How to Configure the DHCP Relay Agent

https://campus.barracuda.com/doc/73007431/

The DHCP Relay service allows you to pass DHCP broadcast messages to network segments a client computer is not directly attached to. DHCP relaying can be used to share a single DHCP server across logical network segments that are separated by a firewall. The DHCP Relay service does not handle IP addresses. It sends unicast messages instead of broadcast messages.

DHCP Relay Agent Between Two LANs:

Before You Begin

If you are using both DHCP and a DHCP Relay on the same firewall, verify that both services are not using the same interface.

Configure the DHCP Relay Agent

1. Go to **NETWORK > DHCP Relay**.
2. Select **Enable DHCP Relay**.
3. From the **Relay Interfaces** list, select the network interfaces that are used by the DHCP relay agent to connect to the DHCP server and client networks. To add the interface, click **+** after each selection.

   If you must configure multiple relay agents in a cascaded environment (more than one relay is involved, and traffic is passed from relay to relay), do not specify the server-side interface of the cascaded ('border') relay agent. For more information, read the following section.

4. In the **DHCP Server IPs** field, add the IP addresses of the DHCP servers. Click **+** after each entry.
5. Enter the **UDP Port** the relay agent is listening on. Default: 67
6. Enable **Add Agent ID** if you want the DHCP relay agent to add an Agent ID (AID) to the transmitted packets. An AID indicates that the data has been relayed.
7. Enter the **Max. DHCP packet Size** in bytes. Default: 1400
8. From the **Agent ID Relay Policy** list, select how your DHCP relay agent handles DHCP packets that are already flagged by an AID from another agent:
   - **Append** – (default) Attach your AID to the existing AID.
   - **Replace** – Replaces the existing AID with your AID.
   - **Forward** – Passes DHCP packets without any modification.
   - **Discard** – Discards DHCP packets that are already flagged by an AID.
9. From the **Agent ID Mismatch Policy** list, select how your DHCP relay agent handles DHCP server replies that do not contain its AID:
   - **Discard** – (default) Discards the DHCP packet.
   - **Forward** – Forwards the DHCP packet to the DHCP client.

   The **Agent ID Mismatch Policy** setting is important when multiple relay agents serve the DHCP server.
10. Enter the **Max. Packet Hop Count** to avoid infinite packet loops (default: 10).
11. Select **Forward Unicast Packets** if Bootstrap/BOOTP unicast messages should be forwarded by the DHCP relay.

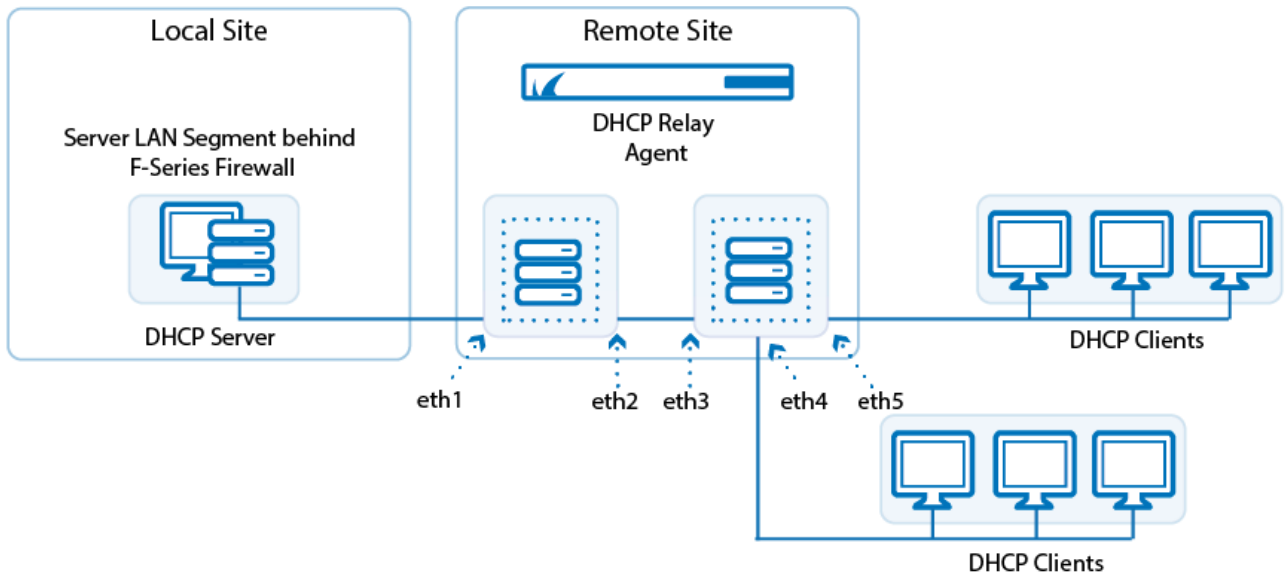
12. Click **Save**.

Cascading DHCP Relay Agents

Only use cascading DHCP relay agents if a client subnet is connected to the server-side DHCP relay agent.

The DHCP relay agent is not designed for cascaded use. If you must configure multiple relay agents in a cascaded environment, do not specify the server-side interface of the cascaded ('border') relay agent in the configuration; otherwise, this will lead to conflicts. In this example, two client subnets are connected to DHCP relay agents 1 and 2. When you configure the relay agents, the interfaces listening to broadcast requests from the clients (eth1 and eth4) must be specified as relay interfaces. The server-side interface of relay agent 2 (eth5), which is connected to the DHCP server, must NOT be specified.

Cascading DHCP Relay Agents with Interfaces to be Configured:



Figures

1. dhcp_relay_01.png
2. dhcp_relay_02.png
3. dhcp_relay_cascade.png