Configuration Data Model for IPFIX and PSAMP

draft-muenz-ipfix-configuration-02.txt

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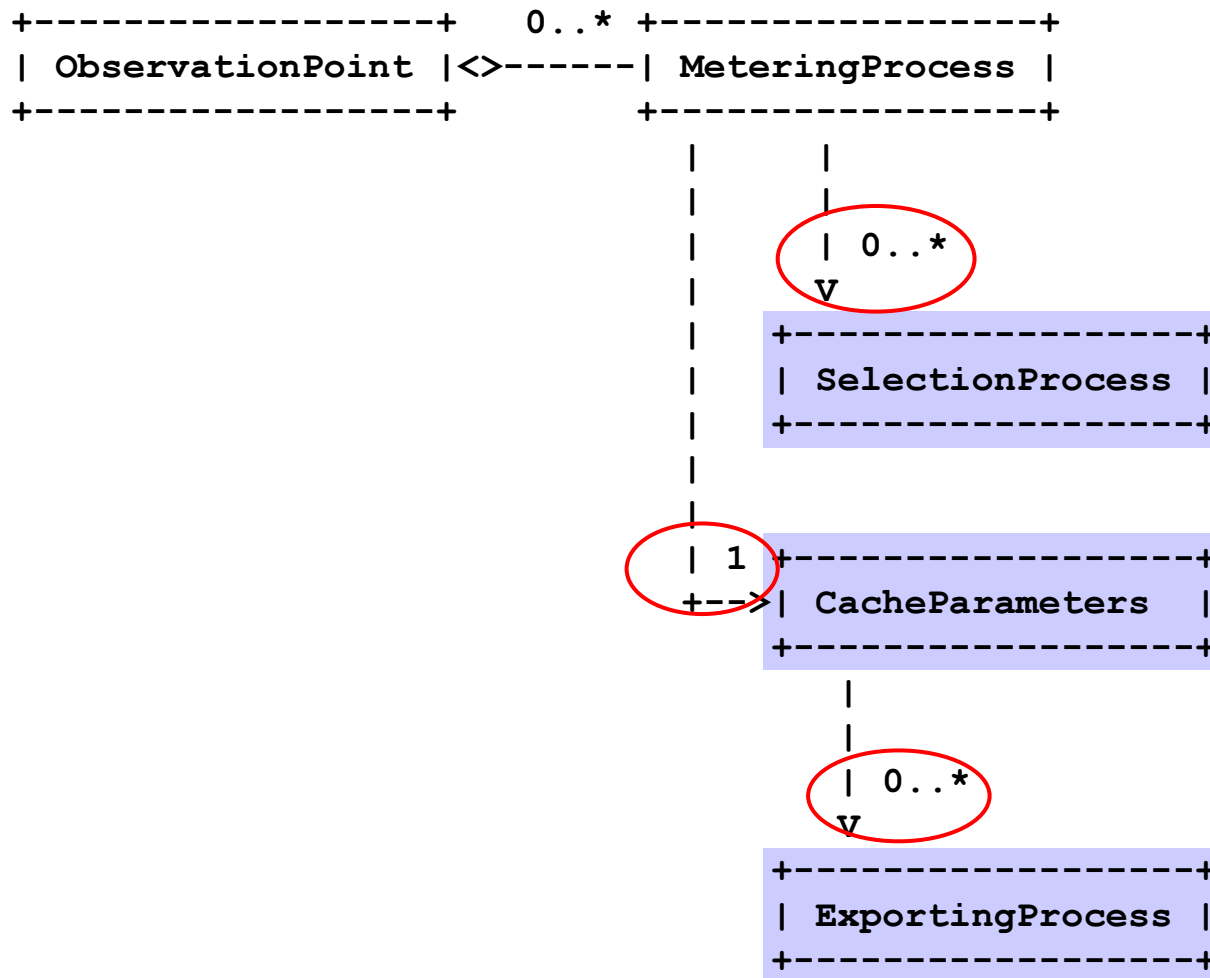
Purpose of the draft

▶ **XML based configuration data model** for IPFIX and PSAMP compliant monitoring devices

▶ Current focus on exporters and collectors, but also applicable to concentrators, mediators etc.

▶ Includes the configuration of the Metering Process, for both IPFIX and PSAMP [PSAMP-TECH]

Changes in -02

▶ **New structuring** of the configuration data based on:
- abstract views of *IPFIX architecture* and *PSAMP framework*
- IPFIX and PSAMP MIB modules
- practical implementation experience and existing configuration schemes
  - ➥ Vermont (A Versatile Monitoring Toolkit for IPFIX and PSAMP)
    - – modular software implementation of IPFIX/PSAMP, supporting rule-based flow aggregation
    - – XML based configuration file format, remote configuration with Netconf
  - ➥ Flexible NetFlow building blocks
    - – CLI based

▶ Data model specified and explained using **UML class diagrams**
▶ Various small changes in the set of configurable parameters

UML Diagram of the Data Model (Exporter only)

```
+------------------+   0..* +------------------+
| ObservationPoint |<>------| MeteringProcess  |
+------------------+        +------------------+
                             |      |
                             |      |
                             |      | 0..*
                             |      V
                             |    +------------------+
                             |    | SelectionProcess |
                             |    +------------------+
                             |
                             | 1  +------------------+
                             +--->| CacheParameters  |
                                  +------------------+
                                         |
                                         |
                                         | 0..*
                                         V
                                  +------------------+
                                  | ExportingProcess |
                                  +------------------+
```

The data model configures **instances of Selection Processes, Caches, and Exporting Processes** which are combined and linked to an Observation Point by **associations**

➔ allows using a Selection Process instance at different Observation Points, an Exporting Process instance with multiple Caches etc.

Call for Comments

▶ Please **read the draft and give feedback** to the authors

▶ If you are an implementer:
- check if the configuration data model is suitable for your IPFIX/PSAMP implementation

▶ **Participate in the discussion** about the open issues (see Section 1)

▶ Shall XML based configuration become a new WG charter item?