An update to the YANG Data Model for RIB

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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 nexthop-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 arib;
  - nh-add/delete
    - To add/delete a nexthop to/from a rib
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.