#### CHAPTER 3

# Using the Web Interface

### 3.1 Purpose

The **Web Management Interface** chapter describes how to use your web browser to manage the a Cisco router.

The Web Management Interface is designed for individuals who prefer a GUI program, or who are familiar with web-based navigational principles. The Web Browser Interface enables you to set some configuration parameters in the browser, and to view other settings. The view-only functionalities are marked as "Display Only."

Internet Explorer 2.0 from Microsoft is incompatible with the Cisco 67x router. You must use Netscape 3.01 or higher or Internet Explorer 3.01 or higher for the Cisco Web Management Interface.

**Note** The Web Management Interface may not be available for certain Cisco 67x configurations. Contact your service provider if you have questions concerning this feature.

# 3.2 Before Using the Web Management Interface

You must receive an IP address to access the Cisco 67x web management page and a user password from a support representative before you can use the Web Management Interface. The IP address for the web management home page is the same as the Eth0 IP address assigned by your Service Provider (SP).

The user password comes in two modes: Exec, or read-only, and Enable. You must have Enable privileges to save changes made via the Web interface to NVRAM.

You must click on the Submit Changes button and issue a **write** command (at the command line interface) to apply any changes though the Web Management Interface.

Do the following to write to NVRAM.

- **Step 1** Close the web interface.
- **Step 2** Logon to the CBOS using either the serial or Telnet interfaces.
- Step 3 Write changes to NVRAM: cbos>write
- Step 4 Reboot the system.



The system disregards all changes when rebooted if you have not written the changes to NVRAM.

### 3.3 Activating the Web Management Interface

Do the procedure below to activate the Web Management Interface.

- **Step 1** Logon to CBOS using either a serial or telnet interface.
- **Step 2** Enter the user name exec or enable and press Enter to bypass the initial password if you have not yet created a password. If you have already created a password, proceed to Step 6.
- **Step 3** To set a new password for the exec login, enter: cbos>set password exec *new-password*

Set a new password for user logins by substituting enable for exec in the above example.

Step 4	To save the new password, enter: cbos>write
Step 5	Enable the Web Management Interface cbos>set web enabled
Step 6	Launch your preferred web browser.
Step 7	Enter the IP address for the Cisco 67x Web locator field. For example, instead of http/

**Step 7** Enter the IP address for the Cisco 67x Web Management page in the browser locator field. For example, instead of http://www.cisco.com/ insert the dotted decimal format (http://10.0.0.1/) of the Cisco 67x IP address. The following screen appears:

#### Figure 3-1 Password Verification

B	Please type your user name and password.
	Resource
	User name:
	Password

**Step 8** Enter the user name and the password.

**Step 9** Once the Web Management Interface home page appears, you should add a bookmark in your browser for the new Cisco 67x location. Once the bookmark has been added, simply activate the bookmark to access the Web Management Interface. Figure 6-2, on page 6-4 shows the interface home page.

**Note** If you have a exec-only password, all screens are greyed out so that you cannot make changes.

# 3.4 Navigating the Web Management Interface

The screen below is the Cisco Web Management Interface home page.

Figure 3-2 Web Management Interface Home Page



# 3.5 Web Management Pages

The Web Management Interface home page has four buttons that link to other Web pages. To navigate to the various pages, click on the icon or on the appropriate word in the navigation line at the bottom of each page. The purpose of each of the pages is as follows:

- Home Page—Displays the Web Management Interface home page.
- Configure—Displays buttons that correspond to Cisco 67x configuration tasks.
- Statistics—Displays application, port, and error statistics.
- Information—Displays the latest readme file, technical support information, and a feedback form.

# 3.6 Configure

Click on the **Configure** button and five sub buttons appear.





The functions for each button are explained below.

# 3.6.1 General

The **General** button allows you to set general configuration parameters, such as the IP address of the Cisco 67x, the ADSL values given to you by your service provider, and the VC base and count metrics. The three sections of the General Configuration screen and instructions on how to use these options are described below.

#### Figure 3-4 General Configuration Screen

	GISCO SYSTEMS 675 xDSL Router	
	General Configuration	
IP Address IP Address 17 Netmask 25	71.70.41.247	
ADSL Config Downstream Upstream	Auto	
ATM Configu VPI Count	aration 4	Dates

#### **IP** Address

This option allows you to set the address and netmask for the Ethernet port of your Cisco equipment.

To use this option:

- **Step 1** Enter the address and netmask (usually provided by LAN administrator or ISP).
- **Step 2** To apply these addresses, click on the **Submit Changes** button.
- **Step 3** To reject these addresses, click on the **Reset Values** button.
- **Step 4** The new addresses are displayed.

#### ADSL Configuration

This option allows you to set the up and downstream rates for your ADSL connection.

**Note** You should not need to change these values. To alter the values, consult your service provider.

#### ATM Configuration

This option allows you to set up the total number of VPI addresses that you can configure. The VC Base drop down menu allows you to choose a base address, normally one greater than zero. The VC Count drop down menu allows you to specify the number of Virtual Paths to be supported by the Cisco equipment you are using.

To use this option:

- **Step 1** Select the Base and Count number from their respective drop down menus.
- **Step 2** To apply these numbers, click on the **Submit Changes** button.
- Step 3 To reject these numbers, click on the Reset Values button.

# 3.6.2 Applications

Click on the **Apps** button and the Application Configuration screen appears. The **Apps** button allows you to enable and disable applications associated with the Cisco 67x.

Figure 3-5 Application Configuration Screen

	Appl	ication Config	uration	
Application	Status	Server IP	Only allow this IP	Port
RADIUS	disabled 💌	10.0.0.2	Not Applicable	1645
Syslog	disabled •	10.0.0.2	Not Applicable	514
Telnet	enabled •	Not Applicable	0.0.0.0	23
TFTP	enabled 💌	Not Applicable	0.0.0.0	69
Web Server	enabled ·	Not Applicable	0.0.0.0	80

Each of the applications is described in the following sections.

#### RADIUS

Remote Authentication Dial-In User Service (RADIUS), authenticates users for access to a network. The RADIUS server uses an authentication scheme, such as PAP, to authenticate incoming messages from RADIUS clients. When a password is present, it is hidden using a method based on the RSA Message Digest Algorithm MD5.

	Enabling	or disabling RADIUS
	Select wh	ether you want to enable or disable RADIUS via the first drop down menu.
	Step 1	Specify the IP address of the server.
	Step 2	Enter a port number.
	Step 3	Click on the <b>Submit Changes</b> button to apply changes or the <b>Reset Values</b> button to discard changes.
Syslog		
	Syslog log requiring	as system information to a specified Syslog server for processing without large amounts of local storage or local processing.
	Enabling	a or disabling Syslog
	Step 1	Select whether you want to enable or disable Syslog via the first drop down menu.
	Step 2	Specify the IP address of the Syslog server.
	Step 3	Enter a port number.
	Step 4	Click on the <b>Submit Changes</b> button to apply changes or the <b>Reset Values</b> button to discard changes.
Telnet		
	Telnet pro	vides access to the CBOS command line interface via a network.
	Enabling	or disabling Telnet
	Step 1	Select whether you want to enable or disable Telnet via the first drop down menu.
	Step 2	Specify the IP address of the machine allowed to use Telnet to connect to the Cisco 67x. To allow any machine to connect, specify 0.0.0.
	Step 3	Enter a port number.

3-10 Cisco Broadband Operating System User Guide

Step 4	Click on the Submit Changes button to apply changes or the Reset Val	ues
	button to discard changes.	

#### TFTP

The Trivial File Transfer Protocol (TFTP) server allows you to transfer a new configuration file or new software to and from Cisco equipment.

#### Enabling or disabling TFTP

- **Step 1** Select whether you want to enable or disable TFTP via the first drop down menu.
- **Step 2** Specify the IP address of the machine allowed to use TFTP to connect to the Cisco 67x. To allow any machine to connect, specify 0.0.0.0.
- **Step 3** Enter a port number.
- **Step 4** Click on the **Submit Changes** button to apply changes or the **Reset Values** button to discard changes.

#### Web Server

The Web Server allows you to use the web interface to access Cisco equipment.

#### Enabling or disabling the Web Server

- **Step 1** Select whether you want to enable or disable the web interface via the first drop down menu.
- **Step 2** Specify the IP address of the machine allowed to use the web interface to connect to the Cisco 67x. To allow any machine to connect, specify 0.0.0.
- **Step 3** Enter a port number.
- **Step 4** Click on the **Submit Changes** button to apply changes or the **Reset Values** button to discard changes.

**Note** You must write changes using the command line interface (via a serial or telnet connection) before rebooting to apply changes. These changes take effect the next time you log in. For information on the **write** command, see Chapter 2, "Using the Command Line Interface".

# 3.6.3 Filter Configuration Screen

Click on the **Filtering** button and the Filter Configuration screen appears. This option allows you to set up filters to prevent or allow the flow of IP packets into Cisco Equipment.

Figure 3-6 Filter Configuration Screen

tllh	
Filter Co	nfiguration
2 * Load	d Filter CFG
Filter 2 is disabled and will al	llow •
Filter 2 is disabled and will al packets from IP Address 0.0.0.0	with a netmask of 0.0.0.0
Filter 2 is disabled and will all packets from IP Address 0.0.0.0 destined for IP Address 0.0.0.0	with a netmask of 0.0.0.0 with a netmask of 0.0.0.0
Filter 2 is disabled and will all packets from IP Address 0.0.0.0 destined for IP Address 0.0.0.0 on eth0 interfaces using TCI	with a netmask of 0.0.0.0 with a netmask of 0.0.0.0 P/UDP Port 0

#### Setting filters

- **Step 1** Select the filter name and number from the first drop down menu at the top of the screen. Click on the **Load Filter CFG** button to load existing filter information.
- **Step 2** Set filters by completing the sentence.
- **Step 3** Select either the *enabled* or *disabled* option from drop down menu to activate a filter.

- **Step 4** Select either the *allow* or *deny* option from the drop down menu. The *allow* option allows the specified filter to accept packets from a particular IP address. The *deny* option does not permit these packets to flow to a particular IP address.
- Step 5 Enter the source address and netmask of where the packet is originating. The source address is the IP address of the source computer from which you will allow or deny traffic. The source netmask is the source network from which you will allow or deny traffic. By entering a source netmask, you can filter a group of incoming IP addresses.
- **Step 6** Enter the destination address and netmask. The destination address is the IP address of the computer that, if allowed, will receive packets originating from the source IP address. The destination netmask is the destination network that, if allowed, will receive packets originating from the source netmask. By entering a destination netmask, you can filter a group of outgoing IP addresses.
- **Step 7** Select the interface that this filter affects from the drop down menu. Select the *all* option for all interfaces.
- **Step 8** Select the TCP/UDP Port this affects from the drop down menu. Select 0 for all ports.

**Note** You must click the **Submit Changes** button to save the routing changes to NVRAM. Also, once you change an IP address, you should reboot the Cisco 67x to bind the new IP addresses to the ports.

### 3.6.4 Routing

Click on the **Routing** button and the Routing Configuration screen appears. This option allows you to build a new routing table or change an existing routing table. Routes consist of the IP addresses of all machines you want to communicate with plus the netmask, gateway, and metric of those machines.

Figure 3-7 Routing Configuration Screen



#### **Routing Operations**

The Routing Configuration screen allows you to change your routing table. See the sections below for instructions on individual tasks.

#### To change the default gateway

- **Step 1** Left click in the Default Gateway box to select it.
- **Step 2** Click on the **Enter** key. A new screen appears that allows you to change the IP address of the default gateway.
- **Step 3** Enter the IP address.
- **Step 4** To apply changes, click on the **Submit Changes** button. To clear the changes, click on the **Reset Values** button.

#### To change an existing route

- **Step 1** Left click on the route you want to change.
- **Step 2** Click on the **Enter** button. A new screen appears that allows you to change the route.
- **Step 3** Enter the target address, the netmask, and the gateway.
- **Step 4** The *target address* is the IP address of the machine with which you are trying to communicate. You can modify or delete existing IP addresses by simply typing in the new address.
- **Step 5** The *netmask* is the address of the network with which you want to communicate. You can modify or delete existing netmask addresses by typing in the new address.
- **Step 6** The *gateway* is the address of the gateway machine through which the information you are sending is routed. Data is sent through the external gateway to the destination address. Therefore, this address must be the address of a gateway that is physically linked to your network. You can modify or delete existing gateway addresses by simply typing in the new address.
- **Step 7** To apply changes, click on the **Submit Changes** button. To clear the changes, click on the **Reset Values** button.
- **Step 8** The new routing information is displayed.

#### To add a new route

- **Step 1** Click on the Add new route option.
- Step 2 Click on the Submit Changes button. A new screen appears.
- **Step 3** Enter the new route including the target IP address, the netmask, and the gateway. See the section above for further descriptions on these addresses.
- **Step 4** To apply changes, click on the **Submit Changes** button. To clear the changes, click on the **Reset Values** button.

# 3.6.5 User CFG

Click on the **User CFG** button and the User Configuration screen appears. This option allows you to set up a user profile for each logical WAN connection. The user profile can be saved and reloaded each time you want to reuse it.

Figure 3-8 User Configuration Screen

wan0-0       Load VC Profile         WAN0-0 Configuration         User Name         Password         Authentication         VPI         1         VCI         1         Scalarate	Load V	0-0	wan0-0		
WAN0-0 Configuration User Name Password Authentication None VPI 1 VCI 1 Scalarate 0	Configu	0-0			
User Name Password Authentication None VPI 1 VCI 1 Scalarate 0			WAN0		
Password Authentication None VPI 1 VCI 1 Scalarate 0		3	User Name	,	
Authentication None  VPI 1 VCI 1 Scalarate 0			Password	1	
VPI 1 VCI 1 Scalarate 0	lone _	ion	Authenticati		
VCI 1 Scalarate 0			VPI		
Scalarate 0			VCI		
	5		Scalarate		
Dest IP 0.0.0.0	0.0.0	3	Dest IP	3	
Dest Mask 0.0.0.0	0.0.0		Dest Mask	1	

3-18 Cisco Broadband Operating System User Guide

with this

#### Configuring users

Step 1

Step 2	Click on the Load VC Profile button.
Step 3	Enter or change existing user information. The field definitions are:
	• User Name—Allows you to specify the name of user associated with the WAN connection.
	• <b>Password</b> —Allows you to specify user's password.
	• Authentication—Allows you to specify type of authentication required. Choices are None, Radius, and Pap.
	• <b>VPI</b> —Allows you to specify the Virtual Path Identifier of this VC.
	• VCI—Allows you to specify the Virtual Circuit Identifier of this VC.

Select the Virtual Circuit (VC) from the drop down menu.

- ScalaRate—Allows you to specify the amount of scaled bandwidth you want to set for this user.
- **Dest IP**—Allows you to specify the IP address of the subscriber-side Cisco equipment.
- Dest Mask—Allows you to specify the destination mask of the subscriber-side Cisco equipment.
- To submit changes, click on the Submit Changes button. To undo all changes, Step 4 click on the Reset Values button.

After you apply changes, the new user configuration information is displayed.

# 3.7 Statistics

The **Statistics** button allows you to display statistics about applications, errors, and ports. The **Statistics** button has three sub-buttons shown below.



### 3.7.1 Applications

Click on the **Apps** button and the Application Statistics screen appears. This screen displays the applications that you can configure for the Cisco 67x.

Figure 3-10 Application Statistics Drop Down

-	GISCO SYSTEMS 675 xDSL Router
	Application Statistics
	Syslog  Load Statistics

### 3.7.2 Errors

Click on the **Errors** button and the screen below appears. This screen displays the current errors reported by the CBOS.

Figure 3-11 Error Report for All Modules and All Levels



### 3.7.3 Ports

Click on the **Ports** button and Port Statistics screen appears. This screen allows you to display statistics on the Ethernet and WAN ports.

Figure 3-12 Port Statistics Drop Down

Cisco :	675 xDSL Router
	Port Statistics
	wan0-0 * Load Statistics

#### **Displaying Port Statistics**

- **Step 1** Select a port from the drop down menu.
- **Step 2** Click on the **Load Statistics** button. The statistics for the port are displayed as shown below.
- **Step 3** Repeat for all ports for which you want to display statistics.

# 3.8 Information

Click on the **Information** button to get information about the Cisco equipment you are working on and about Cisco, Inc. The **Information** button has four sub-buttons shown below.

Figure 3-13 Copyright and Build Information



### 3.9 Cisco Home Page

For more information about Cisco and its products, go to the Cisco home page on the World Wide Web at **http://www.cisco.com**.

### 3.10 Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

**Note** For more information about Cisco and its products, go to the Cisco home page on the World Wide Web at **http://www.cisco.com**.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com
- WWW: http://www-europe.cisco.com
- WWW: http://www-china.cisco.com
- Telnet: cco.cisco.com

• Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

**Note** If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

For the latest information on caveats and known problems, follow these steps to consult CCO:

- **Step 1** Connect to CCO as directed in the section above.
- **Step 2** On the CCO home page, click LOGIN, which appears in green in the menu bar at the top of the page, and log into CCO. (If you are not a registered CCO user, follow the instructions to register so that you can log in.)
- **Step 3** After you log in, click Software & Support on the CCO home page.
- **Step 4** On the Software & Support page, click Technical Tools.
- **Step 5** On the Technical Tools page, click Bug Toolkit II. (Bug Toolkit II is not visible on the Technical Tools page unless you log in to CCO as directed in Step 2.)
- **Step 6** Use one of the tools to get up-to-date bug information. For example, click Search for Bug by ID Number, then enter a bug ID, such as CSCdk09616, when prompted. For instructions on using the bug tools, go to the bottom of the Bug Toolkit II page and click Help—How to Use the Bug Toolkit.

3-26 Cisco Broadband Operating System User Guide