Honeywell

Honeywell Connected Life Safety Services

CLSS Gateway

Installation and User's Manual

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Section 1: General Information

1.1 About This Manual

This *CLSS Gateway* provides detailed procedures about installation, deployment, and upgrade of the gateway. The manual describes:

- the dedicated CLSS Gateway,
- its installation environment,
- mounting and connecting the gateway circuit board to a fire detection panel, and
- initial network configurations

Using This Manual This manual is written with the understanding that the user is trained in the operations and services required for this product.

NOTE: In this manual, the *CLSS Gateway*'s printed circuit board is also called *the gateway board*.

1.2 Documentation Feedback

Your feedback helps us keep our documentation up-to-date and accurate. If you have any comments or suggestions about our Online Help or printed documents, you can email us.

Please include the following information:

- Product name and version number (if applicable)
- Printed document or Online Help
- Topic title (for Online Help)
- Page number (for printed document)
- A brief description of content you think should be improved or corrected
- Your suggestion for how to correct/improve documentation

Send email messages to:

FireSystem.TechPubs@Honeywell.com

Please note this email address is for documentation feedback only. If you have any technical issues, please contact Honeywell Technical Services.

1.3 Revision History

Date	Update Details
January 29, 2020	Updated for the FCC certification.
May 01, 2020	Updated for the IC certification.
June 22, 2020	Updated for the cellular modules support.

1.4 Abbreviations Used in This Document

Table 1.1: Abbreviations List

Abbreviation	Description
DACT	Digital Alarm Communicator Transmitter
ESD	Engineered Systems Distributor
LTE	Long-Term Evolution The wireless broadband communication standard for mobile devices and data terminals.
NFN	NOTI-FIRE-NET™ The network interface for NOTIFIERE™ Intelligent Fire Alarm Control Panels
NUP	NOTIFIERE Universal Protocol The Universal Protocol by NOTIFIERE for all fire alarm panel communications. This protocol enables direct transfer of data between the panels and networks, without the need to translate.
OC	Ownership Code The code that confirms ownership of the gateway
TTL	Transistor-Transistor Logic A physical connection for performing both the logic gating and amplifying functions on the serial data.
UART	Universal Asynchronous Receiver/Transmitter A physical connection that converts and provides serial data for the panel and parallel data for the gateway.
USB	Universal Serial Bus

1.5 Approvals

Industry Canada (IC) Statement

IC ID: 1609A-CGWMB

Compliance Statements: This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: 1) This device may not cause interference., 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Déclarations de conformité: Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. 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 tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Caution Statements:

- This equipment complies with radio frequency exposure limits set forth by Industry Cananda for an uncontrolled environment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the device and the user or bystanders.

Déclarations de mise en garde:

- Cet équipement est conforme aux limites d'exposition aux radiofréquences défines par Indstrie Canada pourun environment non contrôlé.
- Cet équipement doit être installé et utilisé aven un minimum de 20 cm de distance dispositif et l'utilisateur ou des tiers.

FCC Statements (USA)

FCC ID: PV3CGWMB

Compliance Statements:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including, an interference that may cause undesired operation.

Caution Statements:

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

NFPA Compliance (USA)

Install the CLSS Gateway in accordance with the *National Fire Protection Association Installation Standard* NFPA 72.

Intertek

ID: 104270338NYM-001

1.6 Warnings and Cautions in This Manual

WARNING:

THESE INSTRUCTIONS CONTAIN PROCEDURES TO FOLLOW TO AVOID INJURY AND DAMAGE TO EQUIPMENT. IT IS ASSUMED THAT THE USER OF THIS MANUAL HAS BEEN SUITABLY TRAINED AND IS FAMILIAR WITH THE RELEVANT REGULATIONS.

CAUTION: USERS MUST FOLLOW THE PROCESSES AND USAGES APPROVED AS PER THE REGULATORY COMPLIANCE. A CHANGED OR MODIFIED USAGE NOT EXPRESSLY APPROVED BY COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE CLSS Gateway.

ELECTRO-STATIC SENSITIVE DEVICES:

TAKE SUITABLE ESD PRECAUTIONS WHEN REMOVING OR INSTALLING PRINTED CIRCUIT BOARDS.

1.7 The Product Standards

THIS GATEWAY'S PANEL IS CE MARKED TO SHOW THAT IT CONFORMS TO THE REQUIREMENTS OF THE FOLLOWING EUROPEAN COMMUNITY DIRECTIVES:

- EMC Directive 2014/30/EU
- Low Voltage Directive (LVD) 2014/35/EU
- Radio Equipment Directive 2014/53/EU
- RoHS Directive 2011/65/EU
- WEEE Directive 2012/19/EU

The gateway is designed to meet Additional National Requirements: EFSG [BRE, AFNOR/CNPP, and VdS], Incert, SBSC, EMEA, and EAC

1.8 Disclaimer

Images in the document are for reference purpose only and are subject to change. All trademarks, service marks, word marks, design marks, and logos are property of their respective owners.

Section 2: Overview

CLSS Gateway is an embedded and intelligent gateway for connected buildings. It enables system maintenance providers as well as end users to remotely manage connected fire detection systems. The gateway also supports them to ensure compliance.

CAUTION: THE GATEWAY MUST BE INSTALLED INDOORS AT A DRY LOCATION.

2.1 Operation

The gateway acts as a portal among fire alarm panels, Cloud, and peripheral devices. The gateway connection with the fire alarm panel enables reading the inventory and transmitting the data. The connection with Cloud facilitates remotely monitoring and managing the fire detection systems.

2.2 Honeywell Connected Life Safety Services

The software suite enables remote management of fire detection systems. It monitors the building's fire system events in real-time and notifies users about the events immediately. It also supports periodic maintenance activities and helps in reports generation.

2.3 Gateway Board Layout

The illustration below points out those parts that are used for connections and trouble shooting.

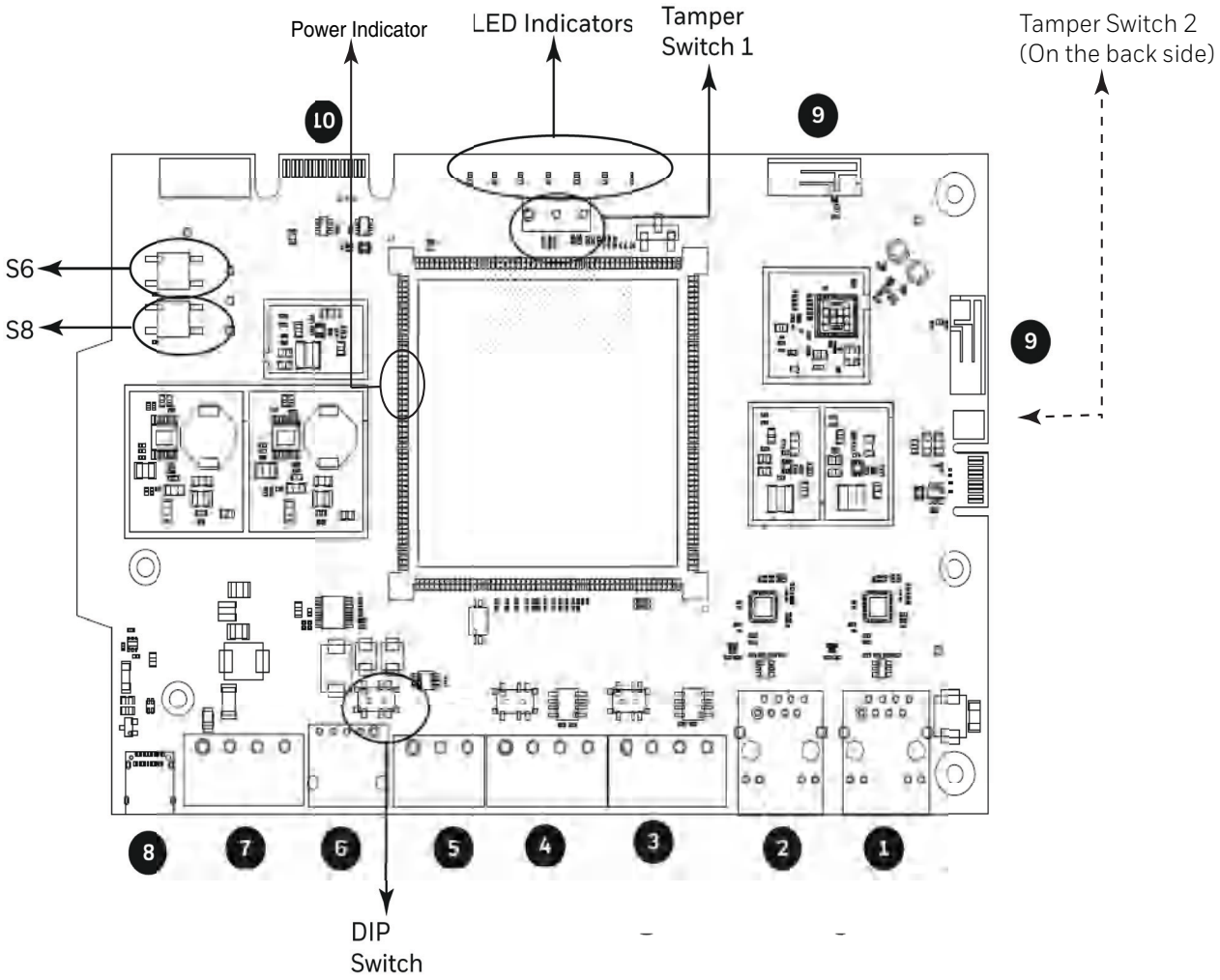


Figure 2.1: Printed Circuit Board: Layout

2.3.1 Connecting Interfaces

Figure 2.1 uses numbered labels to show the location of the interfaces for connections. This manual uses these numbered labels at various places for your convenience.

The table below uses these numbered labels to describe the type and usage of the interfaces.

Table 2.1: Gateway Interface Details

Label No.	Interface Type	Usage
1	Ethernet 2	Primary Ethernet port that can permanently connect the gateway board with the CLSS Gateway services. Cable: CAT 5 standard Ethernet cable with RJ45 connector
2	Ethernet 1	Secondary Ethernet port providing a TCP/IP connection to one of the compatible panel or an external gateway. Cable: CAT 5 standard Ethernet cable with RJ45 connector
3	RS485B	An alternate RS485 connection.
4	RS485A	Connects the gateway board to a RS485-compatible fire alarm panel. This primary connection sends the live alarm data from the panel to the gateway. This connection also supports the control functionality to administer the fire detection system for compatible panels.
5	UART/TTL	Connects the gateway board to a UART/TTL-compatible fire alarm panel. This connection enables the fire alarm panel to send the alarm data and device data to the gateway.
6	NUP (RS232)	Transfers fire-related and device-related data from the panel to the Cloud through the gateway. It also helps in administering the fire detection system. Connects the gateway board to a NUP-compatible panel. If the connected panel supplies power, the gateway would get power from the panel through the NUP port.
7	Power	Connects to an external 24-volt DC power when required. It uses a power-limited, regulated, power-supply-listed connection for fire-protective signaling. It is used only when the gateway board is connected with: • A network card or • When power is not supplied to the NUP connector
8	USB	Sends inventory data from the panel to Cloud during the initial setup. This needs-based temporary connection also helps in administering the fire detection system whenever required.
9	Wireless Aerial	Enables the gateway to have a wireless or a mobile low energy aerial for communication with the CLSS Gateway.
10	Cellular	Enables the gateway to report event information to the CLSS Cloud as well as a central receiving station. It is a 40-pin expansion slot for Cellular modules.

2.3.2 LED Indicators

The LED indicators on the gateway board use different colors to identify the operational status of the gateway. To know the location of the LED indicators on the gateway board, refer to Figure 2.1, “Printed Circuit Board: Layout”.

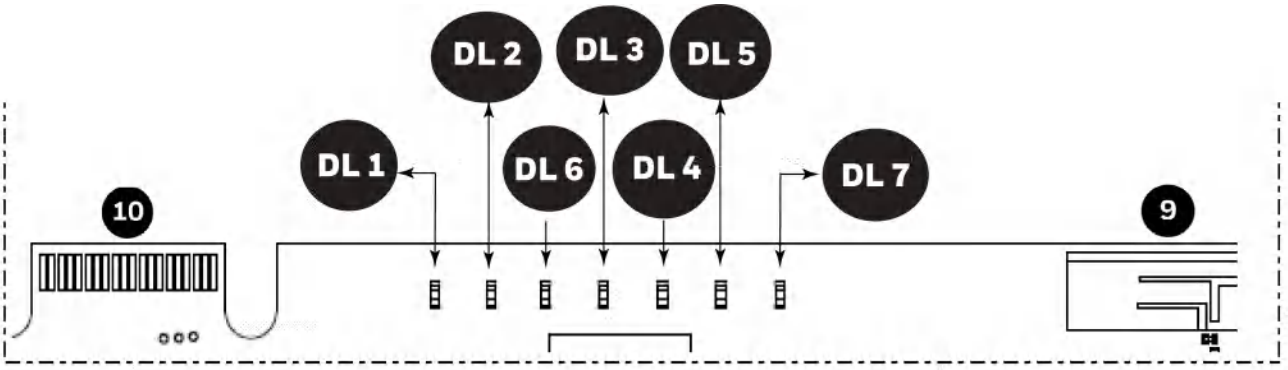


Figure 2.2: The LED Indicators on the Gateway

Table 2.2: LED Indicators and Their Messages

SOM Power-Indicating LED Indicates the gateway board’s received power status	
green	**ON** The circuit board is receiving 24V power from its power source. **OFF** The circuit board is *not* receiving power.
DL1 LTE Power LED Indicates the power supply status for cellular communications	
green	**ON** The LTE radio device is receiving power from the circuit board. **OFF** The LTE radio device is *not* receiving power.
DL2 Trouble LED Indicates the gateway’s operational status	
amber	**OFF** There are no issues. **FLASHING SLOW** (flashes once per 1 second) There are communication issues with the panel or the Internet connectivity. **ON** There is a critical error in the system. To fix the issues, you can refer to the 5.2, "Troubleshooting" section, which discusses about some possible issues and their solutions.
DL6 Mobile Connectivity LED Indicates the status of mobile communications between the gateway and the CLSS app	
Blue	**FLASHING SLOW** (flashes once per 1 second) The mobile connectivity is available, but not yet connected to the CLSS app. **FLASHING FAST** (flashes once per 0.25 second) The gateway is connected to the CLSS app. **OFF** The mobile connectivity is disabled.
DL3 Panel Connectivity LED Indicates the connection status of the panel	
green	**FLASHING SLOW** (flashes once per 1 second) The panel is connected with the gateway board. **FLASHING FAST** (flashes once per 0.2 second) The gateway is fetching the inventory data from Cloud. **ON** Configuration mode is enabled for configuring the gateway network settings. **OFF** The gateway is *not* communicating with the panel.

Table 2.2: LED Indicators and Their Messages (Continued)

DL4 Cloud Connectivity LED Indicates the gateway connection status with Cloud	
green	**ON** The gateway is downloading the firmware from the CLSS Cloud. **FLASHING SLOW** (flashes once per 1 second) The gateway is connected with Cloud. **FLASHING FAST** (flashes once per 0.2 second) The gateway is connected with Internet, but not connected with the Cloud. **OFF** The gateway is *not* connected with Internet.
DL5 Wireless Connectivity LED Indicates the gateway wireless connectivity status	
green	**FLASHING SLOW** (flashes once per 1 second) The wireless connectivity is enabled for the Cloud connection. **OFF** The wireless connectivity is disabled.
DL7 Cellular Connectivity LED Indicates the LTE radio connection status	
green	**FLASHING SLOW** (flashes once per 1 second) The LTE radio is transmitting data to cellular devices via Internet. **FLASHING FAST** (flashes once per 0.2 second) The LTE radio is transmitting data to the Cloud.

2.3.3 Switches on the Gateway Board

Below table informs about the switches on the gateway board. To locate the switches on the gateway board, refer to Figure 2.1:, "Printed Circuit Board: Layout".

Table 2.3: Gateway Board Switches

Switches	Purpose
S6	For securely configuring the gateway's network settings. Pressing the switch for six seconds switches the gateway board to the configuration mode.
S7	For changing the direction of the 24V power of the NUP connector. NUP IN: The gateway board receives power from the NUP connection. NUP OUT: The gateway board supplies power to the NUP connection.
S8	For enabling mobile pairing. Pressing the switch for ten seconds enables mobile pairing.
S6 and S8	For reverting to factory default settings. Pressing both of them together for ten seconds will start the factory resetting process. The factory resetting process takes 10 minutes to complete.
Tamper 1	For alerting whenever the door is opened. It is located at the front-side of the gateway, next to the LED indicators.
Tamper 2	For alerting whenever the gateway board is removed from the enclosure. It is located at the backside of the gateway.

Section 3: Installation

You can use a fixed gateway in the fire detection system.

CAUTION: THE GATEWAY MUST BE INSTALLED INDOORS IN A DRY LOCATION.

3.1 Wall Mounting the Fixed Gateway

The maximum distance between the gateway and the panel should be 36 inches (0.9144 meter).

CAUTION: THE EQUIPMENT IS SUITABLE FOR MOUNTING AT A MAXIMUM HEIGHT OF 9.9 FEET ONLY.

Follow the instructions below to mount the gateway enclosure:

NOTE: Only in a low LTE signal area, you may choose to use external aerials. If it is not required, you can skip step 3 below.

1. Open the package and take out the contents.
2. Inspect the contents for damage. If there is any damage, do not proceed with installation. Return the package.
3. (Optional) Punch out the appropriate knockouts on the enclosure for the aerials (see Figure 3.1).

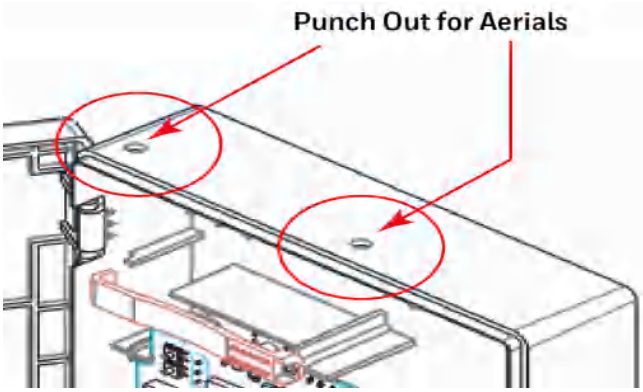


Figure 3.1: Knockouts on the Enclosure

4. Place the right-side door edge on a flat surface for support.
5. At the right-side door edge, punch out a hole for the door locking screw or for an optional keyed lock (see Figure 3.2).

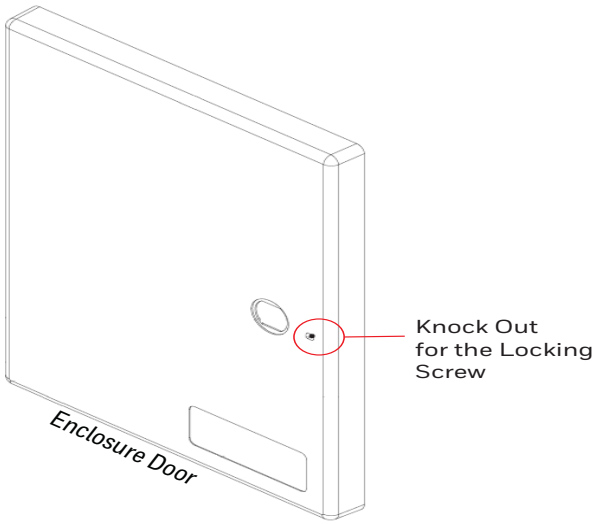


Figure 3.2: Screw Hole Knock Out

6. Depending upon the wall construction, select suitable screws to mount the enclosure.
7. Place the backbox on the wall where the enclosure is to be mounted.
8. Confirm that the placement of the backbox allows the door to swing open freely.
9. Mark and pre-drill the hole for the top mounting bolt (see Figure 3.3).

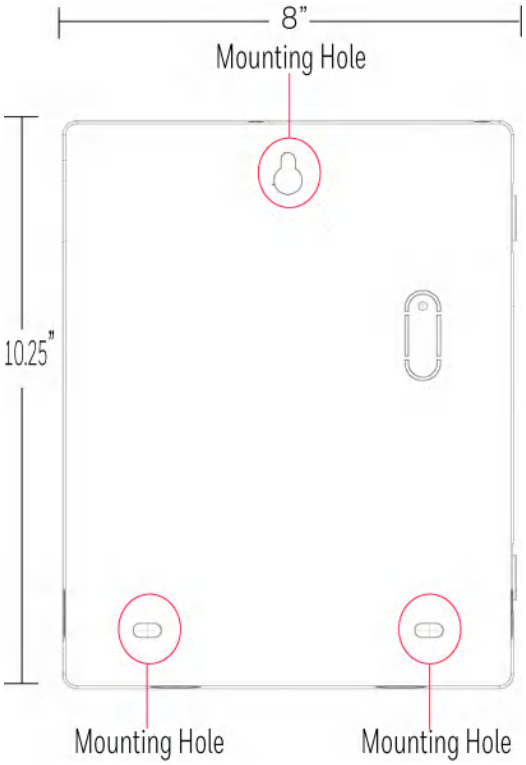


Figure 3.3: Mounting the Backbox

10. Remove the backbox.
11. In the top mounting hole, insert the mounting screw.
12. Tighten the screw, leaving space for hanging the enclosure.
13. Mount the backbox over the top screw and level it.

14. Mark the locations for the two lower mounting holes.
15. Remove the backbox and drill the mounting holes.
16. Mount the backbox over the top screw, then install the remaining fasteners.
17. Tighten all fasteners securely.

3.1.1 Installing the External Aerials

In a low LTE signal area, using an external aerial may boost the signals.

When installing an aerial, ensure that:

- The aerial is within its granted FCC directional gain limitations
- The installation is in accordance with the manufacturer's instructions

3.2 Cellular Modules

Cellular modules transmit alarm, supervision, and system test messages from a protected premises to the CLSS Cloud or to a central receiving station. If required, you can plug in the device onto the gateway board.

NOTE: The instructions are limited to the Honeywell supported cellular modules only.

3.2.1 Compatibility Requirements

To ensure proper operation, these cellular module shall be compatible with the CLSS Gateway.

To know more about the supported devices, refer to "Cellular Modules" on page 34.

3.2.2 Before Installing a Cellular Module

- If installing on an existing operational gateway, inform the operator and local authority that the gateway will be temporarily out of service.
- Disconnect power to the gateway.

3.2.3 Precautions for Service Quality

- Carefully select the installation location of the CLSS Gateway.
- Do not mount the gateway on or near metal objects. This includes steel cabinets, metal walls, steel beams, steel roofs or roofing girders, foil backed insulated walls, and duct works.
- During the installation, periodically monitor the radio behavior to predict QoS (Quality of Service) of the LTE radio over time.

  If the installation location does not offer good QoS, try the following options:

  1. Move the gateway to achieve the best QoS. Typically, moving it to a higher placement offers the best QoS.
  2. Use an optional external aerial mounted on the interior or the exterior of the protected premises.

3.2.4 Installing the Cellular Module

The installation involves plugging the cellular module onto the gateway board, and securing the mounted device with a retention strap. The strap will compress the RF ground system between the cellular modules and the gateway board assembly.

1. Switch OFF the gateway and open its enclosure door.
2. On the top edge of the gateway, plug the cellular module onto the 40-pin expansion slot (see Figure 3.4).

WARNING: DO NOT USE THE SCREW ON THE TOP EDGE OF THE CELLULAR MODULE. IT WILL ADVERSELY AFFECT THE RADIO PERFORMANCE. REFER TO THE DO NOT USE THIS SCREW SHOWN IN THE FIGURE 3.4.

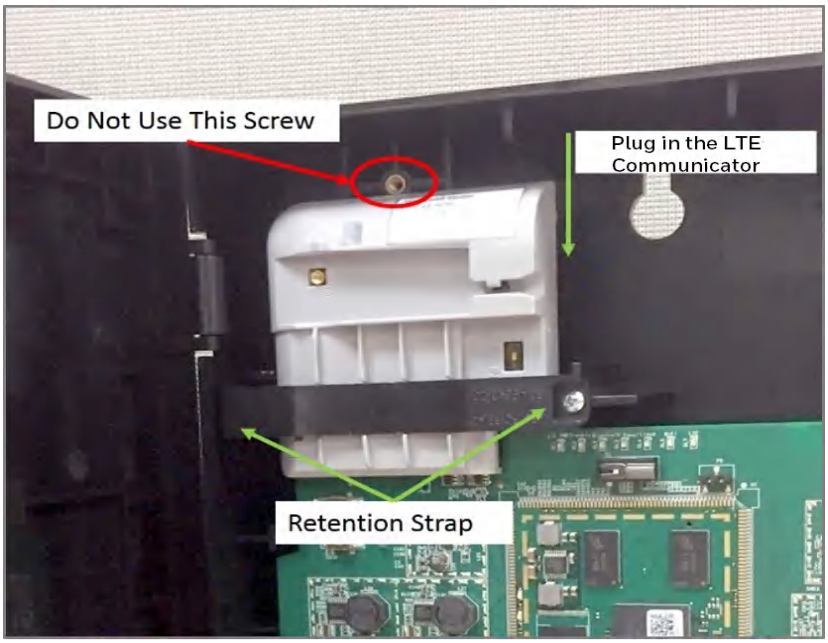


Figure 3.4: Installing the Cellular Module

3. Secure the cellular module with the retention strap and a screw, which come with the module (see Figure 3.4).

WARNING: FAILURE TO USE THE RETENTION STRAP MAY ADVERSELY AFFECT THE AERIAL PERFORMANCE.

3.2.5 Replacing the SIM Card

The cellular module comes with a factory-mounted SIM card. If necessary, replace it as follows:

1. Switch OFF the gateway board and open its door.
2. Remove the retention strap screw and the retention strap (see Figure 3.4).
3. Slide the cellular module upward to disconnect it from the gateway board.
4. Carefully remove the back cover of the cellular module.
5. Find the SIM card holder and slide its door to unlock (see Figure 3.5).

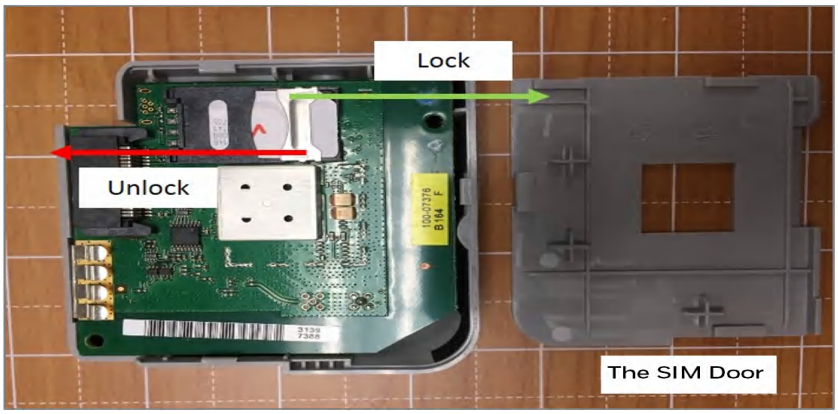


Figure 3.5: Unlock or Lock Movement

6. Remove the old SIM card and replace it with the new card.
7. Slide the card holder door back and lock it (see Figure 3.5).
8. Place the bottom cover onto the communicator and snap it closed.

3.3 Gateway Board Connections

The gateway board can be connected with a cellular module, wireless aerials, the CLSS Cloud, a configuration computer, a panel, a mobile device, and an external power supply.

Figure 3.6 illustrates the connection options at the top side of the gateway board.

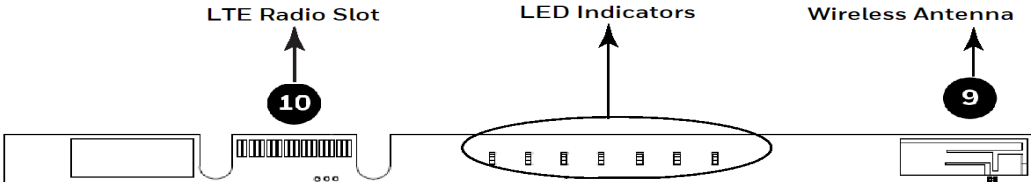


Figure 3.6: Gateway Connections - Top Side

Figure 3.7 illustrates connection options at the bottom side of the gateway board.

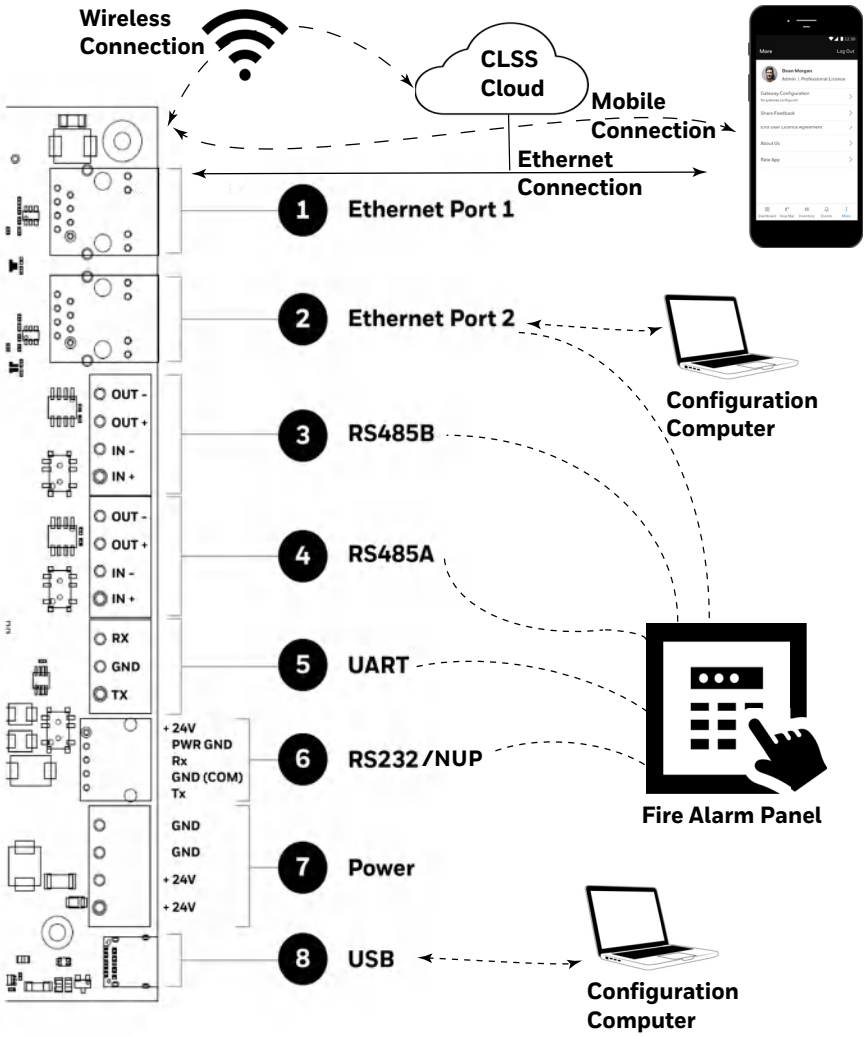


Figure 3.7: Gateway Connection Options - Bottom Side

3.3.1 Connecting to a Fire Alarm Panel

The panel sends data from all its devices to the connected CLSS Gateway. The data transmission is based on the connection type and the panel compatibility.

WARNING: CONNECTIONS BETWEEN THE GATEWAY, CLOUD, AND THE PANEL MUST BE PERMANENT.

NOTE: The interfaces of the gateway board and panel must be connected with compatible cables or wiring only.

Supported Panels

To know about supported panel variants and their connection options, refer to www.fire.honeywell.com.

Section 4: Configuration

The gateway settings control the gateway's communications with the mobile, panel, detectors, and Cloud.

4.1 Panel Date and Time Configuration

To enable gateway communications with Cloud, the date and time must be set correctly in the connected panel.

4.2 The CLSS Gateway Configuration

The first-time commissioning of the gateway entails getting the data from the panel and sending it to the Cloud. Subsequent gateway configuration includes synchronizing the data between the panel and the Cloud.

4.2.1 Exporting Panel's Topology Data

The first-time commissioning of the gateway includes manually getting the panel's topology data and sending it to the CLSS Cloud.

NOTE: The topology data is exported based on the supported panel manufacturer's programming tool. To know about the recommended tool for exporting and about related configurations, refer to the panel's documentation.

To Export the Topology Data

1. Using the tool, which the panel manufacturer recommends, export the panel's topology data into your configuration computer.
2. From the configuration computer, log into the *Connected Life Safety Services* application.
3. Ensure that the relevant *customer*, *site*, and *building* details are available in the application.
4. Select the building where the panel is located.
5. Go to the building's inventory page.
6. Click on the **Config File** button, find the exported topology data file, and select that file.
7. Wait for the upload success message.
8. Confirm that the inventory page shows details of the panel's connected devices.

4.2.2 To Configure via the Wireless Connection

1. In the mobile device, download the *Connected Life Safety Services* app from Play Store or App Store.
2. Install the app.
3. From the Honeywell on-boarding email, note down the login credentials.
4. On the mobile device, log into the *CLSS* app.
5. On the app's dashboard, at the right bottom, tap the **More** icon (see Figure 4.1).

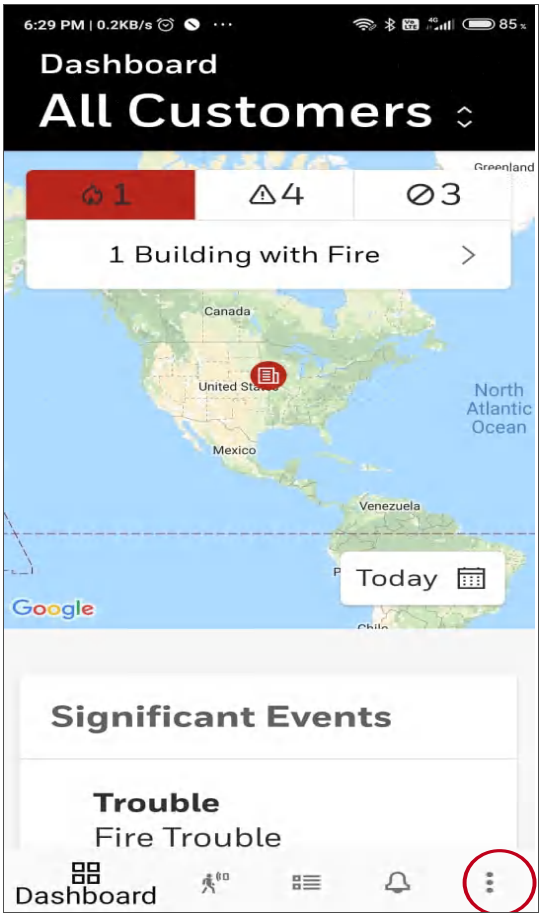


Figure 4.1: CLSS App Dashboard

6. Tap **Gateway Configuration**.
7. Follow the on-screen instructions for mobile connectivity.

NOTE: Based on the gateway you are configuring, select either *Portable Gateway* or *Fixed Gateway*.

8. Wait for the app to connect with the gateway, the fire alarm panel, Internet, and Cloud. The app notifies you when configuration is completed.
9. On the dashboard, from the **All Customers** option, find the required *customer* > *site*.
10. Tap on the specific building.
11. To commission the gateway, tap on **CONNECT GATEWAY** and follow the on-screen instructions (see Figure 4.2).

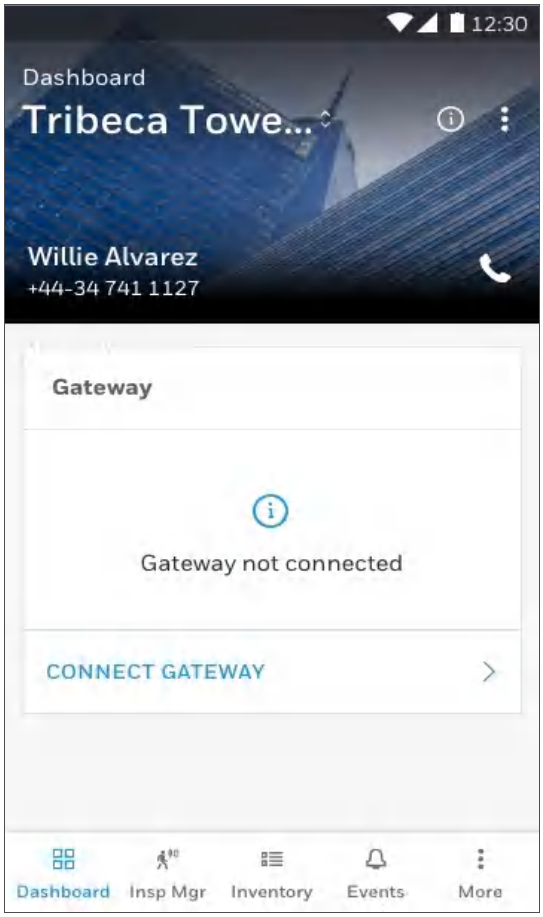


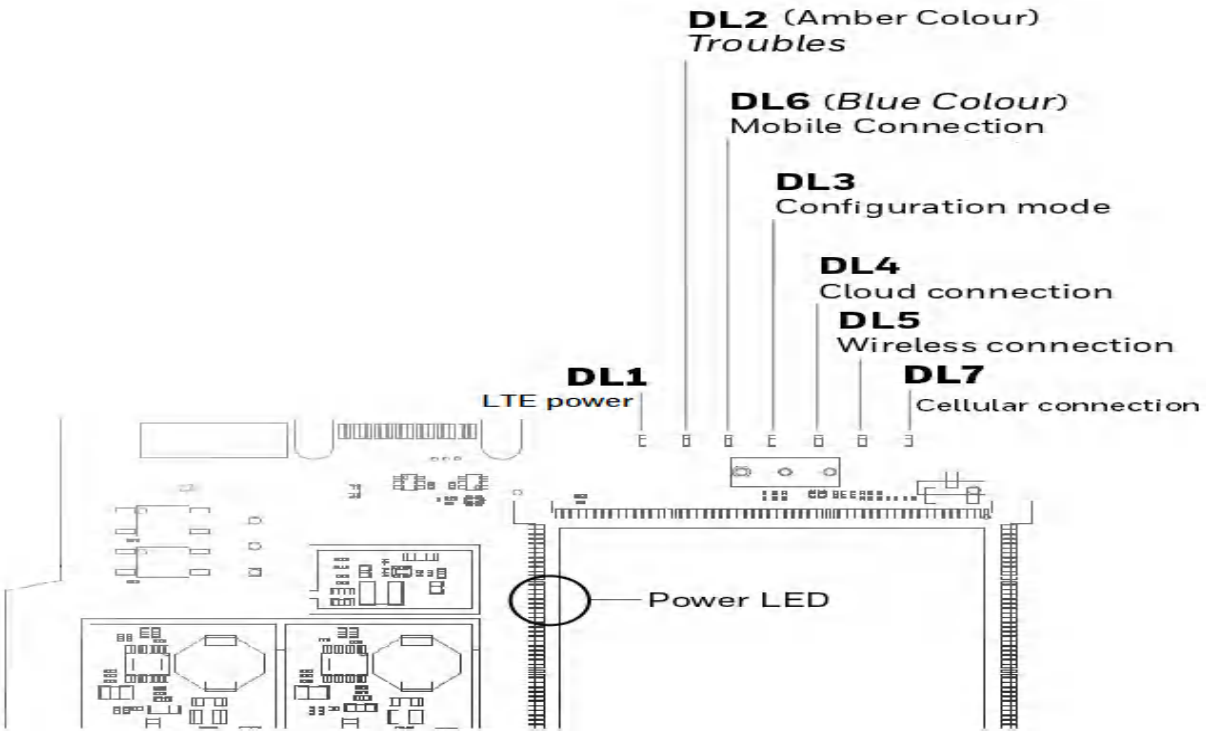
Figure 4.2: Building Details Page

NOTE: In the *Connected Life Safety Services* app, the option to enable the control functionality is available for a duration. This duration can be changed in the app. The duration is 60 minutes to 10 hours.

4.3 Verifying the Gateway Connections

While configuring the gateway, confirm that the LEDs indicate successful connections as shown in Figure 4.3.

If the LED is indicating differently, refer to Table 2.2 to know the operational status. If necessary, refer to the 5.2, "Troubleshooting" section to fix the problem or contact Honeywell Technical Support.



LED Indicator	State	Meaning
Power-Indicating LED	ON	Successful power connection
DL2	OFF	There are no issues
DL6	Flashing fast[a]	Successful mobile connection
	Flashing slow[b]	Ready for connection
	OFF	Disabled mobile connection
DL3	ON	The gateway is in the configuration mode
	Flashing fast	The gateway is getting the inventory data
	Flashing slow	The gateway is communicating with the panel
DL4	Flashing slow	The gateway is communicating with Cloud
	Flashing fast	The gateway has the Internet connectivity, but not the Cloud connectivity
DL5	Flashing slow	The gateway has wireless connection with Cloud
DL7	Flashing slow	The LTE radio is transmitting data to cellular devices via Internet.
	Flashing fast	The LTE radio is transmitting data to the Cloud.

a FLASHING FAST = 0.2 second ON and 0.2 second OFF
b FLASHING SLOW = 1 second ON and 1 second OFF

Figure 4.3: Connection Indicators

Section 5: Post-Installation Activities

The system maintenance provider is responsible for the maintenance and upkeep of the CLSS Gateway. The maintenance involves avoiding potential issues, making regular backups, restoring data when required, collecting data for troubleshooting, and other activities.

5.1 Upgrading the Gateway Firmware

Honeywell periodically releases updates and upgrades to the gateway's firmware. Using the Gateway Configuration tool you can securely make the firmware upgrade to the gateway.

5.1.1 To Perform an OTA Upgrade

5.1.2 To Manually Upgrade with a PC

1. On the gateway side, connect an Ethernet cable to the Ethernet port. The port is labeled as 2 in Figure 3.6.
2. On the configuration computer side, connect the Ethernet cable to the configuration computer's Ethernet port.
3. On the gateway board, find the S6 button.
4. To switch to the configuration mode, press and hold the S6 button for a minimum of 6 seconds, and then release it. The LED indicator DL3 turns ON and SOLID, indicating that the configuration is enabled.
5. Open the Chrome browser and enter the following IP address for the configuration tool: **https://192.168.10.190:9443/config/index.html**
6. In the **Sign In** page, enter the password.
7. In the list of settings options, click **Diagnostic**.
8. In the **GATEWAY FIRMWARE UPGRADE** section, click **Choose File**.
9. Select the firmware image file and click **Choose**.
10. Once the chosen file is uploaded, click **Upgrade**.

5.1.3 To Verify the Upgrade

1. After the restart, log into the configuration tool.
2. Click **Diagnostic**.
3. Click **About** and verify that the new version of the gateway firmware is shown.

5.1.4 LED Indications During the Upgrade

While the gateway is downloading the firmware, the Green-color LED indicator DL4 will be ON.

If an LED is indicating differently, refer Table 2.2 to determine the operational status. If necessary, refer to the 5.2, "Troubleshooting" section to fix the problem or contact Honeywell Technical Support.

5.1.5 Working with an External Gateway

The CLSS Gateway can send alarm and event data from an external gateway to that gateway-specific client. You can configure for the gateway client at once after the connections or after restarting the external gateway.

To Connect with the External Gateway

1. At the CLSS Gateway side, connect an Ethernet cable to the Ethernet port numbered 2 in Figure 3.7.
2. At the another gateway side, connect the Ethernet cable with its Ethernet port.

To Configure for the Client

1. On the CLSS Gateway board, find the S6 button.

2. To switch to the configuration mode, press the S6 button for a minimum of 6 seconds, and then release it. The LED indicator DL3 turns ON and SOLID, indicating that the configuration is enabled.
3. In the Chrome browser, enter the following URL: https://192.168.10.190:9443/config/index.html

NOTE: 192.168.10.190 is the default IP address. If it is changed at the *Authorized Client IP* field of the gateway settings in the *Gateway Configuration Tool*, use the changed IP address.

4. In the **Gateway Configuration Tool** page, enter the password.
5. In the list of settings options, find and click on the external gateway name.
6. In the gateway settings page, provide the required details of the external gateway.
7. Click **SAVE**.

5.2 Troubleshooting

Issues that may occur during the gateway's operation can be resolved on your own using the tables below or by contacting Honeywell Technical Support. The issues can be either LED-indicated issues or other issues.

5.2.1 To Troubleshoot LED-Indicated Issues

When an LED status indicates issues, refer to the below table to determine their possible fixes.

Table 5.1: LED-Indicated Issues and Possible Fixes

SOM: Power LED-Indicated Issues		
Power LED Status	**Other LEDs' Status**	**Possible Fixes**
OFF	• All other LEDs are OFF	• Ensure that the gateway board's power source is supplying the required 24V DC power.
ON	• All other LEDs are OFF	• Do the following: 1. Remove all the connected cables. 2. Wait for one minute. 3. Reconnect all the cables. 4. Ensure that the gateway board is getting its 24V DC power. If the above steps do not fix the issue, contact Honeywell Technical Support.

DL2: Trouble LED-Indicated Issues		
Trouble LED Status	**Other LEDs' Status**	**Possible Fixes**
ON and SOLID Amber	Any	• It is a critical issue. Contact Honeywell Technical Support.
Flashing Amber once per second	• **DL3** The panel LED is OFF • **DL4** The Cloud LED is flashing once per second	Check the following and correct if necessary: • The cable connections at the gateway's port and at the panel's port • The cable connecting the gateway board and the panel

DL2: Trouble LED-Indicated Issues		
Trouble LED Status	**Other LEDs' Status**	**Possible Fixes**
Flashing Amber once per second	• **DL3** The panel LED is flashing once per second • **DL4** The Cloud LED is OFF	Check the following and correct if necessary: • Internet connectivity • Eth1 cable connections at the gateway board side and at the panel side • The Eth1 cable

DL3: Panel LED-Indicated Issues		
Panel LED Status	**Other LEDs' Status**	**Possible Fixes**
OFF	• **DL2** The Trouble LED is OFF	Check the following and correct if necessary: • The cable connections at the gateway board side and at the panel side • The Eth2 cable connecting the gateway board and the panel

DL4: Cloud LED-Indicated Issues		
Cloud LED Status	**Other LEDs' Status**	**Possible Fixes**
Flashing Green every 0.25 second	• **DL3** The panel LED is flashing once per second • **DL2** The Trouble LED is OFF	• Associate the gateway board with the user account. • Ensure that the user account is active. • Ensure that the panel's date and time are correct.

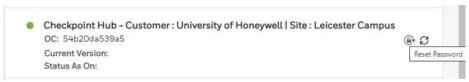
DL5: Wireless LED-Indicated Issues		
Wireless LED Status	**Other LEDs' Status**	**Possible Fixes**
OFF	• **DL3** The panel LED is flashing once per second • **DL4** The Cloud LED is OFF	• Ensure that the WLAN settings in the gateway configuration tool are correct. • Ensure that the building's IP network has Internet and Cloud connectivity.

DL6: Mobile LED-Indicated Issues		
Mobile LED Status	**Other LEDs' Status**	**Possible Fixes**
OFF	• **DL3** The panel LED is flashing once per second • **DL4** The Cloud LED is OFF	1. On the gateway board, find the S8 button. To find the S8 button, refer to Figure 2.1. 2. Press the S8 button until the LED indicator DL6 flashes fast, indicating enabled mobile connectivity.

5.2.2 To Troubleshoot Other Issues

If there are issues, which are not shown by the LEDs, refer to the below table to determine their possible fixes.

Table 5.2: Other Issues and Possible Fixes

Events-Related Issues		
Issue Description	**Possible Causes**	**Possible Fixes**
Panel events are not displayed on the *Connected Life Safety Services* app	• The gateway is dissociated	• Associate the gateway board with the user account.
	• The user account is not associated with the gateway	• Ensure that the user account is active.
	• The panel's date and time are incorrect	• Ensure that the panel's date and time are correct.
Forgot the *Gateway Configuration Tool*'s password	[Not Applicable]	• Reset to the default password. To reset to the default password: 1. Ensure that the gateway is connected with the CLSS Cloud. 2. Log into the CLSS Cloud. 3. In the **Settings** section, click **Gateway Management**. 4. Find the gateway whose configuration tool password needs to be reset. 5. Click on the reset password icon.  6. Use the default password to login.

Appendix A: Gateway Operating Conditions

Table B.1: Operational Requirements

Power Requirements	
Nominal voltage range	Consumes 12V to 40V DC from the panel or from an external power source.
Current	The power requirement varies with the number of interfaces used. Typical current consumption: 0.1A at 24V Peak load: 0.25A at 24V
Room Conditions	
Temperature	-10°C to 60°C (14°F to 140°F)
Relative humidity	1% to 94% Non-condensing

Appendix B: Modulations and Power Used

Radio devices operating on the below frequencies should not be installed next to each other.

Wireless Transmitter Specifications

VBAT = 3.6V

Ambient temperature = 25° C

Output power @module RF antenna port

Target Power that Meets Spectrum Mask and EVM Compliance

Table C.1: Wireless Power Specifications

2.4 GH z TX Power Specifications							
IEEE 802.11	Mod	Rate	BW	Channel	Power	Units	Tol. (dB)
11b	CCK, DSSS	1 to 11 Mbps	20 MHz	1-11	16	dBM	+/-2.0
11g	OFDM	6 to 54 Mbps	20 MHz	1-11	17	dBM	+/-2.0
11n	OFDM	MCS 0-7	20 MHz	1-11	18	dBM	+/-2.0
5 GH z TX Power Specifications							
Std	Mod	Rate	BW	Channel	Power	Units	Tol. (dB)
11a	OFDM	6-54 Mbps	20 MHz	36-48 52-64 100-144 149-165	15	dBM	+/-2.0
11n	OFDM	MCS 0-7	20 MHz	36-48 52-64 100-144 149-165	16	dBM	+/-2.0

Appendix C: Cellular Modules

The cellular modules offer value-added services for mobile devices connected with the CLSS Gateway.

NOTE: Module integration details in the host manufacturer's technical documentation are taken into account for the determination of the delta test scope.

Figure C.1: A Cellular Module

To know about installing this device onto the gateway, refer to "Cellular Modules" on page 14.

C.1 Operation

The cellular modules are plug-and-play devices, which receive power from the CLSS Gateway and provide a cellular communication path.

C.2 Supported Modules

Table C.1: Modules and Frequencies

Brand Name	Verizon Cellular Module	ATT Cellular Module	EU - Cellular Module
Module Name	CCM-VZ-HON	CCM-ATT-HON	CCM-EU
Model	LE910-SV1	LE91081-NA	LE910-EU1
Supported Regions	North America	North America	Europe
Frequency Details			
4G bands (MHz)	• B2 (1900) • B4 (AWS1700) • B13 (700)	• B2 (1900) • B4 (AWS1700) • B5 (850) • B12/B13 (700)	• B1 (2100) • B3 (1800) • B7 (2600) • B8 (900) • B20 (800)
3G bands (MHz)	-	• B2 (1900) • B5 (850)	-
2G bands (MHz)	-	-	B3 (1800) B8 (900)

C.3 Approvals

Supported cellular module details are below:

Model: CCM-ATT-HON

Region: USA

Contains FCC ID: RI7LE910NAV2

Contains IC: 5131A-LE910NAV2

Model: CCM-VZ-HON

Region: USA

Contains FCC ID: RI7LE910SVV2

Contains IC: 5131A-LE910SVV2

Model: CCM-EU

Region: Europe

NOTE: CE RED just completed. Certification number will be available soon.

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