Summary

• New uses cases based on operator feedback
• YANG Doctor review to improve structure
• New metadata
  • semantic-version
  • derived-semantic-version
  • dependencies and dependents
  • belongs-to
  • tree-type
• Integration between DataTrack and YANG Catalog
• Module exploration and script generation
New Structure

Module Sub-tree

Vendor Sub-tree
New Use Cases

- Given a module, compare its semantic version over multiple revisions to understand what types of changes (e.g., backward-incompatible changes) have been made.
- Do the same given a vendor, platform, software release for all modules.
- Provide a comprehensive store for metadata from which to drive tools.
- Illustrate whether or not modules are NMDA-compliant.
Tracking Module Changes

Derived-semantic-version is determined using:

1. Order all modules of the same name by revision from oldest to newest.
2. If module A, revision N+1 has failed compilation, bump its derived semantic MAJOR version.
3. Else, run "pyang --check-update-from" on module A, revision N and revision N+1 to see if backward-incompatible changes exist.
4. If backward-incompatible changes exist, bump module A, revision N+1's derived MAJOR semantic version.
5. If no backward-incompatible changes exist, compare the pyang trees of module A, revision N and revision N+1.
6. If there are structural differences (e.g., new nodes), bump module A, revision N+1's derived MINOR semantic version.
7. If no structural differences exist, bump module A, revision N+1's derived PATCH semantic version.
Semantic Version Diffs

<table>
<thead>
<tr>
<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0.0</td>
<td>The Catalog can provide links to diff the module’s tree and full structure.</td>
</tr>
<tr>
<td>2.0.0</td>
<td></td>
</tr>
</tbody>
</table>
Tracking Dependencies and Dependents
Checking for NMDA-compatibility
Integration of YANG Catalog with DataTracker

YANG module for yangcatalog.org
draft-clacla-netmod-model-catalog-02

- Status
- IESG evaluation record
- IESG writeups
- Email expansions
- History

Versions
- 00
- 01
- 02

draft-clacla-netmod-model-catalog
- Jun-2017
- Aug-2017
- Oct-2017

Document
- Type: Active Internet-Draft (individual)
- Last updated: 2017-10-02
- Stream: (None)
- Intended RFC status: (None)

Formats
- plain text
- xml
- pdf
- html
- bibtex

Additional URLs
- Yang catalog entry for yang-catalog@2017-09-26.yang
- Yang impact analysis for draft-clacla-netmod-model-catalog

Module Details for yang-catalog@2017-09-26/ietf

Property Name: Property Value
- name: yang-catalog
- release: 2017-09-26
- organization: IETF

YANG Impact Graph for Module(s): yang-catalog

Graph Options
- Highlight All
- Element Colors
- Risk Colors
- Maturity: A/R
- Maturity: M/D
- Maturity: COMPILED FAILED
- Maturity: Bortwick to Notification

Modules:
- yang-catalog

Generate
- Include Related Standards
- Include Sub-modules
- Show Graph Directions
- Dependencies Only

Export
YDK Integration With Yang Suite
Next Steps

• Metadata is being added to provide per-module YANG tree output
• Tracking for draft module expiry
• Stemming from draft-clacla-netmod-yang-model-update, metadata to catalog release and feature bundles (Andy mentioned bundling last time as well)

• **Call to Action for other SDOs and vendors:** Upload modules to GitHub and use the “contribute” link to publish metadata to the Catalog

• Contribute to the Catalog ➔ [https://yangcatalog.org/contribute.php](https://yangcatalog.org/contribute.php)
• Updates about the Catalog ➔ [announce@yangcatalog.org](mailto:announce@yangcatalog.org)