Configuration Data Model for IPFIX and PSAMP

draft-ietf-ipfix-configuration-model-06

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78th IETF Meeting, Maastricht, 2010
Changes in -06

- Remaining reviewer comments integrated
  - major change regarding the SP ➔ more details on following slides
  - Exporting Process:
    - `exportMode` = one of “parallel”, “loadBalancing”, and “fallback”
    - maps to `ipfixExportMemberType` in IPFIX-MIB
  - slightly different structuring of OP, EP, and CP parameters
  - Transport Session state parameters linked to corresponding exporter/collector configuration parameters
  - new state parameter: `transportSessionStartTime` (not included in IPFIX-MIB)

- Removed the `numberOfStreams` and `maxAllowedStreams` parameters
  - configuration of SCTP stream usage not required by any IPFIX/PSAMP document
  - on-demand opening of new streams with per-sctp stream extension

- New security considerations
  - based on template provided by YANG guidelines

- A few parameter names changed, several editorial changes
allow multiple OPs at input of one SP

restrict SP output to single Cache

remove possibility to cascade SPs
Metering Process

\[ \text{Metering Process} = \text{Cache} + \text{Selection Process(es) at its input} \]

- inline with representation in IPFIX-MIB
Relationship to PSAMP Selection Sequences

- One Observed Packet Stream at the input of the Selection Process

- **one Selection State** in each Selector
- reported as a **single Selection Sequence**
- corresponding **\{ODID, SSID\} tuple** available as state parameter
  → **exported Selection Sequence (Statistics) Report Interpretations** can be associated with SP configuration
Relationship to PSAMP Selection Sequences

- **N Observed Packet Streams** at the input of the Selection Process

- **N Selector States** in each Selector (one per Observed Packet Stream)
- reported as **N Selection Sequences**
- list of **N {ODID, SSID} tuples** enables mapping with exported SS(S)RIs
- counters in IPFIX config model and IPFIX-MIB are aggregate statistics
Next Steps

-07 to be published this week
- four new configuration parameters for UDP Collectors:
  - templateLifeTime, optionsTemplateLifeTime
  - templateLifePacket, optionsTemplateLifePacket
- clarify relationship to *RefreshTimeout and *RefreshPacket parameters
- remove duplicate state parameters

Current text is unspecific regarding the protocol:

For the configuration of remote Monitoring Devices, an appropriate protocol is needed to transfer the XML encoded configuration data. The configuration data model is compatible with the NETCONF protocol [RFC4741]. However, alternative protocols, such as the Simple Object Access Protocol (SOAP) [W3C.REC-soap12-part1-20070427], are also suitable for transferring XML data from a network management system to a Monitoring Device.

- suggestion:
  - make this a NETCONF data model and remove reference to SOAP
Next Steps

- Ready for **second WGLC** in August 2010
  - reviewers invited to approve changes between -04 and -07
  - proofreading the entire document would be very helpful as well
  - also ask NETMOD WG for comments

- Status of pending normative references
  - YANG and YANG types in RFC editor queue

- Status of pending information references
  - per-sctp stream extension in RFC editor queue
  - DSDL mapping of YANG in AD evaluation
  - PSAMP-MIB