Configuration Data Model for IPFIX and PSAMP

draft-muenz-ipfix-configuration-04

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Changes in the Model

- Configuration of IPFIX file export and import:
  - located in parameter section of Exporting and Collecting Process

- SCTP parameters:
  - timed reliability
  - eligible local IP addresses for SCTP endpoint

- CacheParameters renamed Cache
  - We monitor a cache, not only the parameters
Clarification:

- in the model: Selection Process == Primitive Selector

Figure 5: SelectionProcess class
Switch from XML Schema to YANG

- What is YANG?

  YANG is a data modeling language used to model configuration and state data manipulated by the NETCONF protocol, NETCONF remote procedure calls, and NETCONF notifications.

- Individual draft by Martin Bjorklund

- Homepage with tutorials, tools, and examples:
  - http://www.yang-central.org

- Mailing list: yang@ietf.org

- Discussion at CANMOD BOF on Wednesday
Switch from XML Schema to YANG

- **History:**
  - IETF Vancouver: YANG-gang contacted us after IPFIX session
  - January 08: Martin sends us a YANG spec covering large parts of our model as a starting point.

- **Since then: close cooperation with YANG-gang:**
  - Martin Bjorklund reviewed the model
  - additional feedback has been requested

- **Gerhard’s experience:**
  - YANG much easier to read than XSD for human beings
  - only basic knowledge about a few YANG keywords required to understand the general structure of a data model
  - adapted to Netconf, enforces compliance with Netconf
  - foresees vendor-specific extensions
  - pyang tool enables validation and conversion to XML Schema
Next Steps?

- Adoption as an IPFIX WG document?

- Open Issues:
  - SCTP parameters
  - Continue discussion and work on the model
    - Configuration of multiple templates per cache?
    - Adaptation to final PSAMP documents (particularly PSAMP-MIB)
    - Consider reporting of device capabilities?

- Follow the consensus of the CANMOD BOF

- Plans for reference implementation at the Universities of Tübingen and Erlangen (http://www.history-project.net/):
  - VERMONT + Netconf agent based on Ensuite Framework