YANG Guidelines Update

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NETMOD WG
IETF #89 London, UK

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v0.1

Agenda

- Overview of changes since RFC 6087
  - Top Level Data Nodes
  - XPath Guidelines
- Open Issues
  - YANG Tree Diagrams
  - Security Guidelines
- Next Steps

Changes Since RFC 6087

- Updated NETCONF reference from RFC 4741 to RFC 6241
- Updated NETCONF over SSH citation from RFC 4742 to RFC 6242
- Updated YANG Types reference from RFC 6021 to RFC 6991
- Updated obsolete URLs for IETF resources
- Changed top-level data node guideline
- Clarified XPath usage for a literal value representing a YANG identity
- Clarified XPath usage for a when-stmt
- Added terminology guidelines
- Added YANG tree diagram guideline

Top Level Data Nodes

- New Text replaces text suggesting only 1 top-level node

  The separation of configuration data and operational state SHOULD be
   considered carefully. It is often useful to define separate top-
  level containers for configuration and non-configuration data. There
   SHOULD only be one top-level data node defined in each YANG module
   for all configuration data nodes, if any configuration data nodes are
   defined at all. There MAY be one top-level data node defined in each
   YANG module for all non-configuration data nodes, if any non-
   configuration data nodes are defined at all.

- Intent is at most 1 config and 1 non-config top-level node

XPath Guidelines

- New guidelines added

  - XPath expressions that contain a literal value representing a YANG identity SHOULD always include the declared prefix of the module where the identity is defined.

  - XPath expressions for 'when' statements MUST NOT reference the context node or any descendant nodes of the context node.

XPath Guidelines (2)

- Suggested guideline change; Current text:
  - The 'preceding-sibling' and 'following-sibling' axes SHOULD NOT be used.

- Lada would like this restriction removed. Perhaps a compromise solution:
  - The 'preceding-sibling' and 'following-sibling' axes MAY be used if the expression does not rely on XML document order of leaf-list or list instances.

YANG Tree Diagrams

- Guideline added to include tree diagrams in RFCs with YANG modules

  - Is a separate RFC needed to contain the tree diagram terminology text, so it is not cut-and-pasted into each RFC? (see sec. 3.2)

    - Reference to this RFC would be cited instead.

- Are tree diagrams at all normative? (No.)

  - Is any text needed to boiler-plate to declare that the tree diagrams are not normative?

Security Guidelines

- SECDIR review suggested some edits to the security section boilerplate.

    - Are these changes going to be made to the online text? If so, then security boilerplate will be updated to match

Next Steps

- There has been 1 offline review received

    - Draft needs more review

- Add missing guidelines, fix bugs, etc.

- Should be ready soon for quick WGLC