

NETMOD YANG Semver Update

NETMOD WG

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Presenting on behalf of the weekly versioning call attendees:
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IETF 119

Recap

Since IETF118, a number of changes were made to YANG Semver. Those changes were based on discussions and rough consensus in the following forums

1) WG meeting at IETF 118

2) Mailing list e.g.

https://mailarchive.ietf.org/arch/msg/netmod/yT7uVKLNs6UAH3IC_M1QUcbkyek/

<https://mailarchive.ietf.org/arch/msg/netmod/aZHEllrln9gd8KTUh0EaqsaAvSc/>

3) Weekly YANG Versioning meetings

4) Hedgedoc polls

Main changes made since IETF118

Moved from version -12 to -14

When some YANG Library augmentations were moved from the Module Versioning draft to the YANG Semver draft, some IANA considerations got missed in rev -13.

We'd recommend people view the diff from -12 to -14 to get the full scope of the changes (see <https://author-tools.ietf.org/iddiff?url1=draft-ietf-netmod-yang-semver-12&url2=draft-ietf-netmod-yang-semver-14&difftype=--html>)

rev:revision-label renamed to ys:version

- With the removal of the revision-label-scheme and revision-label as a generic concept from Module Versioning, YANG Semver is now the only versioning scheme being proposed
- Simply call the extension 'version'
- The namespace for YANG Semver has been renamed "ys". So the extension is ys:version

Extension *recommended-min-version* (import statement)

- Extension *recommended-min-version* mirrors *recommended-min-date* from Module Versioning
- Facilitates import by YANG Semver
- Multiple *recommended-min-version* statements are permitted in an import
- Rules for satisfying the *recommended-min-version* statement (no more searching through the revision statement history for a match):
 1. Has the same MAJOR and MINOR version numbers and same or greater PATCH number.
 2. Has the same MAJOR version number and greater MINOR number. In this case the PATCH number is ignored.
 3. Has a greater MAJOR version number. In this case MINOR and PATCH numbers are ignored.Unless the MAJOR + MINOR + PATCH numbers match, the "_compatible" and "_non_compatible" version modifiers are ignored. But if X.Y.Z match, then the modifiers must also match exactly.

Extension *recommended-min-version* (import statement)

- Example

```
import example-module {  
  ys:recommended-min-version 3.1.0;  
}
```

Satisfied by:

- 3.1.1 (by rule 1)
- 3.2.0 (by rule 2)
- 4.1.2 (by rule 3)
- 3.1.1_compatible (by rule 1, noting that modifiers are ignored)
- 3.1.2_non_compatible (by rule 1, noting that modifiers are ignored)

Not satisfied by:

- 3.1.0_compatible
- 3.1.0_non_compatible

YANG Library augmented with `ys:version`

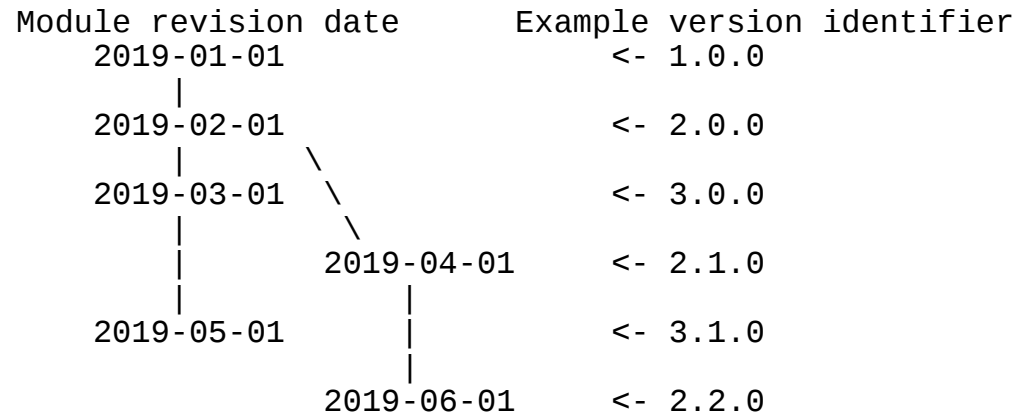
- Module Versioning was previously augmenting YANG Library with `rev:revision-label` (for module and submodule lists). This was moved to YANG Semver (as `ys:version`):

```
module: ietf-yang-library-semver

augment /yanglib:yang-library/yanglib:module-set/yanglib:module:
  +--ro version?  ys:version
augment /yanglib:yang-library/yanglib:module-set/yanglib:module
  /yanglib:submodule:
  +--ro version?  ys:version
augment /yanglib:yang-library/yanglib:module-set
  /yanglib:import-only-module:
  +--ro version?  ys:version
augment /yanglib:yang-library/yanglib:module-set
  /yanglib:import-only-module/yanglib:submodule:
  +--ro version?  ys:version
```


Basic illustrative example added

- A figure has been added in both Module Versioning and early-on in YANG Semver to illustrate how YANG Semver works with branching.



Recap

Recap of changes

- rev:revision-label renamed to ys:version
- recommended-min-version created to mirror recommended-min-date. Compares the version labels without any walking through the revision history.
- Module Versioning revision-label augmentation of YANG Library replaced with YANG Semver ys:version augmentation
- Other minor edits and improvements

Next Steps

- Plan to request another WGLC after IETF 119