Example - DHCP Configuration for Two Networks

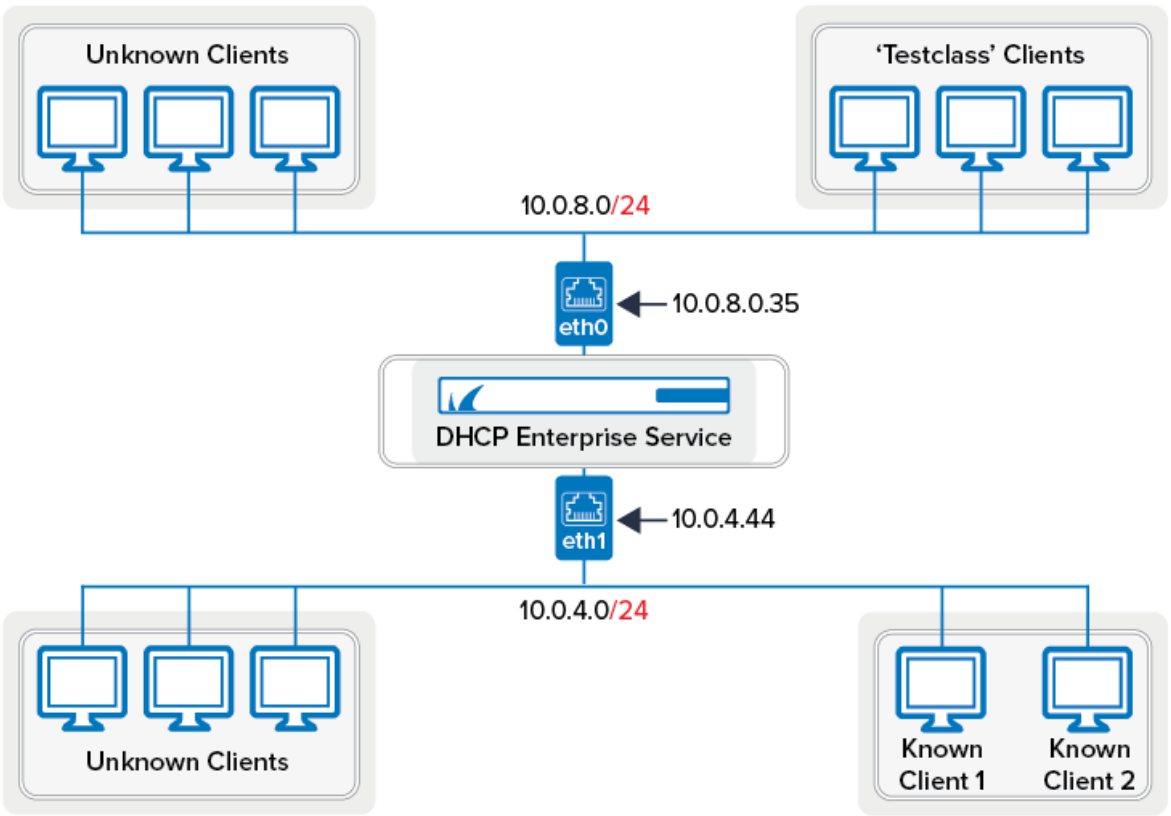
https://campus.barracuda.com/doc/79462812/

The following article provides an overview of how to configure DHCP for an example environment. It provides steps and example settings to configure a DHCP service for an environment that contains two networks with three different IP pools.

Example Environment

For the example environment that is displayed in the following figure, a DHCP service must configured for two networks with three different IP pools:

- **Network 1** (10.0.8.0/24) – Contains two address pools: one pool for unknown clients and one pool for known clients (identified via their MAC addresses).
- **Network 2** (10.0.4.0/24) – Contains one address pool for unknown clients and two known clients.



Example Environment Configuration

The DHCP service for the example environment can be configured with the following steps and settings:

Step	Settings for Example Environment
Step 1: Introduce IP addresses for the DHCP service	On the **Box > Network** page, click **IP Configuration** from the Configuration Mode menu in the left navigation pane. In the **Shared networks and IPs** section, click **+** and add the following addresses: • **eth0:** *10.0.8.35* • **eth1:** *10.0.4.44*
Step 2: Create the DHCP service	By default, **Service Availability** for the DHCP service is set to *All-IPs*.
Step 3: Enable advanced DHCP settings.	To enable the advanced DHCP settings, you must be in the Advanced Configuration mode. On the **DHCP Enterprise Configuration - Operational Setup** page , click **Switch to Advanced View** from the Configuration Mode menu in the left navigation pane. Make sure that you select *yes* from the **Use Advanced Pool Configuration** list .
Step 4: Configure DHCP classes.	A DHCP class named *testclass* is created with the following settings: • **Match Type**: *MAC* • **Match Value List**: *1:00:01:f3:34:44:2g* and *1:00:01:f3:34:44:2e* For Ethernet interfaces, you must enter *1:* before the MAC address

<table>
<tr>
<td>Step 5: Configure subnets and address pools.</td>
<td>
Two separate subnets are created for Network 1 (10.0.8.0/24) and Network 2 (10.0.4.0/24).
1. A subnet named Subnet1 for 10.0.8.0/24 is created with the following settings:
◦ Subnet Type: explicit
◦ Network Address: 10.0.8.0/24
◦
Address Pools: The two address pools for Subnet1 are configured with the following settings:
<table>
<tr><th>Address Pool</th><th>Description</th></tr>
<tr><td>Address Pool 1 - Unknown</td><td>From the first address pool, only unknown clients may receive IP addresses. This address pool is configured with the following settings:
■ IP Begin: 10.0.8.10
■ IP End: 10.0.8.15
■ Denied Classes: testclass
■ Known Clients: deny
■ Unknown Clients: allow</td></tr>
<tr><td>Address Pool 2 - Classpool</td><td>From the second address pool, only allowed classes may receive IP addresses. This address pool is configured with the following settings:
■ IP Begin: 10.0.8.20
■ IP End: 10.0.8.30
■ Allowed Classes: testclass
■ Known Clients: not-set
■ BOOTP Clients Policy: not-set</td></tr>
</table>
2. A subnet named Subnet2 for 10.0.4.0/24 is created with the following settings:
◦ Subnet Type: explicit
◦ Network Address: 10.0.4.0/24
◦
Address Pools: The subnet has one address pool which is configured with the following settings:
<table>
<tr><th>Address Pool</th><th>Description</th></tr>
<tr><td>Address Pool 1 - Unknown</td><td>From the address pool, only unknown clients may receive IP addresses. This address pool is configured with the following settings:
■ IP Begin: 10.0.4.10
■ IP End: 10.0.4.15
■ Known Clients: deny
■ Unknown Clients: allow</td></tr>
</table>
</td>
</tr>
<tr>
<td>Step 6: Configure known clients.</td>
<td>
Two client groups are created:
<table>
<tr><th>Client Group</th><th>Settings</th></tr>
<tr><td>Known Client 1</td><td>• MAC Address: 00:01:f3:34:44:2g
• Fixed IP Address: 10.0.4.31 (Optional)</td></tr>
<tr><td>Known Client 2</td><td>• MAC Address: 00:01:f3:34:44:2e
• Fixed IP Address: 10.0.4.32 (Optional)</td></tr>
</table>
</td>
</tr>
</table>

Step 7: View real-time information for the DHCP service.	To view and modify lease and IP range information for the DHCP service, click the **DHCP** tab.

Figures

1. dhcp_enterprise_conf.png