

# **EXPORT OF PER-PACKET INFORMATION USING IPFIX**

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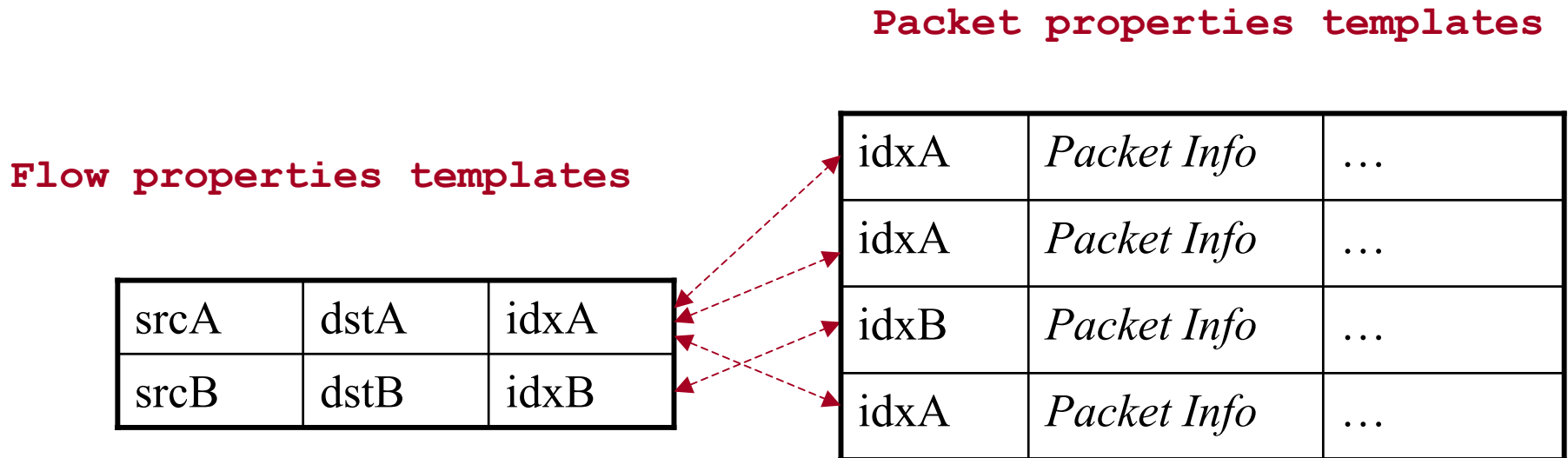
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# Outline

- **Export of per packet information**
  - Reduces redundancy
  - No changes to the IPFIX or PSAMP protocols needed
- **FlowID management**
- **Conclusions**

# Per-packet information export

- Two different records (flow and packet properties)
- *Indices* (FlowID or TemplateID) are used to correlate packet information with flow information



# Option and data templates

- **Option templates define flow attributes**
  - Subsequent data records of this template define the actual flows
- **Data templates define packet attributes**
- **Flow ID is a unique identifier for a flow that allows packet records to reference flow attributes.**

# FlowID management

- **FlowID description is in [IPFIX-INFO]**
  - 4 Octets
- **The Exporting Process assigns and maintains the FlowIDs for the exporter's Observation Domains**
  - Unique per Observation Domain
- **The collecting process associates a lifetime with each flowID**
  - The lifetime **MUST** be configurable
- **Considerations on the transport protocol**

# Conclusions

- **Individual submission**
- **IPFIX and PSAMP related**
- **No modifications needed for IPFIX**
- **No collisions with PSAMP**
  - **Useful for extended packet reports**



