

YANG Data Model for DHCPv6 Configuration

draft-ietf-dhc-dhcpv6-yang-03

IETF96 Berlin

What's New since IETF94

- Support generic option formats described in RFC7227
 - *operator-option-ipv6-address*
 - *operator-option-single-flag ...*
- Use *option-set-id* to identify the configured option set
 - Under each level, there is an *option-set-id*
- Has been allocated to YANG doctor for review
 - Started from July 1st by Peter Van Horne
- Finished a basic mapping to Kea configuration
 - Produce a minimum model for Hackathon
 - Available at github: <https://github.com/sysrepo/sysrepo-plugin-kea>

Findings When Mapping to Kea

- Global level parameters / local (subnet/pool) level parameters
 - Solution: Allow parameter definition everywhere!
- Full option list and/or generic option format definition
 - Need clear text in the draft to describe the difference
 - Should we have one approach or support both?
- A logging module is required
- DHCPv6 option definition is required (new IANA & vendor-specific)

The above findings are Kea-specific but similar things exist in other implementations!

Applicability of the model to real implementations

- The YANG model has been developed without reference to any specific implementation
 - ‘Generic’ DHCP constructs/structures used
- The current model needs to be compared to the data structures/configuration/existing YANG of real implementations
- Some work is done (Kea YANG model created at Hackathon)
- Info about more implementer's structures needed for research!

What Will Be in Version 04?

- Add more text to the model descriptions
 - The current model is not readable : (
- Split model into configurable and operational sections
 - Better for the model's implementation
- Make the model slimmer, remove redundant nodes
 - E.g. inet:ipv6-prefix has already contain the prefix length
- Incorporate outcome of mapping models to real implementations

Next Steps

- Resolve comments from YANG doctor
- Continue working on the YANG interface for Kea
- Need a careful review for the option set container, Volunteer?
- Need input from vendors
- Any other comments?