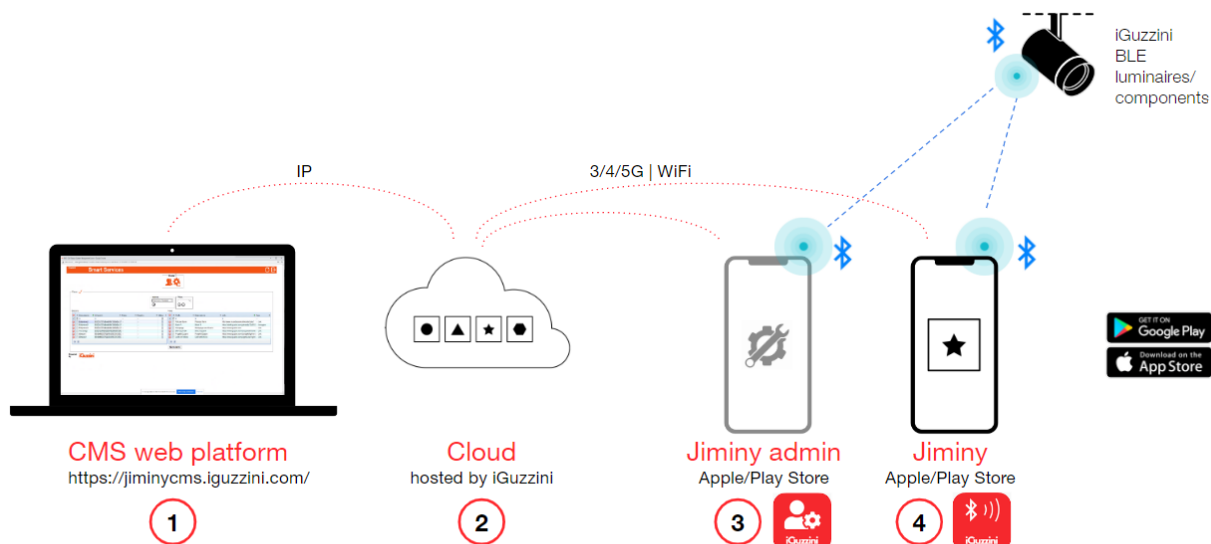


Jiminy for Push Notifications - guide

Jiminy is a push notification system developed by iGuzzini. With iGuzzini's lighting fixtures and/or Bluetooth components it's possible to enable location-based information services (e.g. in museums) and proximity marketing (e.g. in shops).



Schematic example of the system:

1. Jiminy CMS (Content Management System)
2. Jiminy Cloud
3. Jiminy admin (for on-site setup)
4. Jiminy (for end-user, visitors)

A. Video Tutorial

The best way to get introduced to the system is to watch the video tutorial that is an integral part of this guide.

In the following points (B onwards), some steps and features will be described in more detailed mode.

Video Tutorial : <https://youtu.be/BtfHtAh5jKU>



B. Devices and beacons

The devices that can work with the Jiminy system are only of the iGuzzini brand and are as follows:

- iGuzzini BLE luminaires (iBeacon and Eddystone embedded, Bluetooth WiSilica)
- iGuzzini BLE luminaires (iBeacon embedded, Bluetooth Casambi)
- iGuzzini Quick BLE components (iBeacon and Eddystone embedded, Bluetooth WiSilica)
- iGuzzini with ORT luminaires (iBeacon embedded, Organic Response Technology)
- iGuzzini ORT components (iBeacon embedded, Organic Response Technology)
- iGuzzini beacon PA04 (only Eddystone beacon for LV tracks)

The beacons of the devices mentioned above can be enabled as **iBeacons** (Apple standard) or **Eddystone UID** (Google standard) or both types.

C. Luminaire/Device installation and position.

When installing the devices/devices, it is recommended to **mark the location on a map** or on a list. This is especially important for those devices that do not emit light and cannot be controlled as they may be in a hidden position once installed (e.g. BLE interfaces, PA01...). For code **PA04**, in addition to the installation position, it is also important to write the code found on the code of the component.

For **luminaires** to be enabled as beacons at a specific desired location, it will be sufficient to **switch the luminaire on/off to locate it**.

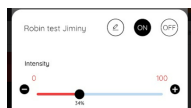
D. Beacon enabling and coding.

Once the desired location for the beacon has been found, it must be enabled (switched on) on the luminaire/component and an identification code must be configured using the app (or portal) of the respective technology, as shown below:

iGuzzini luminaires/devices with Bluetooth WiSilica:



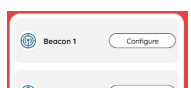
Open the *iGuzzini Smart Light 2* app



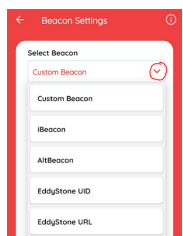
Locate the luminaire (or the component) by switching it on/off .



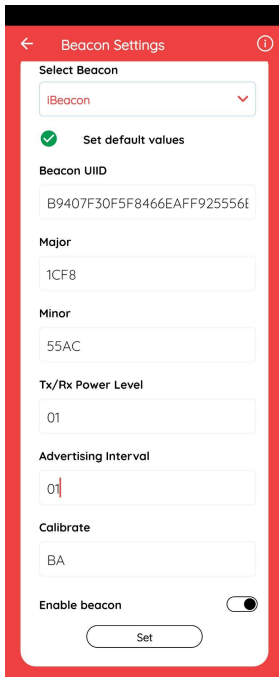
Once identified the luminaire, press the *setup icon*, then choose *Additional Settings*> *Beacon Settings*>



Select one of the free slots (Beacon 1 to 5) by pressing *Configure*.



As the first configuration operation, **select the desired protocol**. Jiminy works indifferently with both **iBeacon** and **Eddystone UID** protocols. The **iBeacon** protocol guarantees better compatibility with other iGuzzini luminaires that can only use **iBeacon** (e.g iGuzzini ORT products, iGuzzini Bluetooth Casambi products). The following example will be based on **iBeacon** standard.



Check the option “*Set default values*”.

Beacon UUID: this field will be automatically populated with the exact code that can be recognised by the Jiminy system.

b9407f30-f5f8-466e-aff9-25556b57abcd

Do not change this field if you wish to use the Jiminy system. Third parties may instead enter the code according to their requirements.

Major: type the major hex code that is generally used to group related set of beacons (0001 to FFFF).

Minor: type the minor hex code that identifies this beacon (0001 to FFFF).

TX/RX Power Level: set the power (01 lowest to 07 highest)

Advertising Interval: set the repetition speed (01 fastest repetition)

Calibrate: fixed value of BA is set. Field for future improvements.

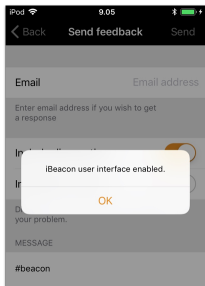
Enable beacon: slide to the right to enable the beacon

Press **Set** to configure/edit the Beacon parameters as specified

iGuzzini luminaires/devices with Bluetooth Casambi



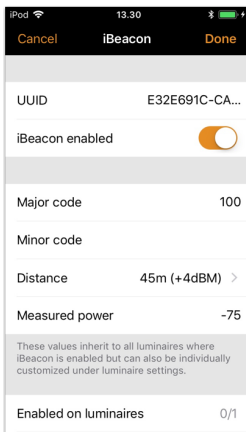
Open the *Casambi* app . Go to the menu “...More”> then “App Settings”> “Send Feedback”>. Write **#beacon** in the message field and tap “Send”.



This operation must be done only once, and it will unlock the Beacon setting menu on the Casambi app.

Now Go to “...More”> then “Network Setup” > “iBeacon”.

The image shown at bottom will appear.

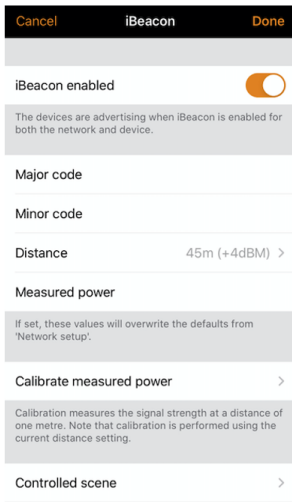


Set in the UUID field the following code that can be recognised by the Jiminy system: **E32e691c-ca5a-4145-a322-f00a08216417**

Do not change this field if you wish to use the Jiminy system. Third parties may instead enter the code according to their requirements.

In this *iBeacon* window you can change the network default settings for iBeacon.

For example the "Major code" and the "Distance" could be set here so that it is automatically the same for all the luminaires in the network. It is also possible to enable/disable iBeacon for all units in the network.



To set up the beacon for the **specific luminaire**, tap on the “Luminaires” window and locate it by switching it on/off. Then *double tap* on the luminaire icon to open the menu and scroll down. Then click on “*iBeacon*”.

Major code: type the major hex code that is generally used to group related sets of beacons (1 to 65535).

Minor: type the minor hex code that identifies this beacon (1 to 65535).

Distance: set the power (-30dBm lowest to +4dBm highest)

Measured power/Calibrate: The measured power can be calibrated for iOS devices. iOS devices use this value to determine the proximity of the iBeacon device. Location services must be enabled on the iOS device.

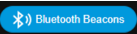
For more information, see Casambi's online guide

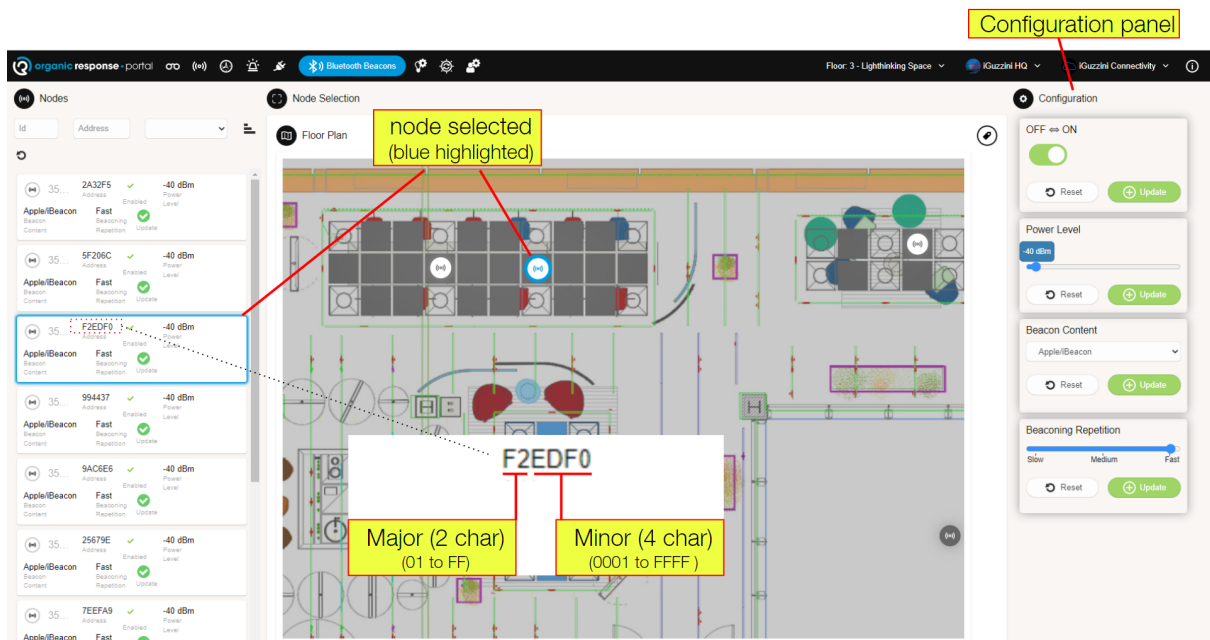
<https://support.casambi.com/support/solutions/articles/12000038230-how-to-enable-ibeacon-sending-for-casambi-modules->

iGuzzini luminaires/devices with Organic Response technology

To enable beacons on Organic Response luminaires/sensor nodes, the portal '<https://portal.organicresponse.com/>' must be used.

This means that it is necessary to have one or more gateways [X685](#) in the field, which will relay the settings to nodes marked on the map.

Access to the portal>, select the building>, select the zone>, select  > Select 1 node>, set up the beacon via the Configuration panel on the right...



OFF↔ON Enable/ Disable beacon

Once the relevant nodes are selected, toggle the option OFF↔ON from the configuration panel. In order to finish enabling or disabling remember to select the “⊕update” button.

Power Level

Adjust the power level by using the sliding bar. You can choose a value between -40dBm (lowest) to +4dBm (highest). Once you click “⊕update” the selected power level configuration will be sent to the selected node.

Beacon Content

Choose “*Apple/iBeacon*” from the drop-down menu. Use this protocol if you wish to work with the Jiminy system. Similarly “⊕update” if you would like to send this configuration to the sensor node.

Beaconing Repetition

You can choose from slow (100ms) , medium to fast by using the sliding bar. Click on “⊕update” if you would like to send this configuration individually to the sensor node.

Major and Minor

These are fixed parameters and are taken from the ORT node's unique identifier code, (F2 EDF0 in the example). The first two hex characters represent the Major while the next four hexadecimal characters represent the Minor.

The “Reset” button will allow discarding any recent change in values made to go back to the last chosen parameter.

The “Refresh” tool available in the node’s list view on the left side. This option will allow you to check the latest updates to Beacon configuration of the nodes. In case of successful response, the icon against relevant node would turn green otherwise in absence of a response it would stay amber with a question mark (pending).

The UUID code

The UUID value for Organic Response working in combination with **Jiminy system** is as follows: A7dee2a8-8067-4b2b-abc0-b76d98bd62e5

It does not have to be set, once enabled the beacon, the string is automatically assigned.

For more information, see ORT's online guide

<https://organicresponse.atlassian.net/wiki/spaces/DOC/pages/1977155639/9.8.+Bluetooth+Beacons>

iGuzzini PA04 Beacon for Low Voltage track / Superrail track:

The PA04 component is a pure beacon and can work as a default in Eddystone (Google) mode. The beacon provides 5 slots that can be set with different codes. For programming, the PA04 must be identified with a special app (ask iGuzzini) that will recognise the beacons on-site thanks to the "iGxxxx" prefix. To modify the parameters it is necessary to unlock the beacon with a password (ask iGuzzini).

E. Creating an account and assign beacons to it via Jiminy Admin



Download and install the "Jiminy admin" app via App Store or Play Store.



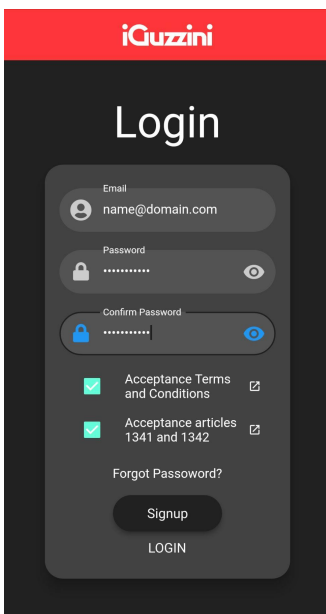
<https://qrco.de/bdMI3N>

Before activating the account and/or registering beacons in the account, it's **necessary to go to the installation site**. This is because the Jiminy admin app must receive the beacon signal in order to identify and register them.

Important: To activate the Jiminy account for the first time, **at least 1 beacon must be present, enabled and configured** (with one of the iGuzzini UUID specified above).

Important: **Bluetooth and location settings must be enabled** on the iOS/Android device.

Start the app.



For first, select the text "Signup". The mask shown on the left appears.

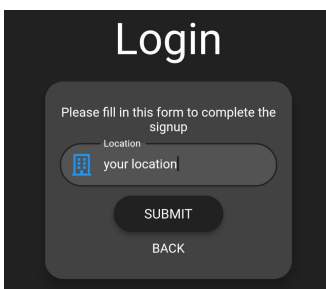
Fill the field "Email" with a valid email (usually that of the end customer).

Choose a "Password" and enter it twice.

Read the terms and conditions (mandatory).

Accept both terms (mandatory).

Press "Signup" to proceed to the next step for site creation.

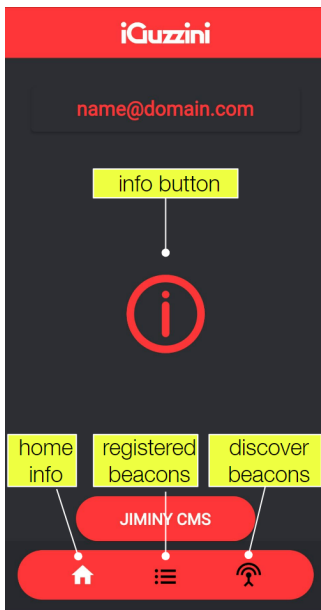


Type the name of the location (e.g. Museum xy, hall num. 3, Blue room, Shop xy, Showroom xy etc).

Press "SUBMIT" for site creation.

As written above, at least 1 device with iGuzzini beacons must be recognised, otherwise the process will not go ahead (circle spinning).

Note: to add more location for the same account please ask iGuzzini

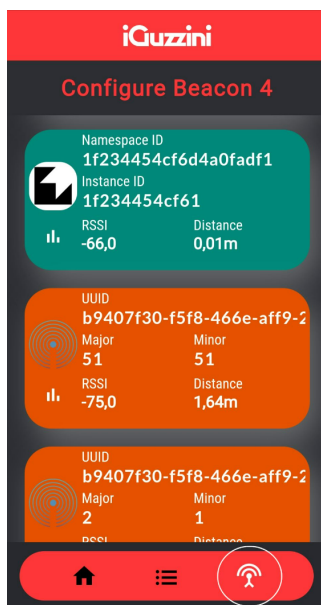


This is the main mask of the app.

The **Home icon on the left** corner shows the main screen that provides information on how the app works and displays the link to the Jiminy CMS for later reference.

The “hamburger” **icon in the centre** will show the beacons that have been registered on the account.

The “radio” **icon on the right** allows you to discover beacons you try nearby and add them to the account, bringing them to the list in the menu of registered beacons



Legend:

- Eddystone
- iBeacon
- previously shown but no longer in the field

Select the icon on the right to discover nearby beacons.

Beacons configured as **Eddystone** protocols will display the relevant logo and will be identified with the green colour .

Beacons configured as an **iBeacon** protocol will show the related logo and will be identified with the colour orange.

Beacons previously shown on the list but no longer detectable will be displayed in grey (get closer if necessary).

Beacons can also change position on the list quickly as the Bluetooth signal is influenced by many factors (movement of the smartphone, reflections in the environment, time of TX, etc.).

Take care before clicking on a beacon to register it, in order to select the desired/correct one (because of the fast-changing list).

It's possible to recognize the beacon by its Instance ID (Eddystone), or by its Major and Minor values (iBeacon).

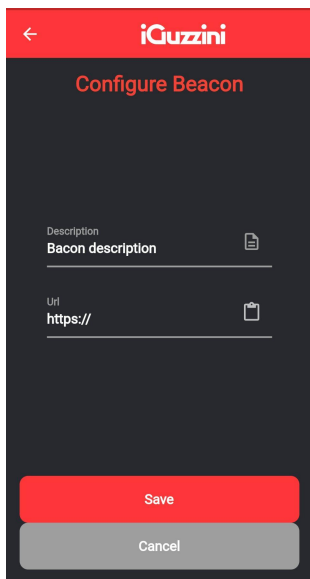
Please note: the Jiminy admin app reads **Major** and **Minor** values in **DECIMAL** format, while some beacons and their configuration apps show values in hexadecimal format.

- BLE WiSilica beacon → HEX
- BLE Casambi beacon → DEC
- Organic Response → HEX

If necessary, use online conversion service, e.g.:

HEX to DEC converter → <https://www.rapidtables.com/convert/number/hex-to-decimal.html>

DEC to HEX converter → <https://www.rapidtables.com/convert/number/decimal-to-hex.htm>

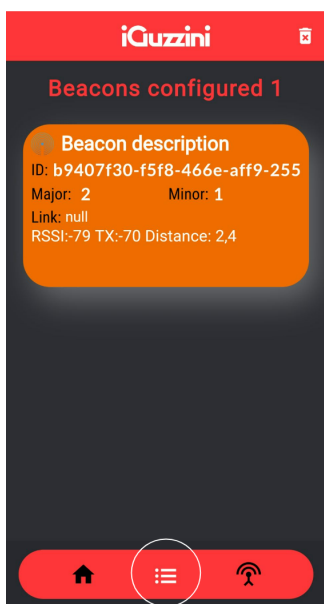


Once the beacon has been selected, the mask shown on the left will appear:

Enter a text in “**Description**” in order to name the beacon and thus be able to recognise it in the future, both on the app list and in the CMS (e.g. 'east side entrance beacon', 'shop window beacon n35', etc.).

It is also possible to immediately type in a **URL** address for the desired push-notification. The **URL field** address can either be left empty or filled in as it can be filled in/edited from the CMS platform (suggested).

Note: the Jiminy system only works with **https** URLs (not http).



Legend:

- iBeacon registered and visible (RSSI)
- iBeacon registered but not in the field. (no RSSI)
- Eddystone registered and visible (RSSI)
- Eddystone registered but not in the field. (no RSSI)

All beacons chosen, selected and named will refer to the account currently used by the Jiminy admin app and will be visible as a summary in **the list of registered beacons** (central menu button as shown in the figure on the left).

A beacon **can only belong to one account**. If a beacon currently belongs to another account in the Jiminy system, an error pop-up message is shown and it must be de-associated from its account before it can be used in the current account.

We are now ready to test the on-site system. If a URL was entered during beacon registration, even a test URL, this first test can be done by downloading the **Jiminy** user app and trying to move around the site.

At this stage it is usually checked whether the transmission power in dBm is correct. If necessary, the power can be calibrated with the respective configuration application (Smart Light 2 / Casambi / ORT Portal).

URLs or final web pages to be shown as push-notification can be edited/compiled via the Jiminy CMS (Content Management System)

F. Jiminy CMS: compiling, editing and matching push-notifications

The Content Management System platform allows you to change the name, URL, beacon pairing and create push-notifications linked to existing web pages or create simple web pages from an integrated **template**.

The Jiminy CMS can be reached at the following address:

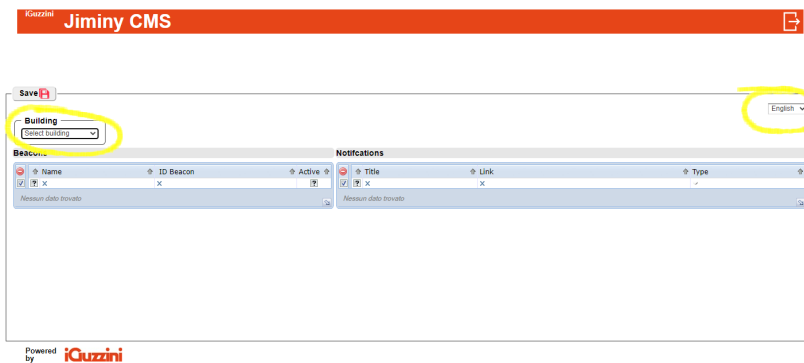
<https://jiminycms.iguzzini.com/>

The CMS can be used on-site (e.g. for testing purposes) or conveniently from the office remotely, without necessarily being on site.

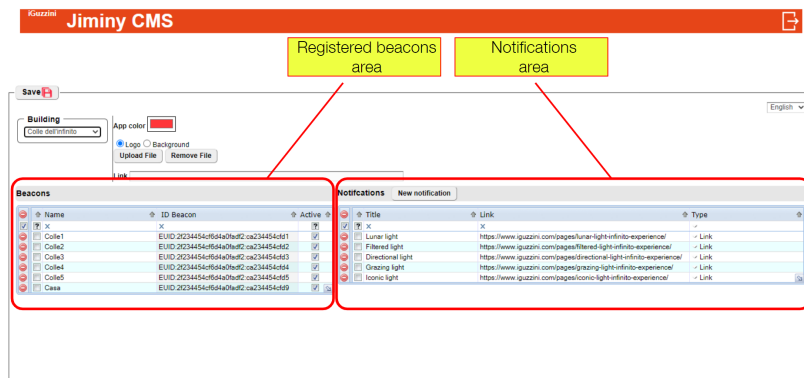
The CMS relies on the iGuzzini cloud specifically reserved for Jiminy.



Type the same credentials used in Jiminy admin (user= email used during registration with "Jiminy admin").



Select the language (on the right) and select the Building (on the left). The name of the building in the drop-down menu will be the same as the one previously entered with the "Jiminy admin" app.



Select the language (on the right) and select the Building (on the left). The name of the building in the drop-down menu will be the same as the one previously entered with the "Jiminy admin" app.

Once the location (Building) has been selected, the **mask shown above** will be accessed.

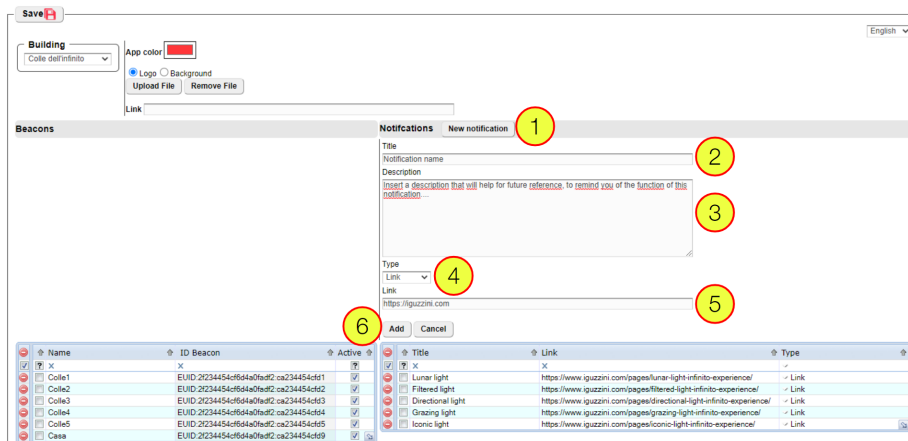
The left side area will be populated with the list of beacons already registered with the 'Jiminy admin' app, and under 'name' will show the same name as given with the app. It is possible to change the name of the beacon by double-clicking it.

The right-hand side is reserved for Notifications. When you log in for the first time, there will be no notification, unless you have already entered when registering the beacon via the "Jiminy admin" app.

The procedure to realise the push notifications system is to create notifications (also by preparing a list of them) and then match the notifications on the right with the beacons on the left.

Notifications creation:

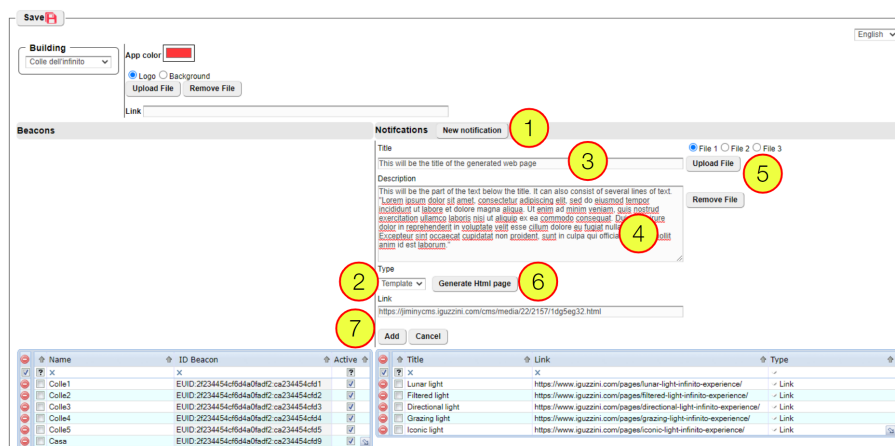
Link Type notification: the notification refers to an already existing page accessible via the web. Please note that only **https** 'security-enhanced' profiles are allowed (and not http).



To add a notification by link: press 'new notification', type a Title, enter a Description, select the 'Link' type and add the URL of the link. When finished, press 'add'.

Note: Once the notifications have been added, press the 'Save' button at the top left.


Template Type notification: in this case, a simple web page hosted on the Jiminy cloud can be generated. Contact iGuzzini for limits on the number and size (in MB) of template notifications. By way of information, bear in mind that template pages with text occupy a few kB while pages with video occupy many MB.



To add a notification by template: press 'new notification', select "Template" Type, insert the Title/header of the notification, enter the text to be displayed on the page, add from 1 to 3 multimedia

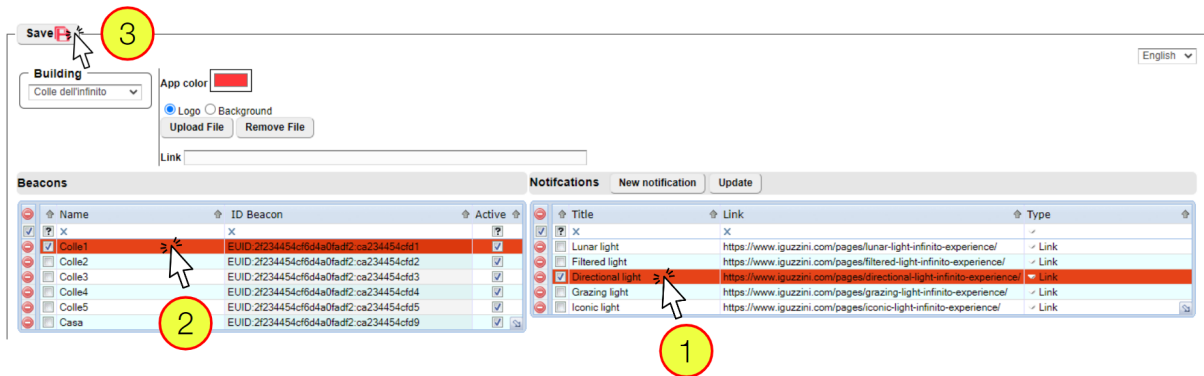
files such as video/audio/picture (.mp4/.mp3/.JPG .PNG) by selecting the relevant slot (File 1,2,3).

Press "Generate HTML page": this will create a link within the Jiminy cloud and a browser window will open showing a preview of the web page. You can close the preview, continue

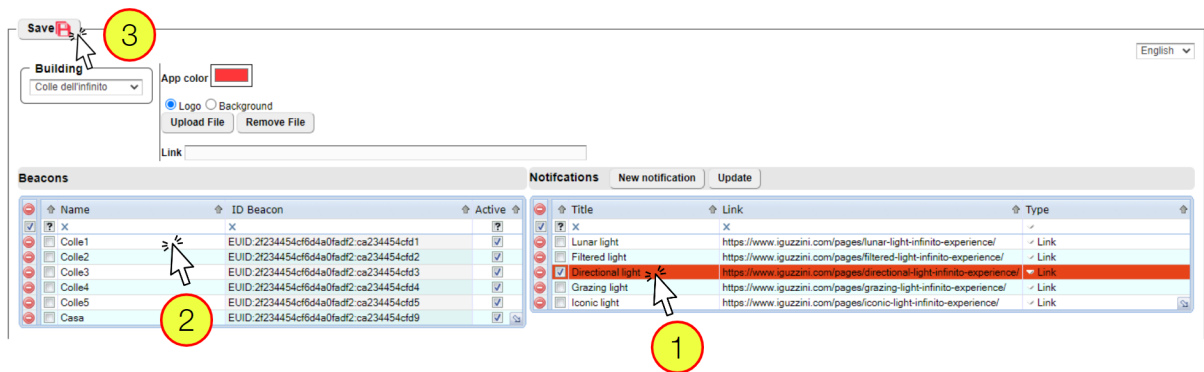
editing the template at will. When finished, press "Add" to add the notification to the list.
 Note: Once the notifications have been added, press the 'Save' button at the top left.
 Note: To delete a Notification, press the icon  close to the relevant notification

Pairing/unpairing of notifications to beacons:

To pair a notification to a beacon, select the notification above the Title (notification turns red), select the beacon above the Name (beacon turns red) and press the 'Save' button to save the pairing. Next to the 'Save' button, a flashing 'Saved' information will be displayed for a few seconds after a successful operation.



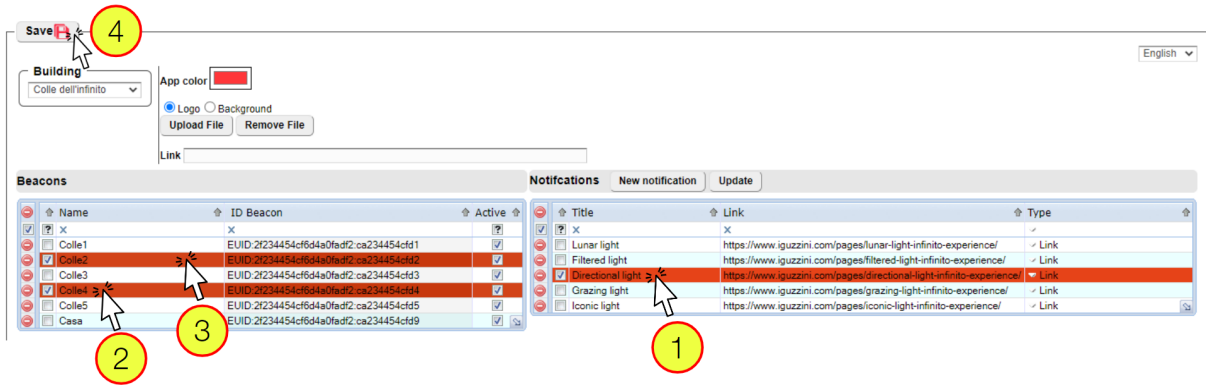
To cancel the pairing, select the notification (both the notification and the paired beacon will be displayed in red), click on the beacon (the beacon will no longer be red while the notification will remain red). In this condition, press 'Save' in the top left corner. A flashing 'Saved' information will be displayed for a few seconds after a successful operation. The pairing of the notification to the beacon has been removed.



It is possible to pair several beacons to the same notification; this can be useful when you want to push the same notification in a large area, using several beacons and avoiding using only one beacon with high power.

Select the notification, then select two or more beacons (there is no limit).

Press the 'Save' button in the top left corner.



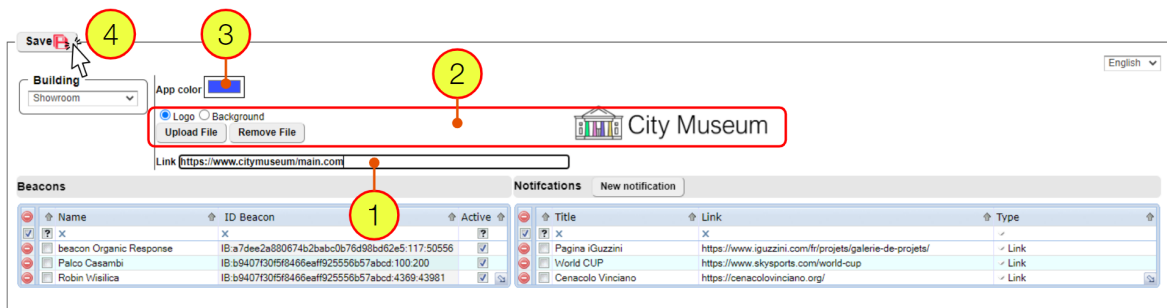
Note: the opposite is not possible, i.e. pairing several notifications to a single beacon.

Customisation of the Jiminy User app using the CMS:

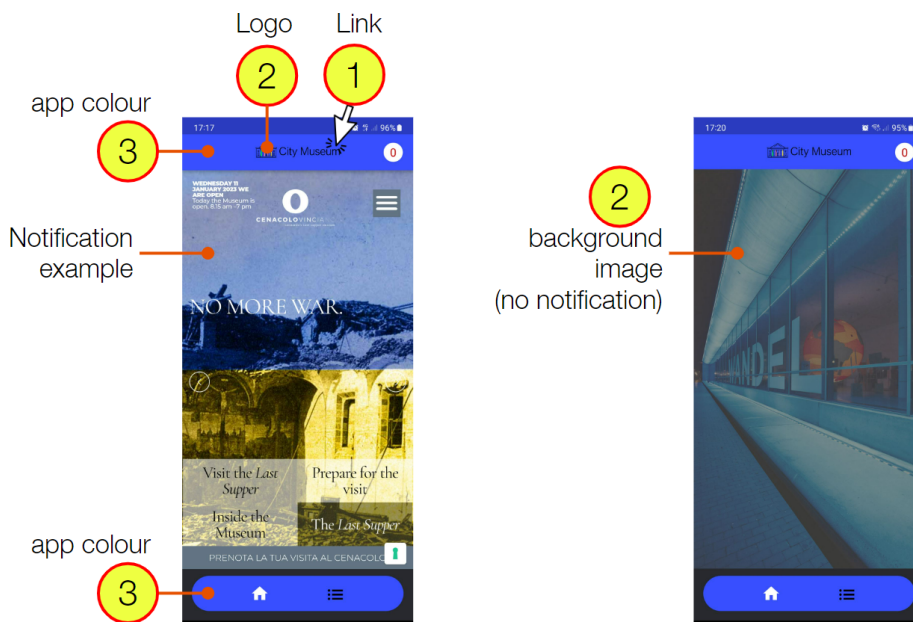
It is possible to customise some basic elements of the Jiminy app (user) such as colours and background via the CMS.

- (1) Enter a link that will be reached by the app when you tap on the app logo.
- (2) You can Upload a logo (.PNG format is recommended) and/or a background image that will be displayed in the absence of notification (select Logo or Background before uploading).
- (3) You can customise the colour of the top and bottom 2 bands of the app by selecting any colour from RGB coordinates (0-255) or by using the colour picking function.
- (4) Press “Save” to store changes.

View from CMS



View from Jiminy (user) app (customised)

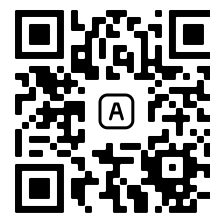


Important: as soon as you start (and restart) the app will always show the iGuzzini colours, logo and background. As soon as the first beacon is detected, the app will show the customisation related to the account.

H. Jiminy app : the user app



The user app can be downloaded free of charge from the Apple and Google stores by searching for 'iGuzzini Jiminy' or by selecting the references on the side:



<https://qrco.de/bd883e>

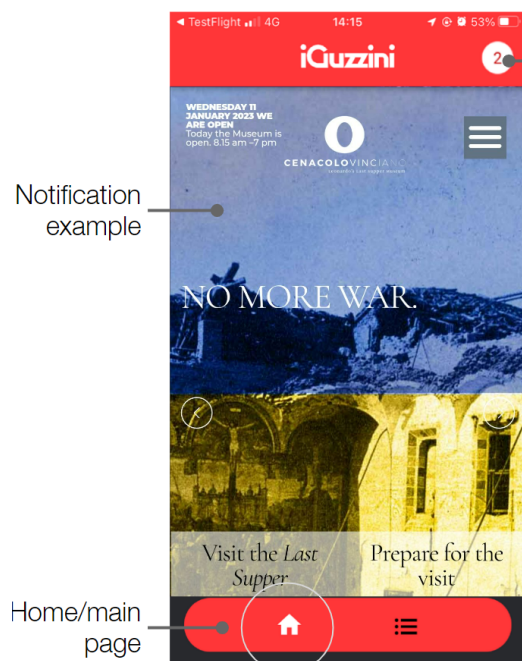
For proper use, the smartphone must have:

- Bluetooth enabled and
- Location enabled
- Data connection must be enabled and stable (e.g. Wi-Fi / 4G)

Run the application:

If no customisation has been done with the CMS, the app will display the iGuzzini colours and logo. The user will have to approach close to the points of interest to receive a contextual notification (based on its position). In this case, a push notification will be shown directly on the home page.

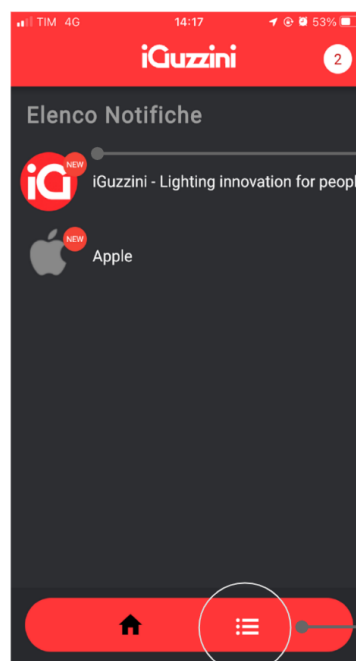
This will take some time (1-5 sec*) depending on the speed of the smartphone's data connection, the power detected by the beacon or proximity, and the type of smartphone version used (old/new).



Notification example

Home/main page

Counter (Notifications detected but not yet read)



"NEW" = Notifications detected but not yet read

Notifications list page

(*) note only for luminaires/devices with Bluetooth WiSilica : when the lighting system is powered up, it is necessary to wait about 3 min before the beacon starts transmitting, although it is possible to configure it immediately and make the necessary settings.

The notification, in addition to being displayed, activates a **vibration on the phone**.

The notification **never makes a sound**, a choice made to prevent disturbance in 'sensitive' environments.

The smartphone will have to have the **screen switched on or off** to receive the notification. The app can also be running in the background.

For any further information please contact iGuzzini.