



# NETGEAR<sup>®</sup>

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## XCM8800 Web Management Interface User Guide

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# Getting Started

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# 1

The Web Management Interface is a device management tool for NETGEAR XCM8800 Series Chassis switches. The Web Management Interface is launched as a Web page on the device. The client, loaded onto the Web browser, uses SOAP over HTTP to communicate with the device using XML APIs. The Web Management Interface provides a graphical user interface for the more commonly used CLI commands, with focus on the statistics and monitoring commands.

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**Note:** The screens shown in this chapter were captured from a variety of switches. In some cases the information displayed on the screen varies depending on the switch being used.

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This chapter describes the Web Management Interface and contains the following sections:

- *Setting Up the Web Management Interface* on page 5
- *Dashboard* on page 6

## Setting Up the Web Management Interface

This section describes the setup process required to use the Web Management Interface with the switch and includes the following topics:

- [HTTP and HTTPS Setup](#) on page 5
- [Client Setup](#) on page 6
- [Launching the Web Management Interface](#) on page 6

### HTTP and HTTPS Setup

Before you can launch the Web Management Interface, you must enable the web server on the switch. You can use either HTTP or HTTPS to access the Web Management Interface.

**Note:** You must assign an IP address to a VLAN for management access to the switch.

#### Web Access Using HTTP

To enable HTTP web access, enter the following command:

```
XCM8806.1 # enable web http
```

The switch is now ready for web access using HTTP at the URL `http://<switch_ip>`.

#### Web Access Using HTTPS

To enable HTTPS Web access, first check to see if the SSL module is installed. Enter the following command:

```
XCM8806.1 # show ssl
```

If the following displays, the SSL module is not installed:

```
SSL Module: Not Installed
```

```
XCM8806.2 #
```

The SSL module has to be installed to enable HTTPS Web access. (See the *NETGEAR 8800 Series Chassis Switch User Manual* “Secure Socket Layer” in the Security chapter and “Guidelines for Activating SSL” in the Software Upgrade and Boot Options appendix.)

After the SSL module is installed, create a certificate by entering the following command:

```
XCM8806.2 # configure ssl certificate privkeylen 1024 country us  
organization netgear common-name name1
```

To enable HTTPS Web access, enter the following command:

```
8806.1 # enable web https
```

The switch is now ready for Web access using HTTPS at the URL `https://<switch_ip>`.

## Client Setup

You need a standard Internet browser such as Mozilla Firefox (version 1.0 or greater) or Internet Explorer (version 6.0 or greater) with the Adobe Flash Player 9 plug-in installed.

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**Note:** The Web Management Interface supports up to six concurrent sessions.

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## Launching the Web Management Interface

To launch the Web Management Interface, enter the URL of the switch in the address window of your browser. The login prompt displays, as shown in the following figure.

The image shows a web browser window displaying the login prompt for the XCM8800/XCM8810 Web Interface. The title bar reads "Welcome to XCM8800/XCM8810 Web Interface". Below the title bar, there is a blue header with a white question mark icon and the text "Please enter username and password". The main content area contains three input fields: "Switch" with the value "66.166.147.252", "User name", and "Password". A "Login" button is located to the right of the Password field.

**Figure 1. Login prompt**

The login screen displays the switch IP address. You enter a user name and password for access. The user name and password are the same that you use to access the CLI from a Telnet or SSH session.

## Dashboard

Next, the Dashboard screen displays. The dashboard is the home screen, or opening screen. This screen provides you with a one-glance-snapshot of switch status, inventory, and management details.

The dashboard is divided into three information panes as shown in the following figure and described in this section.

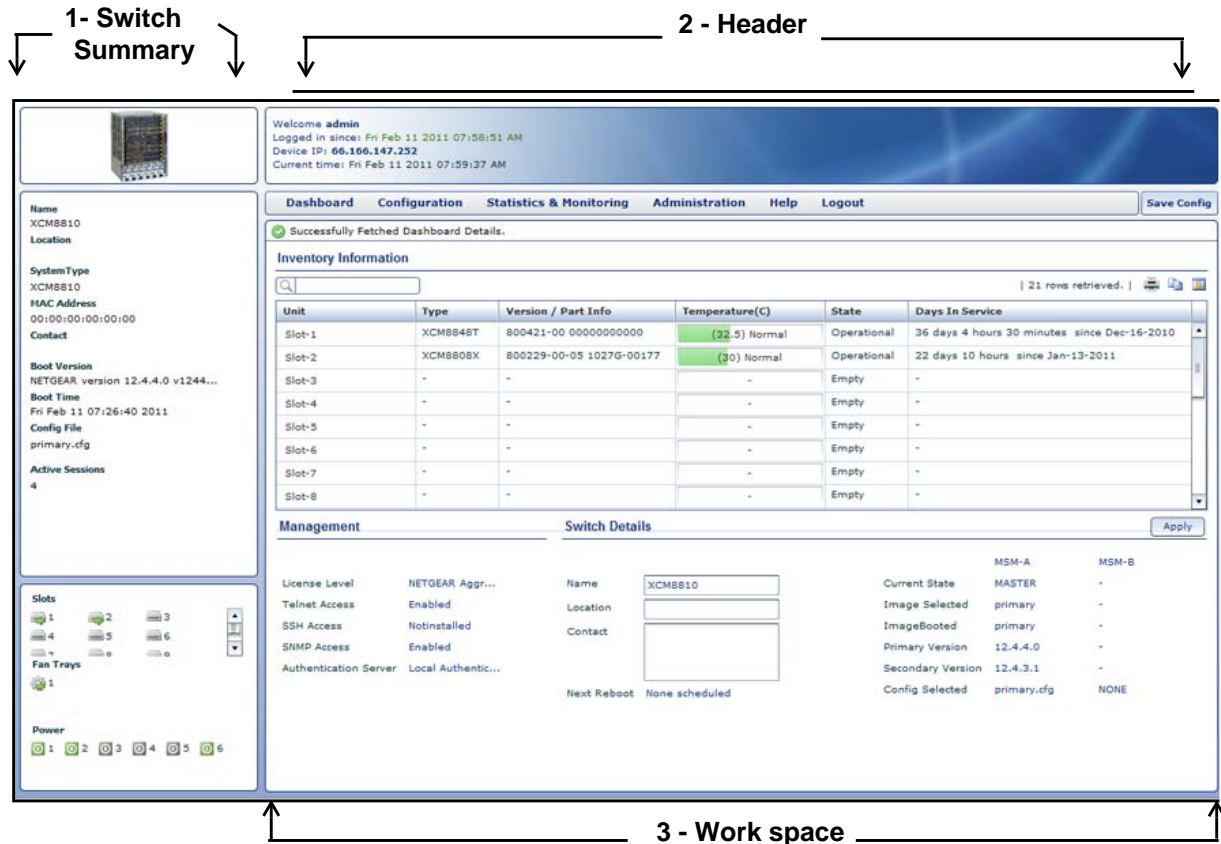


Figure 2. Dashboard details

- 1. Switch Summary.** Contains summary information about the switch, including:
  - The switch name, location, system type, MAC address, and boot version.
  - Hardware information, such as the number of slots, fan trays, and power modules in the switch as well as the status of those elements. Click items in this pane to see more detailed information about the items. For example, clicking a slot provides you with such slot information as its state, serial number, and temperature. Refer to [Figure 3, Unit Information screen](#).



This pane remains consistent across all views.

- 2. Header.** Displays information about the current session including:
  - The logged in user, the date and time when the user logged in, the switch IP address, and the current date and time.
  - A standard menu bar. Refer to [Menu Bar](#) for additional details.

This pane remains consistent across all views.

- 3. Work space.** Displays the information and work area for the different Web Management Interface features. All features are accessed via the menu bar with any subordinate

functions, usually available through tabs. Each work area is described in the following sections.

At the top of the pane is a status bar that displays the current activity or condition, such as,  Successfully Fetched SNMP Details! or an error message, such as  Unknown tag "test3".mismatched .

From the device dashboard, you can navigate to any other portion of the interface. The functions available in the Web Management Interface are divided into three major categories:

- Configuration, which covers configuration of ports, VLANs, stacking, SNMP and dynamic ACLs. See [Chapter 2, Port Configuration](#).
- Statistics and Monitoring, which provides you with the capability to generate event logs, monitor and generate statistics on ports, and perform QoS monitoring. See [This chapter provides an overview of the three statistics and monitoring panes available through the Web Management Interface](#): on page 25.
- Administration, which allows you to perform administrative tasks on user accounts and user sessions and to issue CLI commands. See [CLI Shell](#) on page 35.

## Main Functions

This section describes those functions that are displayed in all of the main workspaces (Dashboard, Configuration, Statistics & Monitoring and Administration). These include the following topics:

- [Menu Bar](#)
- [Dashboard Switch Summary Icons](#) on page 10
- [Configuring the Refresh, Timeout, and CLI Settings](#) on page 10
- [Customizing and Capturing the Tables](#) on page 11

### Menu Bar

This section lists and describes the menu and submenu elements.

#### Dashboard

The opening screen that provides a one-glance snapshot of switch details, inventory, and management details. Refer to [Dashboard](#) on page 6.

#### Configuration

- **Ports.** Lists and describes the ports. A Port Details panel provides the capability to make certain modifications to the port configuration.
- **VLANs.** Lists and describes the VLANs. You can use the VLAN Details panel to modify the VLAN configuration.
- **Stacking.** Displays the stacking topology diagram and stacking configuration details. This submenu is enabled only on switches that support stacking.



- **SNMP.** Lists SNMP settings, statistics, users and trap receivers.
- **Dynamic ACLs.** Lists the dynamic ACLs on the switch. Provides the capability to create, edit and apply an ACL to an interface.

### *Statistics and Monitoring*

- **Event Log.** Provides an event log of the activity on the switch, showing date, time, and type of event.
- **Ports.** Provides port statistics and utilization details in tables and charts.
- **QoS.** Displays QoS (Quality of Service) profile information for each port.

### *Administration*

- **User Accounts.** Lists user account information and provides the capability to create and modify the settings locally and with RADIUS and TACACS.
- **User Sessions.** Lists information on the current session and provides a history of recent session activity.
- **CLI Shell.** Provides the capability to issue CLI commands from within the application.

### *Help*

- **Services & Technical Support.** Opens the Services and Support page on NETGEAR website at <http://support.netgear.com>.
- **Command Reference Guide.** Links to the NETGEAR 8800 Series Chassis Switch documentation.
- **User Guide.** Links to the NETGEAR 8800 Series Chassis Switch documentation.
- **About.** Displays client environment information.

### *Logout*




Exits the Web Management Interface.

### *Save Config*

A command button used to save configuration changes. When changes have been made, the button turns orange indicating that a saving action is required to permanently change the configuration.

## Dashboard Switch Summary Icons

The following table lists and describes the icons used on the Dashboard Switch Summary pane.

Icon	Description
	Slot - Operational, Failed, and Empty.
	Fan Tray - Operational and Empty.
	Power Supply - Powered on, Failed, and Empty.

Point to an icon to show the unit type and state. Click the icon to show additional inventory information. The following figure shows two examples of the content.

**Slot Information**

Slot-1

State            Operational

Flags            M

Serial Number    800116-00-02 04364-00006

Hw Module Type  10G4X

SW Version      12.1.0.56

SW Build        v1210b56

Configured Type  10G4X

Last Error      -

Ports Available  4

Temperature(C)  27.00

**Flags:** M - Backplane link to Master MSM is Active  
           B - Backplane link to Backup MSM is also Active  
           D - Slot Disabled    S - Slot Secured  
           I - Insufficient Power   '-' - Null Value

**Powersupply Information**

PowerSupply 1

State            Powered On

PartInfo        PS 2336 0536J-06797 4300...

Revision        7

Odometer        264 days 20 hours

Temperature(C)  30

Fan 1(rpm)     6473

Fan 2(rpm)     6473

Output 1        48.18 V, 6.12 A (48V/1104W Max)

Output 2

Input Voltage    222.00 V AC

Figure 3. Unit Information screen

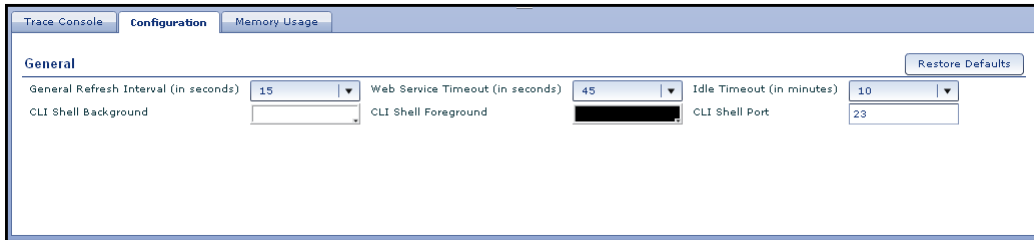
### Configuring the Refresh, Timeout, and CLI Settings

Following are the defaults for the following refresh, timeout and CLI settings:

- **General Refresh Interval.** The default is 15 seconds.
- **Web Service Timeout.** The default is 45 seconds.
- **Idle Timeout.** The default is 10 minutes. (A warning is given one minute before.)
- **CLI Shell Background.** Select a color from the color pallet. The default is white.
- **CLI Shell Foreground.** Select a color from the color pallet. The default is black.
- **CLI Shell Port.** Specify a port.

**To reset these settings:**

1. Right-click almost any part of the window to display one of two menus that have a Show Console choice.
2. From the menu choose Show Console. A console pane is displayed at the bottom of the Dashboard, Configuration, Statistics & Monitoring, or Administration screens.
3. Click the Configuration tab as shown in the following figure.





**Figure 4. Console - Configuration tab**

4. From the appropriate drop-down list, choose another setting for any or all of the first five selections or enter a port number in the CLI Shell Port text box.

To restore the original default settings, click the **Restore Defaults** command button.

**Customizing and Capturing the Tables**

You can customize the format of a table and then print it or copy it to another application such as MS Excel.

- Resize the column width using standard column resizing bars between the heading cells.
- Sort rows by clicking in a table heading cell to display an up or down arrow tip.
- Remove columns by clicking the hide icon  and in the displayed Select Columns box, clear the check marks for the unwanted column names.
- Select specific row entries by typing the relevant text into the search field  . Entries that do not include the text are hidden.
- Print an original or modified table by clicking the print icon  located just above the table. A standard print box opens. This icon prints the specific table only and prints it as it appears on the screen. If any cell contents are hidden on the screen they are hidden on the printed copy. To print the entire screen, use the browser print command.
- Copy the table to another application by clicking the copy icon , opening the target application, and pasting in the table.

## Dashboard Work Space

The Dashboard work space contains three segments: Inventory Information, Management, and Switch Details. These are shown in the following figure and are described in this section.

Dashboard Configuration Statistics & Monitoring Administration Help Logout Save Config

Successfully Fetched Dashboard Details.

### Inventory Information

21 rows retrieved.

Unit	Type	Version / Part Info	Temperature(C)	State	Days In Service
Slot-1	XCM8848T	800421-00 000000000000	(32.5) Normal	Operational	36 days 4 hours 30 minutes since Dec-16-2010
Slot-2	XCM8808X	800229-00-05 1027G-00177	(30) Normal	Operational	22 days 10 hours since Jan-13-2011
Slot-3	-	-	-	Empty	-
Slot-4	-	-	-	Empty	-
Slot-5	-	-	-	Empty	-
Slot-6	-	-	-	Empty	-
Slot-7	-	-	-	Empty	-
Slot-8	-	-	-	Empty	-

### Management

License Level: NETGEAR Aggr...  
 Telnet Access: Enabled  
 SSH Access: Notinstalled  
 SNMP Access: Enabled  
 Authentication Server: Local Authentic...

### Switch Details

Name: XCM8810  
 Location:   
 Contact:   
 Next Reboot: None scheduled

MSM-A: MASTER  
 MSM-B: -  
 Current State: MASTER  
 Image Selected: primary  
 ImageBooted: primary  
 Primary Version: 12.4.4.0  
 Secondary Version: 12.4.3.1  
 Config Selected: primary.cfg  
 NONE

**Figure 5. Dashboard**

The following screens/panes are available:

- **Inventory Information.** Provides information about the hardware units: the type of system, the running temperature with a colored indicator, and the total number of days that the switch has been in service. Click the different unit to display additional information, examples of which are shown in [Figure 3, Unit Information screen](#). Allows for customizing and capture of the table.
- **Management.** Displays the availability/status of configuration elements: license level, Telnet access, SSH access, SNMP access, and authentication server.
- **Switch Details.** Describes the current condition of the switch including its location, software version, state, and configuration. Allows for the modification of the switch name, location and contact.

## 2. Port Configuration

---

# 2

This feature allows you to view and modify some of the basic configurations of the ports on the device. The topics available through the ports configuration screen are:

- Port list
- Port details
- Enabling and disabling ports
- Basic port set operations

You can use the Web Management Interface to perform device-level configuration tasks. This section provides an overview of the five configuration panes available:

- *Modify Single Ports* on page 14
- *VLAN Configuration* on page 17
- *SNMP Configuration* on page 20
- *SNMP Configuration* on page 20
- *Dynamic ACL Configuration* on page 22

## Modify Single Ports

To display the Port Details screen, select **Configuration > Ports**, and click one of the ports in the Port List. Port Details information is displayed under four tabs. The General details tab information is displayed here, and the other Port Details tabs follow.

The screenshot displays the XCM8800 Web Management Interface. The top navigation bar includes 'Dashboard', 'Configuration', 'Statistics & Monitoring', 'Administration', 'Help', and 'Logout'. The 'Configuration' tab is active, and the 'Ports' sub-tab is selected. The main content area is titled 'Port List' and shows a table of ports. The 'Port 1:6' row is selected, and its details are shown in the 'Port Details - 1:6' section below. The 'General' tab is active in the Port Details section.

Port	Flags	Port State	Link State	Link Speed	Duplex Mode	Auto Neg.	Jumbo	Load Master
1:6	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:7	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:8	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:9	Emj-----fMB---x	Enabled	Active	Auto(1000)	Auto(Full-Duplex)	On	true	-
1:10	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:11	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:12	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:13	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:14	fMB-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-

The 'Port Details - 1:6' section shows the following configuration:

- Port Number: 1:6
- Display String: [Empty field]
- Type: UTP
- Virtual Router: VR-Default
- Port State: Enabled
- Link State: Ready
- Link Counter: Up 0 time(s)
- ELSM: false
- EDP: Disabled
- Auto Negotiation:  Enabled  Disabled
- ConfigSpeed: Auto
- ConfigDuplex: Auto
- Jumbo Frame:  Enabled  Disabled
- Auto Polarity: true

Figure 6. Ports Configuration screen with single port details

- **Port List.** Lists the ports and their respective flags (see [Figure 11, Flags Legend - Configuration](#)), Port State, Link State, Link Speed, Duplex Mode, Auto Negotiation, Jumbo frames and Load Master. You can customize the table and capture it. You can use the command buttons to enable or disable ports.
- **Port Details.** Displays details for the port that is selected from the Port List.
- **General tab.** Displays the port number and type, settings for the virtual router, port state, link state, link counter, ELSM, EDP and auto polarity. You can modify auto negotiation, config speed, config duplex, Jumbo Frame, preferred medium and force preferred medium.

## Port Details QoS Tab

The QoS tab displays the QoS profile name, and shows the Explicit CoS Traffic Grouping Configuration and Egress Traffic Rate Limiting. You can use the radio buttons to enable or disable ingress and egress settings. The following figure shows the QoS details tab.

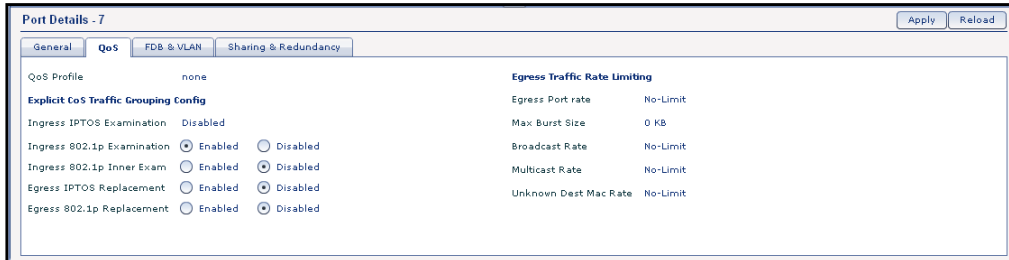


Figure 7. Port Details QoS Tab

## FDB & VLAN Tab

The FDB & VLAN tab displays the VLANs. You can use this tab to enable or disable the learning port, unicast flooding, multicast flooding, and broadcast flooding. The following figure shows the FDB & VLAN details tab:

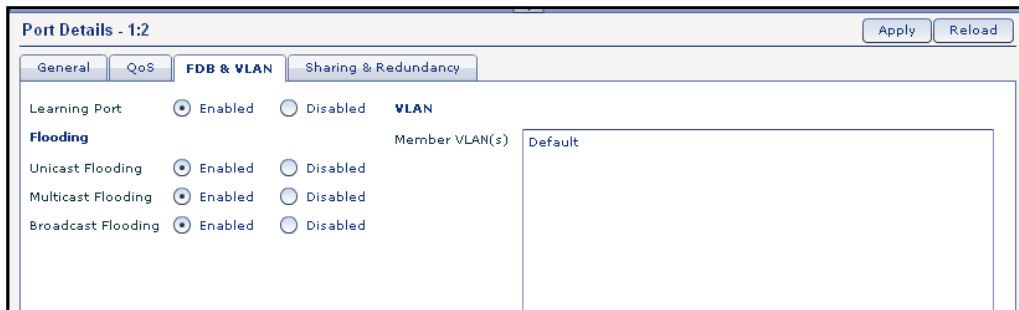


Figure 8. Port Details FDB & VLAN Tab

## Port Details Sharing & Redundancy Tab

The Sharing & Redundancy tab displays Load Sharing: Load sharing/link aggregation algorithm, Master Port and Members. On modular switches, this tab displays Software-Controlled Redundancy, the Primary and Redundant Ports, and allows you to

enable or disable Smart Redundancy and Software Redundant Port Link. The following figure shows the Sharing & Redundancy details tab.

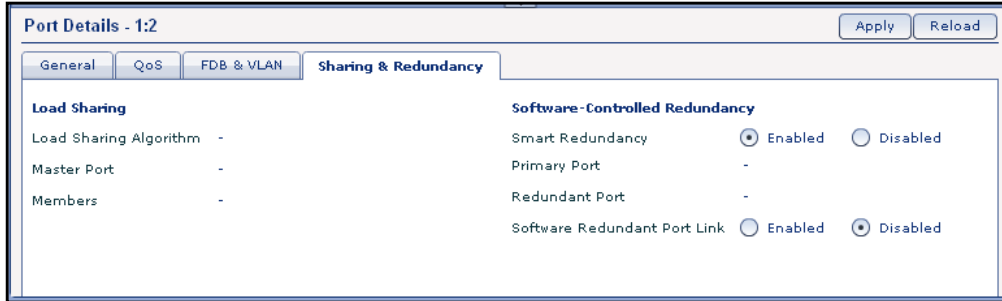


Figure 9. Port Details Sharing & Redundancy tab

## Multiple Port Details

To show Port Details for multiple ports, control-click two or more ports in the port list. The resulting Port Details are shown in the following figure:

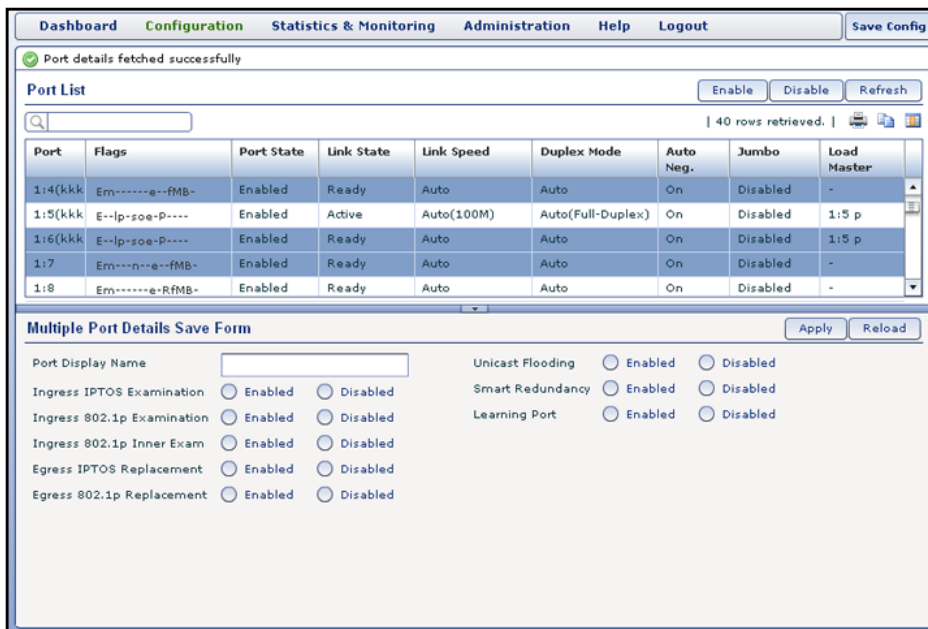


Figure 10. Ports Configuration screen with multiple port details

The Multiple Port Details Save Form screen displays details for two or more ports selected from the Port List. This screen allows a Port Display Name to be provided and Ingress IPTOS Examinations, Ingress 802.1p Examinations, Ingress 802.1p Inner Exam, Egress IPTOS Replacements, Egress 802.1p Replacement, Unicast Flooding, Smart Redundancy, and Learning Port to be enabled or disabled.



Click one of the entries in the Port List Flags column to display the Flags Legend. The settings in the list that apply to the particular port are displayed in bold print as shown in the following figure:

Flags Legend	
a	Load Sharing Algorithm is address-based
<b>B</b>	<b>Broadcast Flooding Enabled</b>
D	Port Disabled
<b>e</b>	<b>EDP Enabled</b>
<b>E</b>	<b>Port Enabled</b>
<b>f</b>	<b>Unicast Flooding Enabled</b>
F	Ratelimit Flood-traffic Loopback
g	Egress TOS Enabled
j	Jumbo Frame Enabled
l	Load Sharing Enabled
L	ELSM Enabled
<b>M</b>	<b>Multicast Flooding Enabled</b>
<b>m</b>	<b>MAC Learning Enabled</b>
n	Ingress TOS Enabled
o	802.1p Priority Replacement Enabled
p	Load Sharing Algorithm is port-based
P	Software redundant port (Primary)
q	Background QoS Monitoring Enabled
R	Software redundant port (Redundant)
s	Diffserv Replacement Enabled
v	vMAN Enabled

Figure 11. Flags Legend - Configuration

## VLAN Configuration

VLAN configuration allows you to create, modify, and delete VLANs, add ports to VLANs and configure them. The topics available through the VLAN configuration screen are:

- VLAN list
- VLAN details (Click one of the VLANs in the list.)
- Enabling and disabling VLANs
- Basic VLAN configuration
- Port membership in VLANs

Click one of the VLANs in the VLAN List to show the VLAN Details information for it. The General tab is displayed in the following figure.

The screenshot displays the XCM8800 Web Management Interface. At the top, there is a navigation bar with tabs: Dashboard, Configuration (selected), Statistics & Monitoring, Administration, Help, and Logout. A 'Save Config' button is located on the right. Below the navigation bar, a message states 'Successfully fetched the VLAN details'. The main content area is divided into two sections:

**VLAN List**: This section contains a table with columns: Name, Tag, Protocol Address, Flags, Proto, Ports Active/Total, and VR. The table lists five VLANs: b-cross, Default, epi, epicenter, and Mgmt. The 'epicenter' row is highlighted in blue. Above the table are buttons for 'Enable', 'Disable', 'Delete', 'Create', and 'Refresh'. A search bar and a status indicator '| 5 rows retrieved.' are also present.

Name	Tag	Protocol Address	Flags	Proto	Ports Active/Total	VR
b-cross	200	20.2.2.1 / 24	.....	ANY	0/0	VR-Default
Default	1		.....	ANY	0/0	VR-Default
epi	4093		.....	ANY	0/0	VR-Default
epicenter	4092	10.210.17.15 / 26	.....	ANY	1/1	VR-Default
Mgmt	4095	10.210.14.61 / 24	.....	ANY	1/1	VR-Mgmt

**VLAN Details - epicenter**: This section shows configuration options for the selected VLAN. It has three tabs: 'General' (selected), 'DHCP', and 'Ports'. The 'General' tab contains the following fields:

- Name: epicenter
- Admin State: Enabled
- Tagging: 4092
- Tag Type: Untagged
- Virtual Router: VR-Default
- Protocol: ANY
- Active Ports: 1/1
- QoS Profile: none
- Loopback:  Enabled  Disabled
- Primary IP: 10.210.17.15 / 26
- Secondary IPv4: A table with columns 'IP Address' and 'Mask', containing one row with a '+' button to add and an 'X' button to delete.
- IPv6 Address: [Empty field]
- UDP Profile: [Empty field]

Buttons for 'Apply' and 'Reload' are located at the top right of the details section.

**Figure 12. VLANs Configuration screen**

The following screens/panes are available:

- **VLAN List.** Lists the VLANs and their respective names, Tags, Protocol Addresses, Flags, Protocol filters, Active and Total Ports, and Virtual Routers. In this screen you can create or delete VLANs, and enable or disable them. You can customize the table, capture the table, and manually refresh the screen.
- **VLAN Details.** Displays information for the VLAN selected from the VLAN List.
- **General.** Displays: Admin State, Tag Type, and the Active Ports. You can modify these settings: Name, Tagging, Virtual Router, Protocol filters, QoS Profile, Loopback Primary IP, Secondary IPv4, IPv6 Address and the UDP Profile.

## VLAN Details DHCP Tab

The following figure displays the DHCP (Dynamic Host Configuration Protocol) tab:

The screenshot shows the 'VLAN Details - Default' window with the 'DHCP' tab selected. The interface includes the following fields:

- DHCP Address From:
- DHCP Address Till:
- Default Gateway:
- DNS Server:
- WINS Server:
- Lease Time:

Buttons for 'Apply' and 'Reload' are located in the top right corner.

**Figure 13. VLAN Details DHCP Tab**

This screen allows modification to: DHCP (Dynamic Host Configuration Protocol) Address, Default Gateway, DNS (Domain Name Servers) Server, WINS (Windows Internet Naming Service) Server, and Lease Time.

## VLAN Details Ports Tab

The following figure shows the Ports tab.

The screenshot shows the 'VLAN Details - Default' window with the 'Ports' tab selected. The interface includes a 'Ports' list on the left and a table of port configurations on the right.

**Ports List:**

Port	Tag
2	Tag
3	

Buttons: Add, Remove

**Port Configuration Table:**

Port	Tag	Flags
1	Untag	Dm-----fMB-
4	Untag	Em-----fMB-
5	Untag	Em-----fMB-
6	Untag	Em-----fMB-
7	Untag	Em-----fMB-
8	Untag	Em-----fMB-
9	Untag	Em-----fMB-
10	Untag	Em-----fMB-

Buttons for 'Apply' and 'Reload' are located in the top right corner.

**Figure 14. VLAN Details Ports Tab**

This screen displays the Flags assigned to the port. Refer to [Figure 11, Flags Legend - Configuration](#). It allows ports to be added and removed, and tagged and untagged. In the Ports panel, point to a port number to display its Port Properties. In the Flags column, point to flag to display the Flags Legend.

## VLAN Configuration Procedures

Following are common procedures for using VLAN Configuration functions.

### To Create a VLAN:

1. From the **VLAN List** screen, click the **Create** command button. The **New VLAN Details** pane is displayed. (This pane matches that shown in [Figure 12, VLANs Configuration screen](#).)
2. Type in the required information.

3. To save the configuration, click the **Save** command button. The VLAN is saved to the switch.
4. Click the **Save Config** command button to permanently save the new VLAN.

#### To Delete a VLAN:

1. From the **VLAN List** screen, click the name of the VLAN to be deleted. The **VLAN Details** pane is displayed for the selected VLAN.
2. Click the **Delete** command button. The VLAN is deleted and the action is confirmed.

## SNMP Configuration

This feature allows you to view the SNMP configuration on the switch. The information provided is useful to view the settings that are used by an SNMP client communicating with the switch. The tool allows you to view and manipulate the following SNMP features:

- SNMP settings
- SNMP v1 and v2c communities
- SNMP v3 users
- SNMP trap receivers
- SNMP statistics

There are no capabilities to make changes to the SNMP configuration in this release. This section shows two SNMP configuration screens that display the content under all the tabs.

SNMP Configuration and Statistics

SNMP Settings

SNMP V1/V2c Communities

Community	Read View	Write View
private	defaultUserView	defaultUserView
public	defaultUserView	
ST.181471946.10550		
ST.184509197.10550		
ST.184498434.10550		

Trap Receivers

Destination	Port	Retry	Timeout	Mode
10.255.48.47	10550	0	1500	enhanced
10.209.10.202	10550	0	1500	enhanced
10.255.99.13	10550	0	1500	enhanced
10.255.57.2	10550	0	1500	enhanced
10.255.43.15	10550	0	1500	enhanced
10.255.43.36	10550	0	1500	enhanced
10.255.61.4	10550	0	1500	enhanced
10.255.43.38	10550	0	1500	enhanced

Figure 15. SNMP Configuration screen, example 1

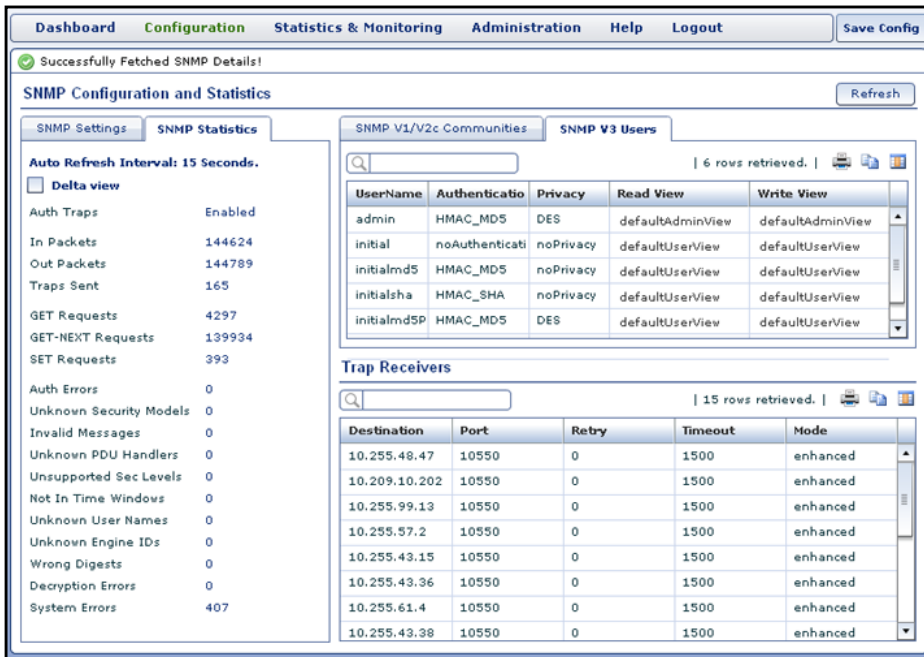


Figure 16. SNMP Configuration screen, example 2

The following screens/panes are available:

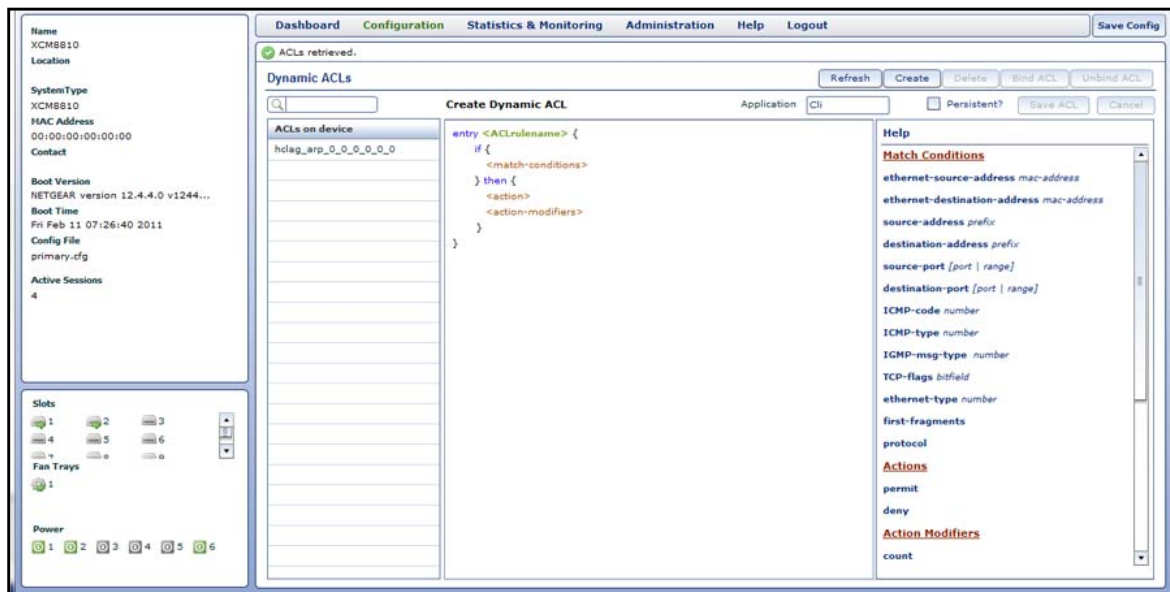
- **SNMP Settings.** Displays SNMP configuration settings and access status.
- **SNMP Statistics.** Displays SNMP statistics. Move the cursor over each item in the list to show a tool tip with additional explanation of each. Clicking the Delta view box, starts a count up of new actions beginning from the time the box is checked. The start time is displayed.
- **SNMP V1/V2c Communities.** Lists the community strings and the type of access. Click the entries in the Read View and Write View columns to see the MIB Object Identifiers (OIDs) that are included and excluded. Allows for customizing and capture of the table, and a manual Refresh function.
- **SNMP V3 Users.** Lists the users, authentication method, privacy status, and type of access. Click the entries in the Read View and Write View columns to see the MIB OIDs that are included and excluded. Allows for customizing and capture of the table, and a manual Refresh function.
- **Trap Receivers.** Lists the trap receiver IP addresses, Port, number of retries, Timeout, and the Modes (enhanced or standard). Allows for customizing and capture of the table.

## Dynamic ACL Configuration

This feature allows you to manage dynamic ACLs. It provide a process that is easier than the long command line syntax from the CLI. The following functionality is included.

- Displays the ACLs currently existing on the switch
- Creates and edits ACLs
- Applies a completed ACL to an interface.

The following figure shows a dynamic ACL screen:



**Figure 17. Creating a Dynamic ACL**

These screens/panes are available:

- **ACLs on device.** Displays the ACLs that are currently available on the switch.
- **Create Dynamic ACL.** Displays an template on which to create an ACL. (See the following procedures.)
- **Help.** Contains interactive lists of Match Conditions, Actions and Action Modifiers used to create an ACL. The Help menu includes the following functions:
  - Services and Technical Support opens the Services and Support page on the NETGEAR website.
  - Command Reference Guide links to NETGEAR 8800 Series Chassis Switch product documentation.
  - User Guide links to NETGEAR 8800 Series Chassis Switch documentation.
  - About opens a standard information screen.

## Dynamic ACL Procedures

Following are common procedures for using Dynamic ACL functions.

### To create an ACL:

1. Click the **Create** command button to display a new ACL template in the **Create Dynamic ACL** pane.
2. Replace <ACLrulename> with a name.
3. In the template, click in <match-conditions> and then click one of the Match Conditions listed in the **Help** pane. The selection is inserted into the template.
4. Repeat for the other elements as necessary.
5. Click the **Save ACL** button. The new ACL is saved and added to the **ACLs on device** pane.

### To apply an ACL to an interface:

1. In the **ACLs on device** pane, click the ACL to be applied. The **Bind ACL** command button is enabled.
2. Click the **Bind ACL** command button. The **Apply <ACL name> on interface** pane is displayed.
3. Click one of the three interface radio buttons (**Any**, **Ports** or **VLANs**). The appropriate fields for the particular interface are displayed and enabled. (See [Figure 18, Applying an ACL to an Interface](#) below)
  - Clicking **Any** disables the other controls in the pane.
  - Clicking **Ports** displays a list of all ports on the device. You can choose one or more ports.
  - Clicking **VLANs** displays a text box. Enter a VLAN name in the box.

If there are other ACLs applied to the chosen interface, you can apply the new ACL as either the “first” or “last” ACL or position it before or after an ACL that is already applied to the interface. If the ACL is already applied to the chosen port or VLAN, all controls are disabled.

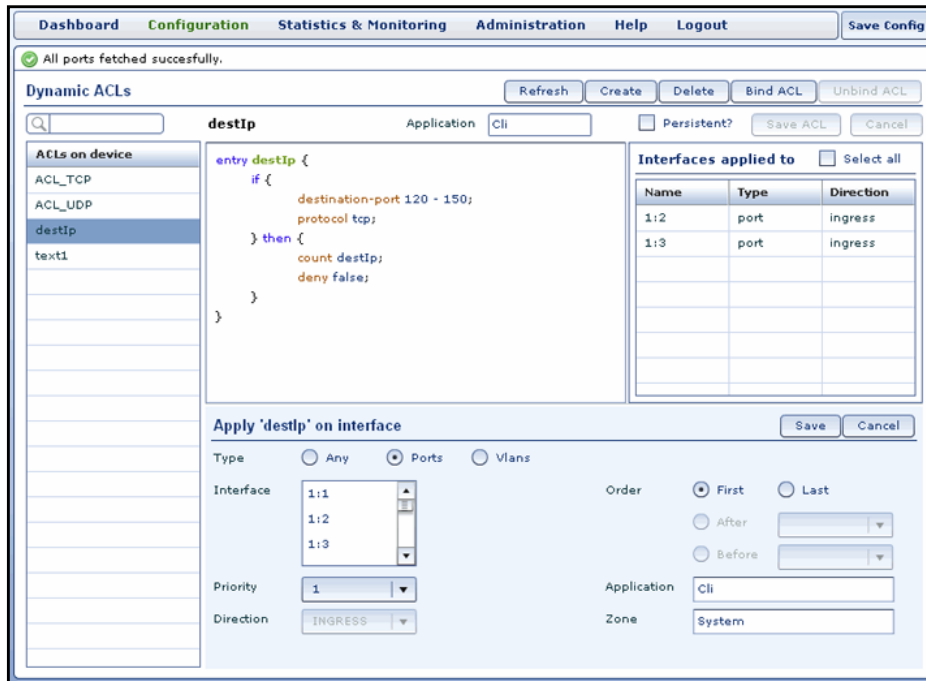
4. Make the selections and **Save**. The ACL is applied to the interfaces and the details are displayed in the **Interfaces applied to** pane. Point to the ACL to display a tool tip showing the interface status.

### To remove an ACL:

First unbind the ACL from the interface, if appropriate, then remove it from the device.

1. In the **ACLs on device** pane, click the ACL to be removed. The interface details in the **Interfaces applied to** pane are displayed. Enable the **Unbind ACL** command button by clicking the interface details row.
  - You can choose multiple ports to unbind at the same time but only one VLAN.
  - To unbind all interfaces at once, click the **Select All** box.
  - Click **Unbind ACL**.

- In the ACLs on device pane, click the ACL to be removed and then click the **Delete** command button.



**Figure 18. Applying an ACL to an Interface**

- Apply <ACLrulename> on interface.** Allows you to choose the interface to which the dynamic ACL is to be applied as well as priority, direction, order, application, and zone.
- Interfaces applied to.** Displays the interfaces to which the ACL selected in the ACLs on device pane is bound.



# 3 Statistics and Monitoring

---

# 3

This chapter provides an overview of the three statistics and monitoring panes available through the Web Management Interface:

- *Event Log* on page 26
- *Port Statistics* on page 27
- *QoS Monitoring* on page 30

## Event Log

This feature provides you with a tabular event log of the activity on the switch. To view the event log, select **Statistics & Monitoring > Event Log**. The following figure shows the Event Log screen:

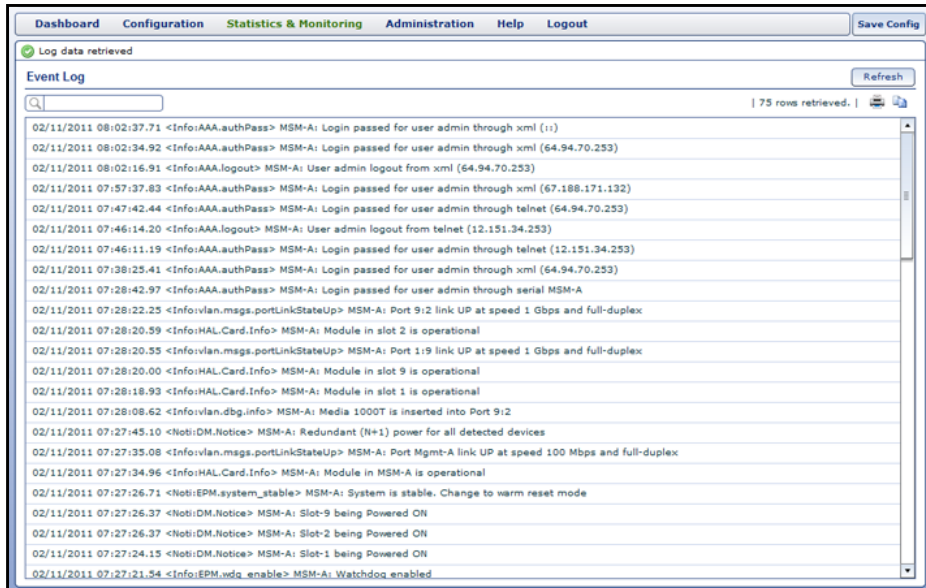


Figure 19. Event Log screen

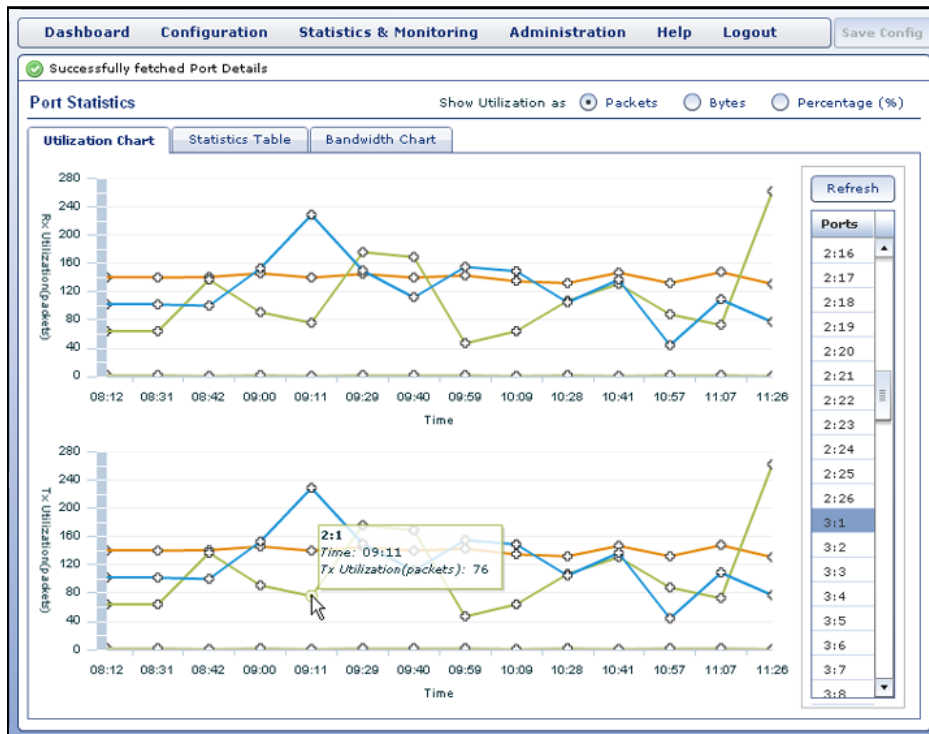
The event log displays the date, time, and type of event. It allows for customizing and capture of the table and a manual Refresh function.

## Port Statistics

This feature allows you to view the live statistics of the ports as various kinds of charts and tables. The charts and tables are viewed in the following tabbed screens:

- Utilization Chart
- Statistics Table
- Bandwidth Chart

The following figure shows the Utilization Chart tab information.



**Figure 20. Port Statistics Utilization Chart screen**

The Utilization Chart graphically displays port utilization, received and transmitted. The graph can be plotted in bytes per second, packets per second or as a percentage of bandwidth. You can point to any of the Port numbers to display a tool tip that shows the Port Properties: Display String and Link State. Point to one of the plot points for more information.

## Statistics Table Screen

The following figure shows the Statistics Table tab information.

Ports	Link State	Tx Util.(P)	Rx Util.(P)	Tx Count(B)	Rx Count(B)	Rx BCast	Rx MCast	Rx Errors	Tx Errors
2:1	Active	307437	307437	46768681669	31179124839	14	4468	0	0
2:2	Ready	0	0	0	0	0	0	0	0
5:1	Ready	0	0	0	0	0	0	0	0
5:2	Ready	0	0	0	0	0	0	0	0
5:3	Ready	0	0	0	0	0	0	0	0
5:4	Ready	0	0	0	0	0	0	0	0
5:5	Ready	0	0	0	0	0	0	0	0
5:6	Ready	0	0	0	0	0	0	0	0
5:7	Ready	0	0	0	0	0	0	0	0
5:8	Ready	0	0	0	0	0	0	0	0
5:9	Ready	0	0	0	0	0	0	0	0
5:10	Ready	0	0	0	0	0	0	0	0
5:11	Ready	0	0	0	0	0	0	0	0
5:12	Ready	0	0	0	0	0	0	0	0
5:13	Ready	0	0	0	0	0	0	0	0
5:14	Ready	0	0	0	0	0	0	0	0
5:15	Ready	0	0	0	0	0	0	0	0
5:16	Ready	0	0	0	0	0	0	0	0
5:17	Ready	0	0	0	0	0	0	0	0
5:18	Ready	0	0	0	0	0	0	0	0
5:19	Ready	0	0	0	0	0	0	0	0
5:20	Active	0	0	117584	227760	0	1568	0	0
6:1	Active	205024	205024	31075748570	46613621037	7	1676	0	0

Figure 21. Statistics Table screen

The Statistics table lists the available ports and their link state, bandwidth utilization—as a number or percent—transmitted byte or packet count, received byte or packet count, received broadcast, received multicast, invalid frames received and transmitted. Use the radio buttons and check box to chose the display. This screen allows the table to be customized and captured.

## Bandwidth Chart

The Bandwidth chart displays in a bar chart, the percentage of bandwidth being utilized for each port. Allows the range of ports to be selected. Point to a bar to display its port number and Rx or Tx utilization percentage. The following figure shows the Bandwidth Chart:

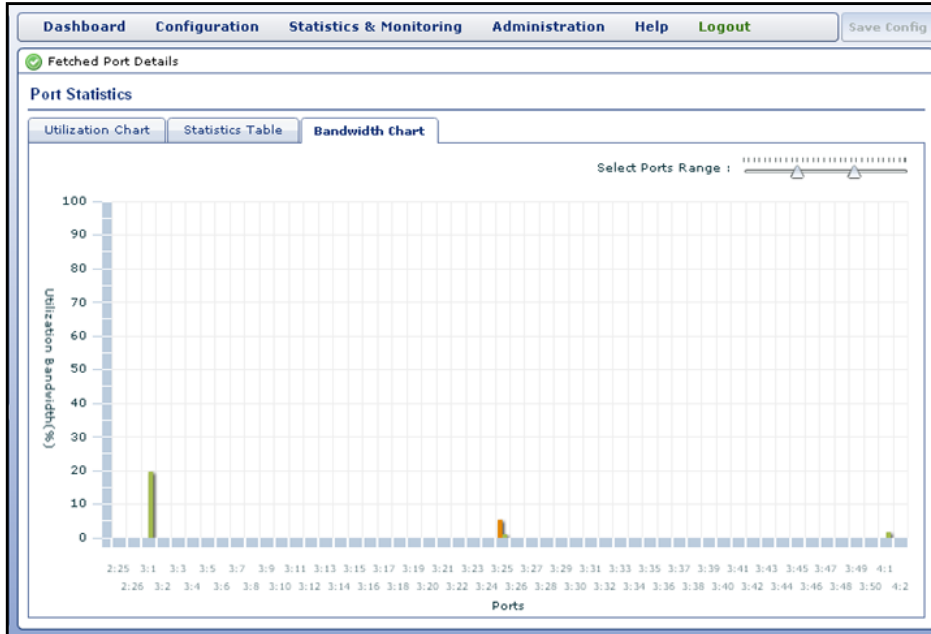


Figure 22. Port Statistics Bandwidth Chart screen

## QoS Monitoring

This feature allows you to monitor QoS information on a port (both bytes and packets). The following figure shows the QoS monitoring screen:

The screenshot displays the XCM8800 Web Management Interface. The main content area is titled "Port List" and shows a table of ports with the following columns: Port, Flags, Port State, Link State, Link Speed, Duplex Mode, Auto Neg., Jumbo, and Load Master. The table lists ports 1:6 through 1:14. Below the table, the "Port Details - 1:6" section is visible, showing configuration options for QoS Profile, Egress Traffic Rate Limiting, and Explicit CoS Traffic Grouping Config.

Port	Flags	Port State	Link State	Link Speed	Duplex Mode	Auto Neg.	Jumbo	Load Master
1:6	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:7	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:8	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:9	Emj-----fMB---x	Enabled	Active	Auto(1000)	Auto(Full-Duplex)	On	true	-
1:10	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:11	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:12	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:13	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-
1:14	Emj-----fMB---x	Enabled	Ready	Auto	Auto(Unknown)	On	true	-

The "Port Details - 1:6" section shows the following configuration:

- QoS Profile: none
- Explicit CoS Traffic Grouping Config:
  - Ingress IPTOS Examination: Disabled
  - Ingress 802.1p Examination:  Enabled  Disabled
  - Ingress 802.1p Inner Exam:  Enabled  Disabled
  - Egress IPTOS Replacement:  Enabled  Disabled
  - Egress 802.1p Replacement:  Enabled  Disabled
- Egress Traffic Rate Limiting:
  - Egress Port rate: No-Limit
  - Max Burst Size: null KB
  - Broadcast Rate: No-Limit
  - Multicast Rate: No-Limit
  - Unknown Dest Mac Rate: No-Limit

Figure 23. QoS Monitor screen

The QoS Monitor screen displays the QoS profiles assigned to each port. Allows the table to be shown in terms of egress or ingress, packets (P) or bytes (B), and for the table to be customized and captured.

# 4 Administration

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# 4

This chapter provides an overview of the administration panes available through the Web Management Interface:

- *User Accounts* on page 32
- *User Sessions* on page 34
- *CLI Shell* on page 35

## User Accounts

This feature allows you to manage user accounts on a switch. This includes the ability to add, modify and delete user accounts local to the switch and to configure remote RADIUS AAA or TACACS servers.

Information on the user accounts screen is displayed under the following four tabs:

- Local Users
- Global Password Policy
- RADIUS
- TACACS

### Local Users Tab

The Local Users tab displays the users and information about their accounts. You can create or delete a user account, unlock a user account, and change a password. You can customize the table and capture it. The User Detail pane displays information about the user selected in the Users List and allows setting some limitations on the account. The following figure shows the Local Users screen:

User Name	Access	Password Expiry	Accounts Locked	Password Policy	Login Success	Login Failed
admin	Read Write	Never	No	Global	7	0
user	Read Only	Never	No	Global	0	0
test1	Read Only	Never	No	Global	0	0

Figure 24. User Accounts Local Users screen



## Global Password Policy Tab

This screen allows you to set limitations on passwords for all users.

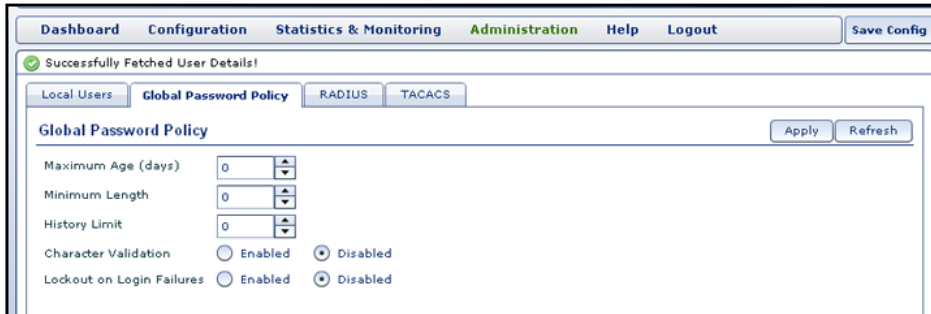


Figure 25. User Accounts Global Password Policy screen

## RADIUS Tab

This screen displays authentication and accounting information for the primary and secondary servers. This includes numbers of various access and response events. Allows you to configure Status, Timeout, IP Addresses, Ports, Shared Secrets, Client IP Addresses and Virtual Routers. The following figure shows the RADIUS screen:

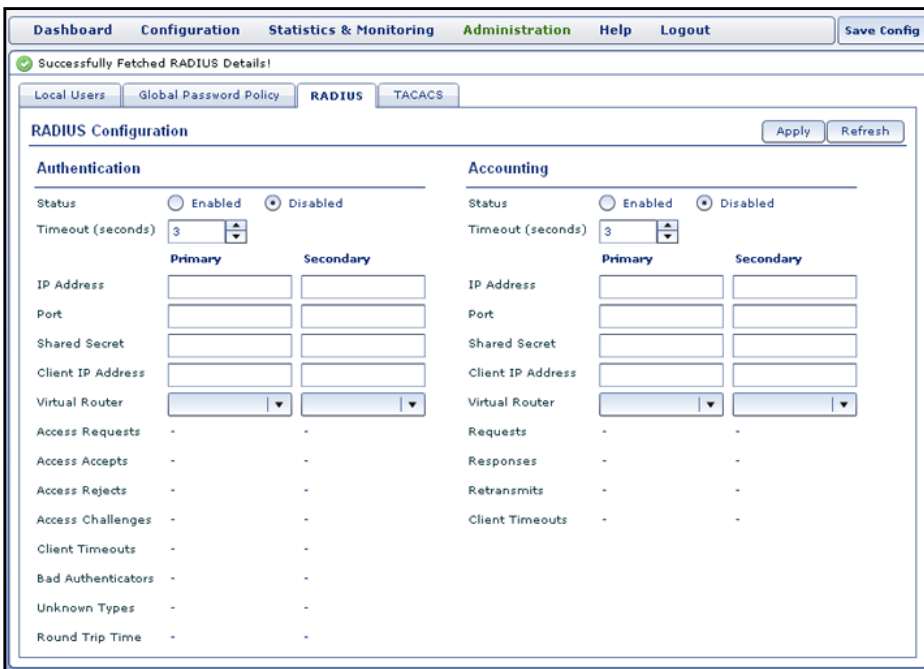


Figure 26. User Accounts RADIUS screen

## TACACS Tab

The TACACS tab allows you to configure Status, Timeout, IP Addresses, Ports, Shared Secrets, Client IP Addresses and Virtual Routers for Authentication and Accounting primary and secondary servers. The following figure shows the TACACS screen:

The screenshot displays the TACACS Configuration page within a web management interface. At the top, there is a navigation bar with tabs for Dashboard, Configuration, Statistics & Monitoring, Administration (selected), Help, and Logout. A 'Save Config' button is located in the top right corner. Below the navigation bar, a message indicates 'Successfully Fetched RADIUS Details!'. The main content area is titled 'TACACS Configuration' and includes an 'Apply' and 'Refresh' button. The configuration is divided into two main sections: Authentication and Accounting. Each section has a 'Status' field with radio buttons for 'Enabled' and 'Disabled'. Below the status, there is a 'Timeout (seconds)' field with a spinner set to 3. Each section also has two columns for 'Primary' and 'Secondary' servers, with fields for IP Address, Port, Shared Secret, Client IP Address, and Virtual Router (a dropdown menu).

Figure 27. User Accounts TACACS screen

## User Sessions

This feature shows the list of SSH, XML, and Telnet sessions on the switch. It includes the ability to view current and historical sessions and allow administrators to kill rogue sessions. The features available through the sessions management screen are:

- Monitor and manipulate active CLI and XML API sessions
- Clear selected session
- View session history

The following figure shows the user sessions screen:

ID	Login Time	User	Type	Authentication	CLI Auth	Location
1	Fri Feb 11 07:28:42 2011	admin	console_local	local	disabled	serial MSM-A
4	Fri Feb 11 07:47:39 2011	admin	telnet	local	disabled	64.94.70.253
5	Fri Feb 11 07:57:37 2011	admin	xml	local	disabled	67.188.171.132
6	Fri Feb 11 08:02:34 2011	admin	xml	local	disabled	64.94.70.253

User	Type	Location	Login Time	End Time
admin	console	serial MSM-A	Fri Feb 11 07:28:42 2011	Active
admin	xml	64.94.70.253	Fri Feb 11 07:38:25 2011	Fri Feb 11 08:02:16 2011
admin	telnet	12.151.34.253	Fri Feb 11 07:46:08 2011	Fri Feb 11 07:46:14 2011
admin	telnet	64.94.70.253	Fri Feb 11 07:47:39 2011	Active
admin	xml	67.188.171.132	Fri Feb 11 07:57:37 2011	Active
admin	xml	64.94.70.253	Fri Feb 11 08:02:34 2011	Active

Figure 28. User Sessions screen

- **Active Sessions.** Displays session number, login time, user name, type of connection, authentication, type of authentication if enabled, and the IP address from which the user is logged in. Allows the current session to be cleared and the table to be customized and captured.
- **Session History.** Displays the history of sessions showing: user name, type of connection, IP address from which the user was logged in and the login and logout times. Allows the list to be customized and captured.

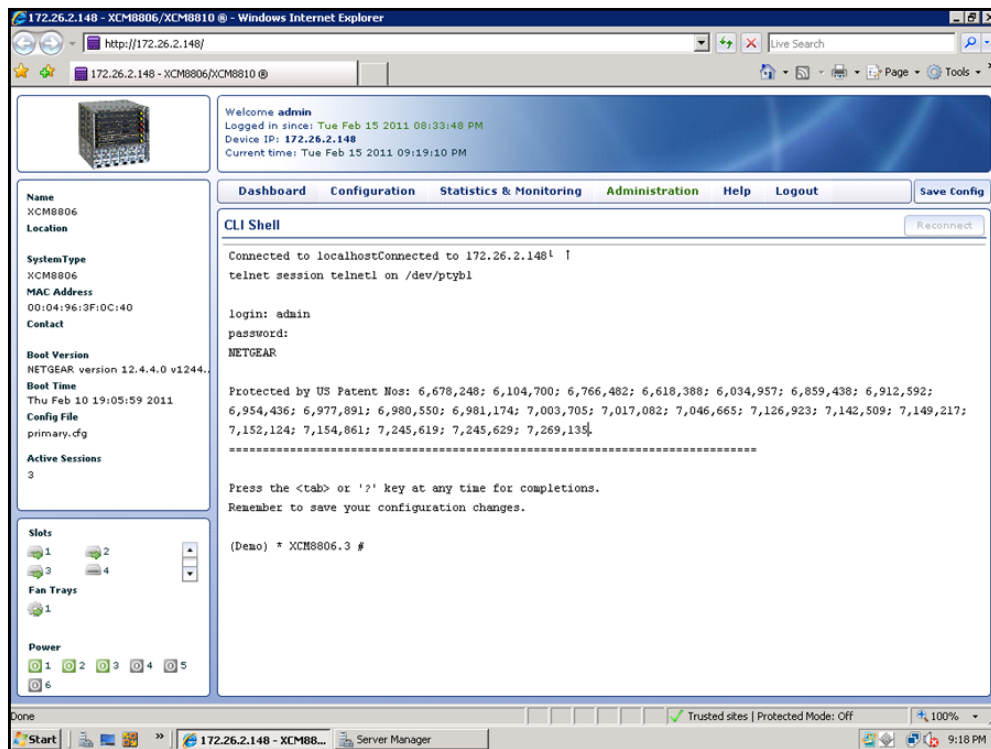
## CLI Shell

This feature allows you to issue CLI commands from within the browser window without opening a Telnet client. The functionality includes:

- SSH Support
- Command Completion
- Command History

To use the CLI Shell, you must first download and install a CLI proxy installable service/daemon. CLIProxy\_window can be found on the NETGEAR website.

The CLI Shell screen displays a CLI screen on which commands can be entered. You can change the appearance of the screen and the settings for the foreground and background colors as well. The following figure shows the CLI shell screen.



**Figure 29. CLI Shell screen**

The CLI Shell port can be reset, as shown in *Figure 4, Console - Configuration tab* on page 11.