

NETCONF Data Modeling Language
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Extending YANG with Revised Types
draft-chen-netmod-yang-ext-00

Abstract

YANG - the NETCONF Data Modeling Language - supports modeling of a tree of data elements that represent the configuration and runtime status of a particular network element managed via NETCONF. This document introduces new idea which revises the ID [draft-linowski-netmod-yang-abstract-03] and clears some ambiguous concepts and descriptions.

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1. Introduction

[draft-linowski-netmod-yang-abstract-03] suggests to enhance YANG with supplementary modeling features and language abstractions with the aim to improve the model extensibility and reuse.

However, some ideas and description are not defined clearly, this memo tries to amend the concepts and gives some suggestions.

1.1. Conventions used in this document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

2. Redefining type in YANG abstract

section "2.3. instance extension statement" and "2.4. instance-list extension statement", the table of substatement list out that "type" is allowed, but "instance-type" is not listed. so it is conflict with what is wrote in section 3.2. instance-type extension statement. suggest that "instance-type" is need not defined, use "type" instead, and give description in section 2.3 and 2.4

3. Revised types in yang-abstract

3.1. Removing confusion

There exists difference between types of a list and types of the node of the list, and both types are being used in application implementation. But in YANG and yang-abstract, it is not distinguished. It will cause confusion in comprehension and implementation. So it is strongly suggested do not introduce subtree/subtype/field in list definition, that is in "draft-linowski-netmod-yang-abstract-03.txt", section "2.4. instance-list extension statement" remove choice, container, instance, instance-list, leaf, leaf-list, list in substatement table, only "type" for use a complex-type is allowed.

3.2. Result

substatement	cardinality
description	0..1
config	0..1
if-feature	0..n
mandatory	0..1
must	0..n
reference	0..1
status	0..1
type	1

Figure 1: instance's substatements

4. Management Consideration

5. Security Considerations

TBD

6. IANA Considerations

TBD

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