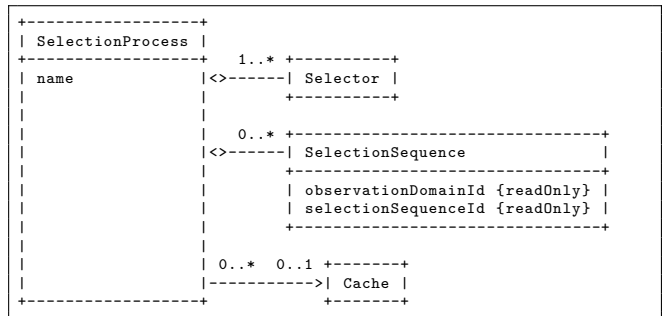




Packet Selection using Concepts from IPFIX and PSAMP

Introduction

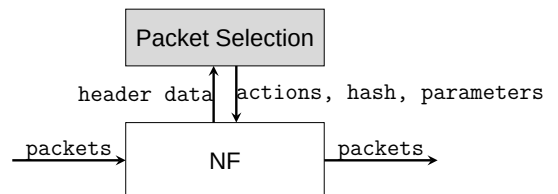
A common requirement for network functions (NFs) is to apply them only for packets sharing commonalities, referred to as packet selection. An example for a frequently used packet selection is an exact match on the flow 5-tuple consisting of L3/L4 addresses. Also, depending on the packet selection, the NF might receive additional parameters. Currently a new network encapsulation protocol and related NFs are developed at our chair. A flexible packet selection and hashing mechanism is needed which should be based on existing standards or extensions thereof.



SelectionProcess model from RFC 6728

Task

Several RFCs include information about packet selection processes such as IP Flow Information Export (IPFIX) or Packet Sampling (PSAMP) Protocols. Your task is to obtain an overview of the existing standards and to identify relevant and reusable content for the intended use-case and to think about suitable extensions to achieve the desired functionality. Your findings and chosen approach should be summarized in an initial draft document. You use it to create an implementation prototype of the described information model, configuration methods and data types.



Possible data flow involving the NF and packet selection

Literature

RFCs: 5474 - 5477, 6615, 6728, 7011, 7012, 7015

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