

# MVPN YANG Model

draft-liu-bess-mvpn-yang-05

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IETF100

# Status

- version 05
  - Updated according to NMDA and review comments from multicast yang DT
  - Passed validations

# Yang Model Architecture Updating

```
augment /ni:network-instances/ni:network-instance:
```

```
+--rw l3vpn
  +--rw ipv4
    | +--rw mvpn
    | | +--rw ...
    | | +--rw mvpn-ipmsi-tunnel
    | | | +--rw ...
    | | +--rw mvpn-spmsi-tunnels
    | | | +--rw ...
    | +--ro mvpn-state
    | | +--ro ...
    | | +--ro mvpn-ipmsi-tunnel
    | | | +--ro ...
    | | +--ro mvpn-spmsi-tunnels
    | | | +--ro ...
    | | +--ro mvpn-ipmsi-tunnel-info
    | | | +--ro ...
    | | +--ro mvpn-spmsi-tunnel-ipv4-infos
    | | | +--ro ...
  +--rw ipv6
    +--rw mvpn
    | +--rw ...
    | +--rw mvpn-ipmsi-tunnel
    | | +--rw ...
    | +--rw mvpn-spmsi-tunnels
    | | +--rw ...
  +--ro mvpn-state
  | +--ro ...
  | +--ro mvpn-ipmsi-tunnel
  | | +--ro ...
  | +--ro mvpn-spmsi-tunnels
  | | +--ro ...
  | +--ro mvpn-ipmsi-tunnel-info
  | | +--ro ...
  | +--ro mvpn-spmsi-tunnel-ipv6-infos
  | | +--ro ...
```

Non-NMDA



```
augment /ni:network-instances/ni:network-instance:
```

```
+--rw mvpn
  +--rw mvpnv4
  | +--rw ...
  | +--rw mvpn-ipmsi-tunnel
  | | +--rw...
  | +--rw mvpn-spmsi-tunnels
  | | +--rw ...
  | +--ro mvpn-ipmsi-tunnel-info
  | | +--ro ...
  | +--ro mvpn-spmsi-tunnel-ipv4-info
  | | +--ro ...
  +--rw mvpnv6
  | +--rw ...
  | +--rw mvpn-ipmsi-tunnel
  | | +--rw ...
  | +--rw mvpn-spmsi-tunnels
  | | +--rw ...
  | +--ro mvpn-ipmsi-tunnel-info
  | | +--ro ...
  | +--ro mvpn-spmsi-tunnel-ipv6-info
  | | +--ro ...
```

NMDA

# Yang Model Updating Detail(1)

- Adding signaling mode item of MLDP in-band according to RFC7246

```
leaf signaling-mode {  
  type enumeration {  
    enum invalid {  
      value "0";  
      description "invalid";  
    }  
    enum bgp {  
      value "1";  
      description "bgp";  
    }  
    enum pim {  
      value "2";  
      description "pim";  
    }  
  }  
  default "invalid";  
  description "Signaling mode.";  
}
```



```
leaf signaling-mode {  
  type enumeration {  
    enum invalid {  
      value "0";  
      description "invalid";  
    }  
    enum bgp {  
      value "1";  
      description "bgp";  
    }  
    enum pim {  
      value "2";  
      description "pim";  
    }  
    enum mldp {  
      value "3";  
      description "mldp";  
    }  
  }  
  default "invalid";  
  description "Signaling mode for C-multicast route.";  
}
```

# Yang Model Updating Detail(2)

- Updating ASM mode in private network from bool type to enumeration type

```
leaf rpt-spt-mode {  
  type boolean;  
  default "false";  
  description "Rpt and spt mode in multicast private  
net.";  
}
```



```
leaf rpt-spt-mode {  
  type enumeration {  
    enum spt-only {  
      value "0";  
      description  
        "Only spt crossing public net.";  
    }  
    enum rpt-spt {  
      value "1";  
      description  
        "Both rpt and spt corssing public net.";  
    }  
  }  
  default "spt-only";  
  description  
    "ASM mode in multicast private net for crossing public net.";  
}
```

# Yang Model Updating Detail

- Adding S-PMSI switch-wildcard-mode according to RFC6625

```
leaf switch-wildcard-mode {
  type enumeration {
    enum source-group {
      value "0";
      description
        "Wildcard neither for source or group address.";
    }
    enum star-star {
      value "1";
      description
        "Wildcard for both source and group address.";
    }
    enum star-group {
      value "2";
      description
        "Wildcard only for source address.";
    }
    enum source-star {
      value "3";
      description
        "Wildcard only for group address.";
    }
  }
  default "source-group";
  description
    "I-PMSI switching to S-PMSI mode for private net
    wildcard mode, which including (*,*), (*,G), (S,*),
    (S,G) four modes.";
}
```

# Next Step

- WG Adoption
- Welcome more vendors and carriers involved
- More comments