



Configuring the Wireless LAN Solution Engine

This chapter describes how to configure the CiscoWorks 1105 and CiscoWorks 1130 WLSEs. It contains the following sections:

- [Configuration Quick Reference, page 3-1](#)
- [Using the Setup Program, page 3-2](#)
- [Configuring Name Resolution, page 3-6](#)
- [Verifying the Configuration, page 3-7](#)
- [Configuring the Web Browser, page 3-8](#)
- [Verifying HTTP and HTTPS Connectivity, page 3-11](#)
- [Network Configuration, page 3-11](#)

Configuration Quick Reference

[Table 3-1](#) provides a high-level overview of the initial configuration process. After configuration is complete, see the *User Guide for the Wireless LAN Solution Engine* or the WLSE online help for information on day-to-day operations.

Table 3-1 Quick Reference

| Task | Steps | References |
|-------------------------------------|---|--|
| Configure the WLSE. | <ol style="list-style-type: none"> 1. Boot the WLSE and log in. 2. Run the set up program. | Using the Setup Program, page 3-2 |
| Configure name resolution. | If you are not using a DNS server, remove the name server address from the configuration | Configuring Name Resolution, page 3-6 |
| Verify the configuration. | <ol style="list-style-type: none"> 1. Log in at the system console. 2. Verify configuration. | Verifying the Configuration, page 3-7 |
| Configure the Web browser. | <ol style="list-style-type: none"> 1. Verify that the client system is using a supported browser. 2. Configure the browser. | Configuring the Web Browser, page 3-8 |
| Verify HTTP and HTTPS connectivity. | Verify that you can connect to the WLSE via HTTP and HTTPS. | Verifying HTTP and HTTPS Connectivity, page 3-11 |

Using the Setup Program

Configure the WLSE when you boot the system for the first time, and whenever you manually erase the configuration using the **erase config** CLI command. For more information about this command, see [Appendix B, “Using CLI Commands.”](#)

Press the **Backspace** key or the **Delete** key to delete characters when entering a response to a prompt.



Note

You cannot edit a response after you press the **Enter** key. To change an entered response, you must exit the setup program, run **erase config**, and rerun the setup program.

You can exit the setup program in two ways:

- Press **Ctrl-c**.

The login prompt appears. Log in as the user setup to run the setup program.

- Enter **no** at the final prompt:

```
Would you like to save this configuration? [yes].
```

The setup program exits without saving the configuration, then restarts.

To configure the WLSE, perform the following steps:

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- Step 1** Attach a console to the console port and power on the WLSE:
- For the WLSE 1105, use the serial port on the front panel; do not use the serial port on the back panel as the console port.
 - For the WLSE 1130, use the serial port on the back panel as the console port.
- When the system finishes booting, a login prompt appears on the console.
- Step 2** At the login prompt, enter **setup**.
- When you boot the system for the first time, it is not configured. Logging in as **setup** allows you to configure the system.
- Step 3** Enter responses to the first set of prompts to configure the WLSE's connectivity. [Table 3-2](#) describes how to respond to the prompts. After inputting the required information, press **Enter** to proceed to the next prompt.

Table 3-2 General Configuration

| Prompt | Response Description | Sample Response |
|----------------------|--|-----------------|
| host name: | System host name. | SolutionEngine |
| domain name: | System domain name. | cisco.com |
| <username> password: | Sets the password for the default user admin . Characters you type do not appear on screen. Note Default user admin is reserved and cannot be deleted or changed. | wq1Cvu2pl |
| confirm passwords | Reenter password to verify that you typed it correctly. Characters you type do not appear on screen. | wq1Cvu2pl |
| eth0 IP address: | IP address of Ethernet 0 interface. ¹ | 209.165.200.224 |
| eth0 network mask: | Network mask of Ethernet 0 interface. | 255.255.255.224 |

Table 3-2 General Configuration (continued)

| Prompt | Response Description | Sample Response |
|---|---|-----------------|
| default gateway IP address: | IP address of default router that connects WLSE to network. | 209.165.200.224 |
| DNS server IP address: | IP address of DNS server that WLSE uses for name/address resolution. The setup program does not validate the IP address you enter. If you are not using a DNS server, see the Configuring the WLSE Without a DNS Server, page 3-6 for instructions before proceeding. | 209.165.201.1 |
| Would you like to save this configuration? [yes]: | One of the following: <ul style="list-style-type: none"> Type yes and press Enter to save the configuration. The configuration is saved and system reboots. Type no and press Enter to exit without saving configuration and run setup program again. | Enter |

1. Corresponds to the Ethernet port labeled "A" on the WLSE 1130.

Step 4 Answer the next set of prompts to create a self-signed certificate. This certificate will allow you to access the WLSE securely, using HTTPS, until you are able to obtain a certificate from a certificate authority (CA). [Table 3-3](#) describes how to respond to the prompts.

**Note**

If you make a mistake when entering information for the certificate or need to make changes, use the **mkcert** CLI command after completing the setup. For more information, see [erase config, page B-25](#).

Table 3-3 Self-Signed Certificate Creation

| Prompt | Response Description | Sample Response |
|------------------------|-----------------------------------|-----------------|
| Country Name | 2-character code. | US |
| State or Province Name | Full name of a state or province. | Snake Desert |

Table 3-3 Self-Signed Certificate Creation (continued)

| Prompt | Response Description | Sample Response |
|---------------------|--|------------------|
| Locality Name | City or locality name. | Snake Town |
| Organization Name | Company name. | Snake Oil, LTD. |
| Organizational Unit | Section of the company that is using the WLSE. | Webserver Team |
| Common Name | Fully qualified domain name (FQDN). | www.snakeoil.dom |
| Email Address | Email address. | www@snakeoil.dom |

Step 5 After you finish configuring the Wireless LAN Solution Engine, it will reboot. After it finishes rebooting, set up your mail server to send mail to external domains by entering the following command:

```
mailroute {hostname | ip-address}
```

where *hostname* is the hostname of the SMTP server and *ip-address* is the IP address of the SMTP server. If you do not set the mail server, email can only be sent to the local domain. For more information about this command, see [mailroute](#), page B-39.

To change the information in the setup configuration, use the following CLI commands. For more information about these commands, see [Appendix B](#), “Using CLI Commands.”

- To change the host name, use the **hostname** command.
- To change the domain name, use the **ip domain-name** command.
- To change the DNS server, or add up to 2 additional DNS servers, use the **ip name-server** command.
- To configure or reconfigure an Ethernet port, use the **interface** command.

**Tip**

To change any other part of the WLSE’s setup configuration, use the **erase config** command to erase the previous configuration, and run the setup program again.

Configuring Name Resolution

The WLSE resolves host names by using a Domain Name System (DNS) server, or you can use the **import** CLI command to add individual hosts or a UNIX-style hosts file. If you are using a DNS server, register the system on a DNS server. Use the WLSE's host name as its DNS name. For information on the **import** command, see [import](#), page B-28.

The WLSE does not require name resolution, but if name resolution is not used, the following problems will occur:

- Host names will not resolve.
- Discovery will be slow.
- Connecting to the WLSE via Telnet will be slow. You will be able to connect to the WLSE only after name resolution on the client times out.
- Ping and traceroute commands will result in 100% packet losses in 4 out of 5 ICMP packets. This occurs because the WLSE times out when attempting reverse DNS lookup.
- IP addresses will appear in host name columns.

Configuring the WLSE Without a DNS Server

If you are not using a DNS server, perform the steps described in [Using the Setup Program](#), page 3-2, with the following exception:

Step 1 At the `DNS server ip address` prompt, enter any IP address.

After you finish configuring the WLSE, erase the IP address you entered by entering the following command:

no ip name-server *ip-address*

where *ip-address* is the IP address you entered at the `DNS server ip address:` prompt. For more information about this command, see [ip name-server](#), page B-35.

Verifying the Configuration

While at the console, verify that the WLSE is correctly configured by performing the following steps:

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- Step 1** At the system console, enter **admin** at the login prompt, and log in with the password you created during setup. You can also use Telnet or SSH to log in as the admin user.

If you need to attach a console:

- For the WLSE 1105, use the serial port on the front panel; do not use the serial port on the back panel as the console port.
- For the WLSE 1130, use the serial port on the back panel as the console port.



Note For security reasons, Telnet is disabled on the WLSE by default. If you want to be able to connect to the CLI interface using Telnet, you can enable it by using the **telnetenable enable** command. For information on this command, see [telnetenable](#), page B-76.

- Step 2** If you are using a DNS server, enter the following command to verify that the WLSE can obtain DNS services from the network:

```
# nslookup dns-name
```

where *dns-name* is the DNS name of a host that is registered in DNS. If the system cannot obtain the IP address of the host from DNS, use the **ip name-server** command to specify a working DNS server. For more information on these commands, see [nslookup](#), page B-41 and [ip name-server](#), page B-35.

- Step 3** Enter the following command to verify that the system can communicate with the network:

```
# ping ip-address
```

where *ip-address* is the IP address of a host that is accessible on the network. A DNS server is a recommended host to ping because it should always be running and accessible. For more information on this command, see [ping](#), page B-11.

- Step 4** Enter the **show config** command to verify that the configuration is as you expected. For more information on this command, see [show config](#), page B-58.

- Step 5** Enter the **show clock** command to verify that the system time and date are correct in Coordinated Universal Time (UTC).
- If the time or date is incorrect, set the correct time and date using the **clock** command.
 - If your network uses NTP, configure the system to use NTP to set the clock.
- For more information about configuring time and date, see [Setting WLSE Date and Time, page 4-9](#). For more information on these commands, see [show clock, page B-12](#) and [show clock, page B-12](#).
- Step 6** Enter the **exit** command to log out.
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You are now finished using the console. The remaining steps take place at the client system.

Configuring the Web Browser

Before you connect to the WLSE Web interface, make sure you are using a supported browser and that the browser is properly configured.

- [Supported Browsers, page 3-8](#)
- [Configuring Internet Explorer, page 3-9](#)
- [Configuring Netscape Navigator, page 3-10](#)

Supported Browsers

The supported browsers for WLSE 2.0 are:

**Note**

Using earlier, unsupported versions of Internet Explorer compromises the security of the WLSE.

- Microsoft Internet Explorer 6.0 with Service Pack 1 on Windows 2000, Windows NT, and Windows XP.
- Microsoft Internet Explorer 5.5 with Service Pack 2 on Windows 2000 and Windows NT.
- Japanese Internet Explorer 5.5 with Service Pack 2, or Japanese Internet Explorer 6.0 on Japanese Windows 2000 or Windows NT.
- Netscape Navigator 4.79.
- Japanese Netscape Navigator 4.79 on Japanese Windows 2000 or Japanese Windows NT.

Configuring Internet Explorer

To configure Internet Explorer, perform the following steps:

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- Step 1** Enable JavaScript:
- a. Select **Tools > Internet Options > Security**.
 - b. Make sure that the Internet icon is selected, and click **Custom Level**.
 - c. Select **Enable active scripting, Allow paste operations via script, and Scripting of Java applets**.
- Step 2** Configure your browser to accept all cookies:
- a. Select **Tools>Internet Options>Security**.
 - b. Make sure that the Internet icon is selected, and click **Custom Level**.
 - c. Scroll to Cookies. Select enable for both “Allow cookies that are stored on your computer,” and “Allow per-session cookies (not stored).”
 - d. Click **OK**.
- Step 3** Change the default font to sans serif for improved readability:
- a. Select **Tools>Internet Options**. A dialog box appears.
 - b. Click the **General** tab, then select **Fonts**. A second dialog box appears.
 - c. Select a sans-serif font (for example, Arial) from the **Web page font** and **Plain text font** lists.
 - d. Click **OK** in both dialog boxes to close them.

The text in the browser window is redrawn using the new fonts. Not all of the fonts will change after this user-defined font option is set.

- Step 4** Windows XP does not come with the Java Plugin installed on Internet Explorer 6.0. This causes problems when updating a WLSE by installing WLSE 2.0 software. If you plan to use a Windows XP client or server to update WLSE software, see the browser configuration information in the procedure for creating a remote repository in the online help or in the User Guide for the CiscoWorks Wireless LAN Solution Engine, 2.0.
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Configuring Netscape Navigator

To configure Netscape Navigator, perform the following steps:

- Step 1** Enable JavaScript:
- Select **Edit > Preferences > Advanced**.
 - Select **Enable JavaScript** check box.
 - Click **OK**.
- Step 2** Configure Netscape to Navigator accept all cookies:
- Select **Edit > Preferences > Advanced**.
 - Select the **Accept all cookies** radio button.
 - Click **OK**.
- Step 3** Change the default font to a sans serif font for improved readability:
- Select **Edit > Preferences > Appearance > Fonts**.
 - Select a sans-serif font (for example Arial), and a font size, in the **Variable Width Font** and **Fixed Width Font** selection areas.
 - Click **OK**.

The text in the browser window is redrawn using the new fonts. Not all of the fonts will change after this user-defined font option is set.

Verifying HTTP and HTTPS Connectivity

To verify HTTP and HTTPS connectivity, connect to the WLSE using a Web browser and perform the following steps:

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- Step 1** To verify HTTP connectivity, enter the system IP address in a Web browser, followed by **:1741** (the default port number).
- For example, if the system IP address is 209.165.202.128, enter **http://209.165.202.128:1741** in a Web browser.
- If a login dialog box appears, you have connectivity.
- Step 2** To verify HTTPS connectivity, enter the system IP address in a web browser, prefixed by **https**. No port number is needed.
- For example, if the system IP address is 209.165.202.128, enter **https://209.165.202.128** in a web browser.
- If a login dialog box appears, you have connectivity.
- Step 3** Enter the user name **admin** and the password you created during setup in the login dialog box.
- The WLSE home page appears.
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Network Configuration

You must configure the network devices you want to manage so that the WLSE can discover and monitor them. For information on setting up access points, bridges, routers, switches, and AAA servers, see the *Quick Start Guide* shipped with your system, the *User Guide for the Wireless LAN Solution Engine*, or the WLSE's online help.

