

YANG Data Model for DHCPv6 Configuration

draft-ietf-dhc-dhcpv6-yang-06

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What's happened since IETF100?

- Pretty much progress since v04!
- An issue tracker has started on github (thanks for Ian and DHC co-chairs)
- Two versions (v05 & v06) have been published
- Resolved most issues from
 - Ian
 - Bernie
 - Marcin Siodelski

Structural changes

- Split the monolithic model into five modules
 - server, relay, client, options, types
- Separated configuration data and state data
 - 'server/relay/client-config'
 - 'server/relay/client-state'
- Slimmed 'network-range' structure
 - 'address-pools', 'pd-pools' and 'host-reservations'
 - 'reserv-addresses' and 'reserv-prefixes' merged into 'host-reservations'
- Remodelled 'DUID' definition
 - 4 types defined in 3315bis and a 'duid-unknown' type

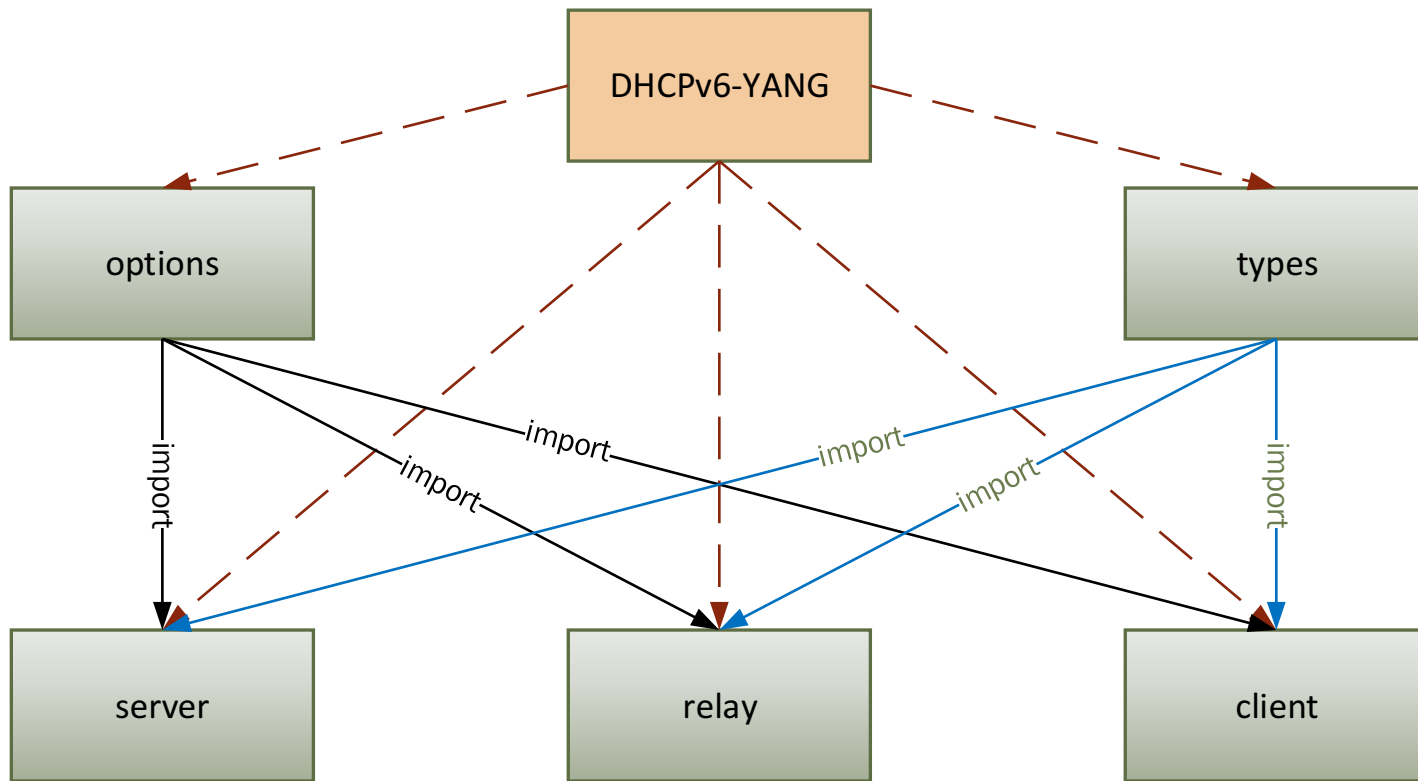
Detailed changes

- Addressed the utilization issue
 - ‘max-address-count’ & ‘allocated-address-count’
 - ‘max-pd-space-utilization’ & ‘pd-space-utilization’
- Used ‘feature’ to indicate support for each option
- Moved ‘rapid-commit’ to address/pd-pool
- Removed some unnecessary ‘boolean’ nodes
 - ‘stateless-service’, (‘pd-function’, ‘stateless-service’, ‘inherit-option-set’ – see later slide)

Added some interactions with ‘ietf-interfaces’

- interfaces-config* if: interface-ref
- Checked most modeling of options






Current Model Structure



View Tree Model

- Start at <https://datatracker.ietf.org/doc/draft-ietf-dhc-dhcpv6-yang/> and click on links in Additional URLs section

Formats

 plain text  xml  pdf  html  bibtex

Yang Validation  0 errors, 0 warnings.

Additional URLs

- [Yang catalog entry for ietf-dhcpv6-client@2018-03-04.yang](#)
- [Yang catalog entry for ietf-dhcpv6-options@2018-03-04.yang](#)
- [Yang catalog entry for ietf-dhcpv6-relay@2018-03-04.yang](#)
- [Yang catalog entry for ietf-dhcpv6-server@2018-03-04.yang](#)
- [Yang catalog entry for ietf-dhcpv6-types@2018-01-30.yang](#)
- [Yang impact analysis for draft-ietf-dhc-dhcpv6-yang](#)

Outstanding Issues

- Unconventional DUID
 - opaque values or a new 'duid-unknown' type?
- 'pd-function', 'inherit-option-set' booleans have been removed, but are they needed (possibly better enabled as features)?
- Re-location of DUID and rapid-commit
 - DUID in 'server-attributes' or options?
 - 'rapid-commit' in 'address/pd-pool' or options?

Outstanding Issues

- Serving requests from correct address/prefix pool
 - add 'client-class' under 'address/pd-pool'
 - the pool will only serve those clients that fall into this class
 - server gets to know client class from vendor class option (the way Kea does)
 - client classification too complicated (from Bernie)?
 - or do we need to define such a logic or not?

```
+--rw address-pools
|  +--rw address-pool* [pool-id]
|     |  +--rw client-class?          string
```


Next steps

- Continue to work on issues on github (hope more volunteers/contributors would fork the repo and get involved)
- Further check the correctness and completeness of option definitions
- Need input from vendors
- Any other comments/suggestions?