YANG Usage Guidelines

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NETMOD WG
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v0.1

Agenda

- Review Issues Raised on Mailing List
- Next Steps

Auto Numbering

- Should IETF modules explicitly define all value (for enum) and position (for bit) values instead of using the auto-numbering feature in YANG?

    - Corner cases like auto-generated enumeration type from an IANA registry not helped by this convention (need to know previous version to be sure no numbering has changed)

Example Modules

- Conventions needed for defining example modules
    - Module extraction
    - Module header (namespace, contact, etc.)
    - Copyright
    - pyang –ietf validation

Conditional Nodes

- Guideline for using if-feature and when-stmt on key leaf nodes

  - Need rule in YANG that a key leaf MUST NOT have different existence conditions than its parent

  - YANG Guideline could forbid this usage

    - At best, the statements on the key leaf will be redundant
      - e.g. duplicate if-feature in the parent list and key leaf

Augment w/ Mandatory Nodes

- Need agreement on the degree of backward compatibility needed

  – Old client/new server scenario

- Could create mandatory nodes that are protected somehow (old client would never try the new conditional nodes; condition false)

  – New case to existing choice

  – When (new identity used)

  – If-feature (new feature) !! this does not work !!

Augment w/ Mandatory Nodes (2)

- Old client can read new values created by other (new) clients

  – Not considered a problem – old client can ignore the new mandatory nodes

    - Probably not true, otherwise the node being added would be optional and not mandatory

64 bit Numbers in XPath

- XPath supports 56 bit floating point numbers

  - 64 bit YANG numbers can produce incorrect results

  - Need guideline to warn designers not to use int64 and uint64 in must/when expressions

  - Need guideline to identity which decimal64 values are safe to use in must/when expressions

anyxml Usage

- Usage of anyxml as mixed mode XML (e.g., HTML) not widely supported
  - Some vendors do not support anyxml at all
  - Not realistic to insist all vendors support mixed mode anyxml

- Not much to do except warn designers that anyxml is not interoperable
  - Guideline and YANG Doctor review of anyxml usage

Next Steps

- Go through mail archives to find any missed issues

- Update draft with more examples

- Update draft with YANG 1.1 related guidelines

- Wait until YANG 1.1 is ready to start WGLC