

CP6000 and Express Plus

Network Configuration for Ethernet and VPN Connectivity

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS



WARNING: This manual contains important instructions for Home Flex. When using electric products, always follow basic precautions, including the following:

WARNING:

1. **Read and follow all warnings and instructions before servicing, installing, or operating the ChargePoint® charging station.** Install and operate only as instructed. Failure to do so may lead to death, injury, or property damage, and will void the Limited Warranty.
2. **Only. Use licensed professionals to install your ChargePoint charging station and adhere to all national and local building codes and standards.** Before installing the ChargePoint charging station, consult with a licensed contractor, such as a licensed electrician, and use a trained installation expert to ensure compliance with local building and electrical codes and standards, climate conditions, safety standards, and all applicable codes and ordinances. **Instructions applicable to Service, Operation & Maintenance Guides Only. Use licensed professionals certified by ChargePoint for installation and service, adhere to all national and local building codes and standards, and ensure compliance** with local building and electrical codes and standards, climate conditions, safety standards, and all applicable codes and ordinances. Inspect the charging station for proper installation before use.
3. **Always ground the ChargePoint charging station.** Failure to ground the charging station can lead to risk of electric shock. The charging station must be connected to a grounded, metal, permanent wiring system, or an equipment grounding conductor should be run with circuit conductors and connected to the equipment grounding terminal or lead on the Electric Vehicle Supply Equipment (EVSE). Connections to the EVSE shall comply with all applicable codes and ordinances.
4. **Install the ChargePoint charging station on a concrete pad using a ChargePoint-approved method.** Failure to install on a surface that can support the full weight of the charging station can result in death, personal injury, or property damage. Inspect the charging station for proper installation before use.
5. **This charging station is not suitable for use in Class 1 hazardous locations, such as near flammable, explosive, or combustible vapors or gases (This charging station is not suitable for use in any ATEX classified area, such as near flammable, explosive, or combustible vapors or gases).**
6. **Supervise children near this device.**
7. **Do not put fingers into the electric vehicle connector.**





8. **Do not use this product if any cable is frayed, has broken insulation, or shows any other signs of damage.**
9. **Do not use this product if the enclosure or the electric vehicle connector is broken, cracked, open, or shows any other signs of damage.**
10. **Use only copper conductor wire rated for 90 °C (194 °F).**
11. Do not operate the charging station in temperatures outside its operating range of -40 °F to 122 °F (-40 °C to +50 °C).
12. Ensure the charging cable is positioned so it is not stepped on, tripped over, or subjected to damage or stress. Do not close a garage door on the charging cable.



IMPORTANT: Under no circumstances will compliance with the information in a ChargePoint guide such as this one relieve the user of the responsibility to comply with all applicable codes and safety standards. This document describes approved procedures. If it is not possible to perform the procedures as indicated, contact ChargePoint. ChargePoint is not responsible for any damages that may result from custom installations or procedures not described in this document or that fail to adhere to ChargePoint recommendations.

Product Disposal

Applicable to NA - Do not dispose of as part of unsorted domestic waste. Inquire with local authorities regarding proper disposal. Product materials are recyclable as marked.



Applicable to EU - To comply with Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), devices marked with this symbol may not be disposed of as part of unsorted domestic waste inside the European Union. Enquire with local authorities regarding proper disposal. Product materials are recyclable as marked.



Document Accuracy

The specifications and other information in this document were verified to be accurate and complete at the time of its publication. However, due to ongoing product improvement, this information is subject to change at any time without prior notice. For the latest information, see our documentation online at [ChargePoint Product Reference Documentation](#).

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Symbols

This guide and product use the following symbols:



DANGER: Risk of electric shock



WARNING: Risk of personal harm or death



CAUTION: Risk of equipment or property damage



IMPORTANT: Critical detail that must be followed to achieve intended results



NOTE: Important contextual details or procedural clarifications



REINSTALL NOTE: Essential instructions to follow when reinstalling a part or component



Read the manual for instructions



Ground/protective earth

Illustrations Used in This Document

The illustrations used in this document are for demonstration purposes only and may not be an exact representation of the product. However, unless otherwise specified, the underlying instructions are accurate for the product.

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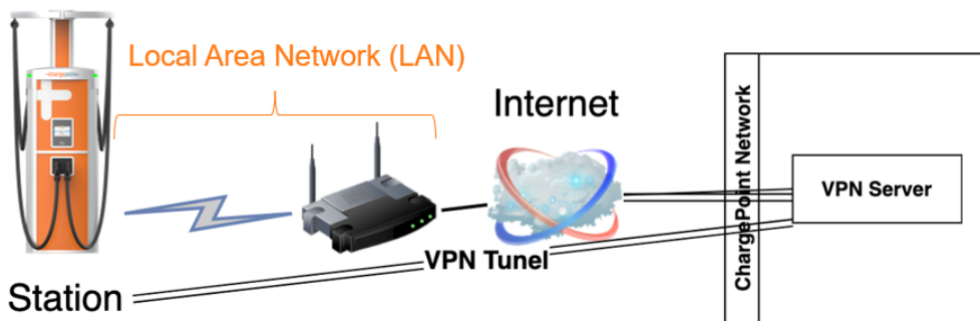
Revision History

This page provides a summary of revisions made, listing the month and year of each update along with a brief description of the changes made.

Month & Year	Version Number	Description
November, 2025	v2	A note recommending the use of Installer App in offline mode for station configuration is added under "How to use this guide" section in the Introduction chapter.
August, 2025	v1	Initial release

Introduction 1

This document explains how the station is connected to the cloud and other network entities when Ethernet cable is used. The station connects to the router through the Ethernet cable. From the router, the connectivity is established between the station and the ChargePoint VPN server over the public network, through a VPN tunnel. Since the traffic goes over public network, tunnel ensures that the traffic is encrypted. When the connection is established between the station and the ChargePoint Server, all ChargePoint nodes should be reachable from the station.



Disclaimer

ChargePoint does not permit the retrofit of Ethernet connectivity onto existing stations due to compatibility issues with the USB to Ethernet accessory. A site host is required to purchase new station hardware or seek extraordinary approval from ChargePoint Product Management if a retrofit is necessary.

Materials Required

- Windows Laptop with a RJ45 Ethernet port
- Ethernet cable

Definitions

- **VPN:** Virtual Private Network
- **Station:** Refers to the CP6000 and Express Plus station.
- **VPN Server:** Refers to the ChargePoint VPN Server.
- **VPN Client:** Refers to the client running on the CP6000 and Express Plus station.
- **IP:** Internet Protocol

How to Use this Guide

After successful completion of Pre-installation checks, the technician must complete the following:

1. To install the USB-to-Ethernet Field Module, refer to the CP6000 Installation Guide and Express Plus Installation Guide available in the ChargePoint Product Reference Documentation.
2. Verify the station's firmware version.
3. Use the Installer App to configure CP6000 and Express Plus for Ethernet connectivity.



IMPORTANT: If cellular connectivity is unavailable, the Installer app automatically switches to **Offline Mode** for Ethernet configuration. Automatic switching occurs only if the Installer app was launched and logged in while online. If **Offline Mode** does not start automatically, you can enable it manually using the **Force Offline Mode** option in the **Account** section or by turning on Flight Mode.

If the station fails to connect to the network after installing the Ethernet adapter, refer the [Troubleshooting Ethernet Connectivity](#) section for troubleshooting steps.

Installation and Configuration 2

Pre-Installation Checks

Perform the following steps on a Windows laptop to verify connectivity to the VPN server:

1. Using the Ethernet cable intended for the station (or alternatively, a cable connected to the site router), plug it into the laptop's RJ45 port.
2. Open Command Prompt and enter: `ipconfig`.
3. Check if the Ethernet Adapter has an IP as follows:

```
Ethernet adapter Ethernet 2:
    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::4397:bee8:a29e:b2dd%74
    IPv4 Address. . . . . : 172.16.98.88
    Subnet Mask . . . . . : 255.255.254.0
    Default Gateway . . . . . : 172.16.98.1
```

4. If an IP address is assigned (example, 172.16.98.88), it indicates that the laptop is successfully connected to the router.
5. If no IP address is assigned, it indicates a connectivity issue. Contact the network or system administrator for support.

```
Ethernet adapter Bluetooth Network Connection:
    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
```

6. Check VPN Server Resolution. In the Command Prompt, run the appropriate `nslookup` command based on your region.
 - a. **United States:** `"nslookup vpn.us.prod.chargepointnetwork.net"`.
 - b. **Canada:** `"nslookup vpn.ca.prod.chargepointnetwork.net"`.

7. If the VPN server endpoint URL can be resolved by the DNS server, the output will display the IP address of the VPN server.

```
CP-US-JJXSR7GQQ2 ~ % nslookup vpn.eu.prod.chargepoint.com
Server:      2001:558:feed::1
Address:     2001:558:feed::1#53

Non-authoritative answer:
vpn.eu.prod.chargepoint.com    canonical name = default-us.chargepoint.com.
default-us.chargepoint.com    canonical name = default-us.chargepoint.com.cdn.cloudflare.net.
Name:   default-us.chargepoint.com.cdn.cloudflare.net
Address: 104.18.21.81
Name:   default-us.chargepoint.com.cdn.cloudflare.net
Address: 104.18.20.81
```

8. If the VPN Server URL cannot be resolved, the command will be unsuccessful as shown in the image below. Contact the network or system administrator for support.

```
C:\Users\Loaner>nslookup vpn-eu.prod.chargepointnetwork.net
Server:  dns.google
Address:  8.8.8.8

*** dns.google can't find vpn-eu.prod.chargepointnetwork.net: Non-existent domain
```

Verify Station Firmware Version

To check the firmware version on the station:

1. Click "?" icon located at the bottom right of the display.
2. Select the  **gear** symbol on the bottom right of the menu.
3. Select **About** option.

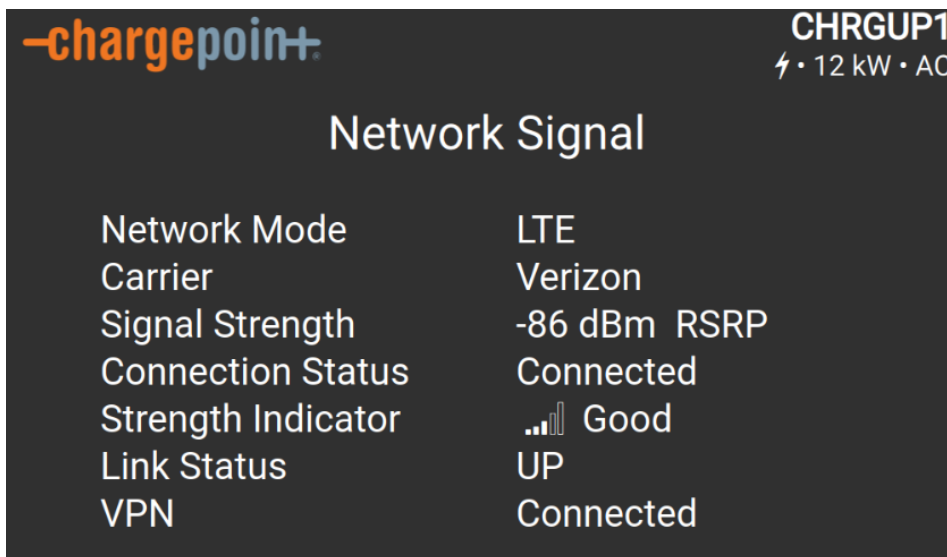
If the firmware version is lower than the one listed below, Ethernet connectivity cannot be enabled. Please contact ChargePoint for support.

- **CP6000:** 2024.03.00.428
- **Express Power Link:** 2024.05.00.475

Troubleshooting Ethernet Connectivity 3

To check the station's connectivity status, follow these steps:

1. Navigate to the **Network Signal** page.
2. Click the "?" icon located at the bottom right of the display.
3. Select the  gear symbol on the bottom right of the menu.
4. Select **Network Signal** option.



Link Status

- UP: Indicates that the Ethernet port has an IP and the connectivity to the router is established.
- DOWN: Indicates that the Ethernet link does not have an IP.

VPN

- Connected: Indicates that the station is connected to the VPN server.
- Disconnected: Indicates that the station is not able to connect to VPN Server.

Connection Status

- Connected: Indicates that the station is connected to the cloud.
- Disconnected: Indicates that the station is not able to connect to the cloud.

Link Status	VPN	Meaning	Debugging Steps
Down	Not Connected	Physical Ethernet connection issue	The station is unable to establish a physical connection to the router. • Verify with the network administrator for any loose or damaged wiring. • Power cycle the station by disconnecting the breaker for 30 seconds. • Repeat the steps outlined in the Troubleshooting Ethernet Connectivity section.
Up	Disconnected	The VPN client on the station is not able to connect to the VPN server.	There can be multiple causes for this: DNS resolution failure: • Ensure that your laptop can resolve the VPN server endpoint by performing the Troubleshooting Ethernet Connectivity. Firewall restrictions: • If the DNS resolves successfully, consult with the network administrator to verify if any firewall rules are blocking the connection. No network connectivity from station to public network: • Check with network administrator. The station needs to connect to the following ports: • Usage: HTTPS, Protocol: TCP, Port: 443 • Usage: NTP, Protocol: UDP, Port: 123 • Usage: VPN, Protocol: TCP, Ports: 52007, 52017 Refer Site Qualification Form for details.
Up	Connected	An Ethernet connection is established and the VPN client on the station is connected to the ChargePoint VPN Server.	If there are still network connectivity issues, • Contact ChargePoint customer support.

FCC Compliance Statement

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 when the equipment is operated in a residential installation. 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.

Important: Changes or modifications to this product not authorized by ChargePoint, inc., could affect the EMC compliance and revoke your authority to operate this product.

Exposure to Radio Frequency Energy: The radiated power output of the 802.11 b/g/n radio and cellular modem (optional) in this device is below the FCC radio frequency exposure limits for uncontrolled equipment. The antenna of this product, used under normal conditions, is at least 20 cm away from the body of the user. This device must not be co-located or operated with any other antenna or transmitter by the manufacturer, subject to the conditions of the FCC Grant.

ISED (formerly Industry Canada)

This device complies with the licence-exempt RSS standard(s) of Innovation, Science and Economic Development Canada (ISED). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux flux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada (ISDE). L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter.

Radiation Exposure Statement: This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Énoncé d'exposition aux rayonnements: Cet équipement est conforme aux limites d'exposition aux rayonnements ioniques RSS-102 Pour un environnement incontrôlé. Cet équipement doit être installé et utilisé avec un Distance minimale de 20 cm entre le radiateur et votre corps.

FCC/IC Compliance Labels

Visit chargepoint.com/labels.