Guidelines for Versioning

YANGsters
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Versioning Work in IETF

  - 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](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](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