DHC
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DHCPv6 Request Retransmission
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Abstract

The DHCP client sends SOLICIT message to get IP address from the server. If the address pool is empty, all address in the pool have allocated to the clients, the server will return error code. NoAddrsAvail (server has no address available to assign in the IA). Client retransmit the SOLICIT message (section 14 RFC 3315) and may get the same response.

This draft defines a new suboption for the Dynamic Host Configuration Protocol (DHCP) to identify the retry time to sent next SOLICIT message. Hence, avoid unnecessary retransmit of SOLICIT messages. The suboption carries a value that identifies when an address will be available in the address pool.

Status of this Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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This Internet-Draft will expire on December 27, 2012.

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1. Introduction

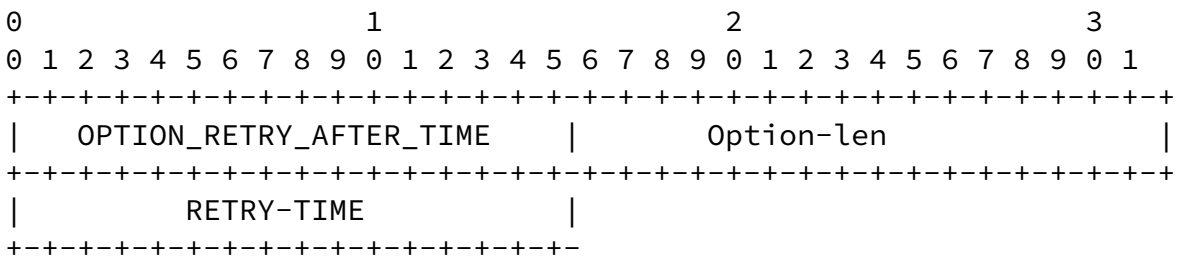
To avoid the retry after getting a NoAddrAvail status message from the server, add a new DHCP option, retry-after. The server may return retry-after message with a value that is the time when an IP address is available in the server address pool.(it can be calculated as MIN(t3-current time) for all the client got address from the server. Client may avoid retry till retry-after value, if NoAddrsAvail received..

2. Terminology used in this document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

3. Option Format

The format of the Retry after suboption.



option-code OPTION_RETRY_AFTER_TIME (TBD).

option-len 2.

elapsed-time The amount of time the client has to wait to get an address from this server. This time is expressed in hundredths of a second (10^-2 seconds).

4. Security Considerations

The security considerations of [RFC3315] and [RFC2131] are relevant to this document.

5. IANA Considerations

TBD

6. References

6.1. Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

6.2. Informative References

[RFC2131] Droms, R., "Dynamic Host Configuration Protocol", RFC 2131, March 1997.

[RFC2434] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 2434, October 1998.

[RFC3315] Droms, R., Bound, J., Volz, B., Lemon, T., Perkins, C., and M. Carney, "Dynamic Host Configuration Protocol for

IPv6 (DHCPv6)", RFC 3315, July 2003.

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