



CHAPTER 65

Inventory Manager

Inventory Manager provides a method of managing mass changes to inventory and service model data in the Cisco Prime Fulfillment provisioning process. In this process, Inventory Manager enables an operator to import network-specific data into the Prime Fulfillment Repository (Repository) in bulk mode.

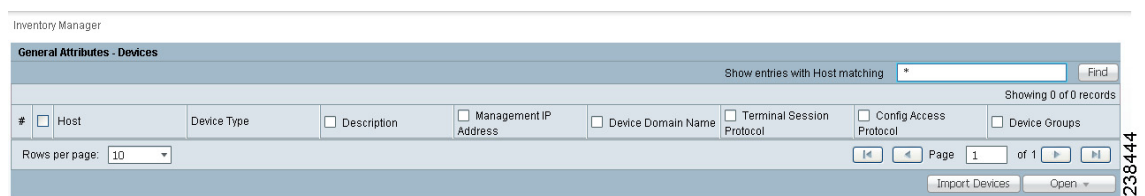
Inventory Manager performs three primary functions:

- Imports devices from configuration files and configures CPEs and PEs by associating devices with a Customer or Provider.
- Edits devices, CPEs or PEs stored in the Prime Fulfillment repository.
- Assigns a device to a provider or customer.

Accessing the Inventory Manager Window

To access the Inventory Manager, choose **Inventory > Physical Inventory > Inventory Manager** to access the Inventory Manager window shown in [Figure 65-1](#).

Figure 65-1 *Inventory Manager Window*



From the Inventory Manager window you can import devices or open a list of devices, providers, or customers.

Importing Devices

To import a device, it must be in an existing directory on the same server that is running Prime Fulfillment. After a device is imported into the Prime Fulfillment repository, you can assign it to a customer or provider, if desired.

To import devices with configuration files, follow these steps:

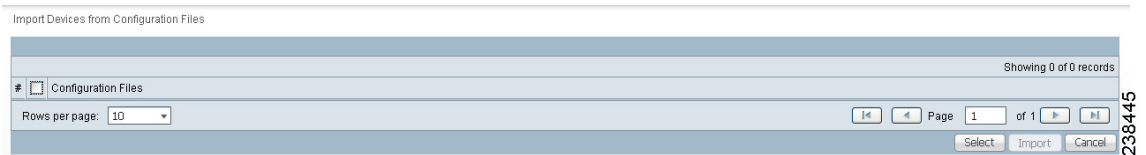
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Step 1 Choose **Inventory > Physical Inventory > Inventory Manager**.

Step 2 Click the **Import Devices** button.

The Import Devices from Configuration Files window appears, as shown in [Figure 65-2](#).

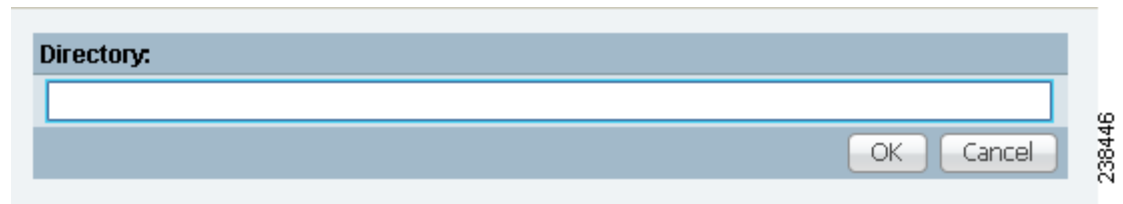
Figure 65-2 *Import Devices from Configuration Files Window*



Step 3 Click the **Select** button.

The Select Device Configuration File window appears, as shown in [Figure 65-3](#).

Figure 65-3 *Select Device Configuration File Window*



Step 4 At the **Select Device Configuration File** window, enter the directory on the Prime Fulfillment server where the configuration files reside, and the **Import Devices from Configuration Files** window appears.

Step 5 Select as many of the configuration files as you want to import by checking the box to the left of the Configuration File name.

Step 6 If you want to import devices from more than one directory, you can repeat Steps 3 through 6.

Step 7 Click **Import**.

The **General Attributes** window appears with the added information.

Step 8 Click **Save**.

Opening and Editing Devices

To open device configuration files to bulk edit, follow these steps:

Step 1 Choose **Inventory > Physical Inventory > Inventory Manager**.

Step 2 Click the **Open** button.

The **Open** drop-down list appears. The **Open** options include the following:

- **Devices**—Every network element that Prime Fulfillment manages.



Note To edit a PE, **Open Provider**, *not* **Open Devices**.

- **Provider**—PEs belonging to a specific provider.
- **Customer**—CEs belonging to a specific customer.

Step 3 Select **Devices**.

The Select Device window appears, as shown in [Figure 65-4](#).

Figure 65-4 *Select Devices Window*

#	<input type="checkbox"/>	Device Name	Management IP Address	Type	Parent Device Name
1	<input type="checkbox"/>	pe1		Cisco IOS Device	
2	<input type="checkbox"/>	pe2		Cisco IOS Device	
3	<input type="checkbox"/>	pe3		Cisco IOS Device	
4	<input type="checkbox"/>	pe4		Cisco IOS Device	
5	<input type="checkbox"/>	pe5		Cisco IOS Device	
6	<input type="checkbox"/>	pe6		Cisco IOS Device	
7	<input type="checkbox"/>	pe7		Cisco IOS Device	
8	<input type="checkbox"/>	pe8		Cisco IOS Device	
9	<input type="checkbox"/>	pe9		Cisco IOS Device	
10	<input type="checkbox"/>	pe10		Cisco IOS Device	

Step 4 Select a device to open by checking the check box to the left of the Device Name. You can select more than one device to open.

Step 5 Click the **Select** button.

The General Attributes window appears containing information on the selected devices, as shown in [Figure 65-5](#).

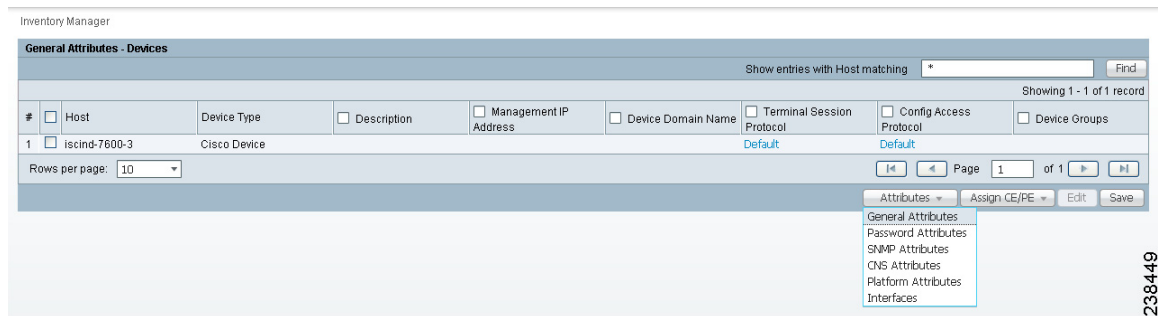
Figure 65-5 *General Attributes Devices Window*

#	<input type="checkbox"/>	Host	Device Type	<input type="checkbox"/>	Description	<input type="checkbox"/>	Management IP Address	<input type="checkbox"/>	Device Domain Name	<input type="checkbox"/>	Terminal Session Protocol	<input type="checkbox"/>	Config Access Protocol	<input type="checkbox"/>	Device Groups
1	<input type="checkbox"/>	iscind-7600-3	Cisco Device								Default		Default		

Step 6 To view specific attributes click the **Attributes** button.

The Attributes options appear, as shown in [Figure 65-6](#).

Figure 65-6 Attributes Options Window



- Step 7** Select the type of attribute to display.
See the following sections for descriptions of these attribute fields.
- [General Attributes, page 65-4](#)
 - [Password Attributes, page 65-5](#)
 - [SNMP Attributes, page 65-5](#)
 - [CNS Attributes, page 65-6](#)
 - [Platform Attributes, page 65-6](#)
 - [Interfaces, page 65-7](#)
- Step 8** To bulk edit an attribute, do the following:
- a. Check the one or more boxes to the left of the Device Name.
 - b. Check the check box above the attribute name column.
 - c. Click the **Edit** button.
- Step 9** Enter the changes you want to make.
- Step 10** Click **Save**.
The changes are saved.

General Attributes

The General Attributes Devices window contains the following:

- **Host**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **Device Type**—The device type includes the following devices:
 - Cisco Router
 - Catalyst OS device
 - Terminal server
 - IE2100 (Cisco Configuration Engine server)

- **Description**—Can contain any pertinent information about the device, such as the type of device, its location, or other information that might be helpful to service provider operators. Limited to 80 characters.
- **Management IP Address**—Valid IP address of the device that Prime Fulfillment uses to configure the target router device. This IP address must be reachable from the Prime Fulfillment host.
- **Device Domain Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. The name must match the domain name on the target router device.
- **Terminal Session Protocol**—Configures the method of communication between Prime Fulfillment and the device. Choices include: Telnet, Secure Shell (SSH), SSH version 2 (SSHv2), CNS, and RSH. Default: Telnet.
- **Config Access Protocol**—Administers the access protocol for config upload and download. Choices include: Terminal, TFTP, FTP, and RCP. Default: Terminal
- **Device Groups**—Lists the names of the Device Groups. You can add and modify Device Groups in this column.

Password Attributes

The Password Attributes Devices window contains the following:

- **Device Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **Login User**—Not required by Prime Fulfillment. However, collection and upload/download will not function without the Login User and Login Password, as Prime Fulfillment will not be able to access the device. Should match what is configured on the target router device. Limited to 80 characters.
- **Login Password**—Displayed as stars (*). Not required by Prime Fulfillment. However, collection and upload/download will not function without the Login User and Login Password, as Prime Fulfillment will not be able to access the device. Should match what is configured on the target router device. Limited to 80 characters.
- **Enable User**—Not required by Prime Fulfillment. However, collection and upload/download only function if the Login User has sufficient privileges to configure the router in EXEC mode. Should match what is configured on the target router device. Limited to 80 characters.
- **Enable Password**—Displayed as stars (*). Not required by Prime Fulfillment. However, collection and upload/download only function if the Login User has sufficient privileges to configure the router in EXEC mode. Should match what is configured on the target router device. Limited to 80 characters.
- **Community String RO**—Many tasks use SNMP to access the device. This field must match what is configured on the target router device. Limited to 80 characters.
- **Community String RW**—Many tasks use SNMP to access the device. This field must match what is configured on the target router device. Limited to 80 characters.

SNMP Attributes

The SNMP Attributes Devices window contains the following:

- **Device Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **SNMP Version**—Choices include: SNMP v1/v2c, and SNMP v3. The default value is determined by the setting in the DCPL property `SnmpService\defaultSNMPVersion`. (See [Appendix B, “Property Settings”](#) for more details.)
- **Security Level**—Choices include: No Authentication/No Encryption, Authentication/No Encryption, and Authentication/Encryption. Default: No Authentication/No Encryption.
- **Authentication User Name**—User name configured on the specified device router. User must have permission to the object identification numbers (OIDs) specified in the security request (that is, write permission for a set request, and read permission for a get request). Should match what is configured on the target router device. Should be provisioned if the SNMP Security Level is Authentication/No Encryption or Authentication/Encryption. Limited to 80 characters.
- **Authentication Password**—Displayed as stars (*). Should be provisioned if the SNMP Security Level is Authentication/No Encryption or Authentication/Encryption. Should match what is configured on the target router device. Limited to 80 characters.
- **Authentication Algorithm**—Should be provisioned if the SNMP Security Level is Authentication/No Encryption or Authentication/Encryption. Choices include: None, MD5, and SHA. Default: None.
- **Encryption Password**—Displayed as stars (*). In previous versions, this field was called Privacy Password. Should match what is configured on the target router device. Should be provisioned if the SNMP Security Level is Authentication/Encryption. Limited to 80 characters.
- **Encryption Algorithm**—In previous versions, this field was called Privacy Protocol. Should be provisioned if the SNMP Security Level is Authentication/Encryption. Choices include: None and DES 56. Default: None.

CNS Attributes

The CNS Attributes Devices window contains the following:

- **Device Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **IE2100 Name**—Disabled unless the Device-State field is Inactive or the Terminal Session Protocol field is CNS. A valid Cisco Configuration Engine server must be selected if the Terminal Session Protocol is CNS. Choices include: None and the list of existing Cisco Configuration Engine server names. Default: None.
- **Device State**—Choices include: Active and Inactive. Active indicates that the router has been plugged on the network and can be part of Prime Fulfillment tasks such as collect config and provisioning. Inactive indicates the router has not been plugged-in. Default: Active.
- **Event Identification**—Indicates whether the CNS Identification field contains a HOST NAME or CNS ID. Default: HOST NAME.
- **CNS Identification**—Required if the Event Identification field is set to CNS ID. Can contain letters, numbers, and these punctuation characters: period, underscore, and dash.

Platform Attributes

The Platform Attributes Devices window contains the following:

- **Device Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **Platform**—Should match what is configured on the target router device. Limited to 80 characters.
- **Software Version**—Should match what is configured on the target router device. Limited to 80 characters.
- **Image Name**—Should match what is configured on the target router device. Limited to 80 characters.
- **Serial Number**—Should match what is configured on the target router device. Limited to 80 characters.

Interfaces

The Interfaces Devices window contains the following:

- **Host**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **Interface Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required. Limited to 256 characters.
- **Interface Type**—Specifies the type of interface. It is a display-only field.
- **Interface Description**—Description of the interface. This field is display-only. Field is populated by importing a configuration file.
- **Interface IP Address**—IPv4 address associated with this interface.
- **Interface IPv6 Address**—IPv6 address associated with this interface.
- **Encapsulation**—The Layer 2 Encapsulation for this device. It is a display-only field. Possible values are:
 - DEFAULT
 - DOT1Q
 - ETHERNET
 - ISL
 - FRAME_RELAY
 - FRAME_RELAY_IETF
 - HDLC
 - PPP
 - ATM
 - AAL5SNAP
 - AAL0
 - AAL5
 - AAL5MUX
 - AAL5NLPID
 - AAL2

- ENCAP_QinQ
- GRE
- **Port Type**—Choices include: Access, Trunk, Routed, and None.

Opening and Editing PEs

To open PE files to bulk edit, follow these steps:

Step 1 Choose **Inventory > Physical Inventory > Inventory Manager**.

Step 2 Click the **Open** button.

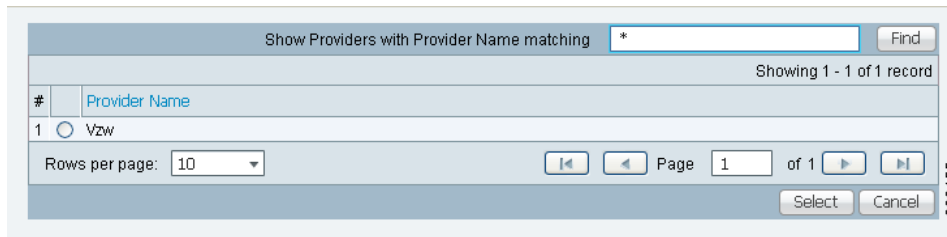
The **Open** drop-down list appears. The **Open** options include the following:

- **Devices**—Every network element that Prime Fulfillment manages.
- **Provider**—PEs belonging to a specific provider.
- **Customer**—CEs belonging to a specific customer.

Step 3 Select **Provider**.

The Select Provider window appears, as shown in [Figure 65-7](#).

Figure 65-7 Select Provider Window

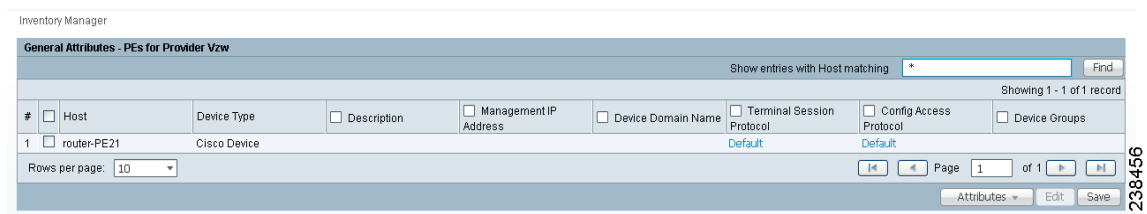


Step 4 Select a provider by clicking the radio button to the left of the Provider Name.

Step 5 Click the **Select** button.

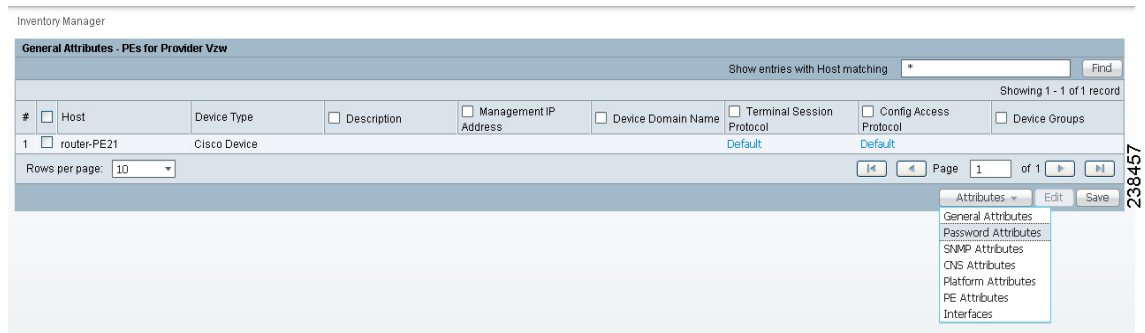
The General Attributes Provider window appears showing the PEs assigned to the selected provider, as shown in [Figure 65-8](#).

Figure 65-8 General Attributes Provider Window



Step 6 To view specific attributes click the **Attributes** button.

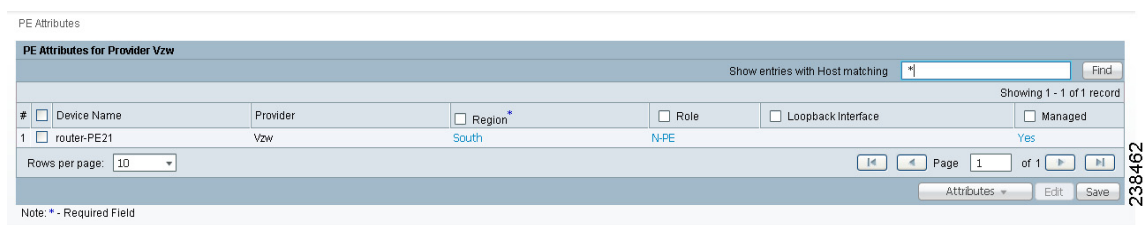
The Attributes options appear, as shown in [Figure 65-9](#).

Figure 65-9 *Attributes Options Window*

- Step 7** Select the type of attribute to display.
See the following sections for descriptions of these attribute fields.
- [General Attributes, page 65-4](#)
 - [Password Attributes, page 65-5](#)
 - [SNMP Attributes, page 65-5](#)
 - [CNS Attributes, page 65-6](#)
 - [Platform Attributes, page 65-6](#)
 - [PE Attributes, page 65-9](#)
 - [Interfaces, page 65-7](#)
- Step 8** To bulk edit an attribute, do the following:
- a. Check the one or more boxes to the left of the Host or Device Name.
 - b. Check the check box above the attribute name column.
 - c. Click the **Edit** button.
- Step 9** Enter the changes you want to make.
- Step 10** Click **Save**.
The changes are saved.

PE Attributes

The PE Attributes Provider window appears, as shown in [Figure 65-10](#).

Figure 65-10 *PE Attributes Provider Window*

The PE Attributes Provider window contains the following:

- **Device Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **Provider**—Lists the names of providers. Must begin with a letter. Can contain letters, numbers, and these punctuation characters: period, underscore, and dash. Limited to 80 characters. You can sort the list by provider name.
- **Region**—Lists the names of regions. Must begin with a letter. Can contain letters, numbers, and these punctuation characters: period, underscore, and dash. Limited to 80 characters. You can sort the list by region name.
- **Role**—Choices include: N-PE, U-PE, P, PE_AGG.
- **Loopback Interface**—Loopback address is the IP address of any loopback interface on the device. You can select one of the loopback interfaces for this field and use the IP address on that loopback interface.
- **Managed**—Provisioned by Prime Fulfillment. Check the check box for yes. Default is no.

Opening and Editing CEs

To open CE files to bulk edit, follow these steps:

Step 1 Choose **Inventory > Physical Inventory > Inventory Manager**.

Step 2 Click the **Open** button.

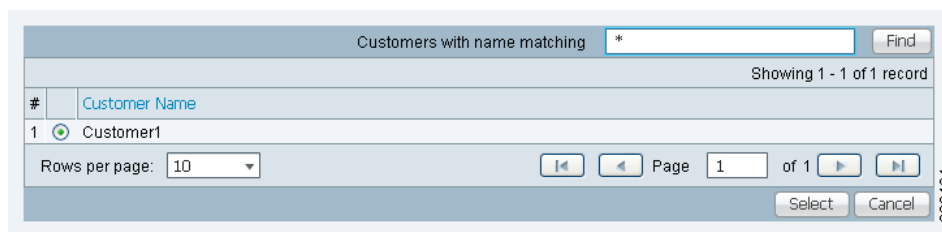
The **Open** drop-down list appears. The **Open** options include the following:

- **Devices**—Every network element that Prime Fulfillment manages.
- **Provider**—PEs belonging to a specific provider.
- **Customer**—CEs belonging to a specific customer.

Step 3 Select **Customer**.

The Select Customer window appears, as shown in [Figure 65-11](#).

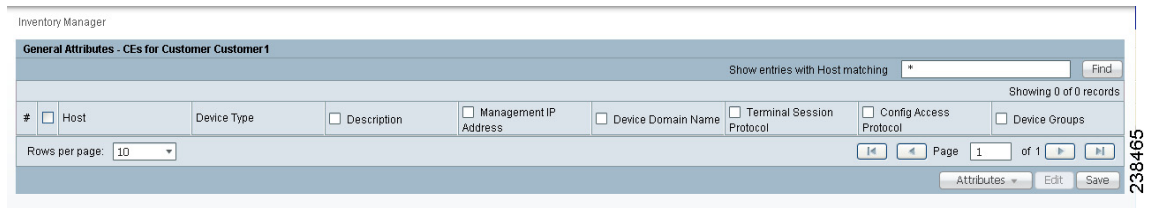
Figure 65-11 *Select Customer Window*



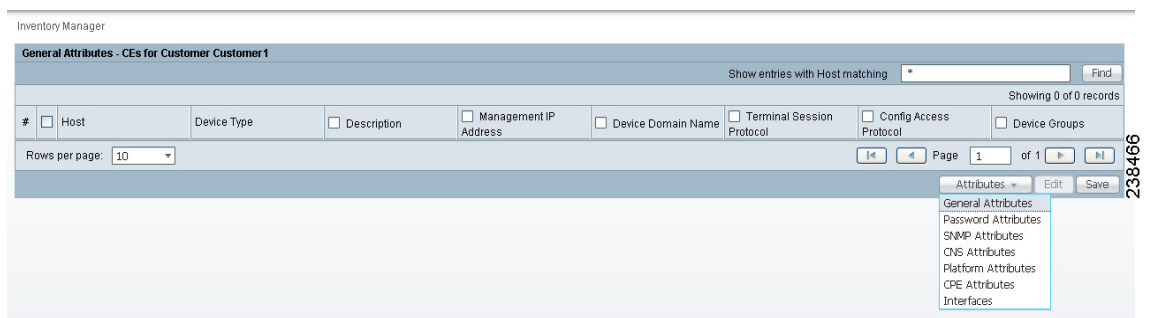
Step 4 Select a customer by clicking the radio button to the left of the Customer Name.

Step 5 Click the **Select** button.

The General Attributes Customer window appears showing the CEs assigned to the selected customer, as shown in [Figure 65-12](#).

Figure 65-12 General Attributes Customer Window

- Step 6** To view specific attributes click the **Attributes** button.
The Attributes options appear, as shown in [Figure 65-13](#).

Figure 65-13 Attributes Options Window

- Step 7** Select the type of attribute to display.
See the following sections for descriptions of these attribute fields.
- [General Attributes, page 65-4](#)
 - [Password Attributes, page 65-5](#)
 - [SNMP Attributes, page 65-5](#)
 - [CNS Attributes, page 65-6](#)
 - [Platform Attributes, page 65-6](#)
 - [CPE Attributes, page 65-12](#)
 - [Interfaces, page 65-7](#)
- Step 8** To bulk edit an attribute, do the following:
- a. Check the one or more boxes to the left of the Host or Device Name.
 - b. Check the check box above the attribute name column.
 - c. Click the **Edit** button.
- Step 9** Enter the changes you want to make.
- Step 10** Click **Save**.
The changes are saved.

CPE Attributes

The CPE Attributes Customer window appears, as shown in [Figure 65-14](#).

Figure 65-14 CPE Attributes Customer Window

The CPE Attributes Customer window contains the following:

- **Device Name**—Must begin with a letter, digit, or underscore followed by letters, digits, underscores, spaces, hyphens, or dots ending with a letter, digit, or underscore. This field is required and must match the name configured on the target router device. Limited to 256 characters.
- **Customer**—Lists the names of customers. Must begin with a letter. Can contain letters, numbers, and these punctuation characters: period, underscore, and dash. Limited to 80 characters. You can sort the list by customer name.
- **Site**—Lists the names of sites. Must begin with a letter. Can contain letters, numbers, and these punctuation characters: period, underscore, and dash. Limited to 80 characters. You can sort the list by site name.
- **Management Type**—Choices include: Managed, Unmanaged, Managed - Management LAN, Unmanaged - Management LAN, Directly Connected, Directly Connected Management Host, Multi-VRF, and Unmanaged Multi-VRF.

Assigning Devices

To assign a device to a provider or customer, follow these steps:

- Step 1** Choose **Inventory > Physical Inventory > Inventory Manager**.
- Step 2** Click the **Open** button.

The **Open** drop-down list appears, as shown in [Figure 65-15](#).

Figure 65-15 Open Options Window

- Step 3** Select **Devices**.

The Select Device window appears, as shown in [Figure 65-4](#).

- Step 4** Select a device to open by checking the box to the left of the Device Name. You can select more than one device to open.
- Step 5** Click the **Select** button.
The General Attributes Devices window appears containing information on the selected devices, as shown in [Figure 65-5](#).
- Step 6** Click the **Assign CE/PE** button.
- Step 7** Select **Customer** or **Provider**.
The corresponding **Select Customer** or **Select Provider** window appears.
- Step 8** Select the customer or provider to which you want to assign the device by checking the box to the left of the Customer or Provider Name.
- Step 9** Click the **Select** button.
If you assigned the device to a provider, the PE Attributes window appears. If you assigned the device to a customer, the CPE Attributes window appears.
- Step 10** In order to save the assigned devices to the Prime Fulfillment repository, you must specify the Site in the CPE Attributes window or the Region in the PE Attributes window. Do the following:
- Check the one or more boxes to the left of the Device Name.
 - Check the check box above the **Site** or **Region** column.
 - Click the **Edit** button. The **Edit Attributes** window appears.
 - Click **Select**. The **Select Site** or **Select Region** window appears.
 - Select a site or region by checking the box to the left of the Site Name or Region Name.
 - Click **Save**.
- Step 11** You can choose to edit attributes as desired. Enter any changes you want to make.
- Step 12** Click **Save**.
The PE or CPE is saved to the Prime Fulfillment repository.
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