
    - Defines all filtering methods and their parameters
- Sampling and filtering have moved into IPFIX SELECTOR MIB tree
  - But are still defined in this MIB
- Reporting group and baseAssoc group are gone
  - Functionality is implemented in IPFIX MIB
Open Issue: Hash Function

- Schema similar to ipfixSelectionProcessTable and the selectors in the IPFIX SELECTOR MIB

```
PsampFiltHashParamSetEntry ::= SEQUENCE {
    psampFiltHashIndex            Integer32,
    psampFiltHashFunction         OBJECT IDENTIFIER,
    psampFiltHashInitializerValue Counter64,
    psampFiltHashIpPayloadOffset  Counter64,
    psampFiltHashIpPayloadSize    Counter64,
    psampFiltHashSelectedRangeMin Counter64,
    psampFiltHashSelectedRangeMax Counter64,
    psampFiltHashOutputRangeMin   Counter64,
    psampFiltHashOutputRangeMax   Counter64
}
```

- Do we want to expose all of the parameters?
  - RFC5475, Sampling and Filtering Techniques for IP Packet Selection: “We also assume the possibility of using a private input parameter for the Hash Function that is kept secret
Open Issue: Hash Function

- Are these generic parameters or do we have something per hash function type: CRC, BOB, IPSX?

- RFC5475, Sampling and Filtering Techniques for IP Packet Selection:
  - “If a Hash-based Selection with the BOB function is used with IPv4 traffic, the following input bytes MUST be used:
    - IP identification field
    - Flags field
    - Fragment offset
    - Source IP address
    - Destination IP address
    - A configurable number of bytes from the IP payload, starting at a configurable offset

- What to do about these dynamic parameters in the MIB?
Open Issues: Data Types

- Some objects need datatypes that are not defined by SMI
  - Float64 for psampSampUniProbProbability
    - defined as millionth part of one.
  - Unsigned64 for most objects in the sampFiltHashParamSetTable
    - Defined as Counter64
The End

Thank you for your attention