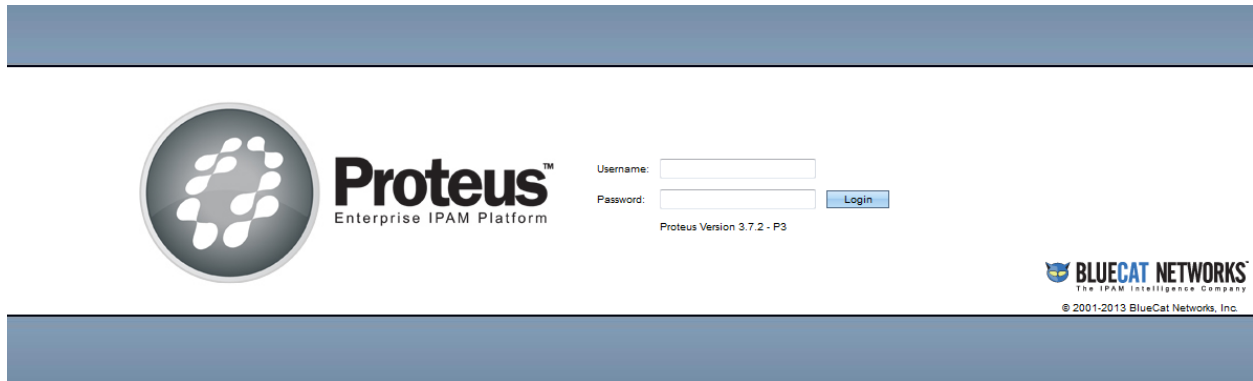



DHCP Management with Blue Cat Networks at PSU

Network and System Administrators at Penn State can configure their own DHCP changes, live, using the Blue Cat Proteus web-based interface.

To access Proteus, go to <https://proteus.psu.edu/>. Log in using your Access Account and password.



Important things to note:

- ⚠ This guide is not meant to be complete documentation for Proteus. The sections below are quick guides. For more complete documentation, go to the help within the Blue Cat product. To get to the vendor's documentation, select the  icon in the upper right of the screen.
- ⚠ You will only have access to make changes to Networks and Zones that have been assigned to you.
- ⚠ DHCP changes are deployed to the servers once every hour at 42 minutes after the hour. When you make DHCP changes, they will not go live until after the next deployment.

Configure DHCP on your network


- Helper addresses must be assigned on the router. If you are using TNS's service, you'll have to work with TNS to have the helper addresses configured. If you are routing your own traffic, you'll need to set these up on your routers. The IP Addresses of the DHCP servers are: 128.118.25.14 and 128.118.70.11
- DHCP Roles in Proteus.
 1. Go to the subnet in Proteus (use search box at top right)
 2. Select the "Deployment Roles" Tab for the subnet
 3. Verify that the role is already configured properly (as it should have been inherited from above). The role show look as below:

Service	Role	Editable State	Elected	Server	Secondary Server	View	Inherited
<input type="checkbox"/> DHCP	Master			 barium.ops.tns.its.psu.ed	 radium.ops.tns.its.psu.ed		Yes



Setting up a DHCP Range/Pool in a Subnet

- Navigate to the subnet (easiest using the search on upper right)
- Select the “DHCP Ranges” tab below the subnet.
- Under DHCP Ranges, click New. The Add IPv4 DHCP Range page opens.
- Under Address Range, define the address range and set its name.
 - **Start**—enter the address for the start of the DHCP range.
 - **End**—enter the address for the end of the DHCP range.
 - **Name**—enter a descriptive name for the DHCP range.
- Click Add to add the range and return to the DHCP Ranges tab, or click Add Next to add another range.

Creating a Static DHCP entry – Assigning a MAC address to an IP address

- Navigate to the appropriate subnet
- In the list, click on the IP address that you want to assign.
 - If it was a previously Unassigned Address  it will go to the “Assign Selected IP Address screen”
 - **Allocation Type** – Select DHCP Reserved
 - **MAC Address** – Enter the MAC address of the client
 - **Host Name** -- Enter the DNS name (or select same as Zone)
 - Click the Assign button at the bottom.
 - If it was an address that was already assigned, it will go to the information screen for that address.
 - Click on the IP Address for the pull-down menu, and choose Change IP State
 - **Target State** – DHCP Reserved
 - **MAC Address** – Enter the MAC address of the client
 - Click Update

Setting DHCP Options

- Navigate to the DHCP Range
- Select the “Deployment Options” Tab
- Under Deployment Options, click New and Select a deployment option. There are 4 types of options listed under New. To find out what options are under which you can refer to the Proteus help . Most frequently, you will likely be looking for the “DHCP Service Option” for the most common settings.
- Under General, select the option and set its parameters.
 - Option—select a DHCP service deployment option. When you select an option, parameter fields for the option appear. For information on the options and their parameters refer to the Proteus help .
- Under Servers, select the servers to which the option applies:
 - All Servers—applies the deployment option to all servers in the configuration.

- Specific Server—applies the deployment option to a specific server in the configuration. Select a server from the drop-down menu.
- Note: Any options that are listed as Inherited cannot be changed, however, to change the value you can create a new option, selecting the correct option and put your value into the field. This will override the inherited option.