IPv6 RA M&O Bits

IPv6 Working Group

Vancouver IETF

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Goal of Presentation

- Get issues resolved and move forward with document
- Alternative is to drop work

Original Goal

- Clarify function of M&O flags in Router Advertisement
  - Work was deferred from RFC2461bis update

Current Status

- No consensus after last meeting
  - Some progress on mailing list, but issues not resolved
  - Rough consensus that current draft was trying to do too much and was expanding the scope of the problem
- Little progress since last meeting

Last Meeting

- Proposed these requirements:
  1. Ability to indicate to host that DHCP is not available
  2. Ability to get all DHCP config with single message exchange
  3. Ability to do DHCP without having to configure routers
- Only 1. seemed to be a requirement

Previously on IPv6 List

- Thomas Narten wrote to list on May 18, 2005:
  - “ I've also reviewed this document, and I am really wondering what this document is trying to achieve. It seems to me that its added a lot of text (that IMO is not really needed). In particular, I don't think either Section 6 or 7 are necessary or appropriate.

    There are really only two behaviors a client should be doing. If a client doesn't implement DHC, well, then it obviously shouldn't/can't invoke DHC. End of story. If it does implement DHC, well, it should use it. Moreover, it should never really be a "client" choice whether to invoke use DHC or not. If the sys admin has stuff available via DHC, the client should (in the SHOULD sense) be getting it and using it. Why on earth would we want to disable that via a configuration knob? ”

Narten Proposed M & O Text:

M :

1-bit "Managed address configuration" flag. When set, it indicates that addresses are available via Dynamic Host Configuration Protocol [DHCPv6], including addresses that were not configured via stateless address autoconfiguration. Clients SHOULD use DHC to obtain addresses (and associated configuration information) as described in [ADDRCONF]. Note that when the M bit is set, the setting of the O bit is irrelevant, since the DHC server will return "other" configuration information together with addresses.

O :

1-bit "Other configuration" flag. When set, it indicates that [DHCPv6lite] is available for autoconfiguration of other (non-address) information. Examples of such information are DNS-related information or information on other servers within the network. When set,

If the M bit is also set, clients SHOULD use DHC to obtain addresses (and associated configuration information) as described above.

If the M bit is not set, clients SHOULD use DHC as described in RFC 3736.

Proposal

- Adopt Thomas Narten text
- Put new M&O text back into RFC2461bis
  - Not too late
- Drop M&O bit draft

Discussion