An update to the YANG Data Model for RIB

Lixing Wang Hariharan Ananthakrishnan Mach Chen

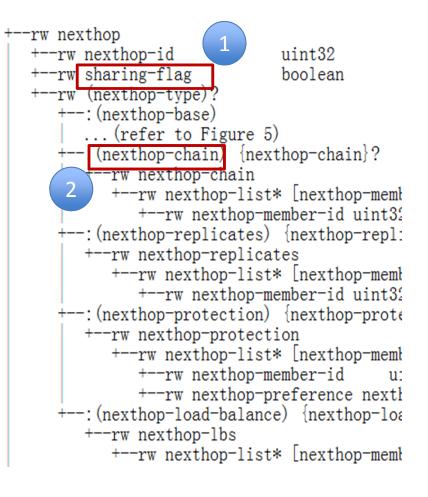
Amit Dass Sriganesh Kini Nitin Bahadur

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Nexthop updates

- Add a sharing-flag to nexthop
 - Indicate whether a nexthop can be shared by multiple routes
- Adjust nexthop structure according to info model updates
 - Move the nexthop-chain to the first level of the nexthop sub-tree
 - Which was under the nexthop-base sub-tree
 - Move the basic nexthops (e.g., interface, IP address) to the nexhtop-base sub-tree
 - To avoid that the very basic nexthops defining

through the nexthop-chain



Capability Negotiation

- Introduce the feature/if-feature for capability negotiation
 - Nexthop related features
 - feature nexthop-chain
 - feature nexthop-protection
 - feature nexthop-replicates
 - feature nexthop-load-balance
 - Tunnel encap related features
 - feature ipv4-tunnel
 - feature ipv6-tunnel
 - feature mpls-tunnel
 - feature vxlan-tunnel

RPCs

- Add the following RPCs for rib
 - operations:
 - rib-add/delete
 - To add/delete a rib to/from a routing instance;
 - route-add/update/delete
 - To add/update/delete routes to/of/from a rib;
 - nh-add/delete
 - To add/delete a nexthop to/from a rib

rpcs: ---x rib-add +--ro input +--ro rib-name string +--ro rib-family rib-family-def +--ro ip-rpf-check? boolean -ro output +--ro result boolean x rib-delete +--ro input +--ro rib-name string +--ro output +--ro result boolean -x route-add --ro input +--ro rib-name string +--ro routes . . . -ro output +--ro result boolean -x route-delete +--ro input +--ro rib-name string +--ro routes . . . ro output +--ro result boolean x route-update -ro input +--ro rib-name string +--ro (match-conditions)? . . . -ro output +--ro result boolean -x nh-add --ro input +--ro rib-name string +--ro nexthop-id uint32 +--ro sharing-flag boolean

Editorial changes

• Made a lot of editorial changes to make it pass

through the Yang validate tool check.

Next step

- Submit version-03 to address the MPLS tunnel encap issues (draft is ready)
- Ask for more review and address the comments when received.
- The authors believe that the upcoming version-03 is almost ready for WG last call.