GO Facility Monitoring User Manual

Cargo Monitoring Solutions

EMERSON™

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Setting Up

This guide will walk you through the process of setting up your GO Facility Gateways and Sensors. For further assistance, please contact: CargoTechnicalServices@Emerson.com.

Tools for hardware placement

Permanent placement

- Wire cutters of scissors
- Phillips screwdriver
- Flathead screwdriver
- Cordless drill
- Drill bits (surface dependent)
- Electrical tape
- Pliers
- Step ladder

Temporary placement

- Wire cutters or scissors
- Electrical tape
- Pliers
- Step ladder

Fasteners for hardware placement

Permanent placement

- Self-tapping screws
- Concrete anchors
- Plastic zip ties

Temporary placement

- Velcro tape
- Double sided tape
- Plastic zip ties

General Wireless Connectivity Information

The GO Facility Sensors use a sub-1GHZ frequency to communicate with the Gateway(s). While this frequency often allows for longer range communication and ability to reach difficult areas, there are several factors that can improve or deteriorate signal quality.

To ensure a reliable connection to your gateway(s) it is recommended to use a maximum distance of 300ft (91m) line of sight or 100ft (30m) obstructed. Here are some factors that may negatively impact the connectivity:

- Air moisture levels. Lower moisture is better.
- Antenna orientation of Gateway (RF and Cellular)
- Placement of sensor
- Building materials used in the walls and ceilings
- Objects placed in front of sensors and gateways such as water rich products such as melon, or sheets of metal, etc.

Understanding the GO Facility Temp Sensor

What's in the box:

- Sensor
- NIST certificate and quick-start instruction sheet
- Three self-tapping screws
- Mount plate (attached)

Mount Plate (detached)

Mount Plate (attached)

Sensor overview:

The activate button has two main functions:

1. Initial activation: Press (firmly) and hold for 2 seconds to activate. The status LED light will flash to indicate successful activation

2. Post activation – Status check: Press (firmly) and hold for 2 seconds for status check.
   - If status LED light flashes green, the sensor is activated.
   - If status LED light flashes orange, the sensor has recently uploaded data to a gateway

3. Unlock from gateway: Press (firmly) and hold for 5 seconds to unlock.
   - The status LED lights will flash, and the sensor will begin looking for a new gateway. This feature may be helpful if there are multiple gateways within vicinity of the sensor and you wish to establish a connection with a different gateway.

Understanding the GO Facility Gateway

Inventory list:

- Gateway
- 2x cellular paddle antennas
- 1x RF antenna
- 100-240VAC Power supply
- Extension power cable

Installation hardware:

- Cable ties
- Cable tie mounts
- Mounting screws
- Cable Clamps

Installation hardware:

1. Attach the 2 cellular paddle antennas and the single RF reader antenna (as applicable)
2. Temporarily mount / place on wall 6-7 ft. up using cable ties and cable tie mounts (or other preferable method. Although not ideal for long-term installation, 3M double sided tape can be used for a shorter period of time while connectivity is established. Just ensure gateway is not susceptible to coming loose and falling down.
3. Plug power supply into a non-switched power outlet
4. Using the portal, verify connection to sensors that were placed in designated areas.
5. If connection to sensors is established and temperature data is reported on a regular basic (5-10 min check in interval) you may permanently mount the gateway using the mounting screws.

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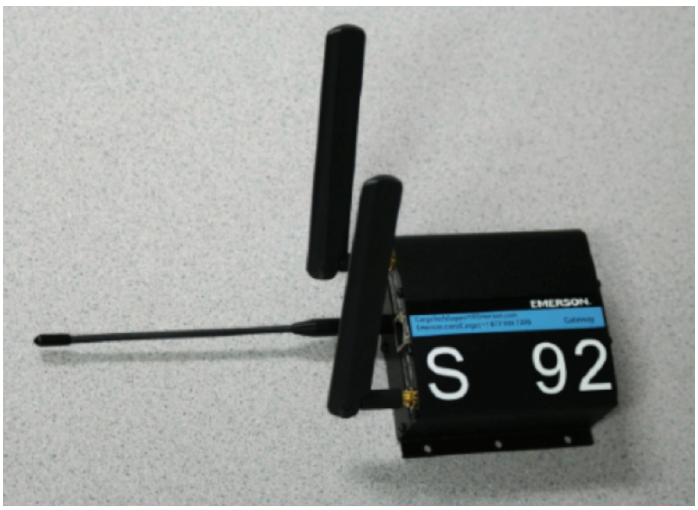
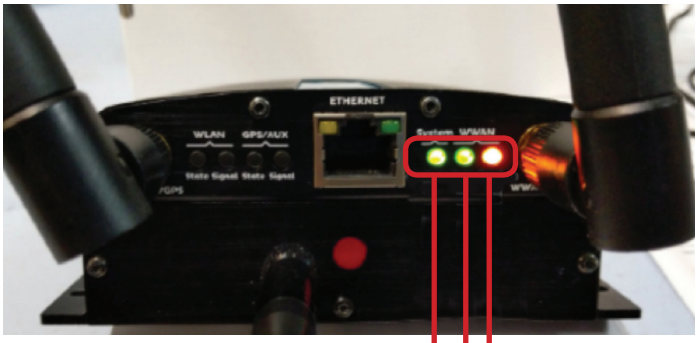
Cellular connectivity:

1. Angle cellular antennas away from the wall ~20-40°
2. After power is switched on, verify the LED are lit correctly.
   a. Left LED is a solid GREEN indicating system is operational
   b. Middle LED is solid GREEN indicates connection to a cellular carrier
   c. Right LED is solid GREEN or AMBER indicates cellular connection strength.
3. If LED lights come on and do not turn green for a period of time, connect technical support for further help.

In some instances, Gateway and/or Sensors may have to be moved around until a connection is established. See floor plan illustration page for placement examples.





Green Light

Green or Orange Light
Red Light - No Reception

Gateway and Sensor Placement Within a Facility

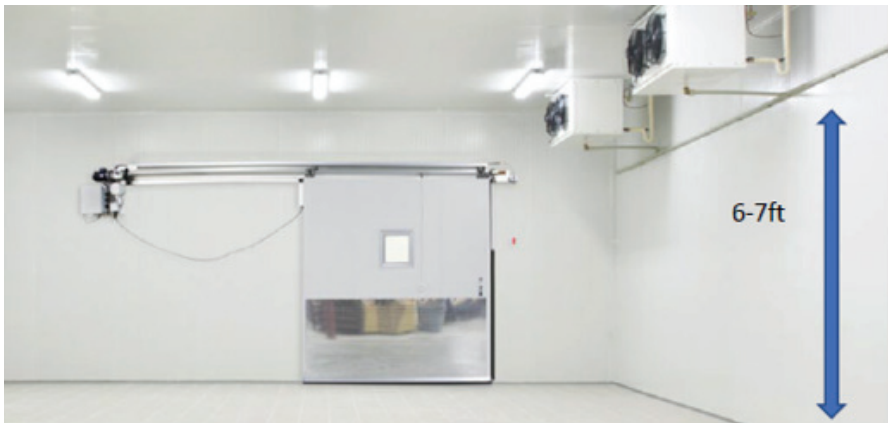
IMPORTANT:

Prior to permanently affixing your temperature sensor(s) make sure connectivity between gateway and sensor is established. This can be done by placing the sensor temporarily in the location and ensure that it has a connection with the gateway using the portal:
https://GOFacility.Climate.Emerson.com

It is recommended that all sensors and gateways are added to your user portal (https://GOFacility.Climate.Emerson.com) prior to activating and powering on equipment. See the User Portal section of this manual for additional information on adding your equipment to the portal.

General guidelines:

- It is recommended that gateways are placed approximately 6-7 feet up on the wall
- It is recommended that sensors are placed approximately 6-7 feet up on the wall



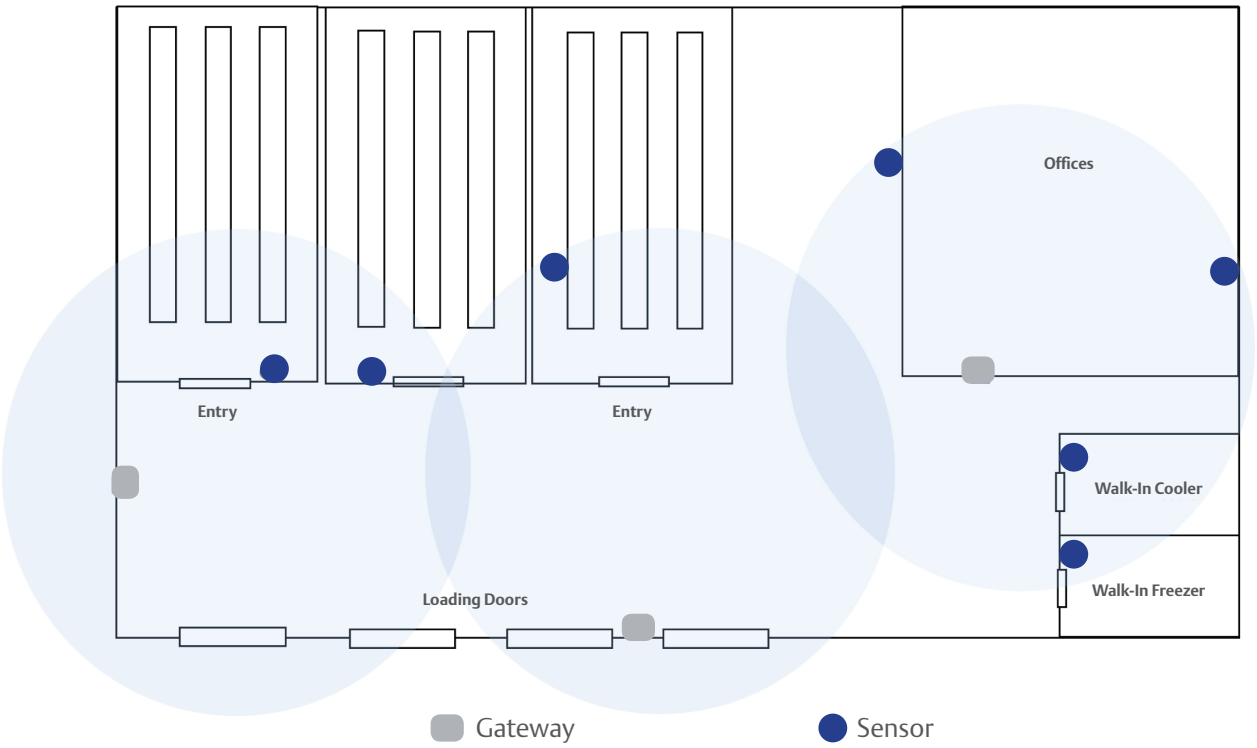
Example of gateway / sensor placement area

Example illustrating gateway and antenna angles

- It is recommended that sensors are placed within the ranges specified in the general connectivity section. Depending on building materials and other possible obstructions, sensors and gateways may have to be moved closer to each other. See example floor plan for illustration using a 60ft obstructed view.
- Avoid installing sensors directly on metal racks
- Avoid placing large objects in front of gateways and sensors. Especially objects containing large percentages of water or metal i.e., pallets of melon, shipping containers, etc., as these may interfere with the RF signal.

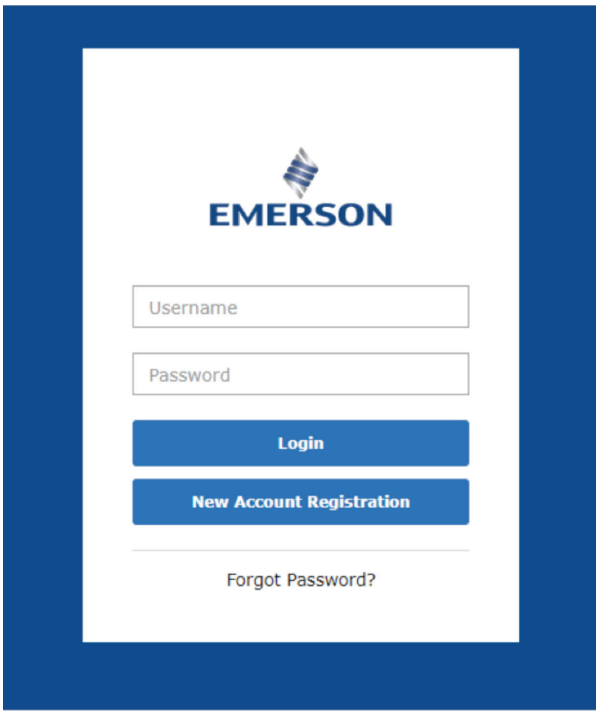
The floor plan below illustrates an example install where multiple gateways and sensors are placed. Gateway antennas form a radius around them as they search for GO Facility Monitoring Sensors. Obstructions between gateways and sensors can cause the radius to be adversely impacted which is why it is important to move sensors and gateways around until a strong connection has been established.

Example Floorplan with Sensor and Gateway placement - Warehouse



User Portal

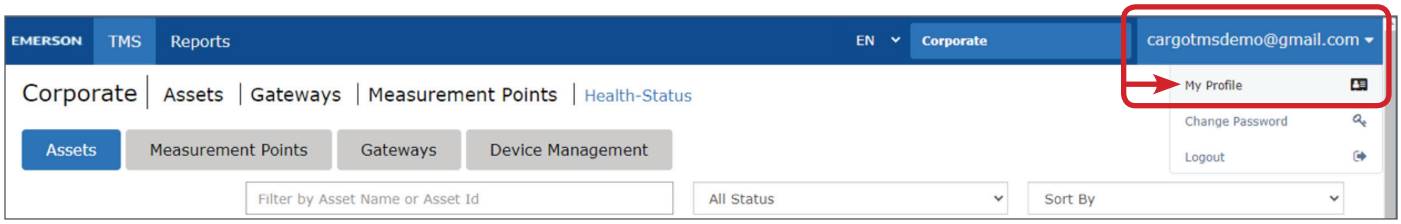
To log in to your portal, visit https://emerson.gofacility.com and use your credentials. Our technical services team will create your first login credentials. Contact CargoTechnicalServices@emerson.com for assistance should you need it.



Creating a Profile

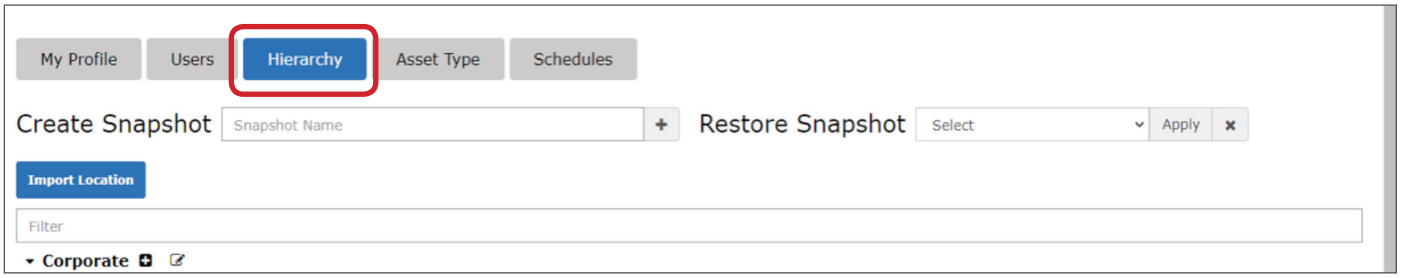
Before you can add gateways and sensors to your portal, you must first create your company structure and hierarchy. For assistance, please contact CargoTechnicalServices@emerson.com and they can help create and set up your preferred structure.

To begin creating your company structure, click on your account name in the top right corner (as illustrated by the image below) and select “My Profile.”



Once you have selected “My Profile,” you’ll have access to a range of options from modifying your own profile to creating alert schedules for your locations.

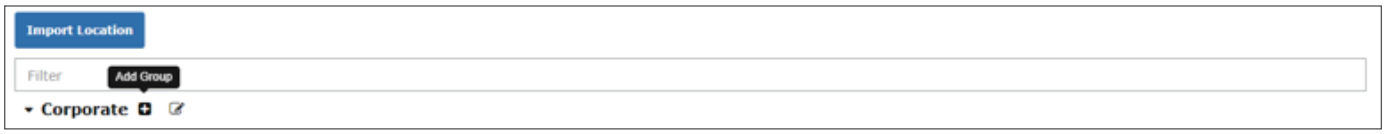
To proceed with creating your company hierarchy, select the “Hierarchy” button.



Once you have selected the Hierarchy button, you may “edit” the corporate name to match your organizations name.

To do this select the “Edit” icon next to the “Corporate” name.

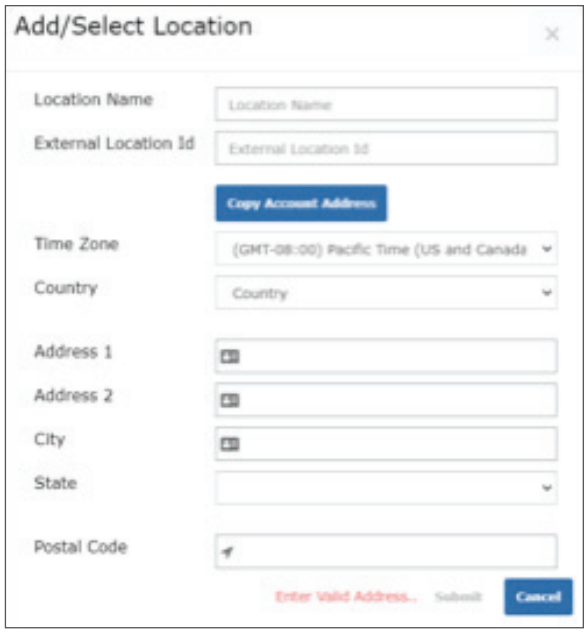
After your have edited the name of your organization, you can “Add Group” to create a lower tier within your company. A group can represent a subdivision of your company, a state, a country, or a specific location. You have the freedom to create an set up your system in a way that meets your specific needs.



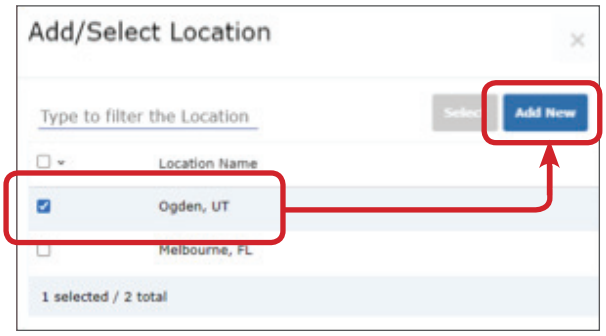
Once you have clicked “Add Group,” you’ll be asked to provide a Name/Location of your Group.

In the example below, we have added “Boise QA Test Site” as our sub-group. Next it is time to add a location. To do this, simply select “Add Location” to proceed.

Once “Add Location” is selected, you may now enter all the relevant information. Ensure all fields are added. Note: External Location Id is an optional field.

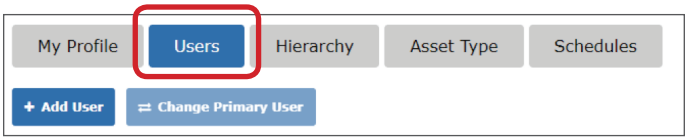


Once you have created the location of choice, a list of options will be provided. In the illustration, a couple of locations were added for illustrative purposes. Select the check box for the location you added and then click “Select.”

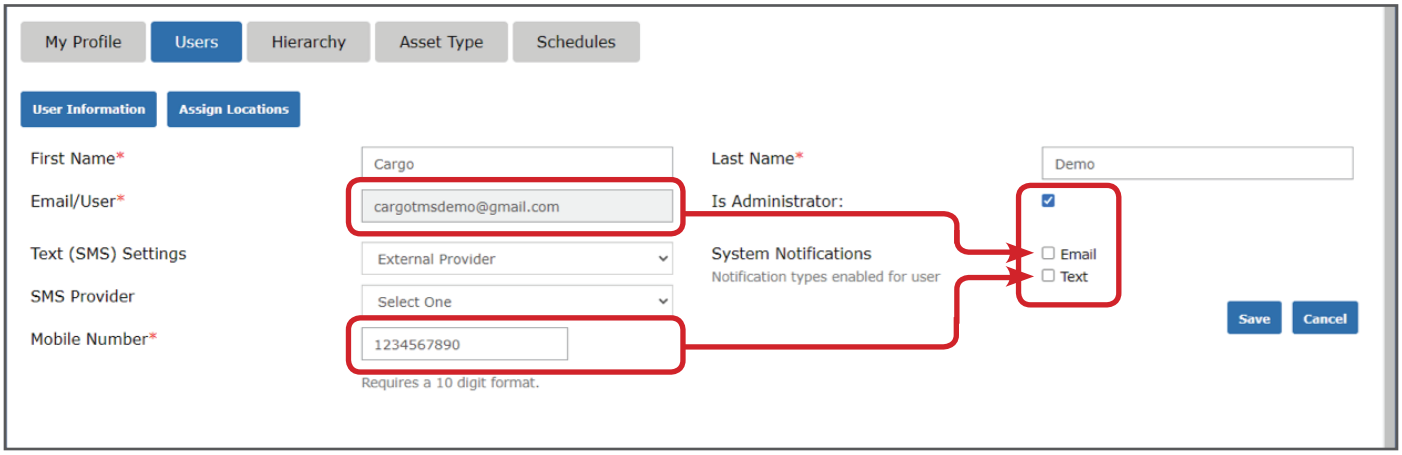


If you wish to add additional users to your account, you may go back to “My Profile” to add.

Select “Users” from the options as illustrated below.

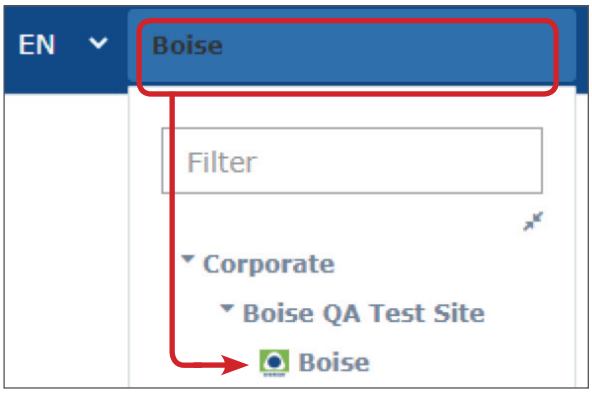


Once selecting “Users,” you will be presented with several fields. If you wish user to be an administrator and/or receive email and text alerts, you must select and enter contact information accordingly.

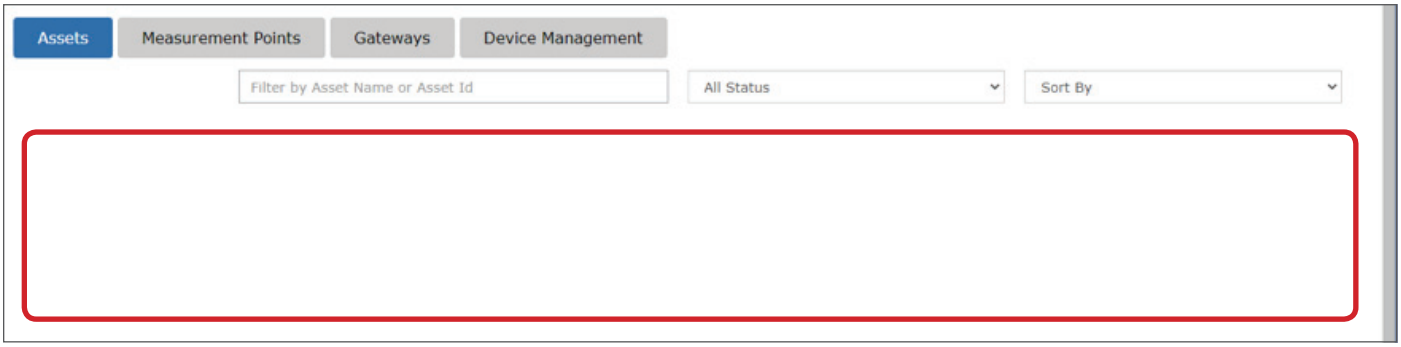


Adding Gateways

To add Assets, Measurement Points, and Gateways to your location, first select the location from the drop-down list at the top right corner of the portal.

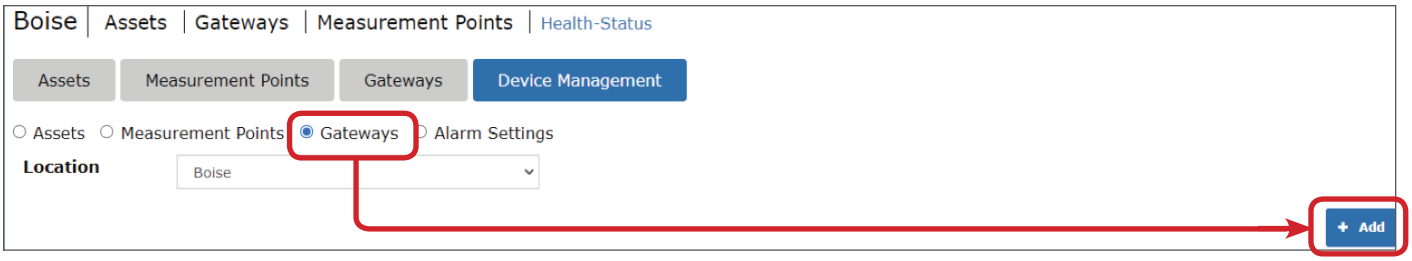


Click the top left icon “GO Facility” or the Emerson logo, to land at the Assets page. At this point, the asset page will be empty.

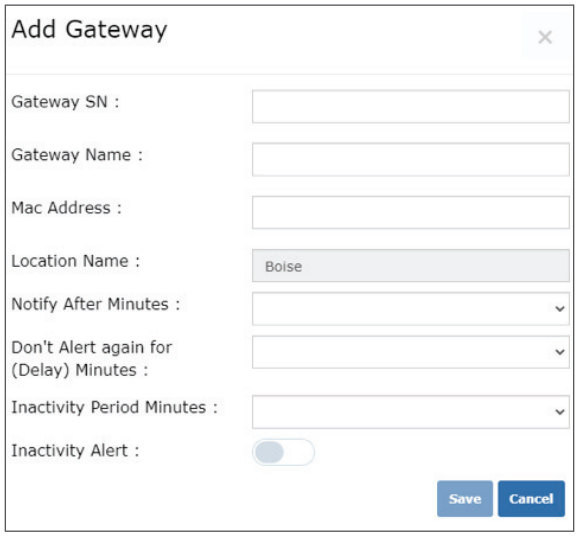


Important: Prior to adding sensors and gateways, it is important to remember that the hardware added to your site should correspond with their physical location. As such, it’s important to ensure the correct location is selected prior to adding this information.

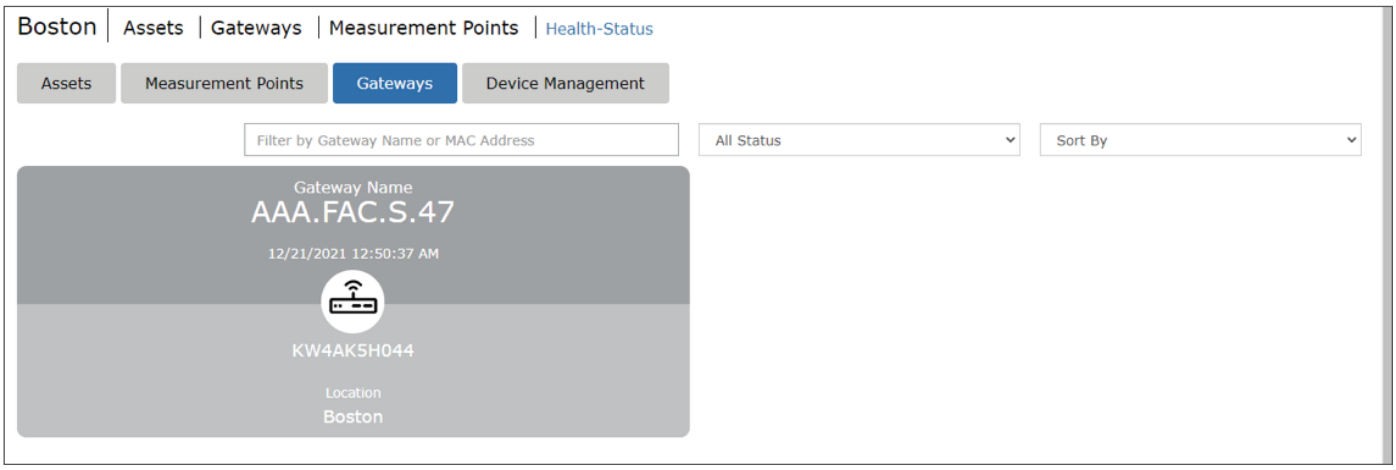
To add one or multiple Gateways your location, select “Device Management,” then select the “Gateways” radio button. Once selected, click the “Add” button.



You may now enter your Gateway information. The most important field is the Gateway Serial Number. This will allow the Gateway to be validated and added. It is recommended to enter the “Gateway Name” based on the location and area of the gateway to make finding and retrieval easier.

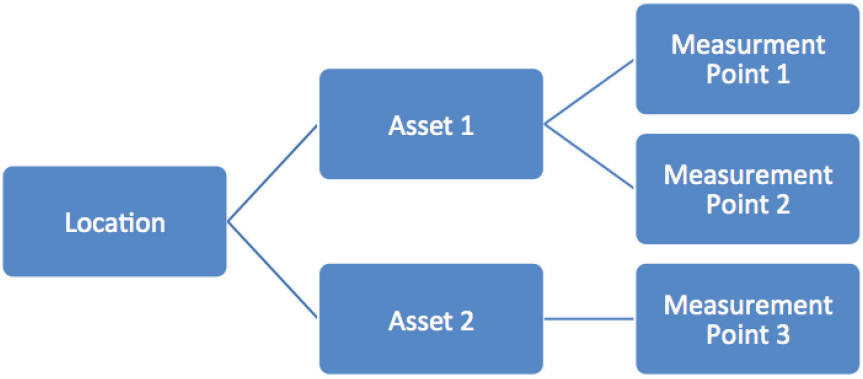


Once your Gateway(s) have been successfully added, you may create assets to be monitored.



Adding Locations, Assets and Measurement Points

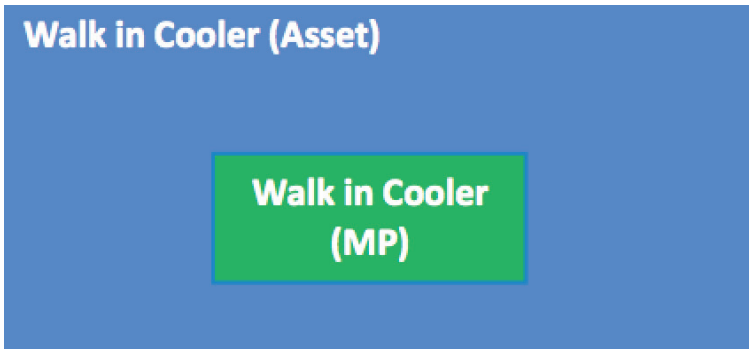
Note: The logical structure of Locations, Assets and Measurement points are as follows:



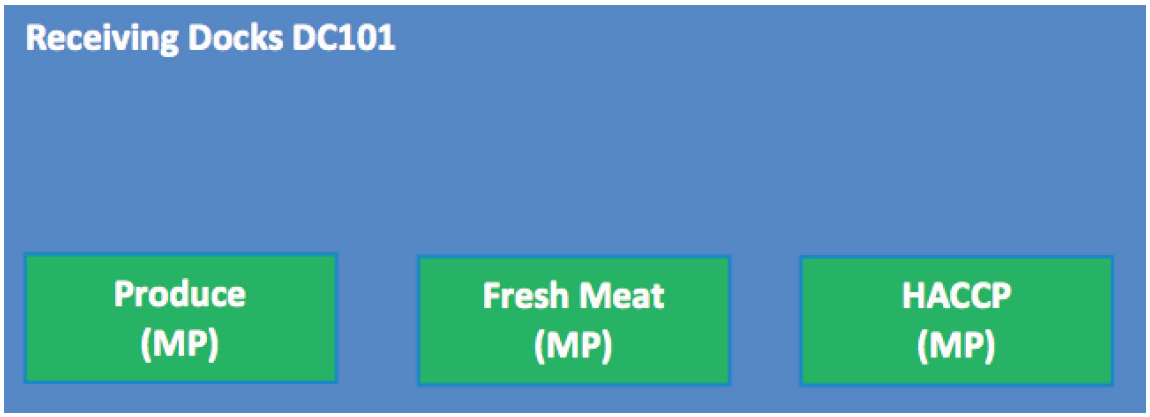
The structure allows for a wide range of different configurations, from a simple 1:1 (one asset, one measurement point) to 1:n (one asset, multiple measurement points).

Measurement Points can be thought of as the area within an asset where conditions are being measured.

For illustrative purposes, imagine a Walk-in cooler with one temperature sensor. In this configuration, the asset would be the Walk-in cooler and the Measurement Point (MP) could be named the same thing.



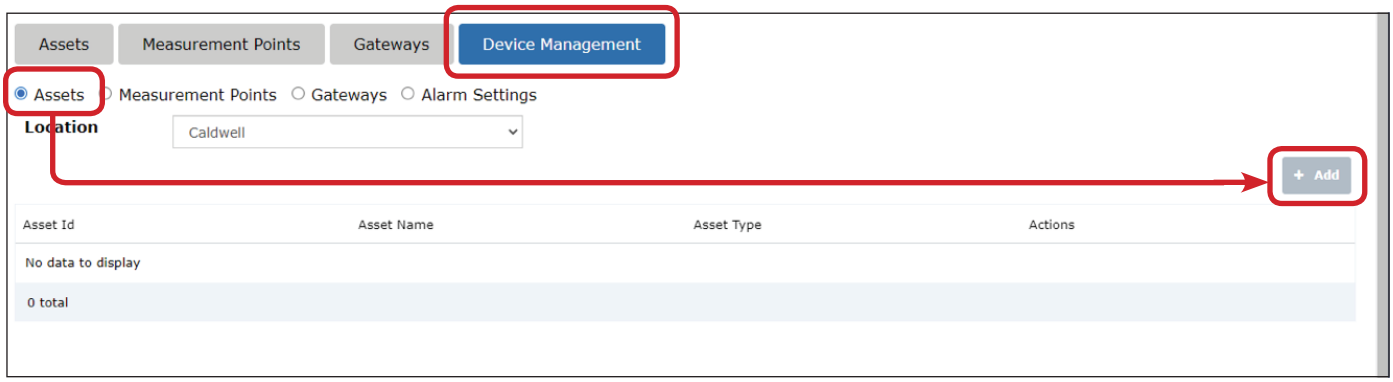
In a larger area, you may wish to assign multiple measurement points to one asset. Imagine a receiving dock with multiple areas and mixed commodities. The configuration may look as follows:



Ultimately, you have full control over how you would like to see and monitor your assets.

Ensure you are in the right location before adding a new asset or measurement point.
Select “Device Management” and then select the “Assets” radio button.

Select “Add” to create a new asset.

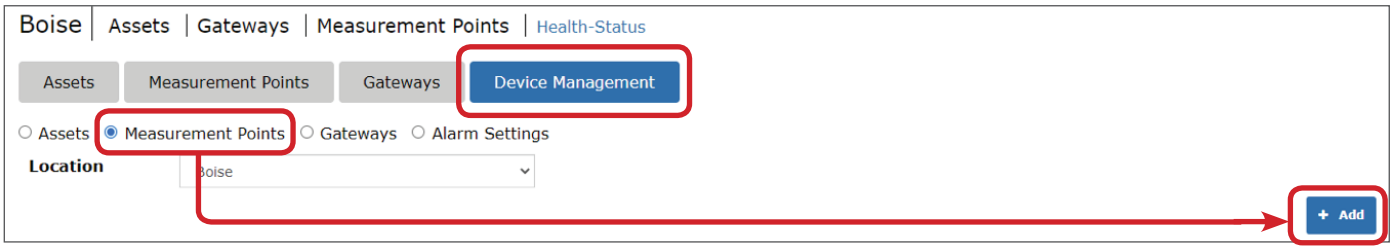


Name your asset and provide an Asset Id. The Asset Id can be used to filter or organize assets in the Asset view list later.

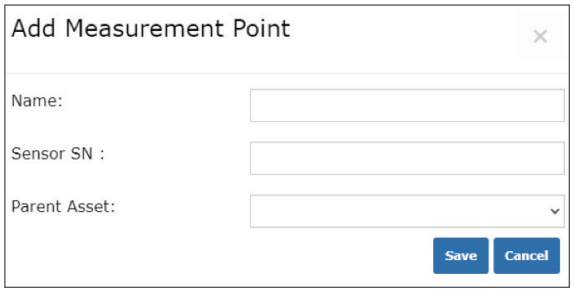
When creating your asset, you'll be asked to provide the "Asset Type" this simply pre-defines a set of upper and lower limits for alert parameters to all Measurement Points assigned to the asset later.

To add a Measurement Point, simply to back to "Device Management" and select the "Measurement Point" radio button, then select "Add."

Important: Before Measurement Points can be added, Assets must first be created.

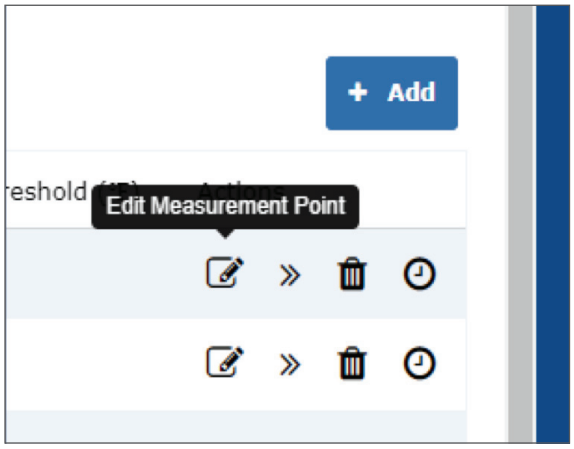


Name your measurement point and assign the serial number of the GO Facility Sensor you wish to use. Next, select the "Parent Asset" and click "Save."



Editing Measurement Points

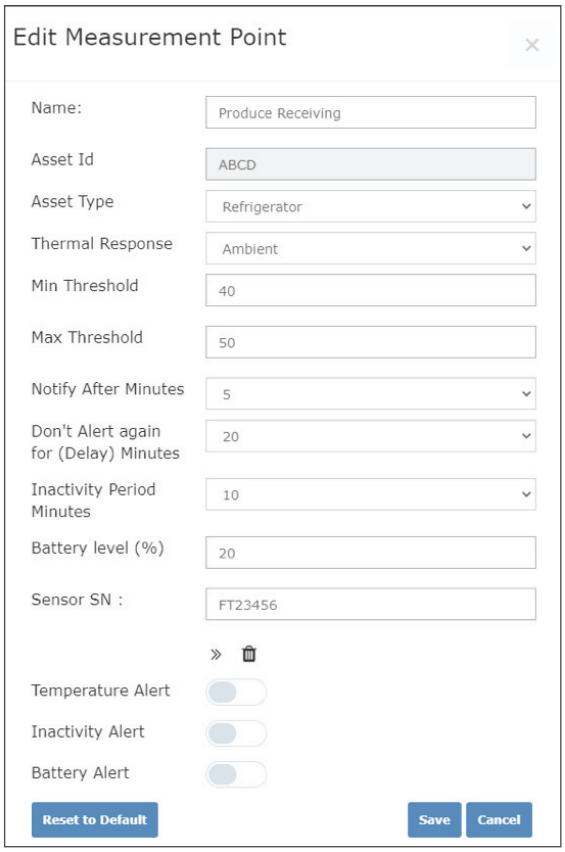
Once you have created the Measurement Point, you may edit its parameters to meet measurement needs of the parent Asset or Measurement Point (area).



Simply select the “Edit Measurement Point” option that appears on the right-hand side of your newly created Measurement Point.

Once selected, you can set up your specific requirements and alert thresholds.

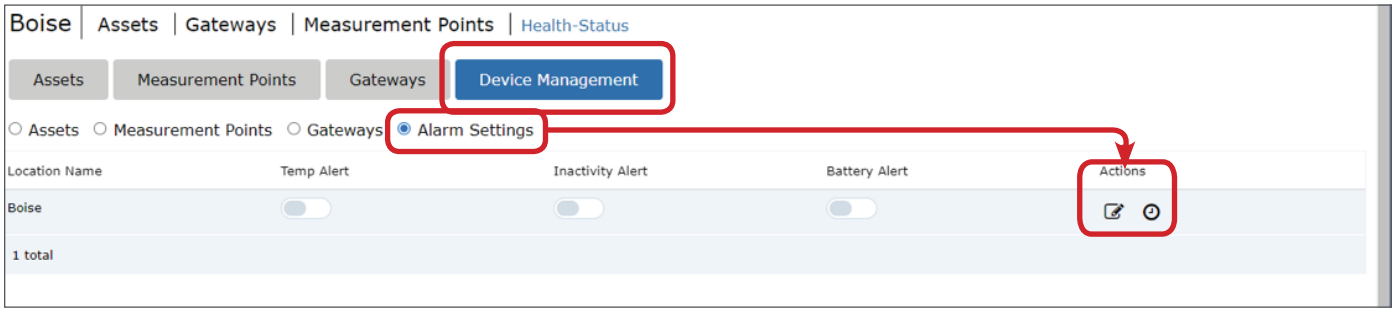
If a sensor needs to be replaced, you can simply remove the old senor and assign a new one to the measurement point. Your historical data will continue from that point on.



Enable Alerts/Schedules

Before you can enable alerts for a Measurement Point, you need to toggle which alerts you wish to be able to set for your location. To do this, simply visit “Device Management” and select “Alarm Settings.”

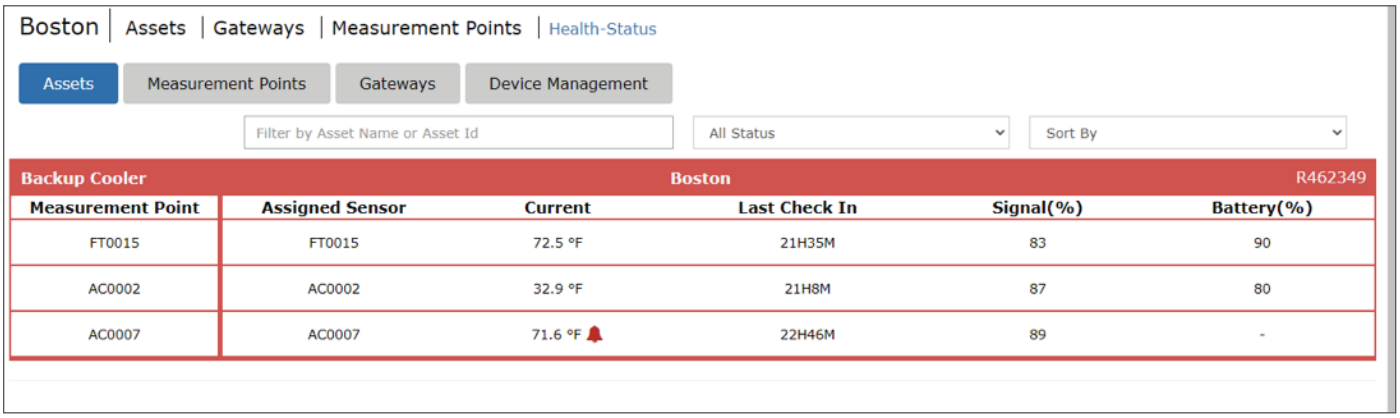
Here you can toggle alerts on/off and if your location only needs alerts during specific days, you can select schedules.



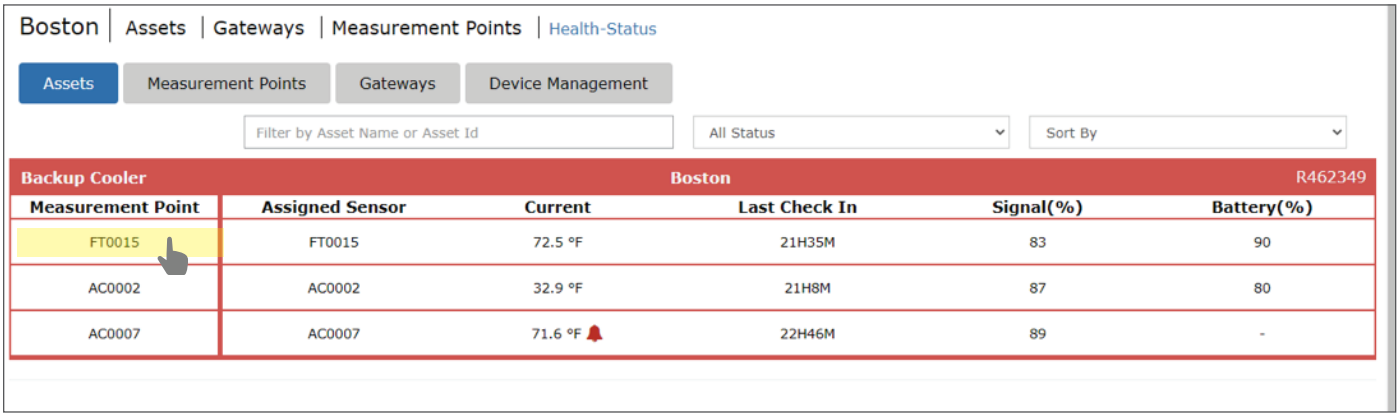
To create a schedule, visit “My Profile” and select “Schedules.”

Reviewing Data

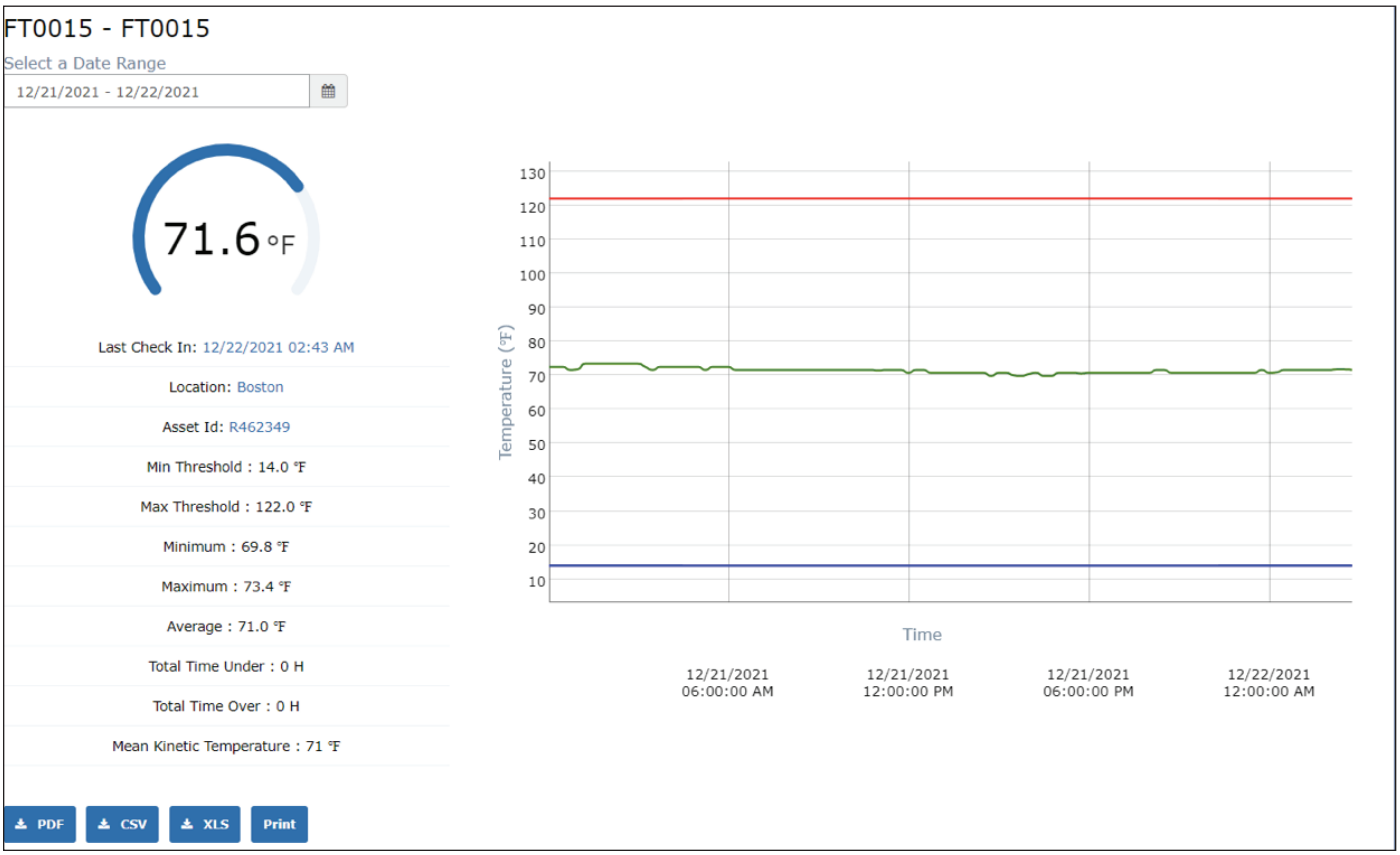
Once you have added your Gateways, created your assets, measurement points, and assigned sensors, and your Gateways and sensors are activated and powered on, you will start seeing data populate in the “Asset” overview section for the selected location.



To see specific information about historical performance of a specific Measurement Point, simply select it in the list.



A new page will load where you can see a temperature graph over a selected date range along with summary statistics.



Regulatory Approvals

Model: EMFM1 FCC ID: WPEEMFM1 IC: 8031A-EMFM1

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment 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 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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This equipment complies with FCC RF Exposure requirements and should be installed and operated with a minimum distance of 20 cm between the radiator and any part of the human body.
This device complies with Industry Canada licence-exempt RSS standard(s). 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.

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.
This equipment complies with the ICES RF 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 any part of the human body.

Cet équipement est conforme aux limites d'exposition aux radiations ICES définies pour un environnement non contrôlé . Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et une partie de votre corps.

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Technical Support

Technical Support is available 24 hours a day, 7 days a week.
We're with you every step of the way.

Toll Free: +1-877-998-7299

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CargoSupport@Emerson.com

Live Chat

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