

IGMP & MLD Snooping YANG Model

draft-ietf-pim-igmp-ml-d-snooping-yang-07

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IETF104

Status

- Updated with version 07
 - Consider the comments for IGMP&MLD yang model and update the IGMP& MLD Snooping yang model.

Draft Update Information

- Change group address type from inet:ipv4-address to rt-types:ipv4-multicast-group-address.

Old Type:

```
module: ietf-igmp-mld-snooping
  augment /rt:routing/rt:control-plane-protocols/rt:control-plane-protocol:
    +--rw igmp-snooping-instance {feature-igmp-snooping}?
      ...
      | +--ro group* [address]
      | | +--ro address          inet:ipv4-address
      | | +--ro mac-address?     yang:phys-address
      | | +--ro expire?         rt-types:timer-value-seconds16
      | | +--ro up-time         uint32
      | | +--ro last-reporter?  inet:ipv4-address
      | | +--ro source* [address]
      | |   +--ro address        inet:ipv4-address
      | |   +--ro bridge-outgoing-interface*  if:interface-ref
      | |   +--ro l2vpn-outgoing-ac*          if:interface-ref
      | |   +--ro l2vpn-outgoing-pw*        pw:pseudowire-ref
      | |   +--ro up-time                   uint32
      | |   +--ro expire?                   rt-types:timer-value-seconds16
      ...
```

Draft Update Information

New Type:

```
module: ietf-igmp-mld-snooping
  augment /rt:routing/rt:control-plane-protocols/rt:control-plane-protocol:
    +--rw igmp-snooping-instance {feature-igmp-snooping}?
      ...
      | +--ro group* [address]
      | | +--ro address          rt-types:ipv4-multicast-group-address
      | | +--ro mac-address?    yang:phys-address
      | | +--ro expire?        rt-types:timer-value-seconds16
      | | +--ro up-time         uint32
      | | +--ro last-reporter?  inet:ipv4-address
      | | +--ro source* [address]
      | |   +--ro address          rt-types:ipv4-multicast-source-address
      | |   +--ro bridge-outgoing-interface*  if:interface-ref
      | |   +--ro l2vpn-outgoing-ac*          if:interface-ref
      | |   +--ro l2vpn-outgoing-pw*         pw:pseudowire-ref
      | |   +--ro up-time                    uint32
      | |   +--ro expire?                    rt-types:timer-value-seconds16
      ...
```

Next Step

- Apply for WGLC
- Any more comments?

IGMP & MLD Proxy YANG Model

draft-zhao-pim-igmp-ml-d-proxy-yang-01

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IETF104

Status

- version 01
 - Second version for presentation
 - Augment /rt:routing/rt:control-plane-protocols/rt:control-plane-protocol
 - Add constraints to make sure the upstream interface for IGMP/MLD proxy should not be configured PIM.

Draft Update Information 1

- Change the structure to augment /rt:routing/rt:control-plane-protocols/rt:control-plane-protocol

OLD HIERARCHY:

```
module: ietf-igmp-mld-proxy
  augment /if:interfaces/if:interface:
    +--rw igmp-proxy
      | +--rw enable?                boolean
      | +--rw require-router-alert? boolean {require-router-alert}?
      | +--rw query-interval?       uint16
      | +--rw robustness-variable?  uint8
      | +--rw version?              uint8
```


Draft Update Information 1

NEW HIERARCHY:

```
module: ietf-igmp-mld-proxy
augment /rt:routing/rt:control-plane-protocols/rt:control-plane-protocol:
  +--rw igmp-proxy
    +--rw interfaces
      +--rw interface* [interface-name]
        +--rw interface-name    if:interface-ref
        +--rw version?          uint8
        +--rw enable?           boolean
        +--ro group* [group-address]
          +--ro group-address    inet:ipv4-address
          +--ro up-time?         uint32
          +--ro filter-mode?     enumeration
          +--ro source* [source-address]
            +--ro source-address  inet:ipv4-address
            +--ro up-time?        uint32
            +--ro filter-mode?    enumeration
          +--ro downstream-interface* [interface-name]
            +--ro interface-name  if:interface-ref
            +--ro filter-mode?    enumeration
```

Draft Update Information 2

- Add constraint to make sure the upstream interface for IGMP/MLD proxy should not be configured PIM.

```
augment "/rt:routing/rt:control-plane-protocols"+
  "/rt:control-plane-protocol" {

  container igmp-proxy {
    container interfaces {
      list interface {
        key "interface-name";
        description
          "List of upstream interfaces.";

        leaf interface-name {
          type if:interface-ref;
          must "current() != /rt:routing/rt:control-plane-protocols/pim-base:pim/pim-
base:interfaces/pim-base:interface/pim-base:name" {
            description
              "The upstream interface for IGMP/MLD proxy
              should not be configured PIM.";
          }
        }
      }
    }
  }
}
```



It relies on PIM model

Unsolved problem

- In order to add must statement, we need to “import ietf-pim-base”. So that IGMP Proxy Model relies on the PIM model.
- Another option is to remove the must statement in yang model, and let backend to check interface not configured PIM.

Which one is better?

Next Step

- Welcome more vendors and carriers involved
- Need more comments