

DHCPv6 and other IPv6 docs

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Motivation

- DHCPv6 spec is close to acceptance (pending one small edit)
- List of potential interactions with other IPv6 specs discussed at v6ops interim meeting
- Gathered consensus response
- One consensus response was to publish the results from v6ops and take to ipv6 WG
- Results published in **draft-droms-dhcpv6-issues-00.txt**

Purpose and Outcomes

- Accept as ipv6 WG document?
- Review results from v6ops meeting
- Are there other, similar issues?
- Does each issue require action?
- What needs to be done and who should take ownership?

Note: “SLAAC” = stateless address autoconfiguration

“SAC” = stateful autoconfiguration

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DHCP == “stateful autoconfiguration”?

- DHCP is loosely referred to (e.g., RFC2461, RFC2462) as SAC mechanism
- Does this loose reference require clarification?

v6ops consensus was that references to "stateful autoconfiguration" should be clarified to DHCP

‘M’, ‘O’ and ‘A’ bits

- ‘A’ bit set in prefix advertisement causes SLAAC, independent of ‘M’ or ‘O’ bits in RA
- ‘M’ bit set in RA causes SAC for address assignment (and implies ‘O’ bit), independent of SLAAC (1); *‘M’ bit not set gives no guidance on use of DHCP(?)*
- ‘O’ bit set in RA causes SAC for other configuration (but not address assignment); *‘O’ bit not set gives no guidance on use of DHCP?*

V6ops consensus was ‘M’ and ‘O’ bit imply “yes/no” for use of SAC

Requirement for DHCP

- Setting 'M' or 'O' bit implies use of DHCP
- An IPv6 stack includes DHCP to meet this requirement

After some discussion around utility of 'M' and 'O' bits, there was no clear consensus around requirement for implementation of DHCP

SLAAC and DHCP from same prefix

- Does current DAD specification protect against conflict among SLAAC addresses and DHCP assignment from prefix advertised with 'A' bit set?
- Should there be a recommendation against DHCP assignment from an SLAAC prefix?

DAD should prevent conflict between SLAAC and DHCP addresses

Inconsistencies between DHCP and other sources

- Preferred and valid lifetimes on advertised prefixes do not apply to addresses assigned through DHCP?
- Other inconsistencies are not fatal and are resolved by “latest information wins”
[RFC2461]

V6ops consensus was advertised lifetimes do not apply to addresses assigned through DHCP

Reserved interface identifiers

- Should there be a recommendation against assigning DHCP that use any reserved interface identifiers?

V6ops consensus: yes

DNS configuration

- Net admin can select DNS resolver autoconfiguration with 'O' bit not set and DNS resolver configuration through DHCP with 'O' bit set
- Requires stack to have DHCP for use with 'O' bit set

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