

Service Bulletin

Express Plus Power Hub Ethernet Switch VLAN Tag Filtering Issue

Bulletin Published: October 2024

Affected Models and Down Version: 99-007801-01

Problem Description: When Express Plus cluster software is updated to version 2023.04.xx or later, the Ethernet switch within the Power Hub begins filtering out VLAN (Virtual Local Area Network) tags by default. This results in a loss of communication between the Power Block and Power Link 1000.

Functional impact: Any cluster incorporating the Power Hub becomes non-functional due to this configuration issue.

Required Action: Reconfigure the Power Hub switch to stop filtering VLAN traffic. This service bulletin applies to all ChargePoint Express Plus installations with a Power Hub present.

CAUTION: Warranty Limitation



- If the charging station is not installed, commissioned, or serviced by a ChargePoint certified installer or technician using a ChargePoint-approved method, it is *excluded* from all ChargePoint and other warranties and ChargePoint is not responsible.
- You must be a licensed electrician and complete training at chargepoint.com/installers to become ChargePoint certified and to access ChargePoint's web-based installer tools or ChargePoint Installer app.



IMPORTANT: When you service a charging station, ChargePoint recommends taking a photo before removing each part, so you can refer to the photo when reassembling.

Contact ChargePoint Support at chargepoint.com/support with any questions related to this bulletin.

Tools and Materials

Tools

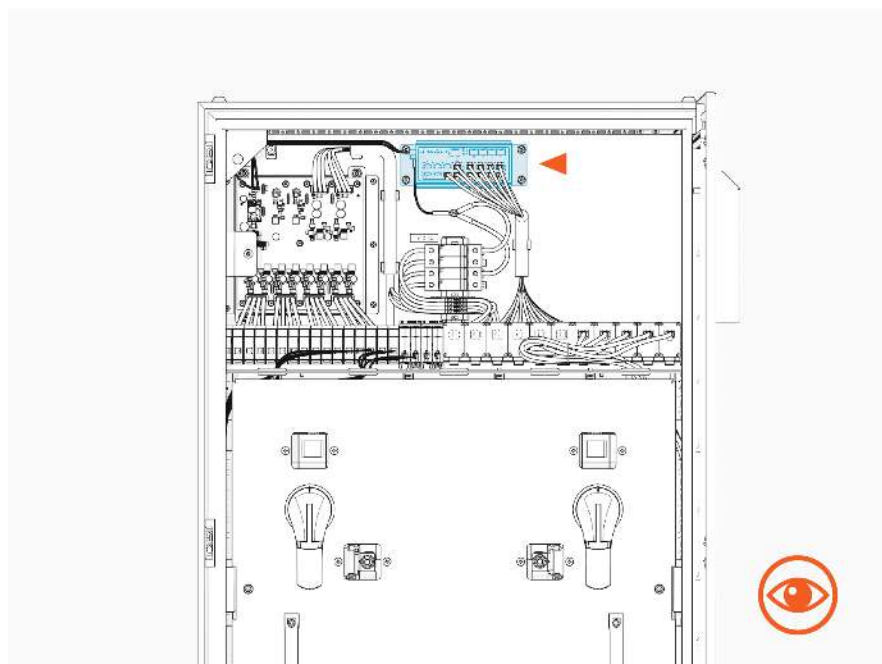
Icon	Description	Icon	Description
	Laptop		USB-to-RJ45 Console Cable

For more information on how to open the Power Hub front door to access the low voltage cabinet, the Ethernet switch, and the complete list of tools used in the process, refer to the *Power Hub Service Guide*.

Procedure

Access the Power Hub Switch

1. Open the Power Hub to access the low voltage area cabinet.
2. Remove the low voltage area cabinet cover.
3. Locate the Ethernet switch in the low voltage area cabinet.



Supply Power to the Power Hub Switch

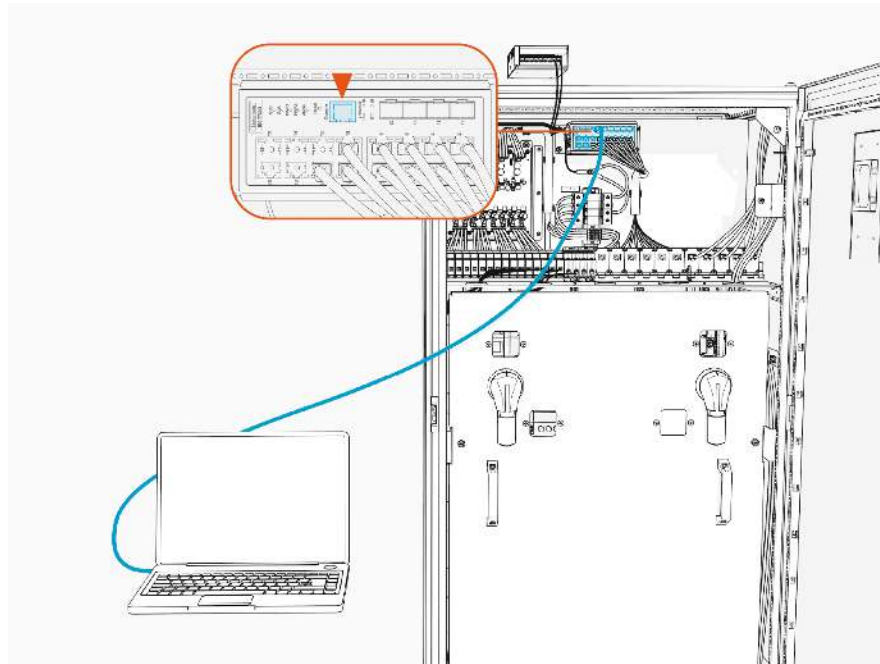
The Power Hub Ethernet switch can be powered either:

- By the Power Block
or
- By an external 12 V - 48 V (≥ 15 W) power supply
(If needing to power from an external power supply, see [Appendix A.](#))

Check that the Ethernet switch is powered by looking for lit status LEDs.

Connect to the Power Hub Switch and Reconfigure via Command Line Interface (CLI)

1. Connect one end of the USB-to-RJ45 console cable to the console port on the Ethernet switch.
2. Connect the other end of the cable to a USB port on the laptop.



3. Do either of these:
 - a. **For Windows Users:** Follow Step 4's instructions and then continue with *Steps 6 through 9*.
 - b. **For Mac Users:** Follow Step 5's instructions and then continue with *Steps 6 through 9*.

4. For Windows Users:



IMPORTANT: If TeraTerm is already installed on your system, open **TeraTerm** and skip to **Step I**.

- a. Go to the [*TeraTerm Home Page*](#) and download TeraTerm (either version 5.2; or, *any* version is ok).
- b. Click *TeraTerm5.2.exe* (or, whichever TeraTerm version's executable you had downloaded).
- c. Select **English** as the **Setup Language** and click **OK**.
- d. Accept the **License Agreement** and click **Next**.
- e. Select the **Destination Location** and click **Next**.
- f. Leave the **Select Components** as is and click **Next**.
- g. Select **English** (or, any of your local language) as the language of the Application's menu and dialog and click **Next**.
- h. Under **Additional Tasks**, deselect **Create TeraTerm shortcut to Desktop** and click **Next**.
- i. Under **Ready to Install**, click **Install**.
The progress bar appears showing it extracting and in **Completing the TeraTerm Setup Wizard** dialog box that displays, do the following steps.
- j. Click **LaunchTeraTerm**.
- k. Click **Finish**.
- l. In the **TeraTerm New Connection** dialog box:
 - i. Select **Serial**:
COM3: USB Serial Port (COM3).
 - ii. Click **Ok..**
- m. In the **COM3 TeraTerm VT** console window that displays:
Under **Setup**, select **Serial Port...**
- n. Under **TeraTerm: Serial Port Setup and Connection** dialog box that appears, which contains the following selections:
 - i. Click the drop-down next to **Speed** and select **115200**.
Port: COM3
Speed: 115200
Data: 8-bit
Parity: None
Stopbits: 1 bit
Flow control: None
Transmit Delay:
0 msec/char 0 msec /line
 - ii. Click **New Setting**.

- O.** In the **COM3 Tera Term VT** console window, insert **Username:** admin and **Password:** admin and then enter the commands shown below under **Step 6**.

5. For Mac users:

- Open **Terminal**.
- Enter the following text:

```
brew install screen
```

- c. Then, enter:

```
screen /dev/tty.usbserial-[tab to auto-complete] 115200
```

Example full name: **tty.usbserial-AQ00MWS0.**

Note: The name will be slightly different on each setup.

- d. Enter **Username:** `admin` and **Password:** `admin` and then enter the commands shown below under **Step 6**.

6. Enter these **Command Line Interface (CLI)** commands:



IMPORTANT: All text is case-sensitive.

```
switch# configure
switch(config)# vlan 100
switch(config-vlan)# *Jan 01 2000 08:00:55: %VLAN-5: VLAN 100 is added, default name is
VLAN0100
switch(config-vlan)# exit
```

```
switch(config)# interface range GigabitEthernet 1-16
switch(config-if-range)# switchport hybrid allowed vlan add 100
switch(config-if-range)# end
switch# show interfaces switchport GigabitEthernet 5
```

```
Port : gi5
Port Mode : Hybrid
Ingress Filtering : enabled
Acceptable Frame Type : all
Ingress Untagged VLAN ( NATIVE ) : 1
Trunking VLANs Enabled:
```

Port is member in:

Vlan	Name	Egress rule
1	default	Untagged
100	VLAN0100	Tagged

Forbidden VLANs:

Vlan	Name

QinQ VLAN:

```
QinQ EtherType : 0x9100
Port S-PVID : 1
Port Role : User-Network Interface Mode.
```

```
switch# save
```


Success

7. **Copy** and **Save** the full text from the console window.
8. Disconnect by following either Step **a** or Step **b** below (based on where the power supply is coming from):
 - a. **If Power Block is supplying power:**
 - i. Disconnect one end of the USB-to-RJ45 Console cable from the USB port of the laptop and disconnect the other end of this Console cable from the console port on the Ethernet switch.
 - b. **If external power supply is powering the switch:**
 - i. Turn off the power supply.
 - ii. Disconnect the power supply from the Ethernet switch.
 - iii. Reconnect the two low voltage DC wires to the Ethernet switch.
 - iv. Disconnect the USB-to-RJ45 Console cable from the laptop and the Ethernet switch.
9. Replace the low voltage area cabinet cover and close the Power Hub door to complete the configuration.

Report Completion to ChargePoint

1. Contact ChargePoint Support at chargepoint.com/support to:
 - a. Report completion of the reconfiguration procedures.
 - i. Make sure to include the full console readout (that you had saved in Step 7) when sending the report.
 - b. Report any negative findings during the reconfiguration.

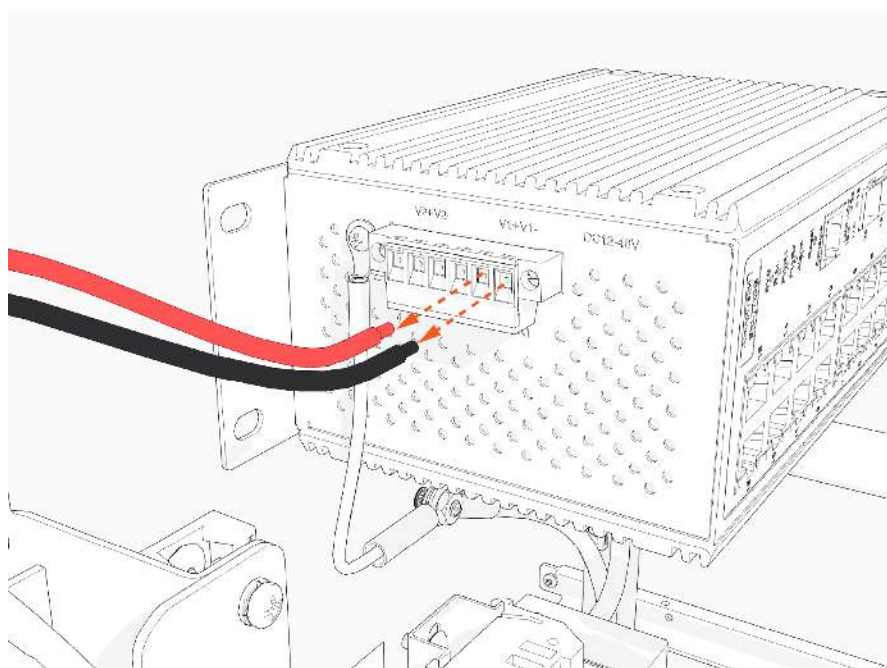
Using an External Power Supply

See below.

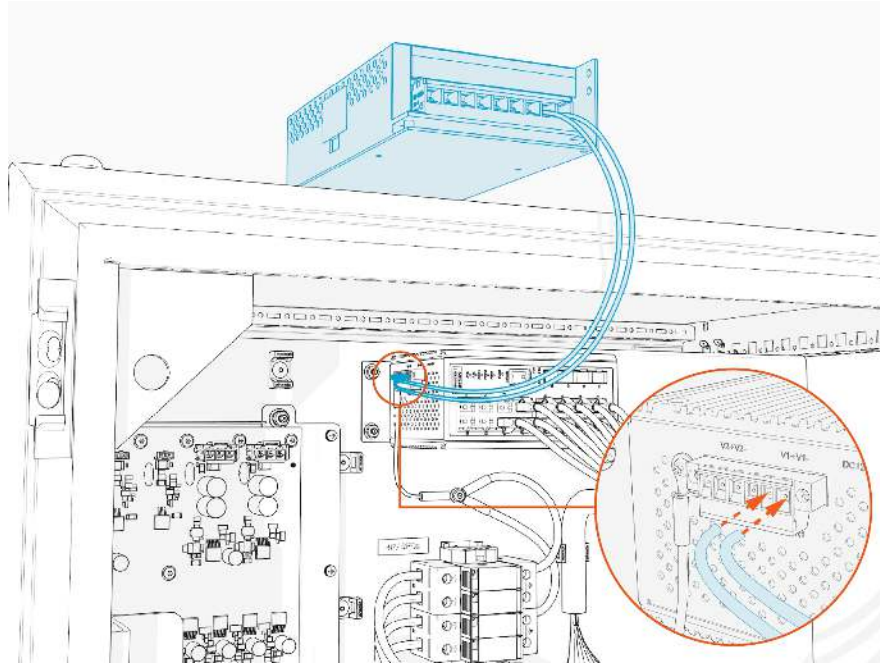
Powering Power Hub Switch With an External Power Supply

Perform these steps to power the Ethernet switch using an external 12 V - 48 V power supply (via screw terminals) if preferred or required:

1. Identify and unplug the two low voltage DC wires currently connected to the Ethernet switch.



2. Connect the 12 V - 48 V (≥ 15 W) external power supply to the Ethernet switch.





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