

SENTRAX

SOLIX Quick Start Guide 2.6

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1. Prerequisites

- Make sure that the gateways have internet connection and are configured to use Sentrax MQTT broker.
- The Gateways/Locators are not mounted on the ceiling*.
- Make sure Devices (Tags) are in operational state.
- Make sure computer to use the portal is connected to the internet.
- Any MQTT diagnosis client tool to monitor or debug messages.

Note: The cable side of the Locators is considered 0 degrees. When mounting the Locators on the ceiling, ensure that the 0-degree (cable side) of the Locator is facing the top side of the map displayed on the Solix Platform. (Refer to the guide below for more details).

2. Setting up SOLIX Platform

2.1. Login Page

1. Go to app.sentrax.com using your browser. It is recommended to use a laptop or personal computer as the website is best viewed on these screens.



Figure 1: Login Page

2. Log in using the credentials we provide via email. Once logged in successfully, you will be redirected to the Dashboard screen

2.2. Dashboard

1. On the Dashboard screen, you will have various details and information.

1.1. On top, you will have details of your Gateways, Beacons, Tags and Sensor data. (it will show active status of these devices)

1.2. After that, you will have details about your buildings and their respective floors. (If there are none, these will be empty)

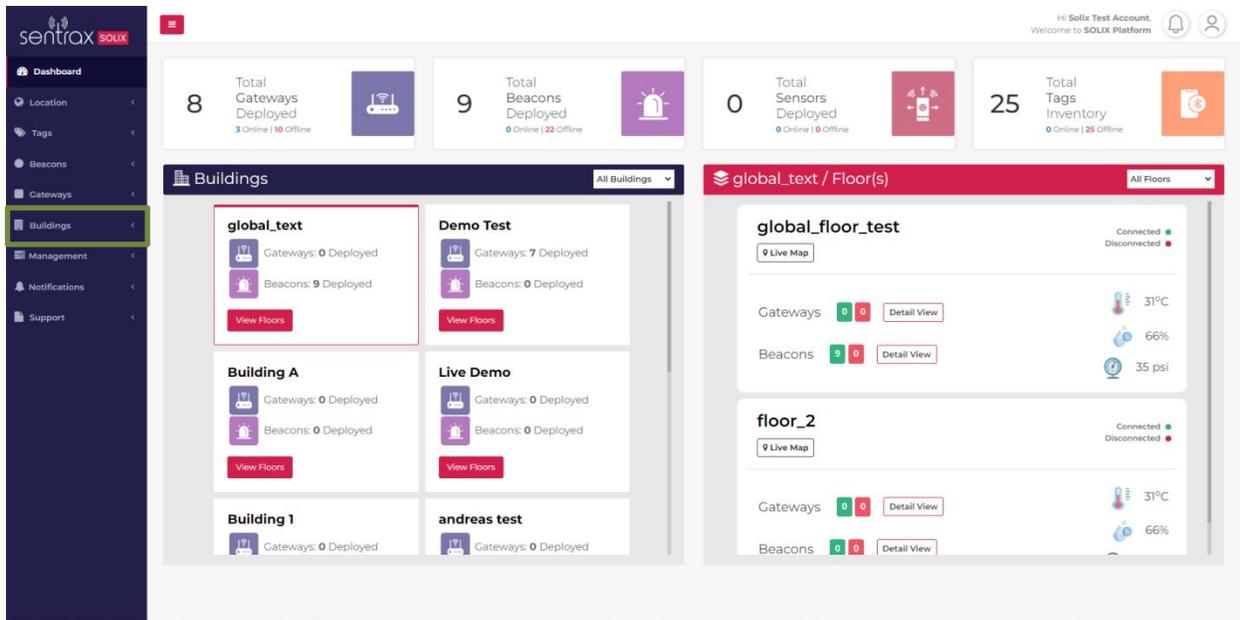


Figure 2: Dashboard Page

2. On the left side of your screen, there will a navigation panel to navigate through your dashboard pages

2.3. Buildings

1. After Login is Successful go to the **buildings** drop-down on the bottom left of the navigation panel

2. And then select **buildings** in the drop-down. (Highlighted in **Green Box** in Figure 2)

3. It will show the list of Buildings already added to the client account. If no buildings are added it will show no list.

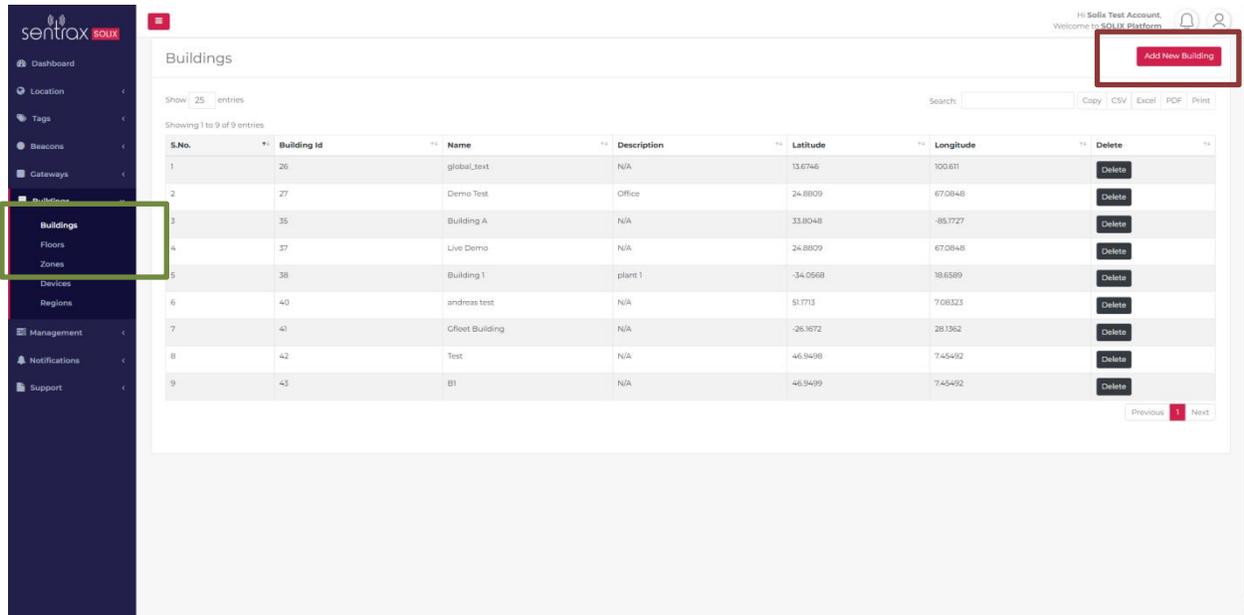


Figure 3: List of Buildings

4. To Add a New Building to an account click on **Add New Building** button on the top right of the screen (Highlighted by **Red Box**). User will be redirected to a new page with a map.

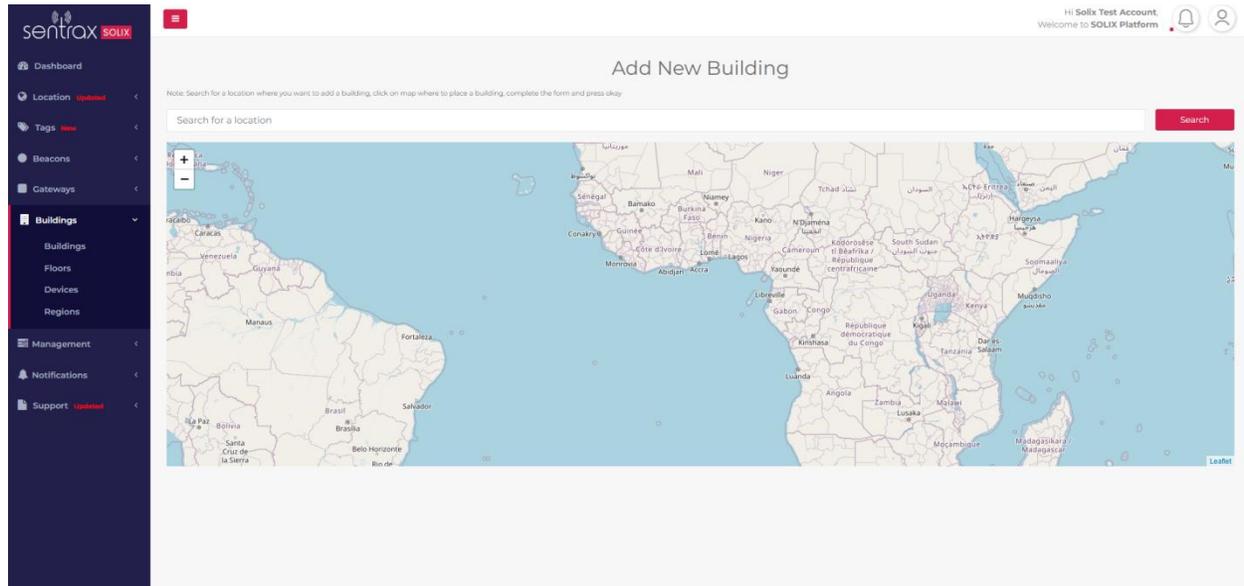


Figure 4: Adding New Building Page

5. Firstly, the user will write a location in search text box and search where your building is located (Area, city) to add a new building and click search button to display the second form then, user will write in the building name and write the building description if they want (it is optional and for user reference only)

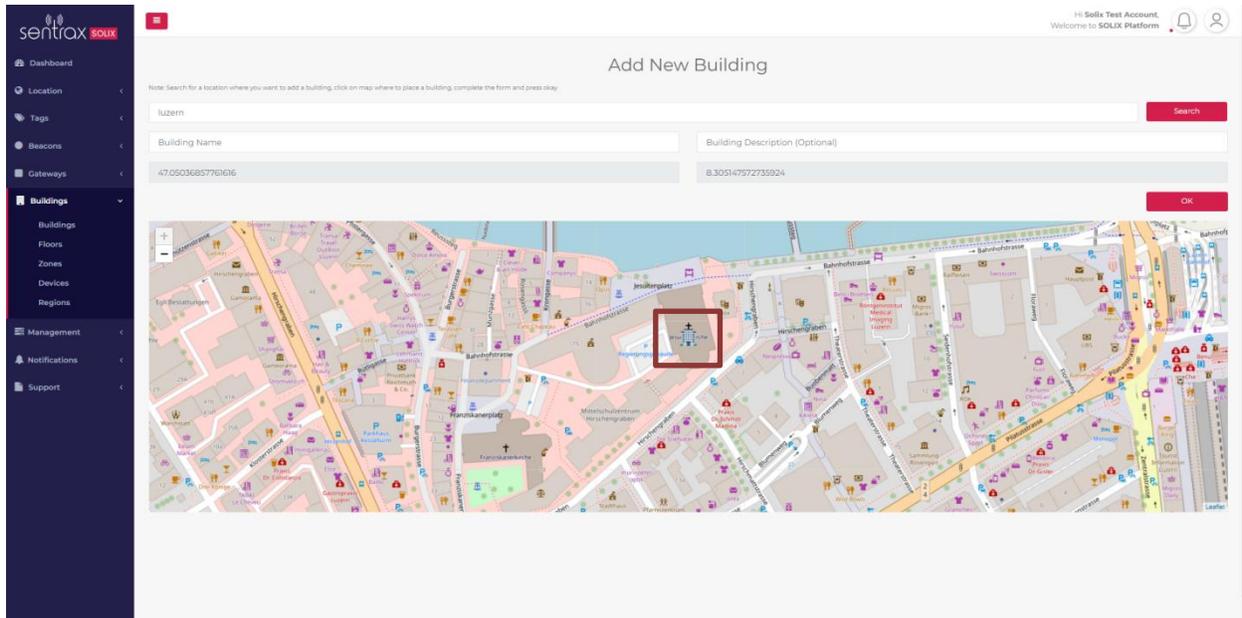


Figure 5: Adding New Building Page

6. Afterwards the user can click on the map where their building is (building/plot number will be displayed) and the Latitude and Longitude of the building will be automatically filled in the form and an avatar of the building will show on the map as shown in **Figure 5 (Red Box)**.

7. Clicking Okay afterwards will redirect to buildings page with new building added as shown in **Figure 6**.

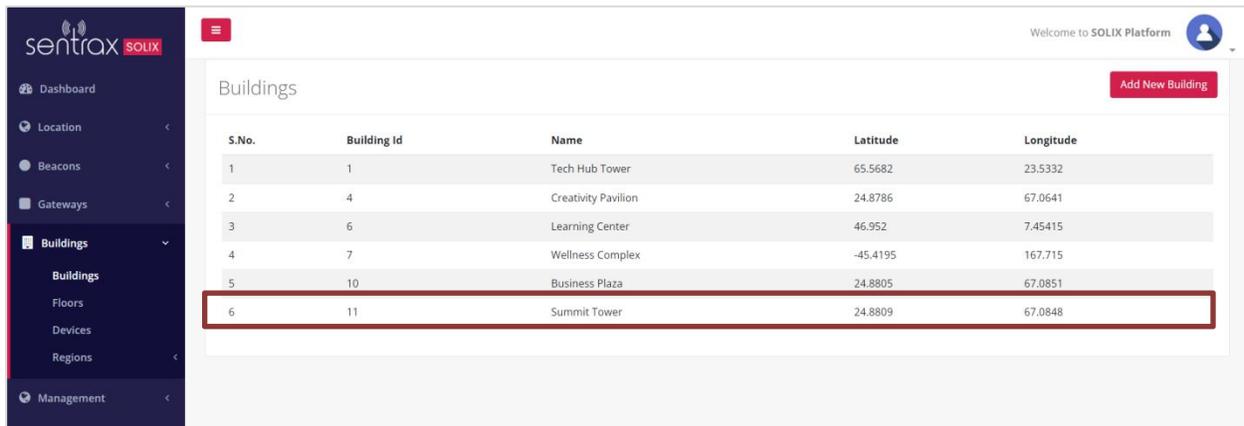


Figure 6: New Building Added in List

8. After this step we will Add Floors to the Building.

2.4. Floors

1. Ensure that the Locators are not installed on the ceiling (recommended device installation after 2.4).
2. To add floors to any building access the **Buildings** drop-down on the lower-left of the navigation panel.
3. Then, opt for the **Floors** option in the drop-down menu, as indicated by the **Green box** in **Figure 8**.

4. This will display a roster of Floors that have already been included in the client account. If no floors have been added, an empty list will be displayed.

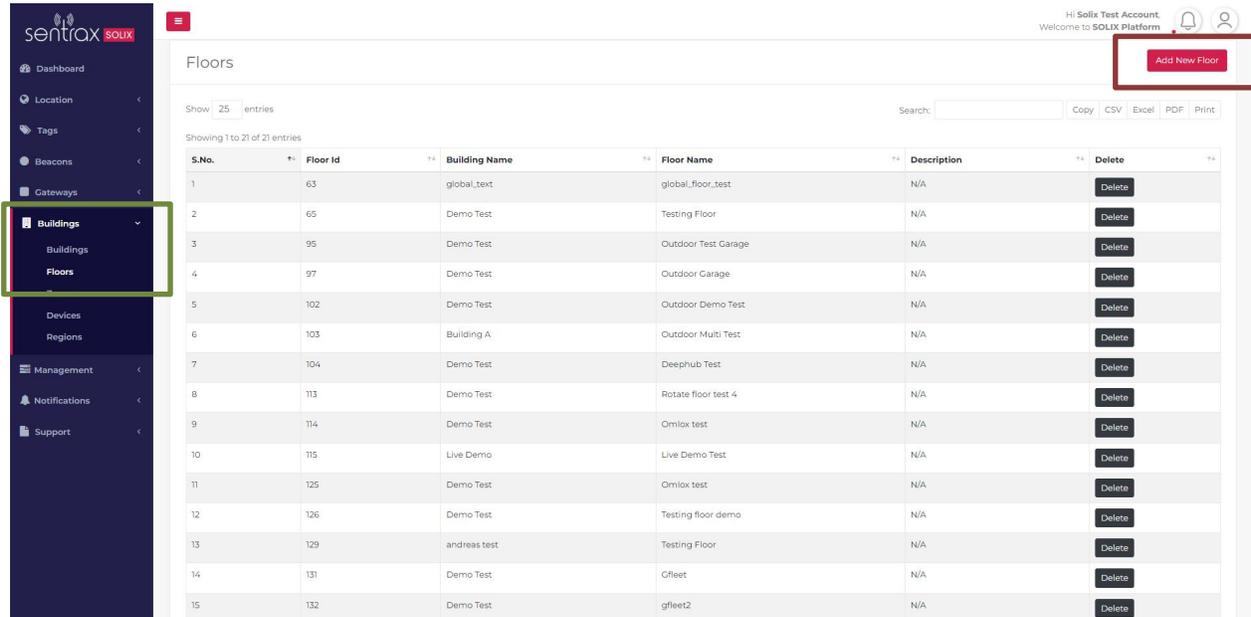


Figure 8: List of Floors page

5. To include a new floor, simply click on the "Add New Floor" button located at the top right of the page, highlighted by the Red box in Figure 8. This action will direct you to a page where you can both preview the floor you're adding and specify its name and description, as shown in Figure 9.

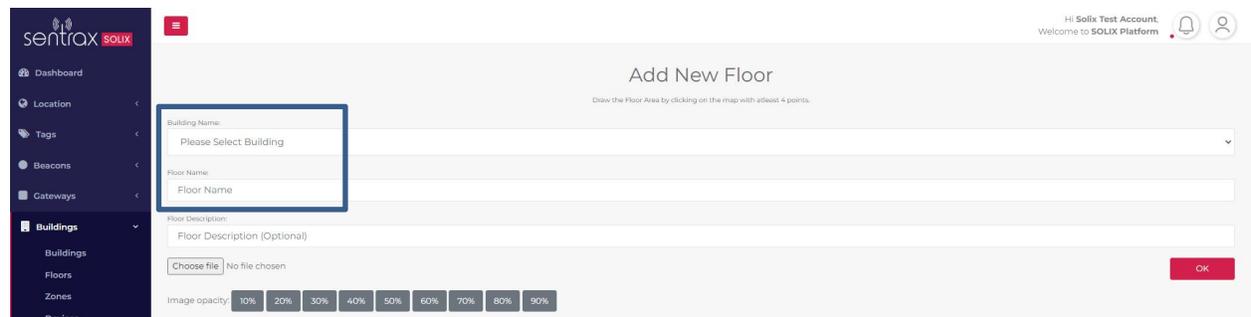


Figure 9: Add New Floor Page

6. Within the "Add New Floor" section, the user needs to choose the building to which the floor will be assigned and provide a name for the floor, as indicated by the Blue box in Figure 9.

Note: This applies only to AoA Gateways; RSSI Gateways can be deployed freely without restrictions.

7. Now, on floor map click on the **Add Floor Area** button (Blue Box in Figure 9.1) and draw where you want to add the new floor by reconnecting the points when the floor area is covered (Highlighted in Red Box in Figure 9.1). The first two dots Orange Boxes in Figure 9.1 will represent the North Angle and your Gateways 0° should be faced with this in order for accurate resulting.

8. After creating Floor Area, click on **Choose File** Green box in Figure 9.1 and select JPG or PNG of your floor map image. You should see your floor image overlay on the map in Figure 9.1.1.

9. You can adjust your image and change its orientation by clicking and dragging each marker **Blue boxes** in *Figure 9.1.1* and change the opacity of your image to better fit it on the map **Green box**.



Figure 9.1: Add New Floor Page (Map View)

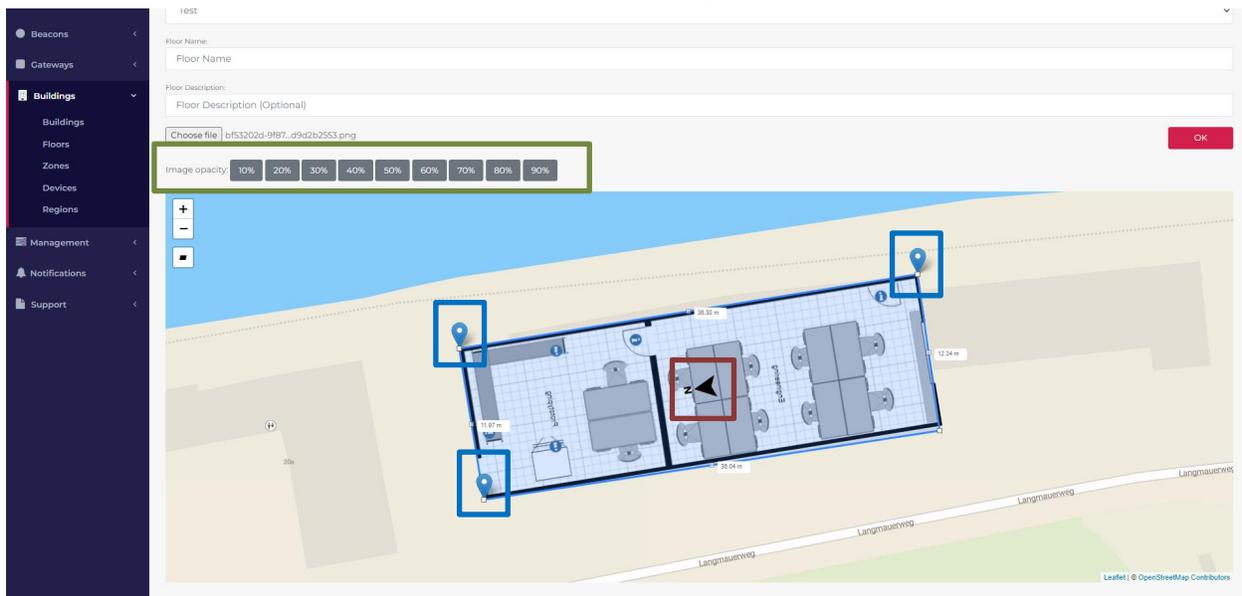


Figure 9.1.1: Add New Floor Page (Your Map Image)

10. In this case, the **North Angle** is facing the left side of the map as indicated by **N Arrow Red Box** in *Figure 9.1.1* so, your **Gateways 0°** should be aligned with the **North Angle** of the map as shown in *Figure 9.1.2*

11. If you want to change the **North Angle** of your **Floor Area** (for example; make it facing the right side of the map) drag the corners of the **Floor Area Green boxes** in *Figure 9.1.2* or recreate the polygon. After adjusting the polygon, drag each marker **Blue boxes** in *Figure 9.1.1* to adjust the image orientation as needed. Finally, align your **Gateways 0°** as shown in *Figure 10*

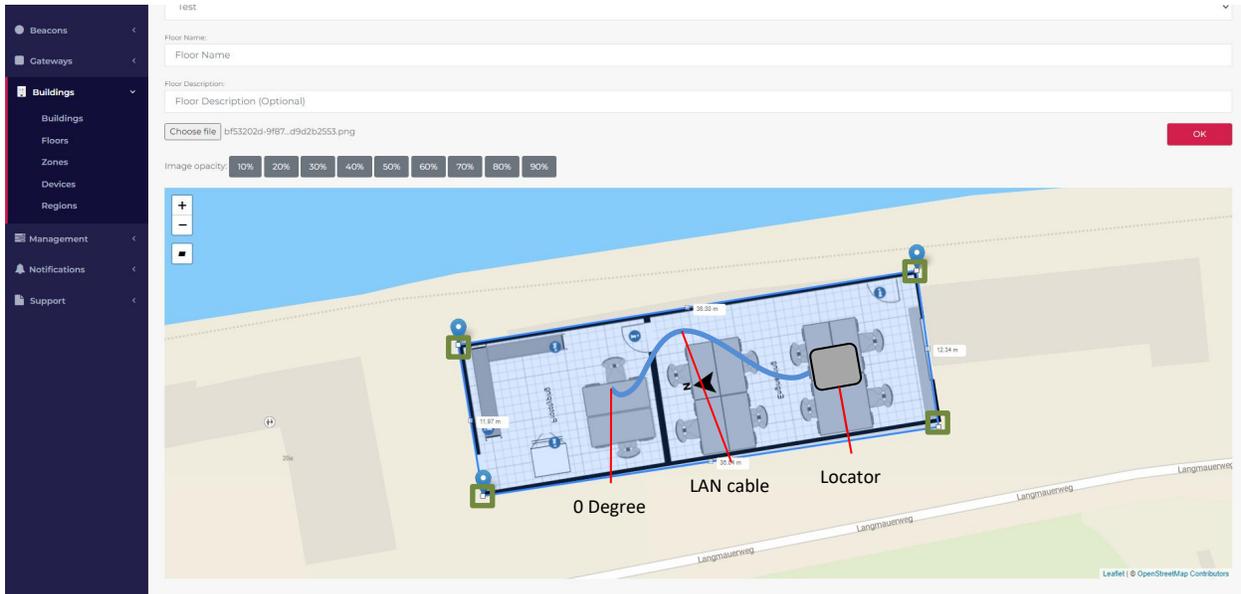


Figure 9.1.2: Add New Floor Page (Angle of Locator aligned with the Map View)

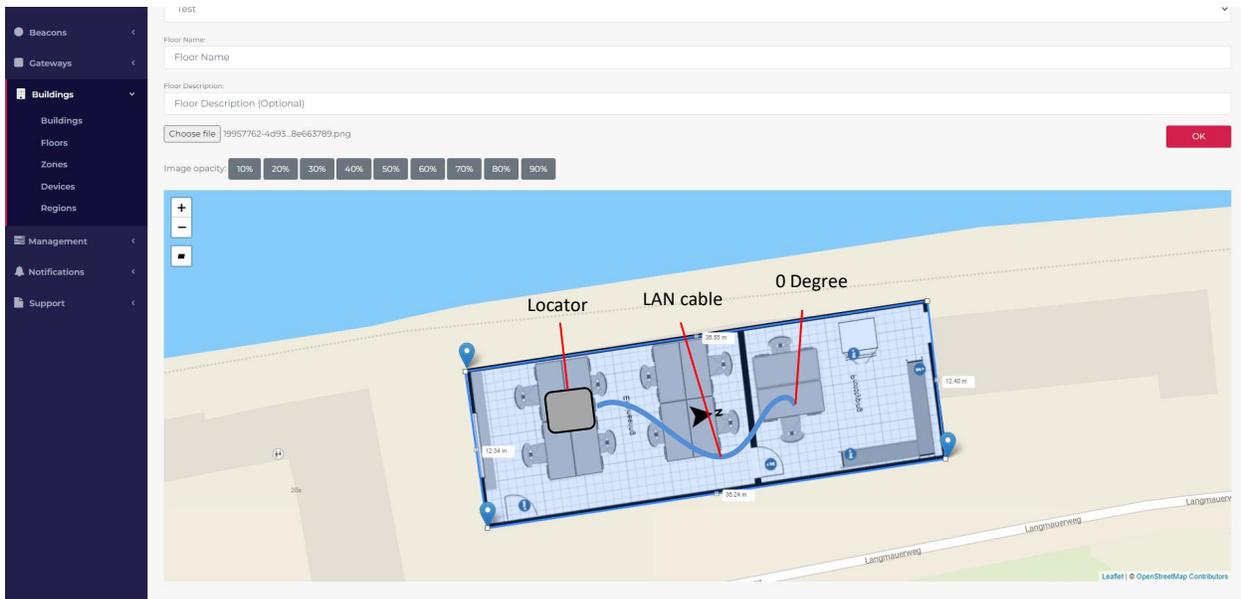


Figure 10: Add New Floor Page (North Angle Changed)

12. Now, when you place your Locator on the ceiling it should match the 0° of your Locator with the map view shown in Figure 9.1.2 and 10 (See Deployment Guide for Locator Angle reference)

Note: Once an image is uploaded to the Solix Platform, it's important to ensure that the angle of your Locator matches the angle of the map view on the platform. It's not possible to change the orientation of your locators once the map is uploaded; they must remain aligned at 0 degrees.

13. Providing a floor description is optional. Upon confirmation by pressing "OK", you will be directed to the Floor list, as displayed in *Figure 11*, with the newly added floor highlighted (**Red Box**).

S.No.	Floor Id	Building Name	Floor Name	Description	Delete
1	63	global_text	global_floor_test	N/A	Delete
2	65	Demo Test	Testing Floor	N/A	Delete
3	95	Demo Test	Outdoor Test Garage	N/A	Delete
4	97	Demo Test	Outdoor Garage	N/A	Delete
5	102	Demo Test	Outdoor Demo Test	N/A	Delete
6	103	Building A	Outdoor Multi Test	N/A	Delete
7	104	Demo Test	Deephub Test	N/A	Delete
8	113	Demo Test	Rotate floor test 4	N/A	Delete
9	114	Demo Test	Omlot test	N/A	Delete
10	115	Live Demo	Live Demo Test	N/A	Delete
11	125	Demo Test	Omlot test	N/A	Delete
12	126	Demo Test	Testing floor demo	N/A	Delete
13	129	andreas test	Testing Floor	N/A	Delete
14	131	Demo Test	Cfleet	N/A	Delete
15	132	Demo Test	gffleet2	N/A	Delete

Figure 11: New Floor Added

14. From this point onward, you can proceed to add or deploy Gateways and Beacons to the floors.

2.5. Add Zones to Floor

1. To add zones to any floor go to the **Buildings** drop-down on the bottom left of the navigation panel
2. And then select **Zones** in the drop-down. (Highlighted in **Green Box** in *Figure 11.1*) It will display list of zones already added to the floors. If no zones are added it will show no list.

S.No.	Id	Building Name	Floor Name	Name	Technology	Path	CreatedOn	UpdatedOn	Coordinates	Delete
1	21	Demo Test	Testing Floor	LEN-2 Zone	rsst	2b7c738c-6370-42c2-862a-c0e75dala5b1	2024-07-22 08:03:39	2024-07-22 08:03:39	Info	Delete

Figure 11.1: Add new zones page

Note: Zones are created to differentiate between different types of Gateways on Solix, It is necessary to create Zones first then deploy the devices inside that Zone. Later on in this guide, you will learn how to assign Zones to the deployed devices.

3. Here to add a new zones click on **Add New Zone** Button on the top right of the page (**Red Box**). It will redirect to a page where the user can view the buildings and floors and set the zone name and technology they are adding. (*Figure 11.1*)



Figure 11.2: Selecting building, floor and technology from drop down menu

4. Here, From the drop down box (highlighted with **Red Box** in Figure 11.2) select a building then, select a floor, then select the technology type to add a zone. It will redirect to a page where the floor map will be loaded.

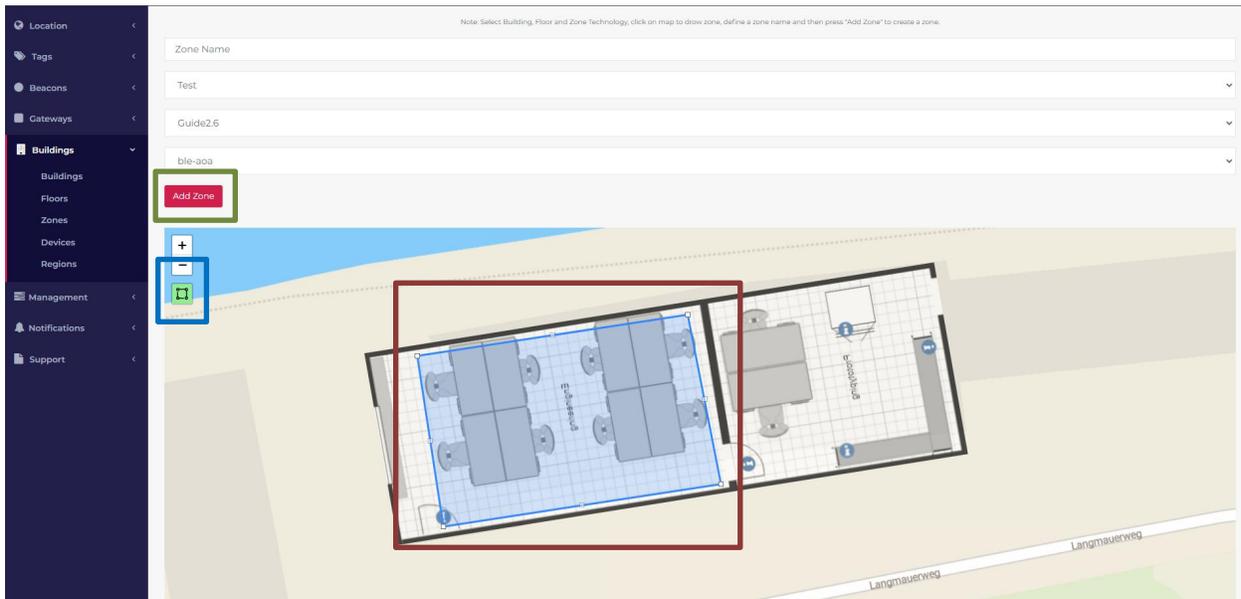


Figure 11.3: Floor map loaded

5. Now, on floor map click on the **Zone creation** button (**Blue Box** in Figure 11.3) and draw where you want to add the zones by reconnecting the points when the zone area is covered (Highlighted in **Red Box** in Figure 11.3).

6. After pressing **Add Zone** **Green Box** in Figure 11.3 takes the user to the Zones List as shown in Figure 20 with new zone added shown (**Red Box**).

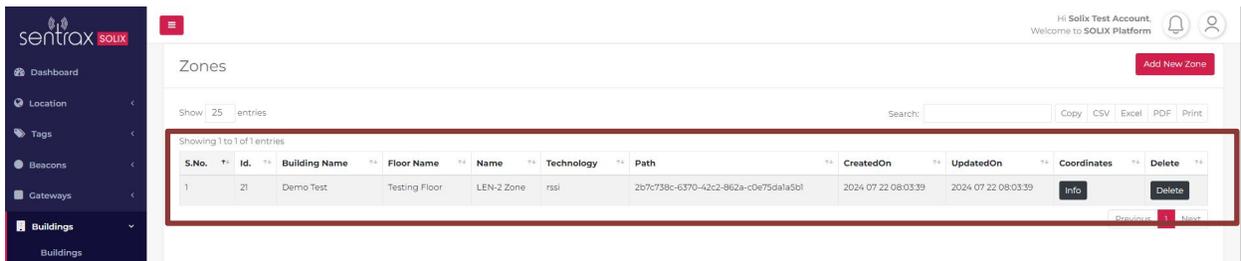


Figure 11.4: New Zone added

2.6. Add Devices to Floor

1. To add devices to any floor go to the **Buildings** drop-down on the bottom left of the navigation panel
2. And then select **Devices** (Highlighted in **Green Box** in *Figure 12*) It will show the list of devices already added to the floors. If no devices are added it will show no list.

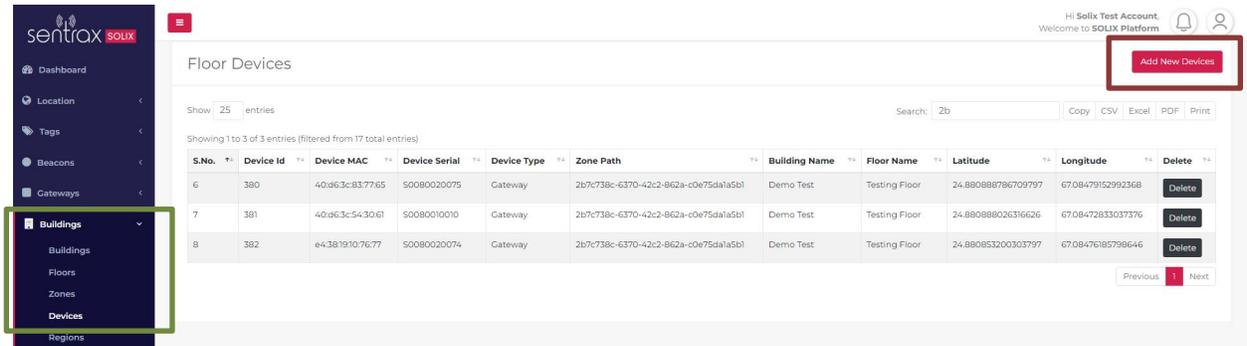


Figure 12: Add new devices page

3. Here to add a new device click on Add New Devices Button on the top right of the page (Red Box). It will redirect to a page where the user can view the floor they are adding and set name and description. (*Figure 12*)

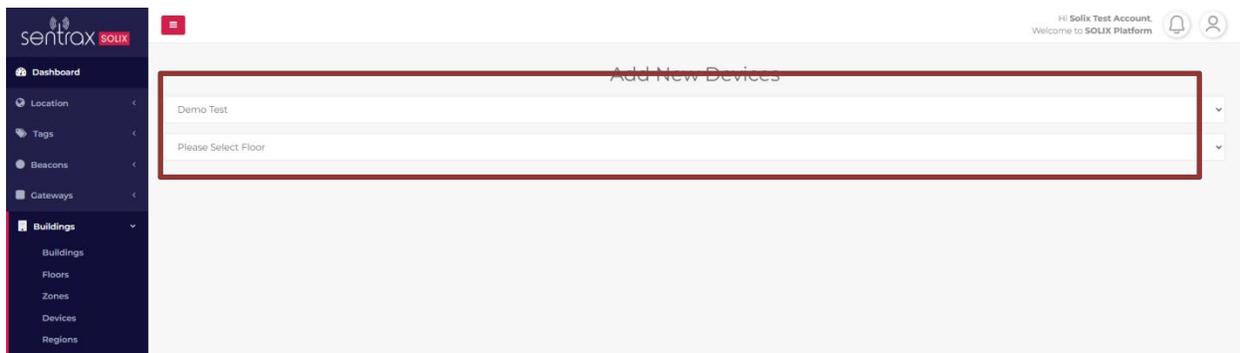


Figure 13: Selecting floor from drop down menu

4. Here, From the drop-down box (highlighted with **Red Box** in *Figure 13*) select a building then, select a floor where you want to add a device. It will redirect to a page where the floor map will be loaded.

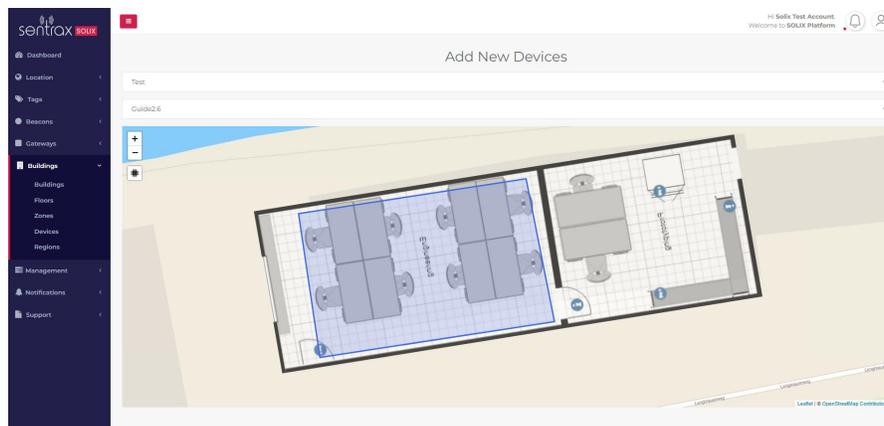


Figure 14: Floor map loaded

5. The devices will be visible on the floor if there are devices already added on this floor (**Red box** in *Figure 14*)

6. Now, on floor map click on the **Device deployment** button (**Blue Box**) and click where you have installed the device. After clicking (Highlighted in **Green Box** in *Figure 15*) on the floor map a pop-up will appear on the screen (Highlighted in **Red Box** in *Figure 15*) asking to select the device type from the drop-down (Gateway or Beacon).

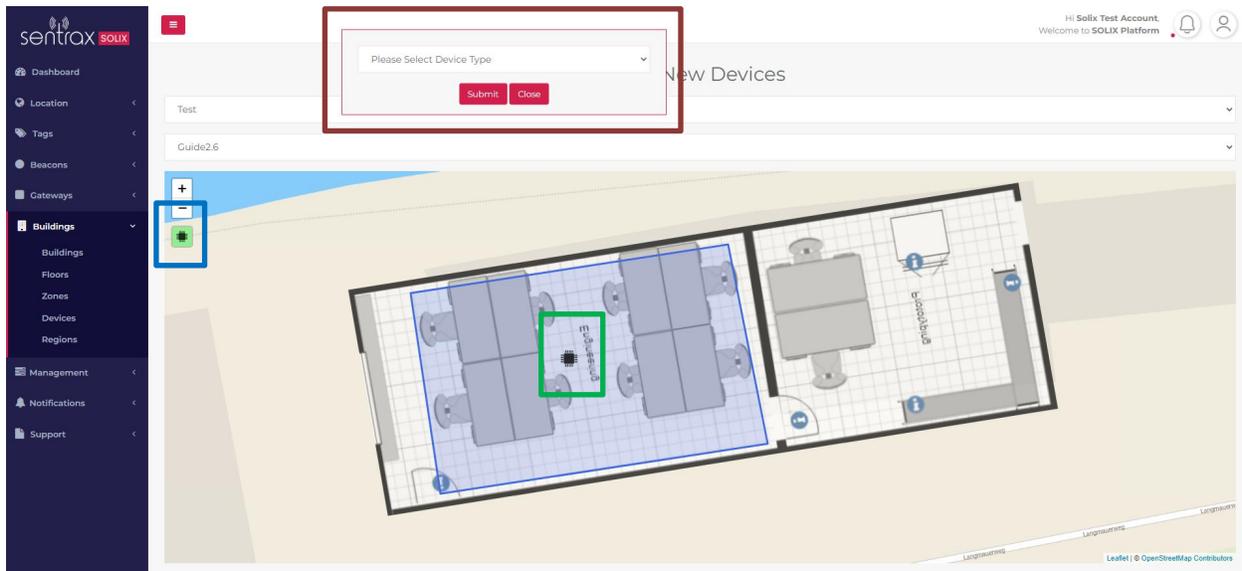


Figure 15: Selecting device from drop down menu

7. After selecting the Device Type it will list the number of devices (Serial number and MAC address) and a list of zones (Id and Name) if you select AoA Gateway there will be another Text box asking for Gateway Height in meters and if you select RSSI Gateway there will be a slider asking for Calibrated RSSI of the Gateway (This should be accurate as it will be used to track Tags on Live Map page and for accurate results).

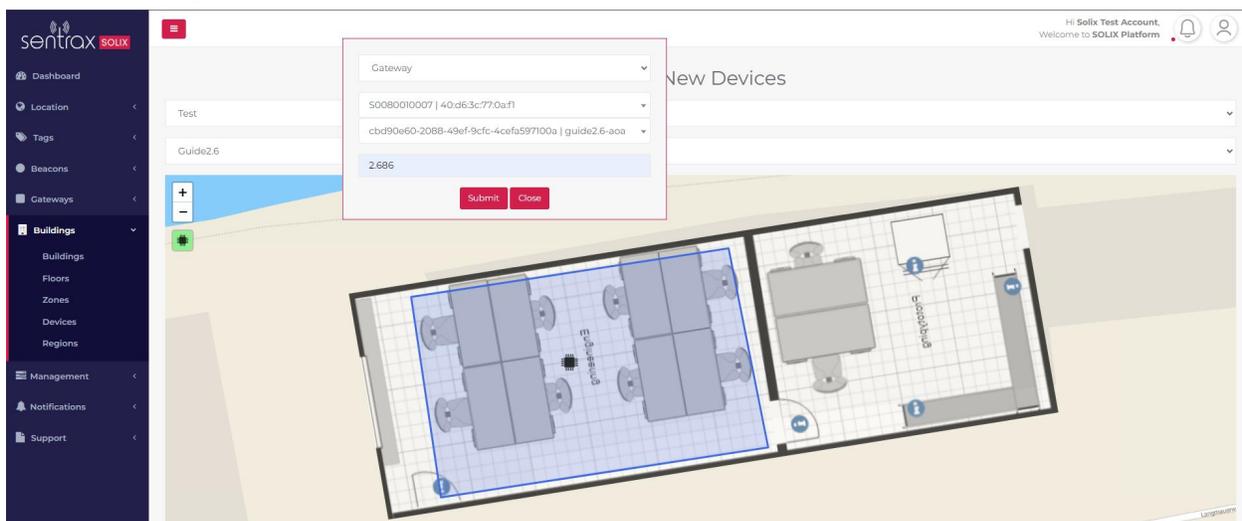


Figure 15.1: Selecting AoA Gateway from Device Type drop down menu

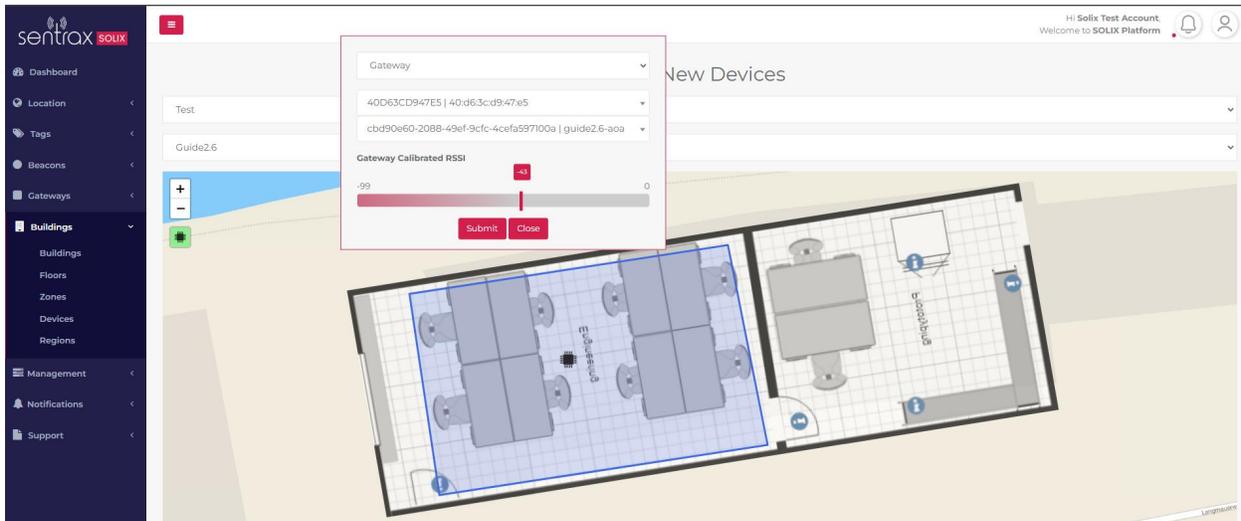


Figure 15.1.1: Selecting RSSI Gateway from Device Type drop down menu

8. If you select Beacons from the Device Type drop-down it will only show device drop-down of Beacons (Serial numbers).

9. Select the device you want to deploy and select the zone where your device is installed.

10. To view the zone Id you can click on the zone prior to clicking on **Device deployment** button (**Blue Box**) or you toggle it off and click on the zone to view its information. (Figure 15.2 **Red Box**)



Figure 15.2: Selecting Gateway and Zone from Device Type drop down menu

11. If you select Beacons from the Device Type drop-down it will only show device drop-down of Beacons (Serial number and MAC address) and list of zones (Id and Name).

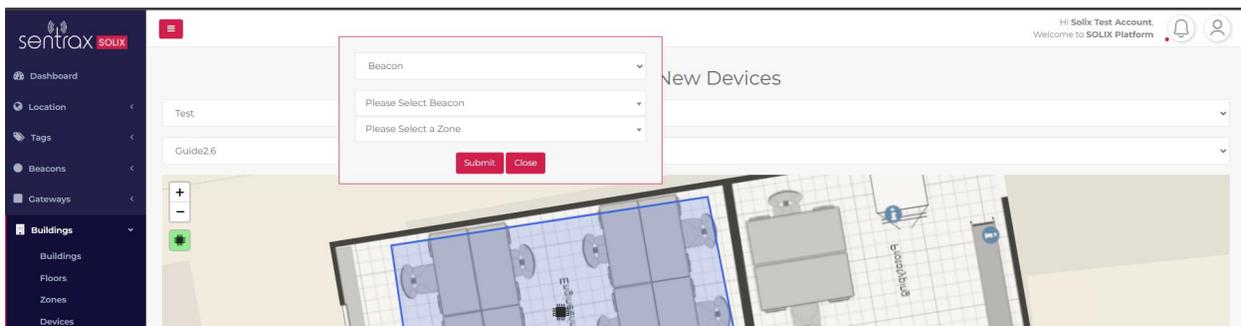


Figure 15.3: Selecting Beacon from Device Type drop down menu

12. Pressing OK takes the user to the Devices list as shown in *Figure 16* with new device added shown (**Red Box**).

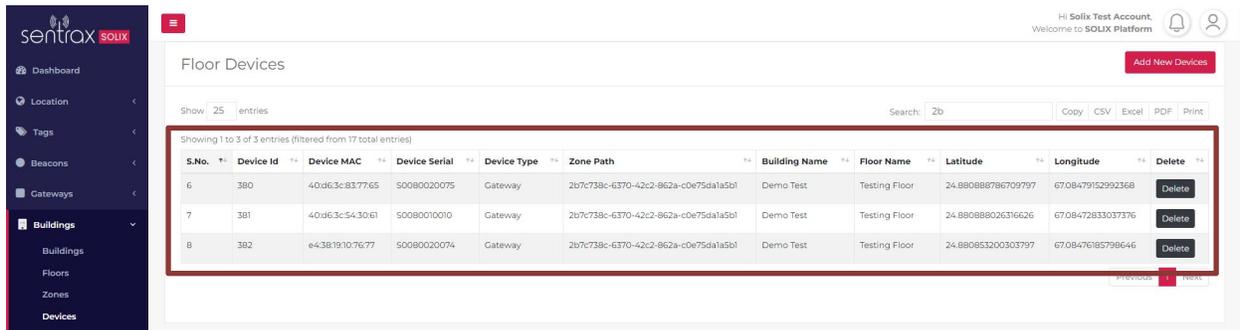


Figure 16: New Device added

2.7. Add New Region to Floor

1. To add region to any floor go to the **Buildings** drop-down on the bottom left of the navigation panel
2. And then select **Regions** in the drop-down. (Highlighted in **Green Box** in *Figure 17*)
3. It will show the two sub-headings, select **Region List** it will display list of regions already added to the floors. If no regions are added it will show no list.

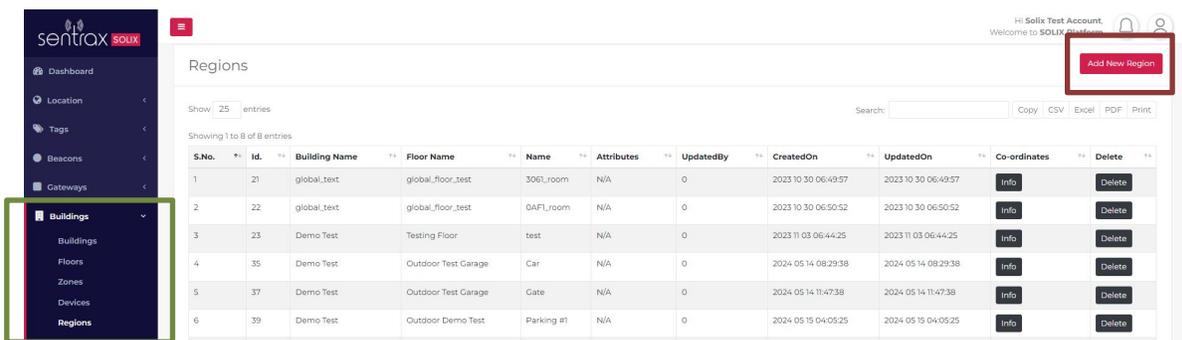


Figure 17: Add new regions page

Note: Regions are created to receive notifications for tags on Solix, through SMS and Email. Later on in this guide, you will learn how to create a rule for a specific tag and receive notifications when the tag is inside or outside a region.

4. Here to add a new regions click on **Add New Regions** Button on the top right of the page (**Red Box**). It will redirect to a page where the user can view the buildings and floors and set the region name they are adding. (*Figure 17*)



Figure 18: Selecting building and floor from drop down menu

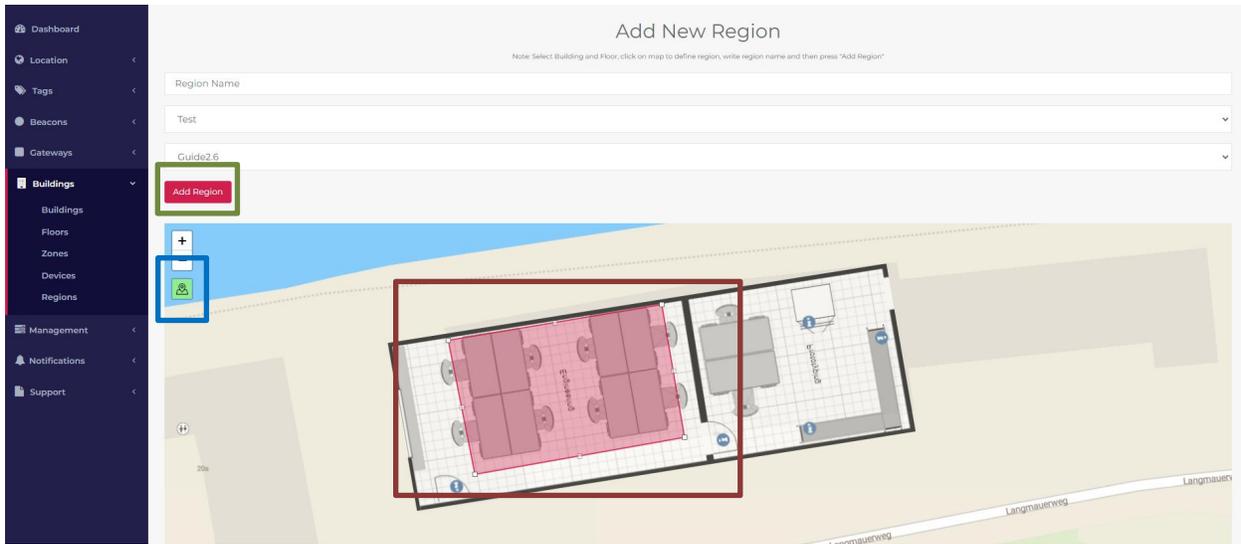


Figure 19: Floor map loaded

- Now, on floor map click on the **Region creation** button (**Blue Box** in Figure 19) and draw where you want to add the zones by reconnecting the points when the zone area is covered (Highlighted in **Red Box** in Figure 19).
- After pressing **Add Region Green Box** in Figure 19 takes the user to the Regions List as shown in Figure 20 with new region added shown (**Red Box**).

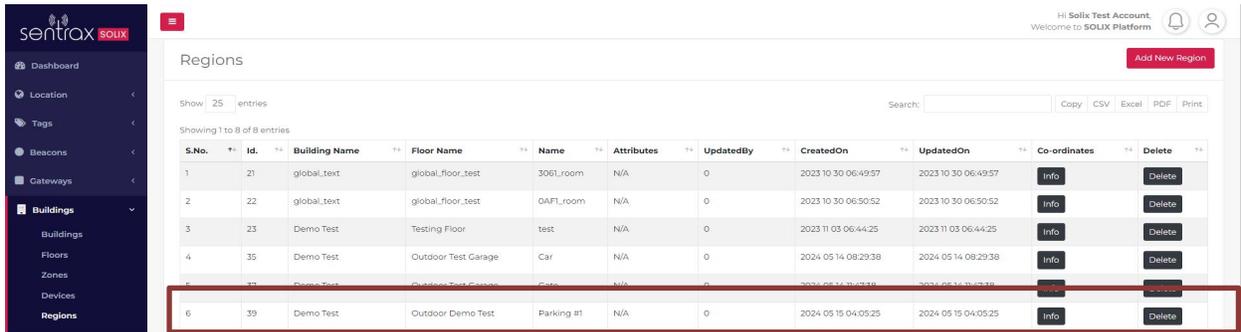


Figure 20: New Region added

2.8. Live Map

- To watch the live location of Tags in a floor of listed buildings, select **Locations** drop-down on the top left of the navigation panel
- And then select **LiveMap** in the drop-down. (Highlighted in **Green Box** in Figure 23)
- It will show a page where user will be prompted to select floor and building

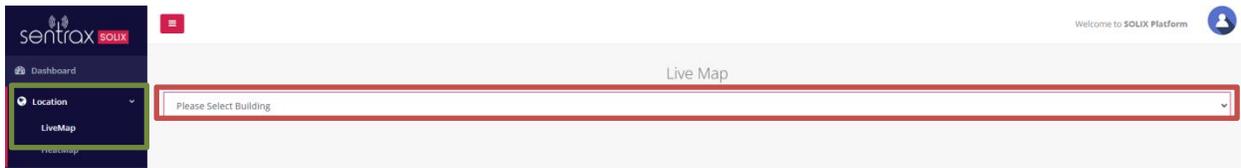


Figure 23: Live location of the Tags

4. Here, From the drop down box located at the centre top of the page (highlighted with **Red Box** in *Figure 23*) select a building. It will redirect to a page where the user can select the floor in that building



Figure 24: Selecting floor from drop down menu

5. Here, From the drop down box located at the mid-centre of the page (highlighted with **Red Box** in *Figure 24*) select a floor. It will redirect to a page where the floor map will be loaded.

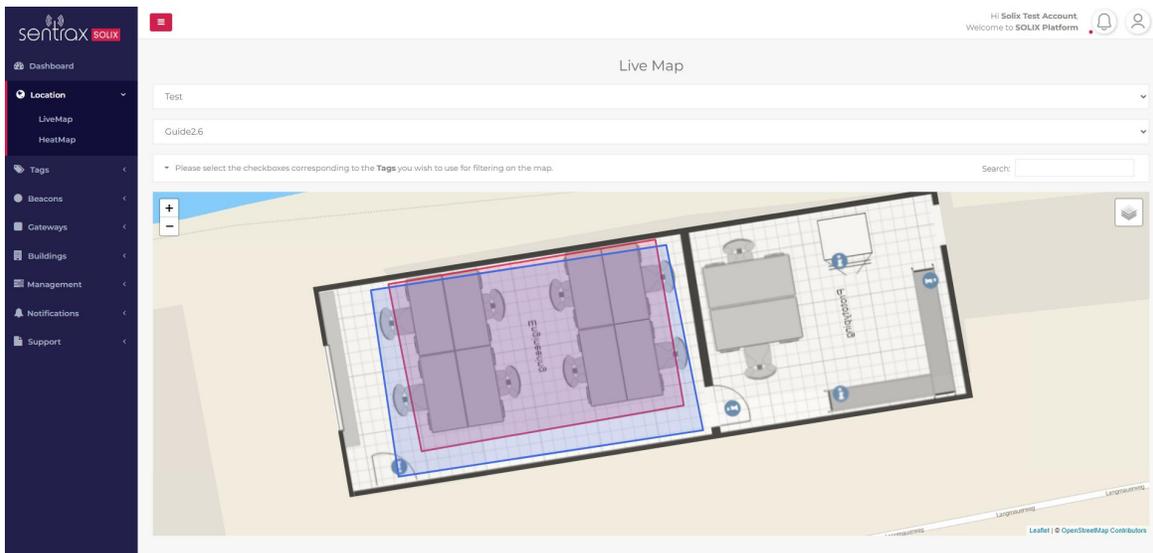


Figure 25: Floor loaded

6. Now, on floor map a number of pin positions will be displaying, these are Tags live location (Highlighted in **Red Box** in *Figure 26*). You can also filter the tags by clicking on the drop down and selecting a specific Tag to track its live location.

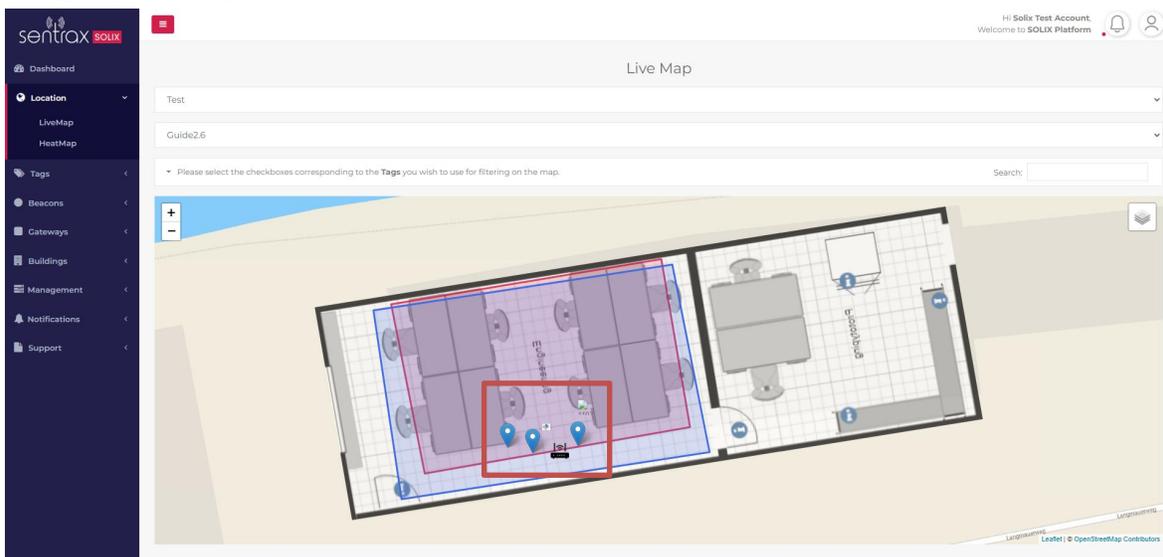


Figure 26: Tags live location

2.9. Heat Map

1. To watch the previous location of tags in a floor of listed buildings, select **Locations** drop-down on the top left of the navigation panel
2. And then select **Heatmap** in the drop-down. (Highlighted in **Green Box** in *Figure 27*)
3. It will show a page where user will be prompted to select floor and building



Figure 27: Tag previous location / history

4. Here, From the drop down box located at the centre top of the page (highlighted with **Red Box** in *Figure 28*) select a building. It will redirect to a page where the user can select the floor in that building, it will redirect again where you can select the Tag whose previous position you want to see on that floor



Figure 28: Selecting floor from drop down menu

5. Here, From the drop down box located at the mid-centre of the page (highlighted with **Red Box** in *Figure 29*) select a Tag. It will redirect to a page where the floor map will be loaded with the heat map of previous location of Tag. (Filters can be used to adjust the duration of Tags movement on a specific date range)



Figure 29: Heat Map loaded

Note: The Heat Map displays the historical positions of tags within a one-month time-frame, resetting the previous data after this period.

2.10. Add New Notification Rule

1. To add new notification rule, go to the **Notifications** drop-down on the bottom left of the navigation panel. (Highlighted in the **Green box Figure 30**)
2. It will show the three sub-headings, select **Rules**, it will display list of Notification Rules already added to the list. If no rules are added it will show no list.

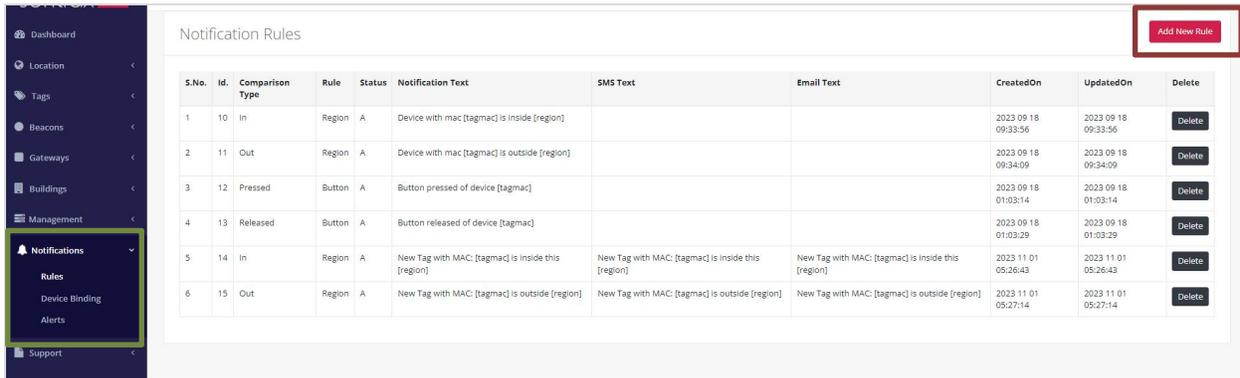


Figure 30: Add new notification rules page

3. Here to add a new notification rule click on **Add New Rule** Button on the top right of the page (**Red Box**). It will redirect to a page where the user can view the notification rules list and floors and their options with three text boxes (Notification Text, Email Text, SMS Text) (Figure 31)

Note: Notification rules are created to receive notifications for tags on Solix, through SMS and Email.

Example Usage: By creating a Notification rule for (Region, In). You will receive Notifications whenever a Tag is inside a Region and if the rule is for (Region, Out) you'll receive Notifications whenever a Tag is outside a Region. You can create Rules for different types of Notifications.

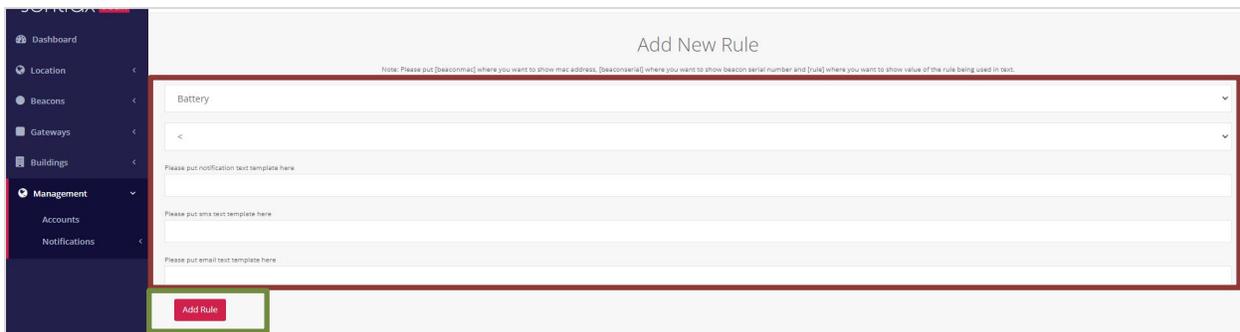


Figure 31: Selecting rule and options from drop down menu

7. Here, From the drop-down box (highlighted with **Red Box** in Figure 31) select a rule then, select an option then, type in the text boxes in which format you want your notification to look like.

Note: type [tagmac] where you want to show mac address, [tagserial] where you want to show Tag serial number and [rule] where you want to show value of the rule being used in text template these template tags will be replaced with the actual tag values.

Example usage for inside a region rule: "Your device [tagmac] with serial number [tagserial] is inside [rule]"

8. Pressing on the **Add Rule** button (Highlighted in the **Green Box Figure 31**) will redirect to a page where the list of Notification Rule Rules will be displayed.

S.No.	Id.	Comparison Type	Rule	Status	Notification Text	SMS Text	Email Text	CreatedOn	UpdatedOn	Delete
1	10	In	Region	A	Device with mac [tagmac] is inside [region]			2023 09 18 09:33:56	2023 09 18 09:33:56	Delete
2	11	Out	Region	A	Device with mac [tagmac] is outside [region]			2023 09 18 09:34:09	2023 09 18 09:34:09	Delete
3	12	Pressed	Button	A	Button pressed of device [tagmac]			2023 09 18 01:03:14	2023 09 18 01:03:14	Delete
4	13	Released	Button	A	Button released of device [tagmac]			2023 09 18 01:03:29	2023 09 18 01:03:29	Delete
5	14	In	Region	A	New Tag with MAC: [tagmac] is inside this [region]	New Tag with MAC: [tagmac] is inside this [region]	New Tag with MAC: [tagmac] is inside this [region]	2023 11 01 05:26:43	2023 11 01 05:26:43	Delete
6	15	Out	Region	A	New Tag with MAC: [tagmac] is outside [region]	New Tag with MAC: [tagmac] is outside [region]	New Tag with MAC: [tagmac] is outside [region]	2023 11 01 05:27:14	2023 11 01 05:27:14	Delete
7	16	In	Region	A	[tagmac]	[tagserial]	[rule]	2023 11 03 08:13:09	2023 11 03 08:13:09	Delete
8	17	In	Region	A	Your device [tagmac] with serial number [tagserial] is inside [rule]	Your device [tagmac] with serial number [tagserial] is inside [rule]	Your device [tagmac] with serial number [tagserial] is inside [rule]	2023 11 03 08:13:09	2023 11 03 08:13:09	Delete

Figure 32: New Notification Rule added

2.11. Add New Device Binding

1. To bind your rule with your device, go to the **Notifications** drop-down on the bottom left of the navigation panel (Highlighted in the **Green box Figure 33**)
2. It will show the three sub-headings, select **Device Binding**, it will display list of Device Bindings already added to the list. If no bindings are added it will show no list.

S.No.	Notification Rule	Device	Status	CreatedOn	UpdatedOn	Delete
1	Region - In	S0060101001 - C708AD6A0186	A	2023 09 18 09:34:38	2023 09 18 09:34:38	Delete
2	Region - Out	S0060101001 - C708AD6A0186	A	2023 09 18 09:34:55	2023 09 18 09:34:55	Delete
3	Region - In	S0050020003 - ED2744369DE3	A	2023 09 18 10:09:48	2023 09 18 10:09:48	Delete
4	Region - Out	S0050020003 - ED2744369DE3	A	2023 09 18 10:09:56	2023 09 18 10:09:56	Delete
5	Button - Pressed	S0050020003 - ED2744369DE3	A	2023 09 19 07:57:15	2023 09 19 07:57:15	Delete
6	Button - Released	S0050020003 - ED2744369DE3	A	2023 09 19 07:57:24	2023 09 19 07:57:24	Delete
7	Region - In	S0070101200 - EE34764DE88E	A	2023 11 01 05:35:00	2023 11 01 05:35:00	Delete
8	Region - Out	S0070101200 - EE34764DE88E	A	2023 11 01 05:46:34	2023 11 01 05:46:34	Delete

Figure 33: Add new device binding page

3. Here to add a new device and bind it with your newly created rule, click on **Add New Binding** Button on the top right of the page (**Red Box**). It will redirect to a page where the user can view the Tag list and their rules with four text boxes (Rule Value, Notification Text, Email Text, SMS Text) (**Figure 34**)

Add New Binding

EE34764DE88E

In

Please position your cursor here

Region

Notification text

Your device EE34764DE88E with serial number S0070101200 is inside Region

SMS text

Your device EE34764DE88E with serial number S0070101200 is inside Region

Email text

Your device EE34764DE88E with serial number S0070101200 is inside Region

Add Binding

Figure 34: Selecting tags and rules from drop down menu

4. Here, From the drop-down box (highlighted with **Red Box** in Figure 34) select a tag then, select a rule to bind to that tag then, type in the value of rule in text box (rule value).

Note: Notification Text, Email Text, SMS Text will automatically get the tag mac where the [tagmac] tag was used when creating a rule, tag serial where [tagserial] tag was used and [rule] will be taken from the text box Rule Value (Highlighted in Blue box in Figure 34).

5. Pressing on the Add Binding button (Highlighted in the **Green Box** Figure 34) will redirect to a page where the list of Device Bindings will be displayed.

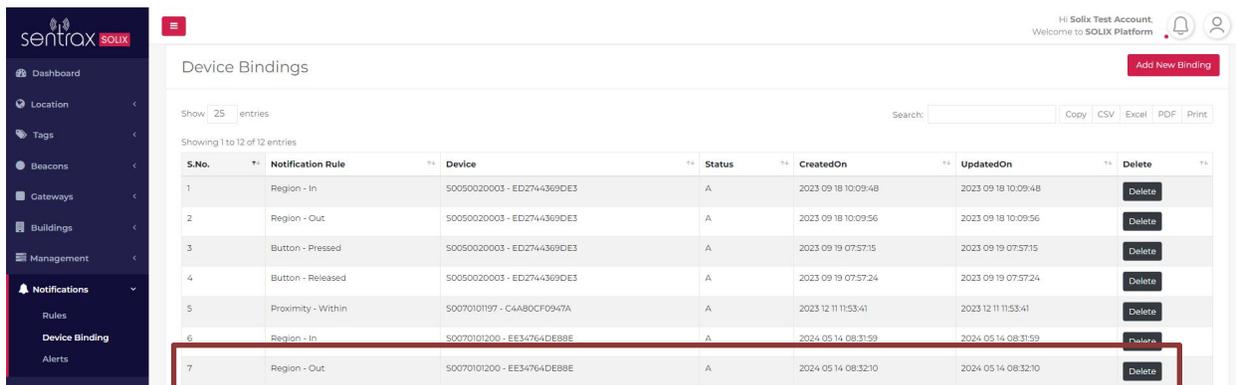


Figure 35: New Device Binding added

2.12. Tags Studio

1. To customize your Tags icons and assign them a Tag type or a specific description, go to the **Tags** drop-down of the navigation panel. (Highlighted in the **Green box** Figure 36)

2. It will show the four sub-headings, select **Studio**, it will display list of Tags and their information.

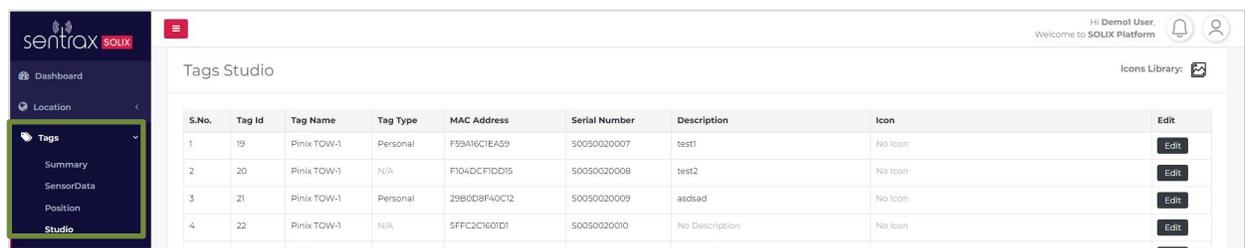


Figure 36: Tags studio page

3. Here to add a new icon click on **Icons Library** on the top right of the page (**Red Box** figure 37). It will open a pop-up modal where the user can view and add new Tag icons. (Figure 37)

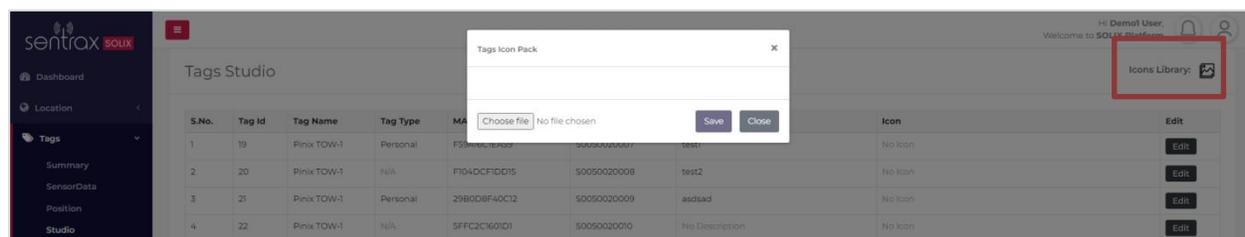


Figure 37: Tags icon pack

- By clicking on the **choose file** option, upload the desired icon (Note: icon size should be 25x25 pixels) and click **Save** to save the icon in your pack list.
- After click **Save** button user should be able to view that icon in the **Icons Library** modal. (Figure 38)

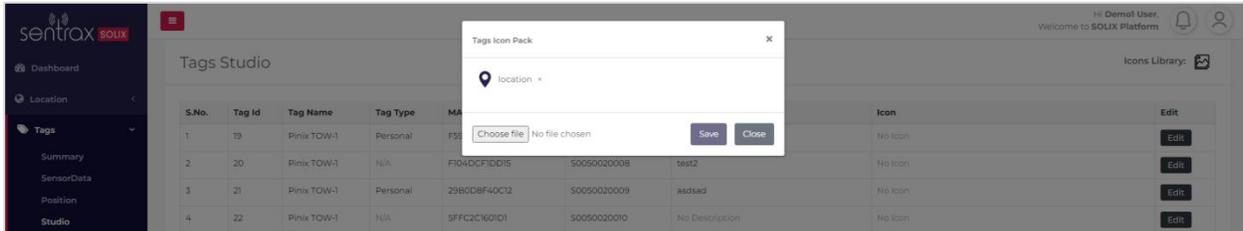


Figure 37: Tags icon pack

- Once an icon has been added in the Icons pack, user can use that icon to assign it to a specific **Tag** which will be used to display the location of that **Tag** on the Live map.
- To assign an icon to a **Tag**, click on the **Edit (Red Box)** button of the desired **Tag** of which you want to change the icon. After clicking a pop-up modal will be opened where you can assign a type, edit the description and set an icon of a **Tag**. (Figure 38)

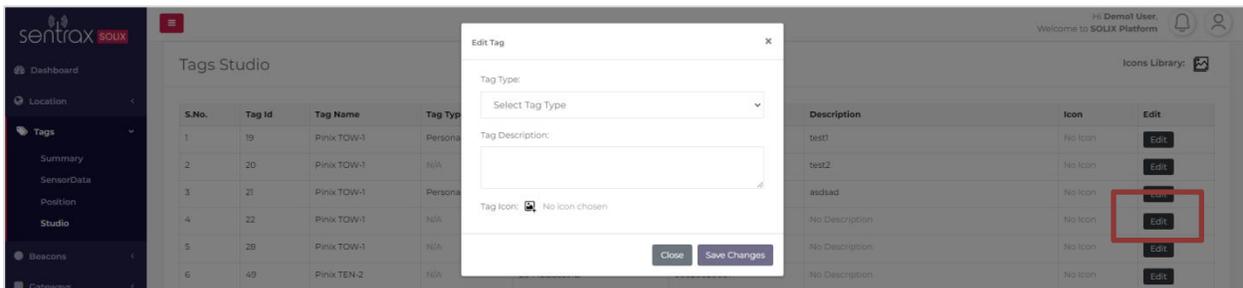


Figure 38: Edit Tag

- Here, user can assign a type, add a description and set an icon for a **Tag**.
- Click on the Tag Icon (**Green box**) which will open a pop-up where user can view the Icon pack which they added earlier in **Step #5** (Figure 39). Select the desired icon and click **Select Icon** button (**Blue Box**). (Figure 39)

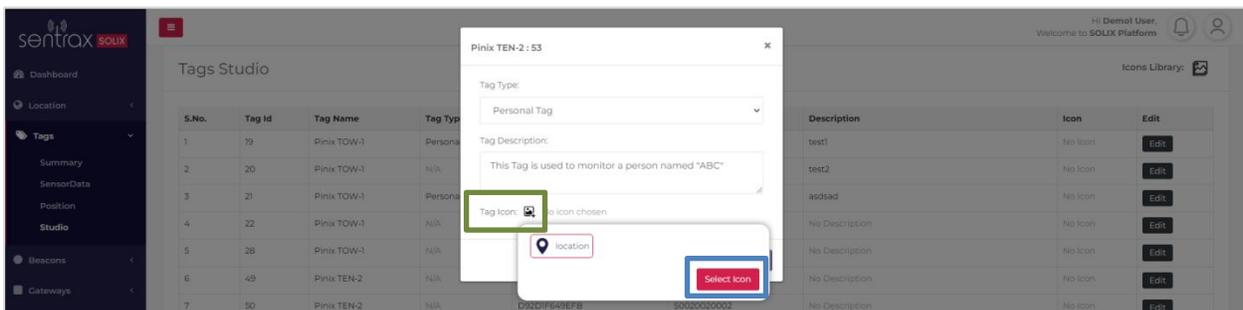


Figure 39: Edit Tag

- After editing the **Tag**, click on the **Save changes** button. (**Red Box**) (Figure 40)

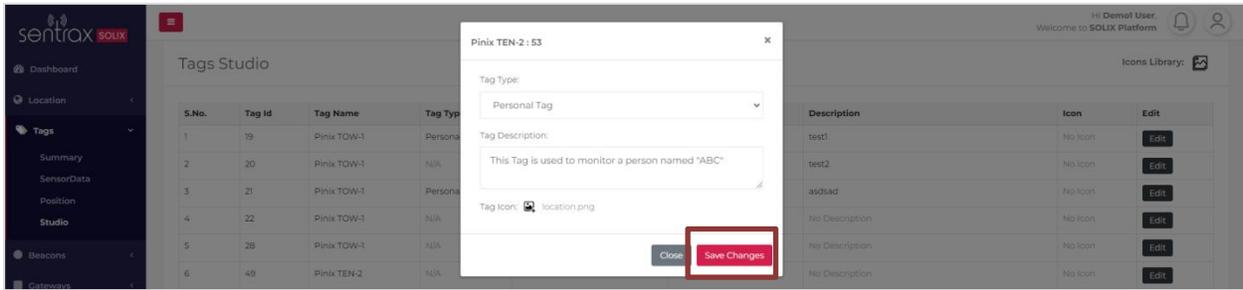


Figure 40: Edit Tag

11. Pressing on the **Save changes** button will redirect to Tag Studio page where user can see the changes of Icon Information. (Red Box) (Figure 41)



Figure 41: Tag Information updated

12. If user want to delete an icon, click on the **Icons Library** (Red Box) and click on the (X) mark of the icon to delete that Icon. (Figure 42)

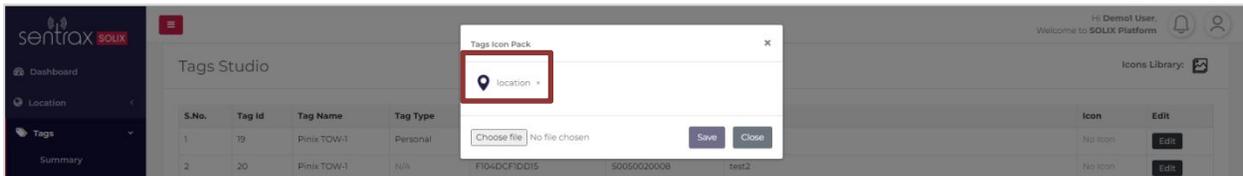


Figure 42: Delete Tag Icon

13. If user wants to delete an icon of a certain **Tag** then upload the new icon in the **Icons Library** and reassign that icon to a **Tag**.