Managing IP Address Pools

An IP pool is a sequential range of IP addresses within a certain network. You can have multiple pool configurations. Each pool can have a priority and can be assigned to a group.

IP addresses can be assigned dynamically from a single pool or from a group of pools. The Least Recently Used (LRU) method is used to assign IP addresses. In each pool, the addresses are placed in a queue. At the time of assigning, the address at the head of the queue is assigned, and when released is placed at the end of the queue.

When a group of pools have the same priority, an algorithm is used to determine a probability for each pool based on the number of available addresses. A pool is selected based on the probability determined. This method allocates addresses evenly from the group of pools.

IP pool supports both IPv4 and IPv6 addresses. With the IP Pool feature, Prime Network provides the flexibility of assigning IP addresses dynamically for services running on a network element. A service running on a network element can refer to an appropriate IP pool and an IP address gets assigned to the service from the IP pool.

These topics describe how to use the Vision client to view and manage IP pools. If you cannot perform an operation that is described in these topics, you may not have sufficient permissions; see Appendix B, "Permissions Required to Perform Tasks Using the Prime Network Clients".

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Viewing the IP Pool Properties

To view the IP pool properties for a device:

Step 1 In the Vision client, right-click the required device, and choose **Inventory**.

Step 2 In the **Inventory** window, choose **Logical Inventory** > *Context* > **IP Pools**. A list of IP pools are displayed in the content pane.

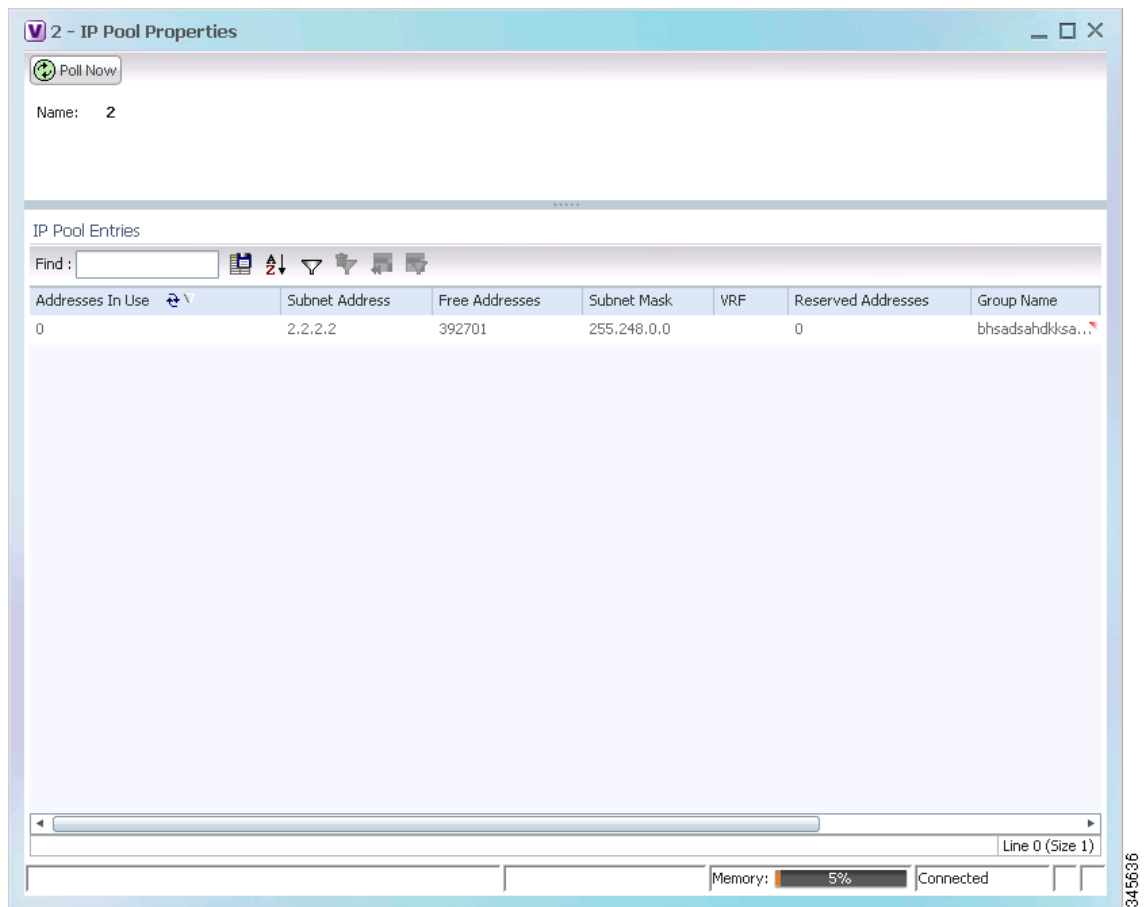Table 14-1 describes the fields that are displayed in the content pane.

Table 14-1   IP Pool Properties

Field Name	Description
Table Types	Displays the type of table, which is **IP Pools**.
IP Pools	

Table 14-1   IP Pool Properties

Field Name	Description
Name	Name of the IP pool.
IP Pool Entries	Indicates whether entries exist for this pool.

Step 3   Right-click the IP pool name and choose **Properties**. The IP Pool Properties dialog box is displayed as shown in Figure 14-1.

Figure 14-1   IP Pool Properties

Table 14-2 describes the fields that are displayed in the IP Pool Properties dialog box.

Table 14-2   IP Pool Properties

Field Name	Description
Name	Name of the IP pool.
IP Pool Entries	
Addresses In Use	Number of IP addresses assigned from the pool.
Start Address/Subnet Address	Could be one of the following: • Starting IP address in the pool, if the pool is configured with a range. • Subnet address, if the pool is configured with a subnet mask.
Free Addresses	Number of free addresses available in the pool.
End Address/Subnet Mask	Could be one of the following: • Ending IP address in the pool, if the pool is configured with a range. • Subnet mask, if the pool is configured with a subnet mask.
VRF	Virtual Routing and Forwarding (VRF) name, if the pool belongs to a VRF.
Reserved Addresses	Number of reserved addresses in the pool.
Group Name	Name of the group to which the pool belongs.
Pool Status	Status of the pool.
Pool Type	Type of the pool, which could be Public, Private, Static, Resource, or NAT.
Pool Priority	Priority of the pool, which is used when multiple pools are available.

Modifying and Deleting IP Pools

The following commands can be launched from the inventory by right-clicking on an IP pool name and choosing **Commands > Configuration**. Your permissions determine whether you can run these commands (see Appendix B, "Permissions Required to Perform Tasks Using the Prime Network Clients"). To find out if a device supports these commands, see the *Cisco Prime Network 4.3.2 Supported Cisco VNEs*.

Command	Navigation	Description
Delete IP Pool	*Right-click on IP Pool name >* **Commands > Configuration**	Use this command to delete an IP Pool
Modify IP Pool		Use this command to modify IP Pool details.