Overview of Cisco CW9800L Wireless Controller

The Cisco CW9800L Wireless Controller is the next-generation, low-end controller that provides a significant boost in performance and features. The CW9800L controller supports up to 8 Gbps throughput, 500 APs, and 10,000 clients. It is built upon an Intel Icelake-D CPU running Cisco IOS XE.

The CW9800L targets a hybrid-redundancy solution, making it ideal for distributed deployments. One or two CW9800L units can be installed at a remote-site or branch office, with backup provided through FlexConnect over the WAN to a Wireless Controller located at a central site.

For more information about features and benefits, see the *Cisco CW9800L Wireless Controller Data Sheet*.

Figure 1: Cisco CW9800L Wireless Controller

Summary of Cisco CW9800L Wireless Controller features

Table 1: Cisco CW9800L Wireless Controller features

Feature	Description
Chassis Height	One rack-unit (1RU)
Throughput	Up to 10 Gbps
Number of APs supported	500
Number of clients supported	10,000

Feature	Description
Processor	Intel Icelake-D LCC (8-core, 2 GHz)
Memory Options	• Control/Data Plane Memory: 32GB DDR4 on-board with ECC • Boot Flash: 512Mb Serial NOR • Bulk Flash: 32GB on-board pSLC eMMC (with optional eUSB support)
Redundancy, Service Ports	1x 1GE Cu Service/Management port
Data Ports	1x 1G/10G Fiber (SFP+)
Storage Temperature	–13° F to 158° F (–25° C to 70° C)
Operating Temperature	0° C to 40° C standard, 0° C to 50° C short-term (sea level) **Note** The maximum temperature is derated by 1.0° C for every 1000 ft (305 m) of altitude above sea level.
Storage Humidity	0% to 95% RH non-condensing
Operating Humidity	5% to 90% RH non-condensing
Operational Altitude	0 to 10,000 ft (3048m) at 30° C
Power Adapter	110W single 12V output adapter (C9800-AC-110W)

Note The CW-ACC-MEM-32G 32GB memory module is an optional component that can only be ordered alongside the Cisco CW9800L Wireless Controller and cannot be added or ordered separately afterward. If your unit includes this optional memory module and requires a Return Merchandise Authorization (RMA), it is essential to remove the CW-ACC-MEM-32G module before returning the WLC to the depot. The replacement unit you receive from the RMA depot will not contain a memory module. Cisco Technical Assistance Center (TAC) will provide guidance during this removal process.

Platform Components

Cisco CW9800L Wireless Controller front panel

Figure 2: Cisco CW9800L Wireless Controller front panel view

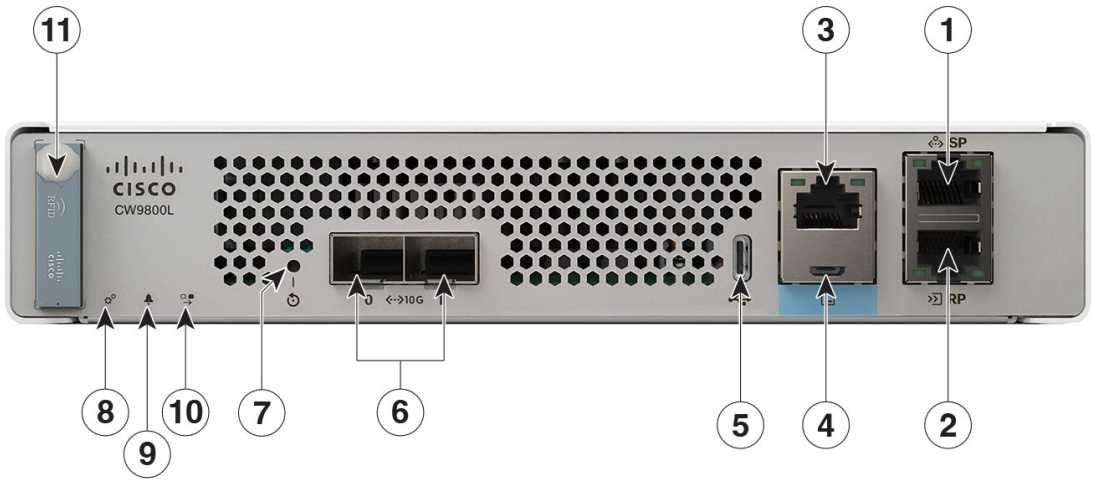

Table 2: Cisco CW9800L Wireless Controller front panel components

1	Service Port (SP) (RJ-45) for out-of-band management
2	Redundancy Port (RP) (RJ-45) **Note** The redundancy ports can be connected back to back or via an L2 switch.
3	CPU console port, which is an RJ-45 RS-232 and micro-B USB serial console port. The default RJ-45 serial port settings are 9600, N, 8, 1. The boot-loader supports baud rates of 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200. A default baud-rate recovery mechanism is not available; however, the bootloader ensures that the stored baud rate setting matches one of the allowed values before setting the baud rate. If a nonstandard value is detected, the baud rate will default to 9600. Micro-B USB serial connection takes precedence over RJ-45 when both connections are made. **Note** If the Micro-B USB console port is used, the CPU console port that supports RJ-45 connector is ignored. That is, only one of the two ports are ever active.
4	Micro USB console port that can be used to perform software updates in addition to the already available transfer modes, namely HTTP, TFTP, FTP, and SFTP. **Note** If you connect both the Micro USB console port and the CPU console port, then USB port takes precedence and the CPU console port is ignored as only one of the two ports are ever active.

5	Type C 3.0 USB port used to perform software updates in addition to already available transfer mode, namely HTTP, TFTP, FTP, and SFTP.
6	1x1/10G SFP+ ports. This port supports speeds of 1G and 10G.
7	Reset button • Pushing the Reset button for less than 10 seconds reloads the controller. • Pushing the Reset button for more than 10 seconds erases the startup configuration in NVRAM of the controller.
8	System LED that displays power-up and boot status.
9	Alarm LED indicates alarm staus or error states. The status or error is posted on the console screen.
10	High Availability LED that indicates status of High Availability link.
11	RFID stores identification information about the unit that can be accessed with a reader.

Front panel LEDs: definitions of states

Table 3: System LED indicators

Color	Description
Green 	IOS has boot complete
Blinking Green 	IOS boot in progress
Amber 	System crash
Blinking amber	Secure boot failure
Off 	ROMMON boot

Table 4: Alarm LED indicators

Color	Description
Amber 	ROMMON boot and system boot up

Color	Description
Blinking amber 	Temperature error and secure boot failure
Slow blink amber 	Booted with high availability standby
Fast blink amber 	High availability maintenance

Table 5: High availability LED indicators

Color	Description
Green 	High availability active
Blinking Green 	High availability standby
Solid amber	Peer not found
Slow blinking amber	Booted with high availablity standby cold
Fast blink amber 	High availability maintenance
Off 	High availability disable

Table 6: SFP LED indicators

Color	Description
Solid green	Indicates the signal detected and enabled by software
Solid amber	Indicates the loss of signal
Off	Not configured and enabled by software

Table 7: Port LED indicators

Color	Description
Solid green	Indicates link

Color	Description
Flashing green	Indicates activity

Note

- The Cisco CW9800L Wireless Controller has an external power adapter.
- The Alarm Bell LED is illuminated **red**, if the **10-G** uplink ports are not connected to the switch. This does not mean a system or hardware failure. When the interfaces are disabled in the controller, the **red** light remains off even when the controller is not connected.

Cisco CW9800L Wireless Controller rear panel

Figure 3: Cisco CW9800L Wireless Controller rear panel view

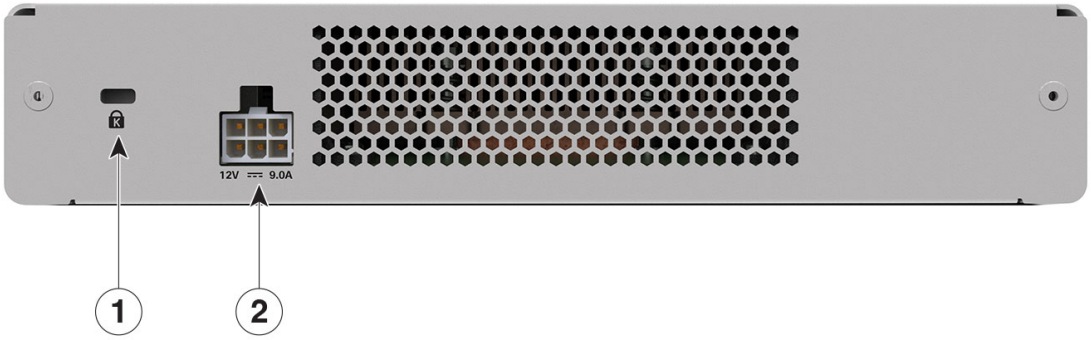

Table 8: Cisco CW9800L Wireless Controller rear panel components

1	Attachment slot for Kensington style cable lock.
2	Connection point for external 110W, single output 12VDC power adapter (C9800-AC-110W).