

VergeSense Installation

VS-L410 overview

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V1.1 July 2025 (G400C G400NC)

Agenda

- 01 Introduction
- 02 Hardware
- 03 Installer tool
- 04 Process Overview
- 05 Installation Steps
- 06 Team Structure and Deployment Timeline
- 07 Q&A

Hardware

What is being installed?

Infinity Area Sensors

Size:

4.0" (101mm) (L)

3.9" (98 mm) (W)

1.4" (36 mm) (H)



What is being installed?

G400 Gateway (Cellular)

Size:

1.65" (42mm) (D)

4.05" (103 mm) (W)

12.80" (325 mm) (H)



G400 Gateway (Non-Cellular)

Size:

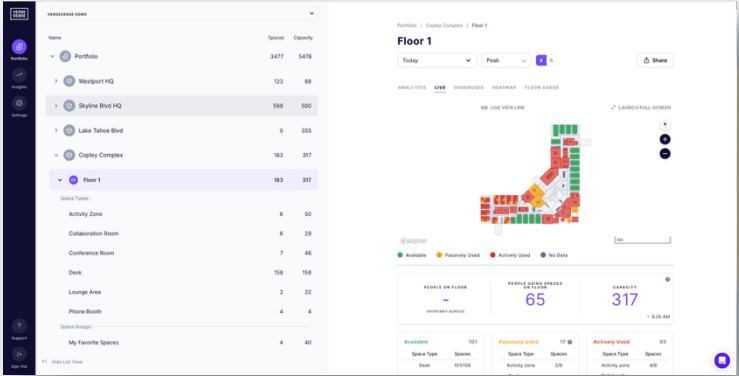
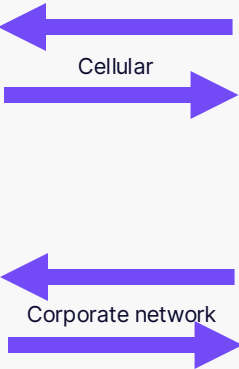
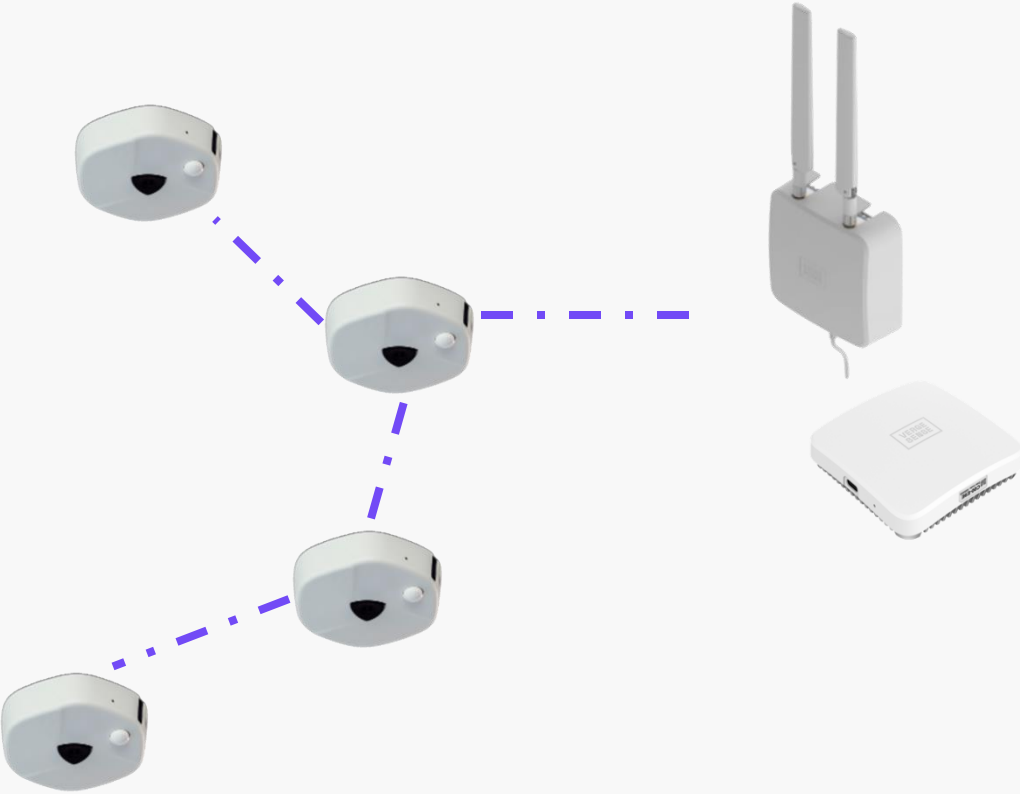
3.8" (98mm) (L)

3.8" 98 mm (W)

1.1" (28 mm) (H)



How it connects

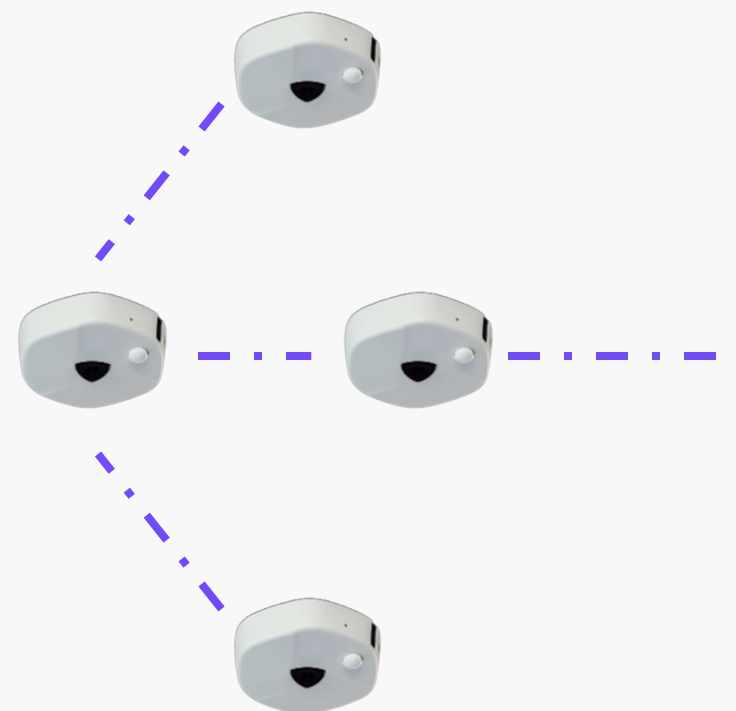


How it connects

Infinity area sensors generate their own wireless network

The mesh network configures itself up to make the deployment of devices simple and ensures the most stable wireless connectivity.

The network will not be visible to WiFi or Bluetooth enabled devices.



Installer tool

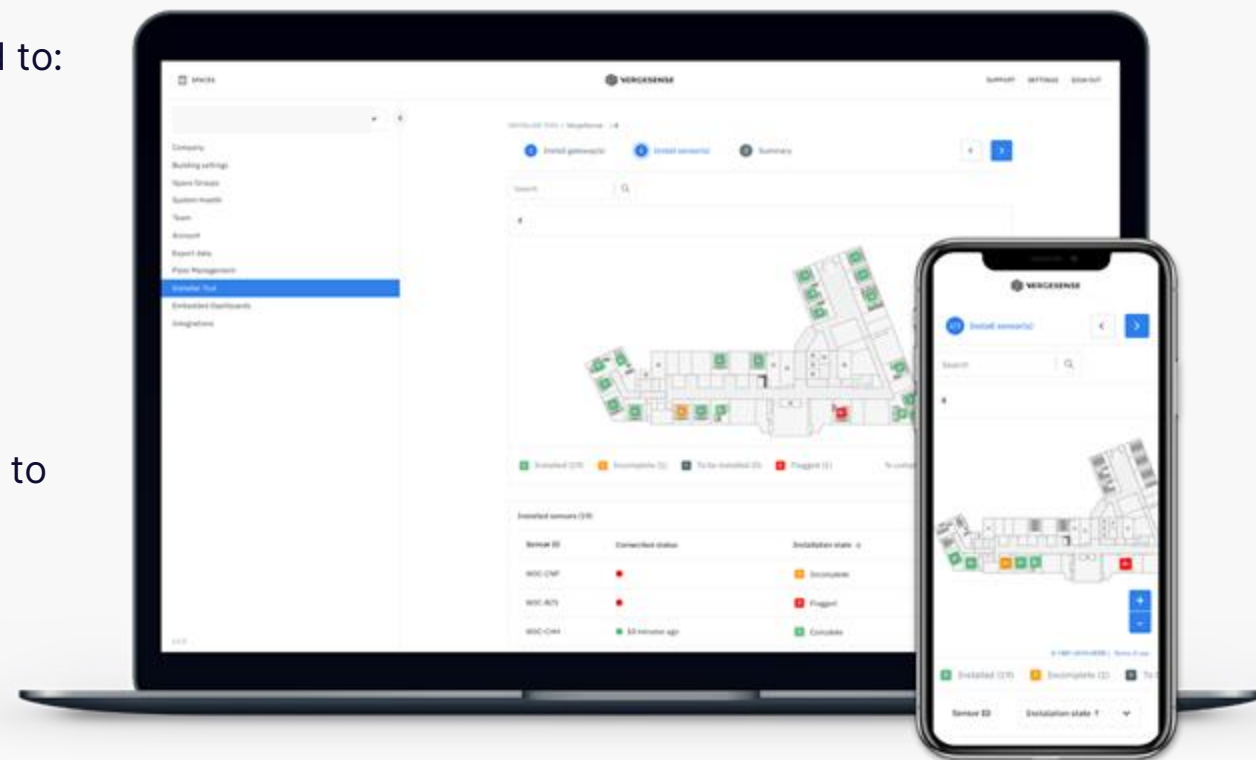
Installer tool

The VergeSense Installer Tool application can be used to:

- Advises where the hardware is to be installed
- Check gateway and sensor connectivity
- Confirm sensor coverage
- Track installation progress

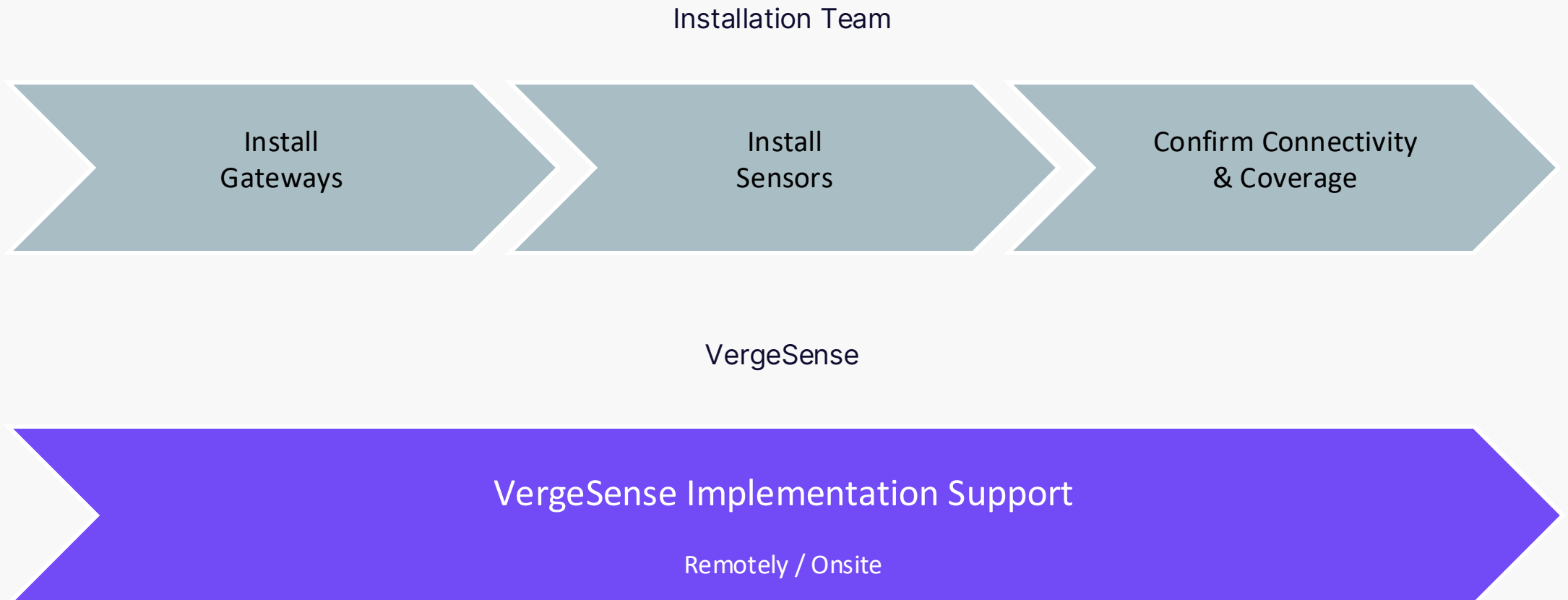
VergeSense will grant access to the installer tool prior to start of installation.

Access the web based application at
cloud.vergesense.com



Process Overview

Installation Process Overview



Installation Process Overview

VergeSense (Small installations)

VergeSense will review & flag sensors

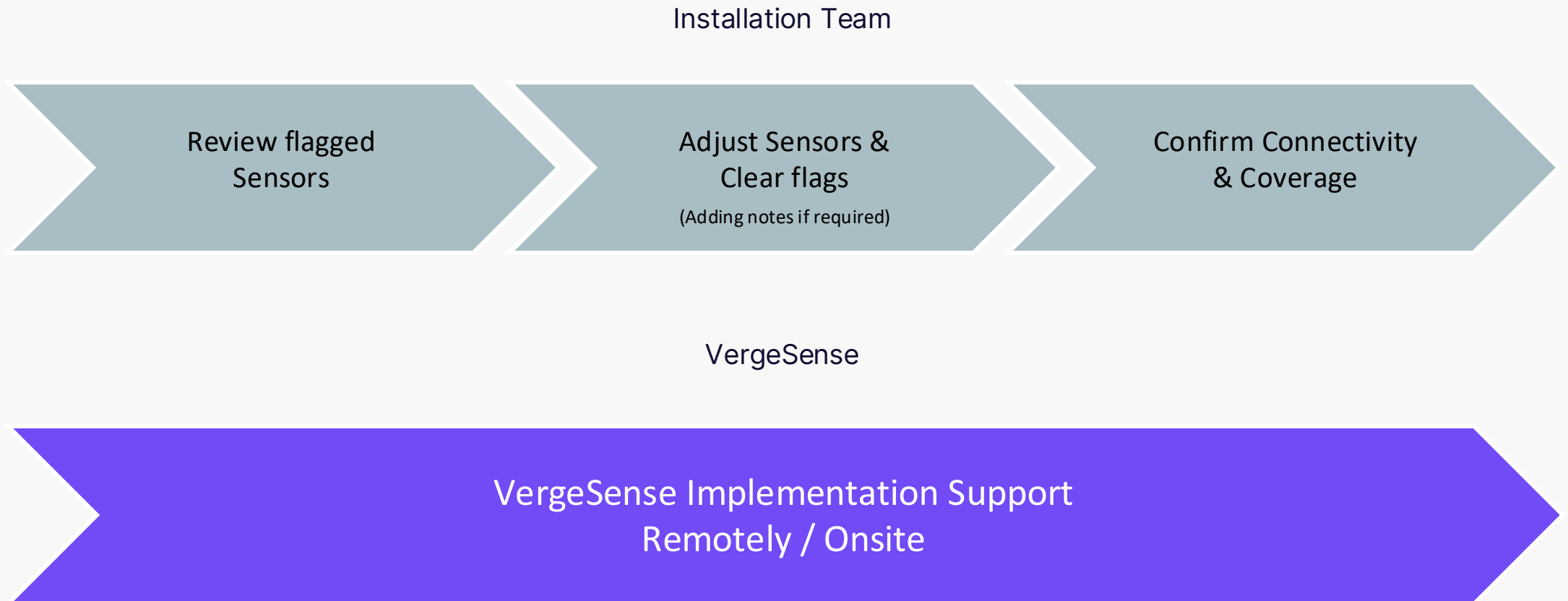
Reporting back to the installation team the **SAME DAY** for adjustment

VergeSense (Larger installations)

VergeSense will review & flag sensors

Reporting back to the installation team a report for *Go Back* remedial works

Installation Process Overview



Installation order - #1



Physical installation

- **All** gateways need to be installed for floor

Use VergeSense Installer tool

- Enter ID of gateway
- Check Connectivity

Installation order - #2



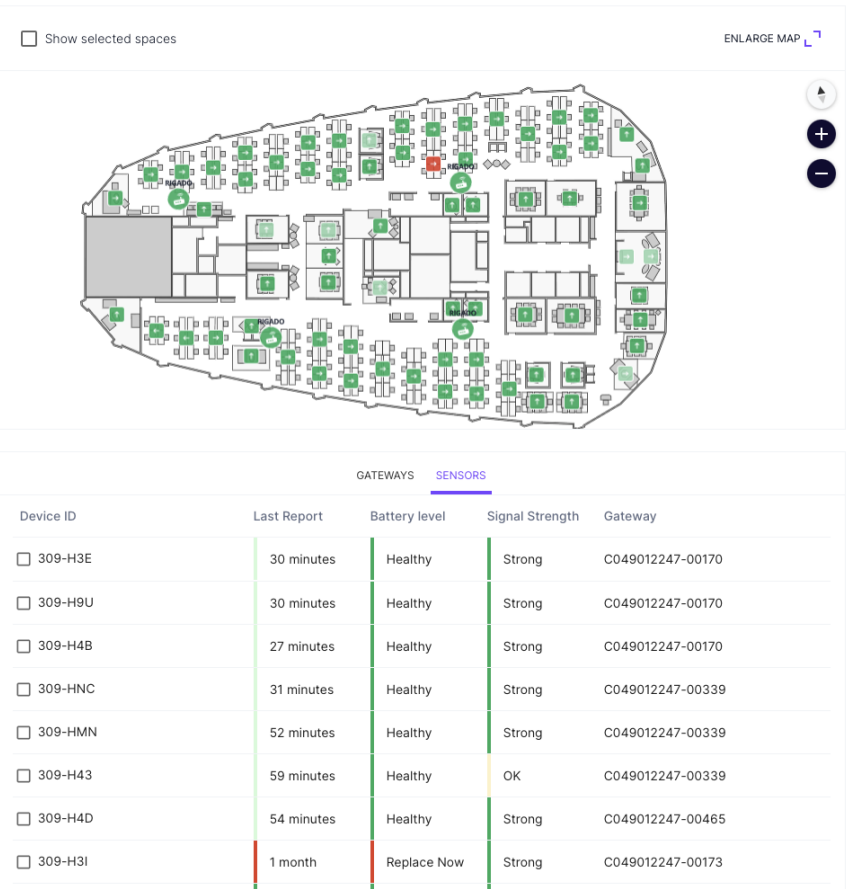
Physical installation of sensors

- Locate sensor on map
- Match orientation to map
- Power on

Use VergeSense Installer tool to:

- Enter ID of sensor
- Check Connectivity
- Check and accept coverage
- Publish sensor

Installation order - #3



Check connectivity

- Navigate to the System Health Page
- Review status of all sensors/gateways
- Troubleshoot if needed

Installation Steps

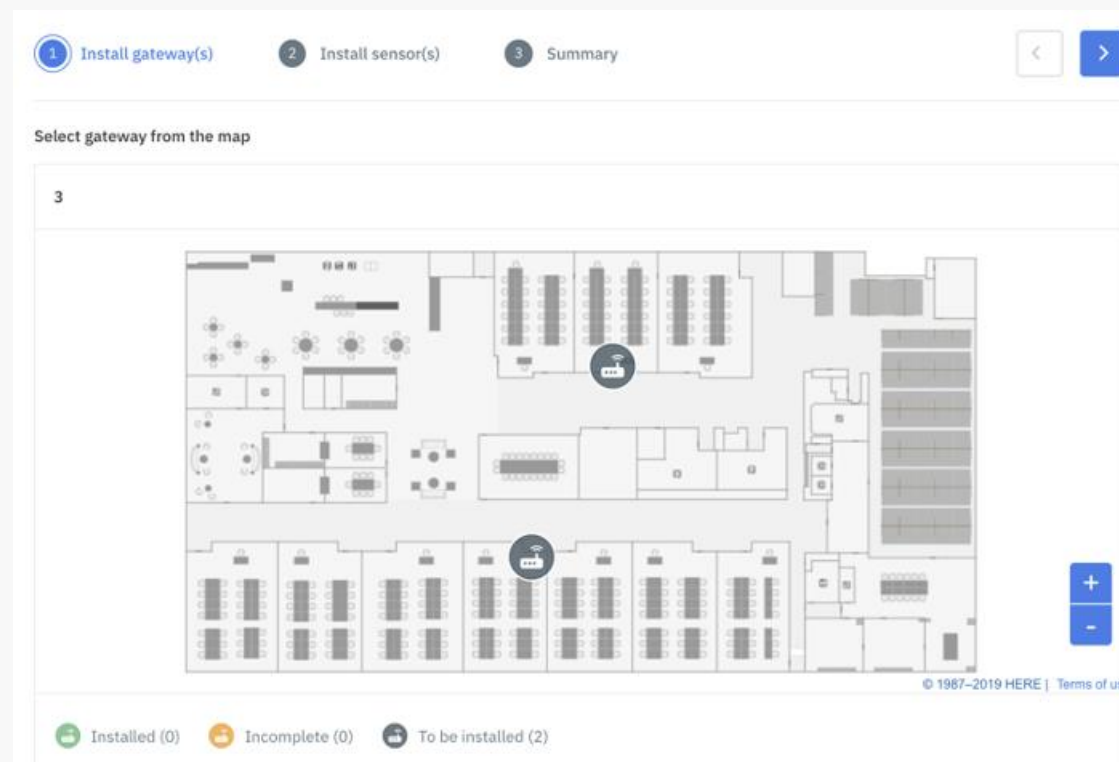
Gateway Installation

Locate where the gateway needs to be installed

Open the installer tool

Select the floor of installation

On the first step, you are presented with all the gateway locations



Gateway Installation

Install Antennas

- Special consideration should be given to any metal near the mounting area, such as in support beams or HVAC ducts. Mount away from shelves, cabinets, HVAC ducts, and other obstacles
- For optimal range, it is best to install gateway facing towards coverage area. Maintain clear line of sight or minimize obstacles to desired coverage areas.
- Load Wifi credentials (if required) via USB key provided



Gateway Installation

- Power can be delivered through PoE.
- Check Connectivity

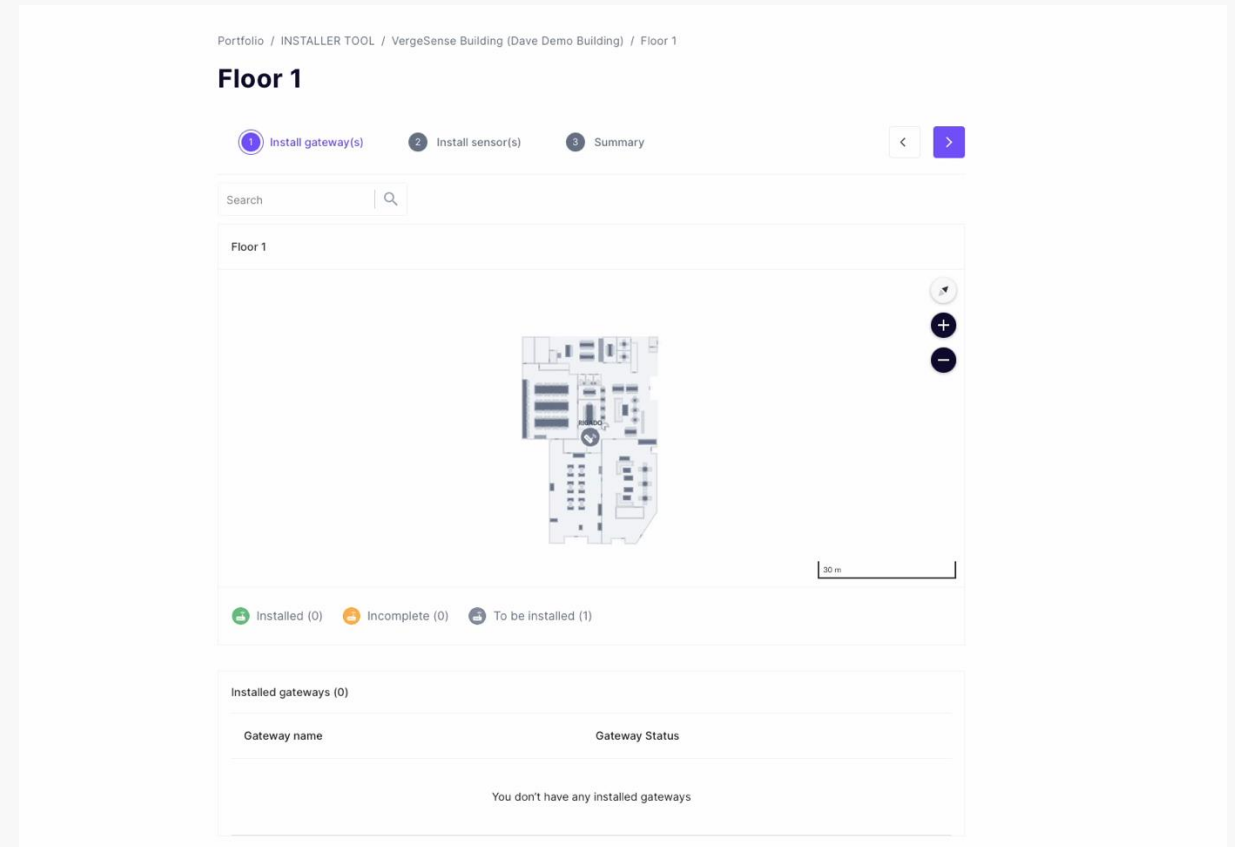
START UP PROCEDURE		
Time	Device Status	LED State
0	No power to the device	All off
0 - 10s	Start up	All off
10s-15s	Start up	All on solid (white/yellow color)
15s-20s	Start up	Red and blue on solid (purple color)
20s -30s	Power on self test	Green on solid (green color)
30s+	Hardware failure detected	Red 500msec on-off cadence
DEVICE IS NOW ON		
Time	Device Status	LED State
30s+	Devices tries to connect to the local network	Green 500msec on-off cadence
30s+	Device is connected to the local network and attempting to connect to VS cloud	Blue 500 msec on-off cadence
30s+	Indicate normal operation	All Off
	Factory Reset	Blue on solid for 5-30s after release of reset button, then all off when reset is complete
	USB stick inserted	Blue on solid for 5-60s after insertion of USB stick, then all off when it's safe to remove the USB stick

Gateway Installation

Enter the ID of the Gateway

- ID is located on the gateway itself.

Once connected, confirm timestamp is recent



Sensor Installation

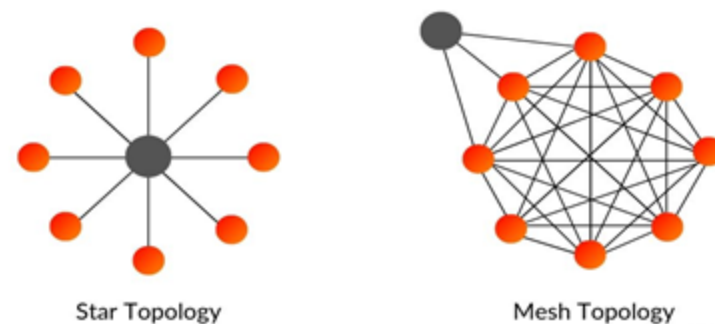
Mesh network

Always begin with the sensors nearest the gateway. The sensors will connect to each other to create a mesh network.

The more sensors are installed, the faster they may connect.

Maximum distance from sensor and gateway is 40'

Maximum distance from sensor to sensor is 40'



Sensor Installation

Confirming coverage

- View coverage
- Accept coverage
- Publish sensor.

If coverage is not acceptable:

- Adjust sensor
- Reboot sensor
- Accept/Publish sensor



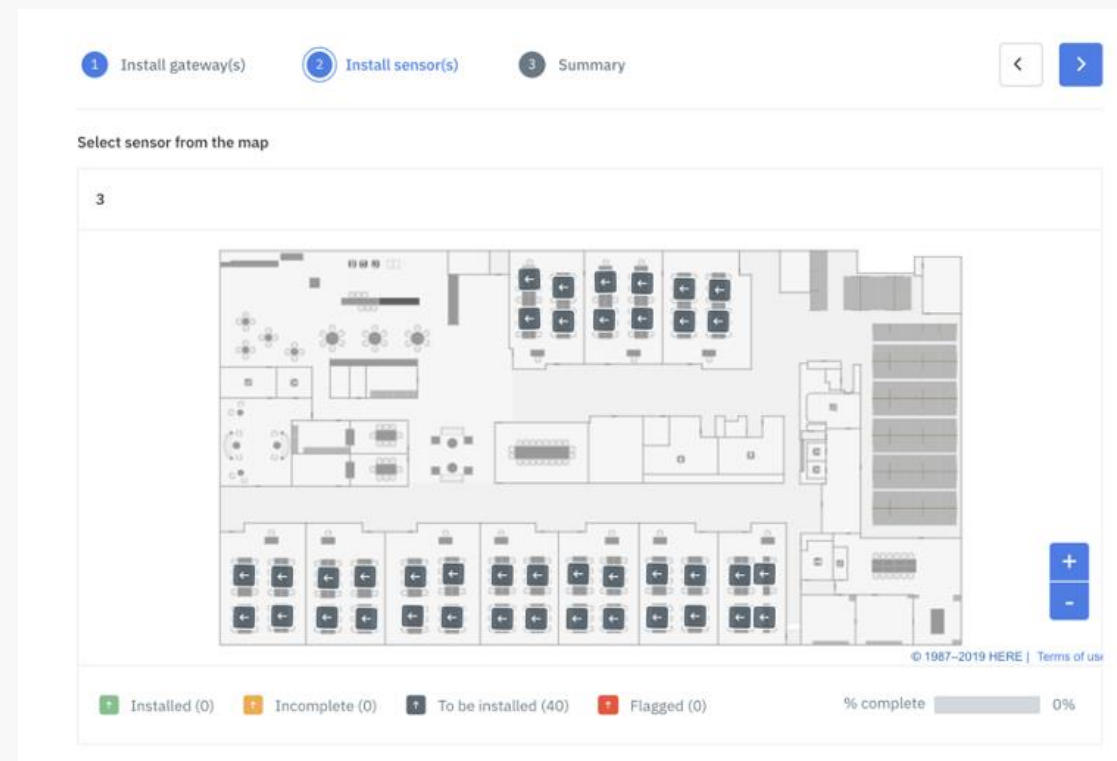
Sensor Installation

Locate where the sensor needs to be installed

Open the installer tool

Select the floor of installation

On the second step, you are presented with all the sensor icons of where they are to be installed (grey)



Sensor Installation



Physical installation of sensors

- Power button on the side. Hold for 5 seconds to power on.
- Green LED will show when first powered on
- Sensor ID is on the side next to power button

Sensor Installation



LED patterns

- START UP = RED > GREEN > BLUE x 2

Once booted – LED will blink approx. every 11 seconds

- RED = Not connected to gateway
- GREEN = Connected to gateway

Sensor Installation

Enter the sensor ID into the installer tool

Portfolio / INSTALLER TOOL / VergeSense Building (Dave Demo Building) / Floor 1

Floor 1

1 Install gateway(s)

2 Install sensor(s)

3 Summary

Search

Floor 1

Installed (0)

Incomplete (2)

To be installed (16)

Flagged (0)

% installed

0%

Installed sensors 0

Sensor ID	Connection status	Installation state ↓	Hardware type	
3BH-BII	1 minute ago	Incomplete	L302	Edit sensor
3BE-PIH	6 months ago	Incomplete	L302	Edit sensor

Confirming coverage

Needs to be manually
rebooted for a new debug
image.

Debug file will also depend on how many sensors are already online in the mesh. The more are online, the faster they will connect.

28

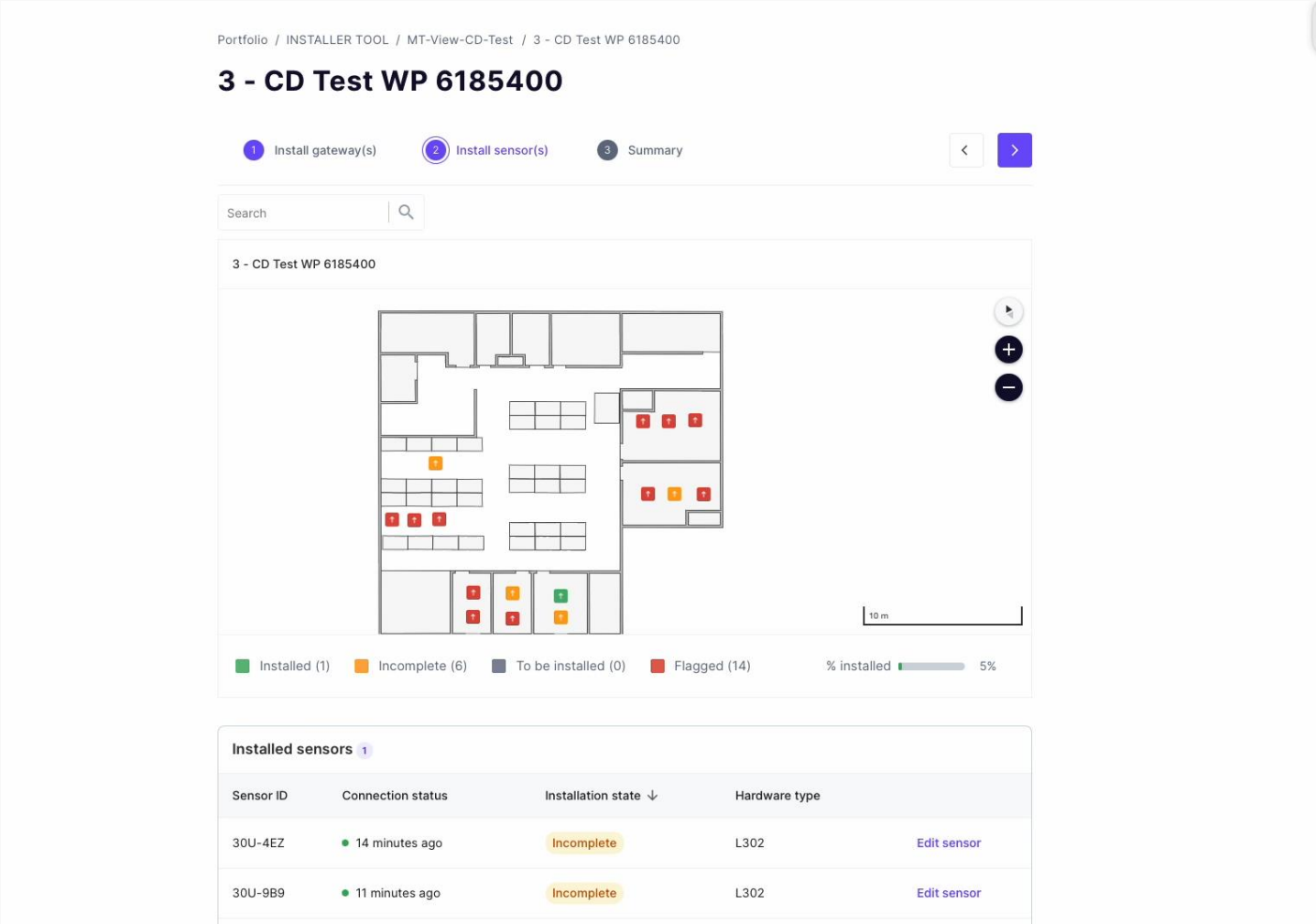
Sensor Installation

Confirming coverage

- View coverage
- **Accept coverage**
- **Publish sensor.**

If coverage is not acceptable:

- Adjust sensor
- Request new image
- **Accept/Publish sensor**



Sensor Installation - Tips



Best Practice

- Turn sensor on for first time after it is installed in the ceiling
- Do not block sensor with your hand or body
- If you need a new debug image, request this from the installer tool.

Sensor Installation

Orientation

Position the sensor to match the orientation indicated on the installation map



Sensor Installation



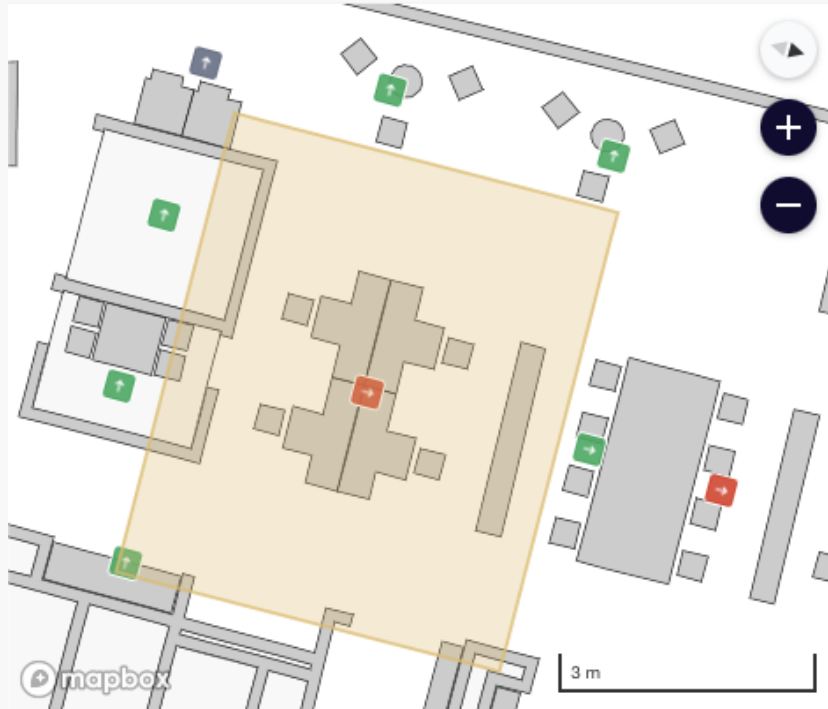
Sensor Installation



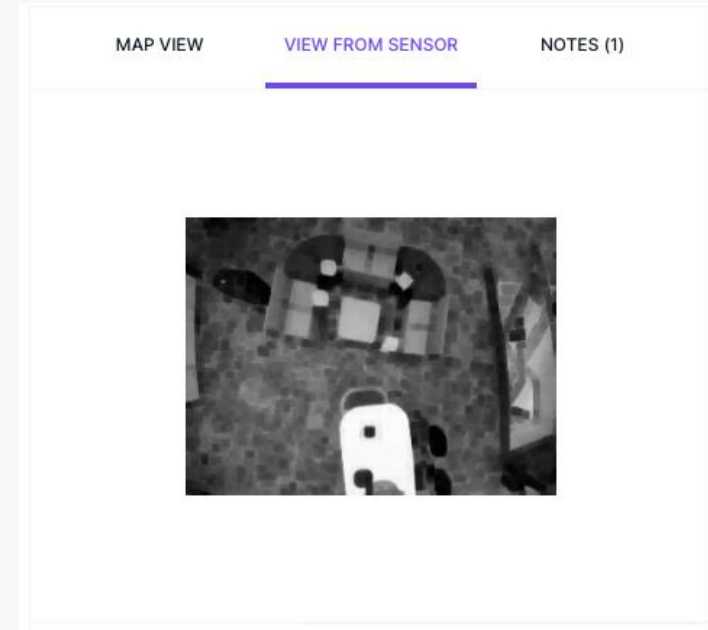
Sensor Installation



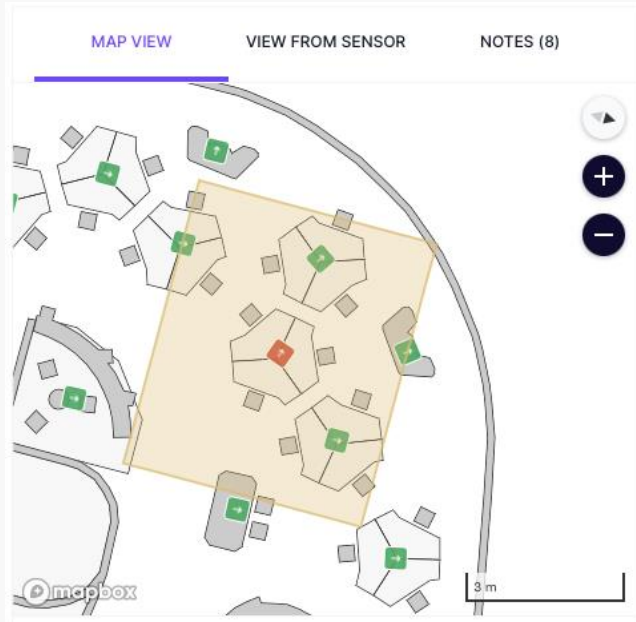
Sensor Installation – common mistakes



Sensor Installation – common mistakes



Sensor Installation – common mistakes



Sensor Installation – System Health

The System Health page gives a status overview of all gateways and sensors,

including the following information:

- Gateways*
 - Gateway heartbeat
 - Last sensor report timestamp
 - Uptime
- Sensors
 - Device ID
 - Last Report timestamp
 - Battery level
 - Signal strength
 - ID of gateway sensor is connected to

<div> <div>GATEWAYS</div> <div>SENSORS</div> </div>				
Device ID	Last Report	Battery level	Signal Strength	Gateway
<input type="checkbox"/> 3BB-D4W	12 minutes	Healthy	Strong	C048022307-00346
<input type="checkbox"/> 3BB-CW6	12 minutes	Healthy	Strong	C048022307-00346
<input type="checkbox"/> 3BB-DNC	14 hours	Healthy	Strong	C048022307-00294
<input type="checkbox"/> 3BB-DR6	13 minutes	Healthy	Strong	C048022307-00346
<input type="checkbox"/> 3BB-C3C	13 minutes	Healthy	Strong	C048022307-00346
<input type="checkbox"/> 3BB-DSK	12 minutes	Healthy	Strong	C048022307-00346
<input type="checkbox"/> 3BB-C6A	12 minutes	Healthy	Strong	C048022307-00346
<input type="checkbox"/> 3BB-C9P	29 minutes	Healthy	OK	C048022307-00293
<input type="checkbox"/> 3BB-DPI	29 minutes	Healthy	Strong	C048022307-00293

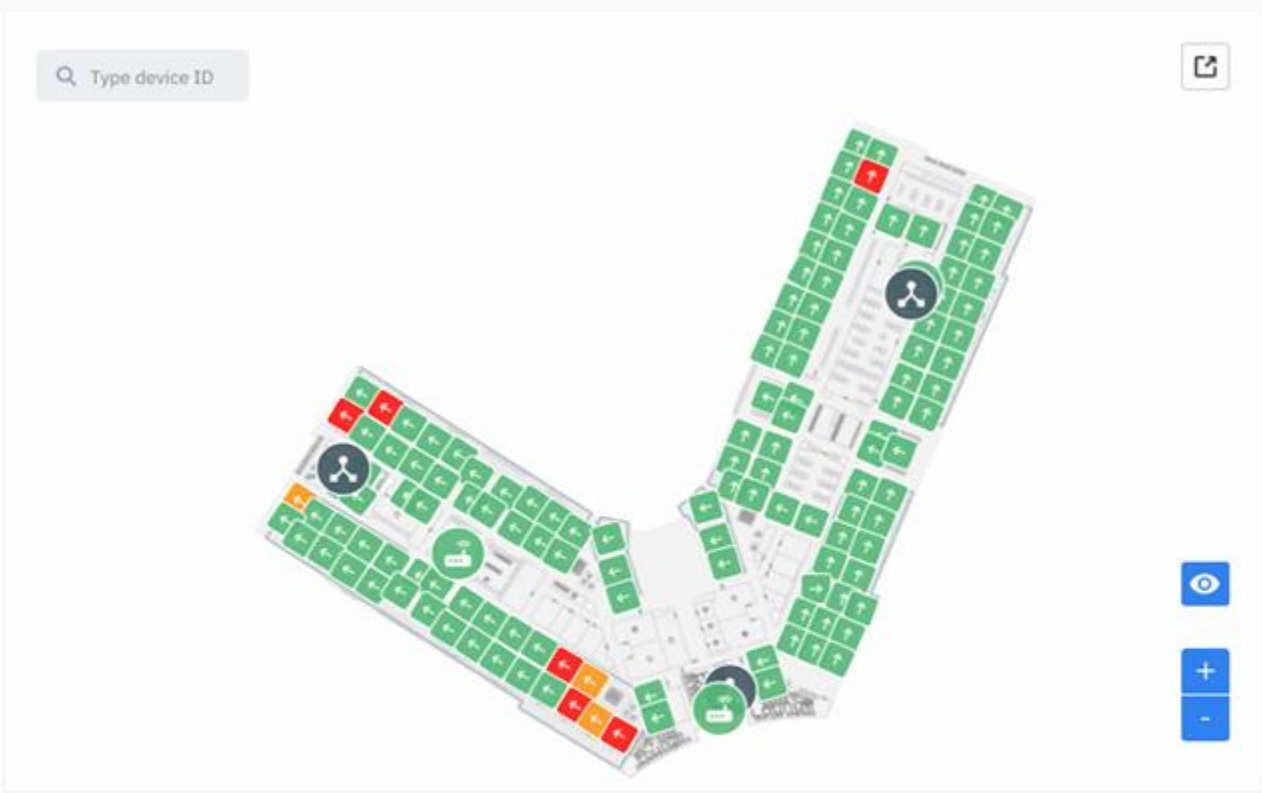
Sensor Installation – System Health

After all devices have been installed on a floor, navigate to the System Health page.

Green = Good

Red/Yellow = Needs attention (e.g. weak signal strength)

Black = Never connected (verify ID/power)



GATEWAYS SENSORS				
Device ID	Last Report	Battery level	Signal Strength	Gateway
W00-KIK	20 minutes	40.33%	Weak	184f9ec1ce5d4e3eb9cfd4ec81638c31
W00-I3N	8 minutes	49.47%	Strong	dbadf2d9f7ce4facb426ade7b62acc0b
W00-TSA	4 minutes	47.98%	OK	184f9ec1ce5d4e3eb9cfd4ec81638c31

Installation - Troubleshooting

If gateway does not connect

- Confirm ID
- Check and tighten all connections (antennas, power)
- Power cycle
- If still not connecting, contact VergeSense support

If sensor does not connect

- Confirm ID
- Confirm power
- Power cycle
- Replace sensor
- If still not connecting, contact VergeSense support

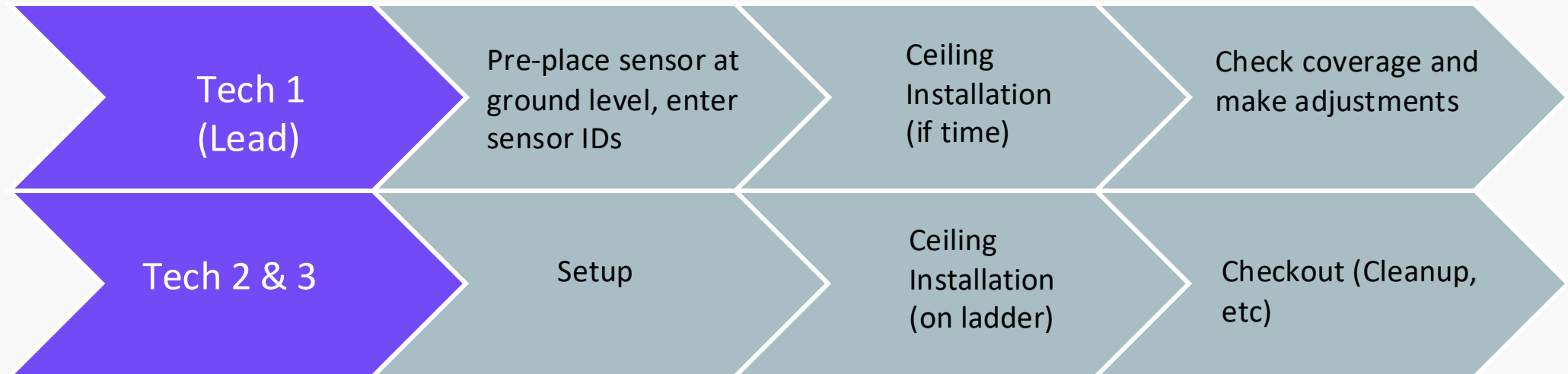
Team Structure and Deployment Timeline

Team Structure and Deployment Timeline

Two person team



Three person team



Team Structure and Deployment Timeline



Live Support

VergeSense will be available to support live.

Preferred method of communication is
WhatsApp.

Please share contact info to setup a group
chat.



Questions?



Thank you