

# Configure the IPv4 DHCP Relay Agent

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Applies To: Windows Server 2008 R2

The DHCP Relay Agent component relays DHCP messages between DHCP clients and DHCP servers on different IP networks. Because DHCP is a broadcast-based protocol, by default its packets do not pass through routers. A DHCP relay agent receives any DHCP broadcasts on the subnet and forwards them to the specified IP address on a different subnet. The DHCP Relay Agent is compliant with RFC 1542, "Clarifications and Extensions for the Bootstrap Protocol." For each IP network segment that contains DHCP clients, either a DHCP server or a computer acting as a DHCP Relay Agent is required.

## Note

You cannot use the DHCP Relay Agent component on a computer that is running the DHCP service, the network address translation (NAT) routing protocol component with automatic addressing enabled, or Internet Connection Sharing (ICS).

Membership in the local **Administrators** group, or equivalent, is the minimum required to complete this procedure.

### To configure the IPv4 DHCP relay agent

1. [Open the RRAS MMC Snap-in](#).
2. In the Routing and Remote Access MMC snap-in, expand **IPv4**, and then click **DHCP Relay Agent**.
3. Add the network interfaces on which the server might receive DHCP requests that you want to send to the DHCP server. Right-click **DHCP Relay Agent**, click **New Interface**, select the appropriate network interface, and then click **OK**.
4. In the **DHCP Relay Properties** dialog box, select **Relay DHCP packets**, and then click **OK**.
5. In the navigation pane, right-click **DHCP Relay Agent**, and then click **Properties**.
6. On the **General** tab, enter the IPv4 address of the DHCP servers that you want to provide DHCP services for the RRAS server's clients, click **Add**, and then click **OK**.

# IPv4 - DHCP Relay Agent

## Interface Properties - General Tab

Dialog box element	Description
<b>Relay DHCP packets</b>	Specifies whether DHCP messages are relayed between DHCP clients on the subnet to which this interface is attached and DHCP servers. After you select this check box, you must configure the DHCP server addresses in the <b>DHCP Relay Agent Properties</b> dialog box.
<b>Hop-count threshold</b>	The maximum number of DHCP relay agents that will handle DHCP relayed traffic. You can also click the arrows to select a new setting. The default value is 4 hops. The maximum value is 16 hops.
<b>Boot threshold (seconds)</b>	The number of seconds the relay agent waits before forwarding DHCP messages. You can also click the arrows to select a new setting. The default value is 4 seconds. This option is useful when you want a local DHCP server to respond first, but if the local DHCP server does not respond, you want to forward messages to a remote DHCP server.