I2RS Topology WG LC Comments

Sue Hares

Major

- Security considerations need enhancement
  - section 3.4 of RFC6087 which points to the template:
  - http://trac.tools.ietf.org/area/ops/trac/wiki/yang-security-guidelines
  - Reference
- The IANA considerations section is missing. You need to do IANA registrations of the YANG module name and the namespace URN.
- RFC 2119 terms are used but not 'imported'.

- - I do not really understand why RFC1195, RFC2328, and RFC3209 are
- normative references. Even RFC6241 and RFC7223 may not be normative.
- Well, RFC6241 is not cited at all so it should be removed anyway
- (ah, bad for my h-index).

Error corrections

- network.yang /network-topology.yang to
  - ietf-network.yang
  - ietf-network-topology.yang.
- No copyright
- RFC editors:
  - remove I-D names into reference clauses
  - Insert instructions for the RFC editor
- Replace 'The identifier may be opaque’ with real values
- RFC references are wrong
  - Reference 6021 has been obsoleted by RFC 6991.
  - Reference 6241 is cited but not in the references section.
- Fix ID-nits

Questions (Juergen)

- RFC references
  - I do not really understand why RFC1195, RFC2328, and RFC3209 are normative references. Even RFC6241 and RFC7223 may not be normative.
  - Well, RFC6241 is not cited at all so it should be removed anyway

- Why not current config methodology
  - /networks/network* - config true
  - /networks-state/network* - config false

  Note:

  Section 3.5 describes this approach in the 3rd paragraph and states "As most data is defined in those groupings, the amount of additional definitions required will be limited." and there are no strong reasons given why this approach has not been followed.

Other questions

- What happens in your model if a user-defined network has a reference to a server-provided network, and the sever decides to remove its network? I see no special text in your document about this case.

TEAS issues (1)

I2RS Generic Network Topology Model (draft-ietf-yang-network-topo)

1. Some groupings in ietf-network.yang and ietf-network-topology.yang cannot be used in augmenting module because of missing name spaces, such as “path "/network/network-id" at line 42 of ietf-network.yang.
   Solution: Proposed fixes have been sent to Alex to verify.
2. “leaf network-ref” in ietf-network-topology.yang:169, 220, is causing pyang validation errors.
   Solution: Alex will check the errors.

3. Can the group of schedule attributes be moved from ietf-te-topology.yang to ietf-network-topology.yang?
   - Solution: We agreed to keep them in ietf-te-topology.yang.
   - Why: The reason is that the schedule stuff, while generic / non-specific to any specific topology, is not “common”, i.e. does not apply to all topologies/ every instantiation of the model. The goal is to have ietf-network-topology refer to the stuff that is truly common.

TEAS issues (1)

I2RS Generic Network Topology Model (draft-ietf-yang-network-topo)

4. How to support state branch in augmenting module?
   - Solution: Keep base model ietf-network-topology.yang as is. In the augmenting module, for each entity like topology, node and link, create a config container for configuration attributes and a state container for operational state attributes.
   - Why: There is no operational data defined. The server-provided attributed guides whether network topology information is populated by the server or by the client application, but the information is the same – this not the config vs oper data (read: stats) separation. To add stats, you should provide an additional subtree/branch as applicable when you are augmenting.
5. Should “server-provided” flag be used to block user operation on read-only entities?
   - Solution: Keep base model ietf-network-topology.yang as is. TE topology will use other means to achieve such a purpose.

TEAS issues (1)

I2RS Generic Network Topology Model (draft-ietf-yang-network-topo)

6. Should I2RS Generic Network Topology model have a top-level container? The benefit of doing so is to provide an augmentation target node to define attributes global to all networks.
   - Solution: I2RS Generic Network Topology module authors will consider making "/networks" as the top level container.
   - [Alex: Why: I'll let Xufeng respond to that one.
     - We did not have a top-level container because it keeps paths shorter (one less level in the hierarchy) and because if you wanted to insert something at the "top level", you could always do it in parallel. I still think this is the design that's preferable.
     - That said, having a top-level container may not really hurt. There were concerns regarding the ramification to existing implementations of the model (notably, Open Daylight) if we were to add it but it seems the fallout would be manageable.
   - ***This is for both future-proofness and current requirement. To allow operator easily configure TE topology attributes, we are defining templates that can be applied to all networks.***

TEAS (2)

L3 Topology Model (draft-ietf-i2rs-yang-l3-topology)

- L3 Topology Model should have references to TE Topology model, so that the related TE information can be properly retrieved, when L3 topology and TE topology are congruent.

- Solution: L3 Topology Model authors will need to update the model and draft to include these.

L2 Topology Model (draft-ietf-i2rs-yang-l2-topology)

- L2 Topology Model should have references to TE Topology model, so that the related TE information can be properly retrieved, when L2 topology and TE topology are congruent.

- Solution: This needs to be discussed with L2 Topology Model authors.
- L2 Authors:
  - Currently in the L2 topology model there is one leaf "tp-state" which is state data. We can remove it first before we reach some agreement on how to introduce operational/state information to topology models.
  - Besides the approach Juergen suggested, do we also need to consider the approach proposed by openconfig-opstate?