
Modeling JSON Text with YANG

draft-lhotka-netmod-yang-json-00

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Purpose

The primary aim is to enable validation of JSON text against YANG data models.

Writing JSON mapping rules for YANG directly would be difficult: XPath is not defined for JSON, ...

Instead, a 1-1 translation procedure between JSON and YANG-compatible XML is defined.

JSON text is valid iff the corresponding XML document is valid.

Translation Procedure

Bidirectional (invertible), and driven by a YANG data model.

The translation provides better results than any generic XML–JSON translator:

- YANG module names as namespace identifiers (rarely needed!),
- data types are observed,
- structure is retained (single-entry list is mapped to a JSON array),
- leaf values containing prefixes are translated (identities, instance identifiers).

Diff against draft-lhotka-yang-json-01

- New I-D identifier: draft-lhotka-netmod-yang-json-00
- The translation changes numeric formats only where necessary.
- Text corrections, clarifications, new example.

Open Issues

1. In JSON, list keys cannot be guaranteed to come first and in order – members of a JSON object are inherently unordered.
2. Translation of the contents of *anyxml* nodes should be left unspecified – it has no impact on validity.

A default translation could be similar to the translation of schema nodes, ignoring XML namespaces, attributes and mixed content.

Implementation

Both directions of the translation are implemented in the development version of *pyang*:

`http://code.google.com/p/pyang`