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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 messages 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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