YANGsters Weekly Telephone Conference

Date/Time:

2020-03-03 (week 10)

10 a.m. – 11 a.m. (Eastern Time)

Participants:

- Scott Mansfield (Ericsson)
- Stephan Kehrer (Hirschmann)
- Don Fedyk (LabN Consulting)
- Marc Holness (Ciena)
- Mark Ellison (Independent)
- Paul Congdon (Huawei)
- Johannes Specht (DUE)
- William Zhao (Siemens AG)

Topics:

- IPR Call
    - Call for essential patents was made with no response
- Agenda bash
    - Use of Alternate Conference Tool (Webex)
        - Action: Follow-up with Glenn
    - Update from IEEE-IETF meeting
        - IEEE 802f
        - Scott and Marc had a meeting
        - Action: Scott to produce a presentation on issues/way forward
    - Categorize Maintenance Issues
        - http://www.ieee802.org/1/files/public/docs2019/maint-specht-yang-comments-0919-v01.pdf
    - AoB
        - At the IETF Meeting there will be no coordination meeting with IEEE
        - Next meeting will be 10 March 2020 at 10 am Eastern time
            - WARNING: US goes to Daylight Savings Time on 8 March. So the time for Europe and China will be an hour earlier than usual. Europe changes 29 March. China will remain at +12 from the US/Canada Eastern time zone
            - After 8 March, US/Canada (EDT) will be UTC – 4 until the fall
            - After 29 March, Central Europe (CEST) will be UTC + 2 until the fall

Categorize Maintenance Issues:

Review of maint-spect-yang-comments-0919-v01.pdf

References:

- http://www.ieee802.org/1/files/public/docs2019/maint-specht-yang-comments-0919-v01.pdf
- http://www.ieee802.org/1/files/public/docs2020/yangsters-smansfield-meeting-w50-minutes-1219-v02.pdf
- http://www.ieee802.org/1/files/public/docs2020/yangsters-smansfield-meeting-w2-minutes-0120-v01.pdf
- http://www.ieee802.org/1/files/public/docs2020/yangsters-smansfield-meeting-w3-minutes-0120-v01.pdf
- http://www.ieee802.org/1/files/public/docs2020/yangsters-smansfield-meeting-w4-minutes-0120-v01.pdf

Items for Maintenance

- Bad Reference category
    - Determine level of reference needed in the YANG reference field (as deep as possible)
    - Fix broken reference (#1a from spreadsheet)
- Config vs State Data
    - #1b: list component: name, id, type, address should be config false
- Name leaf
    - #2: there is no “name” attribute in the 802.1Q-2018 for components (12.3 and 12.4.1.5)
    - The key should be “id”
    - The component list itself should be state data
    - Action Item: Discuss this with Marc
- Add the YANG 1.1 Directive

Items for Guidelines

- Boiler plate for draft YANG modules
    - “This YANG module is part of an ongoing standardization project and does not represent a formally sanctioned YANG module of IEEE. Therefore, this YANG module will most likely change in incompatible ways from its current revision to the formally published YANG module for <<Insert module here>>.”
- YANG 1.1 is to be used for IEEE 802.1 YANG modules
- For References go as deep as possible

Items for New Projects:

- TBD

YANG Doctors Support:

- List size
    - Issue is about keeping a leaf that contains the count of elements in a list leaf. The consensus from the YANG Doctors seems to indicate that returning the list and counting the list is better than trying to keep another leaf that contains the current count.

- Jürgen Schönwälder: Looking at this from an NMDA perspective, the my-list-size leaf can only report correctly the size of my-list in the <operational> datastore, i.e., the applied config. The my-list that exists in lets say the <running> datastore may have more or fewer entries. For configuration datastores, I would rather not have such size leafs. For the operation state datastore, they are easy to do and I would define the requirements where the size leaf is defined, i.e., the YANG description statement. Note that the operational state datastore should return the true state of the device, i.e., YANG must statements would not help you much since there is no configuration change operation that can be rejected due to a must violation.
- Martin Bjorklund: Document the semantics in clear prose. So the developer can implement.
- Rob Wilton: I think that the number of list entries is implicit by counting the configured entries.

- XPath validation
  - Current method uses YUMA123
  - Confd has xpath tracing
  - Issue is that in order to valid the XPath is correct, need to instantiate the model and run some test cases
  - Action Item: Create an example of automating the testing.
  - <Kent Watson response>
    1) validate the YANG module(s) and 2) validate as many instance documents as it takes to have near 100% coverage; and doing both is these things with as many validation tools as possible.

    I do this myself for all my models, though I only ave access to `yanglint` and `yangson`. For drafts, my Makefiles do this for each build (pro-tip: the time setting up the automation pays for itself in the long run).

    A couple additional comments:

    1) `yangson` has an ability to output test-coverage statistics per https://github.com/CZ-NIC/yangson/issues/13.

    2) testing against multiple implementation has two benefits: a) some implementation catch things others don't and b) sometimes inconsistencies arise that resolve by either i) one implementation being improved or ii) discovery of a clarification-issue with YANG (RFC 7950). Example open clarification issues include how NP-containers and implicit-case statements are handled. My modules are now constructed in such a way to be behaviorally-correct across a greater set of tools (e.g., avoid implicit-case statements, always use a presence-container if a descendent contains a "must" statement, etc.)
    </Kent Watson response>
  - Yangson
    - https://pypi.org/project/yangson/ (source)
      - Useful for finding the examples
    - https://yangson.labs.nic.cz/index.html (Doc)
    - Sphinx http://www.sphinx-doc.org/en/master/usage/installation.html

    - Examples from Yangson show that import is supported so this should work for testing.
- How to handle managed objects that can return a value to indicate that it is not used.
    - Related to mandatory true
    -