Rebind Capability in DHCPv6 Reconfigure Messages
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Abstract

The Rebind message type in the Reconfigure Message option of a
Reconfigure message allows DHCPv6 servers to instruct clients to
perform a Rebind operation.

1. **Introduction**

   DHCPv6 [2] allows a server to send an unsolicited Reconfigure message
   to a client. The client's response to a Reconfigure message,
   according to [2] is either a Renew or an Information-Request message,
   depending on the contents of the msg-type field in the Reconfigure
   Message option of the Reconfigure message.

   In a network with multiple DHCPv6 servers, the Reconfigure message
   may not be sent by the same server as the one from which the client
   last obtained configuration and/or addressing information. If the
   Reconfigure message commands the client to perform a Renew, [2] does
   not specify to which server the client should send the Renew. This
   difficulty is avoided if the server commands the client to perform an
   Information-Request, since such messages are multicast. However,
   Information-Request messages do not cause addressing configuration to
   be returned.

   This document expands the allowed values of the msg-type field to
   allow the server to indicate that the client is to attempt to perform
   a Rebind; since Rebind messages are multicast, this avoids the
   necessity of the client contacting a particular server. Rebind
   messaegs also cause all configuration information, including
   addresses, to be returned from a server.

2. **Terminology**

   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 [1].

3. **The Reconfigure Message option of the DHCPv6 Reconfigure Message**

   A server includes a Reconfigure Message option in a Reconfigure
   message to indicate to the client whether the client responds with a
   Renew, an Information-request, or a Rebind message. The format of
   this option is:

```
    0                   1                   2                   3
    0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
   +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
   |       OPTION_RECONF_MSG        |         option-len            |
   +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
   |    msg-type   |
   +-+-+-+-+-+-+-+-+
```

```
   option-code          OPTION_RECONF_MSG (19).
   option-len           1.
   msg-type             5 for Renew message, 6 for Rebind, 11 for
                        Information-request message.
```

[4](#). **Security Considerations**

This document adds no new security considerations beyond those
present in [[2](#)].

[5](#). **IANA Considerations**

There are no actions for IANA associated with this document.

[6](#). **Normative References**

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

[2]   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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