YANG Data Model for DHCPv6 Configuration

draft-ietf-dhc-dhcpv6-yang-04

Y. Cui, H. Wang, L. Sun, T. Lemon, **I. Farrer**

IETF100 Singapore

What's Happened since v00 (presented at IETF94)?

- A long period of not very much!
- 01 added RFC7227 operator defined options (as agreed at IETF94)
- 02 & 03 were pretty small iterative updates
- A number of reviews have been received from:
    - YANG Doctor (Ladislv Lohtka)
    - Huawei
    - Marcin Siodelski
- v04 began incorporating these comments, but there is still a lot more to do

New in v04

- Completely re-worked the DUID construction to better match the RFC3315 definition (based on Marcin's comment)

- Enable nodes for the server/client/relay functions removed (comment from YANG Doctor review)

- Relocated the reserved addresses/prefixes to the network range level

Comments received from YANG doctor review - Overview

- Divide the 'monolithic' model into 3 separate modules for server, client and relay
  - Will really help to make this more manageable

- Improve description fields
  - Simple (but time consuming)

- Implement the option definitions as 'features' (so if-feature can be used for compatibility with different server implementations)

- Clear up definition of generic (RFC7227) user defined option types

- Many other small fix ups

Other Stuff

- As we are trying to model the entire DHCPv6 protocol in its current state, it's a monster
  - Dividing into device specific models as suggested in the YANG doctor's review will help
  - But, the server model is still huge – possibly this can be further divided by splitting out the option definitions
- Further work needed to check the option definitions against their original specifications
- Option definitions in the Server model don't currently allow for singleton/multi instances (multis need to be defined as lists)
- Interworking with other IETF yang models (e.g. ietf-interfaces)?
- As new DHCPv6 options are published frequently, there should be text on how the YANG model(s) can be maintained and extended in the future (guidelines for future DHCPv6 Option YANG models?)
- Given the size of the task, would starting an issue tracker make sense?

What next?

Since starting the work, most of the original authors have moved on and are no longer active contributors

New contributors / reviewers / implementers are needed to get the draft moving again