Configuration Data Model for IPFIX and PSAMP

draft-ietf-ipfix-configuration-model-00

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Metering Process

Configuration data model specifies instances!

Selection Process instance may hold state
- e.g. count-based systematic sampling

not ok:
- OP1 -> SP1 -> Cache1 -> EP1
- OP2 -> SP1 -> Cache2 -> EP2

ok:
- OP1 -> SP1 -> Cache1 -> EP1
- OP2 -> SP2 -> Cache2 -> EP2
New Structure

- Fulfills the requirements
- Metering Process does not explicitly appear
Cache Type and Layout

- **Cache Type**: "normal", "immediate", or "permanent"
- **Cache Layout (instead of Template)**:
  - specifies which fields MAY be present in the resulting Records
  - Records MUST include all fields of the Cache Layout which are available in the incoming packet
  - Records MUST NOT include any fields which are not available in the incoming packet
  - prevention of invalid/empty fields
  - allows having a single Cache for TCP/UDP/ICMP/…

Find a better term: FlowRecord?

Find a better term: RecordLayout?

GenericTemplate?

TemplateLayout?

Have an alternative “strict” layout?
Further Todos and Open Issues

- **Complete the model**
  - add TLS/DTLS parameters
  - review model w/r to mandatory/optional parameters and default values
  - relationship to operational data (read-only, non-configurable parameters) in IPFIX MIB and PSAMP MIB
    - integrate read-only parameters into the model?
    - translate MIBs to XML/Netconf and enable linkage?
  - … and maybe more depending on your appreciated reviews

- **Model specification with YANG**
  + a usable specification language for NETCONF data models
  + adopted as WG document by NETMOD WG
    - not to be standardized before September 2009
## Dependency on YANG: Possible Solutions

| 1) Accept delay of IPFIX/PSAMP configuration data model | Time could be used for  
|                                                      | - prototyping  
|                                                      | - gathering practical experience  
|                                                      | - inclusion of further parameters (e.g. for mediator configuration) |
| 2) Do not use YANG | Which alternative?  
|                                                      | How to ensure conformance to NETCONF? |
| 3) Split document into information model (UML part) and data model (YANG/XML part) | Information model is independent from YANG  
|                                                      | - can be finished before YANG becomes RFC  
|                                                      | However, what is the value of having an information model if there is no data model? |