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 blue are refactoring oriented.

Those in red are significant features.

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)*
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

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
- ???