CHAPTER 1

Product Overview

TheWireless LAN Solution Engine (WLSE) is a rack-mountable appliance for configuring and managing Cisco wireless devices. This chapter describes the software and hardware features of the WLSE.

Note For translated safety warnings and regulatory compliance information, see the document titled *Regulatory Compliance and Safety Information for the CiscoWorks Wireless LAN Solution Engine*.

Software Features

The WLSE has the following major features:

- Configuration—Allows you to apply configuration changes to access points.
- Fault and policy monitoring—Monitors device fault and performance conditions, LEAP server responses, and policy misconfigurations.
- Reporting—Allows you to track device, client and security information. You can email, print, and export reports.
- Firmware—Allows you to upgrade the firmware on access points and bridges.

The WLSE has two user interfaces:

- The Command Line Interface (CLI), which you access by attaching a console to the WLSE or using Telnet. For information on all the CLI commands, see Appendix B, "Using CLI Commands."
- The Web interface provides access to all device management tasks and most of the management tasks for the WLSE system. For information on using the Web interface, see the WLSE online help or the *User Guide for the Wireless LAN Solution Engine*.

Hardware Features—CiscoWorks 1130 Wireless LAN Solution Engine

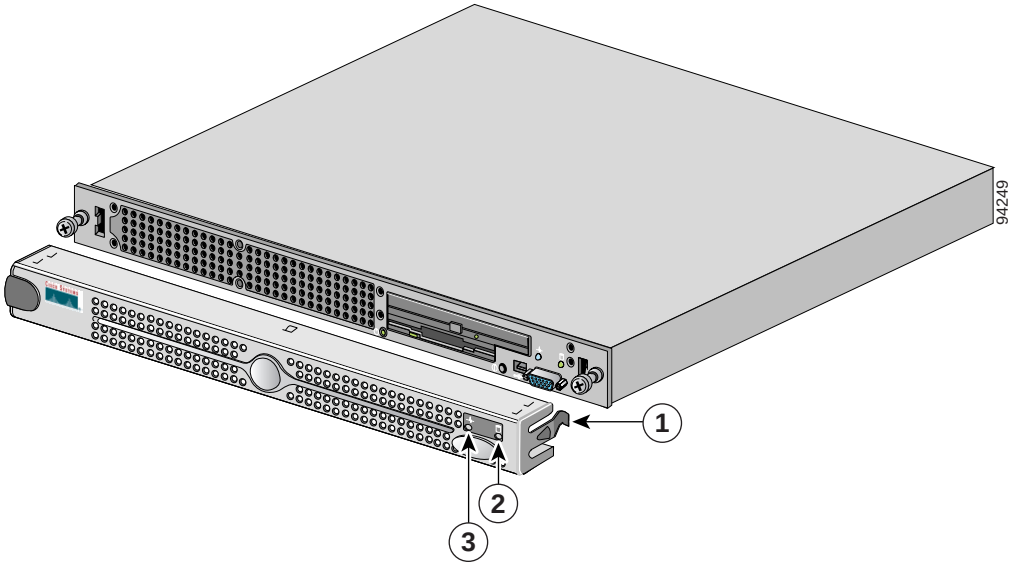
This section describes the WLSE 1130's bezel, front panel, and back panel.

Bezel Features

The bezel, shown in Figure 1-1, covers the front panel and has two Ethernet indicators, a system status indicator, and a hard drive indicator. For more information about the indicators, see Table 1-1.

To remove the bezel, press the tab on each end and lift it from the chassis.

Figure 1-1 Bezel Features



1	Bezel latches	**3**	Blue/amber status indicator
2	Hard drive indicator		

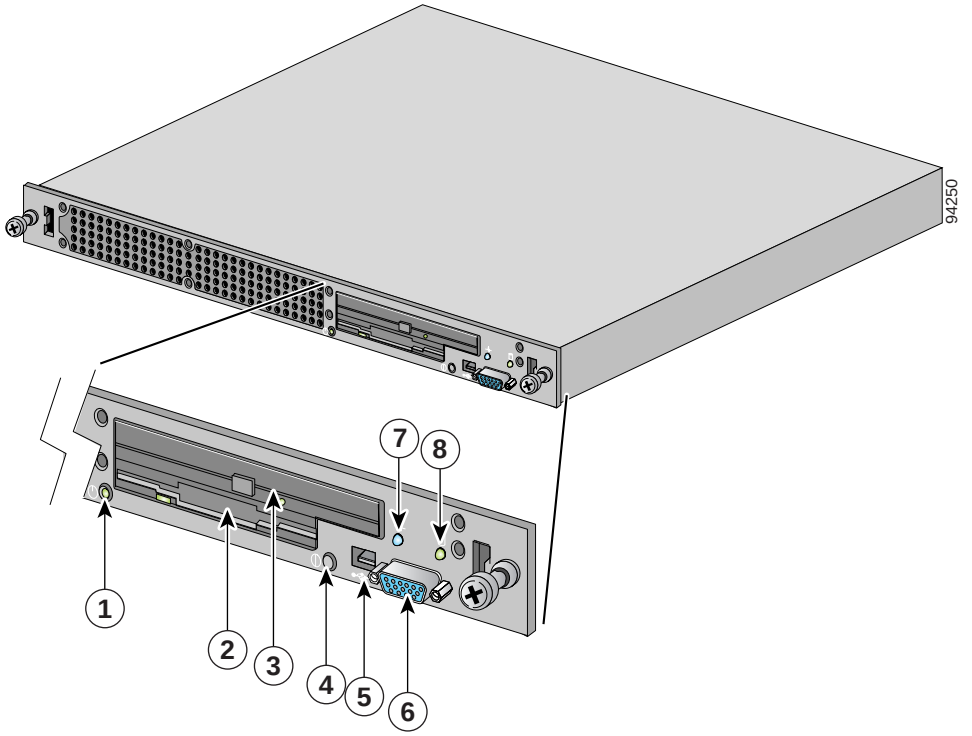
Front Panel Features

Figure 1-2 shows the front-panel features. Some features are not visible when the bezel is attached.

To access the front panel, remove the bezel by pressing the tabs on each end and lifting it from the chassis.

To reinstall the bezel, insert the tabs on each end into the flanges on each side of the chassis.

Figure 1-2 Front Panel Features



1	Power button/indicator	**5**	USB connector
2	Diskette drive	**6**	Video connector
3	CD drive	**7**	Blue/amber system status indicator
4	System identification button	**8**	Hard drive indicator

System Indicators and Buttons

When troubleshooting your WLSE, you might need to check the status of the indicator lights on the front panel or bezel (see Figure 1-1 and Figure 1-2). The appearance and function of these lights are described in Table 1-1.

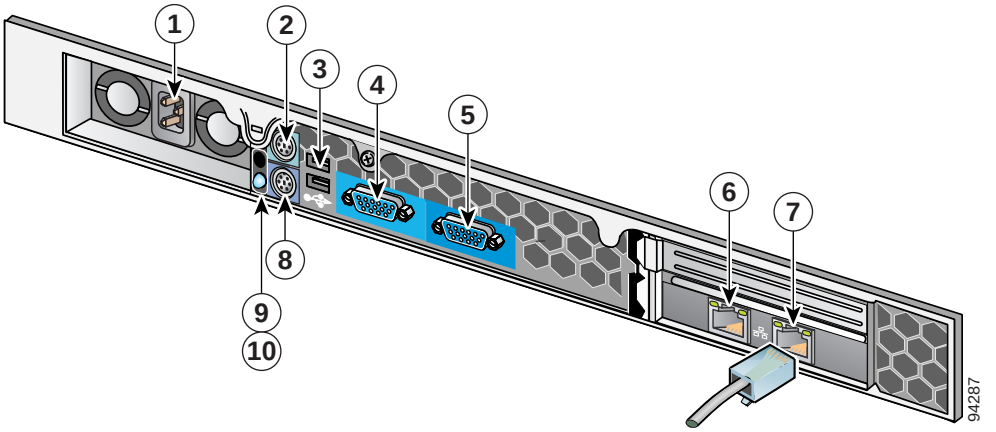
Table 1-1 Front-Panel System Indicators and Buttons

Indicator or Button	Color	Function
Power button and power indicator	Green	The power button controls power input to the power supply. The indicator in the center of the power button indicates whether the WLSE is powered on. If the indicator is flashing, AC power is connected to the WLSE, but the WLSE is not powered on. If the indicator is not on, AC power is not connected. The bezel contains a duplicate of the power indicator.
System identification button(s)	Blue	The system identification button on the front and back panels can be used to locate a particular system in the rack. When you push the system identification button, the blue indicators will flash. This button is not visible with the bezel attached.
System status indicator	Blue or amber	Lights up during normal system operation. If the indicator is amber flashing, the WLSE has a fault. This indicator is not visible with the bezel attached.
Hard drive indicator	Green	Flashes when the hard drives are in use. The bezel contains a duplicate of this indicator.

Back Panel Features

The back panel contains the AC power receptacle, keyboard connector, USB connectors, Ethernet connectors, serial port, video connector, mouse connector, system status indicator, and system identification button. Figure 1-3 shows the back-panel features. The functions of the system status indicator and system identification button are described in Table 1-1.

Figure 1-3 Back Panel Features



1	AC power receptacle	**6**	Ethernet 1 connector (labeled "B")
2	Keyboard connector	**7**	Ethernet 0 connector (labeled "A")
3	USB connectors (2)	**8**	Mouse connector
4	Serial connector	**9**	Blue/amber system status indicator
5	Video connector	**10**	System identification button

Serial Port

The serial port on the back panel uses a 9-pin D-subminiature connector, and is used as the console port. Terminal settings for this port are:

Table 1-2 Serial Port Settings

Parameter	Setting
Baud rate	9600
Data bits	8
Parity	None
Stop bits	1

If you reconfigure your hardware, you may need the serial port pin number and signal information. Figure 1-4 illustrates the pin numbers and Table 1-3 defines the pin assignments and interface signals.

Figure 1-4 Pin Numbers for the Serial Port Connector

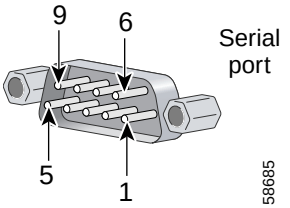


Table 1-3 Serial Port Pin Assignments

Pin	Signal	I/O	Definition
1	DCD	I	Data carrier detect
2	SIN	I	Serial input
3	SOUT	O	Serial output
4	DTR	O	Data terminal ready
5	GND	N/A	Signal ground
6	DSR	I	Data set ready
7	RTS	O	Request to send
8	CTS	I	Clear to send
9	RI	I	Ring indicator
Shell	N/A	N/A	Chassis ground

Ethernet Connectors

The WLSE has integrated 10/100/1000–megabit-per-second (Mbps) Ethernet connectors. Each Ethernet connector provides all the functions of a network expansion card and supports 10BASE-T, 100BASE-TX, and 1000BASE-T Ethernet standards.

Warning **To avoid electric shock, do not connect safety extra-low voltage (SELV) circuits to telephone-network voltage (TNV) circuits. LAN ports contain SELV circuits, and WAN ports contain TNV circuits. Some LAN and WAN ports both use RJ-45 connectors. Use caution when connecting cables.**

Network Cable Requirements

The Ethernet connectors are designed for attaching an unshielded twisted pair (UTP) Ethernet cable equipped with standard RJ-45 compatible plugs. Press one end of the UTP cable into the Ethernet connector until the plug snaps securely into place. Connect the other end of the cable to an RJ-45 jack wall plate or to an RJ-45 port on a UTP concentrator or hub, depending on your network configuration. Observe the following cabling restrictions for 10BASE-T, 100BASE-TX, and 1000BASE-T networks:

- For 10BASE-T networks, use Category 3 or greater wiring and connectors.
- For 100BASE-TX and 1000 BASE-T networks, use Category 5 or greater wiring and connectors.
- The maximum cable run length (from a workstation to a concentrator) is 328 feet (ft) or 100 meters (m).
- For 10BASE-T networks, the maximum number of daisy-chained concentrators on one network segment is four.

Note To avoid line interference, put voice and data lines in separate sheaths.