Using the Web-Browser Interface

This chapter describes the web-browser interface that you can use to configure the wireless device. This chapter contains these sections:

The web-browser interface contains management pages that you use to change the wireless device settings, upgrade firmware, and monitor and configure other wireless devices on the network.

Note The wireless device web-browser interface is fully compatible with Microsoft Internet Explorer version 6.0 on Windows 98 and 2000 platforms, and with Netscape version 7.0 on Windows 98, Windows 2000, and Solaris platforms.

Note Avoid using both the CLI and the web-browser interfaces to configure the wireless device. If you configure the wireless device using the CLI, the web-browser interface might display an inaccurate interpretation of the configuration. However, the inaccuracy does not necessarily mean that the wireless device is misconfigured.

Using the Web-Browser Interface for the First Time

Use the wireless device's IP address to browse to the management system. See the "Obtaining and Assigning an IP Address" section on page 2-3 for instructions on assigning an IP address to the wireless device. Follow these steps to begin using the web-browser interface:

Step 1 Start the browser.

Step 2 Enter the wireless device's IP address in the browser **Location** field (Netscape Communicator) or **Address** field (Internet Explorer) and press **Enter**. The Summary Status page appears.

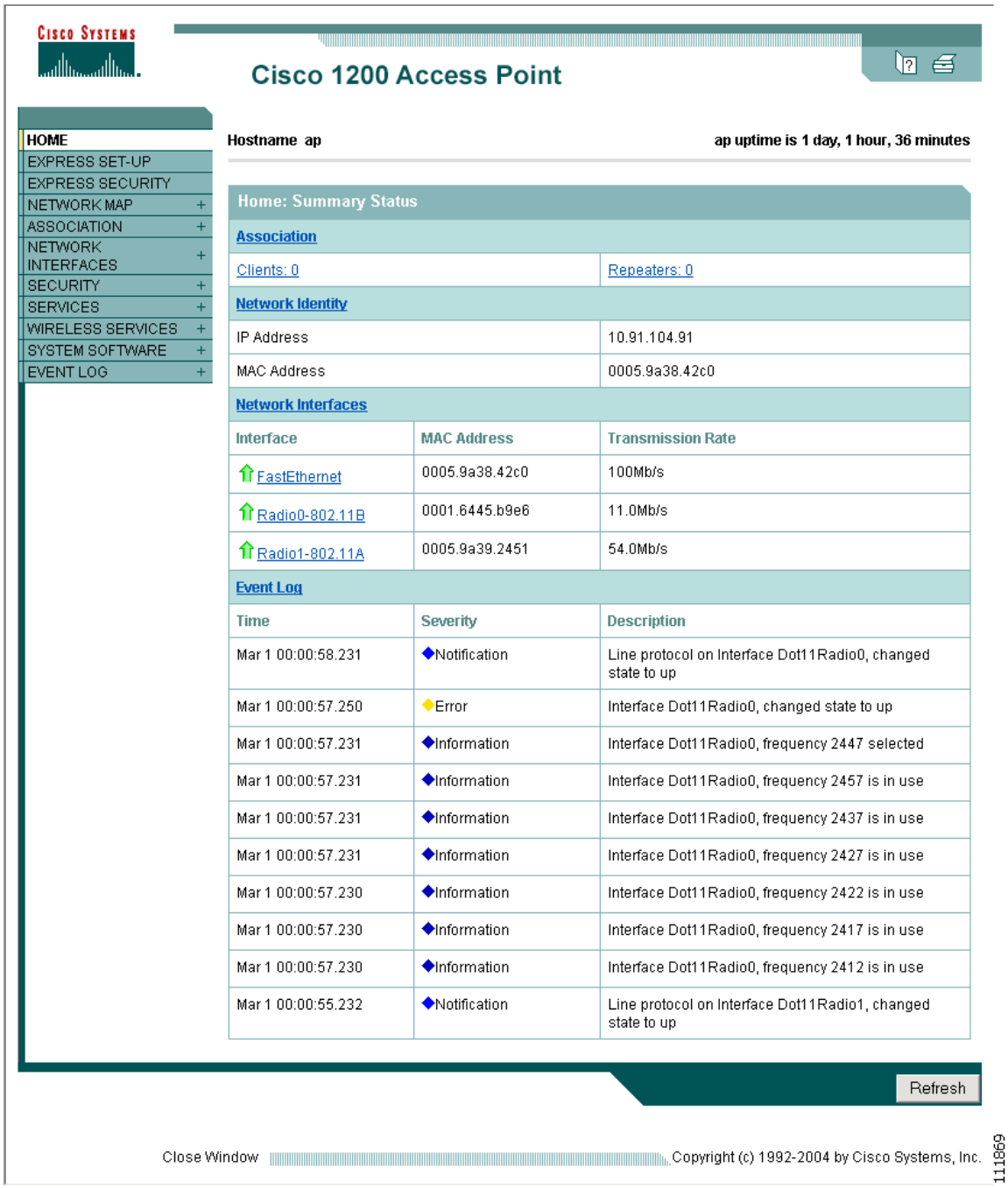
Using the Management Pages in the Web-Browser Interface

The system management pages use consistent techniques to present and save configuration information. A navigation bar is on the left side of the page, and configuration action buttons appear at the bottom. You use the navigation bar to browse to other management pages, and you use the configuration action buttons to save or cancel changes to the configuration.

Note It is important to remember that clicking your web-browser's **Back** button returns you to the previous page without saving any changes you have made. Clicking **Cancel** cancels any changes you made on the page and keeps you on that page. Changes are only applied when you click **Apply**.

Figure 3-1 shows the web-browser interface home page.

Figure 3-1 Web-Browser Interface Home Page



Using Action Buttons

Table 3-1 lists the page links and buttons that appear on most management pages.

Table 3-1 Common Buttons on Management Pages

Button/Link	Description
Navigation Links	
Home	Displays wireless device status page with information on the number of radio devices associated to the wireless device, the status of the Ethernet and radio interfaces, and a list of recent wireless device activity.
Express Setup	Displays the Express Setup page that includes basic settings such as system name, IP address, and role in radio network.
Express Security	Displays the Express Security page that you use to create SSID and assign security settings to them.
Network Map	Displays a list of infrastructure devices on your wireless LAN.
Association	Displays a list of all devices on your wireless LAN, listing their system names, network roles, and parent-client relationships.
Network Interfaces	Displays status and statistics for the Ethernet and radio interfaces and provides links to configuration pages for each interface.
Security	Displays a summary of security settings and provides links to security configuration pages.
Services	Displays status for several wireless device features and links to configuration pages for Telnet/SSH, CDP, domain name server, filters, QoS, SNMP, SNTP, and VLANs.
Wireless Services	Displays a summary of wireless services used with CCKM and provides links to WDS configuration pages.
System Software	Displays the version number of the firmware that the wireless device is running and provides links to configuration pages for upgrading and managing firmware.
Event Log	Displays the wireless device event log and provides links to configuration pages where you can select events to be included in traps, set event severity levels, and set notification methods.
Configuration Action Buttons	
Apply	Saves changes made on the page and remains on the page.
Refresh	Updates status information or statistics displayed on a page.
Cancel	Discards changes to the page and remains on the page.
Back	Discards any changes made to the page and returns to the previous page.

Character Restrictions in Entry Fields

Because the 1200 series access point uses Cisco IOS software, there are certain characters that you cannot use in the entry fields on the web-browser interface. You cannot use these characters in entry fields:

“

]

+

/

Tab

Trailing space

Enabling HTTPS for Secure Browsing

You can protect communication with the access point web-browser interface by enabling HTTPS. HTTPS protects HTTP browser sessions by using the Secure Socket Layer (SSL) protocol.

Note When you enable HTTPS, your browser might lose its connection to the access point. If you lose the connection, change the URL in your browser’s address line from http://*ip_address* to **https://*ip_address*** and log into the access point again.

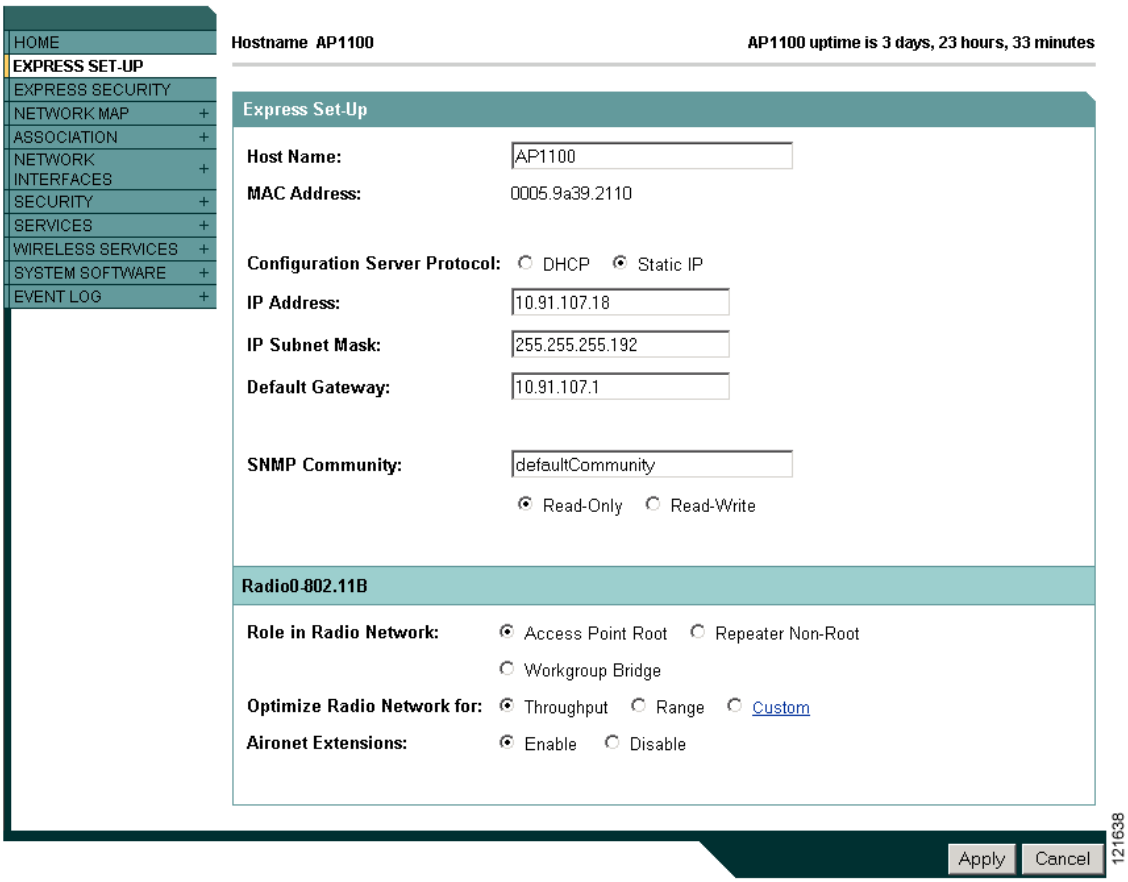
Note When you enable HTTPS, most browsers prompt you for approval each time you browse to a device that does not have a fully qualified domain name (FQDN). To avoid the approval prompts, complete Step 2 through Step 9 in these instructions to create an FQDN for the access point. However, if you do not want to create an FQDN, skip to Step 10.

Follow these steps to create an FQDN and enable HTTPS:

Step 1 If your browser uses popup-blocking software, disable the popup-blocking feature.

Step 2 Browse to the Express Setup page. Figure 3-2 shows the Express Setup page.

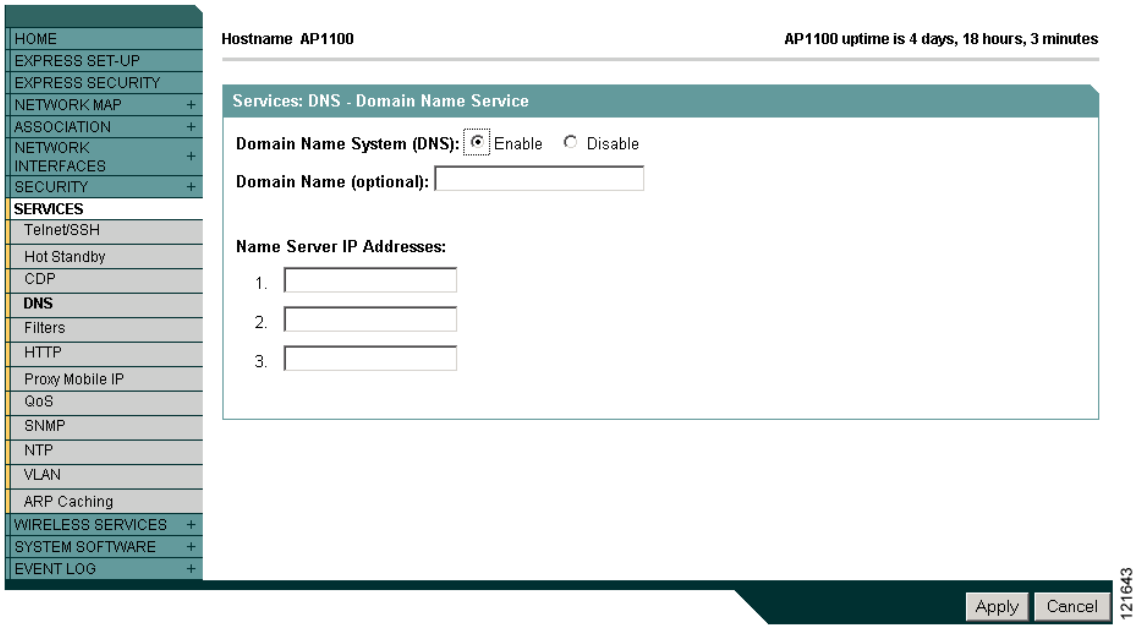
Figure 3-2 Express Setup Page



Step 3 Enter a name for the access point in the System Name field and click **Apply**.

Step 4 Browse to the Services – DNS page. Figure 3-3 shows the Services – DNS page.

Figure 3-3 Services – DNS Page



Step 5 Select **Enable** for Domain Name System.

Step 6 In the Domain Name field, enter your company's domain name. At Cisco Systems, for example, the domain name is *cisco.com*.

Step 7 Enter at least one IP address for your DNS server in the Name Server IP Addresses entry fields.

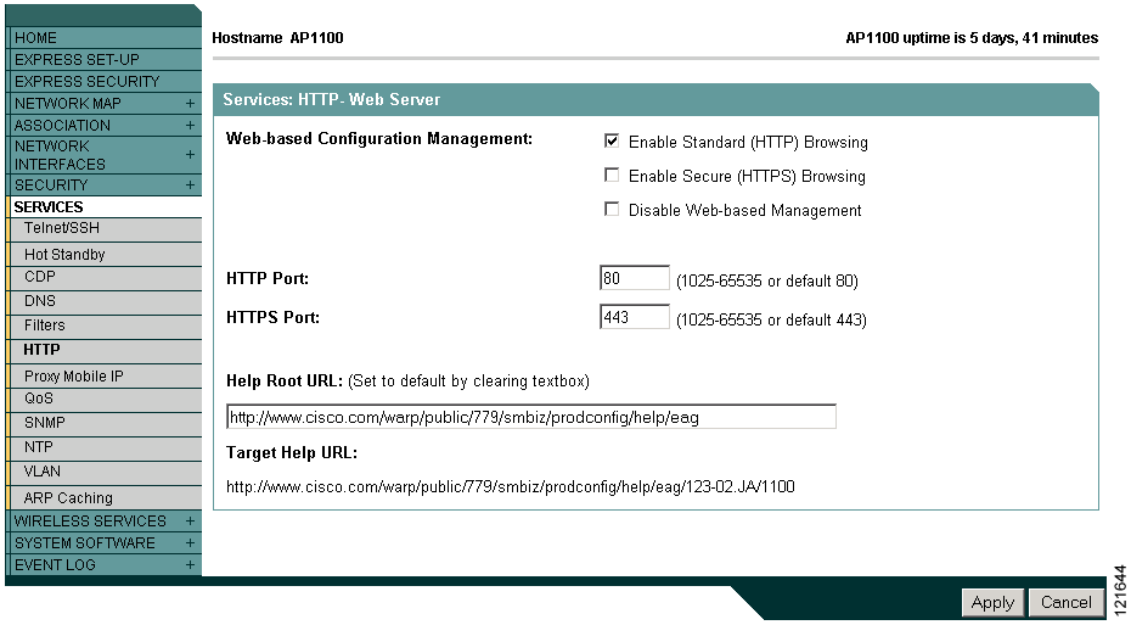
Step 8 Click **Apply**. The access point's FQDN is a combination of the system name and the domain name. For example, if your system name is *ap1100* and your domain name is *company.com*, the FQDN is *ap1100.company.com*.

Step 9 Enter the FQDN on your DNS server.

Tip If you do not have a DNS server, you can register the access point's FQDN with a dynamic DNS service. Search the Internet for *dynamic DNS* to find a fee-based DNS service.

Step 10 Browse to the Services: HTTP Web Server page. Figure 3-4 shows the HTTP Web Server page:

Figure 3-4 Services: HTTP Web Server Page

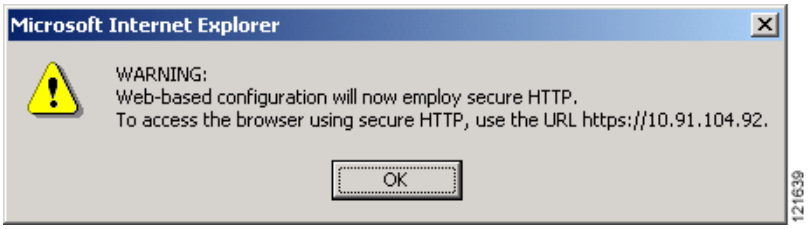


Step 11 Select the Enable Secure (HTTPS) Browsing check box and click **Apply**.

Note Although you can enable both standard HTTP and HTTPS, Cisco recommends that you enable one or the other.

A warning window appears stating that you will use HTTPS to browse to the access point. The window also instructs you to change the URL that you use to browse to the access point from *http* to *https*. Figure 3-5 shows the warning window:

Figure 3-5 HTTPS Warning Window



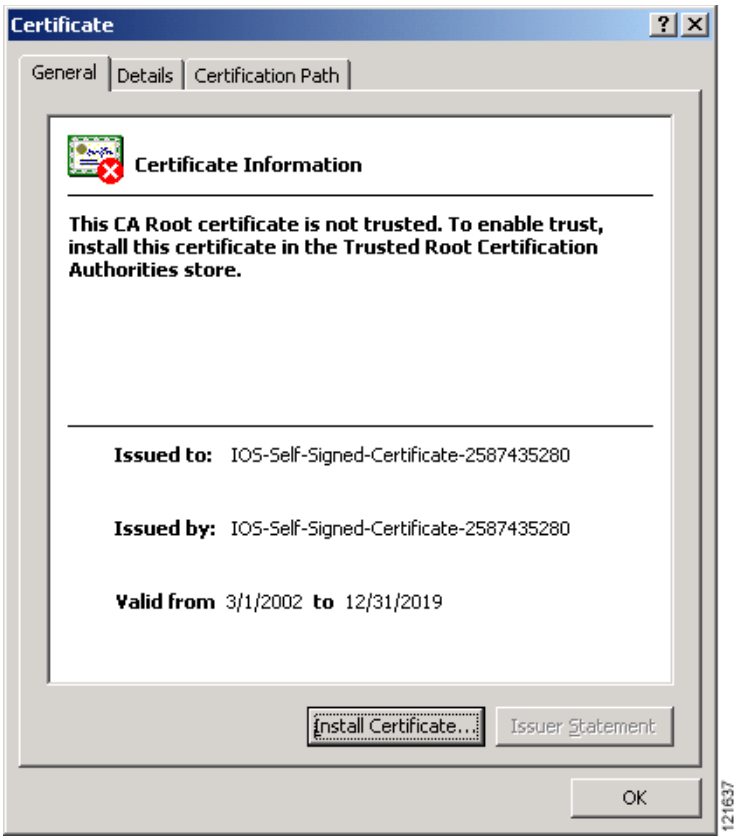
Step 12 Click **OK**. The address in your browser's address line changes from **http://*ip-address*** to **https://*ip-address***.

Step 13 Another warning window appears stating that the access point's security certificate is valid but is not from a known source. However, you can accept the certificate with confidence because the site in question is your own access point. Figure 3-6 shows the certificate warning window:

Figure 3-6 Certificate Warning Window

Step 14 Click **View Certificate** to accept the certificate before proceeding. (To proceed without accepting the certificate, click **Yes**, and skip to Step 23 in these instructions.) Figure 3-7 shows the Certificate window.

Figure 3-7 Certificate Window

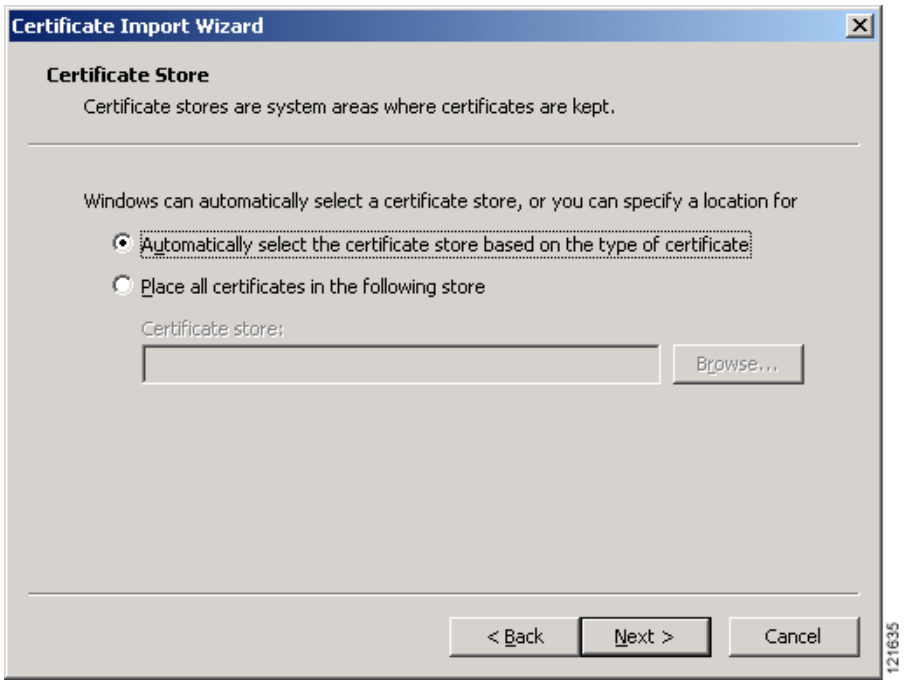


Step 15 On the Certificate window, click **Install Certificate**. The Microsoft Windows Certificate Import Wizard appears. Figure 3-8 shows the Certificate Import Wizard window.

Figure 3-8 Certificate Import Wizard Window

Step 16 Click **Next**. The next window asks where you want to store the certificate. Cisco recommends that you use the default storage area on your system. Figure 3-9 shows the window that asks about the certificate storage area.

Figure 3-9 Certificate Storage Area Window



Step 17 Click **Next** to accept the default storage area. A window appears that states that you successfully imported the certificate. Figure 3-10 shows the completion window.

Figure 3-10 Certificate Completion Window

Step 18 Click **Finish**. Windows displays a final security warning. Figure 3-11 shows the security warning.

Figure 3-11 Certificate Security Warning

Step 19 Click **Yes**. Windows displays another window stating that the installation is successful. Figure 3-12 shows the completion window.

Figure 3-12 Import Successful Window

Step 20 Click **OK**.

Step 21 On the Certificate window shown in Figure 3-7, which is still displayed, click **OK**.

Step 22 On the Security Alert window shown in Figure 3-6, click **Yes**.

Step 23 The access point login window appears and you must log into the access point again. The default user name is *Cisco* (case-sensitive) and the default password is *Cisco* (case-sensitive).

CLI Configuration Example

This example shows the CLI commands that are equivalent to the steps listed in the "Enabling HTTPS for Secure Browsing" section on page 3-5:

```
AP# configure terminal
AP(config)# hostname ap1100
AP(config)# ip domain name company.com
AP(config)# ip name-server 10.91.107.18
AP(config)# ip http secure-server
AP(config)# end
```

In this example, the access point system name is *ap1100*, the domain name is *company.com*, and the IP address of the DNS server is 10.91.107.18.

For complete descriptions of the commands used in this example, consult the Cisco IOS Commands Master List, Release 12.3. Click this link to browse to the master list of commands: http://www.cisco.com/en/US/products/sw/iosswrel/ps5187/products_product_indices_list.html

Deleting an HTTPS Certificate

The access point generates a certificate automatically when you enable HTTPS. However, if you need to change the access point's fully qualified domain name (FQDN) or you need to add an FQDN after enabling HTTPS, you might need to delete the certificate. Follow these steps:

Step 1 Browse to the Services: HTTP Web Server page.

Step 2 Uncheck the **Enable Secure (HTTPS) Browsing** check box to disable HTTPS.

Step 3 Click **Delete Certificate** to delete the certificate.

Step 4 Re-enable HTTPS. The access point generates a new certificate using the new FQDN.

Using Online Help

Click the help icon at the top of any page in the web-browser interface to display online help. Figure 3-13 shows the help and print icons.

Figure 3-13 Help and Print Icons

When a help page appears in a new browser window, use the Select a topic drop-down menu to display the help index or instructions for common configuration tasks, such as configuring VLANs.

Changing the Location of Help Files

Cisco maintains up-to-date HTML help files for access points on the Cisco web site. By default, the access point opens a help file on Cisco.com when you click the help button on the access point web-browser interface. However, you can install the help files on your network so your access points can access them there. Follow these steps to install the help files locally:

Step 1 Download the help files from the Software Center on Cisco.com. Click this link to browse to the Software Center's Wireless Software page:

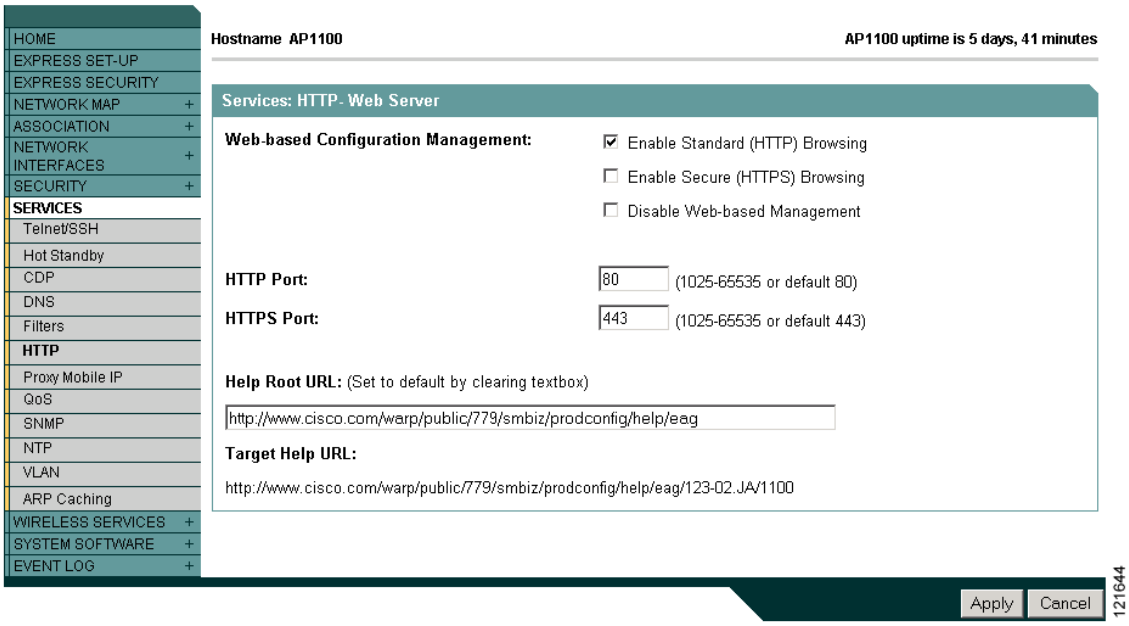
http://www.cisco.com/cisco/software/navigator.html

Select the help files that match the software version on your access point.

Step 2 Unzip the help files on your network in a directory accessible to your access point. When you unzip the help files, the HTML help pages are stored in a folder named according to the help version number and access point model number.

Step 3 Browse to the Services: HTTP Web Server page in the access point web-browser interface. Figure 3-14 shows the HTTP Web Server page:

Figure 3-14 HTTP Web Server Page



Step 4 In the Default Help Root URL entry field, enter the complete path to the location where you unzipped the help files. When you click the access point help button, the access point automatically appends the help version number and model number to the path that you enter.

Note Do not add the help version number and device model number to the Default Help Root URL entry. The access point automatically adds the help version and model number to the help root URL.

If you unzip the help files on your network file server at *//myserver/myhelp*, your Default Help Root URL looks like this:

http://myserver/myhelp

Table 3-2 shows an example help location and Help Root URL for an 1100 series access point.

Table 3-2 Example Help Root URL and Help Location

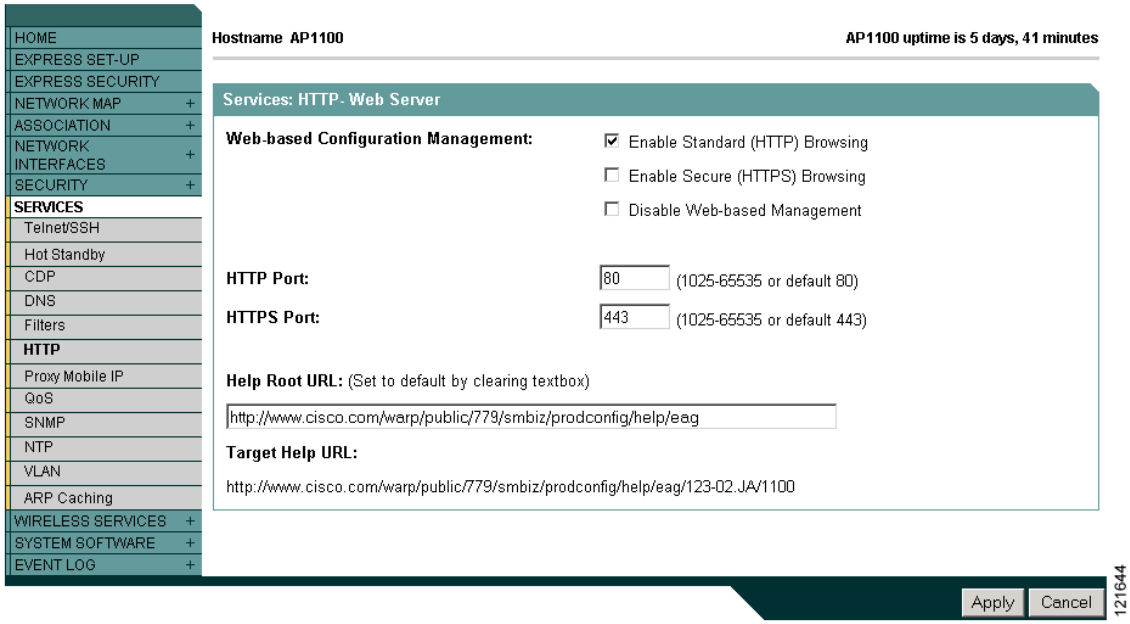
Files Unzipped at This Location	Default Help Root URL	Actual Location of Help Files
//myserver/myhelp	http://myserver/myhelp	//myserver/myhelp/123-02.JA/1100

Step 5 Click **Apply**.

Disabling the Web-Browser Interface

To prevent all use of the web-browser interface, select the **Disable Web-Based Management** check box on the Services: HTTP-Web Server page and click **Apply**. Figure 3-15 shows the Services: HTTP-Web Server page.

Figure 3-15 Services: HTTP-Web Server Page



To re-enable the web-browser interface, enter this global configuration command on the access point CLI:

```
ap(config)# ip http server
```