CPI Scalable Enterprise Management Application (SEMA) Software User's Manual

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CHATSWORTH PRODUCTS, INC.

800-834-4969
techsupport@chatsworth.com
www.chatsworth.com

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Chatsworth Products, Inc.
9353 Winnetka Avenue
Chatsworth, CA 91311
800-834-4969

Scalable Enterprise Management Application (SEMA) User's Manual

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Table of Contents

INTRODUCTION ..... ERROR! BOOKMARK NOT DEFINED.

PRODUCT FEATURES 3

INSTALLATION GUIDE **4**

HARDWARE/SERVER SETUP 4
COLLECTING THE REQUIRED INFORMATION FOR SEMA SETUP 4
SEMA SETUP 5
Step 1: Create the Enterprise 6
Step 2: Login to Enterprise 7
Step 3: Create Enterprise Level User Accounts 8
Step 4: Create Datacenter Level User Groups 11
Step 5: Create Datacenter User Accounts 15
Step 6: Create Datacenters 19
Step 7: Access a Datacenter 23
Step 8: Create Datacenter Zones 24
Step 9: Create Racks within the Zones 27
Step 10: Edit Rack Properties 29
Step 11: Edit Rack – Testing CenterBridge Connection 30
Step 12: Edit Rack - Attach CenterBridge Device 31
Step 13: Edit Rack – Testing PDU Connection 34
Step 14: Edit Rack – Attach PDU 35
Step 15: Edit Rack – Insert Rack Devices 36
Step 16: Edit Rack Device 37

USER GUIDE **40**

POWER UP AND SHUTDOWN 40
Power Up Procedure 40
Shutdown Procedure 40
WEB GUI WALK-THROUGH – FOR ALL SEMA USERS 40
Login Screen: 40
Viewing Function: 42
Managing Function: 50
SEMAUI WALK-THROUGH – FOR SEMA ADMINISTRATORS 51
Find Devices dialog 52
Sema Information dialog 60
Configure dialog 61
Log Viewer dialog 62
Tools menu 63

TROUBLESHOOTING GUIDE **64**

SERVER HARDWARE 64
SERVER CONFIGURATION 65

APPENDICES **66**

INTRODUCTION

This document is the User's Manual for Scalable Enterprise Management Application (SEMA) software by Chatsworth Products, Inc. (CPI).

SEMA software is used with CPI's CenterBridge, monitored and controlled SEMA-compatible PDUs and PowerScope In-Line Meter to provide enterprise-wide, web-based KVM switch access to devices (computer and network switch equipment), asset management and power monitoring – total infrastructure management.

SEMA provides a single intuitive interface that presents an enterprise, data center, zone, and rack-level view of equipment and aggregate device power (current) use. SEMA lets IT administrators access equipment remotely when combined with CPI's CenterBridge, cycle power to equipment (individual outlets) when combined with controlled PDUs, and measure power use by rack when combined with monitored PDUs or by device (individual outlets) when combined with PDUs with port metering.

SEMA will automatically monitor and store current, temperature and humidity values, warning IT staff if thresholds are met and providing the critical historical data to report power usage and improve the efficient use of power at all infrastructure levels.

Product Features

SEMA is a central component of the CPI infrastructure management system that brings all the components together making the resources and features available to clients over the network. It provides the workflow to:

- Initiate and discover all components (CenterBridge, PDUs, and PowerScope In-Line Meters) that are part of CPI's infrastructure management system and assist in their proper configuration and introduction into the working system.
- Configure binding/associating the following: devices (computer and network equipment) to CenterBridge, CenterBridge to racks, PDU ports (outlets) to devices, and grouping PDU ports (outlets).
- Configure specific attributes to each device such as: assign the sequence of receptacle power recycling with predetermined time delays for each receptacle (reset delay).
- Handle the authentication requests from users through Active Directory (AD), Radius or local database. It has network access to the designated authentication server.
- Allow the users on web clients to configure, monitor, and manage Data Centers, Zones, Rows, Racks and Components (KVM switches, PDUs, PowerScope). In the case of controlled PDUs, controlling and monitoring power/current even at the receptacle level.
- Allows user to customize (create, modify, store and retrieve) the graphical presentation of the Enterprise/Datacenter/zones/row/rack/components.
- Search and display of all devices (servers, PDUs) that meet a certain criteria: temperature, power draw, on-line and power down.
- Provide tight security: https for web access with authentication through the authentication server. The exchange of data between components uses AES-256 bit encryption algorithm.
- Automatically lock unused receptacles on controlled PDUs that are OFF to remain on OFF state once the current draw on the branch circuit has reached a preset limit. This is done to prevent over draw of power (the breaker has reached a critical high, which was set by the user).
- Identify the current users of resources (PDUs, servers, etc.) and able to notify them if desired.
- Notify users of events by email, page or Instant Messaging.
- Allow localization of all screen displayed text, files and hardcopies.

INSTALLATION GUIDE

Hardware/Server Setup

SEMA software is shipped pre-installed and configured on a 1U rack-mount sever. Follow the server manufacturer's installation instructions to install the server in your cabinet. Connect the server to power, network and KVM.

Power the server on and follow the **Customer Configuration Procedure** document enclosed with the server to access and configure the server for your network and load the base license and activation keys. Once the server is configured, you can access SEMA using a client computer on the same network.

Collecting the Required Information for SEMA Setup

- SEMA presents attached devices in a series of site layouts and rack elevations using the schema: Enterprise, Datacenters, Zones and Racks.
  - Enterprise: there is only one Enterprise level within a company.
  - Datacenters: there can be many Datacenters within an Enterprise.
  - Zones: there can be many Zones (groups of racks) in each Datacenter.
  - Racks: there can be many Racks per Zone.
  - Equipment/Devices: there can be many Devices (computer, data storage and network switch equipment) per Rack.
- You can assign user permission to each level (Enterprise, Datacenter, Zone, Rack) by Group or User. There are three levels of user permissions: Control, Configure and Admin.
  - Control Role: lowest level, allows the user to view the output/display information only. In the case where the device is a server, the user can access the server, run applications and perform tasks on the server as allowed by the Server or Active Directory Username/Password.
  - Configure Role: Same as View Role plus allows the user to manipulate the SEMA components within the level. For example: In a Rack, the user with Configure Role can turn on/off any or all of outlets on controlled PDUs that are associated with the Rack.
  - Admin Role: Same as Configure Role plus allows the user to manage SEMA components within the level. For example: A user with Admin Role can associate a new SEMA Component (PDU, CenterBridge) with a Rack

- The first steps in SEMA are to create users, create layouts and elevations, assign levels of access, and identify equipment. To get started, prepare lists of:
  - Usernames, permission, groups for Enterprise, Datacenters.
  - Name for Enterprise, Datacenters, Zones, Racks, and devices.
  - The MAC address (from the label on the component) of each CenterBridge in the network with the name and location of the rack it is in and the devices that it will be attached to by CenterBridge SIM location (port number).
  - The MAC address (from the label on the component) of each Monitored or Controlled PDU and PowerScope In-Line Meter in the network with the name and location of the rack it is in. For Monitored and Controlled PDUs, include which ports (outlets) each device attaches to.
  - The IP address of the SEMA server.

SEMA Setup

- Verify that the SEMA sever is powered on, connected to the network and running correctly.
- Obtain the IP address of the SEMA Server (for example: 192.168.100.1)
- Start Microsoft Windows Internet Explorer on a client computer that is on the same network as the SEMA server.
- Enter the IP address of the SEMA Server in the browser window, for example: http://192.168.100.1. You may be prompted to install a SEMA plug-in.
- Initialize SEMA Web GUI and database as follows (next page):

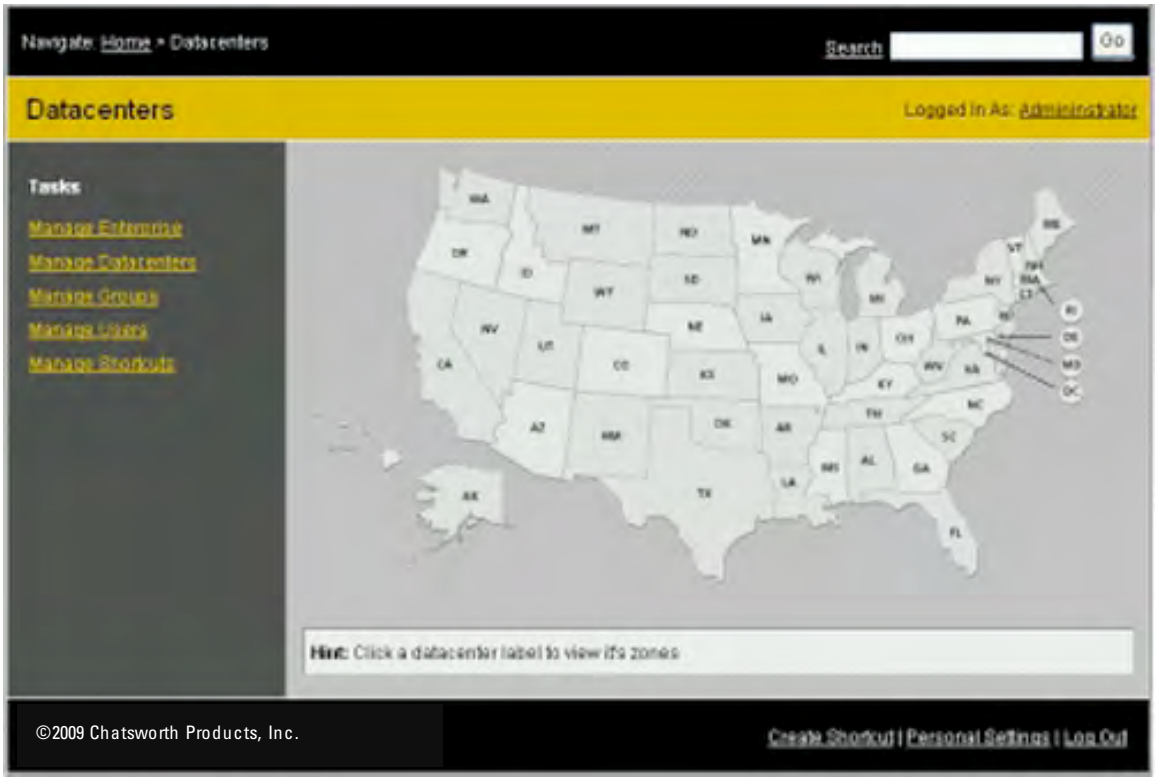
Step 1: Create the Enterprise

- To be done by the Enterprise Administrator.
- Provide the information by selecting and entering data to input fields. Only fields with red asterisk are required.
- If using LDAP for login then fill in the LDAP field and check the Allow Local Login to test for correct LDAP information. After the Enterprise is created, if only login through LDAP is allowed then deselect the check box. Local Login is authenticated using the SEMA database if LDAP authentication fails.
- Click Create Enterprise button to update the database.

Step 2: Login to Enterprise

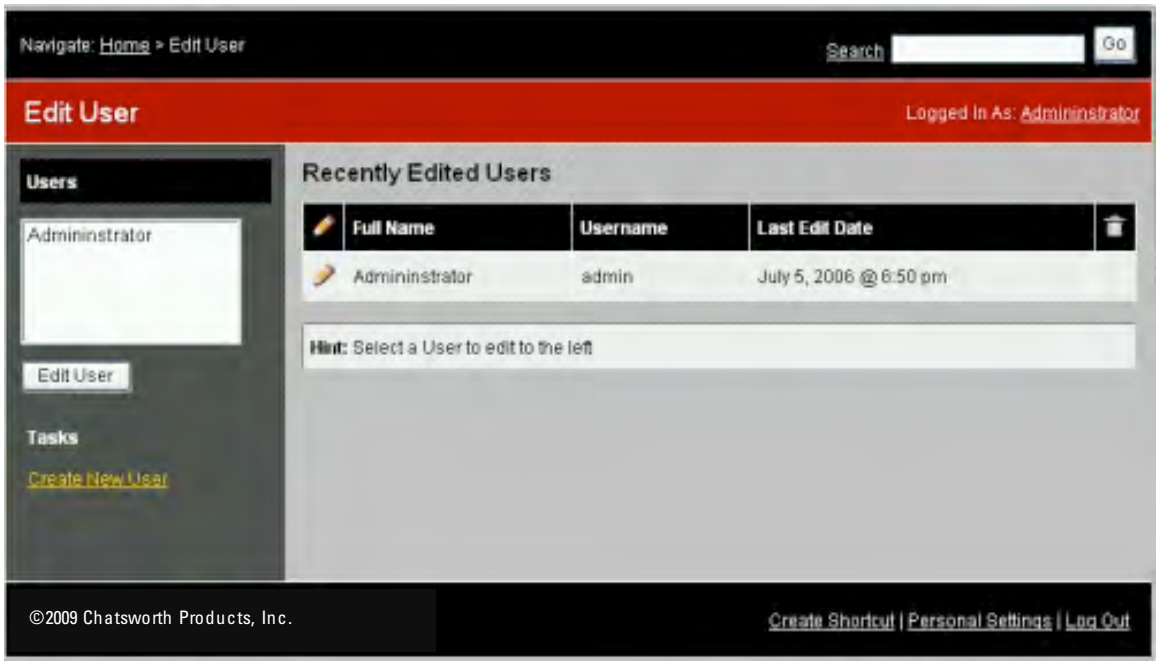
- First time login SEMA by the Enterprise Administrator: Enter the Administrator Username and Password as entered at time of Creating Enterprise.
- Click on the Login button.

Step 3: Create Enterprise Level User Accounts

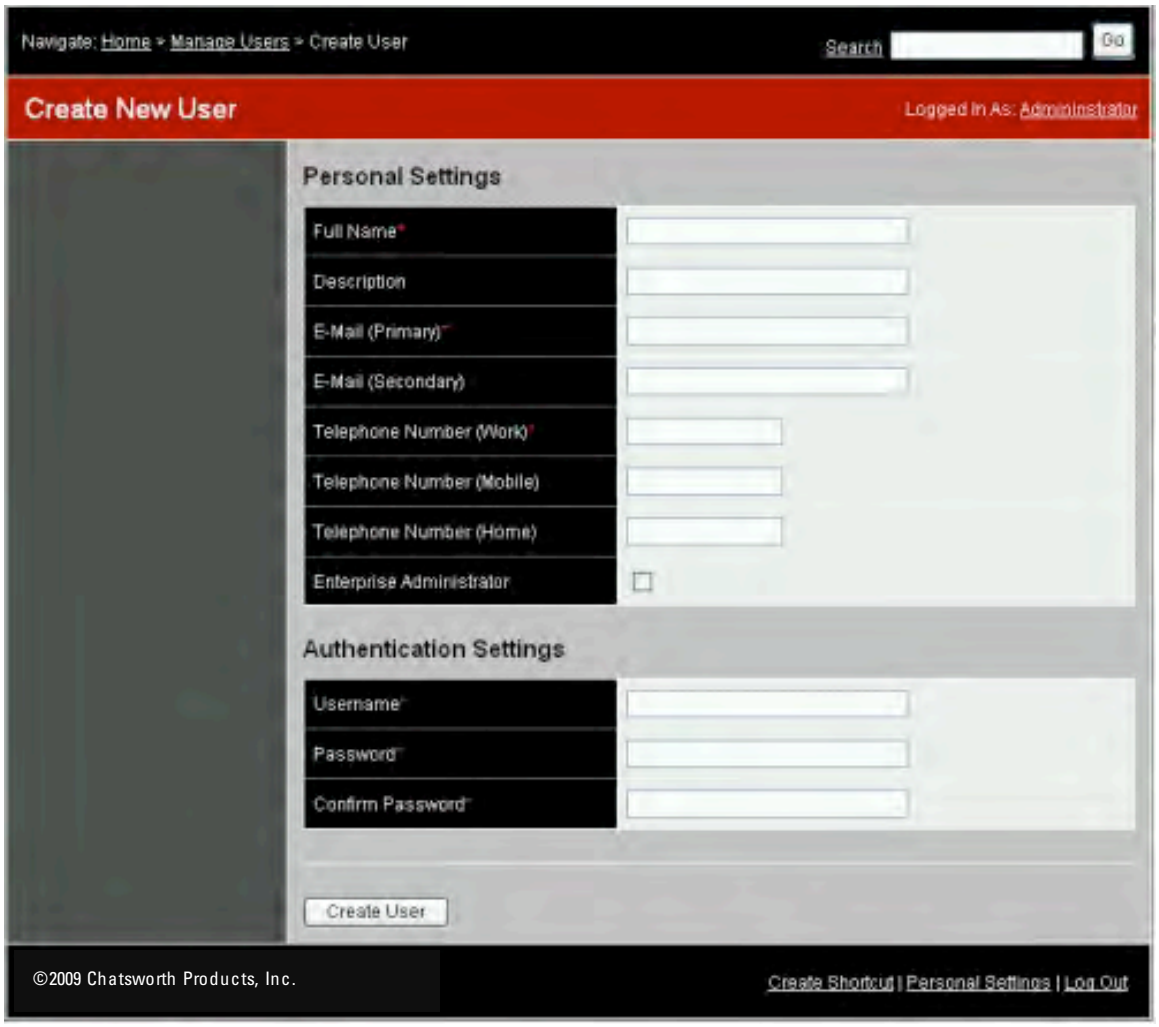


Goal: Adding users to manage the Enterprise.

- Click on Manage Users to add new users.

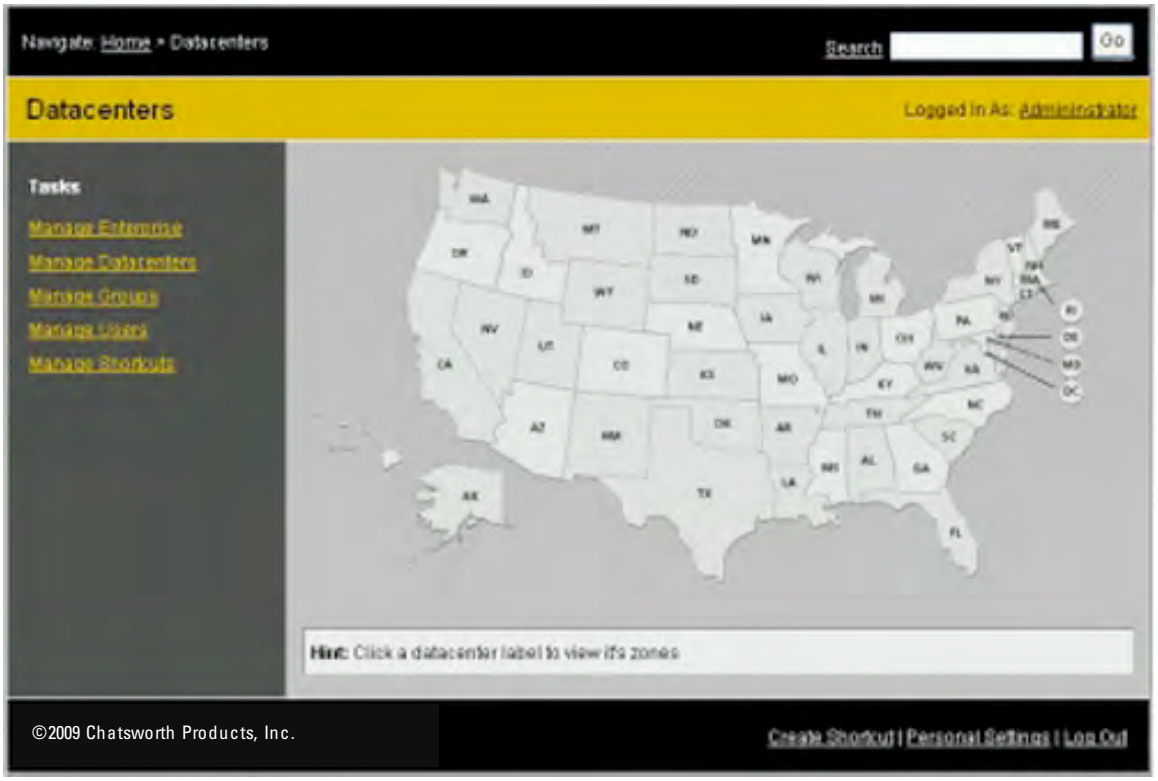


- Click on Create New User to create new user for Datacenter.



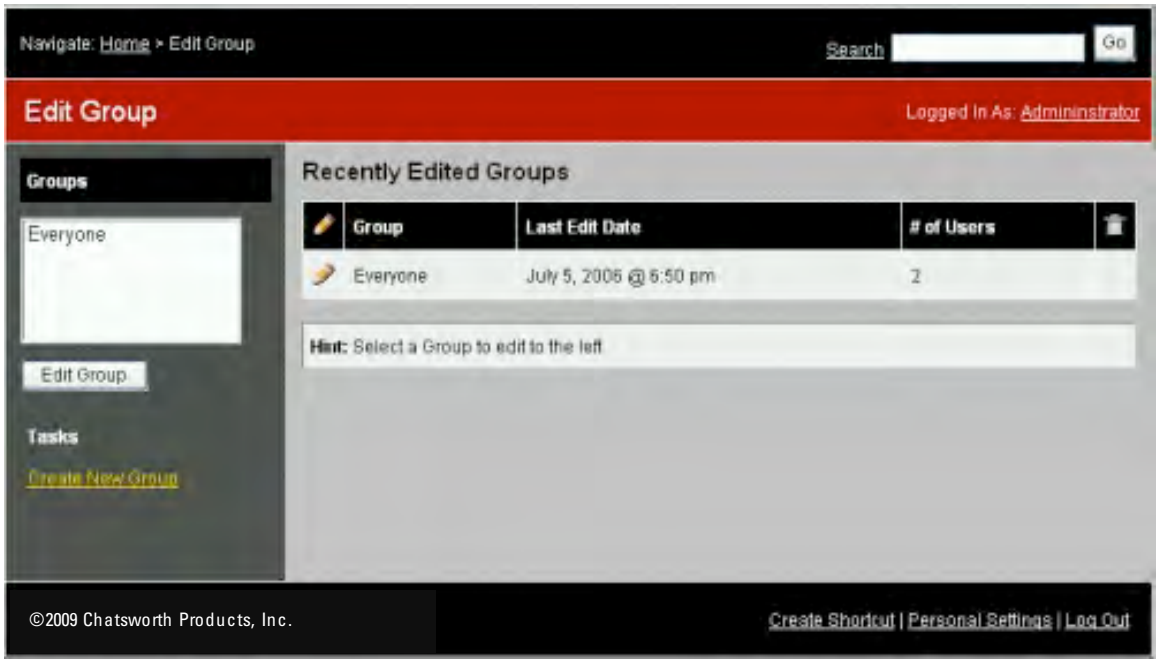
- Provide the information by clicking, and entering data to input fields. Only fields with red asterisk are required.
- Check the Enterprise Administrator check box.
- Click Create User button to update the database.
- Repeat until complete adding all users.
- Click the Home link on the Navigate bar.

Step 4: Create Datacenter Level User Groups



Goal: Adding group(s) of users to manage Datacenters within the Enterprise.

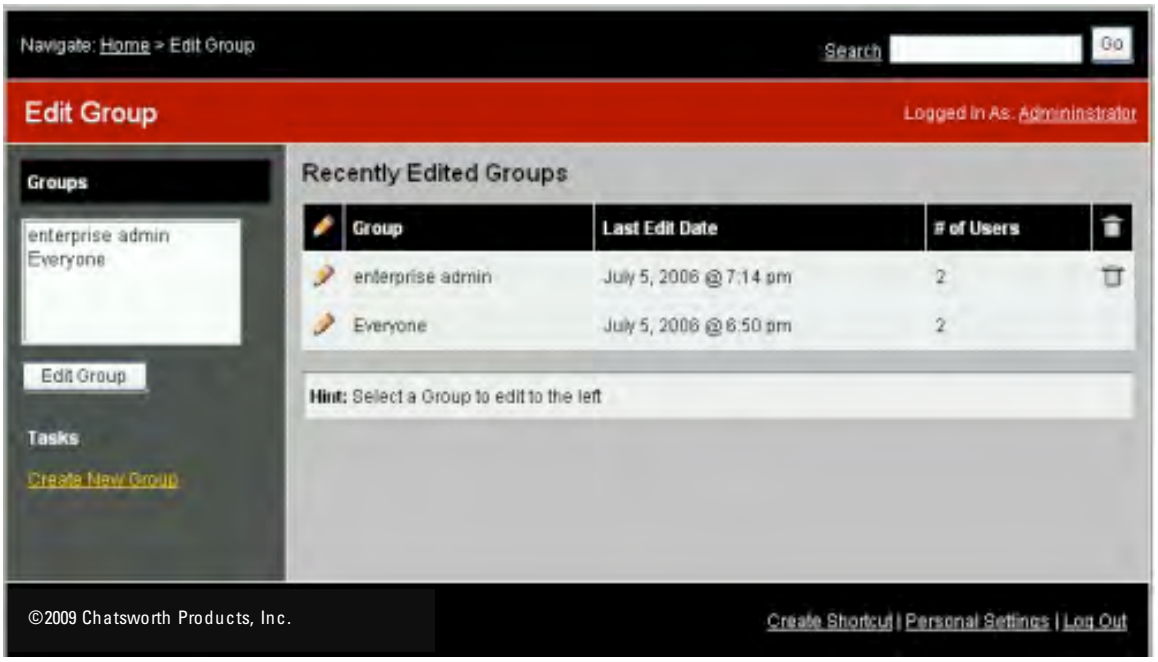
- Click on Manage Groups to create groups of Users for Datacenter(s).



- Click on Create New Group to create a new group.

- Enter the name for the Group.
- Move the appropriate User(s) into the group if applicable.
- Click on Create Group to update the database.
- Repeat to add additional groups.
- Click the Home link on the Navigate bar.

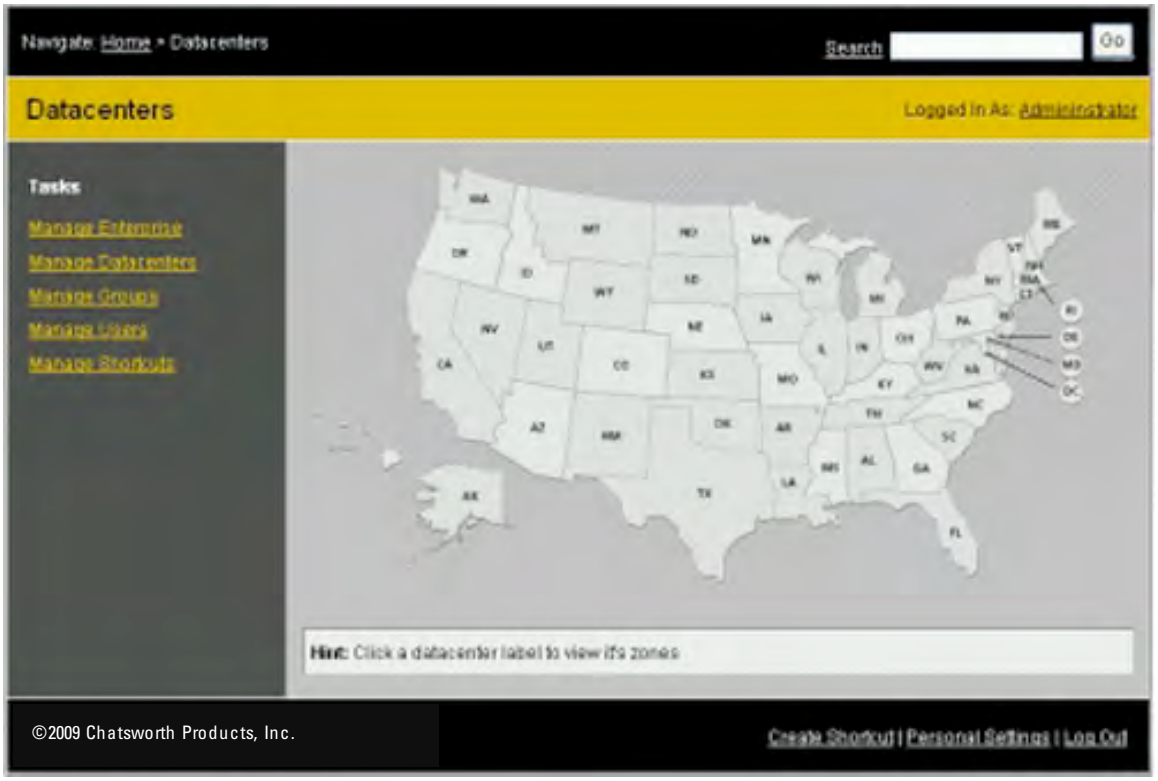
Note:
Be aware that assigning permissions to the newly created group will be done later when creating Datacenters, Zones, Racks, and Devices.



.

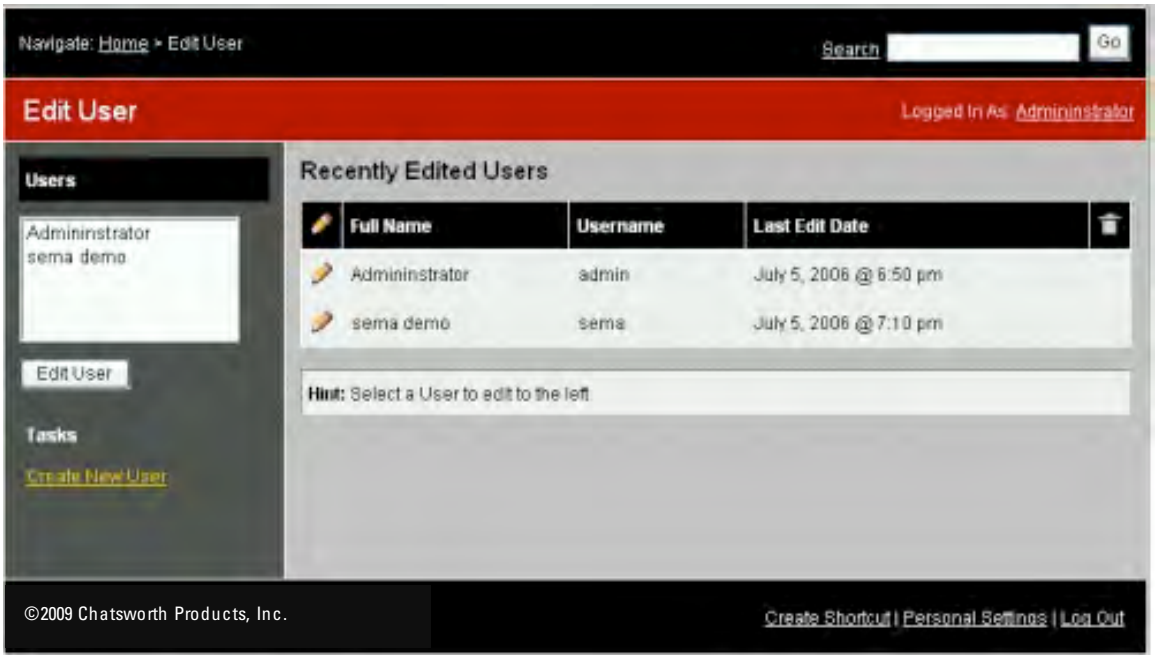
- If modification is needed for an existing Group. Select a group name in the Groups List box and click Edit Group button if that group's information needs to be modified.
- Repeat Click the Home link on the Navigate bar.

Step 5: Create Datacenter User Accounts

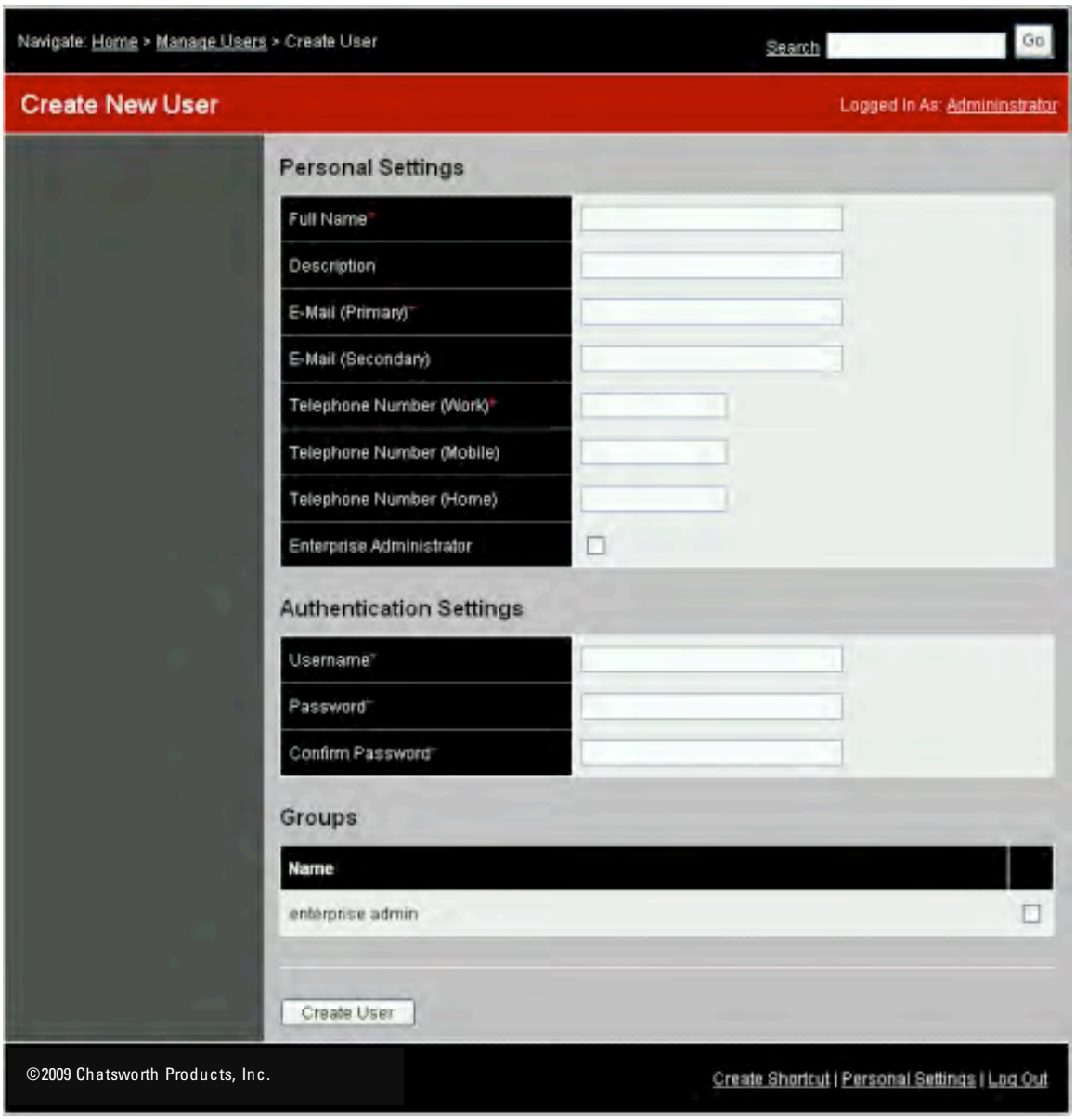


Goal: to add User(s) to the existing Group(s)

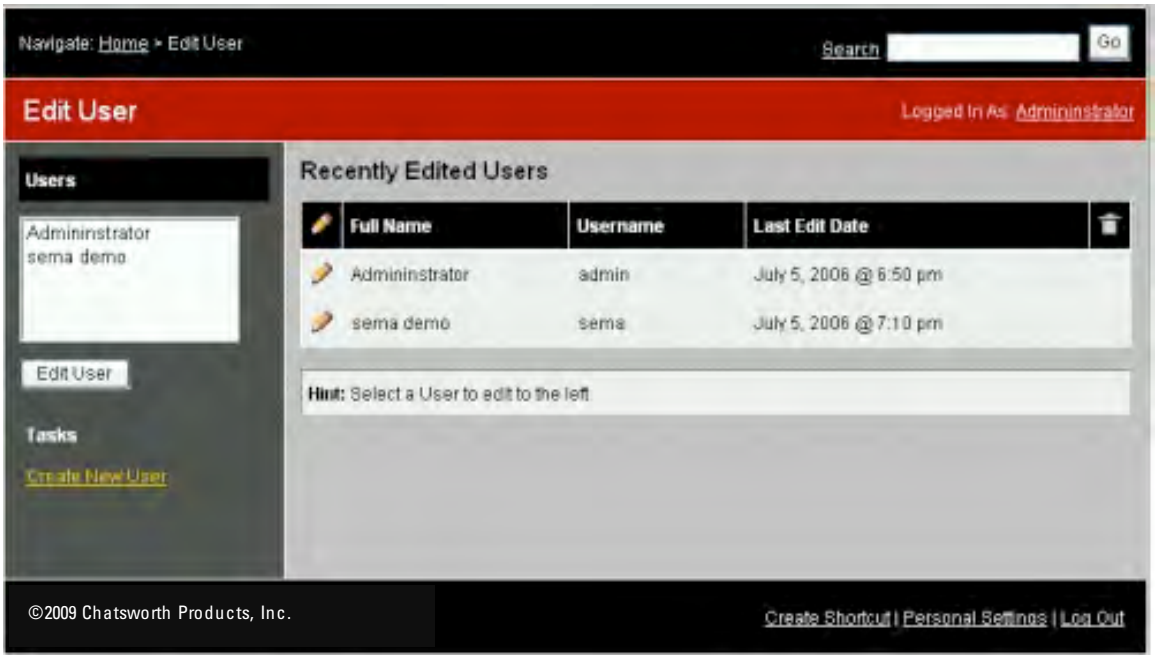
- Click on Manage Users to create users to manage the Datacenter(s).



- Click on Create New User to create new user.

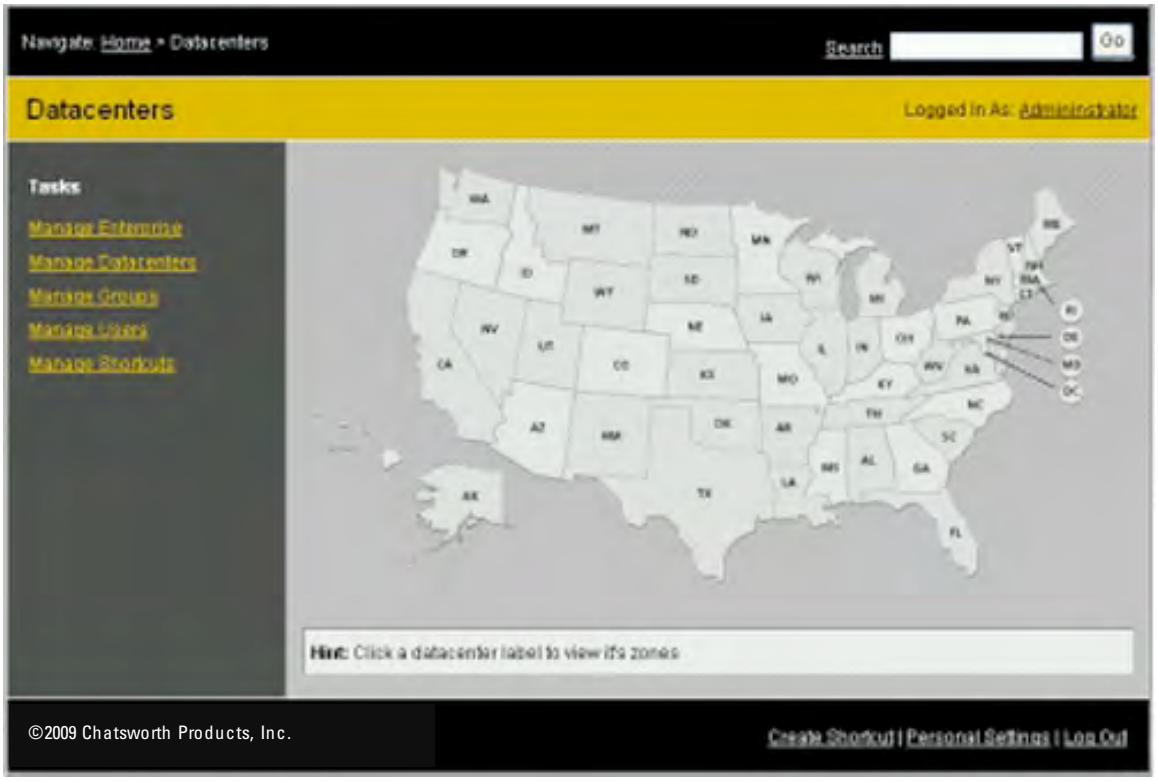


- Provide the information by clicking, and entering data to input fields. Only fields with red asterisk are required.
- Click Create User button to update the database.

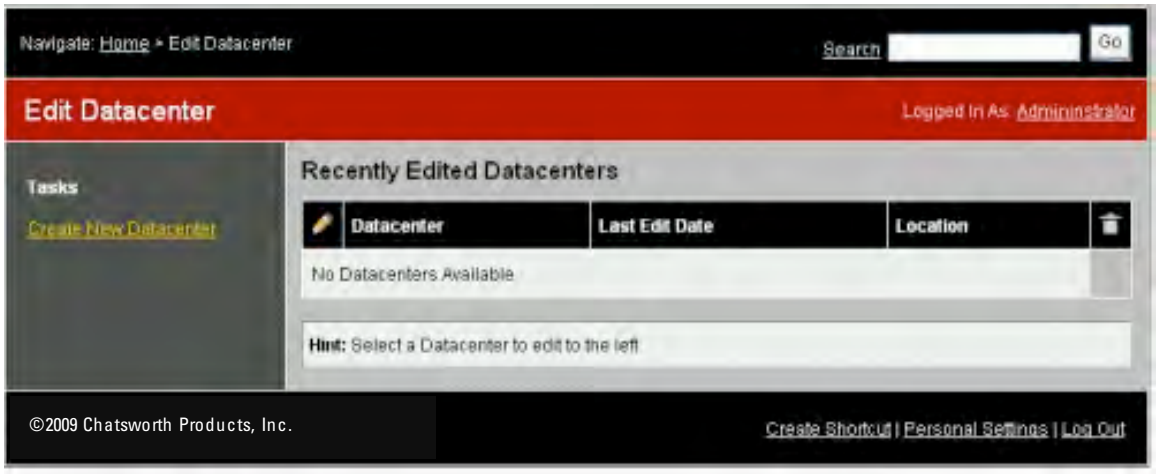


- Repeat if more users are needed.
- Select a user name in the Users List box and click Edit User button if that user's information needs to be modified.
- Click the Home link on the Navigate bar.

Step 6: Create Datacenters



- Click on Manage Datacenters to create new Datacenter.



- Click on Create New Datacenter to create a new Datacenter.

Navigate: Home > Manage Datacenters > Create Datacenter

Search Go

Create New Datacenter

Logged In As: Admininstrator

Basic Information

Datacenter Name*	West Coast 1
Datacenter Description	
Location*	Redmond, WA
Address (255 Characters max)*	
E-Mail (Distribution List)	support@epicentemc.com

Internal Contacts

Main Contact Number*	(xxx) xxx-xxxx
IT Contact Number	(xxx) xxx-xxxx
Operations Contact Number	(xxx) xxx-xxxx

Additional Resources

Fire Emergency Number	(xxx) xxx-xxxx
Power Number	(xxx) xxx-xxxx
Telco Number	(xxx) xxx-xxxx

Zones

Wide*	Zones
Tall*	Zones

Map Coordinates (Set Coordinates)

X Coord*	
Y Coord*	

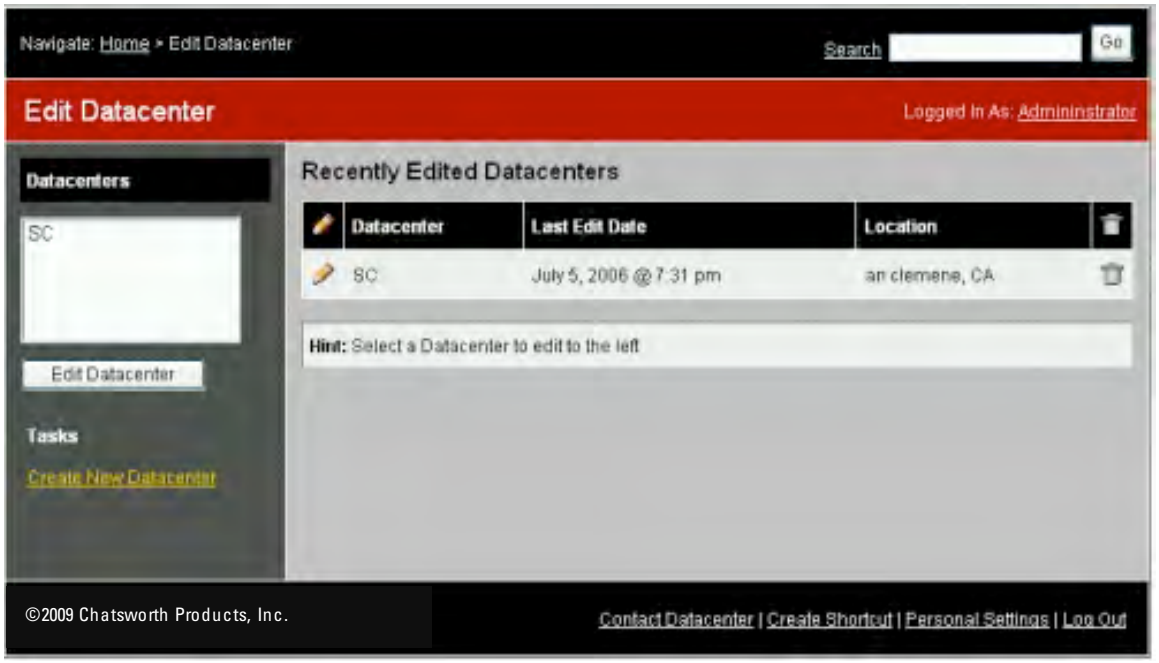
Groups

Name	Control	Configure	Admin
Everyone	☐	☐	☐
enterprise admin	☐	☐	☐

Create Datacenter

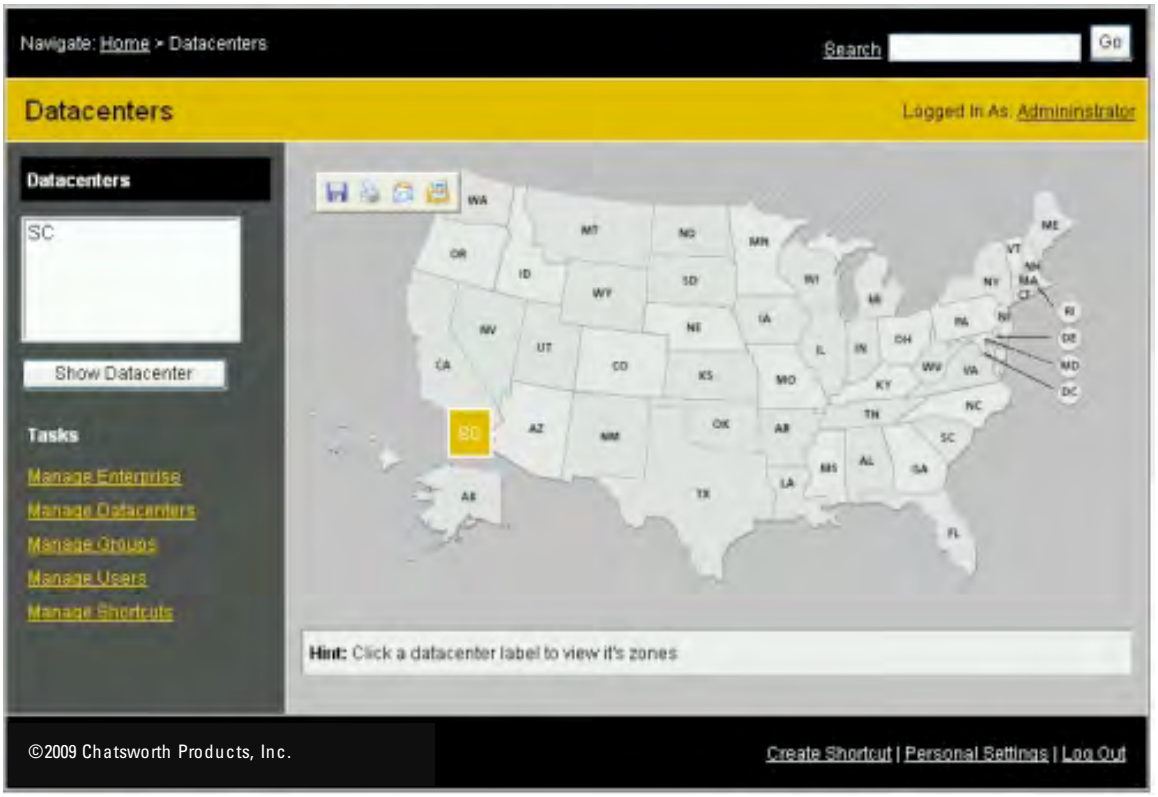
Create Shortcut | Personal Settings | Log Out

- Provide the information by clicking, and entering data to input fields. Only fields with red asterisk are required. Click on Set Coordinates to get helps on X and coordinates.
- Click Create Datacenter button to update the database.



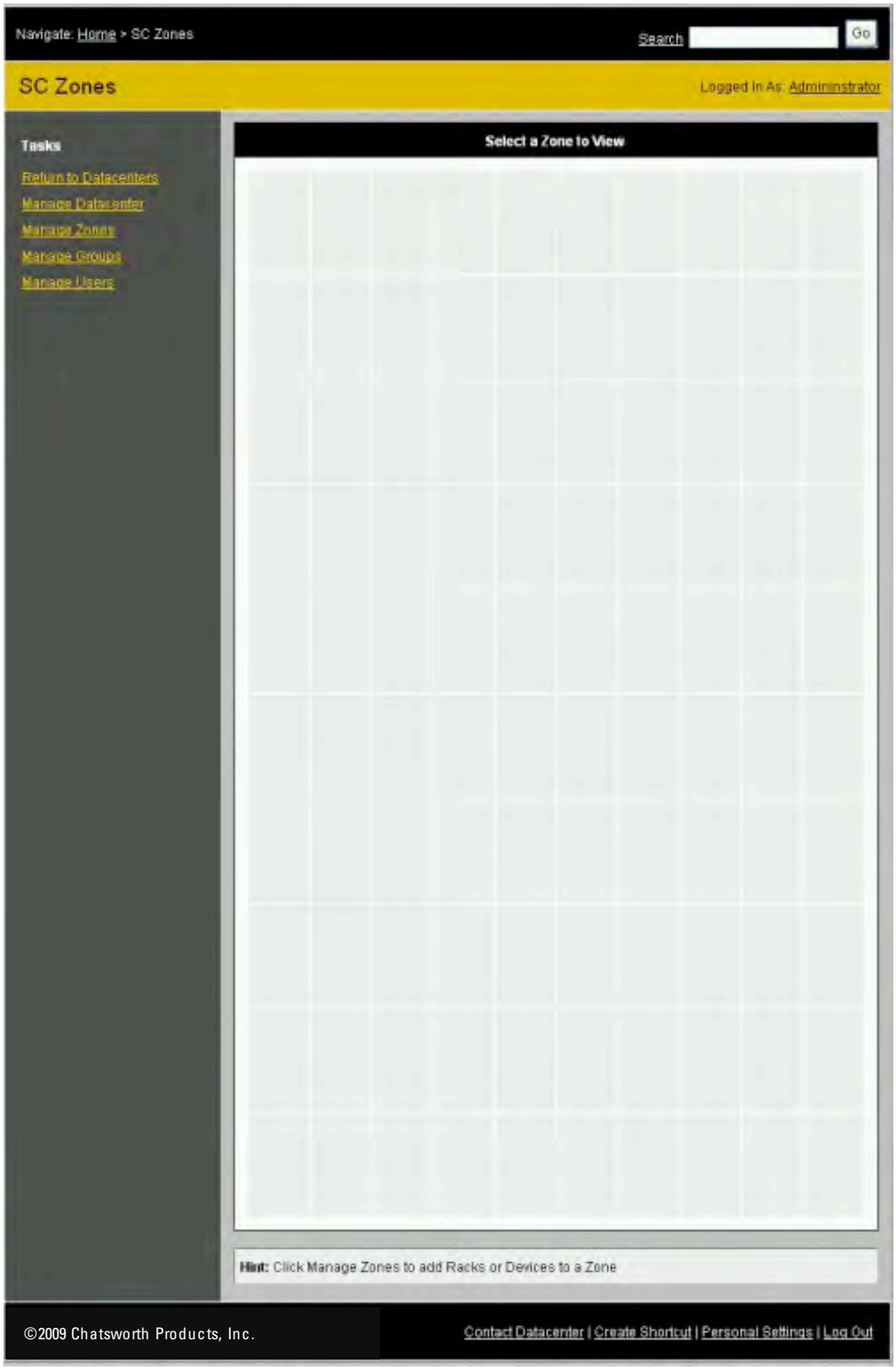
- Repeat if more datacenters are needed.
- Select a Datacenter name in the Datacenters List box and click Edit Datacenter button if that Datacenter's information needs to be modified.
- Click the Home link on the Navigate bar. Or
- Click on Log Out link to end the SEMA session.

Step 7: Access a Datacenter

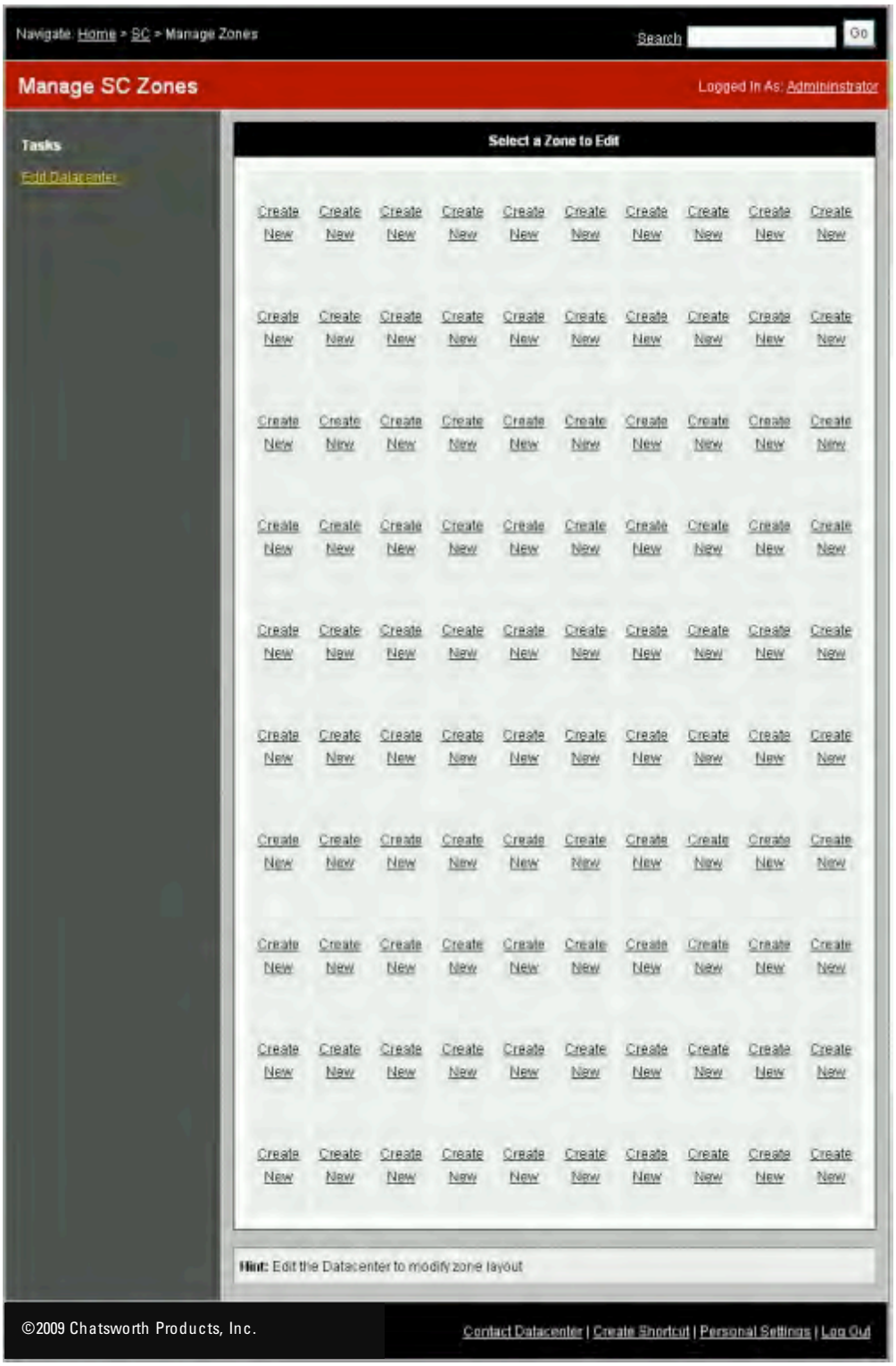


- Click on a Datacenter on the map or
- Highlight a Datacenter name and click Show Datacenter to continue designing the Datacenter.

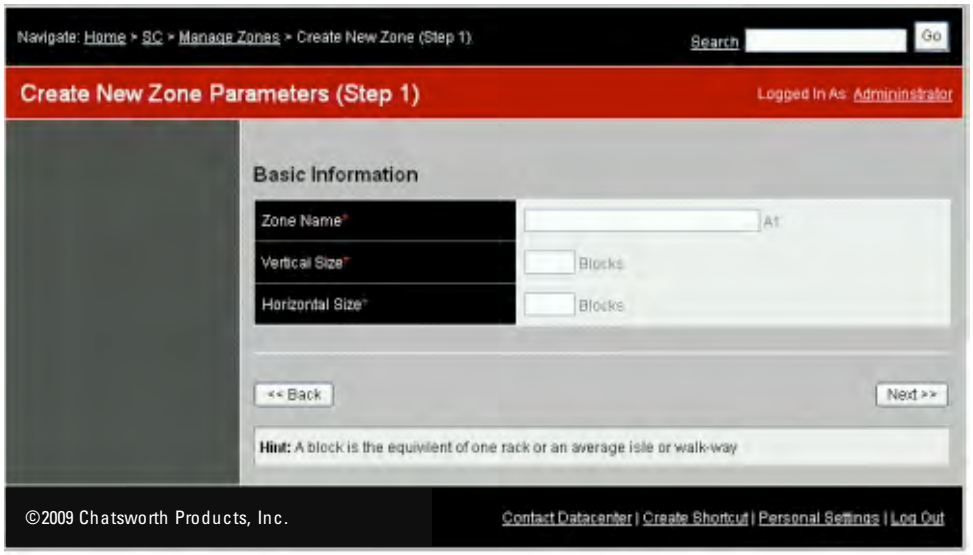
Step 8: Create Datacenter Zones



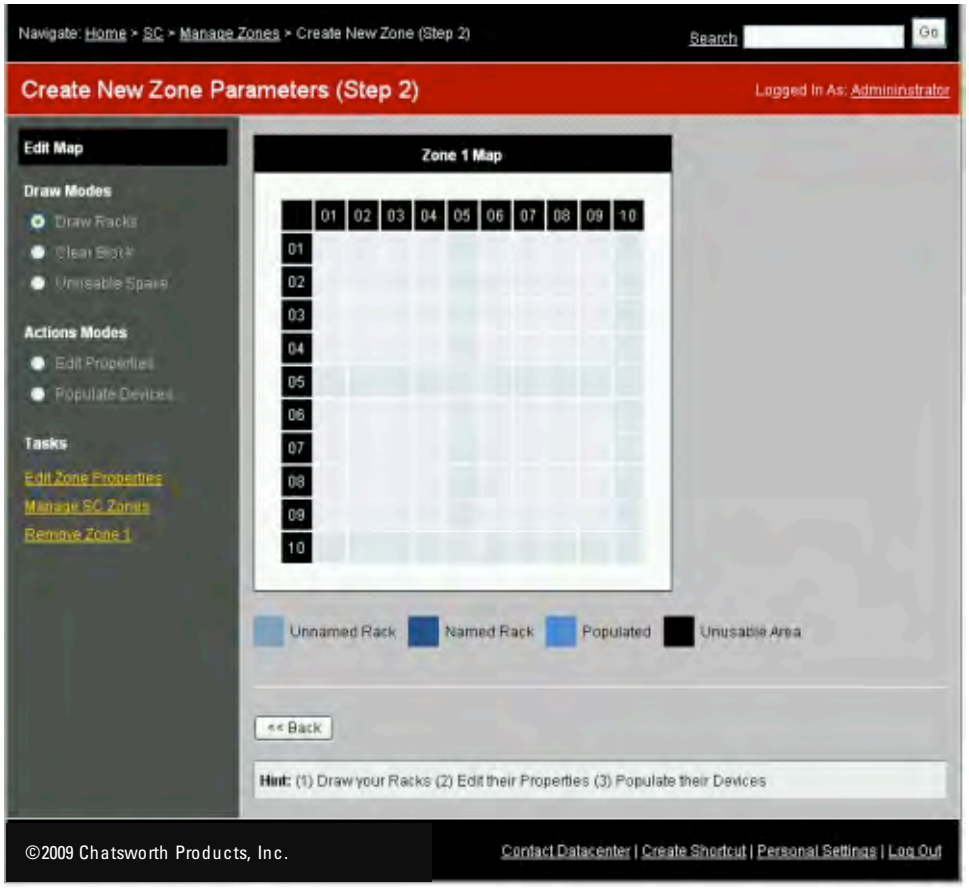
- Click on Manage Zones button to add zones to the Datacenter.



- Click on Create New in the appropriate Zone block to add zone to the Datacenter.

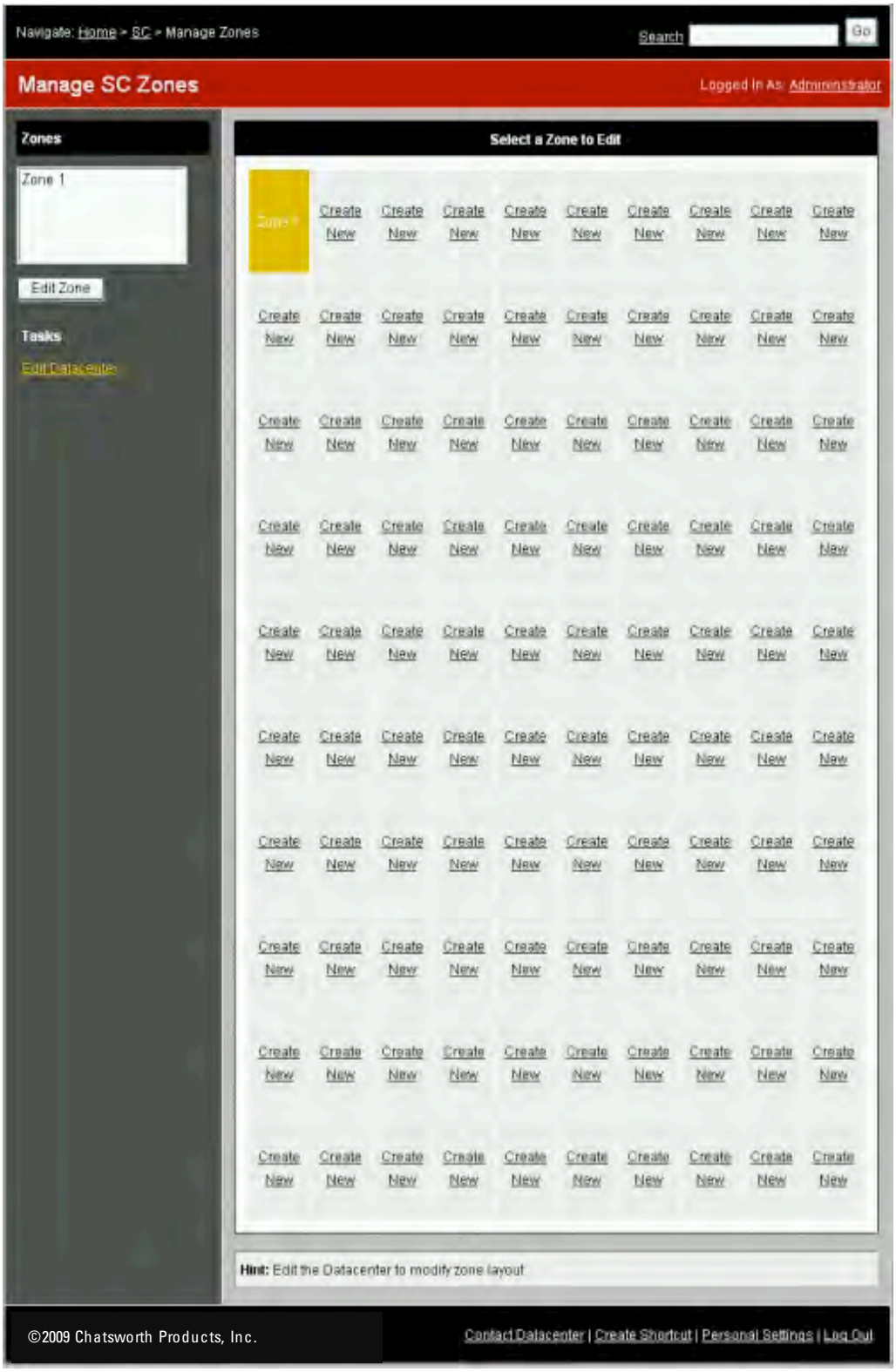


- Provide the information by clicking, and entering data to input fields. Only fields with red asterisk are required and click on the Next button.

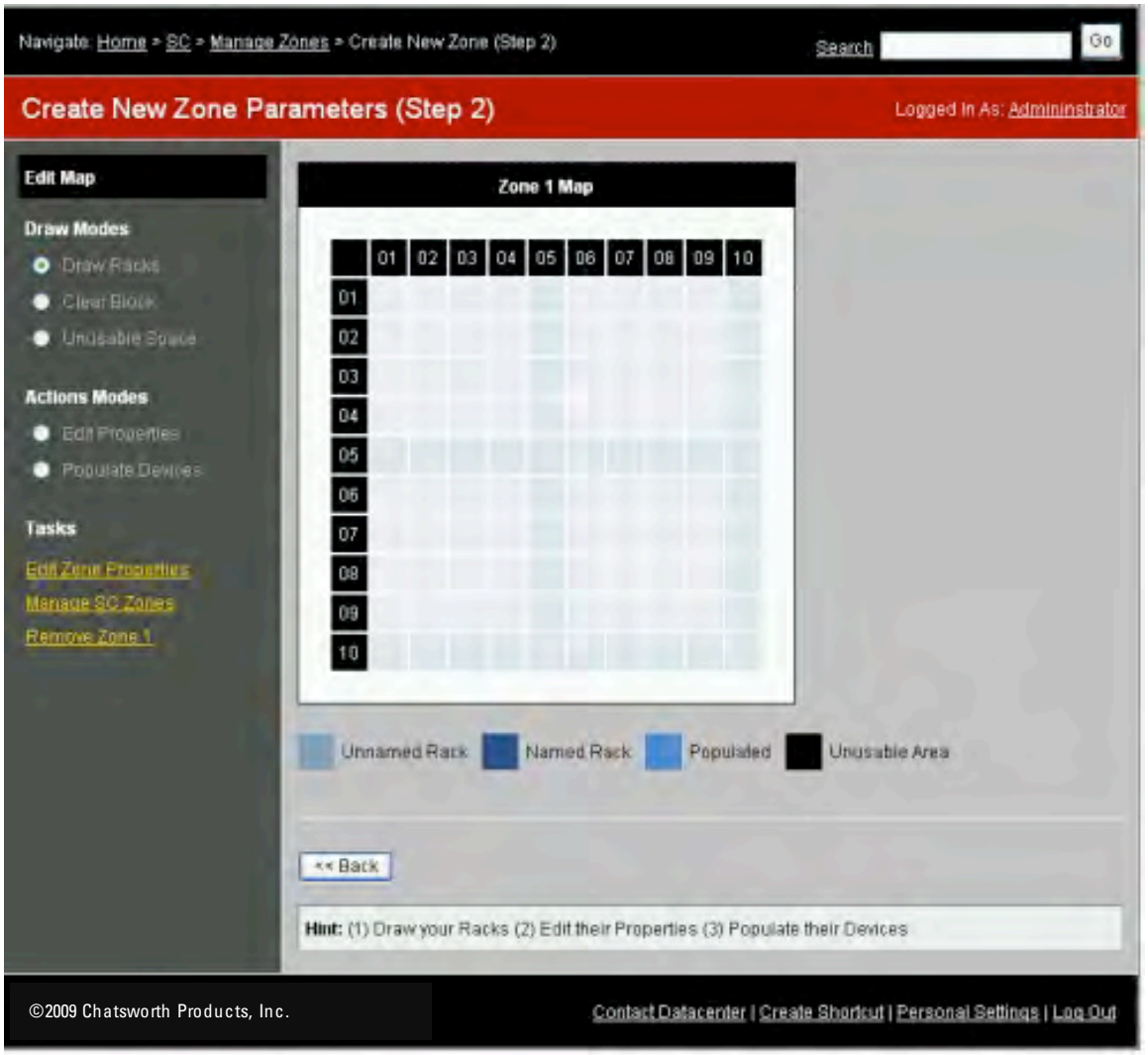


- Click on Manage Zones

Step 9: Create Racks within the Zones

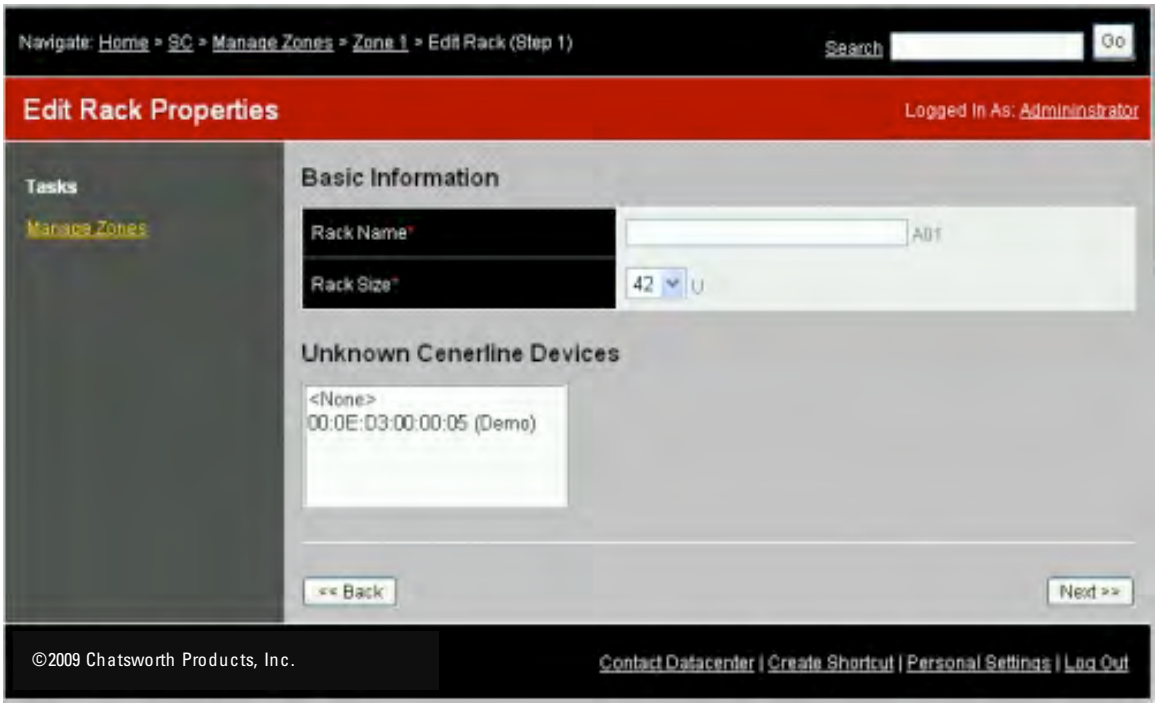


- Click on the zone to manage



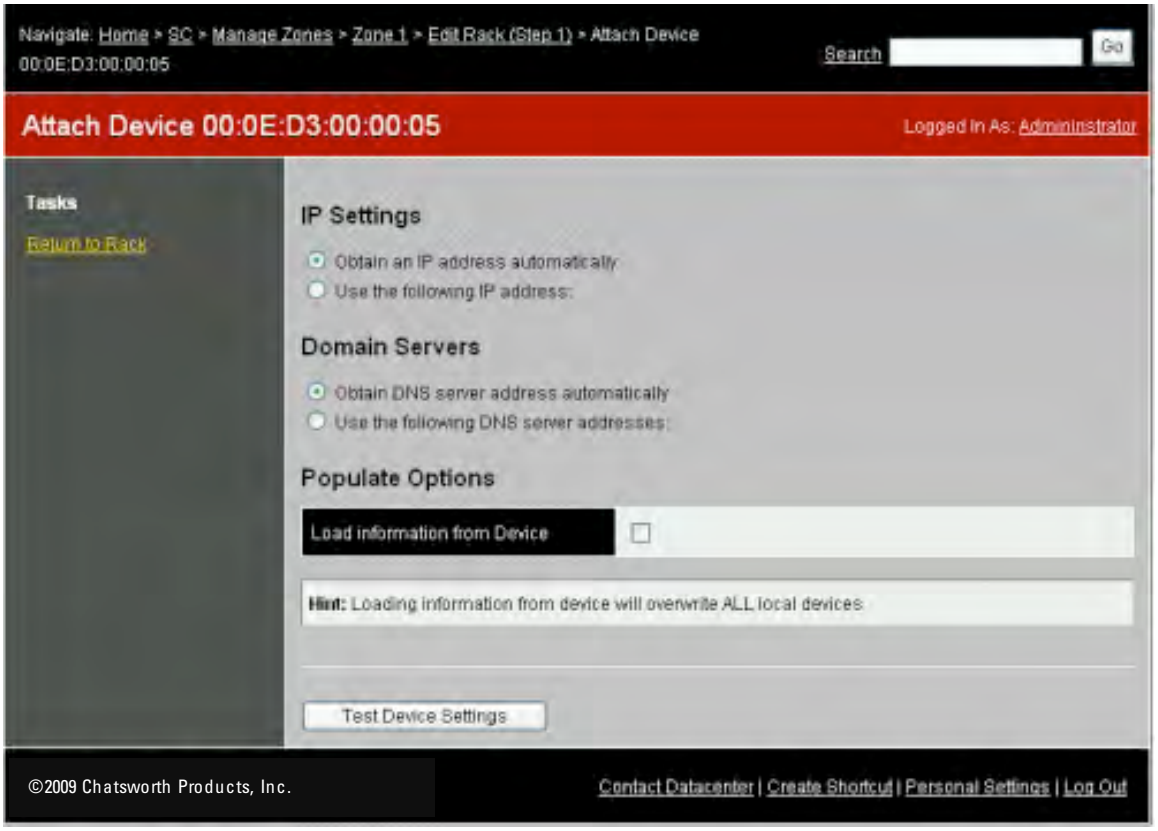
- Enter Draw Racks in the Draw Modes
- Click on the blocks in the zone that you want to add racks. The block will turn light blue (unnamed rack).
- Clear Block option is remove rack or unusable space
- Unusable Space is to make a block where rack cannot be placed
- After one or more Racks are placed select Edit Properties in Actions Modes and click on a Rack to edit (only on racks which are unnamed or named or populated).

Step 10: Edit Rack Properties



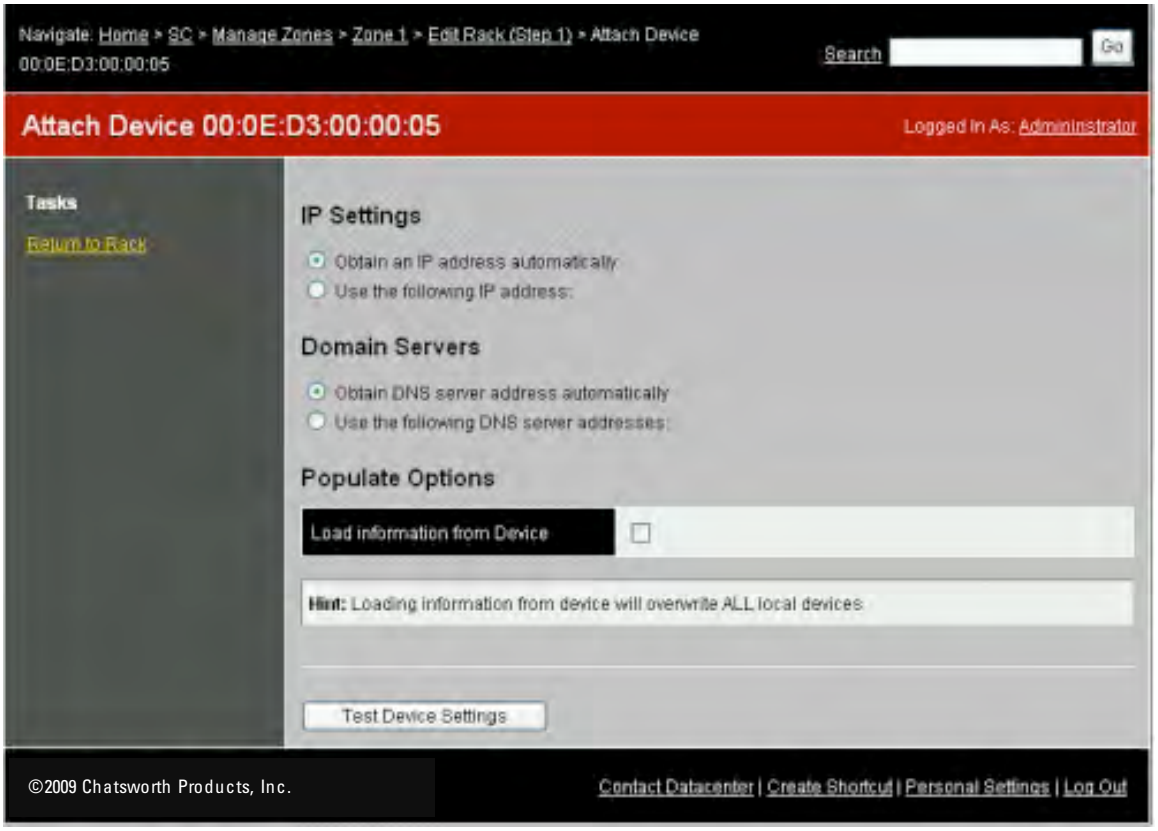
- Provide the information by entering data to input fields. Only fields with red asterisk are required.
- A list of the MAC addresses for the CenterBridges that are available on the network will be presented. Use the list that you prepared earlier to select the MAC address of the CenterBridge that is located in the rack.
- Click on appropriate check boxes for all displayed Groups.
- Click Next button to continue the rack edit.

Step 11: Edit Rack – Testing CenterBridge Connection

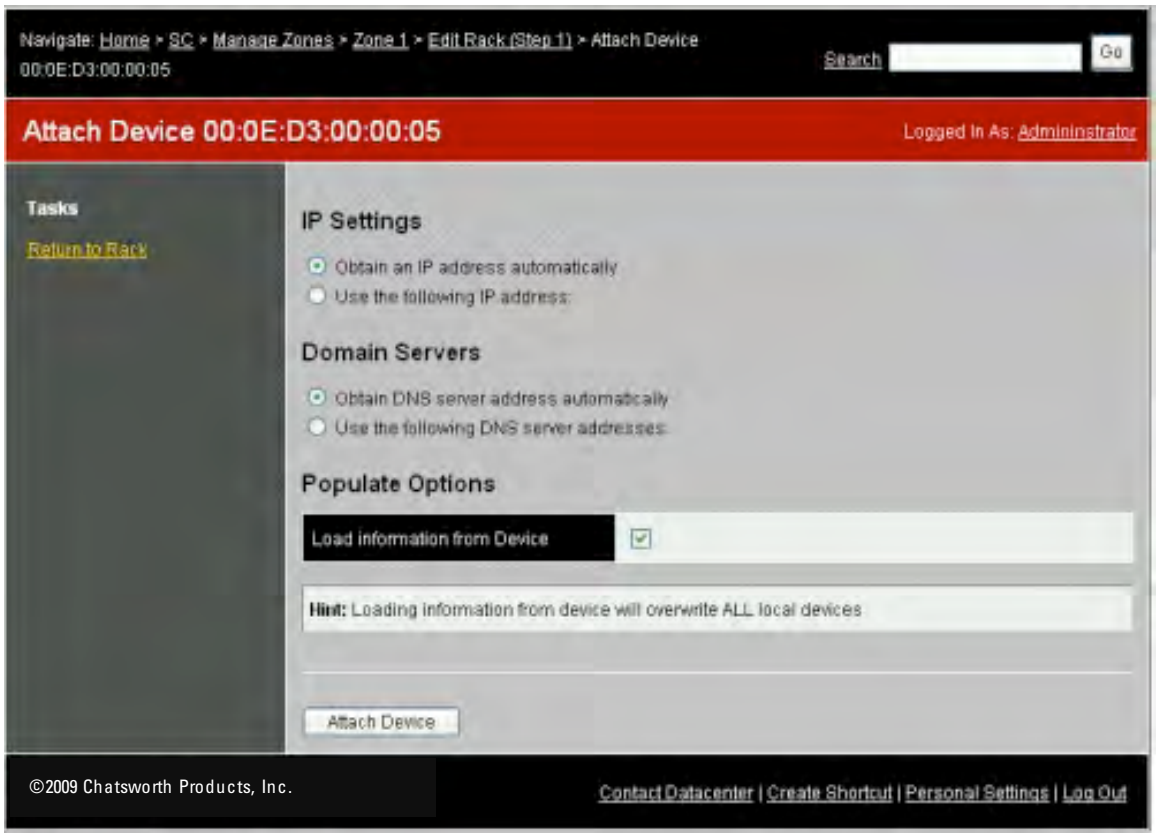


- Provide the information by entering data to input fields. Only fields with red asterisk are required.
- Click on the Test Device Settings button.
- If the Test result is failed then check and apply corrections for all entered data and click Test Device Settings.
- If Test result is passed then continue on Step 24.

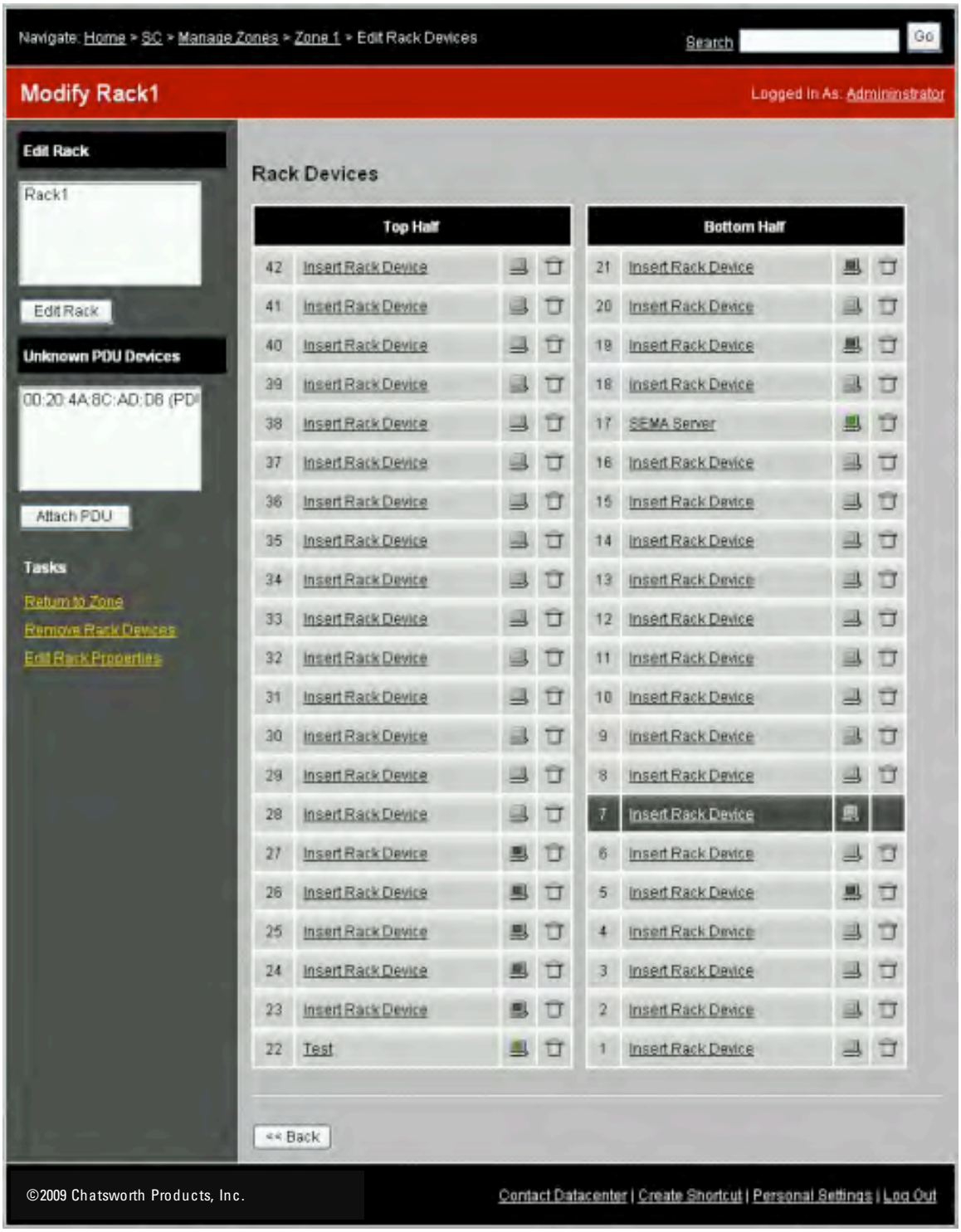
Step 12: Edit Rack - Attach CenterBridge Device



- Double-check the information.
- If the CenterBridge has been attached to a rack previously, it would contain the information on devices from the previous rack and you want to populate the current rack with the existing data then check the Load information from Device check box in the Populate Options



- Click on Attach Device button to associate the CenterBridge to the rack.

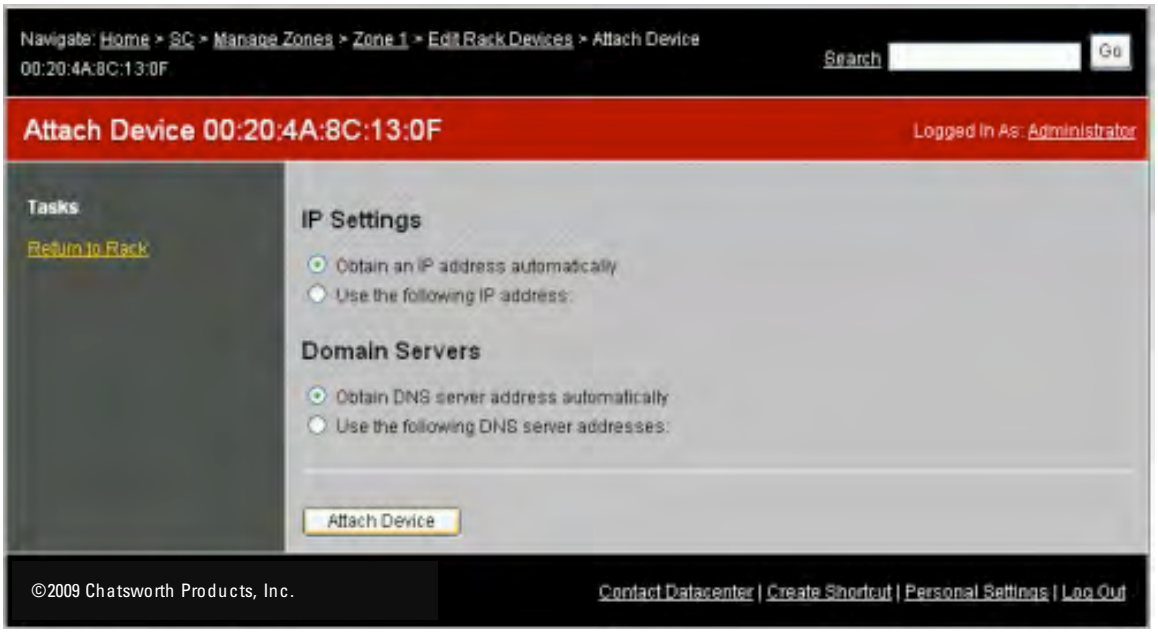


- If CPI monitored or controlled PDUs are installed, a list of Managed PDUs available on the network will be presented. Highlight the appropriate one to attach the PDU to the rack.
- Click on the Attach PDU button.

Step 13: Edit Rack – Testing PDU Connection

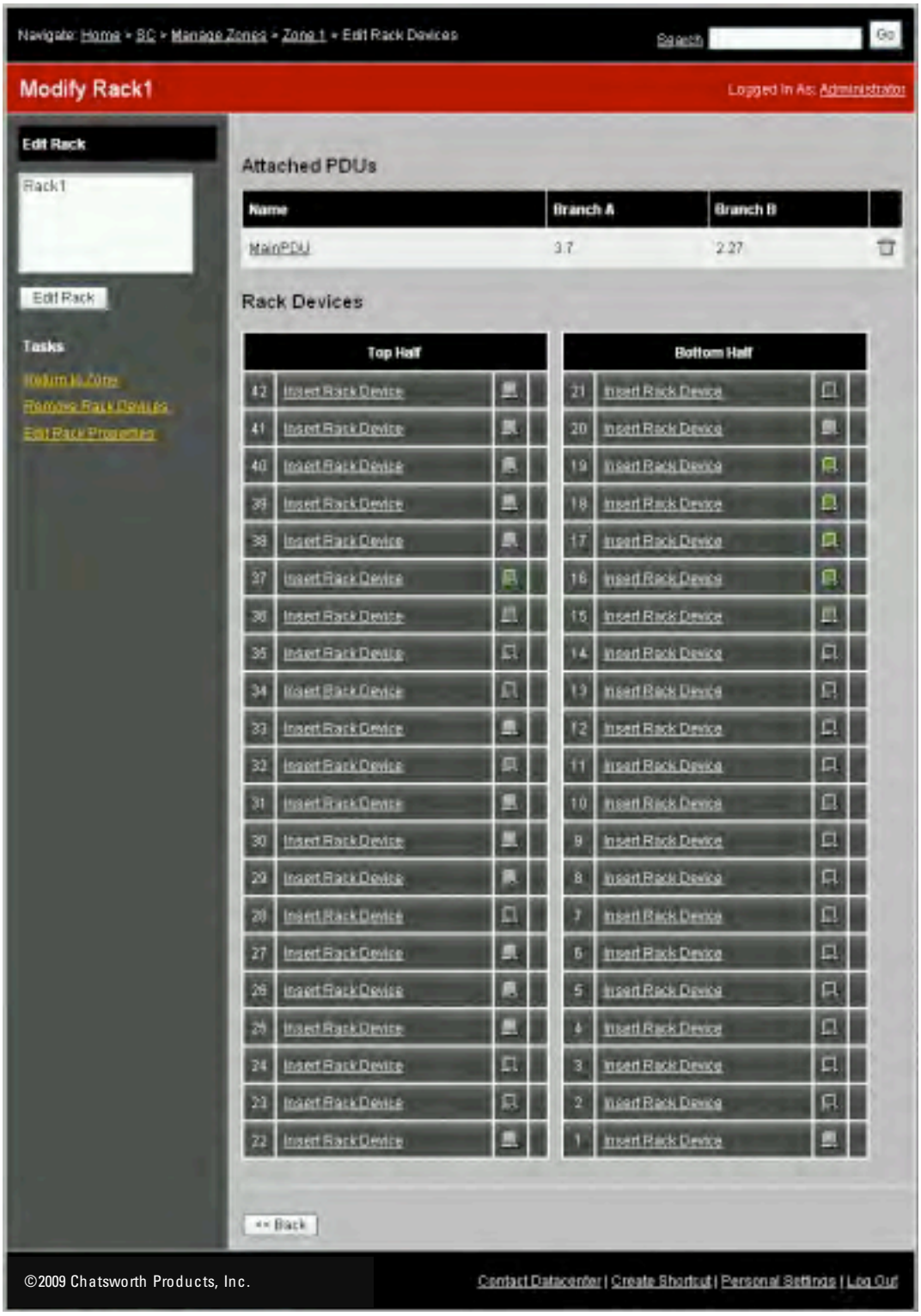
- Click on the Test Device Settings button.
- If the Test result is failed then apply corrections for the Networking data and click Test Device Settings.
- If Test result is passed then continue on Step 27.

Step 14: Edit Rack – Attach PDU



- Double-check the information.
- Click on the Attach Device button to associate the PDU to the rack

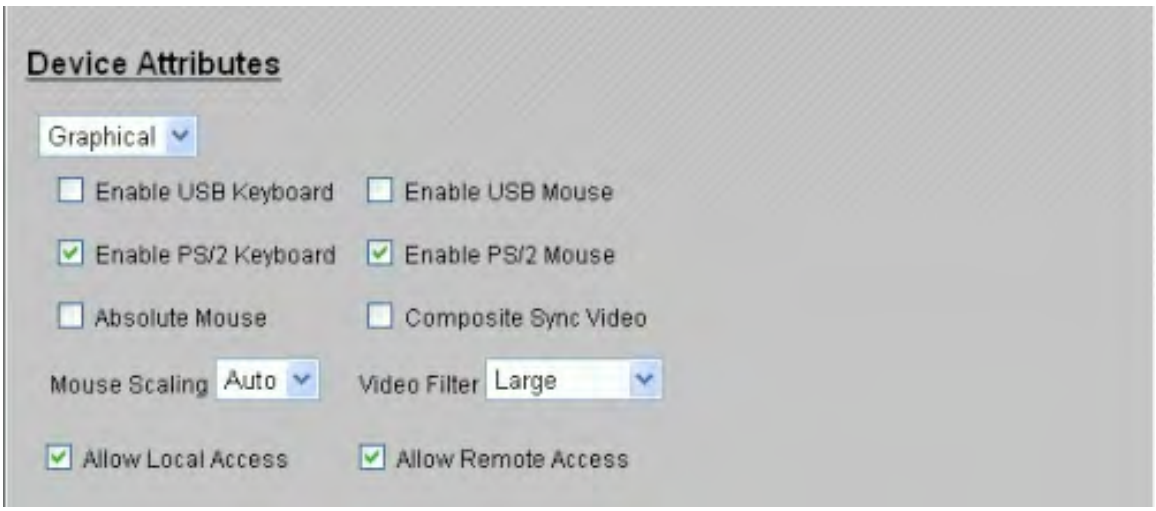
Step 15: Edit Rack – Insert Rack Devices



- Click on the Insert Rack Device of the appropriate U location to edit Device Information.

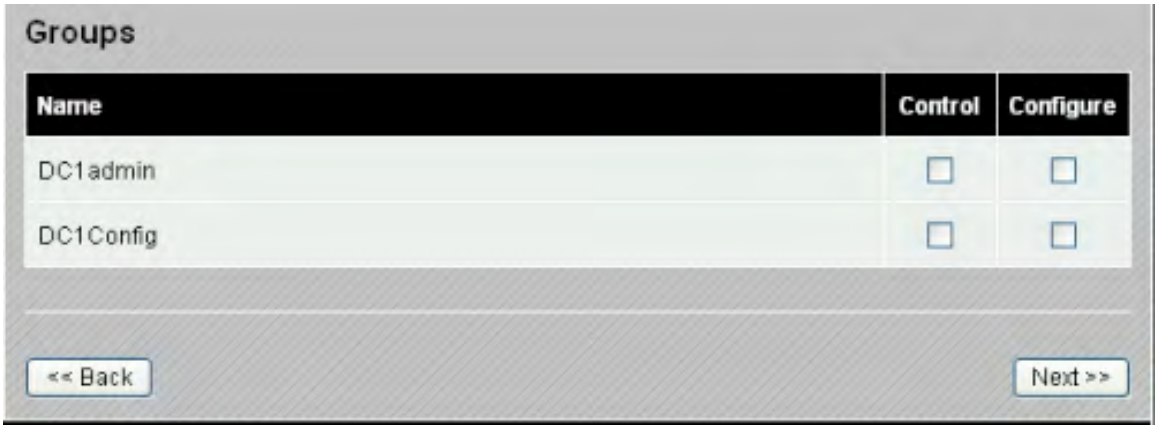
Step 16: Edit Rack Device

- Provide the information by clicking, and entering data to input fields. Only fields with red asterisk are required.
- Click on Device Attribute to provide more Keyboard/Mouse/Video information.
    - For Windows and MacIntosh using USB mouse check the Absolute Mouse box.
    - For SUN server, check the Composite Sync. Video box
    - Select Mouse Scaling for better local and remote mouse synch.



- If there are Controlled PDUs attached, associate each PDU and its outlets with the device.
    - Select the appropriate PDU.
    - Select the appropriate port (outlet) number. Ports 1,2, 27, 28 are unmanaged and cannot be turned ON or OFF by the user.
    - Remember to click Attach.

- Click on appropriate check boxes for all displayed Groups.



- Click Next button to update device information.

USER GUIDE

Power Up and Shutdown

Power Up Procedure

- Apply power source to SEMA server, turn on the power in the front panel, some servers require first turning on the power supply switch in the back panel.
- Allow the server to go through its normal bios and then Windows boot up.
- Once Windows is booted up, upon prompt enter Ctrl-Alt-Del and proceed to login.
- If during shutdown the IIS web server was manually disabled then you must re-enable it here. Enable IIS web server by going to Administrative Tools, select Internet Information Services Manager, highlight on Web Sites and click on Start Item in the toolbar or in Action/Start.

Shutdown Procedure

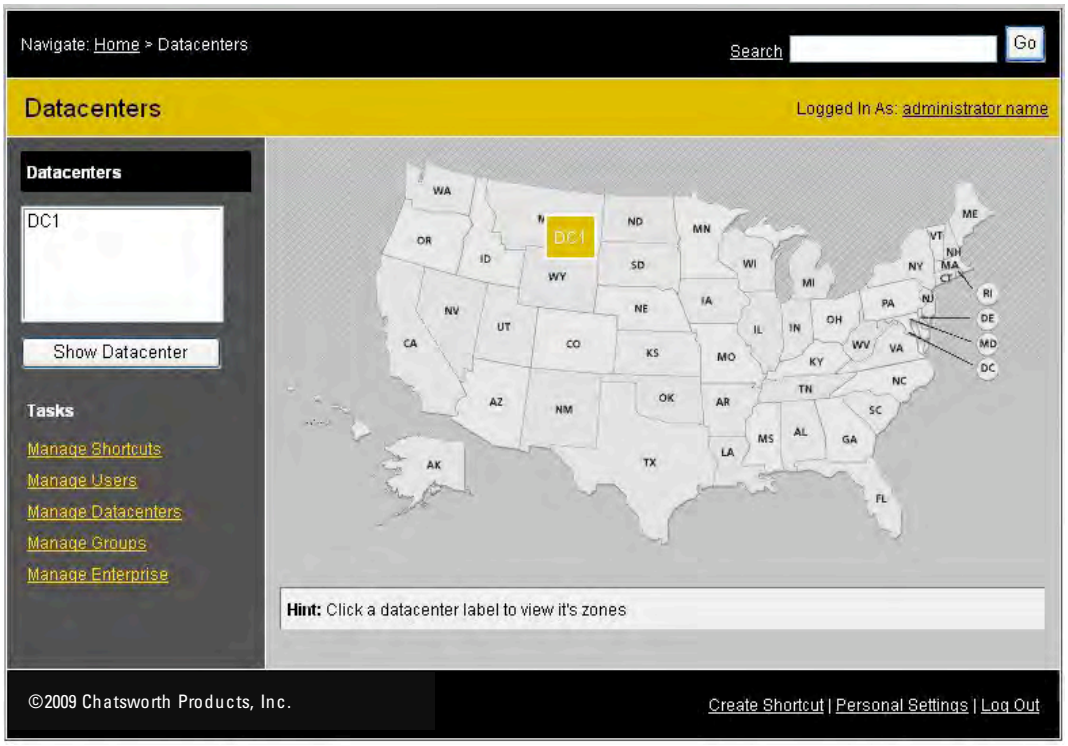
- To prevent changes to the server during the shutdown process, you can optionally disable the IIS web serving but you must re-enable it on Start up. Disable IIS web server by going to Administrative Tools, select Internet Information Services Manager, highlight on Web Sites and click on Stop Item in the toolbar or in Action/Stop.
- Invoke the Windows Shutdown by either typing Ctrl-Alt-Del then selecting Shutdown or clicking the taskbar's Start then Shutdown. Enter the requested information that will be used to log the shutdown event.
- After the server shuts down and the display screen is blank then it is safe to remove power from the source.

Web GUI Walk-through – For All SEMA Users

Obtain the URL or IP address and enter: http://"SEMA server address" in the URL field of the Web browser.

Login Screen:

- Enter the Username and Password.
- Click on the Login button.



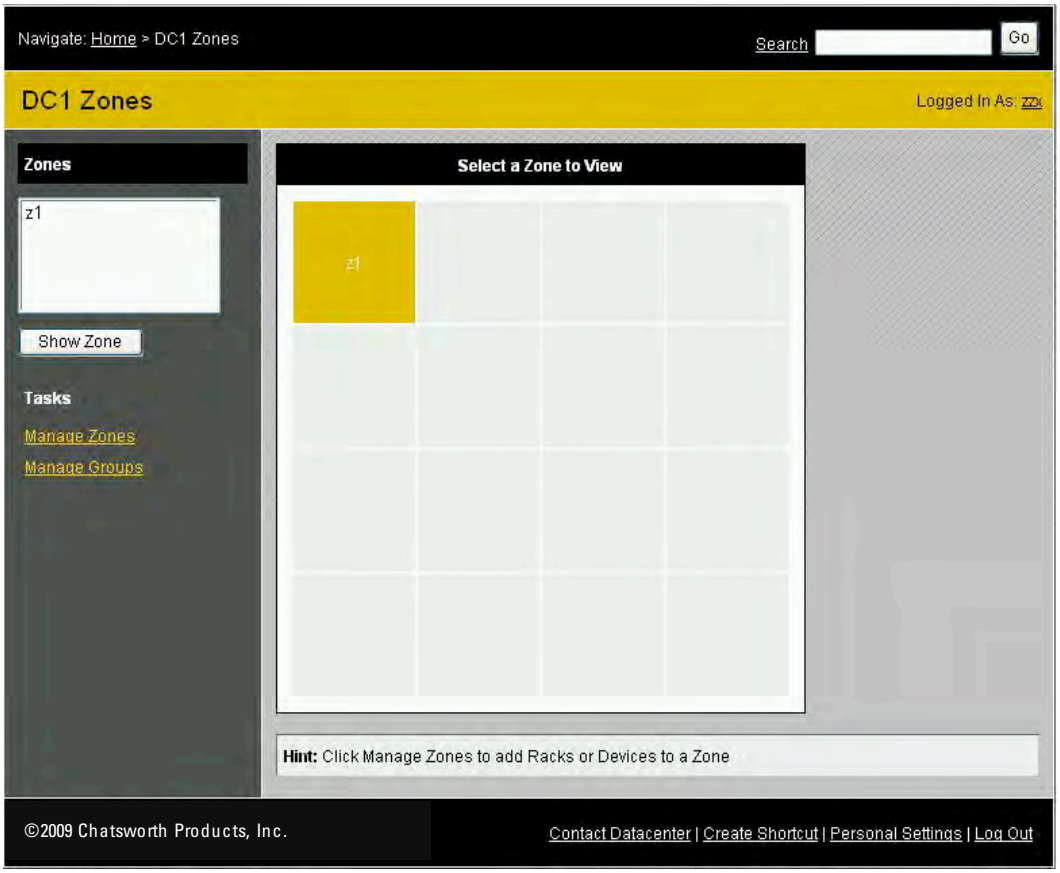
Depending on the permission that was granted to the user, links will be shown where the user has access within the enterprise.

- Click or select a Datacenter.

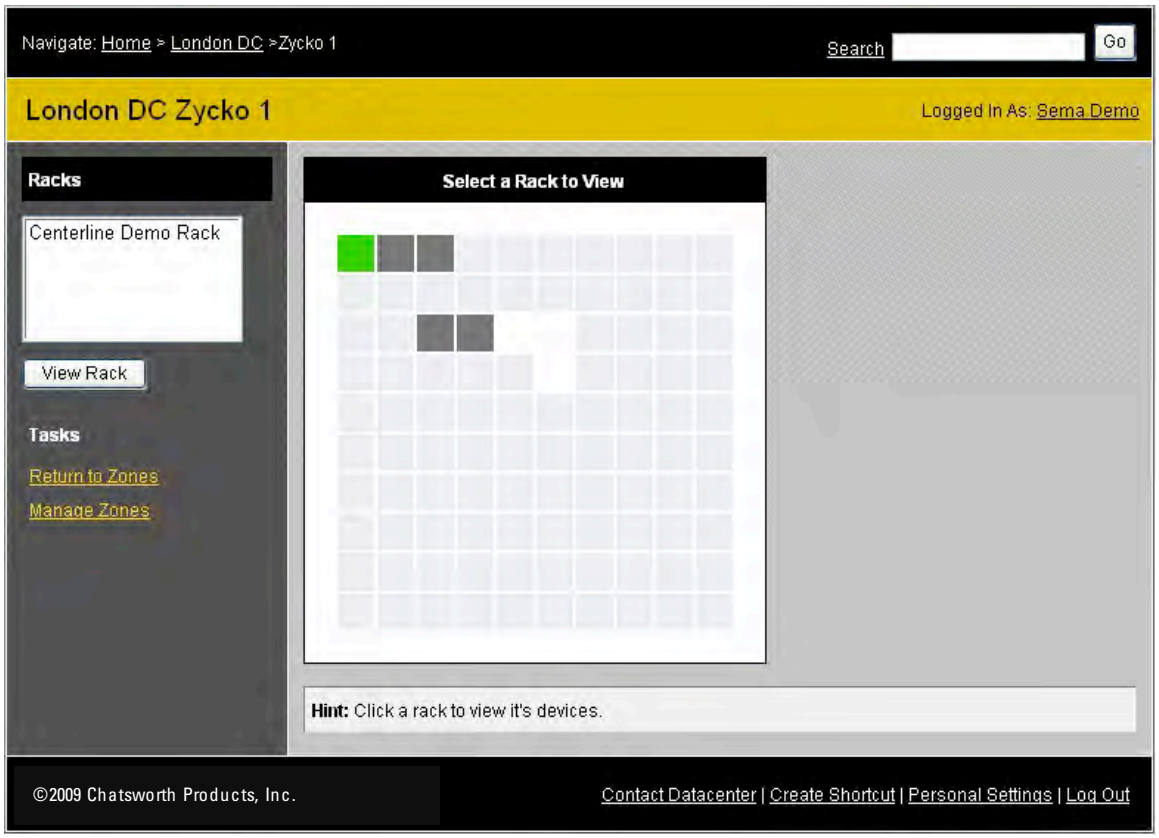
- There are two distinctive functions when using the SEMA GUI. They are: Viewing and Managing functions. Viewing is used when a user wants to utilize the GUI to view general Datacenter, Zones, Racks information or select a server to perform the works related to that server. Managing is for users who have needs to configure the PDUs, the CenterBridge, add or modify: Datacenter, Zones, Racks, or devices.

  The Web banner color code for these two functions are::

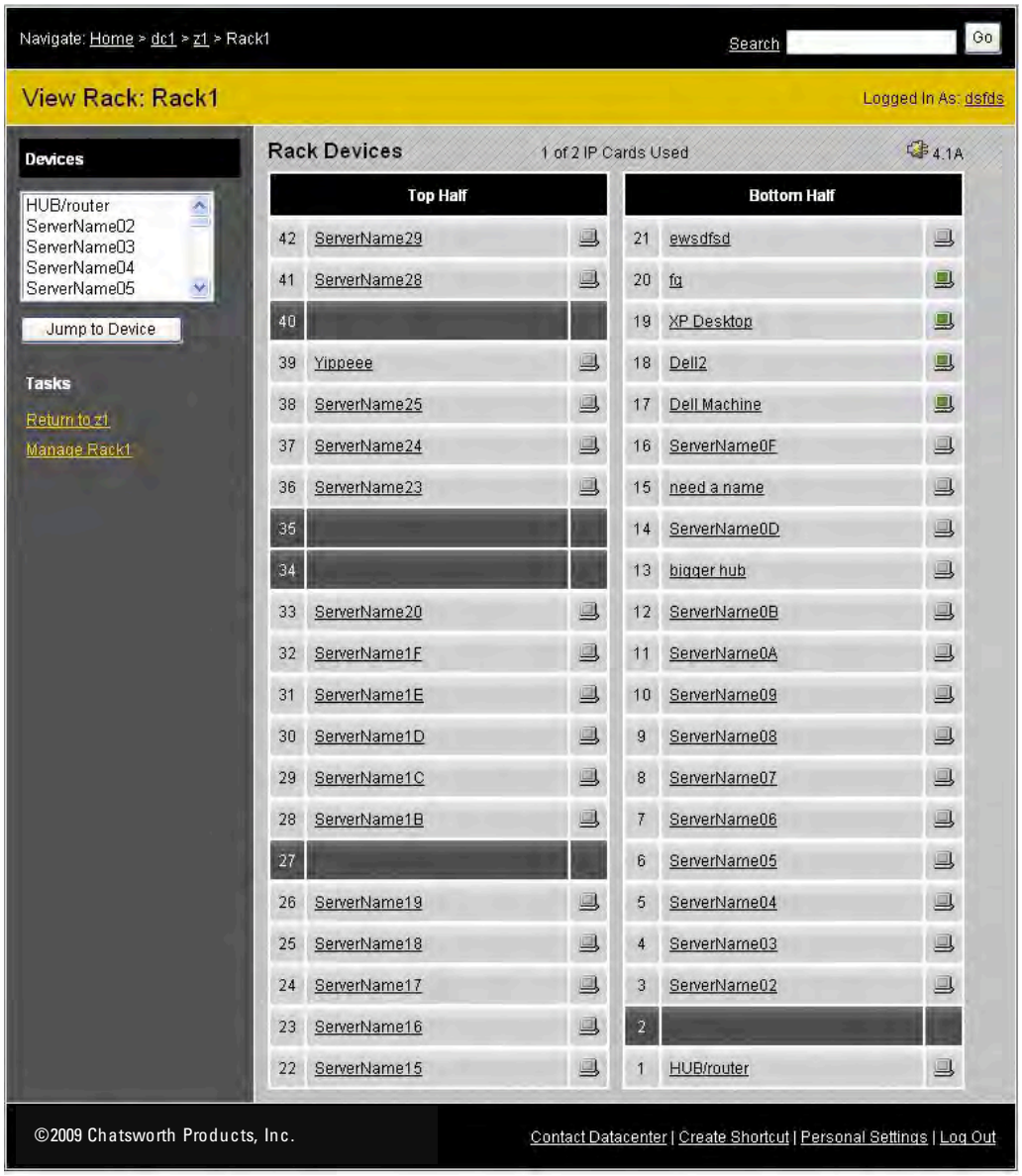
Viewing Function:



- Select a Zone from Zones List and click Show Zones or
- Click on the desired zone in Select A Zone to View area.



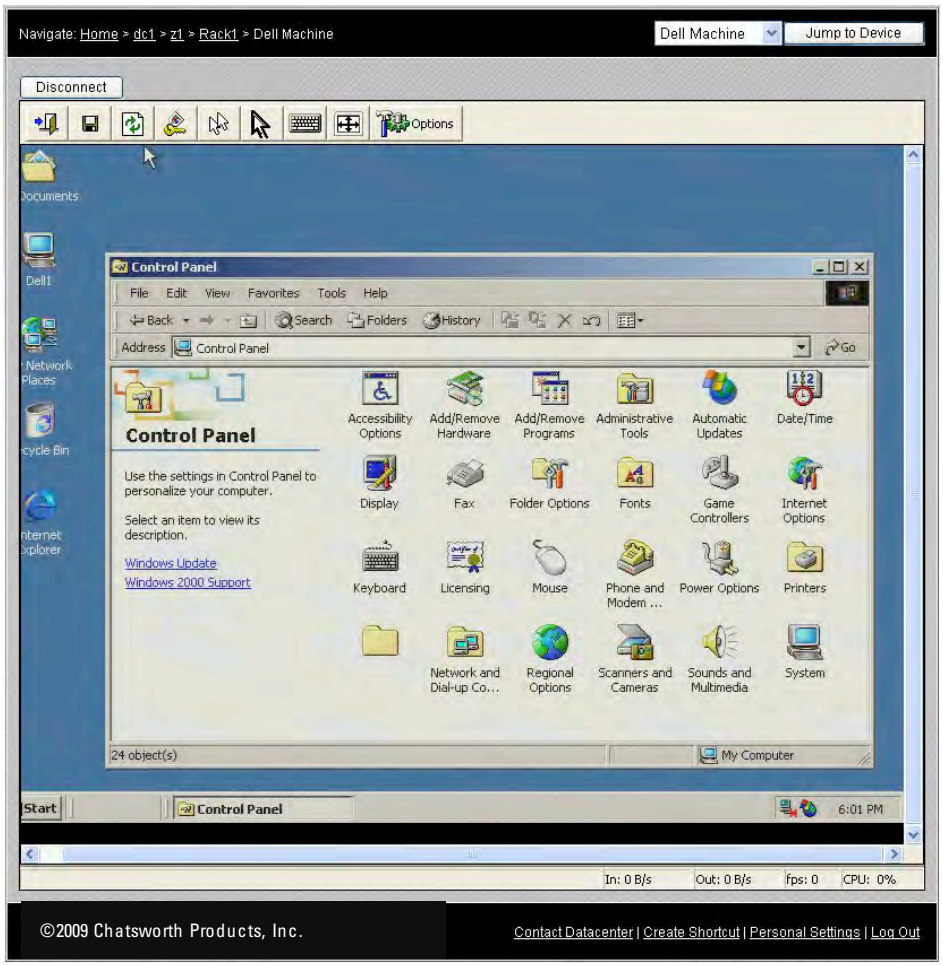
- Select a rack from the Racks List and Click on View Rack button or
- Click on the desired rack from the Select A Rack to View



- Select an available server. The color codes of the icons on the right of each Server Name indicate availability as follows:

    - Red: the Device is not accessible remotely.
    - Green: the Device is available for viewing.
    - Blue: the Device can be accessed locally but currently is being viewed by another user.
    - Dark Gray: a Server Interface Module exists in the CenterBridge slot but the Device is not hooked up or not power ON.
    - Light Gray: the Server Interface Module is not available.

Display of the selected Server:



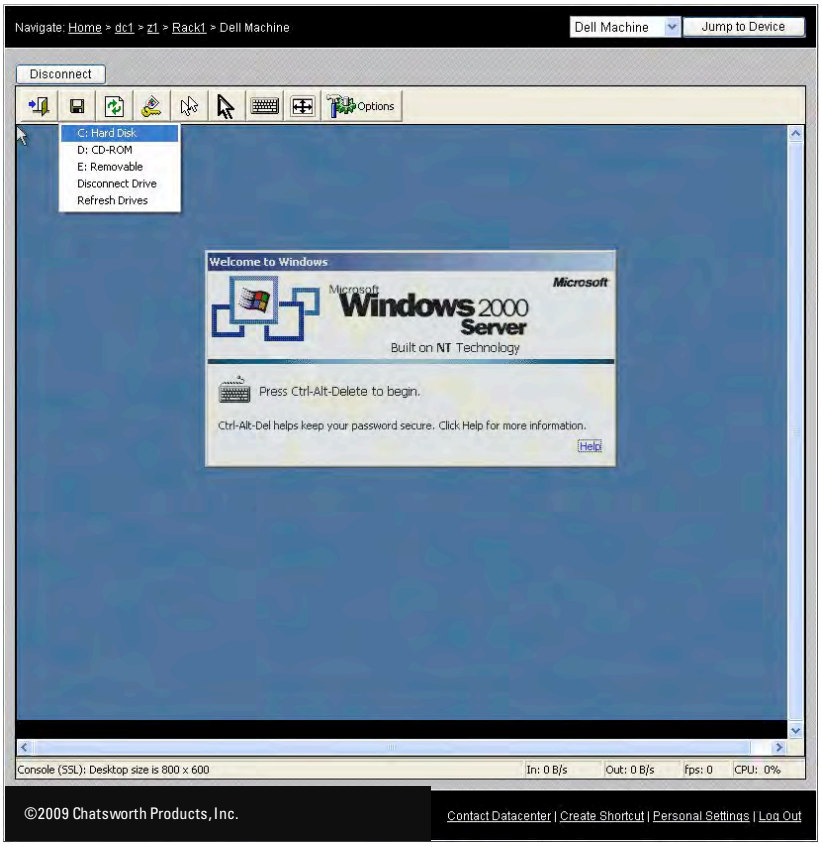
- If you have problems viewing the server, refer to the SEMA Client Software Installation section.
- For good synchronization of the local and remote mouse:
    - Set the Device attribute data in SEMA.
    - Reduce the Mouse Pointer Speed on the Client machine and the remote server.
    - Un-check Enhance Pointer precision on the Client machine and the remote server.

Viewer Features:

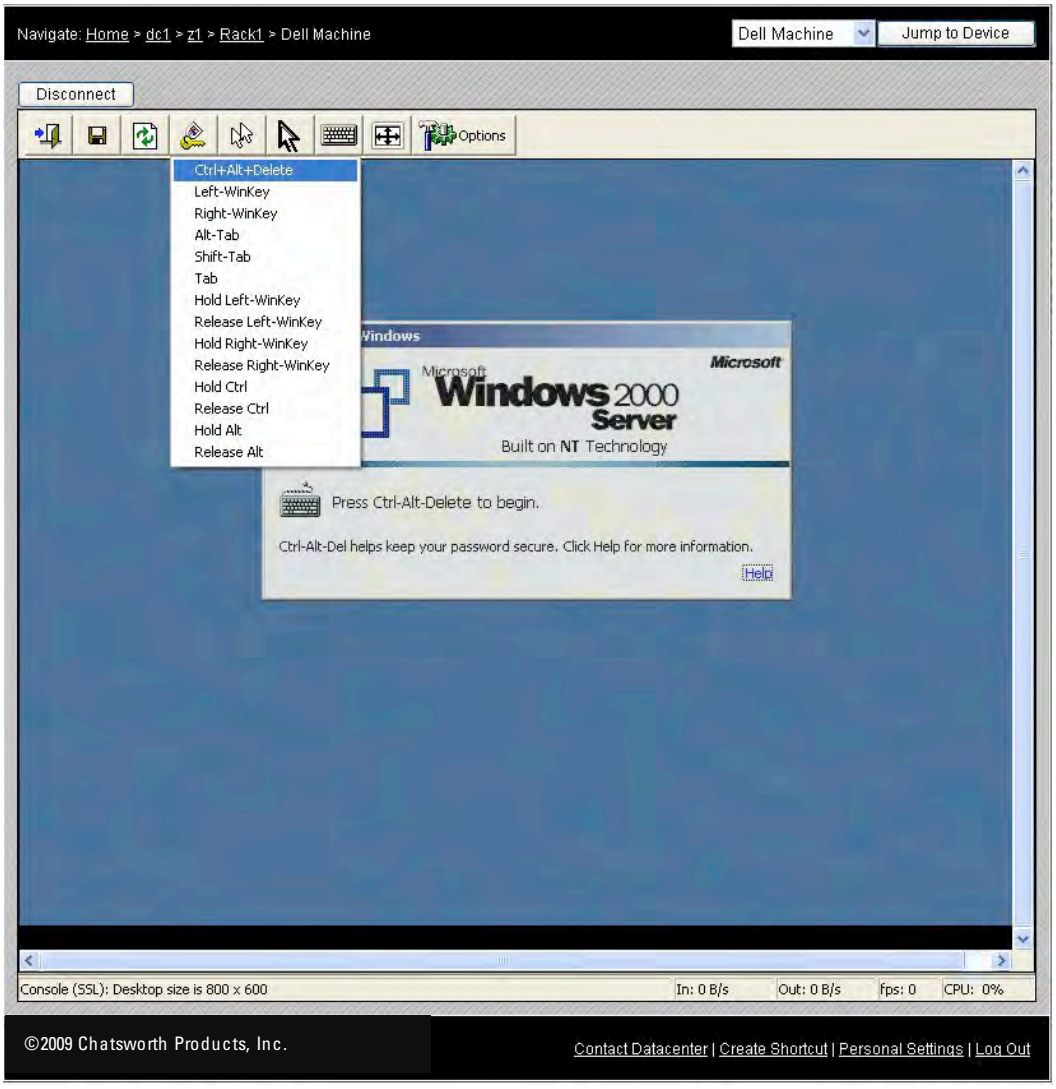
Features on the Viewer tool bar:

Important features:

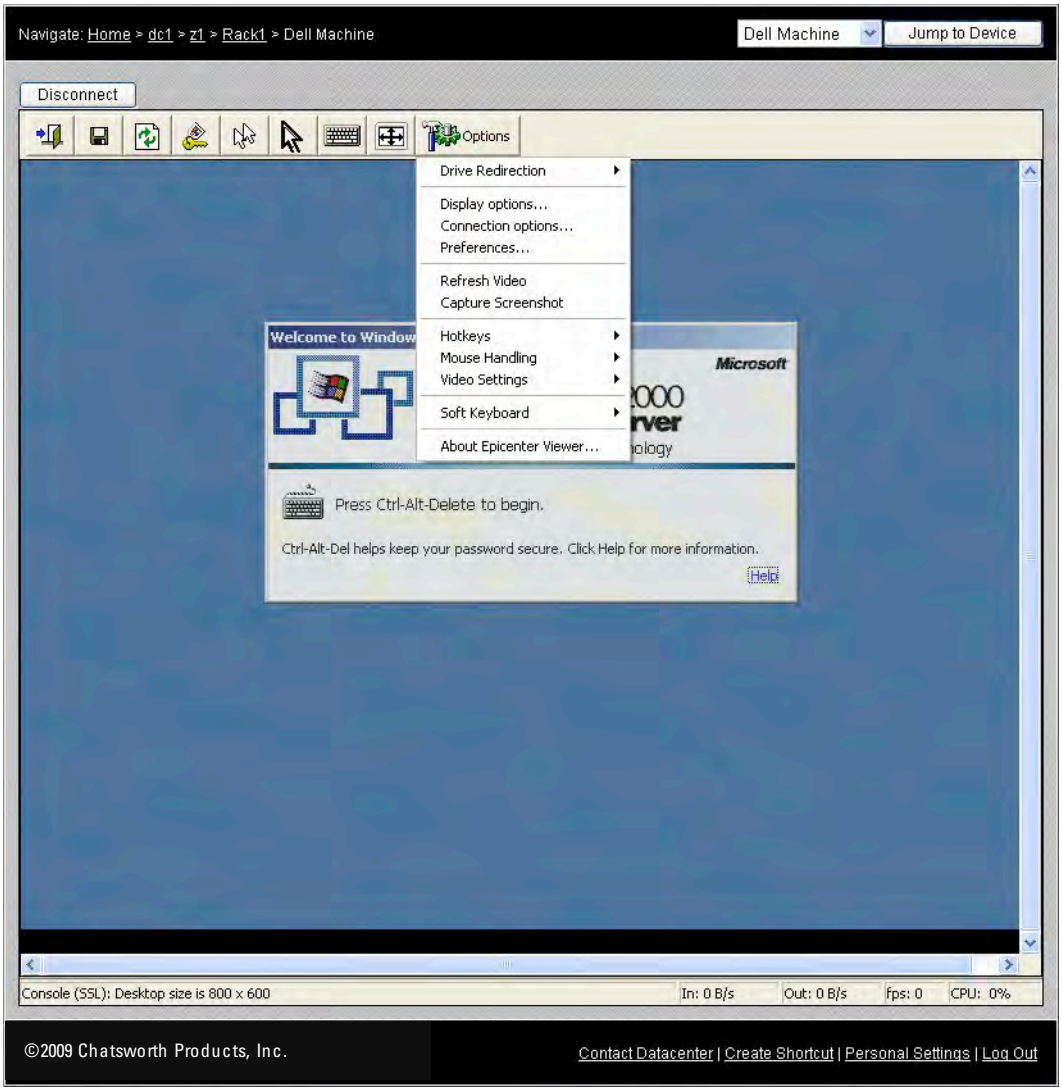
- Redirection of client devices to the Remote Server such as Floppy, CD, Hard drive, etc.



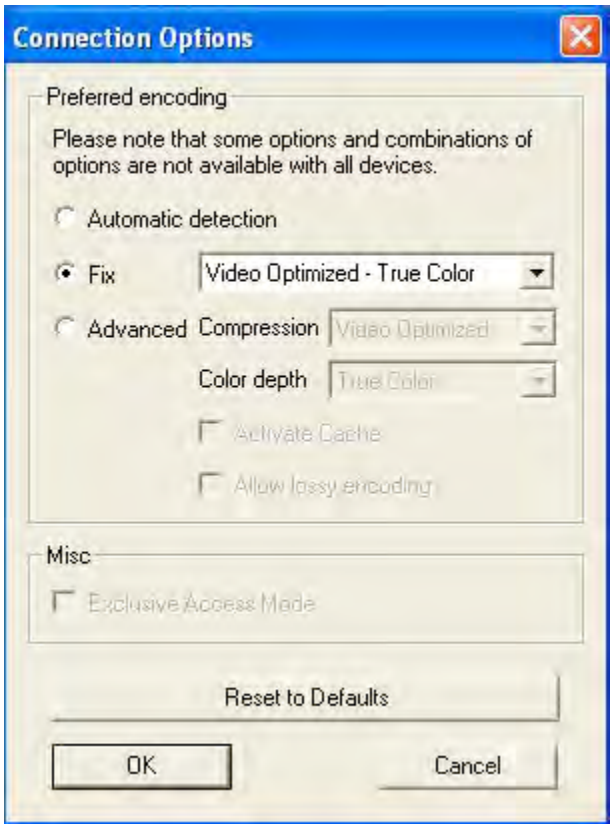
- Send Key List: A list of many useful key combos to send to the remote Server.



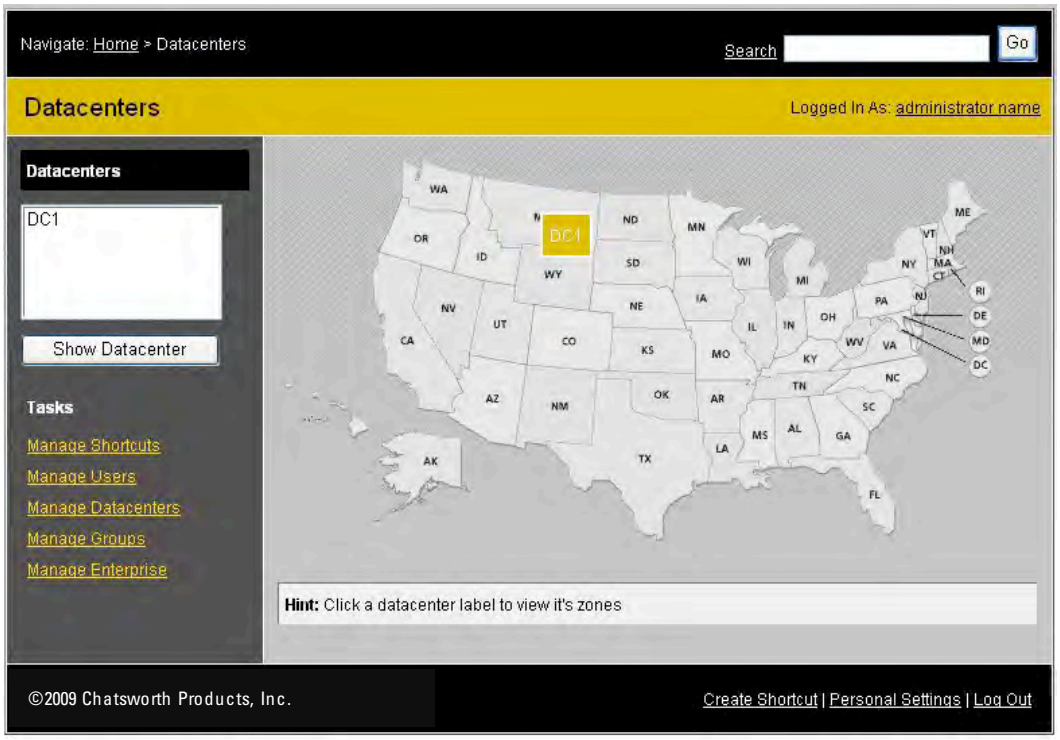
- List of All Options: A set of utilities assisting the IP user.



Select an option from the combo list box for best combination of speed and video quality of choice,



Managing Function:



Depending on the permission was granted to the user, links will be shown where the user has access to within the enterprise.

Click a task from the Tasks List.

Refer to appropriate steps provided in the First Time Set up.

SemaUI Walk-Through – For SEMA Administrators

SemaUI is an administration tool used to add new devices (CenterBridges, PDUs, PowerScopes) and to make network configuration changes.

The Main dialog has a menu bar with File, Actions and Tools.

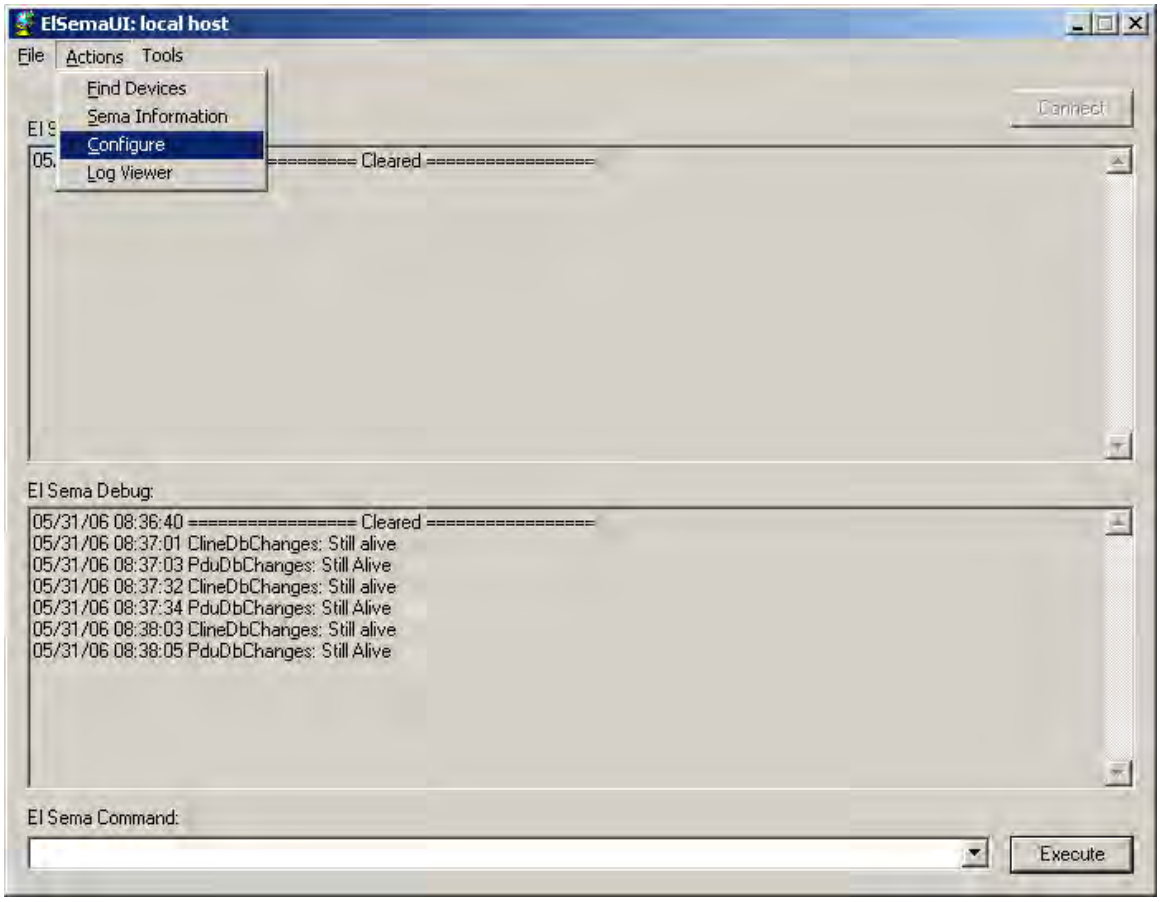
- In File there are only the options of Close and Exit
- In Actions there are Find Devices, Sema Information, Configure and Log Viewer.
- In Tools there are: Clear Display, Auto Clear and Settings.

The Connect button is only enabled when the connection between this GUI application and the SEMA service is broken/disrupted and when clicked will attempt to re-establish that connection.

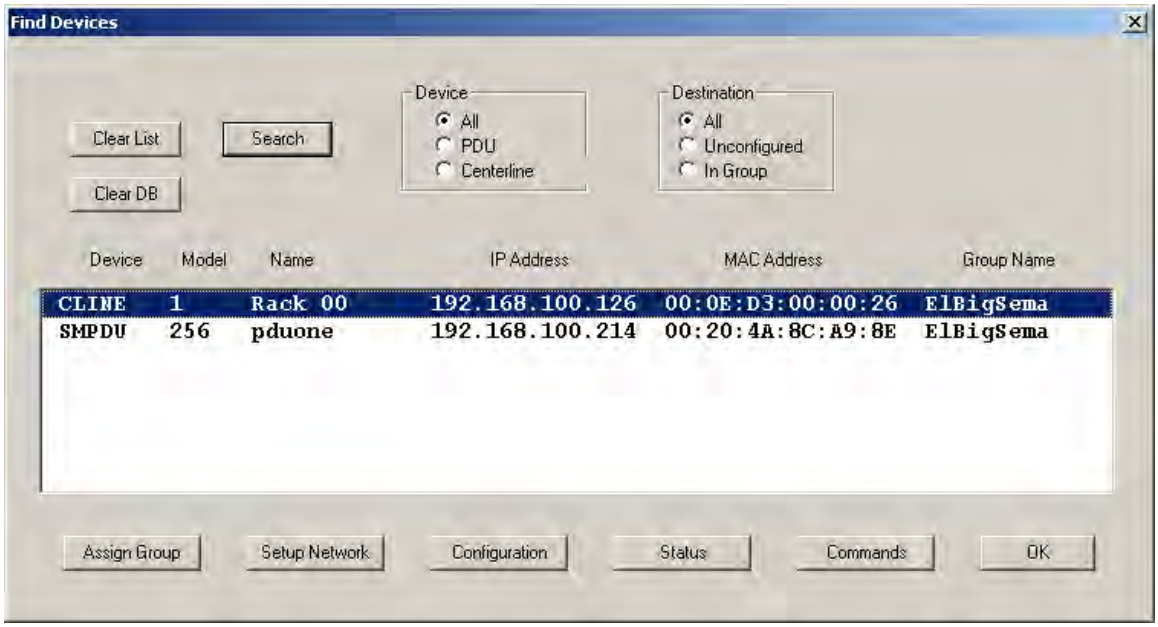
The command line at the bottom along with the Execute button is used to enter debug command instructions to SEMA service only. Not to be accessed by the user.

There are two message display panels, the top is for Information messages and the bottom is for Debug messages.

Main dialog



Find Devices dialog



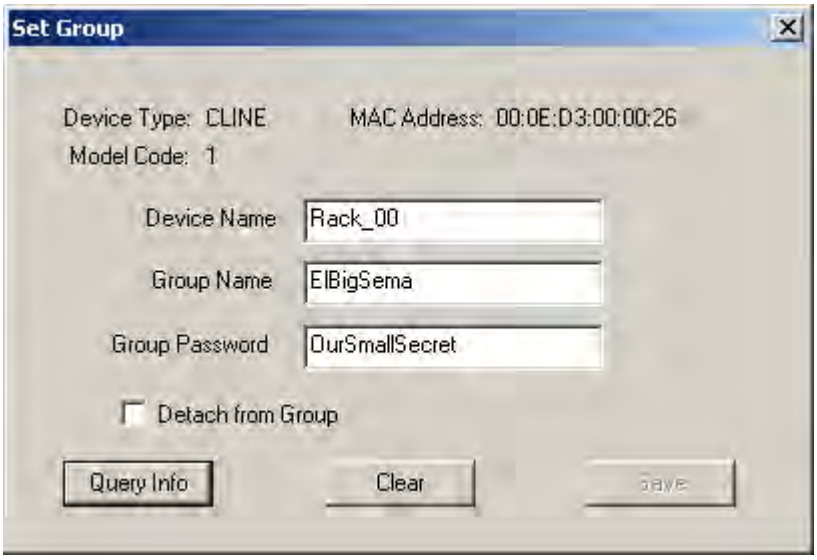
Clear List button, clears the list of devices (SEMA components) found.

Clear DB button, clears the list and the temporary database information holder in preparation for finding and listing only the devices (SEMA components) that are currently up and running.

Search button, issues the discovery broadcast for the devices and the destinations selected via the Device radio buttons: All, PDU or CenterBridges and the Destination radio buttons: All, Unconfigured or In Group.

The List panel shows the devices found with the Search button and the selected Device and Destination criteria. Highlighting an entry selects that device for operation and enables the buttons in the bottom: Assign Group, Setup Network, Configuration, Status and Commands.

Set Group dialog



The Device Type can be CLINE (CenterBridge) or SMPDU (Monitored or Controlled PDU).

The MAC Address is the hardware Ethernet address of the device, six hexadecimal numbers separated by colons.

The Model Code is the particular model type or variation of the device.

Query Info button will send a broadcast query to the device in order to populate the fields for: Device Name, Group Name, Group Password and Detach flag.

Clear button clears the edit fields for: Device Name, Group Name, Group Password and Detach flag.

Save button is enabled when there are changes in any of the edit fields and when clicked will send a broadcast request to the device to update its information with the ones entered in the edit fields.

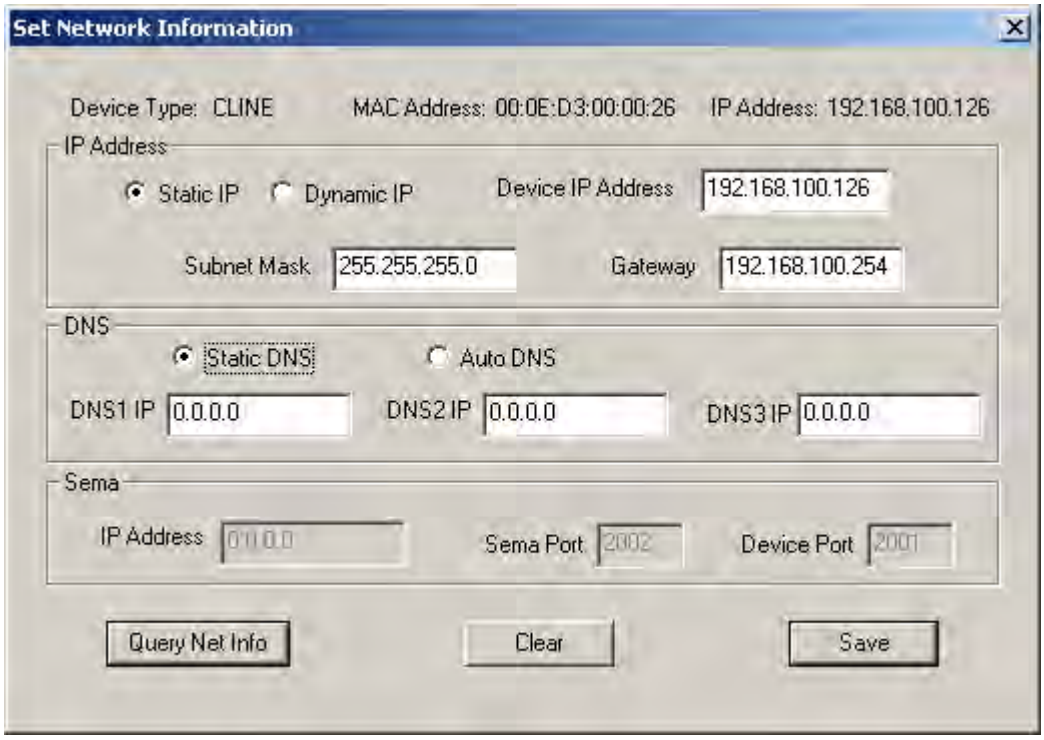
Device Name is the name assigned to this device and should not exceed 32 characters in length.

Group Name is the name assigned to the Enterprise and should not exceed 32 characters in length.

Group Password is the password used throughout the Enterprise to validate the connection by the device and should not exceed 32 characters in length.

Detach from Group checkbox when un-checked it's an indication that the device should be part of the group. When checked is an indication that the device is not or should not be part of the group.

Setup Network dialog



The Device Type can be CLINE (CenterBridge) or SMPDU (Smart PDU).

The MAC Address is the hardware Ethernet address of the device, six hexadecimal numbers separated by colons.

The IP Address is the device's assigned IP address.

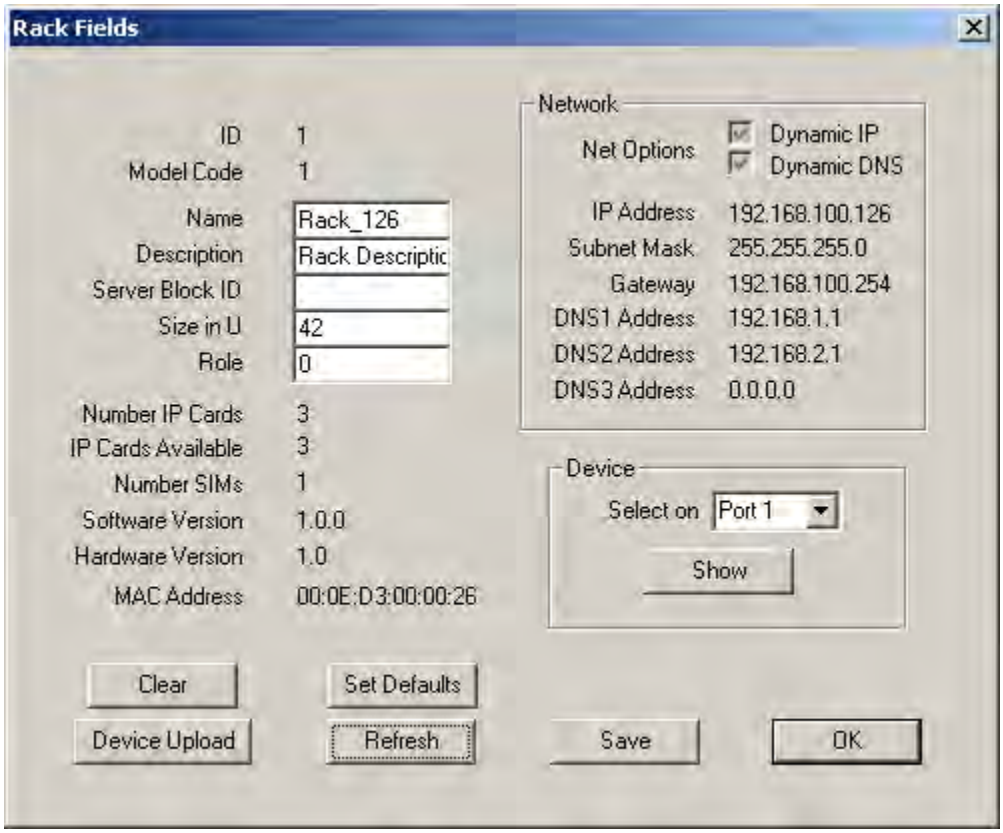
Query Net Info button will send a broadcast query to the device in order to populate the fields for: IP Address group and DNS group.

Clear button clears the edit fields for: IP Address group and DNS group.

Save button is enabled when there are changes in any of the edit fields and when clicked will send a broadcast request to the device to update its information with the ones entered in the edit fields.

Sema group is read only and shows the current settings for the SEMA server. When there is a mismatch between the SEMA server's own information and the device's a confirmation box will be prompted during save to correct the mismatch.

Configuration dialog for Rack/CenterBridge device



Clear button clears all the displayed fields.

Refresh button will populate the displayed fields from the SEMA database.

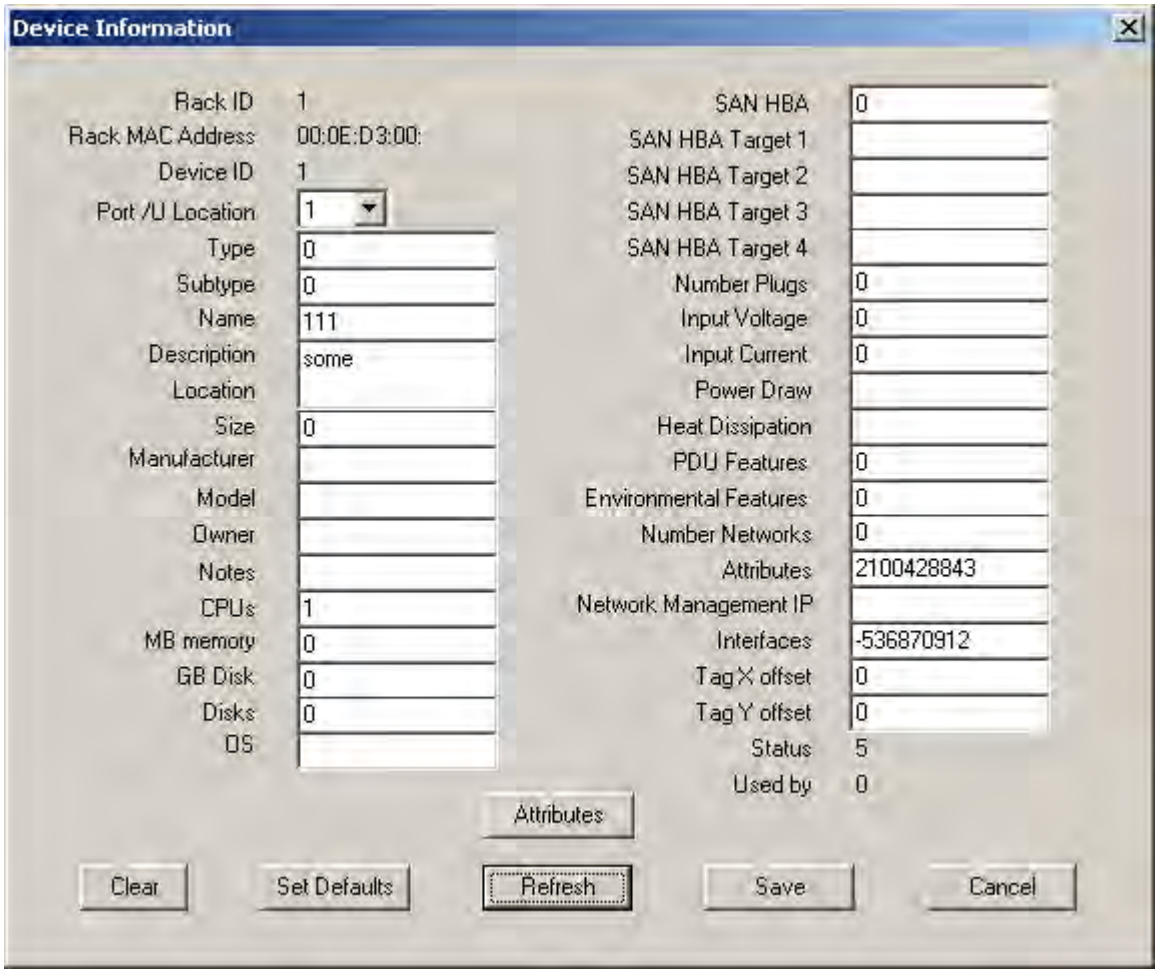
Set Defaults button populates the displayed fields with factory default values.

Device Upload button will send a request to the device to update the information in SEMA database.

Save button is enabled when there are changes in any of the edit fields and when clicked will save the changes to the SEMA database and in turn update the device with the new changes.

Show button works in conjunction with the Select drop down list, which shows ports 1 through 42 (devices in rack locations 1U through 42U). Clicking on Show will launch the Device Information dialog for viewing and changing of server device specific information.

Device Information dialog



Clear button clears all the displayed fields.

Refresh button will populate the displayed fields from the SEMA database.

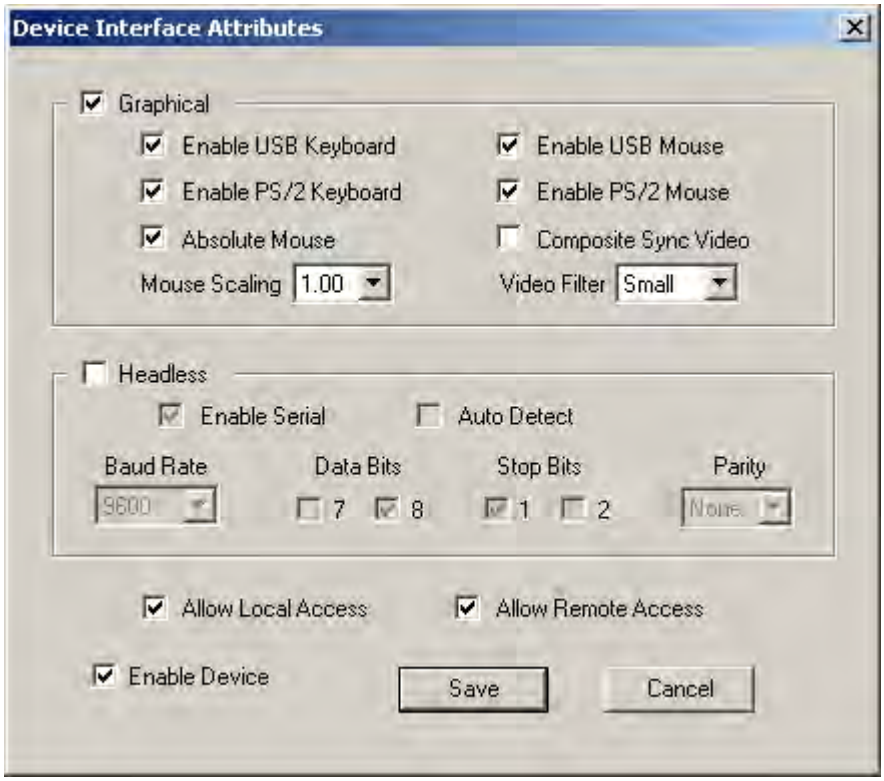
Set Defaults button populates the displayed fields with factory default values.

Save button is enabled when there are changes in any of the edit fields and when clicked will save the changes to the SEMA database and in turn update the device with the new changes.

Attributes button will launch the Device Interface Attributes dialog for viewing and changing of device interface and attribute specific information.

Cancel button discards all changes made prior to saving and returns to Configuration dialog for Rack.

Device Interface Attributes dialog

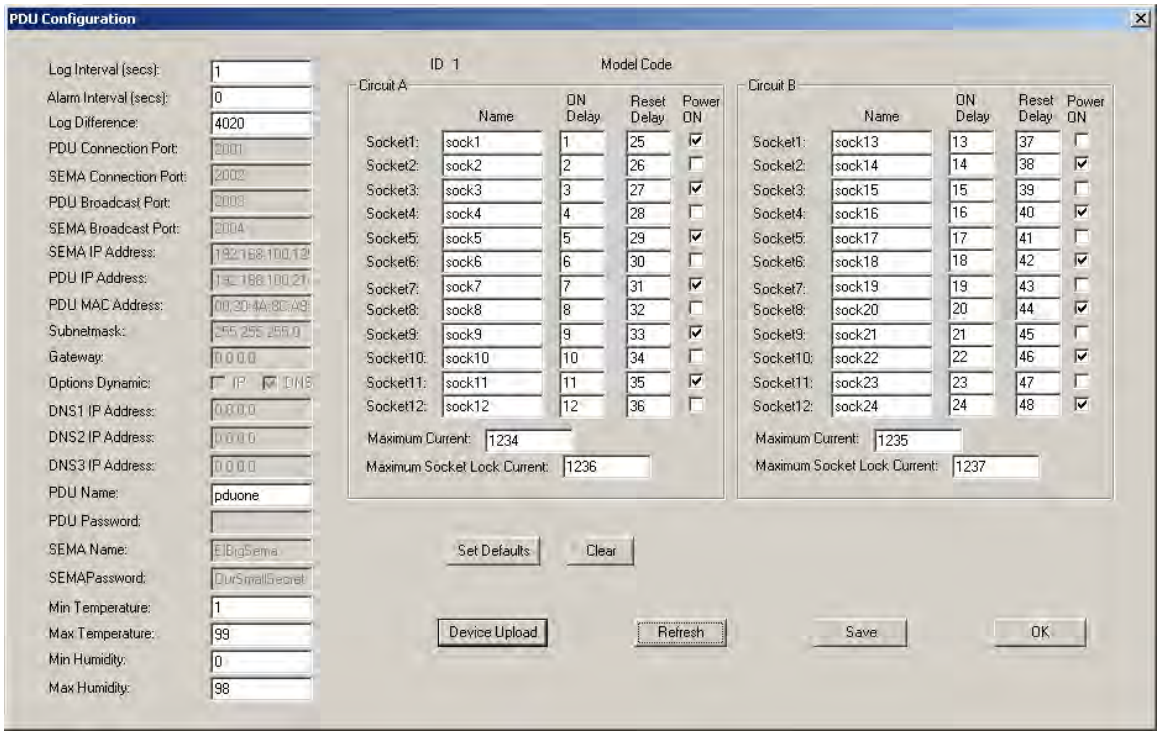


Check boxes and drop down lists help prevent the user from choosing illegal combination of settings.

Save button is enabled when there are changes in any of the edit fields and when clicked will pass the changes to the Device Information dialog. The user will decide whether to save it to the database or discard the changes.

Cancel button discards all changes made and returns to Device Information dialog.

PDU Configuration dialog



Clear button clears all the displayed fields.

Refresh button will populate the displayed fields from the SEMA database.

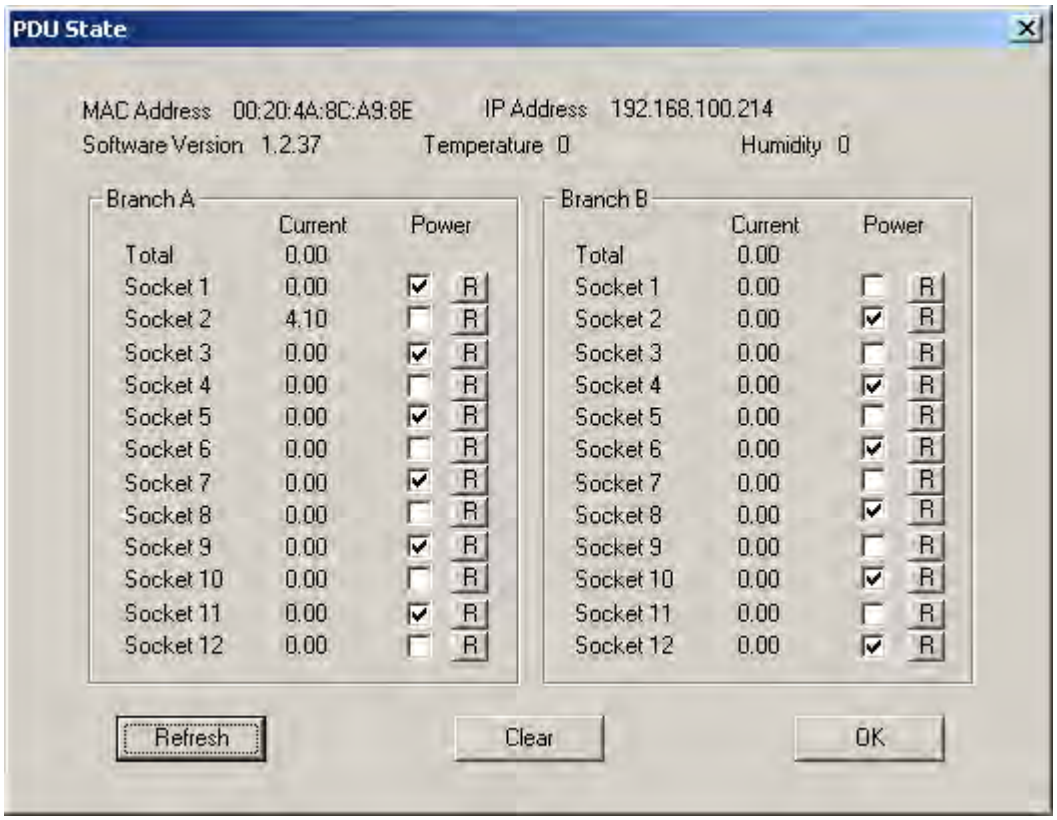
Set Defaults button populates the displayed fields with factory default values.

Device Upload button will send a request to the PDU device to update the information in SEMA database.

Save button is enabled when there are changes in any of the edit fields and when clicked will save the changes to the SEMA database and in turn update the PDU device with the new changes.

Cancel button discards all changes made prior to saving and exits.

PDU State dialog



The MAC Address is the hardware Ethernet address of the device, six hexadecimal numbers separated by colons.

The IP Address is the device's assigned IP address.

Software Version indicates the current version of the software operating the PDU Device.

Temperature indicates the measured temperature in degrees F. An accessory Temperature & Humidity Sensor must be attached to the PDU's Environmental port to display a value in this field.

Humidity indicates the measured humidity in percentage. An accessory Temperature & Humidity Sensor must be attached to the PDU's Environmental port to display a value in this field.

Refresh button will populate the displayed states from the SEMA database.

Clear button clears the displayed states.

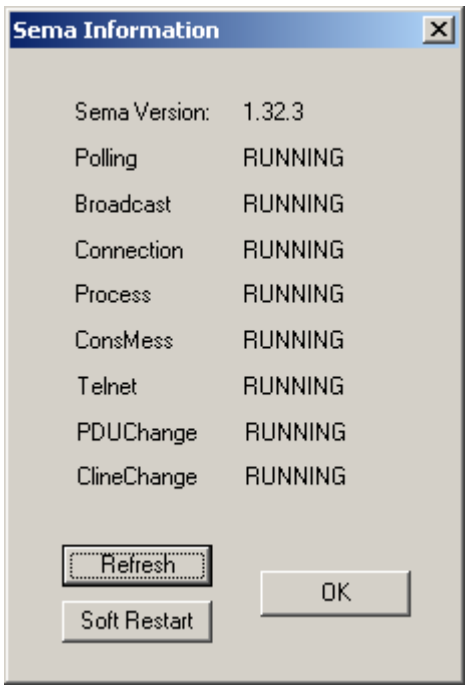
OK button exits.

The Current column displays the electric current in Amps delivered to each branch and each branch's socket. The PDU must have port metering to display values in these fields.

The Power check box allows the user to change the state of power on/off of the socket. The PDU must be a controlled PDU with port switching to use this feature.

The R button will power cycle the socket. The PDU must be a controlled PDU with port switching to use this feature.

Sema Information dialog



Sema Version indicates the current version of the software operating the SEMA server.

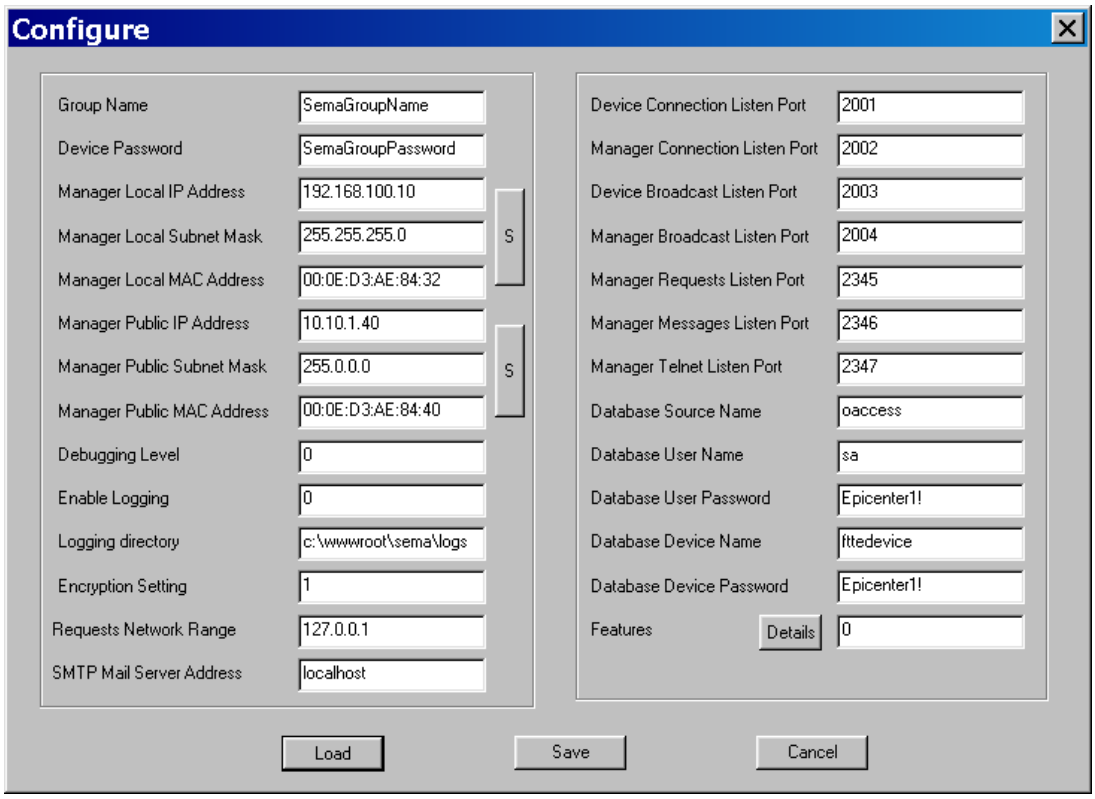
All of the SEMA threads are shown along with their current states. Normally they show all show RUNNING but other possible states are NOT STARTED, BUSY OR STUCK and EXITED.

Refresh button updates the states of the SEMA threads.

Soft Restart button restarts all of the SEMA threads, reducing the disruption that would be caused by restarting the entire SEMA service.

OK button exits.

Configure dialog

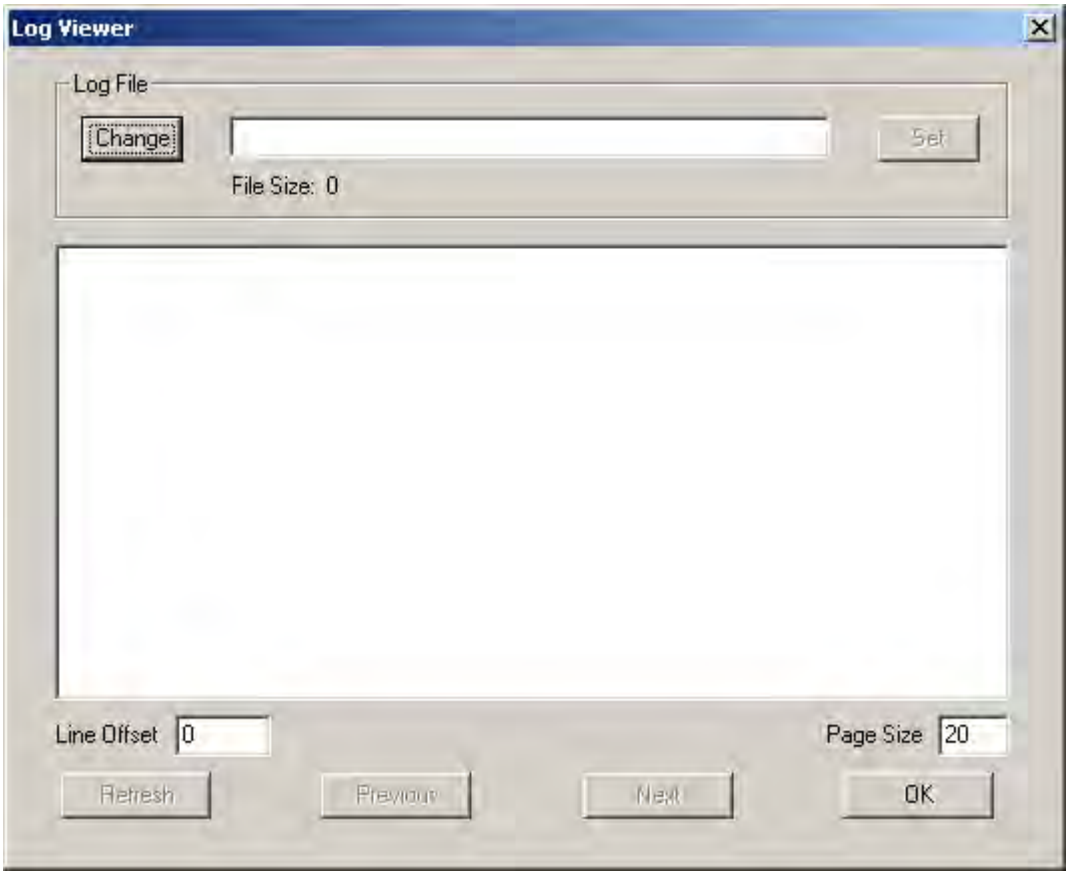


Load button will populate the displayed fields from the SEMA configuration file.

Save button saves the changes into the configuration file and makes them effective immediately.

Cancel button discards all the changes made prior to save and exits.

Log Viewer dialog



Administrator can choose to use this log viewer instead of say Notepad.

Change button and the edit field work in conjunction to select the specific log file to view. It facilitates the navigation and browsing through directories.

Set button selects the specific log file and if valid enables: Refresh, Previous and Next buttons.

Line Offset indicates the line number into the log file being viewed and can be changed as well.

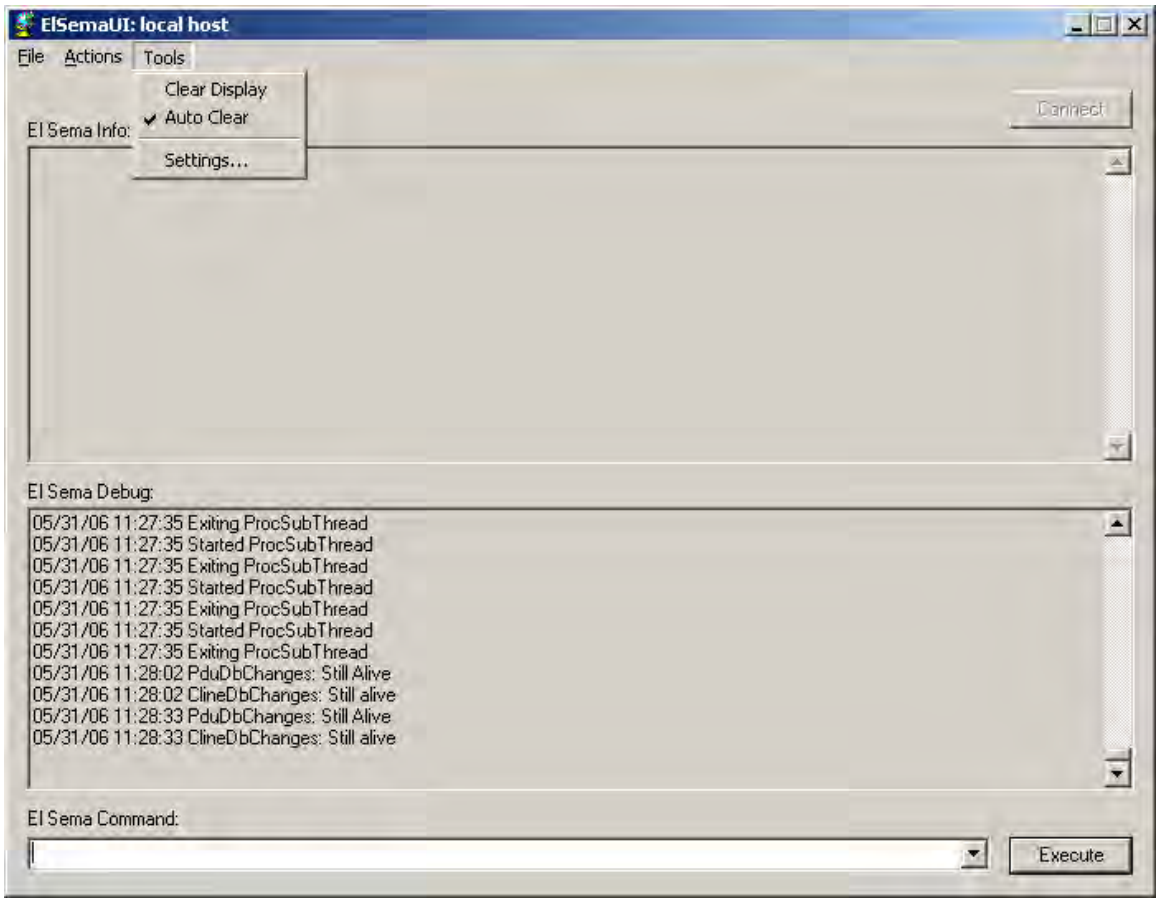
Page Size indicates the number of lines being displayed per each page and can be changed as well.

Refresh button shows the log file from the current position.

Previous button shows the log file's previous page.

Next button shows the log file's next page.

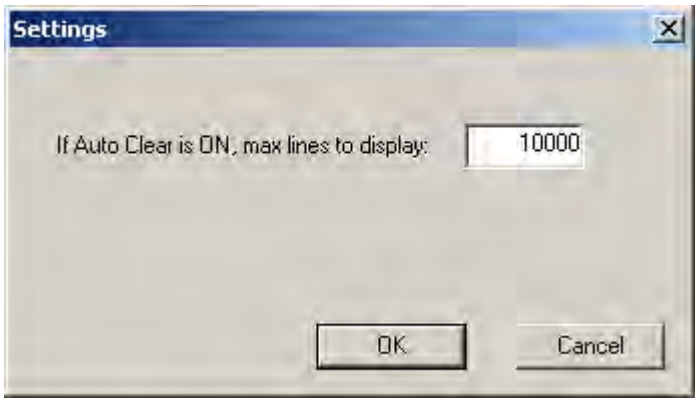
Tools menu



Clear display, clear immediately the two display panels: Information and Debug

Auto Clear if checked will clear each display panel when they reach the set maximum.

Settings launches the Settings dialog for Auto Clear parameters.



Sets the maximum number of lines before clearing the display panel.

TROUBLESHOOTING GUIDE

The following is a simple guide that will help the user in isolating common faults or mistakes and are categorized as:

1. Server hardware
2. Server configuration

Server Hardware

- After turning power switch on, the server fan does not turn on nor front panel LEDs – Check for power source (PDU, UPS), make sure server power cable is plugged in and seated all the way in, sometimes there is a main supply switch in the back of the server that needs to be switched on also.
- Fans and LEDs are operating but there is no video output – Make sure the video cable is plugged in and fastened. Some servers have more than one video output, identify the proper video connector and verify that the cable is securely fastened. Make sure the video display (CRT or TFT) is operational and verify the integrity of the video cable.
- You may need to use a multi-sync CRT monitor to display and change the resolution to the basic displayable ones (800x600, 1024x768).
- If there is still no video - reboot or power cycle the server. After all these steps if you still cannot display the video, the video card in the server might need to be replaced or the entire server might need to be replaced.
- Video is displayed but the keyboard does not operate – Verify that the server is not booting through the special sections of bios where the keyboard is disabled. Press Caps Lock and verify that the Caps Lock LED changes state. Verify that the PS2 or USB keyboard cable is plugged in properly into the server. Replace the keyboard and power cycle the server. After all these steps if you still cannot get the keyboard to input, the server might need to be replaced.
- Video is displayed but the mouse does not operate – Verify that the server has booted up to the point where mouse drivers are enabled and the cursor is shown. Move slightly the mouse and check for reaction for the cursor on the screen. Verify that the PS2 or USB mouse cable is plugged in properly into the server. Replace the mouse with a simple two-button one and power cycle the server. After all these steps if you still cannot get the mouse to input, the server might need to be replaced.
- On the login screen if Ctrl-Alt-Del does not prompt you for name and password the keyboard might be defective. If you cannot login even though you entered the correct name and password, check the Caps Lock and Num Lock states.

Server Configuration

- Cannot ping, check network setting make sure you can ping from the SEMA server to other devices/servers and from other device/server to the SEMA server.
- Cannot access http of server, check IIS settings.
- Running SemaUI causes “Open Message Channel Failed”, check in Services for SEMA Service if not started, re-start or re-install it.
- Using SemaUI/Actions/Find Devices does not find any device on the network, check that there are no other applications in the SEMA server listening to the broadcast port.
- Do not get status updates from CenterBridge or PDU devices, use SemaUI/Find Devices/Setup Network to verify and set the SEMA IP address on those devices.

Data type and Limitation:

ENTERPRISES

NAME	32 ANY CHARS
DESCRIPTION	128 ANY CHARS
LDAPSERVER	255 ANY CHARS
LDAPDOMAIN	128 ANY CHARS

GROUPS

NAME	32 ANY CHARS

USERS

FULLNAME	64 ANY CHARS
DESCRIPTION	128 ANY CHARS
USERNAME	32 ANY CHARS
PASSWORD	32 ANY CHARS
EMAIL_PRIMARY	128 VALID EMAIL
EMAIL_SECOND	128 VALID EMAIL
PHONE_WORK	32 ANY CHARS
PHONE_MOBILE	32 ANY CHARS
PHONE_HOME	32 ANY CHARS

DATACENTERS

NAME	32 ANY CHARS
DESCRIPTION	32 ANY CHARS
LOCATION	32 ANY CHARS
ADDRESS	255 ANY CHARS
EMAIL	255 VALID EMAIL
PHONE_MAIN	32 ANY CHARS
PHONE_IT	32 ANY CHARS
PHONE_OPERATOR	32 ANY CHARS
PHONE_FIRE	32 ANY CHARS
PHONE_POWER	32 ANY CHARS
PHONE_TELCO	32 ANY CHARS
ZONESIZE_X	INTEGER (1-99)
ZONESIZE_Y	INTEGER (1-99)
LOC_X	INTEGER (1-999)
LOC_Y	INTEGER (1-999)

ZONES

NAME	32 ANY CHARS
DESCRIPTION	32 ANY CHARS
SIZE_X	INTEGER (1-99)
SIZE_Y	INTEGER (1-99)

DEVICES

NAME	32 ANY CHARS
DESCRIPTION	32 ANY CHARS
LOCATION	32 ANY CHARS
SIZEINU	INTEGER
NUMPLUGS	INTEGER
POWERDRAW	32 ANY CHARS
HEATDISSIPATION	32 ANY CHARS
NOTES	32 ANY CHARS
MANUFACTURER	32 ANY CHARS
MODEL	32 ANY CHARS
OWNER	32 ANY CHARS
NUMCPUS	INTEGER
MBMEMORY	INTEGER
TOTALGBCAPACITY	INTEGER
NUMDISKS	INTEGER
OS	64 ANY CHARS
NUMSANHBA	INTEGER
INPUTVOLTAGE	INTEGER
INPUTCURRENT	INTEGER
NUMNETWORKPORTS	INTEGER
NETWORKMGMTIP	15 VALID IP

PDU

LOGINTERVAL	INTEGER
ALARMINTERVAL	INTEGER
LOGDIFF	INTEGER
RECEPONDELAY(1-24)	INTEGER
RECEPRESDELAY(1-24)	INTEGER
DEVICEIP	32 ANY CHARS
SUBNETMASK	32 ANY CHARS
GATEWAY	32 ANY CHARS
DNS1IP	32 ANY CHARS
DNS2IP	32 ANY CHARS
DNS3IP	32 ANY CHARS
CIRCAMAXCURRENT	INTEGER
CIRCBMAXCURRENT	INTEGER
CIRCALOCKCURRENT	INTEGER
CIRCBLOCKCURRENT	INTEGER
MINTEMPLIMIT	INTEGER
MAXTEMPLIMIT	INTEGER
MINHUMIDLIMIT	INTEGER

MAXHUMIDLIMIT	INTEGER
DEVICENAME	32 ANY CHARS
RECEPNAME(1-24)	32 ANY CHARS