



Cisco Expressway CE1200 Appliance

Installation Guide

First Published: October 2019

Last Updated: March 2020

X12.5.5

Preface

Change History

Table 1 Installation Guide Change History

Date	Change	Reason
March 2020	Change "Required Firmware Version" to specify newly available HUU package details.	New information
January 2020	Updated "Required Firmware Version" with known issue in Expressway compatibility with 4.0(2) and 4.0(4) HUU firmware.	Document addition
December 2019	<ul style="list-style-type: none">■ Add "Required Firmware Version" to Introduction.■ Updates to "What's Different" to clarify option keys usage.	Document clarifications
October 2019	First release.	Published with Expressway version X12.5.5

Contents

Preface	2
Change History	2
Introduction	5
Required Software Version	5
Required Firmware Version	5
System Sizes Supported	5
What's Different?	5
More Information and Training	6
Hardware Components	7
Power Cables	7
KVM Adaptors	7
Field-Replaceable Components	8
Returns or Replacements	8
Front Panel Layout	9
Rear Panel Layout	10
Preparing to Install	11
For Your Safety!	11
Environmental and Power Specifications	11
Unpacking and Preparation	11
Locating Serial Numbers	11
Install the Appliance	12
Task 1: Install into a Rack	12
Task 2: Insert the SFP Network Connection Modules	12
Task 3: Connect and Power On	12
Task 4: Verify Power Status	13
Connect to the Expressway Console	14
Before you Begin	14
Connecting Using the Serial Port	14
Connecting Using CIMC Serial Over LAN	15
Run the Install Wizard	18
Access the Expressway User Interface	19
Using the Web UI	19

Using the CLI	19
Next Steps	19
Appendix 1: Troubleshooting	20
Locating LEDs and Components	20
Definitions of LED States	20
Reset from the Internal Recovery Partition (IRP)	20
Task 1: Reset the SD Card and Enable the Virtual Drive	20
Task 2: IRP Reinstall Using the KVM Console	20
Task 3: Disable the Virtual Drive After the Reinstall	21
Lag During Boot up Due to Power Characterization Check	21
Notices	22
Technical Support	22
Accessibility Notice	22
Cisco Legal Information	23
Cisco Trademark	24

Introduction

This guide describes how to install a CE1200 appliance into a video network, including how to prepare and install the hardware, and how to do the basic initial configuration. It also provides some troubleshooting suggestions.

Note: The guide is for Cisco Expressway Series deployments only, as the appliance does not support the Cisco VCS product.

Required Software Version

The CE1200 ships with pre-installed Expressway software. If you need to in future, you can upgrade the pre-installed software to a later supported version. (If you want to check whether the Cisco Expressway has the latest software installed, go to <http://software.cisco.com/download/navigator.html> and navigate to the Cisco Expressway.)

The minimum required Expressway software version depends on which revision of the appliance you are using. You can identify this from the serial number, as follows:

Table 2 Minimum software versions supported on CE1200 appliances

Platform	Serial numbers	Required software
2nd revision CE1200 (Expressway pre-installed on UCS C220 M5L)	52E1####	X12.5.5 or later
1st revision CE1200 (Expressway pre-installed on UCS C220 M5L)	52E0####	X8.11.1 or later

CAUTION: Although the system does not prevent downgrades to an earlier software version, Cisco does not support appliances running earlier versions than those specified in the table. This requirement applies to any UCS C220 M5L-based appliance.

Required Firmware Version

If you upgrade the pre-installed UCS firmware, **you must only upgrade to a Cisco UCS Host Upgrade Utility package at Release 4.1(1c) or later**. This is due to a known issue with the dual NIC/X710 firmware in some earlier 4.0x Host Upgrade Utility packages, that causes the 1Gb SFP transceiver modules to stop working.

System Sizes Supported

The appliance can support either a *Large* or a *Medium* Expressway system.

For appliances which are deployed as Cisco Expressway-Es (but not for Cisco Expressway-Cs) you can optionally change the default system size setting in the Expressway software from a Large system to a Medium system, or the other way round

What's Different?

If you deploy existing CE500, CE1000, or CE1100 appliances, this section highlights some of the differences in the CE1200:

- The CE1200 is designed for use with the Cisco Expressway Series product range, and does not support the Cisco VCS product. It ships with the release key pre-installed.

Introduction

- Unlike earlier appliances, the CE1200 is a single, multi-purpose server that can operate as a Cisco Expressway-C or a Cisco Expressway-E. By default it always ships with Expressway-C preinstalled. To deploy the server as an Expressway-E, you configure the **Type** option as *Expressway-E*, in the Service Setup Wizard (the wizard runs when you first launch the Expressway web user interface, or you can run it anytime from the **Status > Overview** page). The Traversal Server option key is no longer used to change to an Cisco Expressway-E.
- The appliance now ships with most option keys installed by default. The only functions which still need option keys to be installed manually are :
 - Desktop System licenses
 - Room System licenses
 - RMS licenses
 - Advanced Security
 - Microsoft interoperability
- The CE1200 can support up to 5000 registrations for Mobile and Remote Access, an increase on the 2500 MRA registrations supported by other physical appliances or VM-based systems.
- From May 2019, the CE1200 no longer ships with power cables and KVM cables supplied as default.

To add a CE1200 appliance to an existing cluster that has CE1100 models in it, configure the Type option to match the other peers (Expressway-E or Expressway-C) through the service setup wizard on the **Status > Overview** page, *before* you add the CE1200 to the cluster.

More Information and Training

Training: training is available online and at our training locations. Information about the courses we provide and the location of our training offices is at www.cisco.com/go/telepresencetraining

Glossary: a glossary of TelePresence terms is at <https://tp-tools-web01.cisco.com/start/glossary/>

Related documents

- Detailed information about installing this appliance is provided in the *Cisco UCS C220 Server Installation and Service Guide*
- Managing and operating Cisco Expressway software is described in the *Cisco Expressway Administrator Guide* on the [Expressway Maintain and Operate Guides page](#)
- Creating and maintaining a cluster of Cisco Expressways is described in the *Cisco Expressway Cluster Creation and Maintenance Deployment Guide* on the [Expressway Configuration Guides page](#)

Hardware Components

The CE1200 is based on a UCS C220 M5L server, with the following components:

Table 3 Components and UCS equivalent part numbers for the CE1200 Appliance

Item	Part	Quantity
Chassis	UCS-C220-M5L	1
Processor	UCS-CPU-6134 (3.2 GHz 6134/130W 8C/24.75MB Cache/DDR4 2666MHz)	1
RAM	UCS-MR-X16G1RS-H (16GB) DDR4-2666-MHz RDIMM/PC4-21300/single rank/x4/1.2v	2
Hard Disk	UCS-HD2T7KL12N 2 TB 12G SAS 7.2K RPM LFF HDD	2
RAID Controller	UCSC-MRAID1GB-KIT SAS RAID KIT for C220M5I	1
NIC	UCSC-PCIE-ID10GF Intel X710-DA2 dual-port 10G SFP+ NIC	1
	EXP-10GSFP-SR-MP (10Gb SR Fiber SFP)	2
	EXP-1GSFP-T (1Gb Copper SFP)	2
PSU	UCSC-PSU1-770W	2
TPM	UCSX-TPM2-002 (Trusted Platform Module 2.0)	1
SD Card	UCS-SD-32G-S (32GB SD Card for UCS servers)	1
Miscellaneous	UCSC-RAILF-M4 (Rail kit)	1
	UCSC-HS-C220M5 (Heat sink)	1
	UCSC-BBLKD-L2 (blanking panels for HDD slots)	2
	UCS-MSTOR-SD (Mini Storage Carrier for SD)	1
	Accessory Kit	1
	Bezel	1

Power Cables

Power cables are available to order from Cisco.

WARNING: If you opt not to order power cables from Cisco, you must use cables of the designated type, - see <https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/c220m5-lff-specsheet.pdf>

KVM Adaptors

KVM adaptors are available to order from Cisco.

Hardware Components

Field-Replaceable Components

These components are field replaceable:

- Hard disks
- Power supply units (PSUs)
- Fan module
- SFP network connection modules (1 Gb and 10 Gb)

CAUTION: To avoid compatibility issues use only the supplied SFPs, and follow the other requirements for SFPs in [Task 2: Insert the SFP Network Connection Modules, page 12](#)

Returns or Replacements

If you need to begin a Return Material Authorization (RMA) for any reason, go to http://www.cisco.com/web/ordering/cs_info/or3/o32/Return_a_Product/WebReturns/product_Online_web_returns.html.

Front Panel Layout

This section details the front panel layout, LEDs and ports.

Figure 1 Front view of the Cisco Expressway

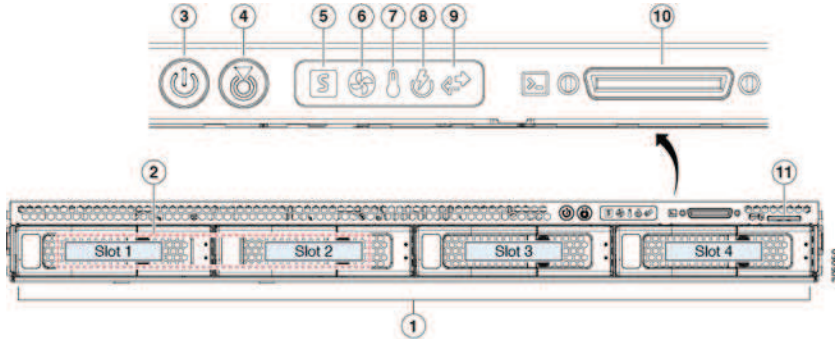


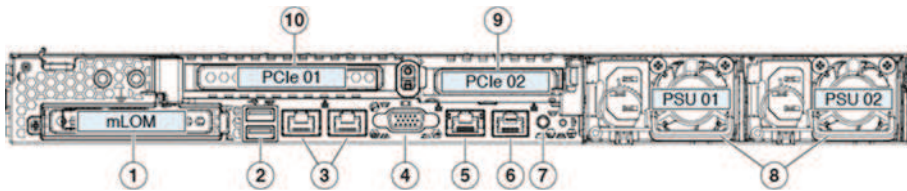
Table 4 Front panel LEDs and components

1	HD drives (use Slot 1 and Slot 2 only)
2	Activity/fault LED for HD drives
3	Power button/power status LED
4	Identification button LED
5	System status LED
6	Fan status LED
7	Temperature status LED
8	Power supply status LED
9	Network link activity LED
10	KVM connector (for USB/VGA connection)
11	Pullout tab for UCS serial number, MAC addresses

Rear Panel Layout

This section details the rear panel layout, LEDs and ports.

Figure 2 Rear view of the Cisco Expressway



1	Modular LAN on Motherboard (mLOM) card slot (not populated)
2	USB 3.0 ports (two slots)
3	LAN3 and LAN4 (do not use)
4	VGA video connector
5	CIMC/dedicated management port (1 Gb Ethernet)
6	Serial port (RJ-45 connector)
7	Rear identification button/LED
8	Power supplies PSU 01 and PSU 02 The second power supply can be added for 1+1 redundancy
9	Slot 2: Low-profile PCIe slot on riser (not populated)
10	Slot 1: Standard-profile PCIe slot on riser; houses two SFP ports Left port is LAN1 (NIC1) in the Expressway user interface Right port is LAN2 (NIC2) if used in the interface

Preparing to Install

For Your Safety!

You should be familiar with the safety procedures involved with electrical circuitry and standard practices for installing communications equipment. For CE1200 Regulatory Compliance and Safety Information, see - https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/expressway/install_guide/CE1200/RCSI-0362-book.pdf.

Environmental and Power Specifications

To view environmental and power specifications for the appliance server, see - <https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/c220m5-lff-specsheet.pdf>.

Unpacking and Preparation

For detailed information about how to install the appliance, see - *Cisco UCS C220 M5 Server Installation and Service Guide* at https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/hw/C220M5/install/C220M5.html

Information in that guide includes:

- Installation guidelines
- Rack requirements
- Equipment requirements
- Slide rail adjustment range

Locating Serial Numbers

The Cisco Expressway appliance displays two serial numbers:

- UCS serial number in format *WZPxxxxxxx*. Displayed on the hardware pullout tab, and in the Cisco Integrated Management Controller (CIMC) web interface.
- Software serial number in format *52ENNNNN*. Displayed on the top panel of the appliance, and in the Cisco Expressway web interface or through SSH.

Install the Appliance

Task 1: Install into a Rack

For details about how to install the appliance into the rack, see the *Cisco UCS C220 M5 Server Installation and Service Guide* at https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/hw/C220M5/install/C220M5.html

Task 2: Insert the SFP Network Connection Modules

The CE1200 ships with two 10 Gb fiber SFP modules and two 1 Gb copper SFPs.

CAUTION: To avoid compatibility issues, the following restrictions apply to SFP modules.

- Only use the SFPs supplied with the appliance. (Note that SFP modules from M4-based Expressways should not be reused in this appliance.)
- Do not mix SFPs. Either insert two 10 Gb fiber SFPs or two 1 Gb copper SFPs.

The following requirements also apply to the SFPs:

- Insert them only into the designated SFP ports on the PCIe 01 card. The leftmost SFP port corresponds to LAN1 on the Expressway user interface.
- Although SFPs support auto-negotiation for speed and duplex, they only negotiate one speed—to the stated speed of the SFP and full duplex. This means you must connect them to a switch port that supports the stated speed and full duplex:
 - 10 Gb full duplex for fiber SFPs
 - 1 Gb full duplex for copper SFPs
- If you are installing the CE1200 in an environment that only supports 100 Mb, such as an older DMZ implementation, you need a switch to handle the speed negotiation from 1 Gb to 100 Mb.

Medium appliances with 1 Gbps NIC - demultiplexing ports

If you upgrade a Medium appliance with a 1 Gbps NIC to X8.10 or later, Cisco VCS automatically converts the system to a Large system. As a result, Cisco VCS Expressway listens for multiplexed RTP/RTCP traffic on the default demultiplexing ports for Large systems (36000 to 36011); instead of on the demultiplexing ports that are configured for Medium systems. In this case, the Cisco VCS Expressway drops the calls because ports 36000 to 36011 are not open on the firewall. From X8.11.4 you can manually change the system size back to Medium, through the **System > Administration settings** page (select *Medium* from the **Deployment Configuration** list). If you encounter this issue in a release earlier than X8.11.4, the workaround is to open the default demultiplexing ports for Large systems on the firewall.

Task 3: Connect and Power On

1. First connect designated power cords to the appliance, and then connect them to a grounded AC power outlet. See <https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/c220m5-lff-specsheet.pdf> for power specifications.
2. When you plug in the CE1200 appliance for the first time, leave it in standby mode for 5 minutes before pressing the power button. This time allows the onboard CIMC to boot, ready the self-test, perform a hardware check, and prepare the power characterization test. Failure to wait enough time will postpone the power characterization test until the next boot.
3. Power on the appliance (the power button is on the top-left corner of the front panel). The system performs a self-test and the appliance automatically restarts. This restart is expected behavior.

Install the Appliance

4. The first boot takes approximately 5 minutes due to the initial power characterization test. Any subsequent boot of the system takes approximately 2 minutes. The power characterization test displays the message *Performing Platform Characterization ...* when running.
5. If the power characterization test runs on subsequent bootups, causing a lag in the boot time, **it is important that you disable it**. It is especially important to disable the test in a clustered environment to avoid issues. See the [Appendix 1: Troubleshooting, page 20](#) section for more information.

Task 4: Verify Power Status

Check the Power Status LED on the front of the appliance:

- Off. No AC power is present in the appliance.
- Amber. Appliance is in standby power mode. Power is supplied only to the CIMC and some motherboard functions.
- Green. Appliance is in main power mode. Power is supplied to all server components.

Monitoring power consumption

The CIMC has a power monitoring utility that you can use to track power consumption.

Connect to the Expressway Console

Before you can use the Expressway you need to configure some basic information by connecting to the Expressway console and then completing the secure Install Wizard.

You can use either of these connection methods, as described below:

- Direct cabled connection from a PC to the Cisco Expressway serial port.
- Remote connection with the Cisco Integrated Management Controller (CIMC) tool using serial over LAN.

Before you Begin

1. Connect an Ethernet LAN cable from the LAN1 port on the rear panel to your network.
2. Have the following information ready for when the Install Wizard runs:
 - IPv4 and/or IPv6 address, subnet mask and default gateway address for the Expressway. Consult your network administrator about which addresses to use. The Cisco Expressway must use a static IP address.
 - Suitable passwords for the predefined *root* and *admin* user accounts - use strong passwords for both accounts.
3. If you intend to use a CIMC connection these additional points apply:
 - a. You need an IP address for it, which can be static or DHCP-assigned.
 - b. You need a browser with the following minimum requirements:
 - Java Runtime Environment 1.6 or later
 - HTTP and HTTPS enabled
 - Adobe Flash Player 10 or later

CAUTION: You cannot use a KVM or vKVM console for initial installation. This is because the secure Install Wizard is not exposed on the KVM console and does not show on the VGA output port. Hence the wizard will wait indefinitely for you to complete installation on the Expressway *serial* console. If you need to recover from this situation, connect to the serial console as described below and issue the ctrl+D sequence to the console. The install wizard restarts so that you can continue.

Connecting Using the Serial Port

1. Connect the supplied DB9-to-RJ-45 cable from your PC (DB9 end) to the serial port on the rear of the appliance (RJ-45 end).

To ensure compatibility, use the blue serial cable supplied in the accessory pack. This is a cross-over cable, with the following pin assignments:

Male RJ45 pin	Female DB9 pin
1	8
2	6
3 TXD	2
4 GND	5
5 GND	5
6 RXD	3
7	4

Connect to the Expressway Console

Male RJ45 pin	Female DB9 pin
8	7

2. Start a terminal emulator program (for example PuTTY) on the PC and configure it to use the PC serial port as follows:
 - baud rate: 115200 bits per second
 - data bits: 8
 - parity: none
 - stop bits: 1
 - flow control (hardware and software): none
3. Once you are connected to the Expressway console, wait for the Install Wizard to appear and then go on to the next section [Run the Install Wizard, page 18](#).

Note: Close the terminal emulator session after use. An open session may cause issues during system restarts.

Connecting Using CIMC Serial Over LAN

CIMC is the management interface for C-Series servers. It runs within the server to support remote administration, configuration, and monitoring using web or SSH command line access. For detailed information, see the *Cisco UCS C-Series Integrated Management Controller Configuration Guides* on the [CIMC Configuration Guides page](#).

CIMC password requirements

The CIMC default password must be changed to a strong password, as described in this section. If you use DHCP addressing, you do this when you first log into the CIMC web interface. If you use static IP addresses, you change the password during the initial boot process.

CIMC passwords must contain characters from three of the following four categories:

- English uppercase letters A through Z
- English lowercase letters a through z
- Digits 0 through 9
- These non-alphabetic characters: ! @ # \$ % ^ & * - _ = “

Task 1: Configure the CIMC IP address and password (once only)

If you use DHCP addressing

Follow these steps if your deployment uses DHCP addressing:

1. Connect your network to the CIMC/dedicated management port (port 5 in [Rear Panel Layout, page 10](#)).
2. Connect a USB keyboard and VGA monitor using one of the following methods:
 - If you ordered a KVM adapter (3-legged cable), connect it to the console port at the front of the CE1200 and connect the keyboard and monitor to the adapter.

Figure 3 Front panel showing KVM connector



- If the appliance was ordered without a KVM adapter, connect the keyboard and monitor to the appropriate ports on the rear of the server.
3. Switch on the monitor.

Connect to the Expressway Console

4. Configure your DHCP server to deliver the correct address for the CIMC. For the MAC address, use the *MGMT* address on the pullout tab.
5. Switch on the CE1200.
6. Watch the boot process on the monitor.
7. During the initial Power On Self Test phase, you should see the CIMC address displayed in the bottom left of the screen.
Result: CIMC is now enabled on this Expressway. You will be prompted to change the default CIMC password when you first log in to the CIMC web interface.
8. Disconnect the peripherals and the adapter.

If you use static addresses:

Follow these steps if your deployment uses static IP addressing:

1. Connect your network to the CIMC/dedicated management port (port 5 in [Rear Panel Layout, page 10](#)).
2. Connect a USB keyboard and VGA monitor using one of the following methods:
 - If you ordered a KVM adapter (3-legged cable), connect it to the console port at the front of the CE1200 and connect the keyboard and monitor to the adapter (see [Front panel showing KVM connector, page 15](#)).
 - If the appliance was ordered without a KVM adapter, connect the keyboard and monitor to the appropriate ports on the rear of the server.

Note: The KVM console is used to configure the CIMC, not to access Expressway.

3. Switch on the monitor.
4. Switch on the CE1200 appliance.
5. Watch the boot process on the monitor.
6. Press F8 to enter the CIMC configuration.
7. You are prompted to change the default CIMC password and configure the management interface IP address:
 - a. Set a strong password that matches the conditions in [CIMC password requirements, page 15](#) and press Enter.
 - b. At the password modified prompt, press Enter again to complete the password change.

Note: Due to a known issue, **the system fails to notify you if the new password does not match the password requirements**. In this case, when you first try to access the CIMC web interface (Task 2) you must use the supplied default CIMC password and will then be prompted to set a different, stronger, password before you continue. (At that point the system will correctly prompt you if the password doesn't match the requirements.)

- c. We recommend leaving the default NIC mode as *Dedicated* and the NIC redundancy settings as *None*.
8. Press F10 to save your changes and Esc to exit.
Result: CIMC is now enabled on this Expressway.
9. Disconnect the peripherals and the adapter.

Connect to the Expressway Console

Task 2: Run CIMC from a remote host and enable Serial over LAN (once only)

1. In a web browser, go to the CIMC IP address you configured in the previous task.
2. Do one of the following:
 - If you use a static IP address, log in using the password you set in Task 1.
Note: If the new password you set in Task 1 was not strong enough, because of the known issue with the system failing to notify you at the time, you are now prompted to enter the **default** password and then to set a different, strong, password before you can continue. The new password must match the conditions in [CIMC password requirements, page 15](#).
 - If you use DHCP, define a strong password to replace the supplied default. The new password must match the conditions in [CIMC password requirements, page 15](#).
3. Click the menu arrow in the top-left corner.
4. Navigate to **Compute > Remote Management > Serial over LAN**.
5. In the **Serial over LAN Properties**, check **Enabled** and then click **Save Changes**. This step is necessary as serial over LAN is disabled by default.

Task 3: Connect to the Expressway console (any time you need to)

1. In a terminal emulator, use SSH to connect to the CIMC IP address.
2. Type the default username *admin* and your CIMC password, and press Enter.
3. Type `connect host` and press Enter.
4. You are now connected to the Expressway console using serial over LAN.
Wait for the Install Wizard to appear, and then go on to the next section [Run the Install Wizard, page 18](#).

Run the Install Wizard

Run the Install Wizard

After the system boots up the terminal emulator program on the PC displays Cisco Expressway startup information. After approximately four minutes the **Install Wizard** is displayed.

If the Cisco Expressway was already on when you connected and you don't see the Install Wizard, press Ctrl+D to access it. If you encounter issues or enter incorrect information during the wizard you can press Ctrl+D to restart it.

Install Wizard Process

1. Follow the prompts in the Install Wizard to specify the following:

- IPv4, IPv6, or both.
- LAN 1 IPv4 subnet mask of the Cisco Expressway (if you select IPv4).
- IP address of the Expressway default gateway.
- Password for *root* user account.
- Password for *admin* user account.
- Whether to enable the Expressway web UI (recommended).

If you plan to deploy the appliance as an Expressway-E then you *must* enable the web UI. It's not possible to configure the appliance as an Expressway-E through the CLI.

- Whether to allow SSH access to the Cisco Expressway CLI.
 - Timezone. The default is UTC. You can search and replace with your desired zone in the wizard. Or you can change it later through the **System > Time** page in the web user interface.
2. Wait for the wizard to finish and the *Installation wizard complete* message to appear.
 3. Press Enter to continue.
 4. The system applies the specified settings and continues to boot.
 5. After the boot completes, the Expressway is ready to use.

Note: The system services restart after the wizard completes. This is expected behavior.

You can now access the Expressway user interface using the IP address assigned to the LAN1 Ethernet port (see next section).

Access the Expressway User Interface

This section describes how to access the Expressway web and CLI user interfaces. The interfaces are enabled through the Install Wizard.

Using the Web UI

To log into the web user interface:

1. Open a browser window and in the address line type one of the following:
 - IP address of the Cisco Expressway (for example, *https://10.0.0.1*). Enter the address as HTTPS.
 - FQDN of the Cisco Expressway (for example, *https://mydomain.example.com*).
2. In the **Login** page, select **Administrator login**.
3. Log in with username *admin* and your system password.
4. The Expressway **Overview** page is displayed.

More information

Detailed information about configuring and managing Expressway, including each page in the interface, is provided in the Expressway online help and in the [Cisco Expressway Administrator Guide](#).

Using the CLI

The command line interface is available over SSH and through the serial port by default:

1. Start an SSH session.
2. Enter the IP address or FQDN of the Cisco Expressway.
3. Log in with username *admin* and your system password.
4. A welcome message is displayed.

More information

The CLI commands for Expressway are detailed in the [Cisco Expressway Administrator Guide](#).

Next Steps

From the Expressway user interface, follow the steps described in the [Cisco Expressway Basic Configuration Deployment Guide](#) to set up the Expressway. The process is briefly summarized here, but please refer to the other guide for details before you continue:

1. The first time you log in, the Service Setup Wizard launches. The wizard is used to select specific licensing requirements for a deployment, and if necessary to change the default Expressway-C configuration to an Expressway-E.
2. After the Service Setup Wizard, you go on to configure Expressway:
 - a. System configuration, including the System Name, DNS settings, server certificate, NTP servers, SIP domains).
 - b. Routing configuration, including transforms, search rules, and zones.
 - c. Endpoint registration.
 - d. System verification checks.
 - e. Maintenance and optional configuration tasks.

Appendix 1: Troubleshooting

Locating LEDs and Components

The panel layouts for this appliance are described in:

- [Front Panel Layout, page 9](#)
- [Rear Panel Layout, page 10](#)

Definitions of LED States

The various LED states are defined in the *Cisco UCS C220 M5 Server Installation and Service Guide* at https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/hw/C220M5/install/C220M5.html

Reset from the Internal Recovery Partition (IRP)

The Cisco Expressway CE1200 appliance comes pre-installed with an SD card that you can use to complete a reinstall of your configuration. You must reset the SD card and enable the virtual drive before proceeding with the reinstall using the KVM console in the Cisco Integrated Management Controller (CIMC). Once the reset is complete, make sure that you disable the virtual drive again.

Before you begin

You need to set up and access the CIMC, as described in [Run the Install Wizard, page 18](#)

Task 1: Reset the SD Card and Enable the Virtual Drive

1. Log in to the CIMC.
2. Click the menu arrow in the top left corner and navigate to **Storage > Cisco FlexFlash**.
3. Under the **General** tab, click on **Activate/Reset FlexFlash Controller** and click **ok** in the popup window that appears. The reset ensures your FlexFlash Controller is in the correct state.
4. Click the **Virtual Drives** tab.
5. Check the **Hypervisor** checkbox.
6. Click **Enable Virtual Drive** and confirm that you would like to enable the virtual drive.

Task 2: IRP Reinstall Using the KVM Console

1. Launch the **KVM Console** using the icon in the CIMC.
2. Power up the CE1200 and, when prompted, press **F2** to enter **Setup**.
3. Select **Boot Options** and ensure that the **CiscoVD Hypervisor** is visible as one of the options.
If the **CiscoVD Hypervisor** is not visible, you can select the **UEFI: Built-in EFI Shell** boot option and change it to **CiscoVD Hypervisor**.
4. When prompted, press **F6** to enter the **Boot Menu**.
5. Select **CiscoVD Hypervisor** as the boot option.
6. When prompted, type **y** and press **Enter** to proceed with the reinstall.

Appendix 1: Troubleshooting

7. Type `b` to reboot.

During this reboot we recommend disabling the virtual drive (although you can also do it later as described in Task 3 below). To disable the virtual drive now:

- a.** Press `F2` to enter boot Setup.
 - b.** Under `Boot Options` select `CiscoVD Hypervisor` and disable it.
 - c.** Press `F10` to save and exit.
 - d.** While the system reboots, return to the **Virtual Drive Info** tab—in the CIMC interface under **Storage**—and check the **Hypervisor** check box. Then click **Disable**.
- 8.** After the reboot completes, connect using serial to complete the reset. You will see the factory installation wizard.
- 9.** You can optionally apply any option keys for the appliance (such as room or desktop registrations). If you choose not to at this stage, they can be applied later through the Expressway web UI or CLI.
- 10.** When prompted, press `Enter` to shutdown the system.
The factory installation wizard phase is complete.
- 11.** Power on the appliance, and follow the steps in [Run the Install Wizard, page 18](#) to complete the customer installation wizard.

Task 3: Disable the Virtual Drive After the Reinstall

If you chose not to disable the virtual drive during the reinstall stage, we recommend that you do it now:

- 1.** Access the CIMC interface.
- 2.** Go to **Storage > Virtual Drive Info** tab.
- 3.** Check the **Hypervisor** check box, then press **Disable**.

Lag During Boot up Due to Power Characterization Check

The power characterization test is run only once when you plug in and power up the CE1200. If the power characterization test continues to run, causing a lag in the boot time, ensure that it is disabled in the CIMC. To do this:

- 1.** Log in to the CIMC (see [Connecting Using CIMC Serial Over LAN, page 15](#)).
- 2.** Click the menu arrow in the top-left corner.
- 3.** Go to **Chassis > Power management > Power Cap Configuration**.
- 4.** Click **Disable Power Characterization**.
- 5.** Click **Save Changes**.

Notices

Technical Support

If you cannot find the answer you need in the documentation, check the web site at <http://www.cisco.com/cisco/web/support/index.html> where you will be able to:

- Make sure that you are running the most up-to-date software.
- Get help from the Cisco Technical Support team.

Make sure you have the following information ready before raising a case:

- Identifying information for your product, such as model number, firmware version, and software version (where applicable).
- Your contact email address or telephone number.
- A full description of the problem.

To view a list of Cisco TelePresence products that are no longer being sold and might not be supported, visit: http://www.cisco.com/en/US/products/prod_end_of_life.html and scroll down to the TelePresence section.

Accessibility Notice

Cisco is committed to designing and delivering accessible products and technologies.

The Voluntary Product Accessibility Template (VPAT) for Cisco Expressway is available here:

http://www.cisco.com/web/about/responsibility/accessibility/legal_regulatory/vpats.html#telepresence

You can find more information about accessibility here:

www.cisco.com/web/about/responsibility/accessibility/index.html

Cisco Legal Information

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

The following information is for FCC compliance of Class B devices: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment causes interference to radio or television reception, which can be determined by turning the equipment off and on, users are encouraged to try to correct the interference by using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications to this product not authorized by Cisco could void the FCC approval and negate your authority to operate the product.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved.

Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

All printed copies and duplicate soft copies are considered un-Controlled copies and the original on-line version should be referred to for latest version.

Cisco Trademark

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at www.cisco.com/go/offices.

© 2018-2020 Cisco Systems, Inc. All rights reserved.

Cisco Trademark

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)