

YANG Next

NETMOD WG
IETF 98 (Chicago)

The Start of a Discussion

- Primary goal is to raise awareness of topic within the WG
- It's not necessary that we act on this now.

What is YANG Next?

- The next version of YANG (1.2 or 2.0?)
- A GitHub repo whose issue tracker is being used to collect ideas for the next version of YANG (<https://github.com/netmod-wg/yang-next/issues>).

Words of Caution

Starting YANG Next so soon could destabilize YANG.

Maybe better to just work on some standalone extension drafts *(and leave refactoring effort for another day!)*

19 Suggestions Collected So Far

(<https://github.com/netmod-wg/yang-next/issues>)

- Allow if-feature-stmt inside deviation-stmt
- Allow prefix statement to be optional
- **Add a "map" statement**
- Use namespace urn:yang:<module-name>
- Provide a correct ABNF for YANG strings
- Support modeling errors and other mount-points
- **Incorporate/merge RESTCONF's artifact extension (e.g. rc:yang-data)**
- **Add an "inactive" metadata annotation**
- **Move normative XML encoding rules into its own RFC**
- **Move NETCONF-specific sections to NETCONF WG documents**
- **Remove normative references to RFC 6241**
- **Modify usage examples to be less NETCONF focused**
- Allow deviations to modify "when" statements
- **Incorporate/merge RFC 7952 (yang-metadata)**
- Allow when in action
- **Replace 'encoding' with 'representation'?**
- **Add a templating mechanism?**
- YANG canonical integer format
- Add explicit module version-stmt

Those in red
are significant
features.

Those in blue
are refactoring
oriented.

AFAICT, none of the suggestions collected
so far would require breaking backwards-
compatibility.

Refactoring, why bother?

- People are asking questions
 - *why is YANG seemingly NETCONF specific?*
 - *why is YANG seemingly XML specific?*
- And periodic housecleaning is good.

Refactoring for refactoring sake doesn't seem worth it

- piggy-backing on a bis created for another purpose is easier to justify...

Priorities (per our AD)

- **Primary Near-term Goal:**
 - Revised Datastores and Schema Mount
 - Including the NETCONF parts
- **Distractions:**
 - Pretty much every other draft the WG works on (including YANG Next!)

but we also need to consider *the NETCONF connection...* (next slide)

The NETCONF Connection

DISCLAIMER: NETCONF discussion SHOULD be deferred to the NETCONF session, but...

- There is a very real chance that NETCONF WG will decide to do a 6241bis in order to support revised-datastores.
- If the NETCONF WG does a 6241bis, it would make sense to take the opportunity to factor text out of RFC 7950.
- Would this necessitate a 7950bis?

Fun Facts

- RFC 6020 : released October 2010
 - YANG 1.1 : started March 2014
 - RFC 7950: released August 2016
- } ~3.5 years
- } ~2.5 years

Extrapolating:

- 2.5 years from now -----> Aug 2019

Thoughts, Comments, Concerns?

Options:

- Defer for now
 - Progress extensions where there is sufficient interest
- Start collecting items for 7950bis with set limits
- Wait to see what the NETCONF WG decides
- ???