



# Signaling-based configuration for supporting multiple upstream interfaces in IGMP/MLD proxies

draft-contreras-pim-multiif-config-01

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PIM WG, Prague, November 2023

# Upstream Selection Mechanisms (draft-asaeda-pim-multiif-igmpmldproxy)

- Static Upstream Interface Selection
  - Channel-Based Selection
  - Subscriber-Based Selection
  - Priority-Based Selection
- Automatic Upstream Interface Selection
  - Signaling-based Upstream Interface Configuration
    - This requires IGMP/MLD extensions **<- Scope of this draft!**
- Controller-based Upstream Interface Configuration
  - SDN-like centralized control **<- work in progress, targeting IETF 119**

**Proposal:** to leverage on the extension mechanism defined in RFC9279

# Two aspects to consider

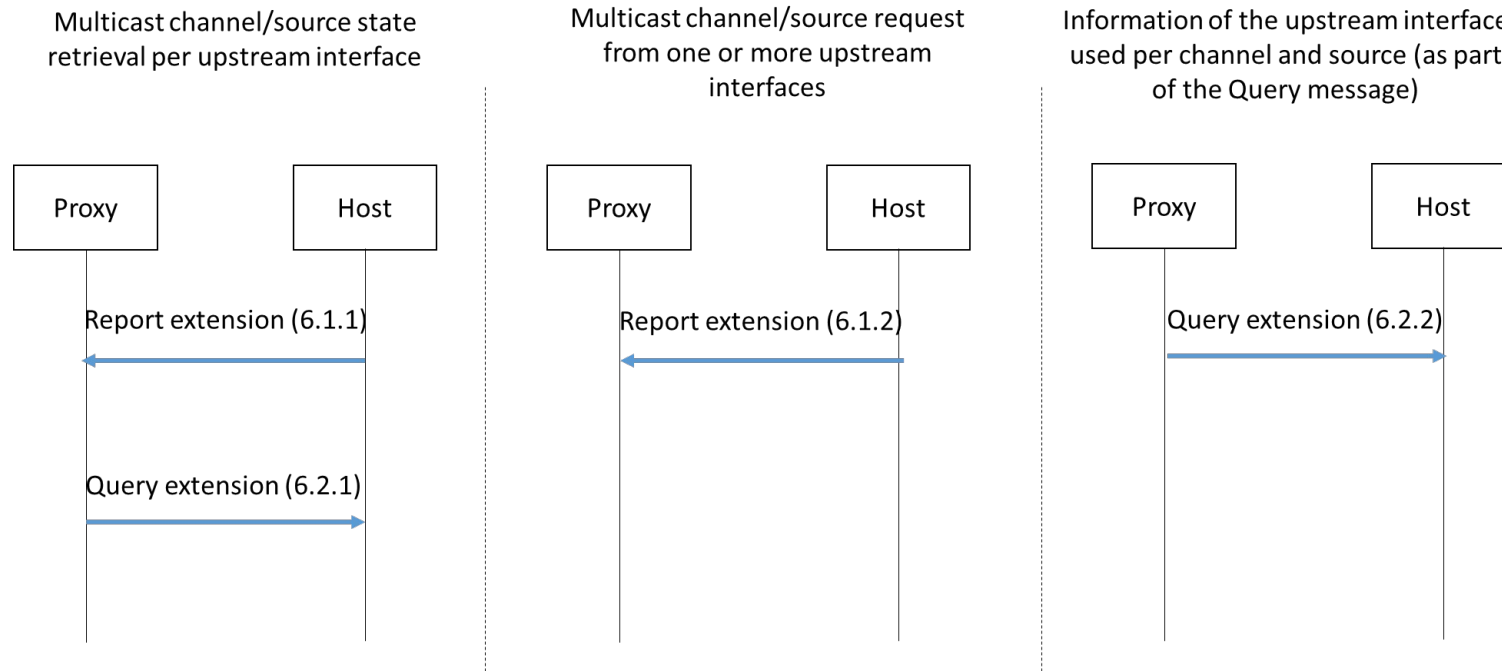
- Policies defined in the IGMP/MLD Proxy for selecting upstream interfaces
  - Specific user (source IP)
  - (S,G)
  - (\*,G)
  - (S,\*)
- Signaling situations
  - Multicast channel/source state retrieval per upstream interface
  - Multicast channel/source request from one or more upstream interfaces
  - Maintenance of multicast membership on the downstream interfaces including information of the upstream interface used per channel and source

These can be common to the other Upstream Selection Mechanisms

These are particular of this signaling method and can be defined as extensions following RFC9279

# Changes from -00

- Substitution of the term “discovery” by “information retrieval”
  - Fixing both text and figures
- Addition of figures for showing the signaling flows and the usage of the proposed message extensions



# Roadmap for the work of supporting of multiple upstream interfaces in IGMP/MLD proxies

- draft-asaeda-pim-multiif-igmpmldproxy
  - Ask for WG adoption as framework document about the support of multiple upstream interfaces in IGMP/MLD proxies
- draft-contreras-pim-multiif-config
  - Pending ToDo's
    - Extend the content to IGMP
    - Include content for the include / exclude modes in the extensions of the Report message
- New draft for automation of Upstream Interface Configuration from controllers (i.e., YANG model for support of multiple upstream interfaces in IGMP/MLD proxies)
- Comments are more than welcome