Order of Information Elements Difference Between drafts 01 and 00

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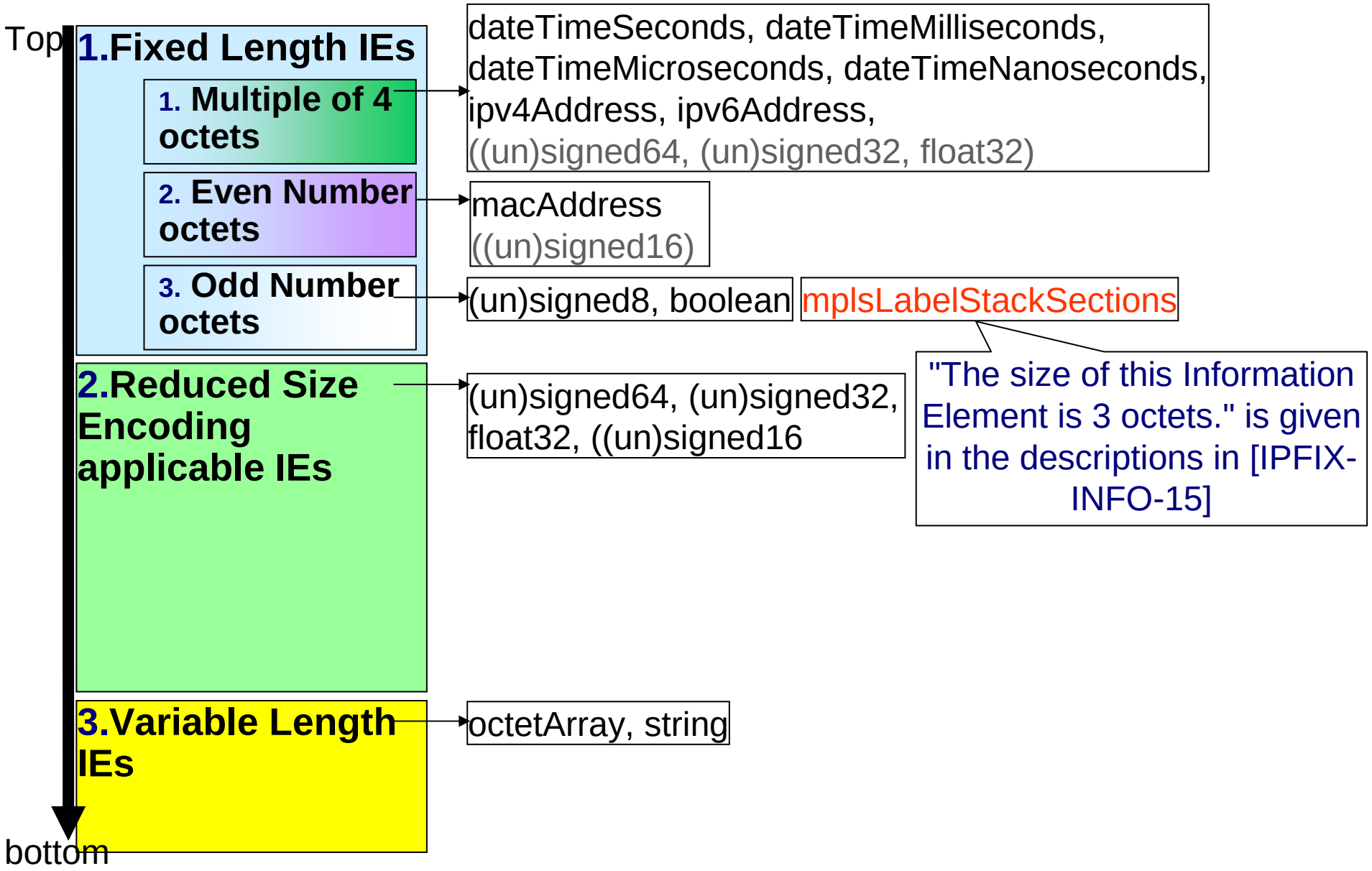
Difference Between Order of Information Element drafts 01 and 00

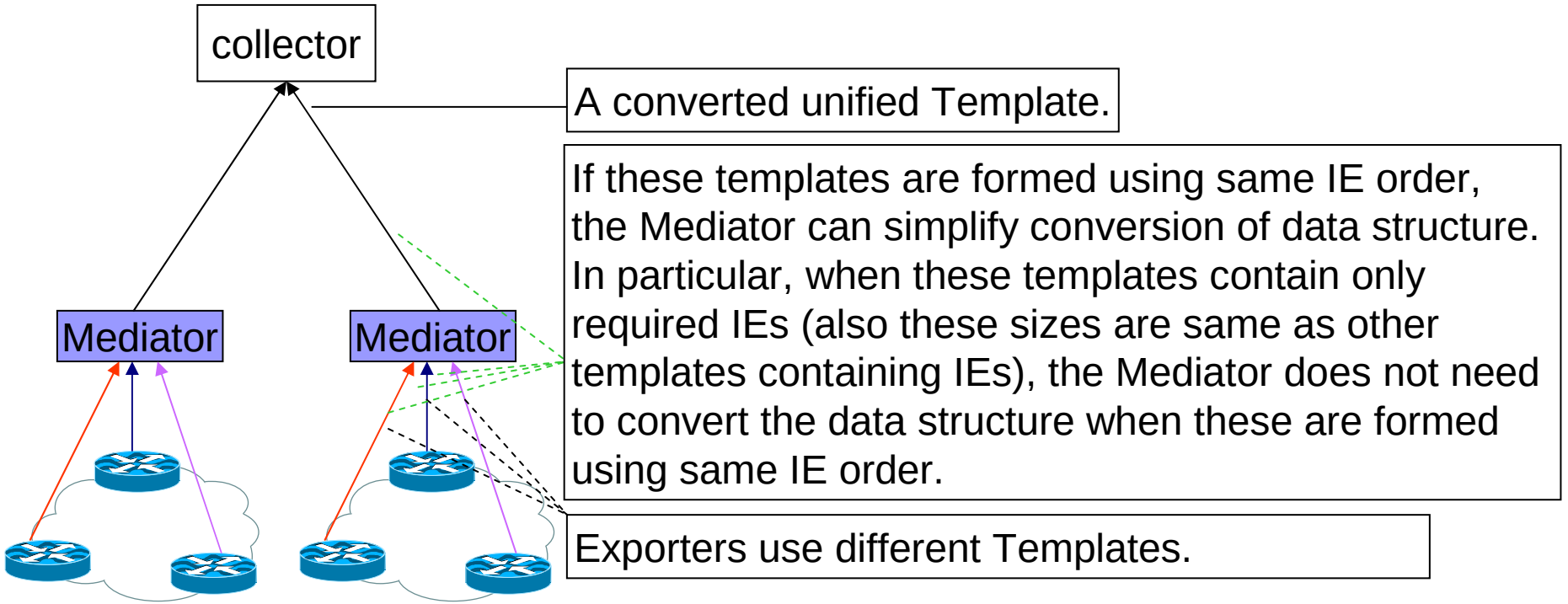
- Description about Information Element order in each group is deleted
  - This order is equal to description order in IPFIX-INFO
    - for supporting future extensions of information model.
    - for simplifying order rule.
- Applicability section is added
  - Advantage cases of this order rule
    - Multiple exporters send different Templates containing the same required Information Elements to a collector.
    - Templates are collected to create output that has unified data structure
      - Collector records flow (formed in unified data structure)
      - Mediator sends template to collector or upper mediator
- Draft 01 corresponds to changes in definitions of Information Elements in IPFIX-INFO-15

Basic Length Classification Rule (corresponds to IPFIX-INFO-15)



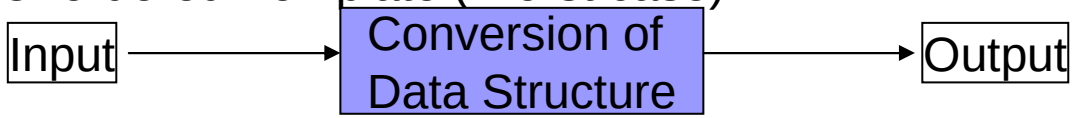
Application

- Case where Information Element Order works effectively
  - Exporter sends different templates containing same IEs,
  - Collecting process creates output that has unified data structure.
  - e.g., IPFIX Mediator (Concentrator)

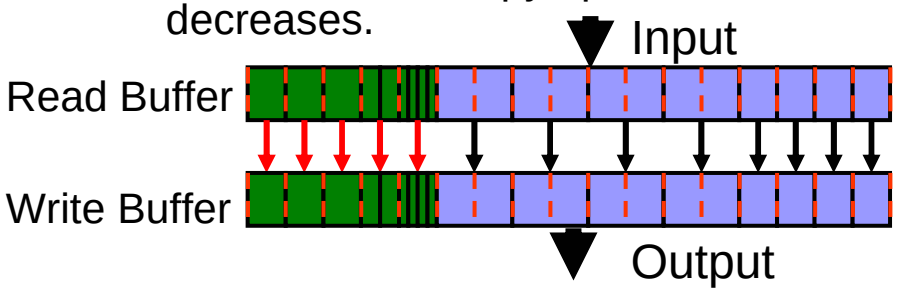


Compare speed of processing of 2 types of Templates

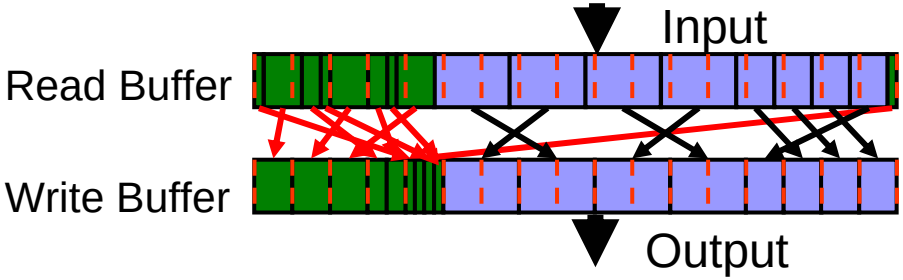
- Comparison between best case and worst case (on software simulation)
  - Input: Data records using
    - Templates that contain IEs corresponding to NFv5 fields
      - Case 1: Ordered Template (Best case)
      - Case 2: Unordered Template (Worst case)
  - Output: Data records using
    - Ordered Template



- Ordered Template
  - The number of copy operations decreases.



- Unordered Template



- Speed of processing Ordered Template is 14%* faster than that of unordered template.
- Efficiency increases when any order rule is defined.

*Environment: Xeon 3.0.6GHz, Memory 2GB