

# On the Relationship between PSAMP and IPFIX

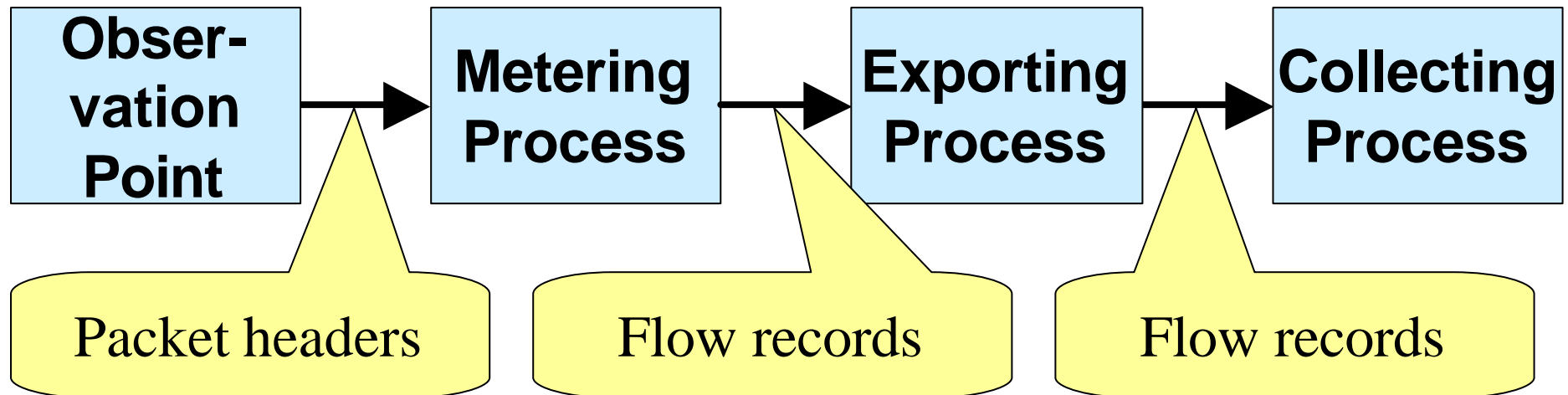
**draft-quittek-psamp-ipfix-01.txt**

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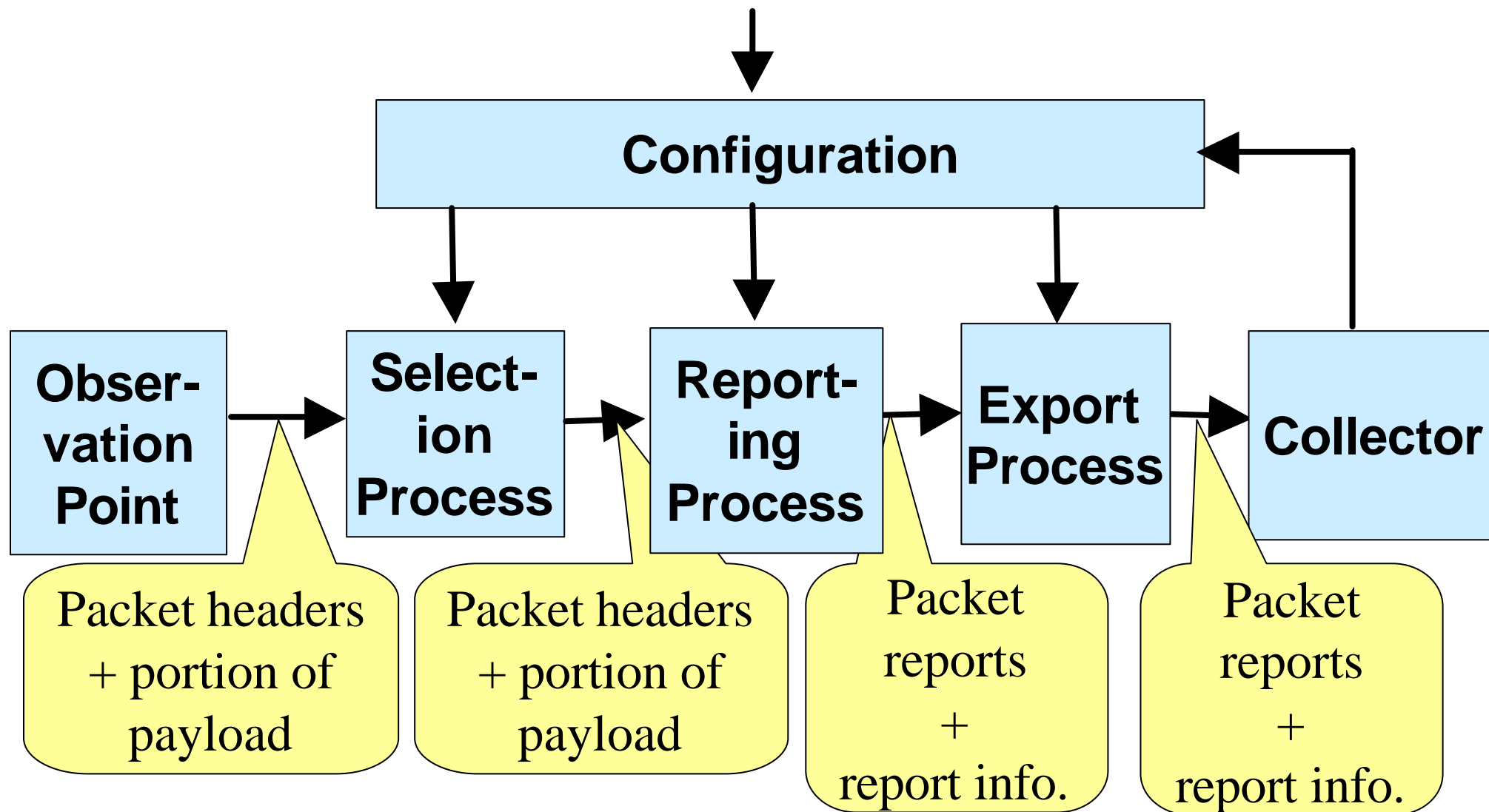
# Motivation for Discussing Relationship

- Goals
  - avoid duplication of work
  - increase mutual benefits between the WGs
  - harmonize standards to be developed by the WGs
- Issues
  - potential overlap of activities
  - potential mutual complements
  - common issues that should be harmonized
- Start/Continue the discussion

# IPFIX Architecture



# PSAMP Architecture



# Architecture Difference #1: Configuration

- An explicit goal of the PSAMP Working Group to define ways of configuring the packet selecting, sampling process and the exporting process. The MIB is defined in charter.
- For IPFIX, configuration of metering process and exporting process is mentioned in the requirements document, but there are no plans yet for standardizing IPFIX configuration.

# Architecture Difference #2: Flow Notion

- IPFIX generates and exports flow records containing information per flow
- PSAMP generates and exports information per packet
  - No notion of flows in PSAMP, packet fragments
  - But charter and draft-ietf-psamp-framework-02.txt speaks of exporting some extra attributes:
    - source/destination interfaces,
    - input sequence number
    - etc...

# Architecture Difference #3: Transport Protocol Requirements

- IPFIX: “The protocol must run over an IETF approved congestion-aware transport protocol such as TCP or SCTP.”
- PSAMP: notion of a congestion-avoidance mechanism via application layer heartbeat or throttling via a configuration parameter.

# Conceptual Difference #1:

- Both IPFIX metering process and PSAMP selection process can select observed packets based on packet header content and packet treatment.
- But PSAMP selection process can compute some values out of the observed packet, i.e a hash value.
- This hash value can be used as a selector by the selection process.

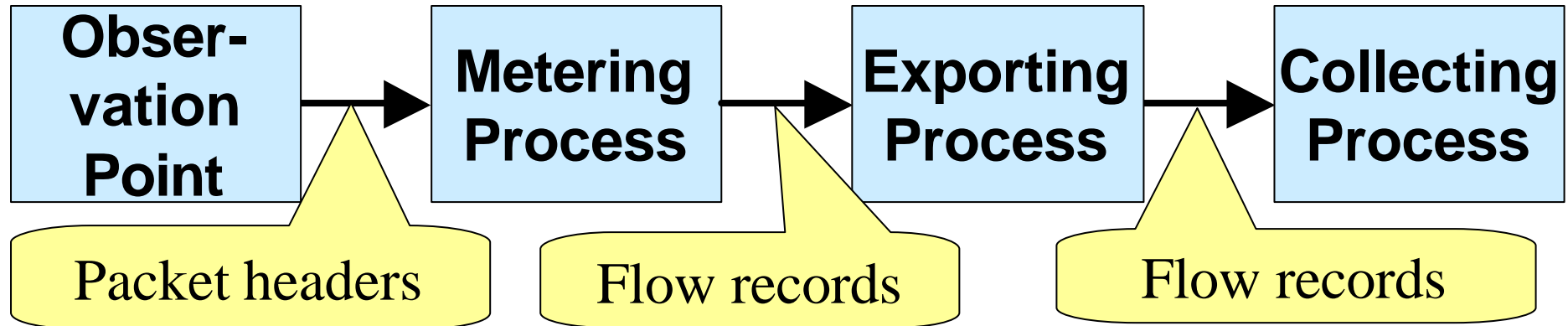


## Conceptual Difference #2:

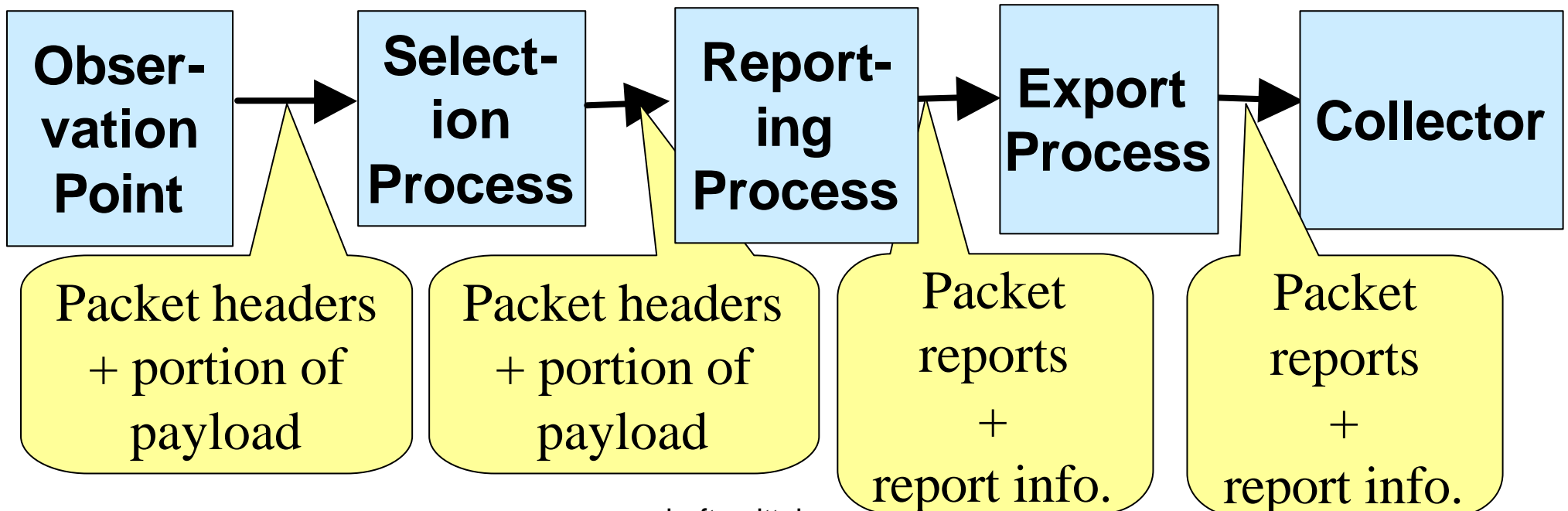
- PSAMP might report information about "subsequent bytes of the packet and encapsulation headers if present"
- While IPFIX concentrates on reporting information on the IP packet header only.
- As a consequence, some privacy issues with PSAMP

# Harmonization: Terminology

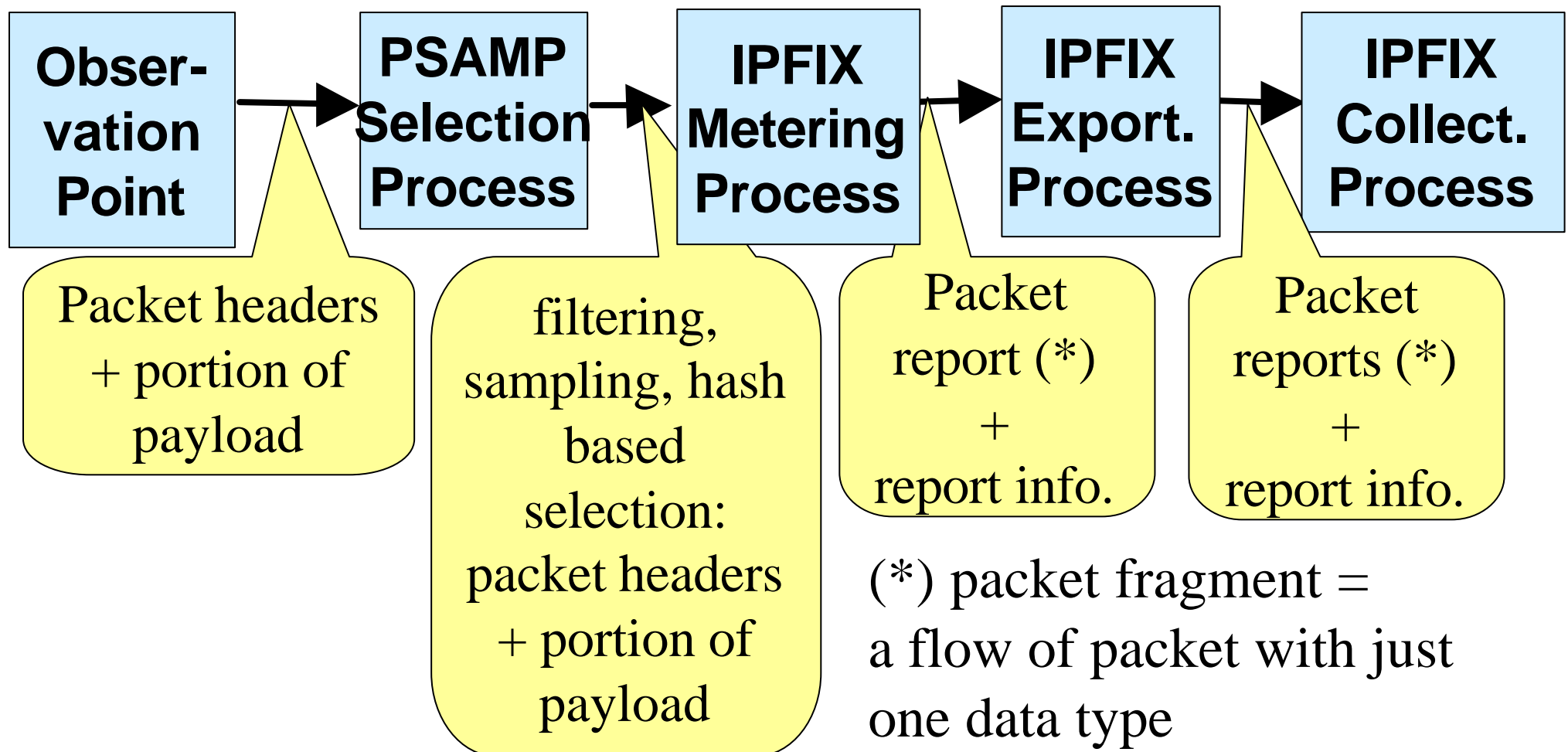
IPFIX



PSAMP



# Harmonization: IPFIX as a PSAMP reporting protocol? PSAMP as a IPFIX component?



**Thank you for your attention !**

Questions ?