

## Example - DHCP Configuration for Two Networks

<https://campus.barracuda.com/doc/46208971/>

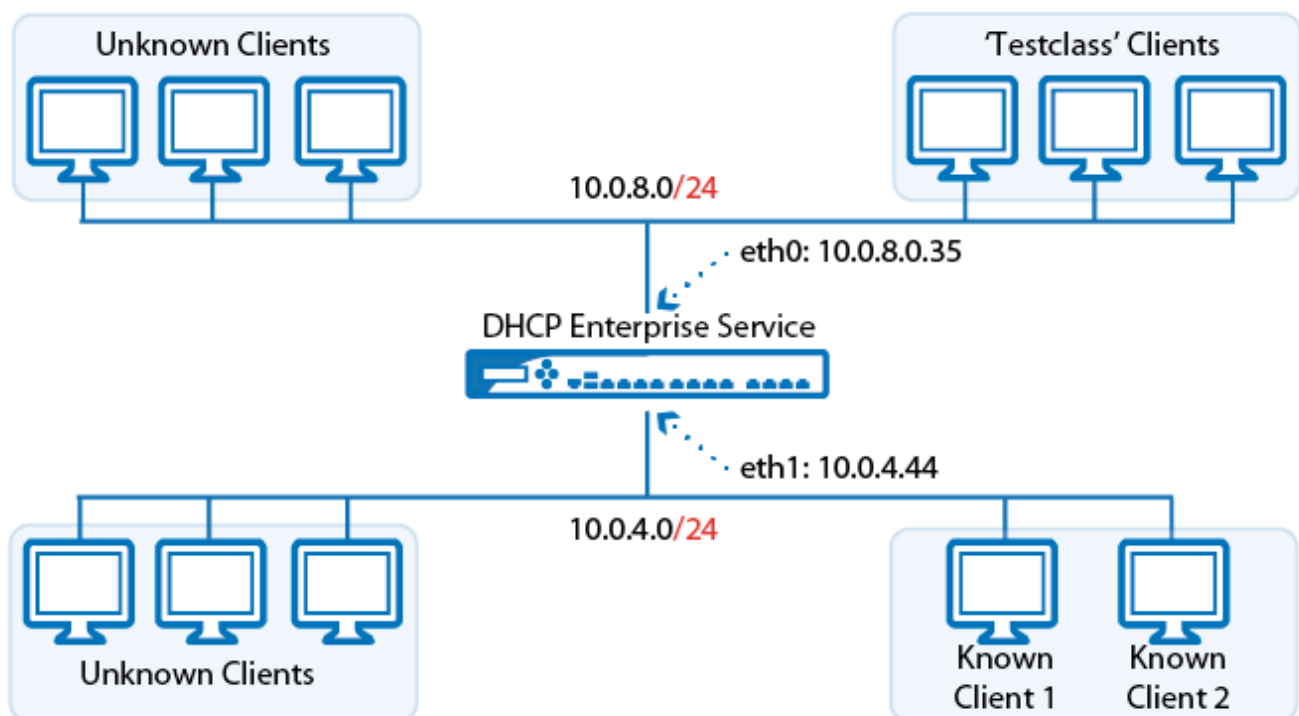
The following article provides an overview of how to configure DHCP for an example environment. It provides steps and example settings to configure a DHCP service for an environment that contains two networks with three different IP pools.

### In this article:

### Example Environment

For the example environment that is displayed in the following figure, a DHCP service must be 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
<a href="#">Step 1: Create a virtual server.</a>	The virtual server is created with the following settings: <ul style="list-style-type: none"> <li>• <b>First-IP:</b> 10.0.8.35</li> <li>• <b>Second-IP:</b> 10.0.4.44</li> </ul>
<a href="#">Step 2: Create the DHCP service.</a>	By default, <b>Service Availability</b> for the DHCP service is set to <i>All-IPs</i> .
<a href="#">Step 3: Enable advanced DHCP settings.</a>	To enable the advanced DHCP settings, you must be in the Advanced Configuration Mode. On the <b>DHCP Enterprise Configuration - Operational Setup</b> page, click <b>Switch to Advanced View</b> from the Configuration Mode menu in the left navigation pane. Make sure that you select yes from the <b>Use Advanced Pool Configuration</b> list.
<a href="#">Step 4: Configure DHCP classes.</a>	A DHCP class named <i>testclass</i> is created with the following settings: <ul style="list-style-type: none"> <li>• <b>Match Type:</b> MAC</li> <li>• <b>Match Value List:</b> 1:00:01:f3:34:44:2g and 1:00:01:f3:34:44:2e</li> </ul> For Ethernet interfaces, you must enter 1: before the MAC address

<p><a href="#">Step 5: Configure subnets and address pools.</a></p>	<p>Two separate subnets are created for Network 1 (10.0.8.0/24) and Network 2 (10.0.4.0/24).</p> <p>1. A subnet named <i>Subnet1</i> for 10.0.8.0/24 is created with the following settings:</p> <ul style="list-style-type: none"> <li>◦ <b>Subnet Type:</b> <i>explicit</i></li> <li>◦ <b>Network Address:</b> <i>10.0.8.0/24</i></li> <li>◦</li> </ul> <p><b>Address Pools:</b> The two address pools for Subnet1 are configured with the following settings:</p> <table border="1" data-bbox="384 595 1468 1227"> <thead> <tr> <th data-bbox="384 595 667 645">Address Pool</th> <th data-bbox="667 595 1468 645">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="384 645 667 936"> <p><b>Address Pool 1 - Unknown</b></p> </td> <td data-bbox="667 645 1468 936"> <p>From the first address pool, only unknown clients may receive IP addresses. This address pool is configured with the following settings:</p> <ul style="list-style-type: none"> <li>■ <b>IP Begin:</b> <i>10.0.8.10</i></li> <li>■ <b>IP End:</b> <i>10.0.8.15</i></li> <li>■ <b>Denied Classes:</b> <i>testclass</i></li> <li>■ <b>Known Clients:</b> <i>deny</i></li> <li>■ <b>Unknown Clients:</b> <i>allow</i></li> </ul> </td> </tr> <tr> <td data-bbox="384 936 667 1227"> <p><b>Address Pool 2 - Classpool</b></p> </td> <td data-bbox="667 936 1468 1227"> <p>From the second address pool, only allowed classes may receive IP addresses. This address pool is configured with the following settings:</p> <ul style="list-style-type: none"> <li>■ <b>IP Begin:</b> <i>10.0.8.20</i></li> <li>■ <b>IP End:</b> <i>10.0.8.30</i></li> <li>■ <b>Allowed Classes:</b> <i>testclass</i></li> <li>■ <b>Known Clients:</b> <i>not-set</i></li> <li>■ <b>BOOTP ClientsPolicy:</b> <i>not-set</i></li> </ul> </td> </tr> </tbody> </table>	Address Pool	Description	<p><b>Address Pool 1 - Unknown</b></p>	<p>From the first address pool, only unknown clients may receive IP addresses. This address pool is configured with the following settings:</p> <ul style="list-style-type: none"> <li>■ <b>IP Begin:</b> <i>10.0.8.10</i></li> <li>■ <b>IP End:</b> <i>10.0.8.15</i></li> <li>■ <b>Denied Classes:</b> <i>testclass</i></li> <li>■ <b>Known Clients:</b> <i>deny</i></li> <li>■ <b>Unknown Clients:</b> <i>allow</i></li> </ul>	<p><b>Address Pool 2 - Classpool</b></p>	<p>From the second address pool, only allowed classes may receive IP addresses. This address pool is configured with the following settings:</p> <ul style="list-style-type: none"> <li>■ <b>IP Begin:</b> <i>10.0.8.20</i></li> <li>■ <b>IP End:</b> <i>10.0.8.30</i></li> <li>■ <b>Allowed Classes:</b> <i>testclass</i></li> <li>■ <b>Known Clients:</b> <i>not-set</i></li> <li>■ <b>BOOTP ClientsPolicy:</b> <i>not-set</i></li> </ul>
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<p><a href="#">Step 6: Configure known clients.</a></p>	<p>2. A subnet named <i>Subnet2</i> for 10.0.4.0/24 is created with the following settings:</p> <ul style="list-style-type: none"> <li>◦ <b>Subnet Type:</b> <i>explicit</i></li> <li>◦ <b>Network Address:</b> <i>10.0.4.0/24</i></li> <li>◦</li> </ul> <p><b>Address Pools:</b> The subnet has one address pool which is configured with the following settings:</p> <table border="1" data-bbox="384 1469 1468 1765"> <thead> <tr> <th data-bbox="384 1469 700 1518">Address Pool</th> <th data-bbox="700 1469 1468 1518">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="384 1518 700 1765"> <p><b>Address Pool 1 - Unknown</b></p> </td> <td data-bbox="700 1518 1468 1765"> <p>From the address pool, only unknown clients may receive IP addresses. This address pool is configured with the following settings:</p> <ul style="list-style-type: none"> <li>■ <b>IP Begin:</b> <i>10.0.4.10</i></li> <li>■ <b>IP End:</b> <i>10.0.4.15</i></li> <li>■ <b>Known Clients:</b> <i>deny</i></li> <li>■ <b>Unknown Clients:</b> <i>allow</i></li> </ul> </td> </tr> </tbody> </table>	Address Pool	Description	<p><b>Address Pool 1 - Unknown</b></p>	<p>From the address pool, only unknown clients may receive IP addresses. This address pool is configured with the following settings:</p> <ul style="list-style-type: none"> <li>■ <b>IP Begin:</b> <i>10.0.4.10</i></li> <li>■ <b>IP End:</b> <i>10.0.4.15</i></li> <li>■ <b>Known Clients:</b> <i>deny</i></li> <li>■ <b>Unknown Clients:</b> <i>allow</i></li> </ul>		
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Two client groups are created:	
Client Group	Settings
<p><b>Known Client 1</b></p>	<ul style="list-style-type: none"> <li>• <b>MAC Address:</b> <i>00:01:f3:34:44:2g</i></li> <li>• <b>Fixed IP Address:</b> <i>10.0.4.31</i> (Optional)</li> </ul>
<p><b>Known Client 2</b></p>	<ul style="list-style-type: none"> <li>• <b>MAC Address:</b> <i>00:01:f3:34:44:2e</i></li> <li>• <b>Fixed IP Address:</b> <i>10.0.4.32</i> (Optional)</li> </ul>

[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\_config.png

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