Managing Bridges

This guide describes how bridges can be managed using the management portal. See this guide for more information about bridges and their role in the Wiliot three-tier-architecture

Prerequisites

To control Bridges from Management Portal, please make sure that your bridges and gateways are running the software versions listed below or later:

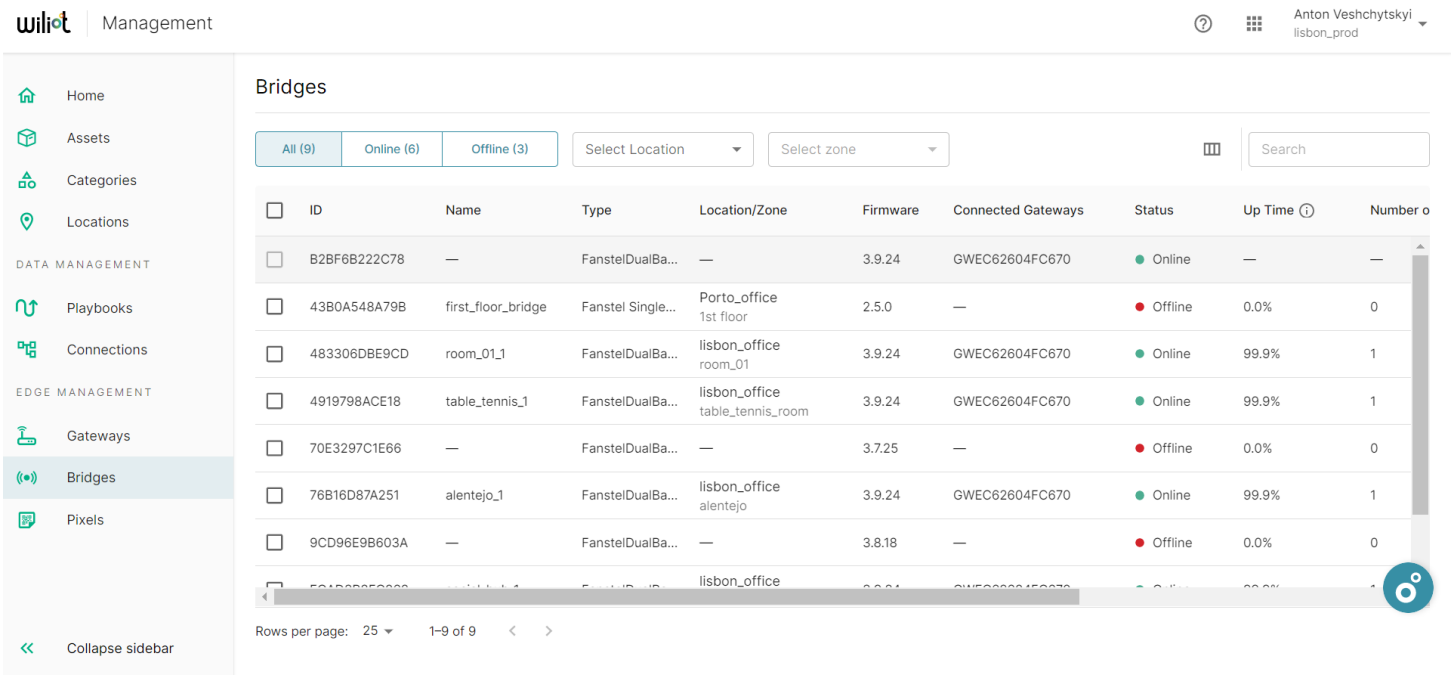
- Bridge: 2.7.9
- Gateway (Full-featured Works with Wiliot Gateway):
  - BLE Software: 2.7.9
  - Interface Software: 3.1.0

Note: Currently a gateway is required in order to manage bridges. You can also manage bridges using Wiliot App on your Android device. iOS-driven devices are not able to manage bridges due to restrictions from manufacturers.

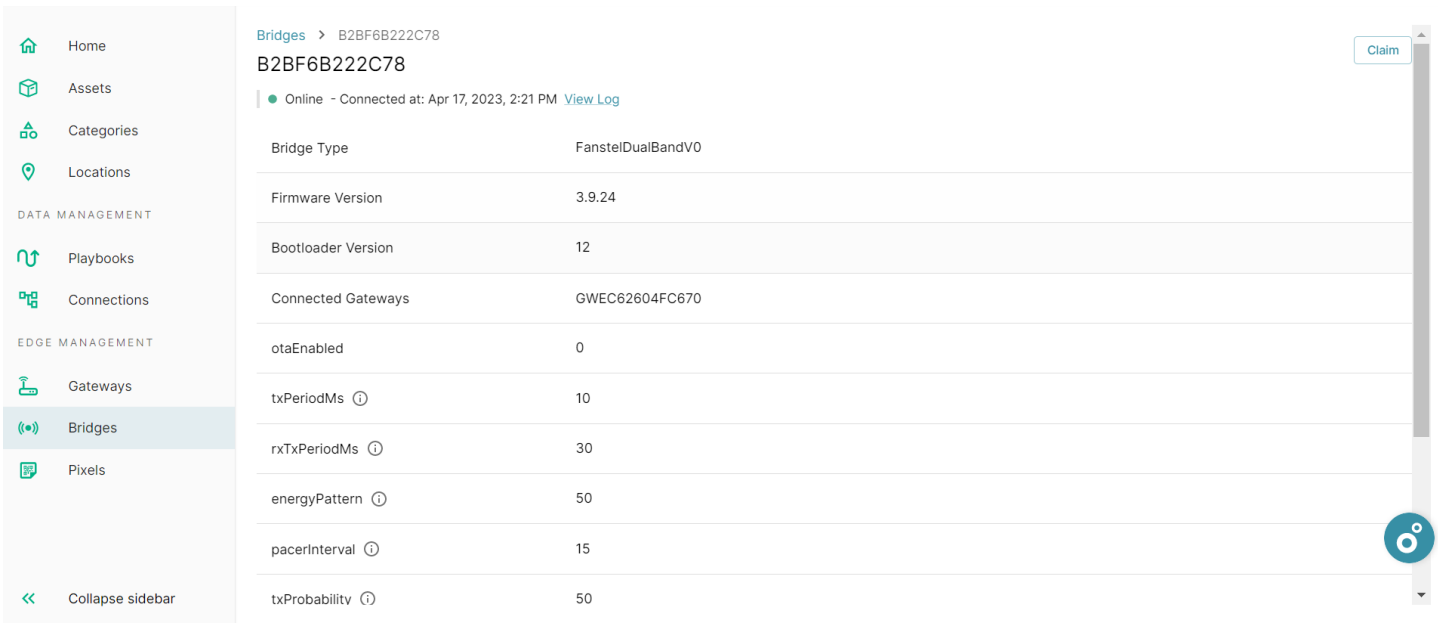
Managing Bridges

Bridges do not connect to the Internet so they need to be controlled via a gateway that "sees" them and manages them. Therefore, a bridge must be within range of a gateway that is connected to the cloud, before it can be controlled and configured.

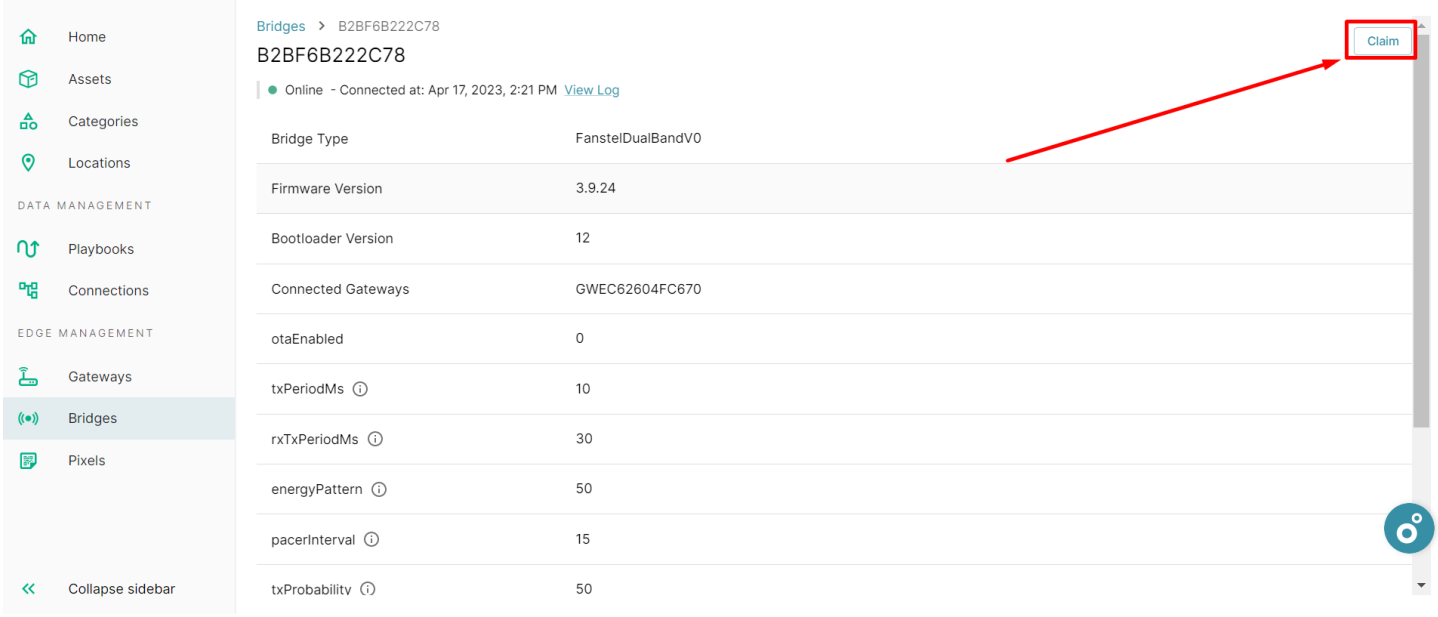
1. Find the bridge under the "Bridges" page in Cloud Platform:



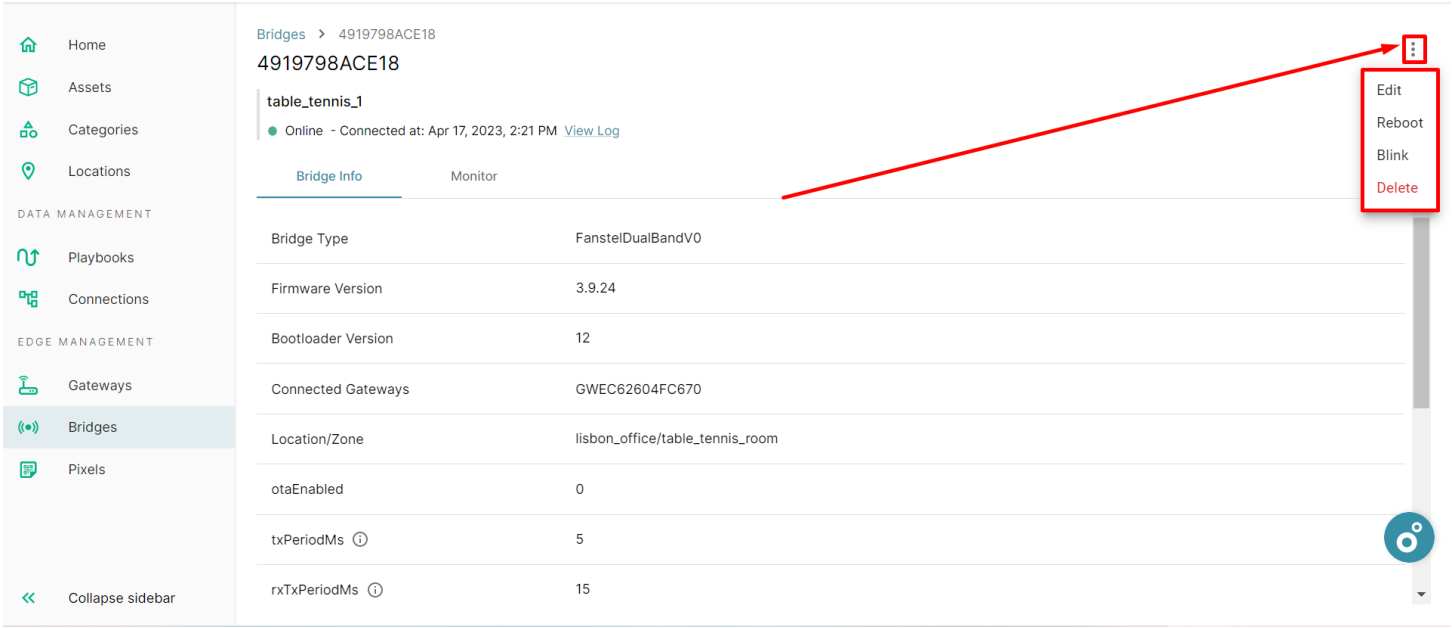
2. Clicking on the bridge name you will be able to check the bridge information and current configuration:



3. Before a bridge can be managed, it must be "claimed". This process ensures only one owner has control over the bridge.



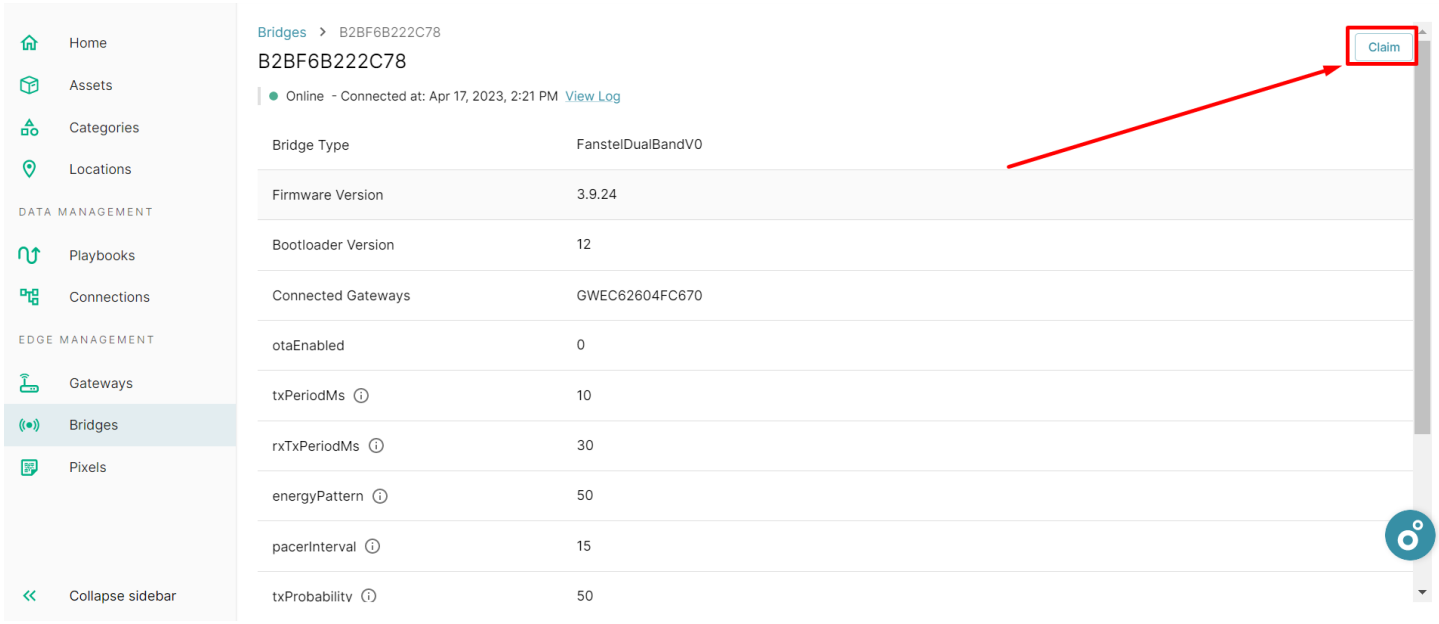
4. Once a bridge is claimed, the following operations become available:



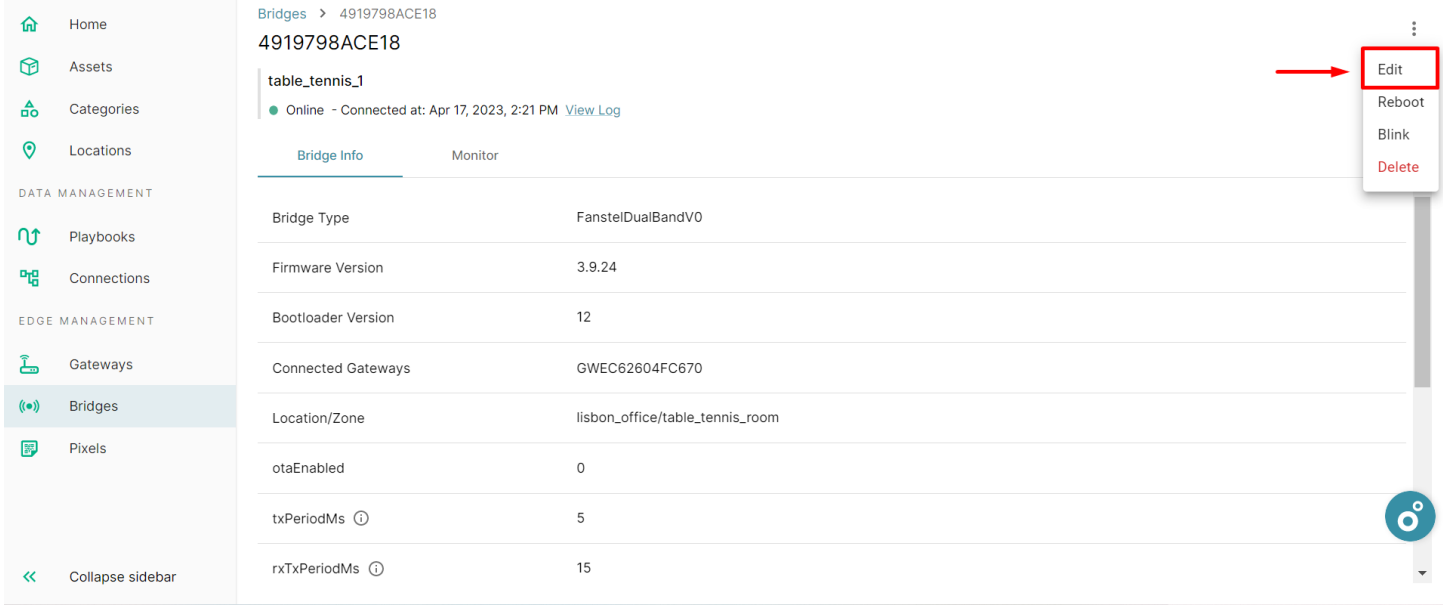
1. Edit configuration of the Bridge
2. Reboot the Bridge
3. Blink the LED of the Bridge
4. If a bridge was claimed by mistake it can be "Unclaimed" by deleting it from the account.

Edit configuration of a Bridge

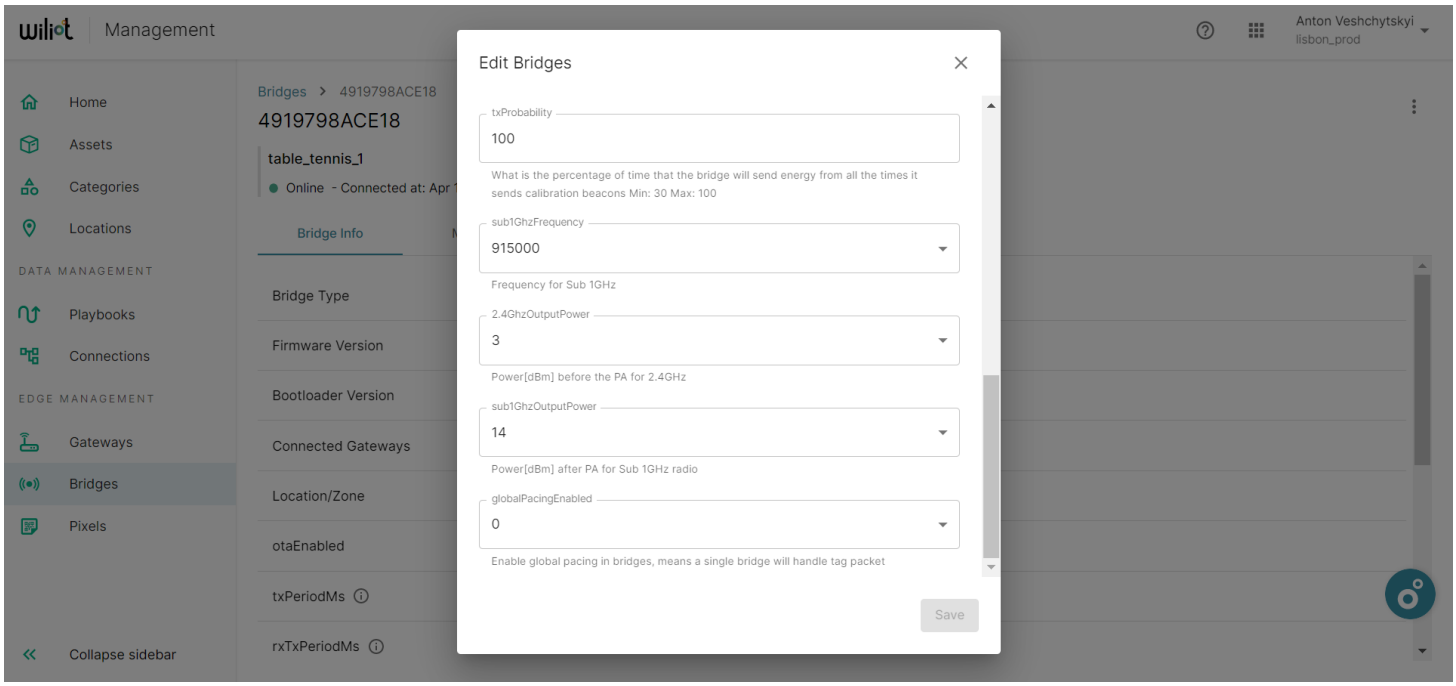
First, the bridge needs to be claimed to the account, view the bridge info and click the Claim button if not already claimed.



Click on the "Edit " button to go to the edit bridge configuration page.



The bridge configuration parameters are available and shown below:



Note Configuration Options will be FW Specific-

The following table describes the various configuration fields with their recommended values

Parameter Name	Description	Recommended Values	Available Values
txPeriodMs	The amount of time, in milliseconds, that the gateway is actively transmitting the BLE beacon data along with energizing of the advertisement channels in order to provide power to the Pixels.	8 for dualband and 5 for single band	3-252
rxTxPeriodMs	The scanning time period, in milliseconds. During this time period, packets are read and stored.	20 for dual-band and 15 for single-band	0-255
energyPattern	(see energy patterns article)	18 (for Single Band Bridges) 51 (for Dual Band Bridges)	For detail about values and meanings, please refer the following article: Energy Patterns
pacerInterval	Configures how long the gateway queues up packet data before initiating a transfer to the Wiliot cloud. More info here	60	0 - 65535
txProbability	Probability of energy transmission in percentage. This is an experimental parameter and should not be changed.	50	30 - 100
sub1GhzFrequency	Frequency for sub 1 GHz	915000	865700, 915000,916300, 917500,918000, 919100
2.4GHzOutputPower	Power level before the PA	3	-40,-20,-16,-12, -8,-4,0,2,3, 4,5,6,7,8
sub1GhzOutputPower	Power [dBm] level after PA for sub 1GHz radio	32	14,17,20,23,26, 29,32
otaUpgradeEnabled	Whether bridge firmware is automatically managed by the controlling gateway	0	0 or 1
globalPacingEnabled	Configures the bridges that are connected to the same gateway to work together as one zone (1) or as separate zones (0). In use cases where you have many bridges but only want to know if the tag is seen by any of the bridges in the area then set this value to a 1, which will help reduce the traffic to the cloud because the gateway will filter out duplicate tag packets from all the bridges that it can see. In use cases where it is important to know where the tag is closest to, then set this to 0 so that all the tag packet information is sent to the cloud for the AI engine to determine where the tag is located.	0	0 or 1

Reboot a Bridge

Clicking on this button will cause the bridge to reboot, forcing it to request the latest configuration values from its controlling gateway. Otherwise, wait for the bridge to initiate a request.

Blink the LED of a Bridge

Clicking this button will cause the bridge to blink its LED, making it easier to identify the bridge in an environment that includes multiple bridges.

Note that this feature works with Single Band Bridges only.

Advanced

Bridges can also be managed using Wiliot's Management API. Python programmers can use PyWiliot to manage bridges