MVPN YANG Model

draft-ietf-bess-mvpn-yang-01

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Status

• Updated with version 01 since WG adoption
• Updated mainly by adding new tunnel type “bier”
Both IPv4 and IPv6 branches in a two-level hierarchy: instance level and PMSI tunnel level
• Define a new type named p-tunnel for tunnel type referenced by RFC6513 and
bier
typedef p-tunnel {
    type enumeration {
        enum no-tunnel-present {
            value 0;
            description "No tunnel information present";
        }
        enum rsvp-te-p2mp {
            value 1;
            description "RSVP TE P2MP tunnel";
        }
        enum mldp-p2mp {
            value 2;
            description "MLDP P2MP tunnel";
        }
        enum pim-ssm {
            value 3;
            description "PIM SSM tree in public net";
        }
        enum pim-sm {
            value 4;
            description "PIM SM tree in public net";
        }
        enum bidir-pim {
            value 5;
            description "BIDIR-PIM tree in public net";
        }
        enum ingress-replication {
            value 6;
            description "Ingress Replication p2p tunnel.";
        }
        enum mldp-mp2mp {
            value 7;
            description "MLDP MP2MP tunnel";
        }
        enum bier {
            value 11;
            description "bier underlay";
        }
    }
}
description "Provider tunnel type definition.";
Updating Information-2

• Add bier tunnel attributes for the new tunnel type “bier” configuration and operational state

Configuration

```yaml
case bier {
  description "bier underlay";
  leaf inclusive-sub-domain-id {
    type uint8;
    description "Subdomain ID of bier.";
  }
  leaf inclusive-bitstring-length {
    type uint16 {
      range "64|128|256|512|1024|2048|4096";
    }
    description "BitString length of bier underlay.";
  }
}
```

Operational state

```yaml
case bier {
  description "bier underlay";
  leaf sub-domain-id {
    type uint8;
    description "Subdomain ID of bier.";
  }
  leaf bitstring-length {
    type uint16 {
      range "64|128|256|512|1024|2048|4096";
    }
    description "BitString length of bier underlay.";
  }
  leaf bfir-id {
    type uint16;
    description "ID of BIER sender PE of MVPN.";
  }
}
```
Updating Information-3

• Add the parameters of the new features MVPN explicit-tracking and MVPN aggregation tunnel

```yaml
leaf explicit-tracking-mode {
    if-feature mvpn-explicit-tracking;
    type enumeration {
        enum no-leaf-info-required {
            value 0;
            description "No need to track leaf information.";
        }
        enum leaf-info-required {
            value 1;
            description "Need to track leaf information.";
        }
        enum {
            value leaf-info-required-per-flow2;
            description "Need to track leaf information based on per multicast flow.";
        }
    }
    description "Tracking mode for leaf information.";
}
```

```yaml
leaf upstream-vpn-label {
    if-feature mvpn-aggregation-tunnel;
    type rt-types:mpls-label;
    config false;
    description "VPN context label for the multicast data of the VPN instance in an aggregation P-tunnel.";
}
```
Next Step

• More questions and comments are welcomed
• Prepare for yang doctor review