YANG Schema Mount

draft-ietf-schema-mount-08

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Issues Arising from WGLC

- Prefix/namespace declaration for parent references

- Support for NMDA

- NACM considerations

- Integration of YANG library and schema mount specification

Prefix/namespace declaration

Parent references are specified with XPath expressions, so we need to be able to declare namespace prefixes. Current solution:

```
+--ro schema-mounts
   +--ro namespace* [prefix]
   |  +--ro prefix    yang:yang-identifier
   |  +--ro uri       inet:uri
```

Options:

1. no change

2. replace `uri` with module name

3. use *both* URI and module name

Proposal: 1

NMDA Support

The `use-schema` method should just work – it is an augment with externally specified target node.

The `inline` method poses some problems because the mounted schema for all datastores is specified by *instance* data (YANG library) present only in ⟨operational⟩. What if it is **not** present?

Example: A mount point instance in ⟨intended⟩ is a part of pre-provisioned configuration. But then it doesn't exist in ⟨operational⟩ and we don't have the schema for ⟨intended⟩ (i.e. it cannot be validated).

If the `inline` method is used, it has to be ensured that this cannot happen.

NACM Considerations

With the `use-schema` method, the *ietf-netconf-acm* should be only in the top-level schema.

For the `inline` method, it may be also a part of the mounted schema (e.g. in split management). Reasonable rules:

- Top-level NACM rules apply to the host management session (they may cover instances in mounted tree).

- NACM rules in the mounted tree apply to the LNE session. They cannot refer to the parent data tree (not even via parent references).

Options:

1. Specify such rules in this document

2. Address it in the NACM document.

Proposal: 1

YANG Library & Schema Mount Integration

YANG library and `schema-mounts` data both describe how YANG modules are combined in the overall schema. It makes a lot of sense to integrate them – the result could be simpler and easier to understand.

Two concrete proposals:

- https://github.com/netmod-wg/schema-mount/wiki/YANG-Library-with-Datastores-and-Schema-Mount
- https://www.ietf.org/mail-archive/web/netconf/current/msg13646.html

This would take some time, but it is really fundamental.

Proposed Re-Organization

Document 1: a small meta-modelling language (meta = granularity of entire YANG modules) to specify

- a collection of YANG modules (YANG library),

- how the modules are combined into the overall schema (`use-schema` struc-ture)

Document 2: the `inline` case of schema mount, possibly covering other as-pects such as

- use cases (to fit into NMDA)

- NACM,

- configuration and provisioning of mounted data.