A YANG Data Data Model for Routing Management

`draft-ietf-netmod-routing-cfg-10`

Ladislav Lhotka
⟨*lhotka@nic.cz*⟩

1 August 2013

Changes since -09

- Separate subtree for state data: `/routing-state`.
- New feature: `user-defined-routing-tables`.
- New terms: *system-controlled* and *user-controlled* list entries.
- New grouping: `router-id`.
- *main routing table* renamed to *default routing table*.

Separate Subtree for State Data

Analogical to the approach of *interfaces-cfg*.

Some parameters appear in two instances: operational state data and configuration. The data models become more verbose but many parameters do have this dual character.

It is necessary unless the operational value can only be changed via NETCONF (cf. `/proc` filesystem in Linux).

A server implementation may provide *system-controlled* list entries, such as routing tables, under `/routing-state`.

Certain Little Rules in YANG cause problems: leafrefs in configuration cannot point to operational state data.

Two top-level nodes per module (`/routing` and `/routing-state`) violate the guideline in sec. 4.9 of RFC 6087.

Feature `user-defined-routing-tables`

Requested in an earlier review (Jeff Lange).

This feature enables *user-controlled* entries in the routing table list, including the related infrastructure (route filters, routing protocols connected to non-default routing tables).

Without this feature, much of the *configuration* complexity goes away.

Status

There are no open issues (but also no reviews of the last version).