BGP Yang Model
draft-ietf-idr-bgp-model

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Status (-05)

- Support added for
  - Routing Management Module (RFC 8349)
  - Routing Policy Module (draft-ietf-rtgwg-policy-model)
  - RIB
  - Feature statement for ‘ttl-security’ (RFC 5082)
  - Feature statement for ’bfd’
  - BFD configuration for liveliness check
  - Collapsed to 3 modules
    - ietf-bgp
    - ietf-bgp-types
    - ietf-bgp-policy

Issue #1

- Do we need action statement for ‘clear bgp <blah>’
- There are no statistics in the module
- Clear routes
  - Global
  - Per address-family
  - Per neighbor

Issue #2

- Notifications
  - Route updates
  - Neighbor-state change

Issue #6

- Route metadata for LOC-RIB

```
|  +--ro loc-rib
        |  |  +--ro routes
        |  |    +--ro route* [prefix origin path-id]
        |  |      +--ro prefix
        |  |      |      inet:ipv4-prefix
        |  |      +--ro origin               union
        |  |      +--ro path-id              uint32
        |  |      +--ro attr-index?          leafref
        |  |      +--ro community-index?     leafref
        |  |      +--ro ext-community-index?  leafref
        |  |      +--ro last-modified?
        |  |      |      types:timeticks
        |  |      +--ro valid-route?         boolean
        |  |      +--ro invalid-reason?      identityref
        |  |      +--ro unknown-attributes
        |  |      |  +--ro unknown-attribute* [attr-type]
        |  |      |    +--ro optional?     boolean
        |  |      |    +--ro transitive?   boolean
        |  |      |    +--ro partial?      boolean
        |  |      |    +--ro extended?     boolean
        |  |      |    +--ro attr-type     uint8
        |  |      |    +--ro attr-len?     uint16
        |  |      |    +--ro attr-value?   binary
        |  |      +--ro reject-reason?       union
        |  +--ro neighbors
```

Issue #7

- BGP Standard Community Type

```
type union {
    type uint32 {
        // per RFC 1997, 0x00000000 - 0x0000FFFF and 0xFFFF0000 -
        // 0xFFFFFFFF are reserved
      range "65536..4294901759"; // 0x00010000..0xFFFEFFFF
    }
    type string {
      pattern '([0-9]+:[0-9]+)';
    }
  }
```

- BGP Extended Community Types
  - Check draft

Issue #8-17

- Placeholder for specific configuration
- Expectation that each of the YANG modules will augment the BGP base model.
  - IPv4 Unicast
  - IPv6 Unicast
  - IPv4 Labeled Unicast
  - IPv6 Labeled Unicast
  - ✓ IPv4 Unicast L3VPN
  - ✓ IPv6 Unicast L3VPN
  - ✗ IPv4 Multicast L3VPN
  - ✗ IPv6 Multicast L3VPN
  - ✗ Signaled VPLS
  - ✗ EVPN

Feedback and questions