

Qeedji

User manual

SMH300

4.14.15 001A



Legal notice

SMH300 4.14.15 (001A_en)

© 2022 Qeedji

Rights and Responsibilities

All rights reserved. No part of this manual may be reproduced in any form or by any means whatsoever, or by any means whatsoever without the written permission of the publisher. The products and services mentioned herein may be trademarks and/or service marks of the publisher, or trademarks of their respective owners. The publisher and the author do not claim any rights to these Marks.

Although every precaution has been taken in the preparation of this document, the publisher and the author assume no liability for errors or omissions, or for damages resulting from the use of the information contained in this document or the use of programs and source code that can go with it. Under no circumstances can the publisher and the author be held responsible for any loss of profits or any other commercial prejudice caused or alleged to have been caused directly or indirectly by this document.

Product information

Product design and specifications are subject to change at any time and 'Qeedji' reserves the right to modify them without notice. This includes the hardware, the embedded software and this manual, which should be considered as a general guide to the product. The accessories supplied with the product may differ slightly from those described in this manual, depending on the developments of the various suppliers.

Precautions for use

Please read and heed the following warnings before turning on the power: - installation and maintenance must be carried out by professionals. - do not use the device near water. - do not place anything on top of the device, including liquids (beverages) or flammable materials (fabrics, paper). - do not expose the device to direct sunlight, near a heat source, or in a place susceptible to dust, vibration or shock.

Warranty clauses

The 'Qeedji' device is guaranteed against material and manufacturing defects for a certain duration. Check the device warranty duration value at the end of the document. These warranty conditions do not apply if the failure is the result of improper use of the device, inappropriate maintenance, unauthorized modification, operation in an unspecified environment (see operating precautions at the beginning of the manual) or if the device has been damaged by shock or fall, incorrect operation, improper connection, lightning, insufficient protection against heat, humidity or frost.

WEEE Directive



This symbol means that your appliance at the end of its service life must not be disposed of with household waste, but must be taken to a collection point for waste electrical and electronic equipment or returned to your dealer. Your action will protect the environment. In this context, a collection and recycling system has been set up by the European Union.

Table of contents

Part I : Description and installation

Introduction	1.1
Getting started with the device	1.2
Device fixture	1.2.1
Device dimensions	1.2.2
Labelling	1.2.3
Device start-up steps	1.2.4
LEDs behaviour	1.3
Connectors pin-out	1.4

Part II : Applicative user interface

Applicative user interface	2.1
----------------------------	-----

Part III : Administration console user interface

device configuration Web user interface	3.1
Configuration > Administrator	3.1.1
Configuration > LAN	3.1.2
Configuration > WLAN	3.1.3
Configuration > SLATEs pairing	3.1.4
Configuration > Push buttons pairing	3.1.5
Configuration > Sensors pairing	3.1.6
Configuration > App	3.1.7
Configuration > Servers	3.1.8
Configuration > License	3.1.9
Configuration > Date and time	3.1.10
Configuration > Regionality	3.1.11
Configuration > Tasks	3.1.12
Configuration > Variables	3.1.13
Maintenance > Middleware	3.1.14
Maintenance > Logs	3.1.15
Maintenance > Preferences	3.1.16
Maintenance > Tools	3.1.17
Information > Device	3.1.18
Information > Network	3.1.19
Information > WPAN devices	3.1.20

Part IV : Configuration by script

Configuration by script	4.1
-------------------------	-----

Part V : Technical information

Technical specifications	5.1
Conformities	5.2

Part VI : Contacts

Contacts	6.1
----------	-----

Part VII : Appendix

Appendix: Qeedji PowerPoint publisher for SLATE	7.1
Appendix: Device status (status.xml)	7.2
Appendix: Img2slate tool	7.3

Part I

Description and installation

1.1 Introduction

This manual explains how to install and configure your SMH300 device.

Recommendations and warnings

This device is designed to be used indoor.

This device is intended to work with the power supply unit. This power supply unit must be connected to a mains socket conforming to standard NF C 15-100. If the AC power cable is damaged, it must be replaced. It is possible to order a power supply unit replacement by sending a request to the email address sales@eedji.tech.

This device is a Class A device. In a residential environment, this device may cause radio interference. In this case, the user is asked to take appropriate measures.

When powering the device from a PoE source, this PoE source must be "Limited Power Source" as defined in EN60950-1: 2006.

The Bluetooth system operates in the 2.4 GHz ISM¹ frequency bands, the operation of which does not require a licence due to the low transmission power and the low risk of interference. This frequency band is between 2402 and 2 480 MHz.

¹ Industrial, Scientific and Medical.

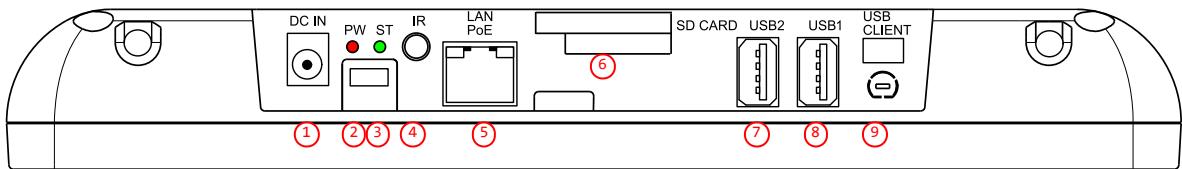
Content of the package

Items	Description	Quantity
Device	SMH300 device with Gekkota embedded.	1
Power supply unit	12 V power supply unit with cable of 1.2 m.	1
Labels	One on the cardboard packaging and another one at the back of the product. <i>Additional label can be present in case build-in options.</i>	2

 In this documentation, the unit of measurement for dimensions is done in millimeters followed by its equivalent value in inches.

1.2 Getting started with the device

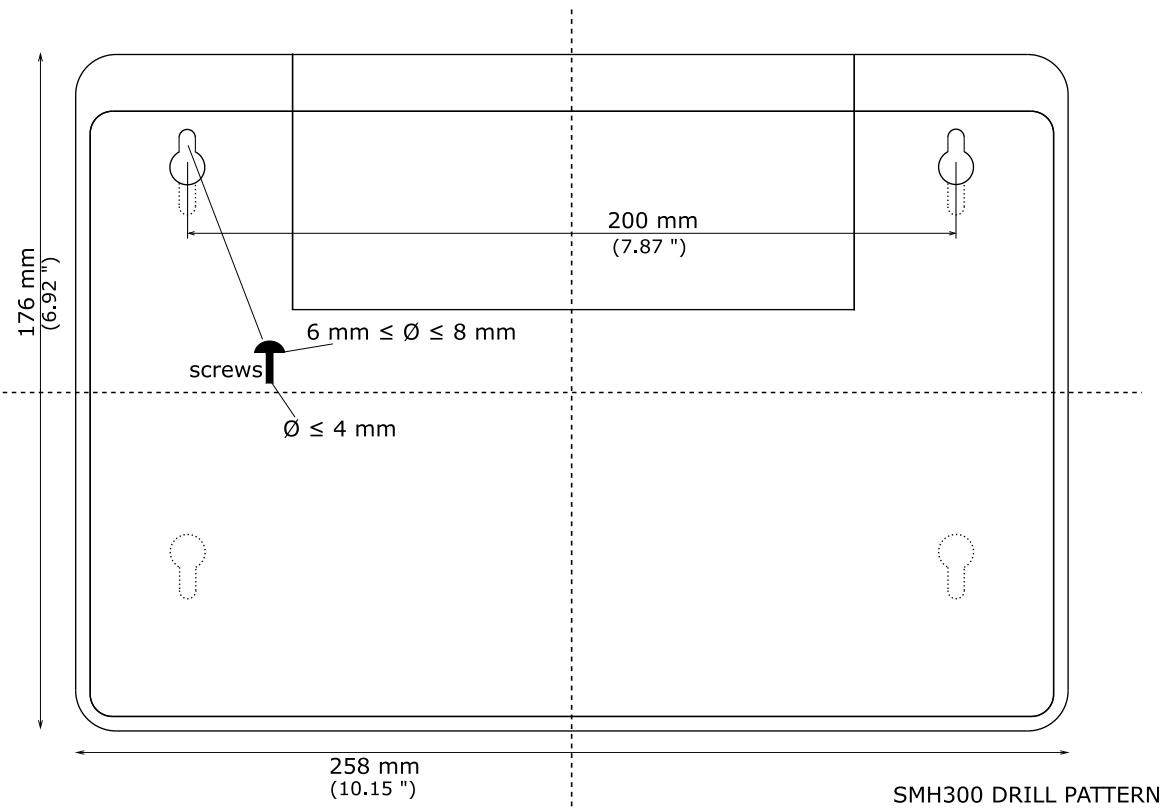
Top face



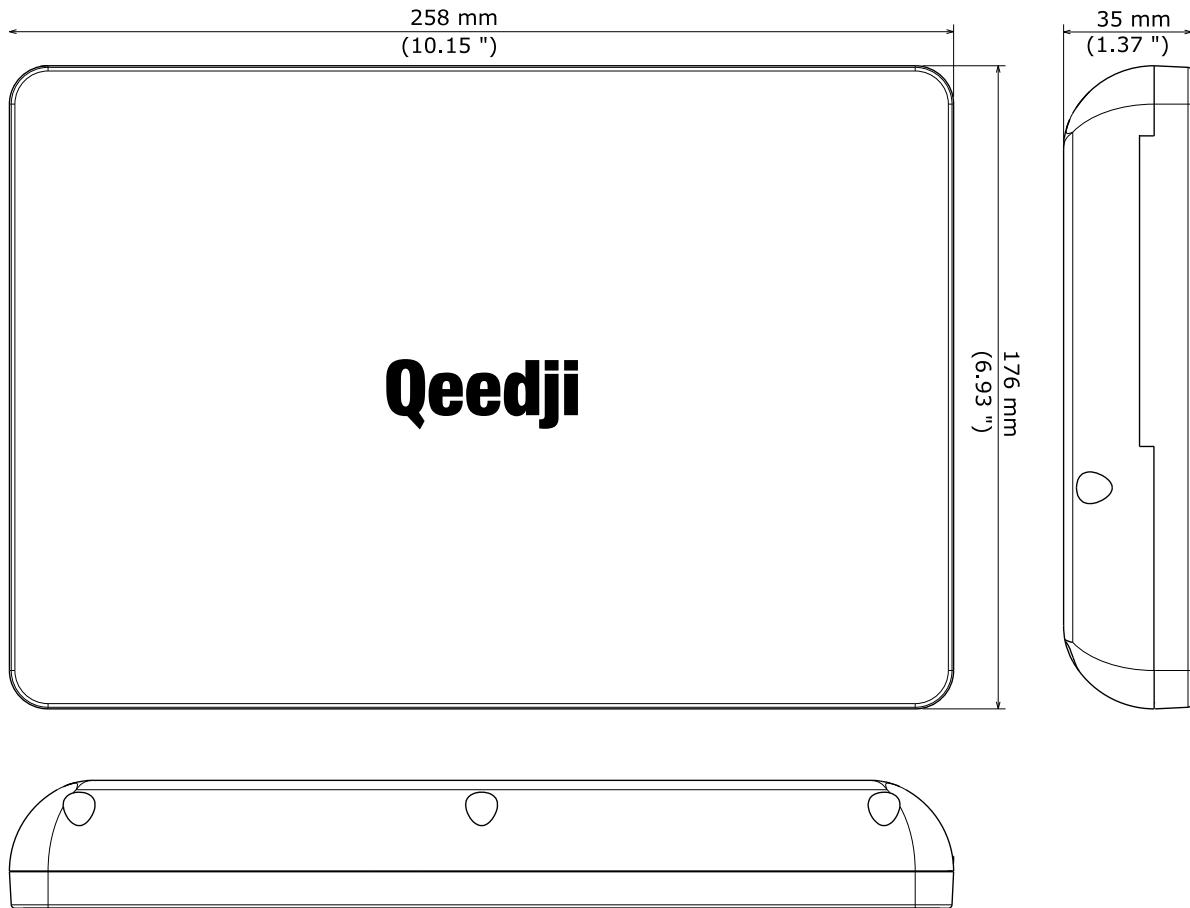
- (1) Power supply 12 V DC,
- (2) Power supply red LED,
- (3) Status green LED,
- (4) GPIO1/IR connector,
- (5) LAN PoE RJ45 connector,
- (6) SD Card connector,
- (7) USB2 2.0 Host connector,
- (8) USB1 2.0 Host connector,
- (9) WLAN antenna slot.

1.2.1 Device fixture

The bottom of the SMH300 is often fixed at 220 cm (or 86.61 ") far from the floor, oriented in the right sense, meaning cable output oriented towards the ceiling.



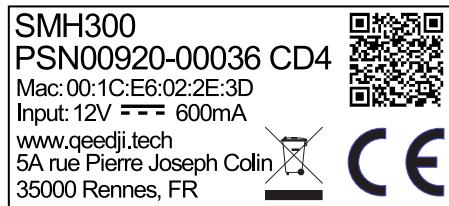
1.2.2 Device dimensions



1.2.3 Labelling

Product label

The model of the device, the power supply characteristics, the serial number (PSN) and the MAC address are written on a label stuck on the case.



Tip: The QR code on the product label is corresponding to the product identification URL, for example:
www.qeedji.tech?model=SMH300&sn=00920-00011&mac.Lan1=00-1C-E6-02-43-CF.

Packingbox label

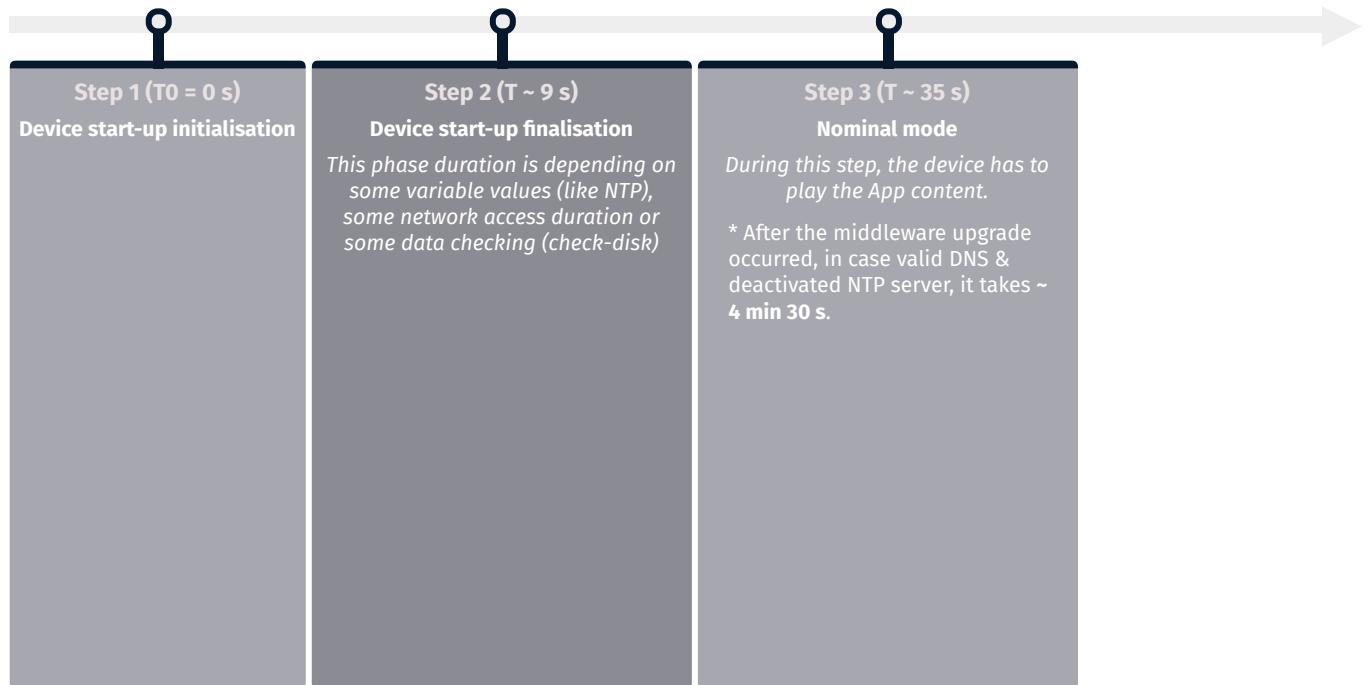
This is the label stuck also on the packingbox. It is showing information on:

- the device model,
- the serial number (PSN).



Tip: The serial number of the device could be requested in case of technical support.

1.2.4 Device start-up steps



1.3 LEDs behaviour

LED POWER behaviour (power on device)

State	Information
Red	OK: Power supplied
Off	Error: Power supply issue ¹

LED LAN behaviour (power on device)

State	Information
Off	There is no network traffic on the Ethernet connector.
Blinking	The blinking frequency is indicating the data rate on Ethernet connector.

LED STATUS behaviour depending on device start-up steps

• Step 1: Device start-up initialisation

State	Information
Green: continuous	OK
Always Off	Error: Power supply issue ¹

• Step 2: Device start-up finalisation

State	Information
Off	OK. This step duration can be from several seconds to several minutes.
Green blinking: 1 second duration flash and periodicity every 2 seconds	Error: Boot issue ¹

• Step 3: Nominal mode

State	Information
Green blinking: 1 very short flash (300 ms) spaced 4 seconds apart	OK
Green blinking: 2 very short and consecutive flashes (300 ms) spaced 4 seconds apart	Warning: Fail Soft Mode Level 1 Frequent device reboot detected (for example 4 times in less than ½ hour) Fail Soft Mode message is written on the device status.xml. The instability has been caused probably by a content media not yet supported by the Gekkota OS. Consequently, to prevent any further reboot, the content has been invalidated. You are invited to remove the deficient media from your App and publish again to go ahead. ²
Green blinking: 3 very short and consecutive flashes (300 ms) spaced 4 seconds apart	Warning: Fail Soft Mode Level 2 Frequent device reboot detected (for example 4 times in less than ½ hour) Content is purged Fail Soft Mode message is written on the device status.xml. The instability has been caused probably by a content media not yet supported by the Gekkota OS. Consequently, to prevent any further reboot, the content has been invalidated. You are invited to remove the deficient media from your App and publish again to go ahead. ²
Green blinking: 4 very short and consecutive flashes (300 ms) spaced 4 seconds apart	Warning: Check disk The device has detected memory corruption on content storage. The media storage is being repaired. This repair step is called Check-Disk and its duration can be several minutes. During this step, the “checking the file system of data partition in progress” message is written on the device status.xml. ³
Green blinking: 5 very short and consecutive flashes (300 ms) spaced 4 seconds apart	Warning: errors on system partition The user has to connect to device Web user interface, go to <i>Maintenance > Tools</i> menu, and click on the <i>Format or Repair</i> button to solve the problem. ³
Green blinking: 6 very short and consecutive flashes (300 ms) spaced 4 seconds apart	Warning: a middleware upgrade is pending During this phase, no content is played on the device, do not switch OFF the device.
Green blinking: 7 very short and consecutive flashes (300 ms) spaced 4 seconds apart	Error: write problem on the storage For an unknown reason, your storage space isn't usable any more. ³
Off	Error. ¹

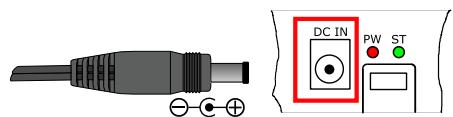
¹ If the problem persists in despite of an appropriate power-supply, contact support@qeedji.tech.

² If the problem persists, it is recommended to find out the media not supported yet by the system and remove it from content.

³ If the problem persists after a partition repairing, contact support@qeedji.tech.

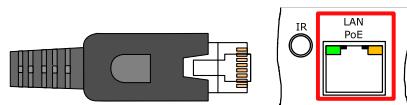
1.4 Connectors pin-out

Power supply connector (12 V DC - 1.2 A)

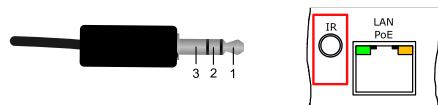


LAN connector

Ethernet RJ-45 PoE. 10/100 BaseT. It is recommended to use shielded cables.



Jack 3.5 mm connector (GPIO1)



N°	Name	Write/Read	Control
1	Voltage reference 3.3 V		
2	GPIO1	IN or OUT	CPU/GPIO1
3	Ground		

Electrical features

	Vin min	Vin max	VOH min	VOL max	VIH min	VIL max
GPIO1	-0.5 V	3.6 V	2.9 V	0.4 V	2.0 V	0.8 V

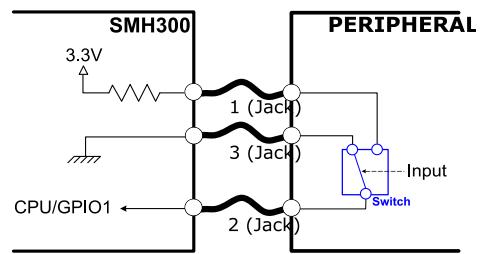
The 3.3 V pin must not be used as a power supply, but rather as a reference voltage.

Along the device booting, the GPIO is configured as input during some seconds. And then after the system startup, the GPIOs are operational.

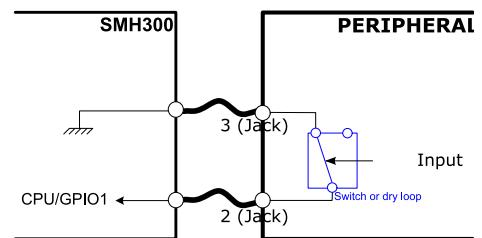
The GPIO has a weak pull-up.

It is not recommended to hotplug/unplug the GPIO1 connector, which could damage the device.

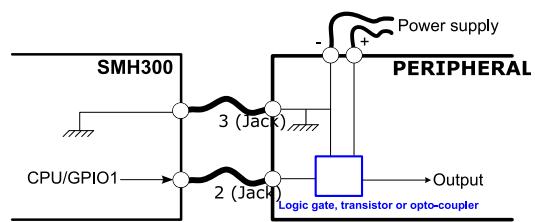
Three wires input configuration for GPIO1:



Two wires configuration for GPIO1:



Output configuration for GPIO1:



Part II

Applicative user interface

2.1 Applicative user interface

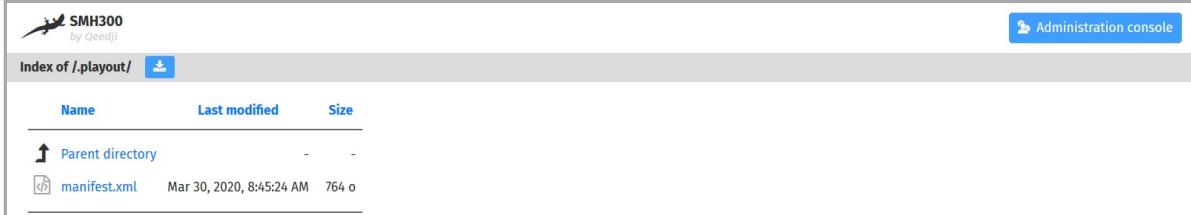
The SMH300 device supports a Web user interface that can be accessed with a Web browser. The supported Web browsers are: Google Chrome , Mozilla Firefox , MS-Edge (Chromium) .

It is available from the URL: http://<device_IP_addr>/ .

The default credentials values, put at factory, to access to the device Web user interface are:

- login: admin ,
- password: admin .

The URL falls automatically into the applicative user interface: http://<device_IP_addr>/.playout/ . This pane allows to watch the App content:



WebDAV directories

Clicking on the parent directory provides access to the root of the device's WebDAV server, which provides access to directories, among other things:

- .playlog/ : location to store data for mediometry,
- .resources/ : location to store the resources of the device Web user interface,
- .software/ : location to store .frm middleware for updates,
- .status/ : location to store the device status file status.xml ,
- .upnp/ : location to store device.xml device status for UPnP detection,
- .assets/ : location to store some of the resources of the device Web user interface,
- .playout/ : location to store the App when deployed on the device,
- .log/ : location to store the application logs, when they are activated.
- .output/ : location of the respective .ppk content sources for the ten SLATEs. This directory contains also a screenshot.jpg file, capture of the last viewport content. This file allows to show information message or error message. In case an information message is displayed (like *Error: invalid license* or *Information: no content*), the hub.ppk content could not be updated.

Content update Once paired to a SMH300, with the Index from 1 to 10, the SLATEs are programmed to get their new respective content through WPAN whose content sources are located on these SMH300 hub WebDAV directories:

- http://<SMH300_IP_Addr>/.output/<index>/hub.ppk .

Click on a hub.ppk file from a Web browser to visualize its content.

Part III

Administration console user interface

3.1 device configuration Web user interface

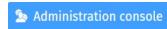
The SMH300 device supports a device configuration Web user interface that can be accessed with a Web browser. The supported Web browsers are: Google Chrome , Mozilla Firefox and MS-Edge (Chromium) .

It is available from the URL: http://<device_IP_addr>/ .

The default credentials values, put at factory, to access to the device Web user interface are:

- login: admin ,
- password: admin .

The URL falls automatically into the applicative user interface¹. At the top right corner, click on the Administration Console button.



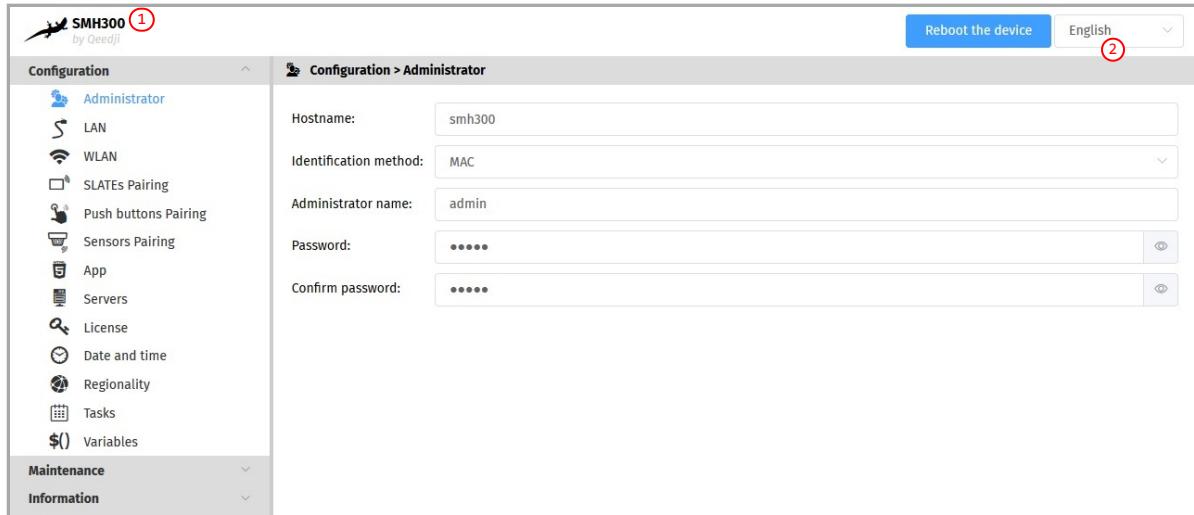
¹ For further information, refer to the chapter § [Applicative user interface](#).

With the button at the top right corner ①, choose the language in which your device Web user interface needs to be displayed. The supported languages are:

- English,
- Spanish,
- German,
- French.

It is desirable that your device SMH300 device is on time. When possible, do synchronize it with an NTP server.

This is the device configuration Web user interface.



After you have changed and saved all your settings in the different panes, be sure to perform a device restart by clicking on the Reboot the device ② button so that your changes are fully reflected.

Click on the device logo ① at the left top corner to return to the applicative user interface.

If the device does not respond to its IP address, either the device power supply is unplugged, or the Ethernet cable is not connected, or the network configuration is not properly adjusted. To solve the problem, if your computer and local network supports IPV6, connect an Ethernet cable on the device and connect to the device Web user interface with its IPV6 address.

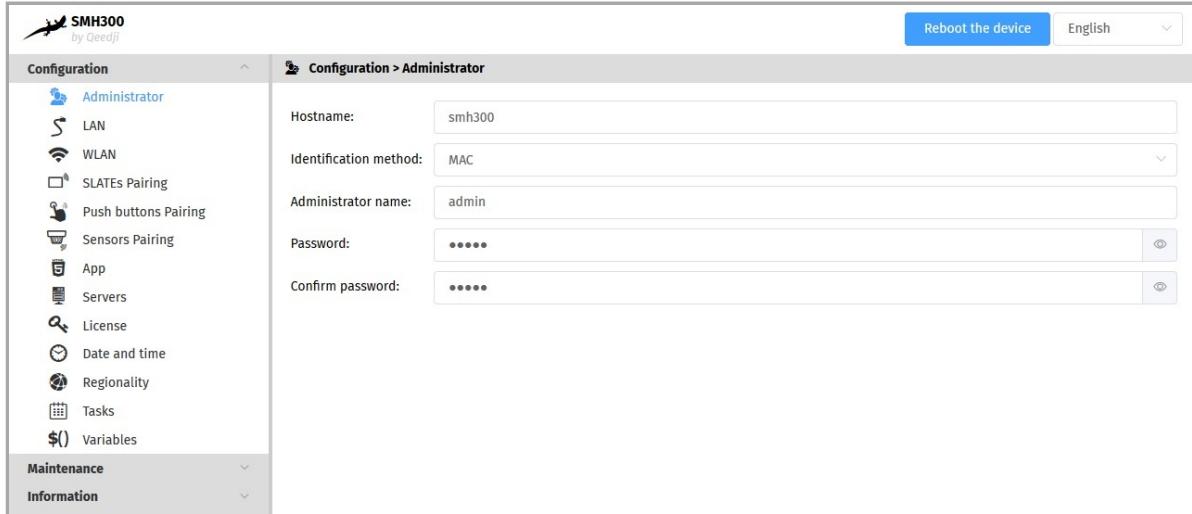
For example, for the MAC address value: ``00-1c-e6-02-1e-45``,
In a Web browser, enter the URL: [http://\[fc00::21c:e6ff:fe02:1e45\]/.admin/](http://[fc00::21c:e6ff:fe02:1e45]/.admin/)

To obtain the application note reminding some notions about IPV6 configuration, refer to the appropriate application note on the [Qeedji Website](#).

3.1.1 Configuration > Administrator

In the Configuration tab, select the **Administrator** menu to change:

- the Hostname ,
- the login credentials:
 - Administrator name ,
 - Password ,
- the device identification method:
 - MAC (default),
 - Hostname ,
 - UUID .



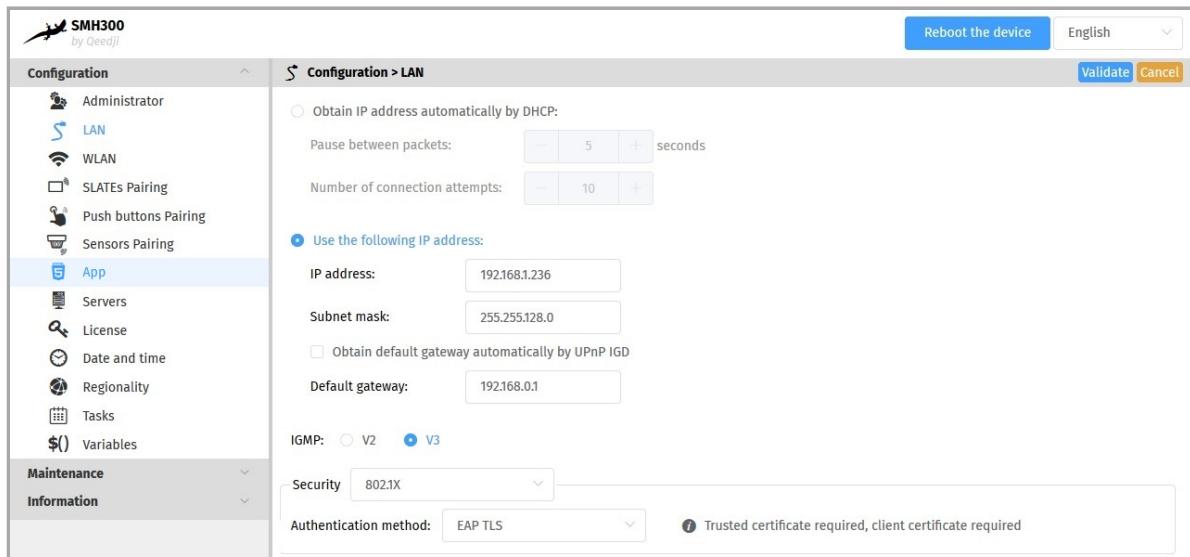
☞ It is recommended that you enter one unique *Hostname* value for each device. In case several SMH300 devices are located in different buildings or geographical locations, we recommend that you enter hostname values with information about the building and the location (e.g. Hall-RD-Paris-1).

For security reasons, it may be useful to change the login credentials values. Please keep them in a safe place afterwards.

☞ The same login credentials are used to access to the WebDAV server and to use Web services.

3.1.2 Configuration > LAN

In the Configuration tab, select the **LAN** menu to set up the network configuration of the **LAN** interface of your device.



The connection to the device configuration Web user interface with the device IPV6 address, computed from the device MAC address value, is supported. For example, if the LAN MAC address of the device is **00-1c-e6-02-27-bf**, type the URL [http://\[fe80::21c:e6ff:fe02:22ad\]/](http://[fe80::21c:e6ff:fe02:22ad]/) or type [http://\[fc00::21c:e6ff:fe02:22ad\]/](http://[fc00::21c:e6ff:fe02:22ad]/) in a Web browser. The routable prefix is depending on your network configuration.

If your device is not located in a secure network, select:

- security: **None**.

If your device is located and properly declared in a secure network, select **802.1X**, then select an **802.1X** authentication method supported by your RADIUS server:

- security: **802.1X**.

► In the context of a secure network, your device must be first declared in your dedicated RADIUS server with a user *Login / password*. Given that the login credentials used by Qeedji devices for all the 802.1X authentication methods are the LAN MAC address value of the SMH300 device, any new Qeedji device entry must be registered in your RADIUS server with these specific values with the format *abcdefabcdef / abcdefabcdef* for a MAC address *ab-cd-ef-ab-cd-ef*. Some identification methods may require you add a *trusted certificate*, used by your RADIUS server and/or a *client certificate*, generated with the MAC address of your device, the radius users credentials and the trusted certificate of the RADIUS server; For further information, please contact your IT department.

► When using a 802.1X certificate with an expiration date, in case your device is not on time or when the expiration date has expired, the device is not able to access to the network anymore. To work around, you have to insert one USB stick containing a specific configuration script to set either a new certificate or update the device date and time.

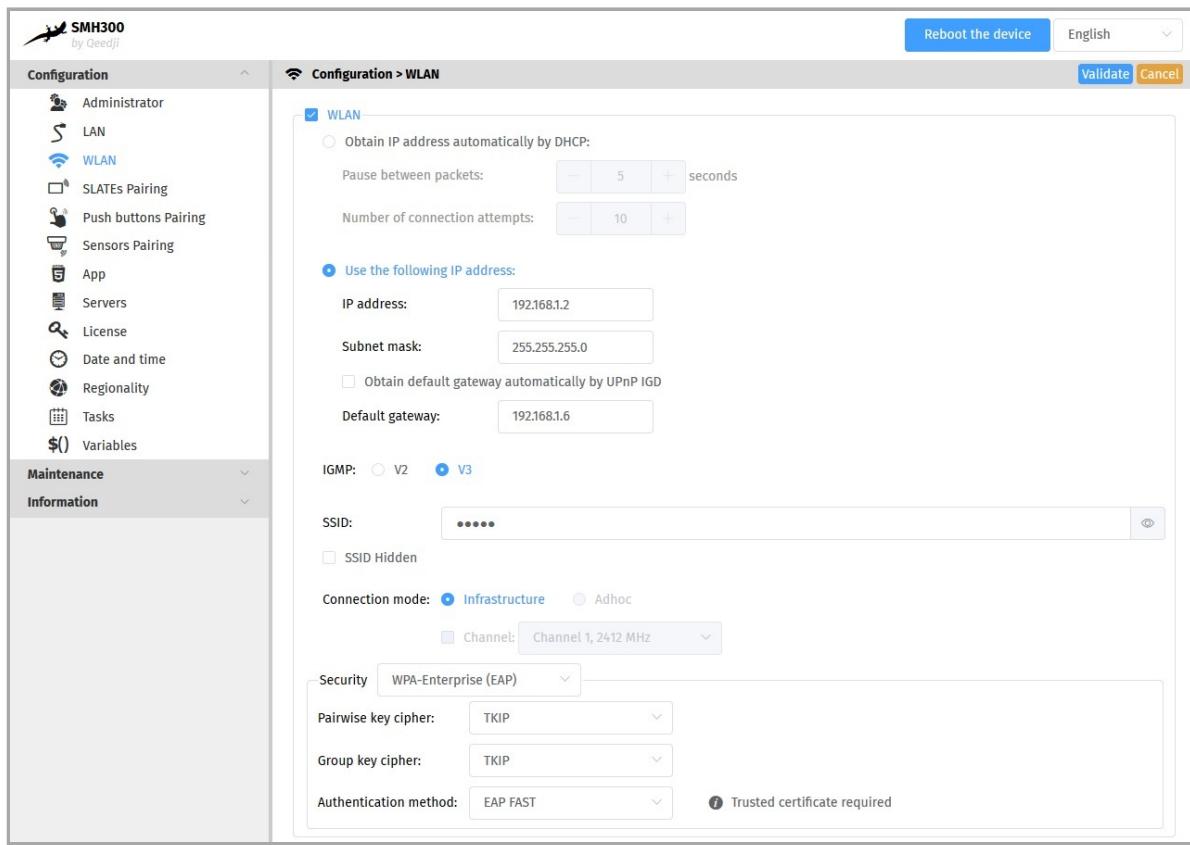
► The device supports the UPnP and can be for example detected automatically in the local network environment of your computer.

► By default, the device is configured with DHCP activated. In case the DHCP server is not available, after the DHCP timeout, the device ends up using the static IP address whose default value is 192.168.0.2 when it has never been changed yet by the user. It is recommended to set an appropriate IP address, netmask and gateway if this case would happen.

3.1.3 Configuration > WLAN

In the Configuration tab, select the WLAN menu to set up the network configuration of the WLAN interface on your device.

☞ The WLAN menu is only displayed when the WLAN option is supported by your device.



- Connection mode :
 - Infrastructure : Allows to establish a WIFI connection between your device and a WIFI router:
 - Security :
 - None,
 - WEP,
 - WPA-Personal (PSK),
 - WPA2-Personal (PSK),
 - WPA-Enterprise (EAP),
 - WPA2-Enterprise (EAP).
 - Adhoc : Allows to establish a direct WIFI connection between your device and e.g. your computer, without using a router.
 - Security :
 - None,
 - WEP.

The SSID Hidden option tells to the device whether or not the SSID value is broadcasted over the network by your WIFI router. It also allows to deduce the subset of pair key encryption and group key encryption modes supported.

The maximum lengths for WLAN crypto keys are:

- for WEP key:
 - 26 hexadecimal characters max.
- for WPA-Personal (PSK) and WPA2-Personal (PSK) keys:
 - 63 ASCII characters max.

☞ TKIP pair (or group) key encryption is not supported if the router is in IEEE 802.11n mode.

☞ Some computer OS version may not support Adhoc connection. For further information, contact your IT department.

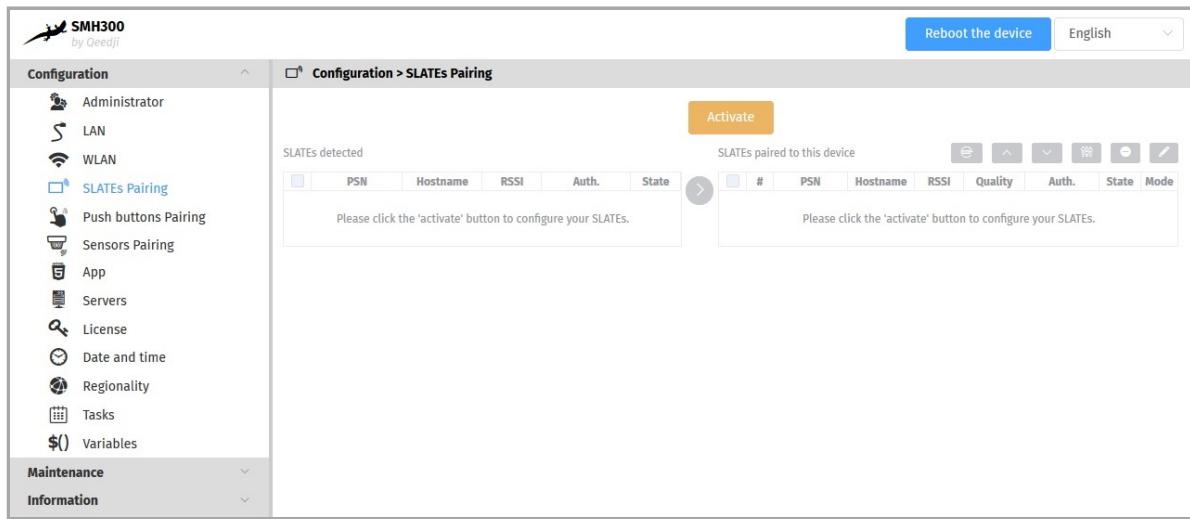
☞ Selecting the WPA-Enterprise (EAP) or WPA2-Enterprise (EAP) security implies that your device is located in a secure network, and therefore connects to a properly configured WIFI router with a dedicated RADIUS server.

☞ In the context of a secure network, your device must be first declared in your dedicated RADIUS server with a user Login / password . Given that the login credentials used by Qeedji devices for all the 802.1X authentication methods are the LAN MAC address value of the SMH300 device, any new Qeedji device entry must be registered in your RADIUS server with these specific values with the format abcdefabcdef / abcdefabcdef for a MAC address ab-cd-ef-ab-cd-ef. Some identification methods may require you add a trusted certificate , used by your RADIUS server and/or a client certificate , generated with the MAC address of your device, the radius users credentials and the trusted certificate of the RADIUS server; For further information, please contact your IT department.

The WLAN interface activation is not checked by default.

3.1.4 Configuration > SLATEs pairing

In the Configuration tab, select the **SLATEs pairing** menu to pair the SLATEs to your SMH300 device.



The SMH300 device is designed to work with at least one and up to ten SLATEs.

⚠ In case you are using a SMH300 device already installed, it is recommended to double check its wake-up configuration before starting any configuration. For further information, refer to the chapter § [Common preferences](#). In the factory configuration, the SMH300 device configures the SLATEs so that they are waking up every 15 minutes from 8:00 AM to 7:00 PM.

Prepare SLATE pairing configuration

⚠ Before starting any SLATE pairing, ensure that your device is on time. For further information, refer to the chapter § [Configuration > Date and time](#).

To pair properly one or several SLATEs to your SMH300 device, you need to prepare for each SLATE PSN (Product Serial Number):

- a specific Index : between 1 and 10,
- a specific Hostname : max: 8 alphanumeric digits,
- an optional pairing PIN code : 0000 .. to 9999.

In case you have to use several SMH300 devices, prepare the same information for all of them.

For example, when the SLATEs are installed in different locations and in different buildings:

Building A:

SMH300 device's hostname	Meeting room name	SLATE PSN	slate #	slate hostname	slate pairing PIN Code
floor-1	Sales	00900-00050	1	Sales	none
floor-1	R&D	00900-00051	2	R&D	1234
floor-1	Director	00900-00052	3	Director	none
floor-1	Berlioz	00900-00053	5	Berlioz	none

Building B:

SMH300 device's hostname	Meeting room name	SLATE PSN	slate #	slate hostname	slate pairing PIN Code
floor-2	Prod	00903-00054	1	Prod	none
floor-2	Havana	00903-00055	3	Havana	none
floor-2	Valley	00903-00056	5	Valley	none
floor-2	Paris	00903-00057	7	Paris	none

In case only few slate devices are used, do prefer use the lower Index (1, 2, 3, ...), whose the content is updated first, before using the higher Index (... , 9, 10).

SLATEs configuration

As soon as a SLATE is paired to a SMH300 device, it inherits of the configuration file `APPLI.CFG` provided by the SMH300 device.

In the default configuration, the SMH300 device is configured to work with SLATEs in the nominal configuration:

- Wake-up policy:
 - wake up regularly: *every quarter of an hour*,
 - active days: *5/7 days*,
 - active interval: *8.00 AM - 7.00 PM*.
 - if the SMH300 has a date & time default value equaling *1st Jan 2005*, the active interval is *0.00 AM - 11.59 PM*.
- Slate Message Overlay : not activated,
- Slate Maintainer : not activated,
- Touch keys : not activated,
- NFC badging : not activated,
- Extend interactivity for custom App: not activated.

So before starting any pairing procedure, check attentively the SMH300 device configuration for the SLATE.

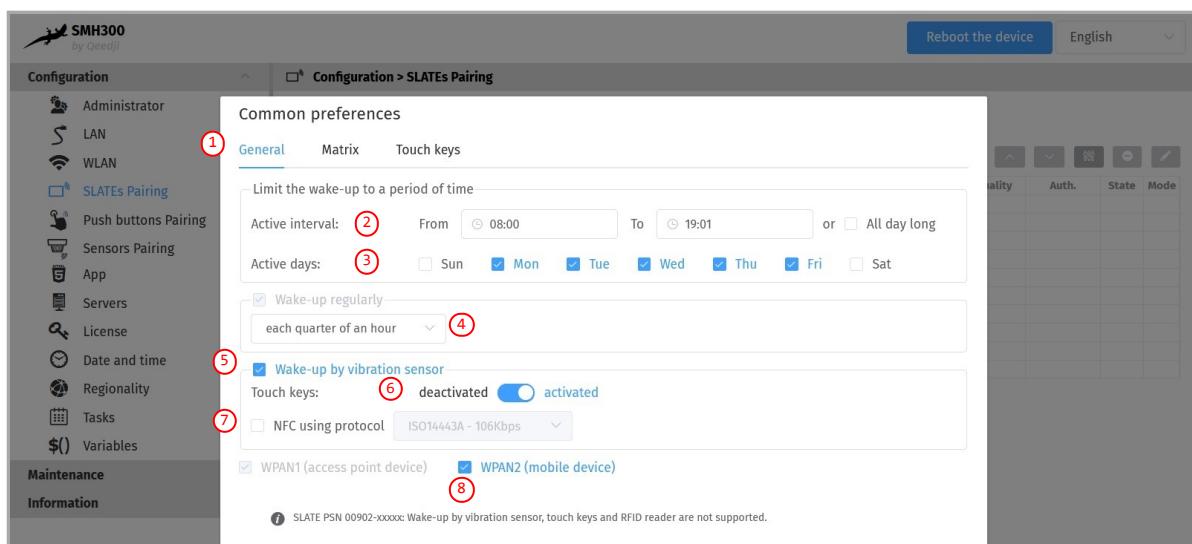
If the nominal configuration is correct, go directly to the chapter § [Pairing procedure](#).

Else click on `Activate` button.

The nearby SLATEs should appear in the `SLATEs detected` table. Press on the Common preferences button.

Common preferences:

Select the General (1) tab.



The interface supports several fields to define the SLATE wake up policy, where they are allowed update their content, install a new software release, or apply a new configuration.

a) Wake up policy:

The `Limit the wake-up to a period of time` fieldset allows to define the timeslot in which the SLATE can wake-up:

- `Limit the wake-up to a period of time`:
 - the `Active interval`¹ (2),
 - *All day long*,
 - *From hh1:mm1 to hh2:mm2*,
 - the `Active days`² (3):
 - *Sunday*: deactivated by default,
 - *Monday*: activated by default,
 - *Tuesday*: activated by default,
 - *Wednesday*: activated by default,
 - *Thursday*: activated by default,
 - *Friday*: activated by default,
 - *Saturday*: deactivated by default.
- The `Wake-up regularly` fieldset, which is always activated, is defining the wake up periodicity (or heartbeat) inside the timeslot defined above:
 - *Each quarter of an hour* (4): the SLATE wakes up every quarters of hour (... , 2.00 PM, 2.15 PM, 2.30 PM, 2.45 PM, 3.0 PM, 3.15 PM, ...)
 - *By interval* (4): 15 .. 1440 (minutes).

¹ The `Active interval` must be at least 15 minutes. Outside the `Active interval`, the device is in `sleep mode`, does nothing and can not be woken up by vibration.

² At least one day must be activated.

So that the wake up policy is working properly, the SMH300 device needs to be on time.

Be careful when you are programming a new wake-up policy. Indeed, programming an unexpected value for the wake-up may configure the SLATE to only wake-up when there are no people at all at the office !!

b) Vibration, touch key, NFC:

The Wake-up by vibration sensor **(5)** fieldset allows to activate vibration wake-up events to support for example:

- Slate Message Overlay ,
- Slate Maintainer .

When the Wake-up by vibration sensor **(5)** fieldset is activated, it allows to activate the support for:

- Touch keys³ **(6)**,
- NFC using protocol³ **(7)**:
 - ISO14443-A - 106 kbps (default value),
 - ISO14443-B - 106 kbps ,
 - JEWEL - 106 kbps ,
 - FELICA - 212 kbps ,
 - FELICA - 424 kbps ,
 - DEP - 106 kbps ,
 - DEP - 212 kbps ,
 - DEP - 424 kbps .

³ The support for Touch key and NFC reader requires that Wake-up by vibration sensor is activated.

The WPAN1 (access point device) field is always activated. It allows to activate the WPAN1 channel used between the SLATE and the SMH300 device.

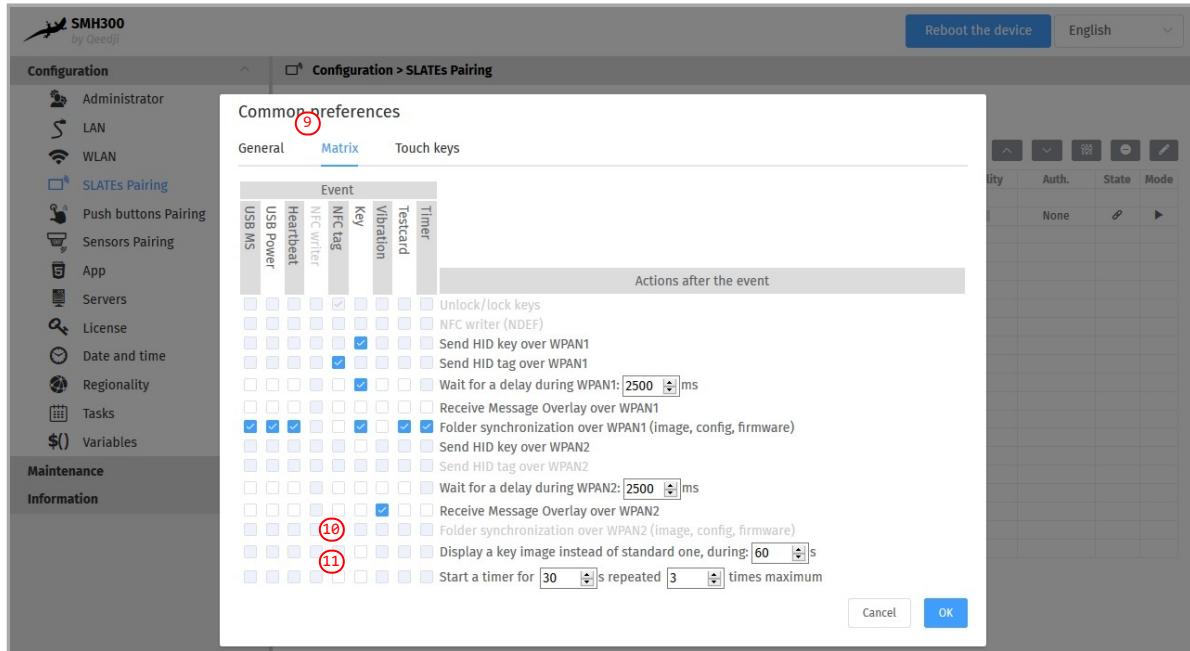
The WPAN2 (mobile device) **(8)** field is activated in the default configuration. Deactivating the support for WPAN2 channel prevent to work with **Slate Message Overlay** and **Slate Maintainer** mobile applications. The support for the mobile application requires that **Wake-up by vibration sensor** is activated.

Matrix:

Select the Matrix (9) tab.

a) Default configuration:

This is the default configuration:



b) Wake up event:

The Matrix tab allows to customize the behaviour of the pictureframe application depending on the wake-up events which are:

- after the USB MS event: wake-up by an USB cable plug,
- after the USB Power event: wake-up by an USB power tank plug,
- after the Heartbeat event: wake-up by internal timer,
- after the NFC writer (RFU) event: wake-up by NFC writing,
- after the NFC tag event: wake-up by NFC badging,
- after the Key event: wake-up by key press,
- after the Vibration event: wake-up by SLATE taping,
- after the Test card event: wake-up by Test card activation,
- after the Timer event: allows to trig several wake-ups with a defined period.

c) Configuration to communicate with SMH300 hub:

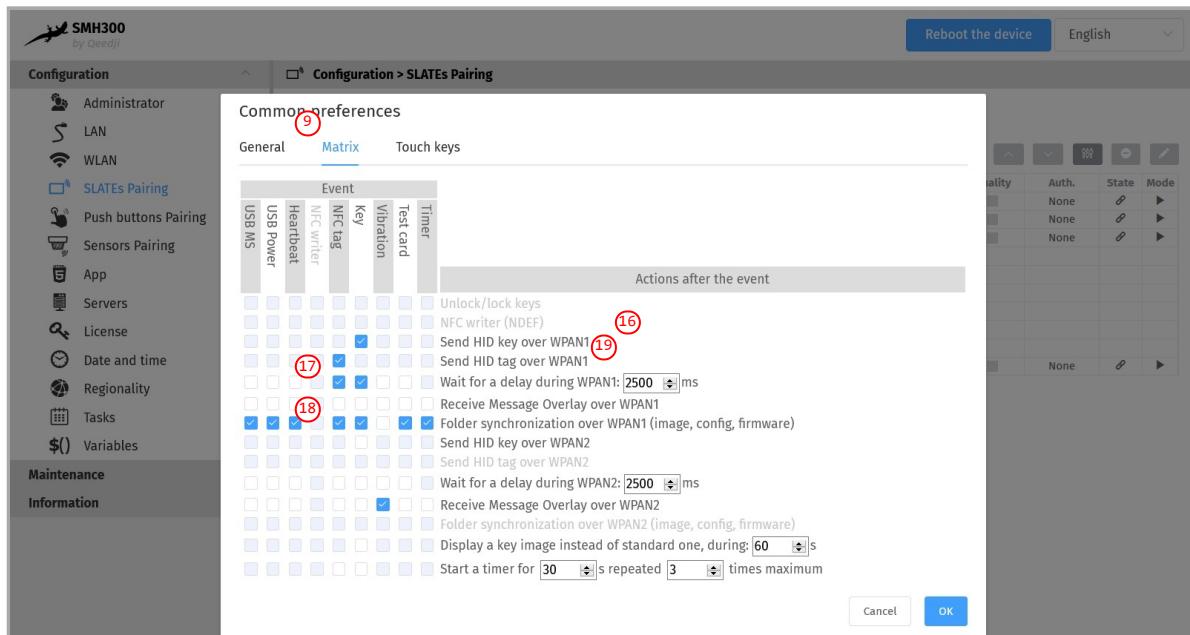
- Send HID key on WPAN1 (16): allows to transmit the keycode of the key pressed on the SLATE to the SMH300 device.

⚠ In this case, the following actions must be activated after HID key: Wait for a delay during WPAN1 2500 ms (17): giving the possibility to extend the default SLATE connection duration with the SMH300 device, which is by default 2500 ms, allowing to take benefit of the wake up by HID key to update its content right now. Folder synchronization over WPAN1 (18): allowing the SLATE to update its content through WPAN1 (mandatory when working with SMH300 device).

- Send NFC tag on WPAN1 (19): allows to transmit the NFC tag to the SMH300 device after NFC badging on the SLATE.

⚠ In this case, the following actions must be activated after NFC tag: Wait for a delay during WPAN1 2500 ms (17): giving the possibility to extend the default SLATE connection duration with the SMH300 device, which is by default 2500 ms, allowing to take benefit of the wake up by NFC to update its content right now. Folder synchronization over WPAN1 (18): allowing the SLATE to update its content through WPAN1 (mandatory when working with SMH300 device).

☞ Receive Message overlay over WPAN1 is deactivated by default because it is not supported in this version.



d) Mobile device configuration:

These are the main available actions linked to mobile devices that the SLATE can do on the wake up events explained above:

- Send HID key on WPAN2 : allows to transmit the keycode of the key pressed on the SLATE to the mobile phone,
- Wait for a delay during WPAN2 2500 ms : gives the possibility to extend the default SLATE connection duration with the mobile device, which is by default 2500 ms. It could be needed in case using with some specific Android OS or iOS versions. Changing this value must be first allowed by Qeedji support.
- Receive Message overlay over WPAN2 : allows to activate the communication with Mobile application.

e) Temporarily secondary content display on key press:

The Display a key image instead of standard one, during <n> seconds (10) action needs to be activated for the after Key event. It allows to activate the temporarily secondary content display feature and configure the duration from 1 to 65635 seconds (18 hours).

The required content with the right filename are not provided in the product. The customer has to generate them itself with the provided img2ppk.exe tool. Download the [img2ppk.exe](#) tool from the [Qeedji Website](#).

Create your .BMP content, or .PNG content, in the 800x600 resolution, with any content editor you have and save them into .BMP or .PNG format.

Execute the [img2ppk.exe](#) tool on your MS-Windows computer. Select the source content (.BMP or .PNG) and enter the names for the destination file .PPK:

- F1.ppk ,
- F2.ppk ,
- F3.ppk ,
- F4.ppk ,...

For further information, refer to the [img2ppk](#) application note.

Connect the SLATE to your computer with an USB link and copy the content with the right .ppk filename into the SLATE file system, one appropriate content name per each key pressed.

f) Interactivity configuration for custom application:

The Start a timer for <m> s repeated <n> times maximum (11) action needs to be activated for the key event. It allows to maintain interactivity with one user for custom applications by waking up here 3 times within 30 seconds in the default configuration:

- Start a timer for <m> s repeated <n> times maximum : not activated in the default configuration:
- <m> : 30..60
- <n> : 1..9

For further information, contact support@qeedji.tech.

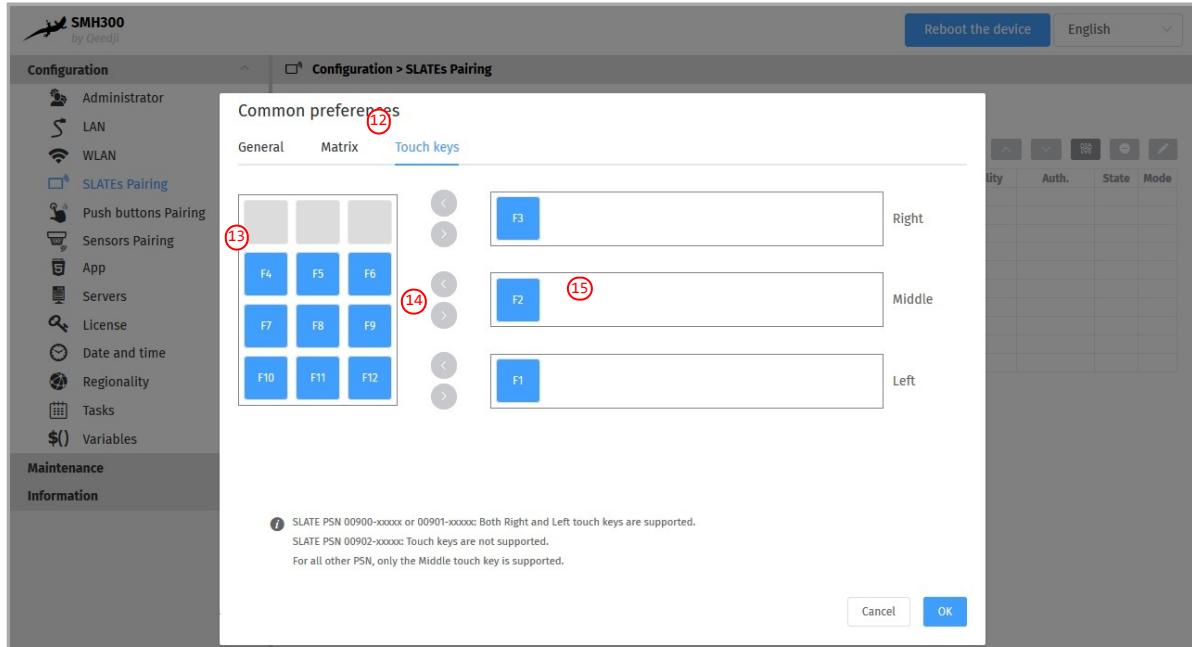
For further information, refer to the [SLATE106 User manual](#) on the [Qeedji Website](#).

Touch Keys:

Select the **Touch keys** tab.

The **Touch keys** tab allows to configure the key mapping for:

- the Middle key button:
 - In the default keymap configuration: F2 for Middle key ,pressing once on the Middle key of the SLATE allows to send F2 keycode to the SMH300 device (expected value for Book now for Room Booking App):
 - Using some App for resource reservation may require to have the default configuration for keymap.
- the temporarily secondary content display on key press feature:
 - In the default keymap configuration: F2 for Middle key , pressing once on the Middle key displays the F2.ppk content for a specific duration.



To support another configuration for temporarily secondary content display on key press, for example F4.ppk after a second Midle key press, select the F4 (13) keycode on the left table, and click on the right arrow (14) for the Middle input. It should be added automatically in the Middle input (15).

To finalize the temporarily secondary content display on key press feature, generate the appropriate F2.ppk and F4.ppk with the img2ppk.exe tool and put them in the SLATE file system. For further information, refer to the SLATE106 User manual on the [Qeedji Website](#).

Like explained above, the temporarily secondary content display on key press feature may need to activate:

- support for Wake-up by vibration sensor,
- support for Touch keys.

Pairing procedure

The SMH300 device pairing allows to associate one or several SLATEs to a SMH300 device. A SLATE can be paired to only one SMH300 device at a time.

⚠ When a new SMH300 device is trying to pair a legacy SLATE already paired to another SMH300 device, the SLATE will be paired to the new SMH300 device and unpaired automatically from the other device. To prevent from any unexpected SLATE pairing by another user, a pairing PIN code can be used.

☞ The pairing PIN code is not activated by default.

⚠ The SMH300 device can detect the SLATEs after they have woken up at least one since the device booting-up. In the default factory configuration, the SLATEs are programmed to wake-up and communicate for a while on the WPAN network every 15 minutes then fall again into Sleep mode.

a) List the available SLATEs on the WPAN network

Connect to the SMH300 device Web user interface, and in the Configuration > SLATEs Pairing menu, click on the Activate button.

PSN	Hostname	RSSI	Auth.	State
				Please click the 'activate' button to configure your SLATEs.

#	PSN	Hostname	RSSI	Quality	Auth.	State	Mode
							Please click the 'activate' button to configure your SLATEs.

⚠ Remember that when the Deactivate label is written on the button, the nearby SLATEs can NOT update their content NOR upgrade their firmware. You will need to click on the Deactivate button at the end of the pairing procedure so that the SLATEs can update their content again.

☞ When there is no user action change in the SMH300 device configuration during five minutes, the pairing is aborted automatically. To launch again the pairing procedure, click again on the Activate button.

PSN	Hostname	RSSI	Auth.	State
00903-00021	slate106	-83 dBm	None	∅
00903-00019	slate106	-83 dBm	None	∅
00903-00020	slate106	-78 dBm	None	∅
00903-00028	slate106	-87 dBm	None	∅
00903-00012	slate106	-49 dBm	None	∅
00904-00005	slate106	-87 dBm	None	∅
00903-00013	slate106	-53 dBm	None	∅
00903-00018	slate106	-82 dBm	None	∅
00900-00247	slate106	-49 dBm	None	∅
00903-00024	slate106	-87 dBm	None	∅
00903-00026	slate106	-87 dBm	None	∅
00903-00023	slate106	-87 dBm	None	∅
00904-00002	slate106	-53 dBm	None	∅
00902-00005	slate106	-73 dBm	None	∅

#	PSN	Hostname	RSSI	Quality	Auth.	State	Mode
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Wait for 15 minutes until all your SLATEs are detected by the SMH300 device. They should appear with their PSN in the SLATEs detected left table.

⚠ If the SLATE does not appear in the list after 15 minutes, either they are too far from the SMH300 device or the wake-up policy configuration does not allow to wake up now. For further information, refer to the SLATE106 User manual on the [Qeedji Website](#).

In the SLATEs detected left table, these parameters values are shown:

- a check column: allows to select one or several SLATEs. Selecting a SLATE allows to drop it in the right table.
- PSN : SLATE Product Serial Number,
- Hostname : name of the SLATE in the WPAN network,
- RSSI : Received Signal Strength Indication (in dBm)
- Auth. :
 - PIN code : a pairing PIN code is required to pair the device,

- None : no pairing PIN code is required to pair the device.
- State :
 - Unpaired : the SLATE having this PSN is not paired to the SMH300 device,
 - Paired : the SLATE having this PSN is paired to this SMH300 device,
 - Paired to another device : the SLATE having this PSN is paired to another device.

b) Pair all the required SLATES

To pair the required SLATES to this SMH300, you have to select them, identified by their PSN in the `SLATES detected` left table, and drop them into the `SLATES paired to this device` right table.

In the `SLATES paired to this device` right table, these values can be shown for each SLATE:

- a check column: allows to select one or several SLATES. Selecting a SLATE allows to access to further menus for these SLATES.
- # : Index from 1 to 10,
- PSN : SLATE Product Serial Number,
- Hostname : name of the SLATE in the WPAN network,
- RSSI : received Signal Strength Indication (in dbm),
- Quality :
 - Quality of connection :
 - Green : the connection quality is very good and warranty the content update or the APPLI.CFG configuration file update within the 15 minutes interval,
 - Orange : the connection quality is not perfect. The download error rate has reached a threshold that can affect the file download success rate meaning that in some case the APPLI.CFG file or the content may not be updated for sure within the 15 minutes interval,
 - Red : the connection quality is bad. The download error rate has reached a threshold that affect seriously the file download success rate meaning that the APPLI.CFG configuration or the content will be not updated within the 15 minutes interval. The SLATE can not be used in this condition. It is required to install the SLATE at another location,
 - Grey : not yet determined (value shown in the tooltip).
 - Last wake-up on ³: mm/dd/yyyy, hh.mm.ss AM/PM (value shown in the tooltip), last connection date & time of the SLATE to the SMH300.
 - Last synchronization on : mm/dd/yyyy, hh.mm.ss AM/PM (value shown in the tooltip), date & time of the last successful file downloading.
- Auth. :
 - PIN code : a pairing PIN code is required,
 - None : no pairing PIN code is required.
- State :
 - Unpaired : the SLATE having this PSN is not paired,
 - Pairing in progress : the SMH300 device is waiting the next SLATE wake up so that it takes the new APPLI.CFG configuration file.
 - Paired : the SLATE having this PSN is paired to this SMH300 device.
- Mode :
 - Test Card : the Test Card is displayed,
 - Play : the SLATE is configured to updated its HUB.PPK content.

☞ In case file download error, two automatical file download attempts are automatically done within the 15 minutes.

³ The Last wake-up on date value must be roughly the same for all the paired SLATE (modulo the heartbeat). In case the Last wake-up on date value seems to be not correct, check the SLATE battery status in WPAN Devices menu of the Information pane.

In the `SLATES paired to this device` right table, move up or move down the SLATES so that they match the Index you have defined in the paragraph above [Prepare SLATE pairing configuration](#).

☞ By default, after a new SLATE dropping, the SLATE configuration leads to Test card activated and no pairing PIN code required.

Select one or several SLATES in the `SLATES detected` left table.

#	PSN	Hostname	RSSI	Auth.	State
<input type="checkbox"/>	00900-00247	slate106	-53 dBm	None	∅
<input type="checkbox"/>	00903-00030	slate106	-53 dBm	None	∅
<input type="checkbox"/>	00901-00275	slate106	-47 dBm	None	∅
<input type="checkbox"/>	00903-00019	slate106	-83 dBm	None	∅
<input type="checkbox"/>	00903-00020	slate106	-87 dBm	None	∅
<input type="checkbox"/>	00903-00028	slate106	-87 dBm	None	∅
<input type="checkbox"/>	00903-00012	slate106	-63 dBm	None	∅
<input type="checkbox"/>	00904-00005	slate106	-87 dBm	None	∅
<input type="checkbox"/>	00903-00013	slate106	-60 dBm	None	∅
<input type="checkbox"/>	00903-00018	slate106	-78 dBm	None	∅
<input type="checkbox"/>	00903-00026	slate106	-87 dBm	None	∅
<input type="checkbox"/>	00903-00024	slate106	-87 dBm	None	∅
<input type="checkbox"/>	00903-00021	slate106	-78 dBm	None	∅
<input type="checkbox"/>	00903-00023	slate106	-82 dBm	None	∅
<input type="checkbox"/>	00904-00002	slate106	-43 dBm	None	∅
<input type="checkbox"/>	00903-00031	slate106	-58 dBm	None	∅
<input type="checkbox"/>	00902-00005	slate106	-53 dBm	None	∅

Then drop them into the `SLATES paired to this device` right table using the right arrow button .

☞ If you try to pair SLATEs already used in a previous installation, and which was already been paired with a pairing PIN code , at the device dropping, you are invited to enter the appropriate pairing PIN Code (4 alphanumeric digits) for each SLATE requiring PIN code before to be paired.

☞ The configuration script allows to pair SLATEs that have no PIN code or, to pair SLATEs that have the same PIN code.

#	PSN	Hostname	RSSI	Auth.	State	Mode
1	00900-00247	slate106	-53 dBm	None	Paired	Test card
2						
3						
4						
5						
6						
7						
8						
9						
10						

Wait for the next SLATE wakes up to see the paired status going from Pairing in progress state to the Paired state.

#	PSN	Hostname	RSSI	Auth.	State	Mode
1	00900-00247	slate106	-53 dBm	None	Paired	Test card
2						
3						
4						
5						
6						
7						
8						
9						
10						

☞ To avoid waiting for 15 minutes, you can also speed-up the pairing process by plugging for 3 seconds one USB power bank on each SLATE to pair. However it is reserved for advanced user for first installation.

When all your SLATEs are in Paired State and the Mode is Test card , they should display their own Test card as soon as there are waking up.

☞ If the SLATE is not in Paired state after 15 minutes, refer to the chapter § Common preferences.

c) Select a paired SLATE to access to the menu

To access to more buttons, select a SLATE in the SLATEs paired to this device right table.

Then, these are the available buttons associated to the selected SLATE:

- Reset the PIN code for the mobile applications : allows to reset the SLATE private PIN code for the mobile applications when using `slate Message Overlay OR slate Maintainer`,
- Move up SLATEs indices : allows to change the SLATE Index by decreasing it,
- Move down SLATEs indices : allows to change the SLATE Index by increasing it,
- Unpair : allows to unpair a SLATE from this SMH300 device,
- Edit SLATEs :
 - Hostname :
 - name of the SLATE in the WPAN network
 - free text (8 characters), default value: `slate106`,
 - Activate test card option:
 - **checked** (default value):
 - the SLATE is configured to display the `Test card`,
 - **unchecked**
 - the SLATE is configured to display the content, whose .ppk sources are located in the respective WebDAV directories of the SMH300 device.
 - Activate PIN code option:
 - **checked**: a pairing PIN code is required:
 - values: 0000 .. 9999,
 - **unchecked** (default value): no pairing PIN code is required.

When the `Test card` is successfully displayed in the interface for all your SLATEs, in the `SLATEs paired to this device` right table. double click on each device:

- deactivate the `Test card`,
- if required, change the `Hostname` and set a pairing `PIN code` according to your needs.

PSN	Hostname	RSSI	Auth.	State
00903-00030	slate106	-60 dBm	None	∅
00901-00275	slate106	-47 dBm	None	∅
00903-00019	slate106	-83 dBm	None	∅
00903-00020	slate106	-83 dBm	None	∅
00903-00028	slate106	-87 dBm	None	∅
00903-00012	slate106	-60 dBm	None	∅
00904-00005	slate106	-87 dBm	None	∅
00903-00013	slate106	-53 dBm	None	∅
00903-00018	slate106	-82 dBm	None	∅
00903-00026	slate106	-87 dBm	None	∅
00903-00024	slate106	-87 dBm	None	∅
00903-00021	slate106	-78 dBm	None	∅
00903-00023	slate106	-82 dBm	None	∅
00904-00002	slate106	-43 dBm	None	∅
00903-00031	slate106	-58 dBm	None	∅
00902-00005	slate106	-78 dBm	None	∅

#	PSN	Hostname	RSSI	Quality	Auth.	State	Mode
1	00900-00247	slate106	-53 dBm	██████	None	∅	▶
2							
3							
4							
5							
6							
7							
8							
9							
10							

To ensure that the SLATE keeps paired with your SMH300 device, an is not unexpectedly unpair by another user, you can use a 4 digits pairing PIN code.

☞ Each time the pairing PIN code , Hostname or Test card parameters are modified, the SLATE is unpaired temporarily until the configuration is taken by the SLATE. So do change them with the right parameters values all at once.

⚠ The pairing PIN code can be modified successfully only when first a pairing has already been completed.

Move the SLATE to the appropriate index.

⚠ If you are using a Room booking App, the index must be aligned with the booking resource index configured in its form.

PSN	Hostname	RSSI	Auth.	State
00903-00030	slate106	-58 dBm	None	∅
00901-00275	slate106	-47 dBm	None	∅
00903-00019	slate106	-83 dBm	None	∅
00903-00020	slate106	-78 dBm	None	∅
00903-00028	slate106	-87 dBm	None	∅
00903-00012	slate106	-58 dBm	None	∅
00904-00005	slate106	-87 dBm	None	∅
00903-00013	slate106	-53 dBm	None	∅
00903-00018	slate106	-82 dBm	None	∅
00903-00026	slate106	-87 dBm	None	∅
00903-00024	slate106	-87 dBm	None	∅
00903-00021	slate106	-73 dBm	None	∅
00903-00023	slate106	-82 dBm	None	∅
00904-00002	slate106	-53 dBm	None	∅
00903-00031	slate106	-60 dBm	None	∅
00902-00005	slate106	-53 dBm	None	∅

#	PSN	Hostname	RSSI	Quality	Auth.	State	Mode
1	00900-00247	slate106	-53 dBm	██████	None	∅	▶
2							
3							
4							
5							
6							
7							
8							
9							
10							

Then wait for the next SLATE wakes up to see the paired status going from ⚡ Paired state to the ⚡ Paired state.

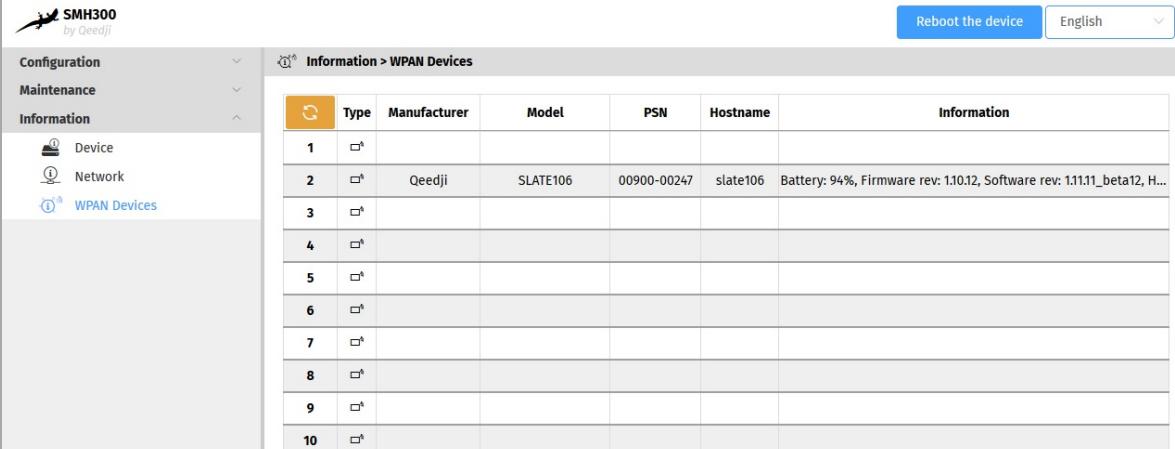
When all your devices are in ⚡ Paired state , and are in ► play mode, that means that all the SLATE devices are ready now to get a new HUB.PPK content.

⚠ In case SMH300 device migration from 3.12.XX to 4.13.14, you should not be able to finalize right now the configuration of some SLATE, whose the firmware version is V1.10.XX. These device must first take the new firmware version 1.11.11 before taking account the new APPLI.CFG configuration file. Just ensure that the programmed Play (or Test card) mode is the right one then click now on Deactivate button. Wait for a while that the SLATEs are installing the new software release V1.11.11 and are then able to take the configuration given by the SMH300.

d) Finalize the pairing procedure with Deactivate button:

To complete the SMH300 device configuration, and to allow the SLATE to update their content, click on the Deactivate button.

Then check the pairing index and the hostname in the WPAN Devices menu of the Information pane.



The screenshot shows the SMH300 device management interface. On the left, there's a sidebar with 'Configuration', 'Maintenance', and 'Information' sections. Under 'Information', 'WPAN Devices' is selected. The main area is titled 'Information > WPAN Devices' and contains a table with 10 rows. The first row is highlighted with orange headers and contains specific details for a device.

Information	Type	Manufacturer	Model	PSN	Hostname	Information
1	Device	Qeedji	SLATE106	00900-00247	slate106	Battery: 94%, Firmware rev: 1.10.12, Software rev: 1.11.11_beta12, H...
2						
3						
4						
5						
6						
7						
8						
9						
10						

When a `HUB.PPK` content source is available in the appropriate WebDAV directories `http://<SMH300_IP_Addr>/ .output/#/`, the content with the appropriate `.ppk` filename will be downloaded through WPAN by the respective SLATEs.

- ☞ In case the appropriate WebDAV directory is empty or does not contain the right filename, the SLATE can not update their content.
- ☞ When the SMH300 device is in standby, the WebDAV directories content may not be updated.

Time to obtain a connection quality

The connection quality status is showing the file download error rate averaged on the ten last files downloading between the SMH300 device and the SLATEs. The files can be as well:

- an APPLI.CFG configuration file,
- a .ppk file,
- a .rpk software release file.

After a SMH300 device reboot:

- the displayed connection quality is grey meaning that no connection quality is available,
- one hour is required to obtain a first Red connection quality,
- between one hour and two hours is required to obtain a Orange connection quality,
- two hours and half are required to obtain a Green connection quality.

#	PSN	Hostname	RSSI	Auth.	State
1	00900-00247	SL900	-58 dBm	█	PIN code
2	00901-00275	SL901	-43 dBm	█	PIN code
3	00902-00005	SL902	-43 dBm	█	PIN code
4	00903-00012	SL903-12	-39 dBm	█	PIN code
5	00904-00002	SL904	-53 dBm	█	PIN code
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20	00903-00013	SL903-13	-53 dBm	█	PIN code

Four hours after the SLATE has entered in sleep mode, the quality connection computed by the SMH300 device for this device returns to grey color.

When the connection quality is orange or red, the batteries lifetime may decrease because of the downloading attempts.

In case you are facing a red connection quality :

- check that the available free space on the filesystem of the SLATE device is at least 220 KB to warranty a software release file writing or a .ppk file writing,
- check that some radio frequency obstacles do not prevent the SMH300 device to work properly with the SLATE devices.

The quality connection status does not bring information on the SLATE battery level.

If the red quality status persists despite of the advices above, please contact support@qeedji.tech.

Battery information

The Last wake-up on status of the Quality tooltip gives information on the last connexion date for a given SLATE.

#	PSN	Hostname	RSSI	Auth.	State
1	00903-00028	slate106	-87 dBm	None	∅
2	00904-00005	slate106	-87 dBm	None	∅

Quality of connection: Perfect
Last wake-up on 11/19/2020, 3:15:11 PM
Last synchronization on 11/19/2020, 3:15:12 PM

If the Last wake-up on tooltip value for a SLATE is very different from the same Last wake-up on tooltip value for other SLATEs, it is possible that the SLATE battery level became not sufficient. Check the battery level of the SLATEs in the WPAN Devices menu of the Information pane. For further information, refer to the chapter § [Information > WPAN devices](#).

Unpair a SLATE

To unpair a SLATE, select a SLATE in the SLATEs paired to this device right table, and click on Unpairing button.

Device replacement

In case you must replace a SMH300 device which was paired to several SLATEs:

- on the old SMH300:
 - write down the user preferences values for SLATE configuration,

- user preferences listed in User preferences for SLATE device chapter.
- write down the list of all the PSN / Hostname /pairing PIN code of the paired SLATE devices,
- unpair all the SLATEs listed above.
- on the new SMH300:
 - configure the SMH300 device by keeping the same user preferences value for SLATE configuration,
 - pair all the SLATEs, whose the list has been saved with their PSN / Hostname /pairing PIN code .
- if a pairing PIN code was used, you must enter the right pairing PIN code .

Change the pairing PIN code

To get the pairing PIN code and the Hostname of a paired SLATE device, connect to the SMH300 device Web user interface, and in the Maintenance > SLATE pairing menu, click on the button Activate , double click on each device of the SLATEs paired to this device right table, and note the pairing PIN code and the Hostname .

PIN code forgotten

If you don't remember the pairing PIN code for a device making that the device SLATE pairing can not complete, the only way is to connect it to a computer with an USB cable:

- either you can edit the preference values by executing the APPLI.HTA HTML application and get the pairing PIN code value in the field Authentication method > PIN code , eject properly the USB mass storage, then try again to pair the device the right pairing PIN code this time,
- or remove the configuration files APPLI.CFG , eject properly the USB mass storage, then try again to pair the device without pairing PIN code .

Restore factory preferences

After a factory preferences restoring using the device configuration Web user interface, the SLATEs are kept in the SLATEs paired to this device right table, but:

- their hostname are reset the slate106 value,
- their PINCODE are reset to no PINCODE ,
- their test card are displayed.

3.1.5 Configuration > Push buttons pairing

The SMH300 device is designed to be able to work on the WPAN network with up to ten EnOcean push buttons.

This menu is available only when the `innes.wpan-hub-srv.wpan_1.observer.enable` user preference (default value = false) is true.

The model EnOcean PTM 215B device is a push button having 4 keys:

- empty circle,
- full circle,
- +,
- .

In the Configuration tab, select the **Push buttons pairing** menu to pair the EnOcean push buttons devices to your SMH300 device.

The screenshot shows the SMH300 configuration interface. On the left, there is a sidebar with various menu items: Administrator, LAN, WLAN, SLATES Pairing, Push buttons Pairing (which is highlighted in blue), Sensors Pairing, App, Servers, License, Date and time, Regionality, Tasks, Variables, Maintenance, and Information. The main panel is titled "Configuration > Push buttons Pairing". It has two tables. The first table, titled "Push buttons detected", contains one row: MAC E21500062DB, Manufacturer EnOcean GmbH, Model EZ15, RSSI -53 dBm. Below this table is the instruction: "Please click the 'activate' button to configure your push buttons." An orange "Activate" button is located above the second table. The second table, titled "Push buttons paired to this device", is currently empty. Below it is the instruction: "Please click the 'activate' button to configure your push buttons." There are also edit and delete icons for this table.

Click on **Activate** button to start the push button EnOcean device pairing process.

The screenshot shows the SMH300 configuration interface after clicking the "Activate" button. The sidebar and main panel structure remain the same. The "Push buttons detected" table now shows the same row as before. The "Push buttons paired to this device" table now lists push buttons numbered 1 through 10. Each entry includes a checkbox, a number (#), MAC, Manufacturer, Model, RSSI, and Hostname. The "Activate" button has been replaced by a "Deactivate" button. The instructions below the tables remain the same.

Press on the EnOcean push button to trig a WPAN advertising. The push button should appear in the Push button not paired to this device list. Select one or several push buttons on the Push button not paired to this device list.

Click on the arrow to move the push button devices from the Push button not paired to this device list to the Push button paired to this device list.

Select a paired push button device on the Push button paired to this device list.

Click on the Edit button to change its WPAN hostname.

Click on the Up or Down arrow to change the push button index.

Click on **Deactivate** button to close the pairing process. Then check the pairing index and the hostname in the **WPAN Devices** menu of the **Information** pane.

If the index is correct, do consider here that your push-button is properly paired.

You cannot pair or use an *EnOcean* push button beyond a maximum distance from the SMH300 device specified by the manufacturer.

For further information about the available App, contact support@qeedji.tech.

3.1.6 Configuration > Sensors pairing

The SMH300 device is designed to be able to work on the WPAN network with up to ten *Easyfit* (by EnOcean) motion sensors.

This menu is available only when the `innes.wpan-hub-srv.wpan_1.observer.enable` user preference (default value = false) is true.

The *Easyfit* (by EnOcean) with EMDCB/E6211-K515 model is a motion sensor sending periodically its status information:

- Battery : 1 .. 100 %,
- Solar cell light level : value in lx unit,
- Illumination from sensor : value in lx unit,
- Magnet contact¹:
 - occupied: presence detected,
 - Not occupied: no presence detected.

The sensor may need a minimum built-in battery level and may need also an additional battery to work properly. For further information, refer to the sensor user manual.

¹ These status are displayed in the *WPAN Peripherals* pane of the *Information* tab once the sensor is paired. For further information, refer to the chapter § *Information > WPAN peripherals*

² The *Magnet contact* status is not displayed in the *WPAN Peripherals* pane of the *Information* tab.

In the *Configuration* tab, select the **Sensors pairing** menu to pair the Easyfit (by EnOcean) motion sensor device to your SMH300 device.

The screenshot shows the SMH300 configuration interface. The left sidebar has a tree view with nodes like Administrator, LAN, WLAN, SLATES Pairing, Push buttons Pairing, Sensors Pairing (which is selected and highlighted in blue), App, Servers, License, Date and time, Regionality, Tasks, and Variables. The main panel title is "Configuration > Sensors Pairing". It contains two tables: "Sensors detected" and "Sensors paired to this device". Both tables have columns: MAC, Manufacturer, Model, RSSI, and a checkbox column. Below each table is a message: "Please click the 'activate' button to configure your sensors." A large orange "Activate" button is centered above the tables.

Click on the **Activate** button to start the motion sensor device pairing process.

The screenshot shows the SMH300 configuration interface after clicking the "Activate" button. The "Sensors detected" table now lists three devices: E500000002ED, E500FB090000, and E50000000638, all from EnOcean GmbH, Model E500, with RSSI values of -87 dBm, -53 dBm, and -65 dBm respectively. The "Sensors paired to this device" table now lists numbered slots 1 through 10, each with a checkbox and a MAC address field. The "Deactivate" button is now visible above the second table. The overall interface remains the same as the previous screenshot, with the "Activate" button replaced by the "Deactivate" button.

Select one or several appropriate sensors in the Sensors not paired to this device list.

The screenshot shows the 'Configuration > Sensors Pairing' page. On the left, a sidebar lists various configuration options like Administrator, LAN, WLAN, SLATES Pairing, Push buttons Pairing, Sensors Pairing (which is selected), App, Servers, License, Date and time, Regionality, Tasks, and Variables. Below that are Maintenance and Information sections. The main area has two tables. The first table, 'Sensors detected', lists three devices: E500000002ED, E500FB090000, and E5000000638. The second table, 'Sensors paired to this device', is currently empty. A large orange 'Deactivate' button is at the top right of the main area.

Click on the arrow button to move the sensors devices from the Sensors not paired to this device list to the Sensor paired to this device list.

This screenshot shows the same configuration page after an action has been taken. The 'Sensors detected' table now only contains two entries: E500000002ED and E500FB090000. The 'Sensors paired to this device' table now contains one entry: E5000000638. The orange 'Deactivate' button remains at the top right.

Select a paired sensor device on the Sensors paired to this device list.

This screenshot shows the configuration page again. The 'Sensors detected' table has the same two entries as before. In the 'Sensors paired to this device' table, the entry E5000000638 now has a checked checkbox next to it. The orange 'Deactivate' button is still present.

Click on the Edit button to change its WPAN hostname.

Click on the Up or Down arrow to change the sensor index.

Click on the Validate button to save your modifications.

Note: To unpair a sensor from the Sensor paired to this device list, select it then click on the - button.

Then check the pairing index and the hostname in the WPAN Devices menu of the Information pane. You can check also the dynamic values returned by the sensor.

Wait for a couple of minutes and click on the refresh button to refresh the sensor status.

If the index is correct, do consider here that your motion sensor is properly paired.

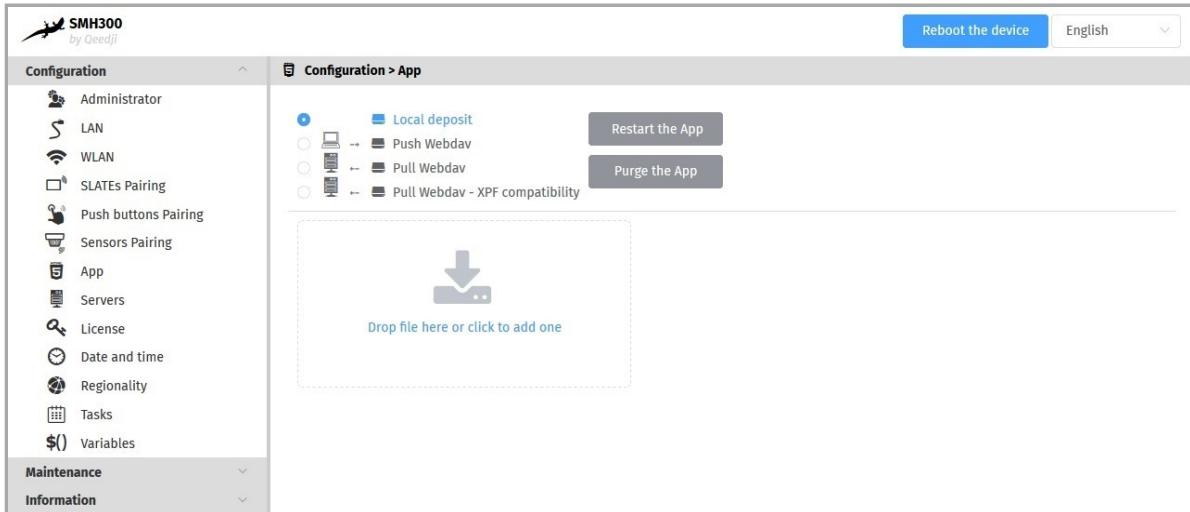
Note: You cannot pair or use an Easyfit (by EnOcean) motion sensor beyond a maximum distance from the SMH300 device specified by the manufacturer.

3.1.7 Configuration > App

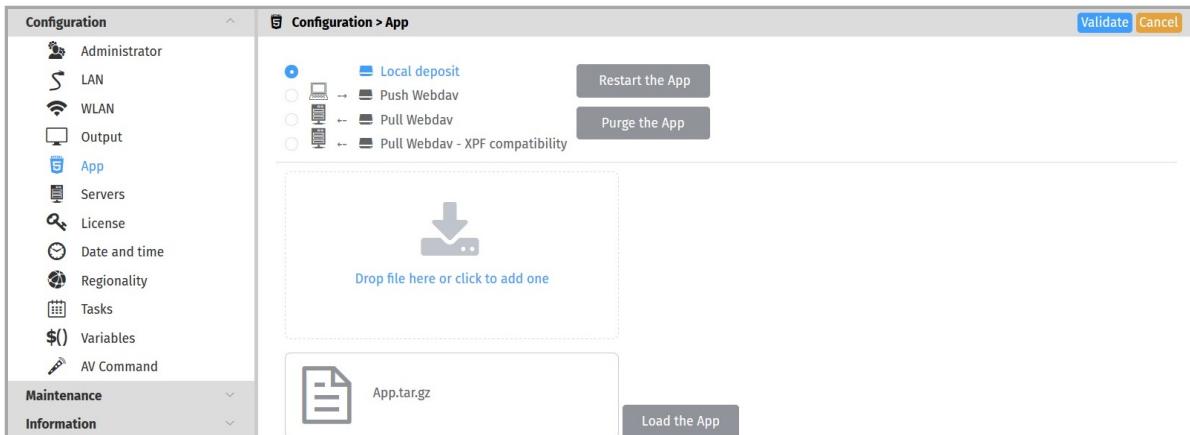
In the Configuration tab, select the **App** menu to select how the App must be loaded.

For each of these modes, you can use the **Purge the App** or **Restart the App** buttons at any time to remove the App from the device or restart it, respectively.

- The **Restart App OR Purge the App** cannot work when **Test card** is activated.
- In order to restart an **App**, the **App** must be first loaded on the device.
- **Local deposit** : Allows to load an App from the device Web user interface and play its content immediately.

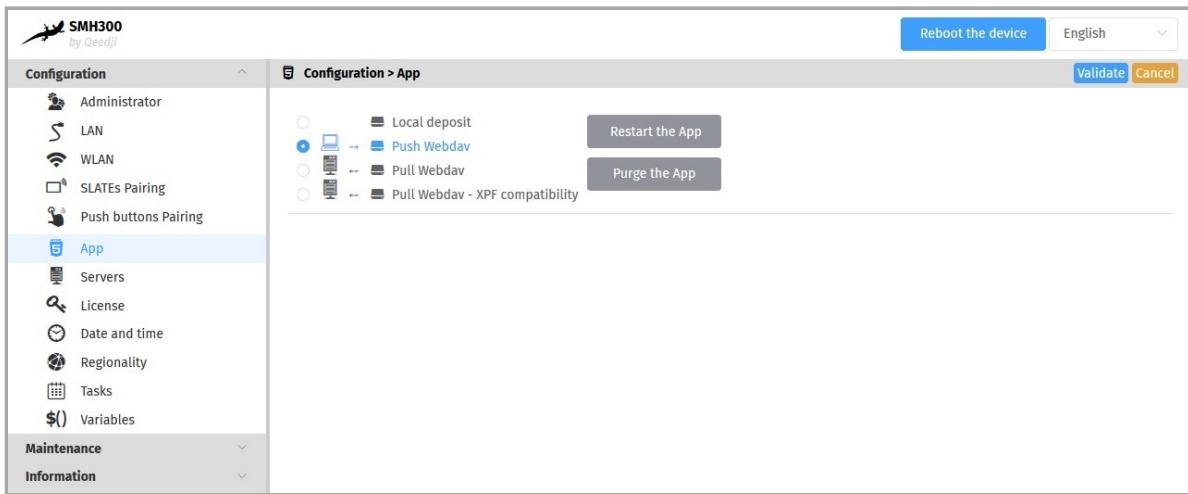


Use the **Drop file here** box or click to add one to drop your **App**.



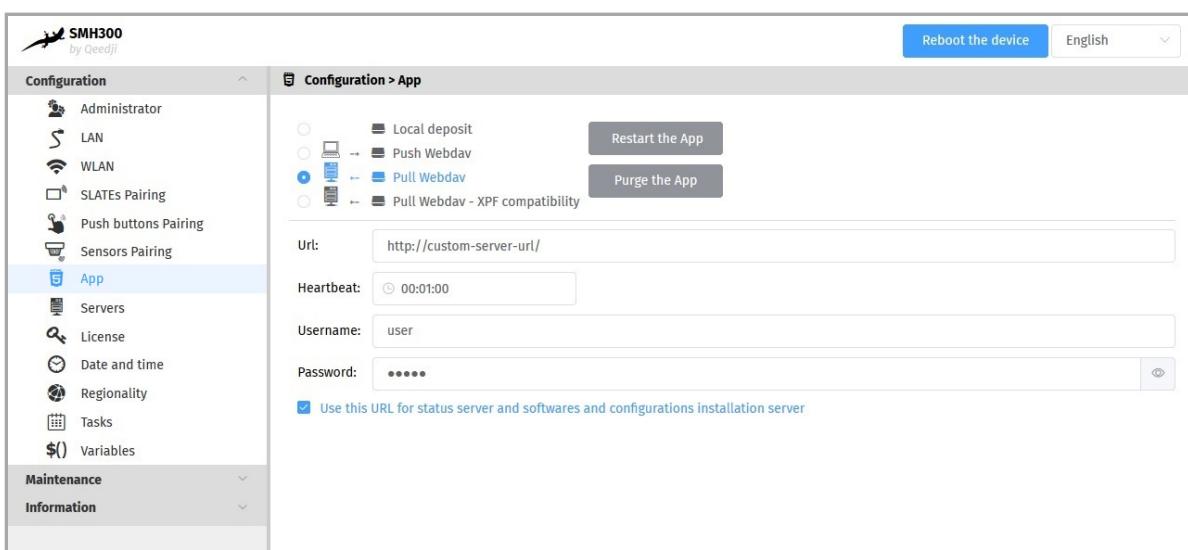
Then click on the **Load App** button. When the file disappears from the interface, the App is loaded and starts automatically.

- The development of App is reserved for advanced users with software development skills. The content of the App must contain at least these 2 files `manifest.xml` and `player.html`. Then archive your App in one of the supported formats: `*tar.gz`, `*.zip`, `*.tar`, `*.tgz`. App examples are available at [github SDK-G4 API \(PDF example\)](#). For further information, contact support@qeedji.tech.
- **Push WebDAV** : Configure the device to receive an App coming from any WebDAV client or from any compatible software suite. Once the App is loaded, it starts immediately.



To find out which software suites are capable of publishing an App on Qeedji devices, contact support@qeedji.tech.

- Pull WebDAV : allows to configure the device so that it can regularly load or update an App from a remote WebDAV server. Once the App is loaded, it starts immediately.



Fill in the fields below properly:

- URL : URL of the remote server's WebDAV frontal. For example: URL : http://domain:8080/.directory/
 - Username/Password : login credential to access to the remote server's WebDAV frontal.
 - Heartbeat : in HH:MM:SS format, time period to connect to the remote server (default: 1 minute).
 - option: Use this URL for the status server and the software and configuration installation server :
 - if enabled, this option allows, based on the defined URL, to automatically set the URLs of the remote servers for:
 - middleware upgrade and configuration scripts distribution:
 - URL + .setup/ suffix,
 - the diffusion of the device status:
 - URL + .devices-status/ suffix.
 - if disabled, this allows to set specific remote server URLs.
- To find out which software suites are able to publish on a remote server, an App supporting Qeedji devices, contact support@qeedji.tech.
- Pull WebDAV - XPF Compatibility : allows to configure the device so that it can regularly retrieve XPF content from a remote WebDAV server and transform it into an App. Once the App is generated, its content is immediately played.

Note: The user preference `innes.app-profile.manifest-downloader:g2.*.*.*.validity-calendar` allows to store the content of an iCAL file defining the validity range for content updates of devices in Pull WebDAV - XPF compatibility mode.

Fill in the fields below properly:

- Protocol : `http` or `https`,
- IP address : IP address of the remote server (XPF compatibility),
- Port : port used by the remote server (XPF compatible),
- Heartbeat : in `HH:MM:SS` format, time period to connect to the remote server (default: 1 minute).

App supported

The device can support for example *Room booking* App. With this App, the SMH300 device can book, validate or delete meeting room reservations. Connected to an LDAP server, the user has to first authenticate itself with an NFC badge. For further information, contact support@qeedji.tech.



The device can support also for example App coming from Qeedji PowerPoint publisher for SLATE. Once the PowerPoint Add-in is installed on your computer, it allows to:

- easily discover and register the SMH300 devices on your local network,
- publish the slide content on your SLATEs (one slide per SLATE) through the SMH300 devices.



Pr. Maddie NELSON
Radiologist physician

016

When the device is in standby, the content can not be updated.

For further information, refer to the chapter § [Appendix 2: Qeedji PowerPoint publisher for SLATE](#).

The device can support also *Notification SLATE App*. Once this App is installed, it allows to manage queues of people. Thanks to a additional *SlateNotificationApp* application running on your MS-Windows computer and behaving like a user remote control able to change the SLATE content in roughly ten seconds:

- it sends a MS-Windows notification to a specific person as soon as a people is pressing on the *Ring the bell* button of a SLATE,
- consequently the specific person can choose to answer by remotely changing the content displayed on the SLATE between:
 - a *please enter* message,
 - a *busy* message,
 - a *custom live* message,
 - a *do not disturb* message.

Dr Stefan SCHMIDT

Dentist surgeries

Please enter

Bell



For further information, contact support@qeedji.tech.

3.1.8 Configuration > Servers

In the Configuration tab, select the **Servers** menu to define the configuration of the servers peripheral to your device.

Status, installation and configurations servers

Status server:

- Url:
- Heartbeat:
- Username:
- Password:

Softwares and configurations installation server:

- Url:
- Heartbeat:
- Username:
- Password:

DNS Servers

Obtain DNS server address automatically

Use the following DNS server address:

- Preferred DNS server:
- Alternate DNS server:
- DNS suffixes:

NTP time server

NTP Server:

Maximum number of tries:

Maximum waiting time for each try:

Proxy servers

Manual proxy configuration:

HTTP

- Address:
- Port:
- Username:
- Password:

HTTPS

- Address:
- Port:
- Username:
- Password:

FTP

- Address:
- Port:
- Username:
- Password:

No proxy for:

- Delivery server
- Status server
- Softwares and configurations installation server

Others:

Example: innes.pro, 192.168.0.1/24

Automatic proxy configuration URL:

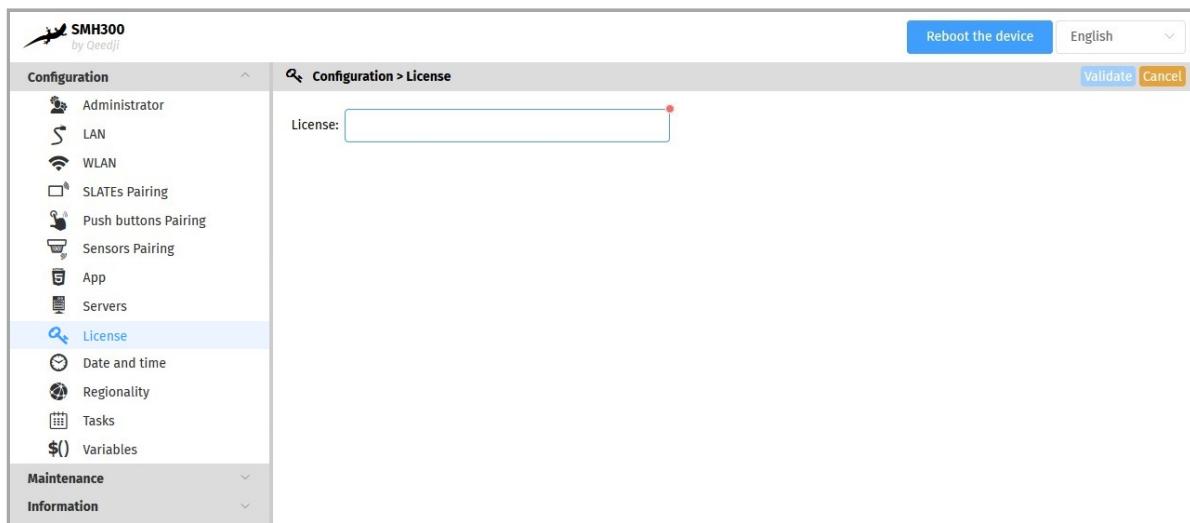
- status, software installation and configuration servers.
 - Status server :
 - URL : URL of the remote server's WebDAV frontend for the broadcast of the `.device-status/status.xml` device status file. For example: `http://domain:8080/.directory/`
 - Username/password : login and password for the remote server's WebDAV frontend connection.
 - Heartbeat : in HH:MM:SS format, period duration of the connection to the remote server (default: 1 minute).
 - Software installation and configuration servers :
 - URL : URL of the remote server's WebDAV frontend for hosting update software and configuration scripts. For example: `http://domain:8080/.directory/`
 - Username/password : login and password for the remote server's WebDAV frontend.
 - Heartbeat : in HH:MM:SS format, period duration of the connection to the remote server (default: 1 minute).
- DNS servers ,

- NTP Time Servers : allows to set a time server in order the device is always on time¹,
- Proxy server .

¹ If your device does not have access to the Internet, it is possible to turn an MS-Windows computer into a NTP server. For further information, contact your IT department.

3.1.9 Configuration > License

In the Configuration tab, select the **License** menu to view your device license number.

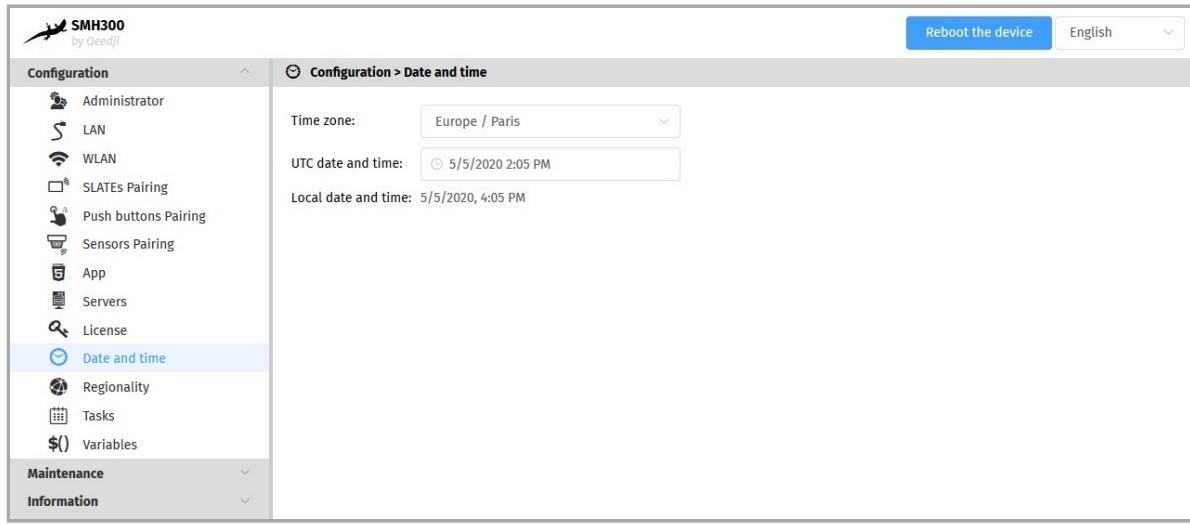


This license number is registered at the factory when the device is ordered. It is then sent to you by e-mail. If it has disappeared due to a handling error or after formatting your device, an error message indicating that the license is invalid will appear on your screen. In this case, please re-enter the license for your device.

3.1.10 Configuration > Date and time

In the Configuration tab, select the **Date and Time** menu to check the time configuration:

- timezone,
- system date of your device (day and time).



To update the date and time of your device, click on the **UTC Date and Time** value and then click on the **Now** button.

- ☞ The **Date and time** set by the user can be taken into account only if the NTP server is not activated, or if the NTP server is not accessible.
- ☞ Setting a new date and time involves to restart the device immediately. If you have several configuration settings to change, it is advisable to adjust the date and time at last.
- ☞ It is advised that your device is on time. If your device is connected to the Internet, it is advised to synchronize the date and time on a Web NTP server. For further information, refer to the chapter § [Configuration > Servers](#).

3.1.11 Configuration > Regionality

In the Configuration tab, select the **Regionality** menu to choose the language in which information messages or error messages related to the device need be displayed on the screen.



The supported languages are:

- *English,*
- *Spanish,*
- *German,*
- *French.*

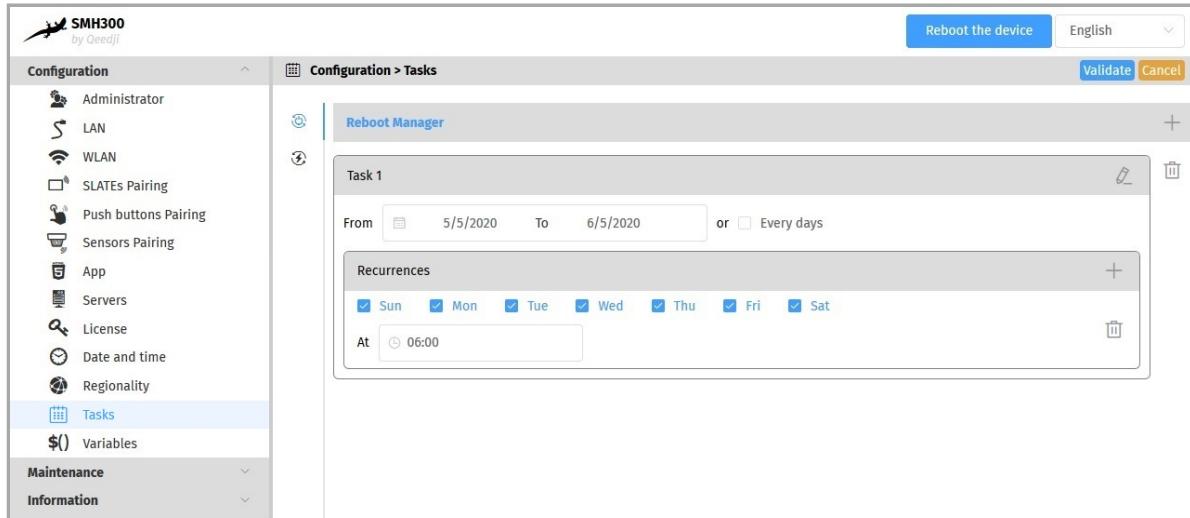
3.1.12 Configuration > Tasks

In the Configuration tab, select the **Tasks** menu to:

- program a reboot manager task,
- program a power manager task for the appliance to reduce the device energy consumption.

Device restart tasks

To create a reboot manager task, click on the  button then click on the  button.



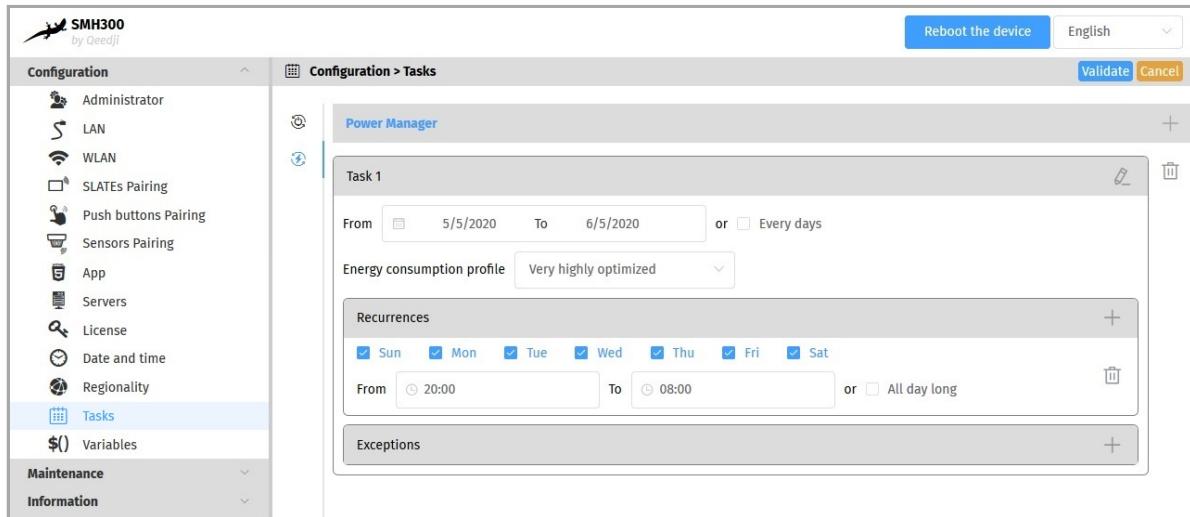
It is therefore possible to program several reboot occurrences whose parameters are stored in an iCAL format in the user preference `innes.reboot-manager.calendar`.

Example of value (iCAL format):

```
BEGIN:VCALENDAR
VERSION:1.0
BEGIN:VEVENT
SUMMARY: Reboot Task 1
DTSTART:20200407T091800
DTEND:20200407T091805
RRULE:FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;UNTIL=20200507T235959
END:VEVENT
END:VCALENDAR
```

Device power manager task

To create a power manager task, click on the  button then click on the  button.



The possible values programmable in time are

- *Very highly optimized*,
- *Highly optimized*,
- *Optimized means*,

- *Nominal mode.*

It is possible to create several `power manager` tasks in the same day. These settings for scheduled power level, start time, end time, occurrence, and exception are stored in iCAL format in the user preference `innes.power-manager.calendar`.

Example value (ICAL format):

```
BEGIN:VCALENDAR
VERSION:1.0
BEGIN:VEVENT
SUMMARY:Standby Task 1
X-POWER-MANAGER-LEVEL:MIN
DTSTART:20190805T090000
DTEND:20190805T120000
RRULE:FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;UNTIL=20200416T0000
END:VENT
END:VCALENDAR
```

In this version, here is the state of the device when the power manager is in the *Very highly optimized* state:

Function	Associated User Preferences
Sound: deactivated	<code>innes.power-manager.level.min.<>.mute = true</code>
Volume: 0%	<code>innes.power-manager.level.min.<>.volume = 0</code>

In this version, here is the state of the device when the power manager is in the *Highly optimized* state:

Function	Associated User Preferences
Sound: activated	<code>innes.power-manager.level.low.<>.mute = false</code>
Volume: 10%	<code>innes.power-manager.level.low.<>.volume = 10</code>

In this version, here is the state of the device when the power manager is in the *Medium Optimized* state:

Function	Associated User Preferences
Sound: activated	<code>innes.power-manager.level.high.<>.mute = false</code>
Volume: 80%	<code>innes.power-manager.level.high.<>.volume = 80</code>

In this version, here is the status of the device when the `power manager` task is in the *Nominal mode* state, meaning the default mode when no other `power manager` task is running.

Function	Related User Preferences
Sound: activated	<code>innes.power-manager.level.max.<>.mute = false</code>
Volume: 100%	<code>innes.power-manager.level.max.<>.volume = 100</code>

 The values of these user preferences are all modifiable.

3.1.13 Configuration > Variables

In the Configuration tab, select the **Variables** menu to set variable (or TAG) values for this device.

The screenshot shows the SMH300 configuration interface. On the left, there is a sidebar with icons for various settings like LAN, WLAN, SLATES Pairing, Push buttons Pairing, Sensors Pairing, App, Servers, License, Date and time, Regionality, Tasks, and a selected 'Variables' option. The main panel title is '\$() Configuration > Variables'. It contains a section titled 'Custom device variables:' with five input fields labeled 'field1' through 'field5'. A blue button at the top right says 'Reboot the device' and a language selection dropdown shows 'English'.

The variable names are:

- field1 ,
- field2 ,
- field3 ,
- field4 ,
- field5 .

These variable values can then be used in Apps to perform specific processing for devices having specific variables values.

3.1.14 Maintenance > Middleware

In the Maintenance tab, select the **Middleware** menu to view the version of the middleware installed on your device.



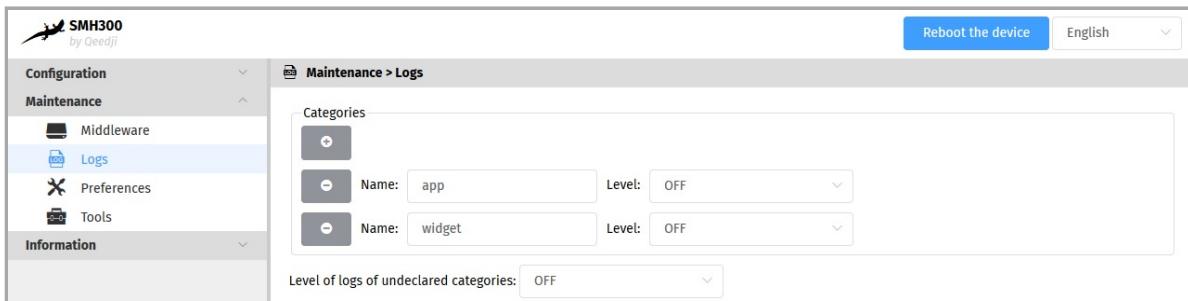
Corrective and evolutive maintenance software versions are regularly made available on the http://www.innes.pro/en/support/index.php?SMH300/Firmware_and_documentation_for_SMH300. It is therefore advised to regularly update the device middleware. From this website, download the latest version available for your device model. Unzip the .zip archive and get the .frm file.

Drop your .frm file in the Drop file here location or click on it to add one, then click on the Send button to update the Gekkota os version of your device. Wait a few minutes, the time to load and install the new middleware version. Go back to the device configuration Web user interface and check the new Gekkota os version number of the device.

⚠ Do not electrically disconnect the device during the middleware upgrade. For further information, refer to the chapter § [LED behaviour](#).

3.1.15 Maintenance > Logs

In the Maintenance tab, select the **Logs** menu to activate logs.



The log levels are:

- DEBUG : activation of level logs: ERROR + WARN + DEBUG,
- WARN : activation of level logs: ERROR + WARN,
- ERROR : activation of level logs: ERROR,
- OFF : disabling logs.

Logs are compartmentalized according to software functions such as:

- app : App debug,
- widget : HTML widget debugging,
- network : debug of the network related layer,

☞ These logs may be activated on support request in exceptional debug cases.

☞ These logs can only be interpreted only by software developers who are familiar with the software bricks that have been developed.

Activating the logs with a level other than OFF should only be done after a request from Qeedji support.

⚠ Enabling traces All trace levels of undeclared categories with a DEBUG or WARN level can significantly disrupt the operation of the device.

⚠ After a debug session with support, in nominal operation, all levels should be reset to OFF .

3.1.16 Maintenance > Preferences

In the Maintenance tab, select the **Preferences** menu to view all the preferences.

The screenshot shows the SMH300 device configuration interface. On the left, there is a sidebar with categories: Configuration, Maintenance (selected), Information, and Tools. Under Maintenance, sub-options are Middleware, Logs, Preferences (selected), and Tools. The main content area is titled "Maintenance > Preferences". It features a "Filter:" input field at the top. Below it is a table with the header "Name of the preference". The table lists several accessibility-related preferences:

Name of the preference
accessibility.accesskeycausesactivation
accessibility.browsewithcaret
accessibility.browsewithcaret_shortcut.enabled
accessibility.force_disabled
accessibility.ipc_architecture.enabled
accessibility.mouse_focuses_formcontrol
accessibility.tabfocus
accessibility.tabfocus_applies_to_xul
accessibility.typeaheadfind
accessibility.typeaheadfind.autostart
accessibility.typeaheadfind.casesensitive
accessibility.typeaheadfind.enablesound

At the bottom right of the main content area is a button labeled "Restore factory preferences".

The filter allows to display only the preferences whose name contains the string entered in the filter. All the preferences have optimal default values. Double click on a preference to change its value.

At the bottom right of the page, the `Restore factory preferences` button resets a subset of preferences allowing the device to reprogram its factory preferences.

Restore factory preferences

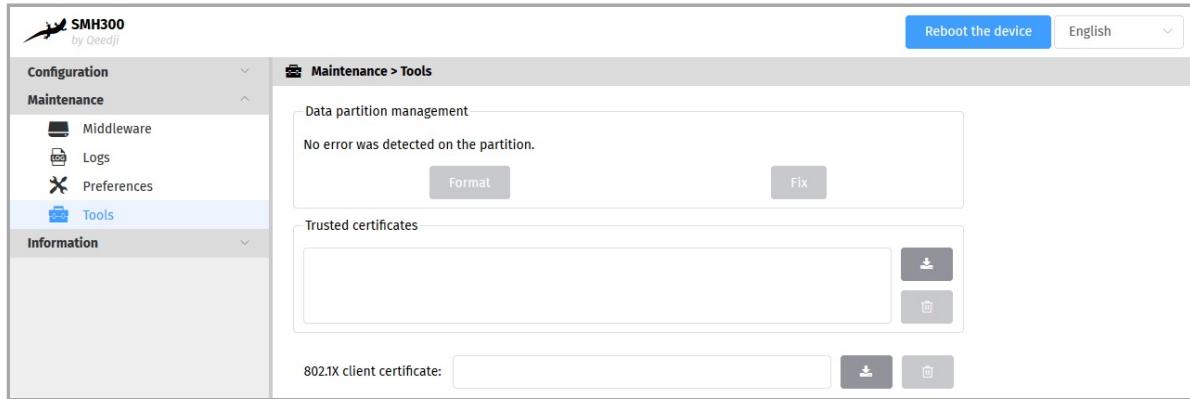
After a factory preferences restoring using the device configuration Web user interface, the SLATE PSN are kept in the `SLATEs paired to this device` right table, but:

- their hostname are reset the `slate106` value,
- their `PINCODE` are reset to *no PINCODE*,
- their test card are displayed.

3.1.17 Maintenance > Tools

In the Maintenance tab, select the **Tools** menu to:

- Fix errors detected on the SD card data partition,
- format the data partition of the SD card,
- add Trusted certificates,
- add 802.1X client certificate (.p12).



The encryption algorithms supported to decrypt the .p12 certificates are:

- 128 bits RC4 with SHA1,
- 40 bits RC4 with SHA1,
- 3 keys 3DES with SHA1 (168 bits),
- 2 keys 3DES with SHA1 (112 bits),
- 128 bits RC2-CBC with SHA1,
- 40 bits RC2-CBC with SHA1.

Tip: The `format` and `fix` buttons are only active if the Gekkota OS middleware has actually detected writing or reading errors on the partition.

If the `Fix` button is accessible, clicking on the `Fix` button will repair the content without purging the App. If the problem persists, and the `Format` button is available, clicking on the `Format` button will format the content. It is then necessary to publish again the App.

Tip: If the problem persists after formatting the SD card, contact your Qeedji support.

3.1.18 Information > Device

In the **Information** tab, select the **Device** menu to view system information about the device.

- **Middleware** : label and version of the embedded middleware,
- **Model** : model of the Qeedji device,
- **Hostname** : name of the device on the network,
- **MAC** : MAC address (value used in particular to generate the license key of the device),
- **UUID** : Universal Unique IDentifier,
- **PSN** : Product Serial Number.

3.1.19 Information > Network

In the **Information** tab, select the **Network** menu to view a summary of the device's network configuration.

The screenshot shows the SMH300 device interface with the 'Information' tab selected. In the left sidebar, under 'Information', the 'Network' option is highlighted. The main pane displays network configuration details:

- Delivery, status and installation servers:**
 - Delivery server (G3): http://custom-server-url/ Heartbeat: 00:01:00
 - Status server: http://custom-server-url/.device-status/ Heartbeat: 00:01:00
 - Softwares and configurations installation server: http://custom-server-url/.setup/ Heartbeat: 00:01:00
- NTP time server:**
 - NTP Server: fr.pool.ntp.org
- LAN_1:**
 - Mac address: 00-1C-E6-02-27-3F
 - Ip v4 address: 192.168.1.236/17
 - Ip v6 address:
 - Default gateway: 192.168.0.1
 - State: connected
 - DNS Servers: 192.168.0.1
- WLAN_1:**
 - Mac address: 00-19-88-26-D6-B6
 - Ip v4 address:
 - Ip v6 address:
 - Default gateway:
 - State: not connected
 - DNS Servers:

! The displaying of the IP V6 address value starting with the prefix `fe80::` is not supported in this pane. For further information, contact your IT department so that your network is advertising the IP V6 address with another prefix (ex: `fc00::`).

3.1.20 Information > WPAN devices

In the **Information** tab, select the **WPAN Devices** menu to see WPAN devices paired to your SMH300 device.

The panel allows to display system information like:

- SLATE index column
- Type ,
- Manufacturer : Qeedji, EnOcean,
- Model : Qeedji model, EnOcean model,
- PSN : product serial number,
- Hostname : name of the SLATE device on the WPAN network,
- information:
 - for Qeedji model:
 - Software rev : software release version running on the SLATE,
 - Firmware rev : boot loader software running on the SLATE put at the factory (can not be updated),
 - Hardware rev : SLATE hardware board version,
 - Battery : SLATE battery level in percent updated every connection to the SLATE.
 - for EnOcean model:
 - Battery : 1 .. 100 %,
 - Solar cell light level : value in lx,
 - Illumination from sensor : value in lx,
 - Magnet contact 1:
 - Occupied :
 - at least one people,
 - Not occupied :
 - no people anymore,
 - RSSI : value in dBm.

The button allows to refresh the panel information.

Example:

	Type	Manufacturer	Model	PSN	Hostname	Information
1						
2		Qeedji EnOcean GmbH EnOcean GmbH	SLATE106 E215 E500	00900-00247 E2150000620B E500FB090000	slate106	Battery: 97%, Firmware rev: 1.10.12, Software rev: 1.11.11_beta10, Hardware rev: Rev.C
3						
4						
5						
6						
7						
8						

Part IV

Configuration by script

4.1 Configuration by script

The SMH300 device can auto-configure with a configuration script. The configuration script can be either:

- hosted on a remote WebDAV server or
- broadcasted by your DHCP server (code 66) or
- injected through an USB storage device or
- dropped in the device `.extension` WebDAV directory with a WebDAV client.

For further information, refer to the [configuration-by-script](#) application note.

 After an USB storage device insertion, wait about 20 seconds before removing the USB storage device. And wait that the device is rebooting (green LED displayed continuously for around 20 seconds).

In case the script is containing an error, the syntax error is reported in the `http://<device-ip-addr>/.status/status.xml` file.

Part V

Technical information

5.1 Technical specifications

Model	Manufacturer
SMH300	Qeedji
Processors	
CPU	Freescale iMX6
GPU	Vivante
Peripherals	
2x USB 2.0 Host (Low/Full/High Speed)	
1x Jack 3.5 mm configurable in GPIO or Infrared	
Storage	Information
Internal Flash Memory for OS	
SD card	Qualified SD cards: SANDISK / SDSDBA-032G / 32 GB, SANDISK / SDSDB-032G-B35 / 32 GB, SANDISK / SDSDBA-008G / 8 GB
Middleware	
Gekkota OS 4	
Audio outputs	
Jack 3.5 mm R+L stereo analog	
Embedded with HDMI output	
Network	
1x Ethernet 10/100 BaseT	
Options	
WIFI WIFI 802.11 b/g (WIFI 3)	
Power supply	
12 V DC (600 mA)	
Operating temperature	Storage temperature
+0 °C to +35 °C	-20 °C to +60 °C
Operating humidity	Storage humidity
< 80 %	< 85 %
Weight	Dimensions (W x H x D)
With WIFI: 0,630 Kg (1,38 lb) Without WIFI: 0,619 Kg (1,36 lb)	258 x 176 x 35 mm (5,66" x 6,92" x 1,37")
Warranty	
3 years	

5.2 Conformities

In conformity with the following European directives:

- LVD 2014/35/EU ,
- EMC 2014/30/EU .

Part VI

Contacts

6.1 Contacts

For further information, please contact us:

- **Technical support:** support@qeedji.tech,
- **Sales department:** sales@qeedji.tech.

Refer to the Qeedji Website for FAQ, application notes, and software downloads: <https://www.qeedji.tech/>

Qeedji FRANCE
INNES SA
5A rue Pierre Joseph Colin
35700 RENNES

Tel: +33 (0)2 23 20 01 62
Fax: +33 (0)2 23 20 22 59

Part VII

Appendix

7.1 Appendix: Qeedji PowerPoint publisher for SLATE

This appendix explains how to publish slides of a `.pptx` MS-Powerpoint presentation on SLATES paired to a SMH300 device using your MS-Office PowerPoint, on which the Qeedji PowerPoint Publisher for SLATE PowerPoint Add In is installed.

► The Qeedji PowerPoint Publisher for SLATE PowerPoint Add In can deal with several SMH300 devices with the same MS-PowerPoint presentation.

► In this version, only the SMH300 devices, whose WebDAV servers are available with the `http://` scheme (default value), are supported.

Prerequisite:

- the SLATEs need to be paired with the right index to each appropriate SMH300 device. For further information, refer to the chapter § Configuration > SLATEs pairing.
- the SMH300 device needs to be purged from any existing App. It is advised to set the App mode to the Push WebDAV value. For further information, refer to the chapter § Configuration > App.

Sum-up in a SLATE pairing table, like explained below, each SLATE with their pairing index for each SMH300 device.

SMH300 device's hostname	SLATE index	PowerPoint section name	PowerPoint slide no	Name	Profession
floor-1	1	1st floor	1	Pr. Maddie NELSON	Radiologist physician
floor-1	2	1st floor	2	Pr. John SMITH	Radiologist physician
floor-1	3	1st floor	3	Dr. Patricia DUCHON	General practitioner
floor-1	4	1st floor	4	Waiting room	1st floor
floor-1	5	1st floor	5		
floor-1	6	1st floor	6	Sonia DELACOURT	Anesthetist nurse

SMH300 device's hostname	SLATE index	PowerPoint section name	PowerPoint slide no	Name	Profession
floor-2	1	2nd floor	7	Dr. Ashley ISAAC	Dentistry surgeries
floor-2	2	2nd floor	8	Dr. Xavier NELSON	Dentistry surgeries
floor-2	3	2nd floor	9	Pr. Stefan SCHMIDT	Cardiologist

► In the example, the SLATEs are spread on two floors. In case your MS-PowerPoint presentation needs to deal with two SMH300 devices or more, do prefer use a MS-PowerPoint presentation with sections. In case your MS-PowerPoint presentation deals with only one SMH300 device, do prefer use a MS-PowerPoint presentation without section.

Download the appropriate PPTX template and open it with your MS-Office PowerPoint.

The slides of the MS-PowerPoint templates given below are filling the right requirements to be displayed properly on the SLATEs:

- four grey level colors,
- layout with:
 - 4:3 format,
 - slidemaster layout for global modification,
 - a grey rectangle allowing to visualize the area reserved for the **optional** private message overlay which can be displayed thanks to the `slate Message Overlay` mobile application.
- one MS-PowerPoint presentation template with sections, another one without section.

The [With sections PPTX template](#) contains two sections:

- 1st floor section: made of 6 slides for the `floor-1`,
- 2nd floor section: made of 3 slides for the `floor-2`.

The [Without section PPTX template](#) contains no section.

PowerPoint presentation preparation

Following the previous pairing table, prepare the slide content with one slide per SLATE device.

Given that the screen of the SLATEs devices has a 4:3 format, it is recommended to configure your PowerPoint presentation with a slide layout configured in the 4:3 aspect ratio as well. In the Design > Slide Size PowerPoint item, choose Standard (4:3) value instead of Widescreen (16:9) value.

Keep in mind that the final rendering will be finally displayed on a SLATE screen filling the following requirements: 800x600 pixel and four grey levels colors. Do use the grey colors shown below.

Grey color range	R-G-B (integer value)
Black	0-0-0
Dark grey	95-95-95
Light grey	159-159-159
White	255-255-255

Some sections can be used especially to publish on several SMH300 devices, with one section per SMH300 device or to shorten the publication time for a given SMH300 device by avoiding to publish unuseful slides. With a right click on the slide thumbnail list on the left, it is possible to remove one or all the sections. To add a section after a slide, select a slide in the slide thumbnail list, right clic, and choose Add section. You can for example rename the section with a name containing the hostname of the SMH300 device or containing the building floor where the SMH300 device is installed. Do not gather more than ten slides per section. The hidden slide remain affected to the SLATE but can not be published. For further information about PowerPoint sections, refer to the Microsoft PowerPoint support about section.

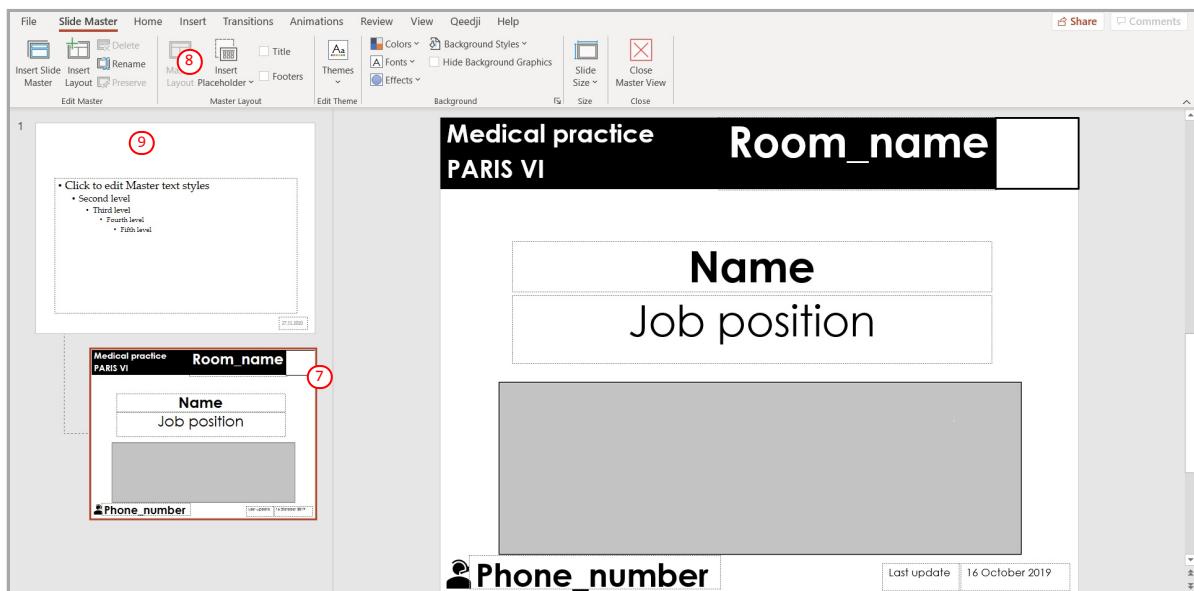
When there is no section at all, during the publication, the Qeedji PowerPoint Publisher for SLATE PowerPoint Add In switches automatically to another SMH300 device every ten slides. Ten is the max. number of SLATEs supported per SMH300 device.

In case you need to modify the PowerPoint layout template, the good practise is to modify the Slide Master. In the View (5) menu, click on the Slide Master (6) ribbon item.



Then:

- select the child Slide Master (7) to change texts or add new placeholders (8) for the common layout.
- select the parent Slide Master (9) to bring shape modifications (increase place holder size, change color) for the common layout,



Return to Normal (10) view to edit the text which is different for each slide.

Change the layout and the content according to your needs. Add as much slides as required.

Qeedji PowerPoint Publisher for SLATE: installation

The Qeedji PowerPoint Publisher for SLATE PowerPoint Add In needs to be installed once:

- download the appropriate installer (.msi file):
 - [Qeedji PowerPoint Publisher for SLATE \(nt_ia64\)](#) for your MS-Office (nt_ia64),
 - [Qeedji PowerPoint Publisher for SLATE \(nt_ia32\)](#) for your MS-Office (nt_ia32).
- execute the installer and choose the **Everyone** or **Just for me** installation according to your needs. For example, choose **Just me**,
- click on **Next** button at each step by checking the default installation settings.

☞ Choosing **Everyone may require to run the PowerPoint with the Administrator rights to be able to deactivate the **Qeedji PowerPoint Publisher for SLATE** PowerPoint Add In afterwards.**

Open MS-Office PowerPoint and check that a **Qeedji** (1) menu has appeared. Clicking on it makes appear a **Qeedji** ribbon which has 3 items:

- **Publish** (2),
- **Settings** (3),
- **Export** (4),
- **About** (5).



☞ If the **Qeedji menu (1) does not appear after a successful installation, contact support@qeedji.tech.**

☞ In the **Qeedji ribbon, click on the **About** (5) item to see the version of the **Qeedji PowerPoint Publisher for SLATE** PowerPoint Add In.**

☞ For older computer, it could be requested to install first .NET framework version 4.x.Y before installing the **Qeedji PowerPoint Publisher for SLATE PowerPoint Add In.**

☞ The same language is used for **Qeedji PowerPoint Publisher for SLATE PowerPoint Add In interface and the MS-Windows one.**

☞ In case you need to upgrade **Qeedji PowerPoint Publisher for SLATE PowerPoint Add In, it is required to close MS-Office PowerPoint and open it again to use the new version.**

☞ In some rare cases, the warning message **PowerPoint has problems with the Qeedji complement. If the problem persists, disable this add-on and check for updates. Do you want to disable it now? (yes/no) could be prompted when opening a MS-Office PowerPoint. In this case, do ignore the message by clicking **No**. It should not prevent the **Qeedji PowerPoint Publisher for SLATE** to work properly.**

Qeedji PowerPoint Publisher for SLATE: Uninstallation

In case you need to uninstall **Qeedji PowerPoint Publisher for SLATE** PowerPoint Add In, use the **Add or remove programs** Windows menu, then remove the **Qeedji PowerPoint Publisher for SLATE** program.

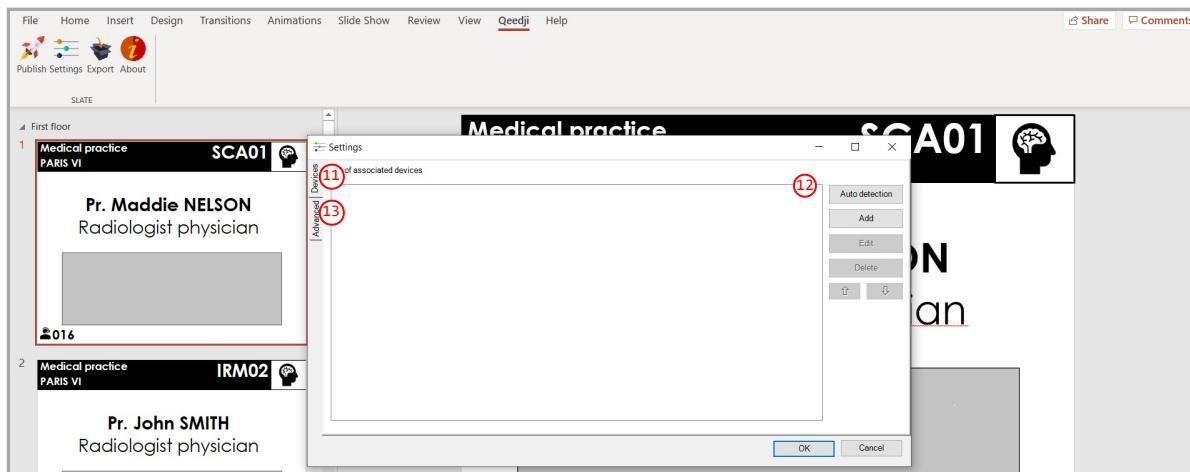
Qeedji PowerPoint Publisher for SLATE: register one or several devices



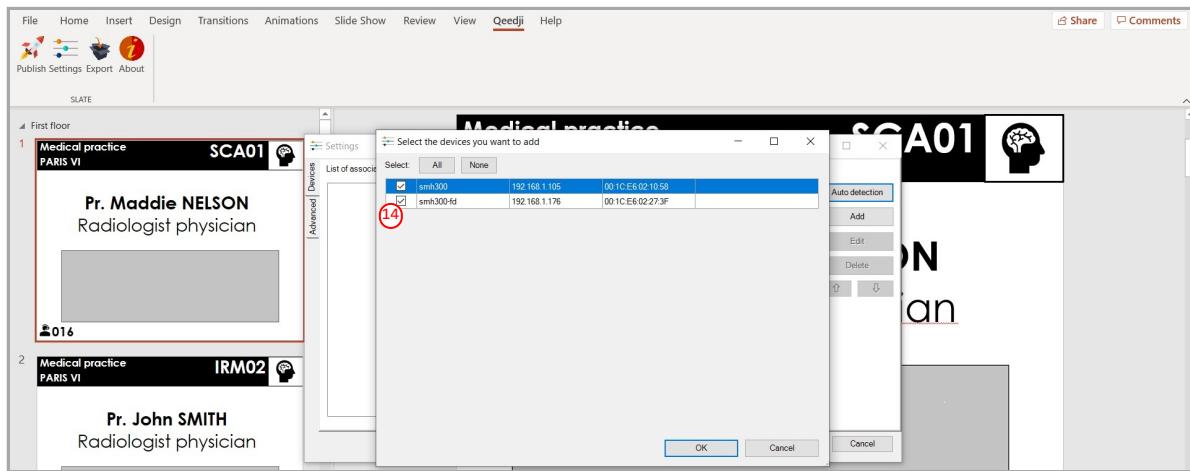
To register one or several SMH300 devices, open you MS-Office Powerpoint presentation then:

- click on the Qeedji (1) menu,
- on the Qeedji ribbon, click on the Settings (3) item to access to the SMH300 device registering panel.

On the Advanced (13) tab, you can define a *Background color* with a color picker. The background color is only used when the *Slide Size* is not Standard 4:3. On the Devices (11) tab, click on the Auto detection (12) button to detect the SMH300 devices available on your local network.



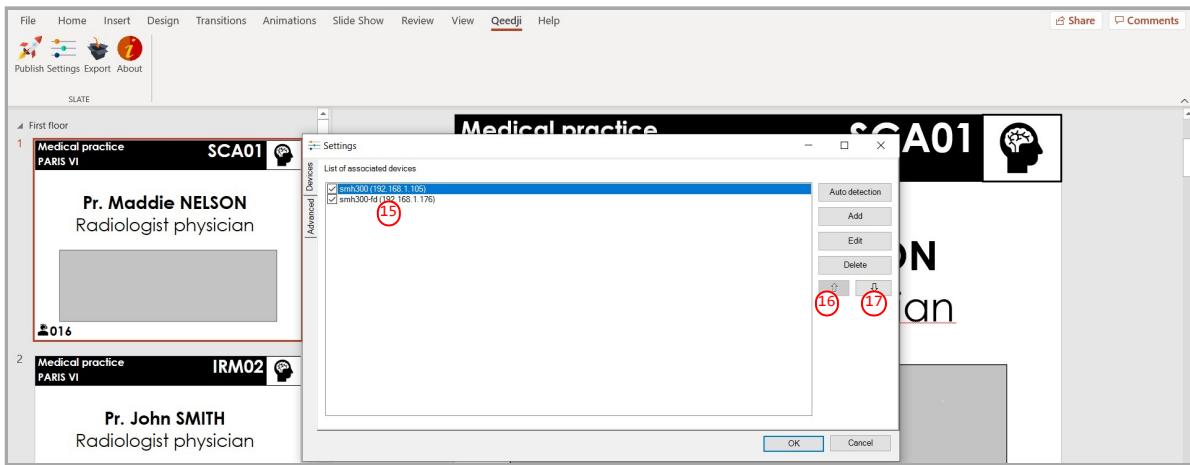
Select (14) the appropriate SMH300 devices to create a list of appropriate SMH300 devices as possible applicant for the MS-Powerpoint presentation.



Select then the only SMH300 devices on which you want to publish, by double clicking on them.

The SMH300 devices sorting order in the list is decisive because it is taken into account during the publication. The slides of the first section, or the first ten slides, are always affected to the SMH300 device located at the top of the list. Then the publication is continuing with the next SMH300 device located immediately below, and so on.

Select a SMH300 device and use the up (16) arrow or the down (17) arrow to sort them in the right order to match the MS-PowerPoint sections.



Qeedji PowerPoint Publisher for SLATE: publish

To publish a content on your SLATEs through the SMH300 devices, open your MS-Office Powerpoint presentation. Then:

- click on the Qeedji (1) menu,
- on the Qeedji ribbon, click on the Publish (2) item.



☞ Before publishing with the *Publish* item, it is advised to check in the *Settings* item, that the registered SMH300 devices are consistent and sorted in the right order.

The *Publishing status report* is showing whether the publishing on each SMH300 devices has succeeded or not:

- Publishing succeeded : the publication has succeeded
- Publishing failure (Error: 503) : the publishing has failed. In this case, check the network connection between your computer and the SMH300.

Publishing status report example:

```
1/2 - Publishing on device: floor-1 (192.168.1.121)
- Publishing of the slide: 1 on the SLATE: 1/6
    Publishing succeeded
- Publishing of the slide: 2 on the SLATE: 2/6
    Publishing succeeded
- Publishing of the slide: 3 on the SLATE: 3/6
    Publishing succeeded
- Publishing of the slide: 4 on the SLATE: 4/6
    Publishing succeeded
- Publishing of the slide: 5 on the SLATE: 5/6
    Publishing succeeded
- Publishing of the slide: 6 on the SLATE: 6/6
    Publishing succeeded

2/2 - Publishing on device: floor-2 (192.168.1.181)
- Publishing of the slide: 7 on the SLATE: 1/4
    Publishing succeeded
- Publishing of the slide: 8 on the SLATE: 2/4
    Publishing succeeded
- Publishing of the slide: 9 on the SLATE: 3/4
    Publishing succeeded
- Publishing of the slide: 10 on the SLATE: 4/4
    Publishing succeeded
```

Publishing completed

☞ When a slide is hidden, the PPK content publication is not done for this slide index, which is associated to a SLATE index.

☞ The protected view may prevent to publish properly by returning this error: Publishing failure (Error: Unable to save a copy of the current document). To work around, click on the *Enable editing* button before publishing.



☞ During the publication, the PowerPoint slides are immediately transformed into PPK content (proprietary format) and copied into the appropriate WebDAV directories of the SMH300 devices. For example, with the [PPTX template with sections](#), the PPK are copied in the following directories.

```

http://<SMH300_hub1_ip_addr>/.output/1
http://<SMH300_hub1_ip_addr>/.output/2
http://<SMH300_hub1_ip_addr>/.output/3
http://<SMH300_hub1_ip_addr>/.output/4
http://<SMH300_hub1_ip_addr>/.output/5
http://<SMH300_hub1_ip_addr>/.output/6

http://<SMH300_hub2_ip_addr>/.output/1
http://<SMH300_hub2_ip_addr>/.output/2
http://<SMH300_hub2_ip_addr>/.output/3

```

After the publication, wait until 15 minutes (default SLATE wake up policy), the time for the SLATE to update their content.

Qeedji PowerPoint Publisher for SLATE: export

To export each slide content into a respective PPK content file, click on the Export (4) button to select the output directory.



- Exporting of the slide: 1
- Exporting of the slide: 2
- Exporting of the slide: 3
- Exporting of the slide: 4
- Exporting of the slide: 6
- Exporting of the slide: 7
- Exporting of the slide: 8
- Exporting of the slide: 9
- Exporting of the slide: 10

Exporting completed of 9 unmasked slides

7.2 Appendix: Device status (status.xml)

The SMH300 device is updating regularly its device status stored in its `/.status` WebDAV directory:

```
http://<device-ip-addr>/.status/
```

This file can be periodically sent to a remote WebDAV server for monitoring purpose.

Status.xml example:

```
<device-status xmlns="ns.innes.device-status">
<device>
<id-type>MAC</id-type>
<mac>00-1c-e6-02-20-e2</mac>
<hostname>smh300</hostname>
<uuid>05c00002-0000-0000-0000-001ce60220e2</uuid>
<modelName><gekkota_os-model></modelName>
<modelNumber>4.13.14</modelNumber>
<serialNumber>00920-00002</serialNumber>
<middleware>gekkota-4</middleware>
<field1/>
<field2/>
<field3/>
<field4/>
<field5/>
<ip-addresses>
<ip-address>
<if-type>LAN</if-type>
<origin>dhcp</origin>
<value>192.168.1.119/17</value>
</ip-address>
<ip-address>
<if-type>LAN</if-type>
<origin>auto</origin>
<value>fc00::21c:e6ff:fe02:20e2/64</value>
</ip-address>
</ip-addresses>
<addons/>
</device>
<status>
<date>2020-03-31T17:40:16.055055+02:00</date>
<launcher>
<power-manager level="MAX"/>
<manifest-metadata xmlns:pzpm="ns.innes.gekkota.manifest">
<pzpm:publish-size>0</pzpm:publish-size>
<pzpm:publish-generator>gekkota_ui</pzpm:publish-generator>
<pzpm:publish-date>2020-03-30T06:45:26.759Z</pzpm:publish-date>
</manifest-metadata>
<state>NO_CONTENT</state>
</launcher>
<storage>
<total unit="byte">1912532992</total>
<used unit="byte">22161408</used>
</storage>
<display-outputs/>
<setup>
<configuration>
<metadatas/>
<version>2019-06-21T13:25:25Z</version>
</configuration>
</setup>
</status>
</device-status>
```

7.3 Appendix: Img2slate tool

Another `img2slate` tool supported by Qeedji allows to mix a PowerPoint layout with the employees data stored in an Excel file. For further information, contact support@qeedji.tech.