Revision Management

Scott Mansfield

Ericsson

Revision Management

- Description of the problem with revision management for YANG
  - Prior discussion summary
    - Latest version uploaded is: http://www.ieee802.org/1/files/public/docs2019/new-specht-yang-locations-0319-v06.pdf
- Examples
- Suggested Way Forward

Revisions

- IEEE is working on many YANG projects in parallel
- Some of those projects are modifying common files
- In order to avoid conflicts during development of drafts
  - Each active project has its own folder
  - Common files being modified are copied into the active projects folder (latest published version if one exists)

Process When Project Completes

- The editor (or someone from YANGsters) pulls the YANG from the published standard
- If there is a module with the same name, the existing module is renamed to include the revision date of that module.
- The new (or revised) module is placed in the proper published folder here: https://github.com/YangModels/yang/tree/master/standard/ieee/published
  - 802 for 802 wide applicable YANG
  - 802.1 for 802.1 YANG etc…

Bottom Line

- For IEEE YANG files in the repository

- The latest revision will be in a file without a revision number
- The previous versions will have a revision date in the file name

- What could go wrong?

What could go wrong?

- For example:
  - Say there are two published modules
    - modules: ABC and XYZ
    - Also say: module XYZ imports module ABC.
  - Project FooBar creates module MNO, but also modifies ABC.
  - When FooBar finishes and the standard is approved, module MNO is placed in published
    - The current ABC in published is renamed to ABC@2019-04-01 and the new ABC is placed in published
  - It is possible that module XYZ could have compile errors depending on the changes made to ABC
- Suggestion:
  - Don't just check if your project compiles, check to see if the change will cause a compile error in any published YANG

What the IETF Does

- In the YANG repository github repository:
  - https://github.com/YangModels/yang/tree/master/standard/ietf/RFC
    - YANG extracted from RFCs.
  - All published YANG has the revision date as part of the file name (ex. ietf-interfaces@2018-02-20.yang)
  - Within the repository there are symbolic links to the latest version
    - For example ietf-interfaces.yang is a symbolic link to ietf-interfaces@2018-02-20.yang
- Note, this doesn't fix the issue from the previous slide
- See
  - https://tools.ietf.org/html/draft-ietf-netmod-yang-versioning-reqs-02
  - https://tools.ietf.org/html/draft-ietf-netmod-yang-module-versioning-00

What to do

- Continue with current IEEE process for placing YANG In the repository and on the IEEE grouper
- Follow the IETF YANG module versioning work
  - Adjust IEEE process as recommendations become clearer