Technical Bulletin

TCS | Building Automation Solutions

Cell Modem Diagnostic

This Technical Bulletin is to aid in diagnosing connection issues with Ubiquity Cloud networks that use a cell modem as either its primary Internet connection, or as its secondary ("fail-over") connection. Fail-over connections become active if the primary connection fails. For the purposes of this diagnostic, the type of connection does not matter unless specified.

Identifying Your Cell Modem Configuration

1. Locate the Ethernet ports on the back of the QD Building Manager, which are labeled **Cloud Ethernet 1** and **Local Ethernet 2** (or similar).

2. Check to see how many Ethernet cables are connected to the Building Manager. If there is only one Ethernet cable, that means you have a cell modem that is being used as a standard configuration (see below). This is the more common configuration.

> **NOTE:** If there is only one Ethernet cable, make sure it is plugged into the port labelled Cloud Ethernet 1.

3. If there are two Ethernet cables connected to the Building Manager that means you have a cell modem that is being used as a fail-over connection (see below). While this is less common, the diagnostic procedures are similar.

4. Locate the cell modem; cell modems are usually placed less than 10 feet from the Building Manager. If it is not visible, follow the Ethernet cable connected to the back of the Building Manager (If there are two cables connected to the Building Manager, follow the cable connected to Ethernet 2.

Standard Configuration

"Fail-Over" Configuration

202407

Building Automation Solutions
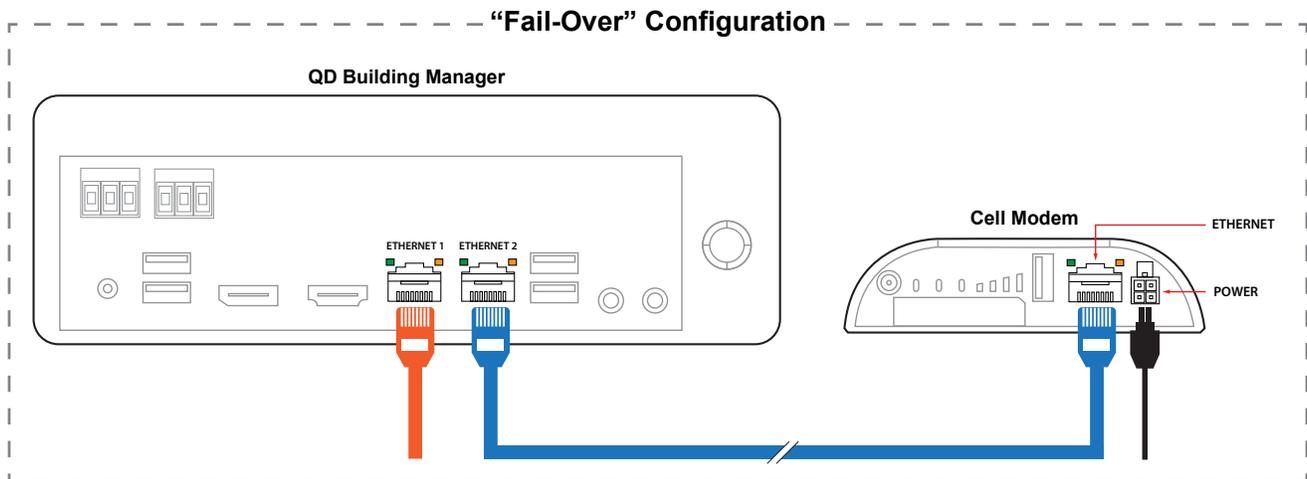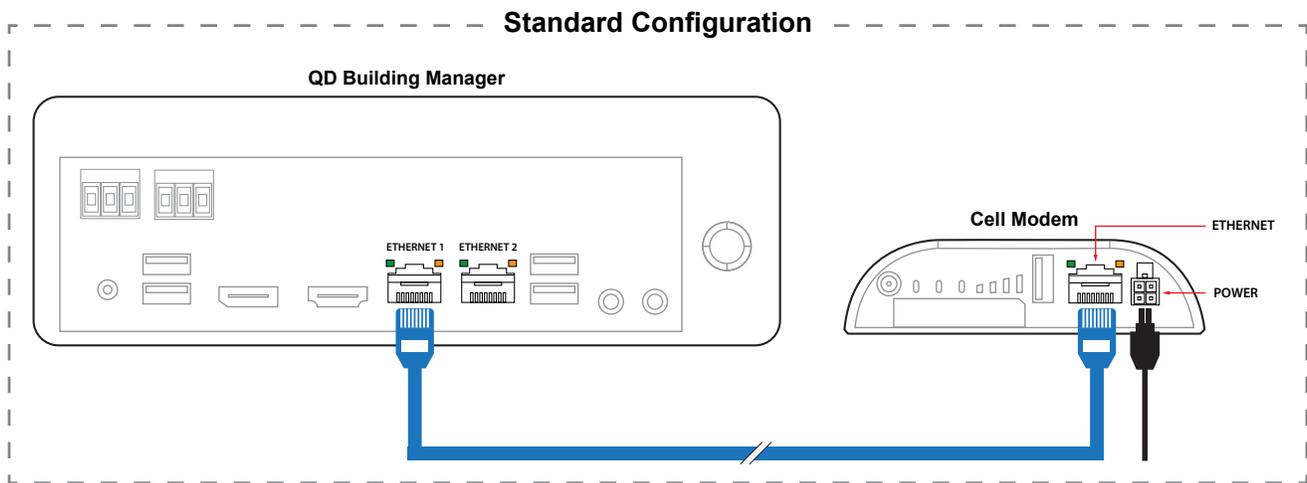
Determining Communication Between Devices

Ensure the cell modem and the Building Manager are communicating with each other by checking the indicator LEDs inside the Ethernet Ports. If at least one indicator LED is on, that means the Building Manager and the cell modem are communicating with each other.

Indicator LEDs

Ethernet Port
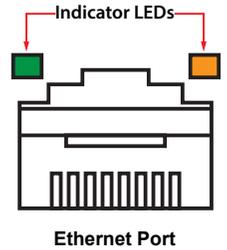
Checking the Cell Modem

Ensure that the cell modem is functioning properly by checking the other status LEDs on the back.

2.4Ghz

Power On   WiFi Activity   Info   Cell Signal Strength   Ethernet   Power
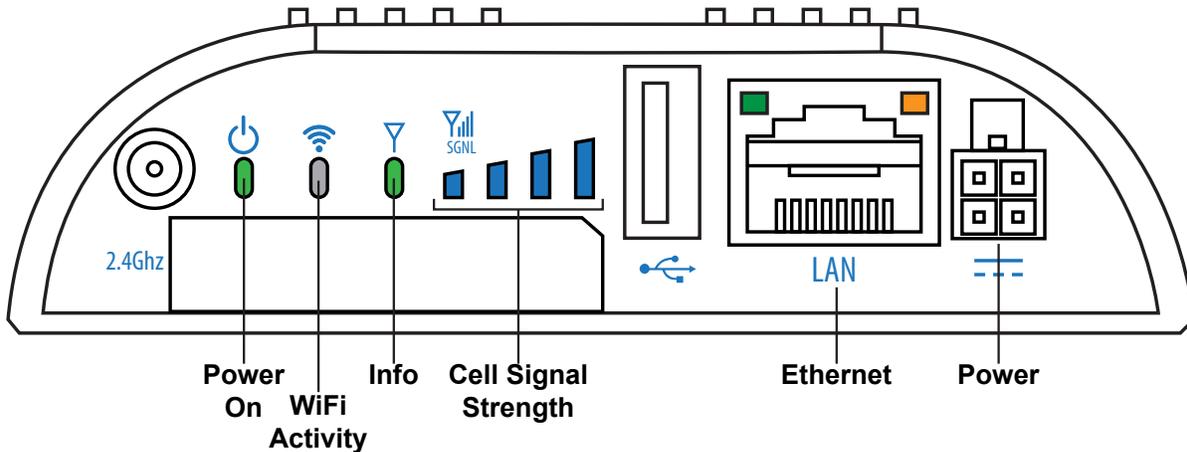
1. Ensure the cell modem has power and is turned on (far left indicator LED). If it is green, it has power.

2. Ensure the WiFi Activity LED is off. (TCS does not use this function in its configurations).

3. Ensure the Info LED is either solid or blinking green. Other colors or conditions can signal errors and should be reported to Technical Support.

4. Check the Cell Signal Strength indicator bars. These function like the bars on a cell phone: the more bars, the greater the strength. (One blinking bar indicates a very weak signal.) If the signal is weak or nonexistent, this means the cell modem is not receiving a signal from a nearby cell tower and will most likely need to be repositioned.

If all indicator LEDs match the above descriptions, that means your cell modem is operating properly. Other colors or status indicators, such as flashing or not coming on, can mean various issues ranging from very minor to significant.

Resolving Issues

Most issues can be resolved by contacting Technical Support at 800.288.9383, option 2, Monday through Friday between 7:00 AM and 7:00 PM (CT), or in the case of a poor signal, by contacting your cell service provider. When contacting TCS Technical Support, take note of the status LEDs as these can provide valuable information.

Resetting the Cell Modem

If you choose to reset the modem without contacting TCS Technical Support, it is extremely important that you do NOT press the Reset button on the front of the cell modem!

Pressing the Reset button will erase all the internal settings TCS has programmed into the device and will render the device useless. It will also void the warranty, making it ineligible for any return credit.

Resetting the cell modem can clear some issues, but it is preferable to contact TCS Technical Support first.

To safely reset the cell modem, unplug the power cord from the back of the device. Wait 10 seconds and plug the power cord back in. If the modem is still not functioning properly after five minutes, contact Technical Support.