

Guidelines for Versioning

YANGsters

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Versioning Work in IETF

- <https://www.ietf.org/archive/id/draft-ietf-netmod-yang-module-versioning-07.html>
 - Extensions to the versioning rules
 - Rules identifying backward / non-backward compatible changes
- <https://www.ietf.org/archive/id/draft-ietf-netmod-yang-semver-08.html>
 - Provides rules for version numbering based on semantic changes
- <https://www.ietf.org/archive/id/draft-ietf-netmod-yang-packages-03.html>
 - Packages

Guidelines and Suggestions

- YANGsters should promote the use of the relaxed backward-compatibility rules found in draft-ietf-netmod-yang-module-versioning
- YANGsters should discuss whether or not the versioning scheme described in draft-ietf-netmod-yang-semver is fit for purpose
- YANGsters should discuss the use of Package labels

Versioning Draft

- YANGsters should adopt the changes to the versioning work supporting both:
 - Extensions to the versioning rules
 - Rules identifying backward / non-backward compatible changes
- YANGsters to evaluate tooling changes that are needed
 - Ensure pyang and yanglint validation tools support the extensions

SemVer Draft

- Guidelines in draft (version X.Y.Z_COMPAT)
 - 'X' is the MAJOR version. Changes in the MAJOR version number indicate changes that are non-backwards-compatible to versions with a lower MAJOR version number.
 - 'Y' is the MINOR version. Changes in the MINOR version number indicate changes that are backwards-compatible to versions with the same MAJOR version number, but a lower MINOR version number and no "_compatible" or "_non_compatible" modifier.
 - 'Z' is the PATCH version.
 - _COMPAT: (_compatible or _non_compatible)
- The guideline that says the change to MAJOR version indicates non-backwards-compatible with lower MAJOR versions may not be true as roll-ups of standards are done.
- Suggested guidelines from IEEE 802.1 perspective
 - A MAJOR version is increased when 802.1Q is rev'ed.
 - A MINOR version is increased when an amendment is created
 - A PATCH is increased when a maintenance update is completed
 - The BC vs. NBC can be noted by using the _COMPAT part of the pattern (if desired)

Packages

- YANGsters should consider creating packages to make identifying related modules easier
- For example
 - TSN package
 - Telecoms package
 - Industrial package
- Packages are hierarchical, so it is possible to build a schema using multiple packages

Summary and Way Forward

- Create simple guidelines for version numbering
- Create a clear set of guidelines for updating the revision statement text
- Since the YANG “of record” is in the published standard, ensure the dates/revision/version/package labels are aligned before final publication