Install the Extreme Networks E2122 Extreme Campus Controller

Overview

E2122 controller hardware is a campus controller that supports two thousand standalone devices, sixteen thousand users, and four hundred switches. It provides availability for up to four thousand devices, thirty two thousand users, and eight hundred switches, with any client distribution between controllers.

Electrical Hazard: Only qualified personnel must perform installation procedures.

Caution: To minimize Electrostatic Discharge (ESD) damage to the devices, you must wear an antistatic wrist strap while performing the following procedures.

These installation instructions provide a general outline to quickly install and configure the E2122 Extreme Campus Controller. For product support, including documentation, visit: www.extremenetworks.com/documentation

Verify the E2122 Box Contents

Unpack your controller and verify the contents of the box as follows:

Table 1 E2122 box contents

Quantity	Item
1	E2122 Quick Reference
1	Extreme Campus Controller E2122 unit
2	Shipping lock screws
1	AC power cord bracket and retention strap kit
1	Rack mounting kit
1	Front panel faceplate
1	Rail kit installation instruction sheet

Note: The power cord needs to be purchased separately for the respective deployment country. They can be ordered at https://www.extremenetworks.com/powercords

Mount the Controller

If you are installing the controller in a rack:

1 Read the *Rail Kit Installation* instruction sheet included with the rack mounting kit.
2 Install the rails and mount the controller in the rack as instructed.

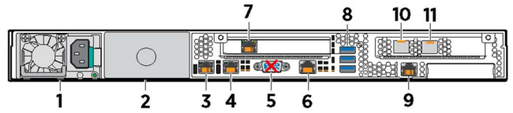
If you are table mounting the controller, ensure at least 6 cm of clearance on all sides of the controller for proper ventilation.

Connect to a Power Source

Refer to Figure 1 for the back panel features.

1 Locate the power cord retention strap from the AC power cord bracket and cable clamp kit:
  a Insert the locking tab end of the retention strap into the receiver hole located to the right of power supply module #1.
  b Adjust the slider of the retention strap to a desired position while pushing up the locking tab on the bottom of the slider.
2 Connect the two AC power cables to power supplies 1 and 2. These two power supplies combine to create an optional redundant power supply.
3 Optionally, wrap the slider strap over the power cord and lock it securely in place.
4 Plug the other end of the cables into grounded electrical outlets or to separate power sources such as an uninterrupted power supply (UPS) or a power distribution unit (PDU).
5 Power on the controller.
The power button is on the front control panel as shown in Figure 2 and Figure 3.

Figure 1 E2122 back panel layout



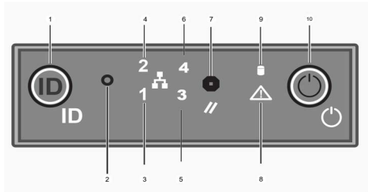
1	Power supply module #1
2	Power supply module #2 bay for redundant power supply (ordered separately)
3	Port 1 (Data Port 1) 1/10GbE, RJ45
4	Port 2 (Data Port 2) 1/10GbE, RJ45
5	VGA port (do not use)
6	RJ45 Serial-A port
7	Admin, management port; 1GbE, RJ45
8	USB 2.0 or 3.0 ports
9	Not used
10	Port 3 (Data Port 3) 1/10 Gbps, SFP+
11	Port 4 (Data Port 4) 1/10 Gbps, SFP+

Figure 2 E2122 front panel layout

1 Hard disk drive bays
2 Front video connector
3 USB 2.0 or 3.0 ports

Note: For USB key storage only: Although the controller has 5 USB connectors (two on the front panel and three on the back panel), only one USB connector can be in use at any one time.

Figure 3 Front control panel



1	System ID button with integrated LED	**6**	Not used
2	NMI button	**7**	System cold reset button
3	Data Port 1 activity LED	**8**	System status LED
4	Data Port 2 activity LED	**9**	Drive activity LED
5	Not used	**10**	Power button with integrated LED

Hard Drive LED Indicator Patterns

The hard drive has one LED indicator visible from the front of the system — a green LED for disk activity.

For information on Status LEDs, Refer to the *ExtremeCampus Controller E2122 Installation Guide*.

Front Faceplate

The controller comes with an optional front panel faceplate attached to the unit. You can monitor the system status indicators with the faceplate in place.

Install a Power Supply

1 Remove the insert from the chassis power supply bay.
2 Insert the power supply module into the power supply bay.
3 Push the power supply module into the bay until it locks into place.

Remove a Power Supply

1 Detach the power supply cord from the power supply that needs to be removed.
2 Pull the power supply module using the handle, while pushing the latching tab outward to disengage the power supply from the unit.

Replace a Power Supply

The controller will support two power supplies, supplying hot-pluggable power redundancy. The system distributes the power load across both power supplies to maximize efficiency. When a power supply is removed with the system powered on, the full power load is picked up by the remaining power supply.

Note: The system ships with just one power supply and you have the option to purchase the additional redundant power supply (Ordering Part No. 30527 WS-PSI-1100W-01).

Note: The system requires one power supply to operate the system normally. Remove and replace only one power supply at a time when a system is powered on.

Each power supply has a single bi-color LED to indicate power supply status, as described in Table 2.

Table 2 Power supply status LED indicator patterns

Power Supply Condition	LED Pattern
Output on and OK	Green
No AC power to all power supplies	Off
AC present / Only 12VSB on (PS off) or PS in cold redundant state	1Hz Blinking Green
AC power cord unplugged or AC power lost. With a 2nd PS in parallel still with AC input power	Amber
Power supply warning events where PS continues to operate — high temp, high power, high current, slow fan	1Hz Blinking Amber
Power supply critical event causing a shutdown, failure, OCP, OVP, fan fail	Amber
Power supply firmware updating	2Hz Blinking Green

Initial Network Connection and Configuration

Configure the Management Interface via Console Port

Note: The E2122 must be upgraded to the latest Extreme Campus Controller firmware before installing the controller on the network.

1 Connect the serial port of the laptop to the E2122 console port. If the laptop does not support RS232 interface then obtain a USB to RS232 converter cable, which then connects to the RJ45-DB9F cable.
2 Using PuTTY, TeraTerm, or another terminal emulator, connect to the serial port connection.
Ensure that your serial connection is set properly:
  – 115200 baud
  – 8 data bits
  – 1 stop bit
  – Parity none
  – Flow control none
3 Using the console session, perform the following:
  – At the password prompt, type user: **admin**
  – For the initial password, type: **abc123**
  – Press **ENTER**.
4 Read the configuration script paragraph carefully. The configuration script will walk you through configuring the following:
  – Admin Password
  – Host Attributes Settings
  – Time Settings
  – SNMP Settings
  – Data Plane Settings
5 At the end of each session, if you enter **Yes**, the next session will begin. If you answer **No,** the session configuration is repeated.
6 Press **ENTER**.
After the final session is applied, the Appliance Post Installation Configuration Menu opens.
7 Type **A** to apply settings and exit or a number for repeating the setup.
8 Connect to a port on which management access was enabled during the CLI Wizard Setup.
9 Open a web browser and type the following in the address bar: **https://Your_Mgmt_Ipaddress:5825**.
The Extreme Campus Controller login screen is displayed.
10 Log in, as follows:
  – Username: **admin**
  – Password: **abc123** or the password that was created when setting up the installation wizard.

Note: An installation wizard is available to help configure the E2122 for new deployments. Refer to the *Extreme Campus Controller User Guide* for more information.

Configure the Management Interface via Management Port

You can retain the default IP address of the controller's management interface if you do not intend to connect the controller to your enterprise network. To connect the controller to your network:

Note: The E2122 must be upgraded to the latest Extreme Campus Controller firmware before installing the controller on the network.

1 Connect a laptop to the management port of the controller.
2 Configure the Ethernet port of the laptop with a statically assigned unused IP address in the 192.168.10.0/24 subnet.
3 Open a web browser and type the following in the address bar: **https://192.168.10.1:5825** (192.168.10.1 is the default IP address on the controller management port).
The Extreme Campus Controller login screen is displayed.
4 Log in, as follows:
  – Username: **admin**
  – Password: **abc123**
  – Select **Login**.
5 To configure the E2122 controller for new deployments, complete the installation.
6 Disconnect your laptop from the management port of the controller.
7 Connect the management port of the controller to the enterprise Ethernet LAN.
8 Log on to Extreme Networks.

Note: The system is now visible to the enterprise network. Refer to the *Extreme Campus Controller User Guide* for more information.

Connect the Data Ports

Data ports 1 and 2 are 1/10 GbE RJ45 ports.

To connect twisted pair cabling:

1 Ensure that the device to be connected at the other end of the segment is powered on.
2 Connect the twisted pair segment to the controller by inserting the RJ45 connector on the twisted pair segment into the desired RJ45 port.
3 Verify that a link exists by checking that the activity link LED is on (solid green or blinking green). If the activity link LED is off, perform the following steps until it is on:
  a Verify that the cabling being used is Category 5 or better (Category 6 or better for 10 Gbps connection), with an impedance between 85 and 111 ohms and a maximum length of 100 meters (328 feet).
  b Verify that the device at the other end of the twisted pair segment is turned on and is properly connected to the segment.
  c Verify that the RJ45 connectors on the twisted pair segment have the proper pinouts, and check the cable for continuity.
4 If a link is not established, contact Extreme Networks.

Data ports 3 and 4 provide SFP+ ports that can support 10 Gbps and 1 Gbps transceivers. Refer to the datasheet at the following location for a list of pluggable transceivers supported for E2122:
www.extremenetworks.com/product/data-center-transceivers-and-cables

To install a transceiver:

1 With an antistatic wrist strap attached to your wrist, remove the transceiver from its packaging.
If there is a protective dust cover on the transceiver connector, do not remove it at this time.
2 Hold the transceiver so that the connector will seat properly.
3 Align the transceiver with the port slot.
4 Push the transceiver into the port slot until it clicks and locks into place.

To connect cables to transceiver ports:

1 Remove the protective covers from the transceiver and from the connectors on each end of the cable.
2 Insert the cable connector into the transceiver connector until it clicks into place.
3 Plug the other end of the cable into the appropriate port on the other device.
Some fiber-optic cables may be terminated at the other end with two separate connectors, one for each fiber-optic strand. In this case, ensure that the transmit fiber-optic strand from the controller is connected to the receive port of the other device, and the receive fiber-optic strand on the controller is connected to the transmit port of the other device.
4 If a transceiver port is unused, cover the port using a dust cover.

Warning: Fiber-optic transceivers use Class 1 lasers. Do not use optical instruments to view the laser output. The use of optical instruments to view laser output increases eye hazard. When viewing the output optical port, power must be removed from the network adapter.

Table 3 RJ45 Port LEDs (Management Port)

LED Type	LED Pattern	Status Indication
Network Speed (Left)	Off	10Mbps
	Green	100Mbps
	Amber	1000Mbps (1Gbps)
Link Activity (Right)	Off	No link
	Solid Green	Active link
	Blinking Green	Data traffic activity

Table 4 Port LEDs (Data Ports 1 and 2)

LED Type	LED Pattern	Status Indication
Network Speed (Right)	Solid Amber	1000Mbps (1Gbps)
	Solid Green	10000Mbps (10Gbps)
Link Activity (Left)	Off	No link
	Solid Green	Active link
	Blinking Green	Data traffic activity

Table 5 SFP+ Port LEDs (Data Ports 3 and 4)

LED color and status	Description
Off	A link has not been established
Blinking Amber	4Hz blinking amber indicates a problem with the link
Solid Green	Valid link with no active traffic
Blinking Green	Valid logical link with active traffic

Regulatory Compliance Information

For complete regulatory compliance and safety information, refer to the document *Intel® Server Products Product Safety and Regulatory Compliance*, available at the following link:
https://www.intel.com/content/dam/support/us/en/documents/motherboards/server/sb/g23122_004_safety_regulatory.pdf

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This product 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 product uses, generates, and can radiate radio frequency energy and if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference to radio communications. Operation of this product in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

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Intel Corporation
5200 N.E. Elam Young Parkway
Hillsboro, OR 97124-6497
Phone: 1-800-628-8686

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In accordance with Directive 2012/19/EU of the European Parliament on waste electrical and electronic equipment (WEEE):

1 The symbol above indicates that separate collection of electrical and electronic equipment is required.
2 When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.
3 It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.

It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated.
For information about the available collection system, please contact Extreme Environmental Compliance at Green@extremenetworks.com.

Supplemental to Product Instructions

产品说明书附件
Supplement to Product Instructions

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr^{6+})	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	×	○	○	○	○	○
电路模块 (Circuit Modules)	×	○	○	○	○	○
电缆及电缆组件 (Cables & Cable Assemblies)	×	○	○	○	○	○
塑料和聚合物部件 (Plastic and Polymeric parts)	○	○	○	○	○	○
电路开关 (Circuit Breakers)	○	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。
Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T 11363-2006 standard.

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006 标准规定的限量要求。
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Extreme Campus Controller™ E2122

Quick Reference

E2122

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