

# DHCPv6 refresh (RFC3315bis)

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# The plan (1 of 2)

1. Assemble editors/”design” team
2. Create dhcpv6bis mailing list
3. Create git/svn repository
4. Create issue tracker
5. Convert RFC3315 to xml
6. Convert RFC3633 to xml
7. Publish initial draft: draft-dhcwg-dhc-rfc3315bis-00
8. Pick a list of RFCs/drafts to include (almost done)

# The plan (2 of 2)

9. Submit issues into the tracker (~done)
10. Segregate issues into:
  - A) simple/trivial, apply them now
  - B) Moderate difficulty, apply after merge
  - C) Awaiting consensus (tricky, need WG feedback)
11. Deal with A tickets
12. Publish -01
13. Merge with 3633
14. Publish -02
15. Request adoption
16. Deal with B tickets
17. Discuss/deal with C tickets
18. WGLC

# Issues update

- Tracker: <http://wiki.tools.ietf.org/group/dhcv6bis/>
- 3 milestones:
  - A: easy, apply before merge: 9 tickets
  - B: moderate, apply after merge: 6 tickets
  - C: awaiting consensus (tricky/difficult ones): 25 tickets
  - 15 tickets closed
  - 82 tickets total (including closed)
- The team will deal with A, B category
- Let's discuss the fun stuff: C (solved and outstanding)

# 1. Stateful issues

Tracker issues #59 - #66: <http://wiki.tools.ietf.org/group/dhcpv6bis/ticket/59>

See draft-ietf-dhc-dhcpv6-stateful-issues-05 and its (failed) WGLC

59. Whether client should accept ADVERTISE when not all IA are offered.

60. Placement of status codes (IA vs top level)

61. Different T1/T2 timers in IA options => use the same T1/T2 value

62. Renew improvement: can client request previously refused IAs?

63. Rebind clarify: what to do when server receives empty IA?

64. Confirm: extend into other IA types

65. Release: client can release at any time

Proposed solution: please take stateful-issues WGLC seriously

## 2. Naming

Tracker issue #49: <http://wiki.tools.ietf.org/group/dhcpv6bis/ticket/49>

RFC3315 uses **client, server**

RFC3633 uses **requesting router, delegating router**

What should 3315bis use?

Chosen approach: Use both

# 3. Vendor options

Tracker issues #20: <http://wiki.tools.ietf.org/group/dhcpv6bis/ticket/20>

We should perhaps clarify how a server decides which option 17s it returns. Choices could include:

- MUST specify option 17 in ORO. If no 17 in ORO, don't return.
- Server MAY use option 16 enterprise id to restrict the set of option 17 enterprises it returns.
- Server MAY return all option 17 "configured".
- Server MAY use other information in the packet or in its configuration to determine.

Clients:

- MUST specify option 17 in the ORO.
- MAY specify option 16.
- MAY specify option 17 with any data.

# 4. Processing advertises

Tracker issue #47: <http://wiki.tools.ietf.org/group/dhcpv6bis/ticket/47>

RFC3315, 17.1.3 :

Upon receipt of one or more valid Advertise messages, the client selects one **or more** Advertise messages based upon the following criteria.

Yay for multiple provisioning domains in RFC from 2003 ☺

Proposal: Clarification that each advertise that is followed up requires a separate client state machine.



# 5. How to request nested options?

Alternative a): use top level ORO

Alternative b): include ORO in a given scope (e.g. in IA\_NA)

Proposed solution: WG preferred a). Is this still the case?

# Links

- Draft repo: <https://github.com/dhccwg/rfc3315bis>
- Mailing list:  
<https://www.ietf.org/mailman/listinfo/dhccpv6bis>
- Issue tracker: <http://tools.ietf.org/group/dhccpv6bis/>

# How can YOU help?

- Comment on issues in issue tracker, especially those in C (awaiting consensus) category
- Help push stateful-issues draft out the door (review, respond to WGLC)
- Respond to 3315bis adoption call when it starts
- Join face to face meeting in London

The design team meets this week:

Wednesday, March 5, 14:00-16:00, Praed room

Everyone welcome to join (take a look at the tracker)

Thank you

# Backup

## 2. ORO mandatory?

Tracker issue #18: <http://wiki.tools.ietf.org/group/dhcpv6bis/ticket/18>

RFC3315, 18.1.1 (request message):

The client **MUST** include an Option Request option (see section 22.7) to indicate the options the client is interested in receiving. The client **MAY** include options with data values as hints to the server about parameter values the client would like to have returned.

RFC3315, 22.7 (covers most client originated messages):

A client **MAY** include an Option Request option in a Solicit, Request, Renew, Rebind, Confirm or Information-request message to inform the server about options the client wants the server to send to the client.

Should be unified: **MAY** or **MUST**?

# 4. Singleton options

Tracker issues #83: <http://wiki.tools.ietf.org/group/dhcpv6bis/ticket/83>

draft-ietf-dhc-option-guidelines (RFC Ed queue), section 16 says:

Although [RFC3315] states that each option type MAY appear more than once, the original idea was that multiple instances are reserved for stateful options, like IA\_NA or IA\_PD. For most other options it is usually expected that they will appear at most once. Such options are called singleton options. Sadly, RFCs have often failed to clearly specify whether a given option can appear more than once or not.

Documents that define new options SHOULD state whether these options are singletons or not. Unless otherwise specified, newly defined options are considered to be singletons.

Clarify “MAY appear more than once” ?

# 6. Nested or encapsulated?

PD\_EXCLUDE option in IAPREFIX in IA\_PD. Are those...

Nested options?

Encapsulated options?

- option-guidelines (RFC-Ed queue) recommends this
- overloaded meaning with relay-forw containing other msgs

Sub-options?

- typically for options that have their own code space

RFC3315 uses “sub-options” and “encapsulated”.