Configuration Data Model for IPFIX and PSAMP

draft-ietf-ipfix-configuration-model-06

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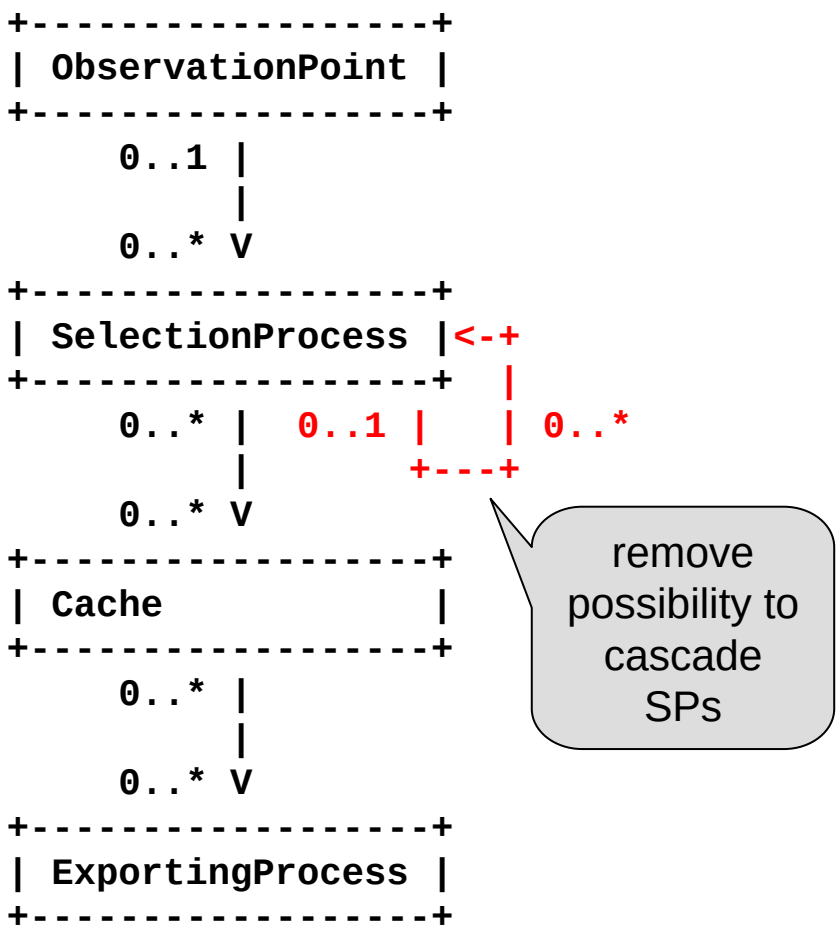
Changes in -06

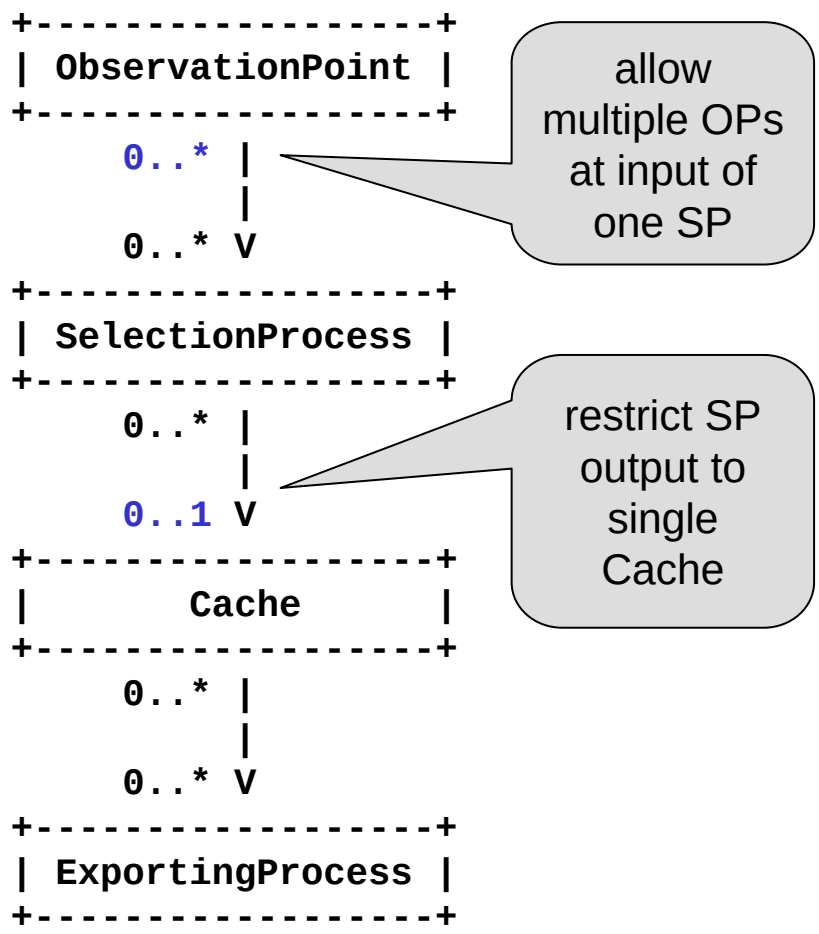
- Remaining reviewer comments integrated
  - **major change regarding the SP** ➔ more details on following slides
  - Exporting Process:
    - **exportMode** = one of “parallel”, “loadBalancing”, and “fallback”
    - maps to ipfixExportMemberType in IPFIX-MIB
  - slightly different structuring of OP, 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

UML Class Diagram of Exporter Configuration

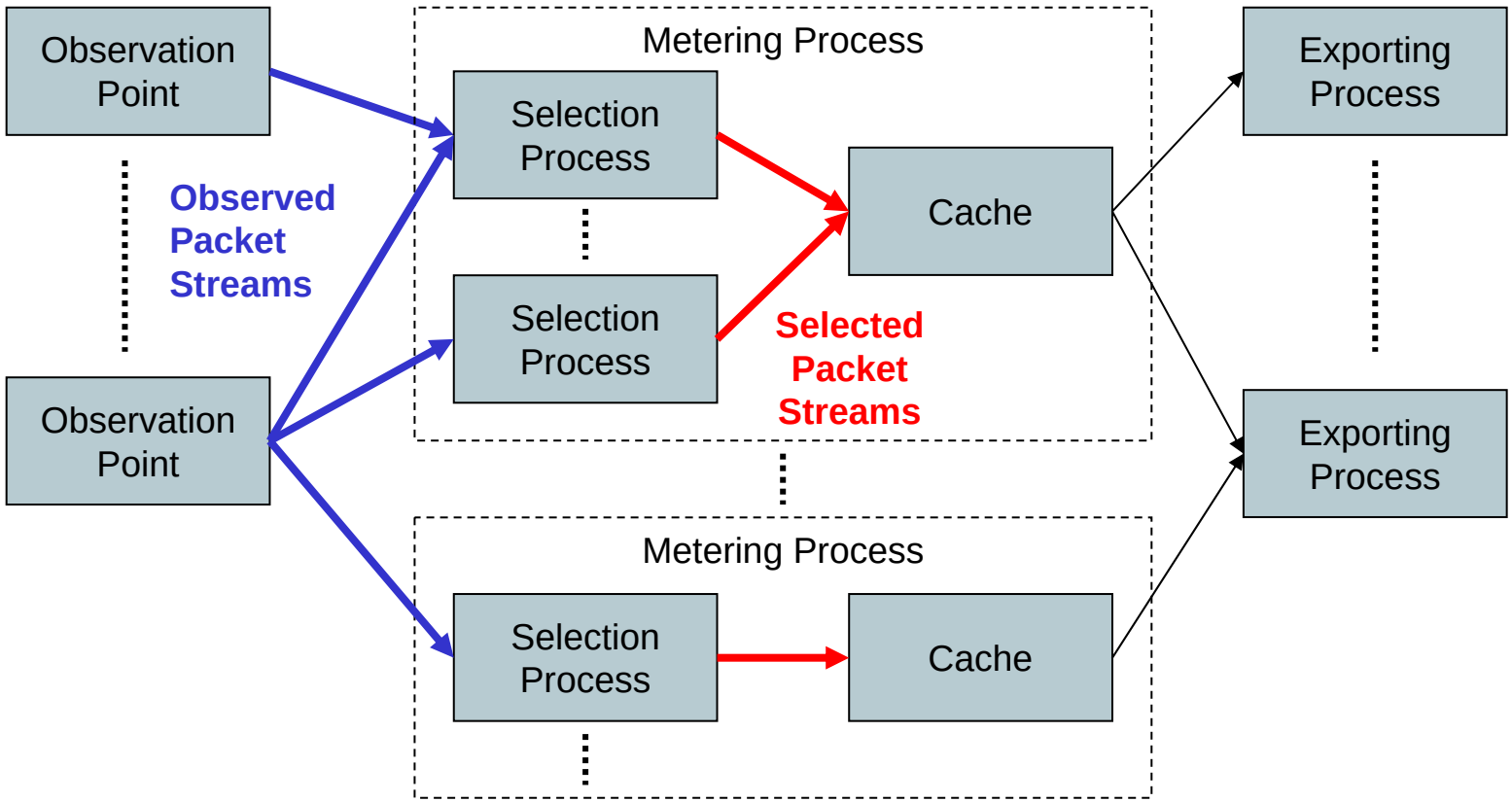
- -05



- -06



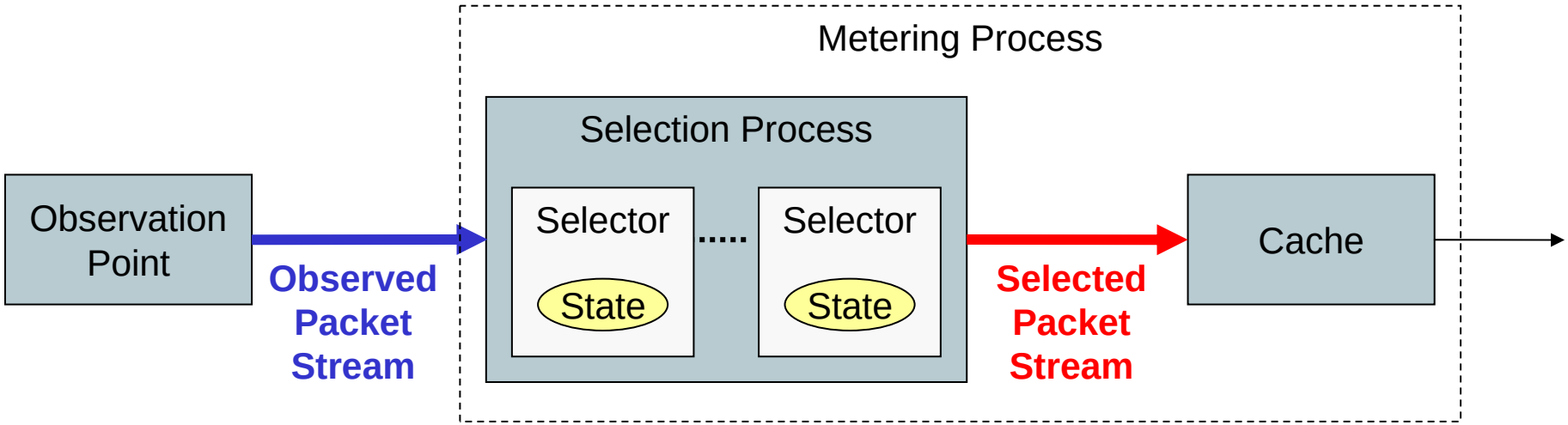
Metering Process



- **Metering Process = Cache + Selection Process(es) at its input**
  ➔ inline with representation in IPFIX-MIB

Relationship to PSAMP Selection Sequences

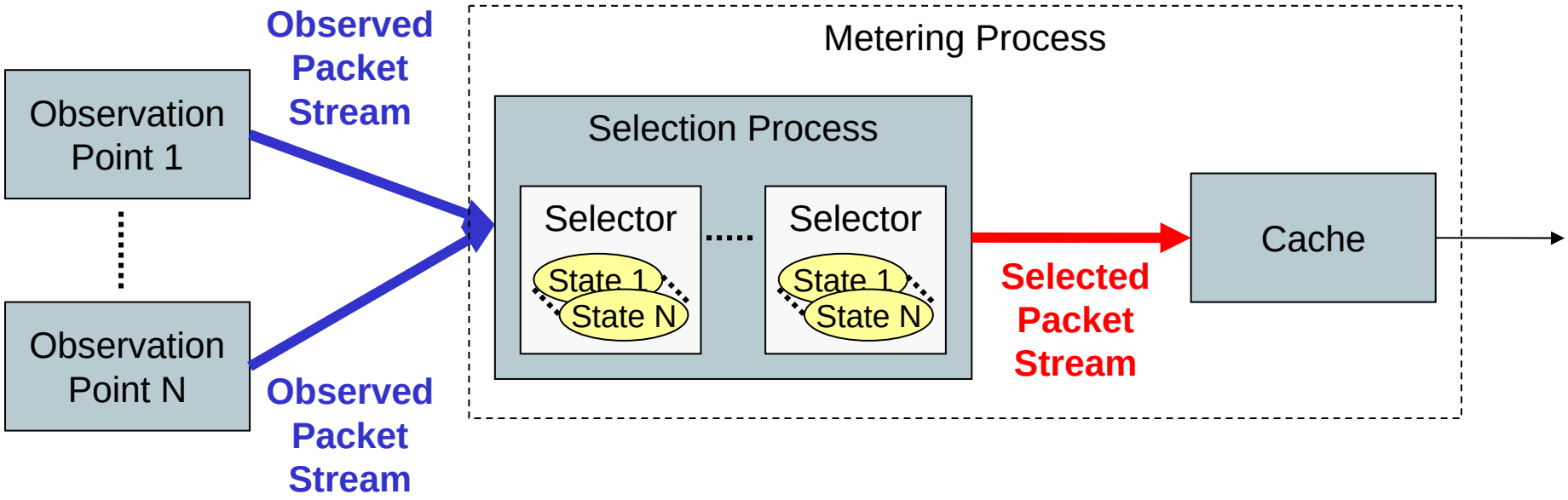
- **One Observed Packet Stream** at the input of the Selection Process



- **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 *RefeshTimeout 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