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# 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.

# Implementations

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

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

YumaPro uses this specification in the HTTP/REST API.