Defining and Using Metadata with YANG

draft-ietf-netmod-yang-metadata-01

Ladislav Lhotka (lhotka@nic.cz)

21 July 2015

Changes since IETF 92

- JSON encoding of annotations attached to *anydata* instances was specified.
- 6020bis is now the normative reference instead of RFC 6020.

Current Status

WG Last Call was in June – 4 reviews.

Three open issues need to be addressed.

Proposed Changes

• Make *type* substatement mandatory.

Open Issues

- 1. Semantics of the annotation extension;
- 2. Annotations of whole lists;
- 3. Co-existence with data nodes in a YANG module.

Issue #1: annotation statement semantics

Server advertises a module containing

```
md:annotation foo { ... }
```

6020bis: If a YANG compiler does not support a particular extension, which appears in a YANG module as an unknown-statement [...], the entire unknown-statement MAY be ignored by the compiler.

This apparently means the server cannot start using annotation *foo* without further negotiation, but it may also mean that even the server needn't support *foo*.

This draft cannot fully solve this issue, it is an aspect of conformance negotiation.

Server-side conformance could be solved by making annotation a builtin statement.

Issue #2: annotations of lists

The document only supports annotations of individual (leaf-)list entries, not whole lists.

Easy to add in JSON, no satisfactory encoding in XML.

Proposal: no change.

Issue #3: co-existence with data nodes

Defined annotations are applicable to all data node instances in all modules implemented by a server. Therefore, a normal way of defining annotations should be to put one or more annotation statements into a YANG module – and nothing else.

Should this be enforced?

Options:

- A. No, just design guideline;
- B. SHOULD;
- C. MUST.

Proposal: A.