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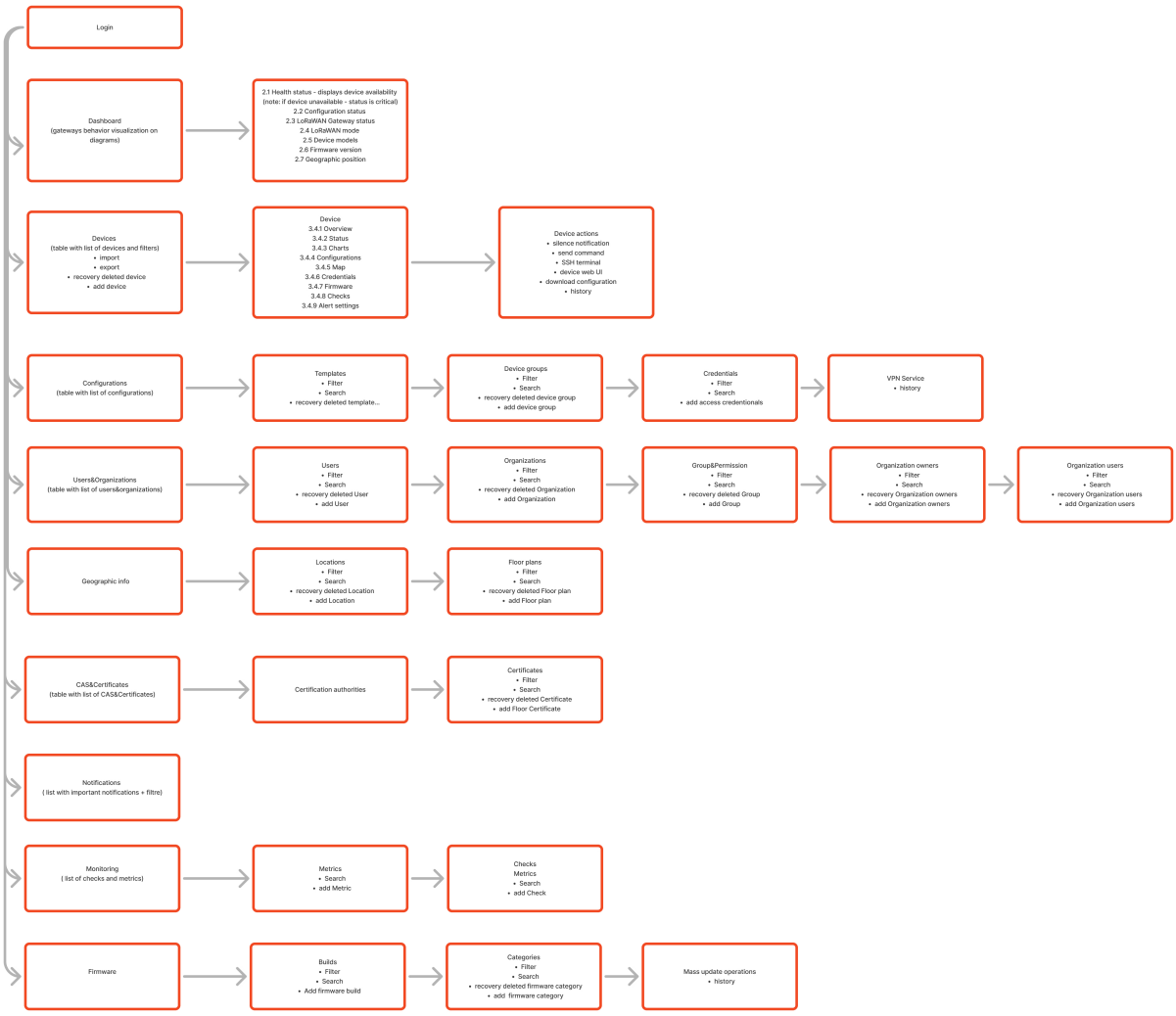
JOOBY MMS

Product intro

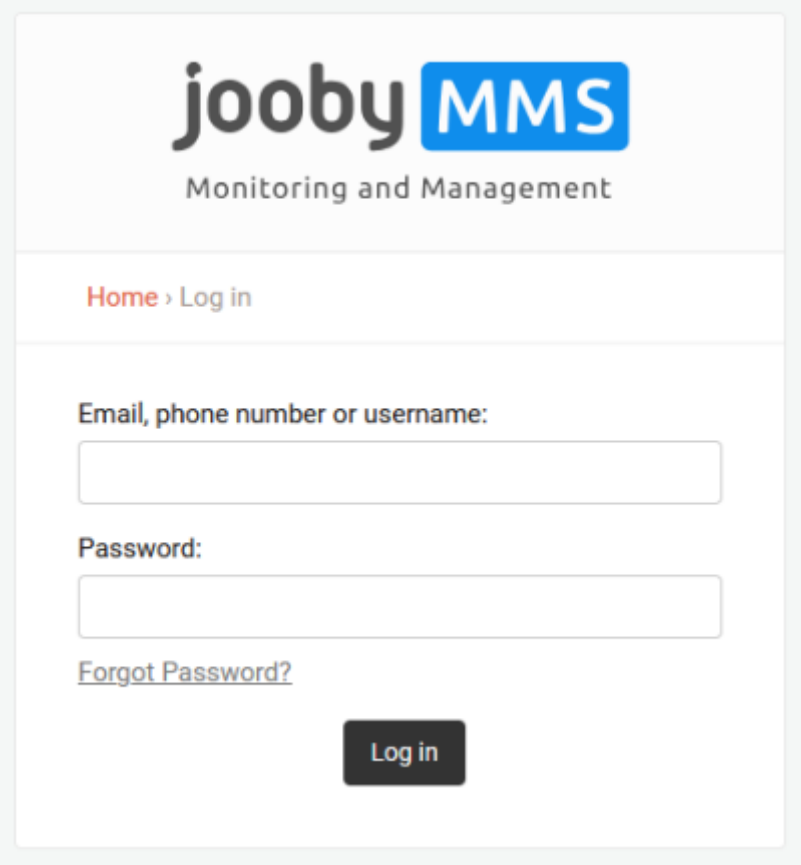
JOOBY MMS - (monitoring and management system) is an innovative product for controlling and monitoring **Jooby Gateways**.

Product tree



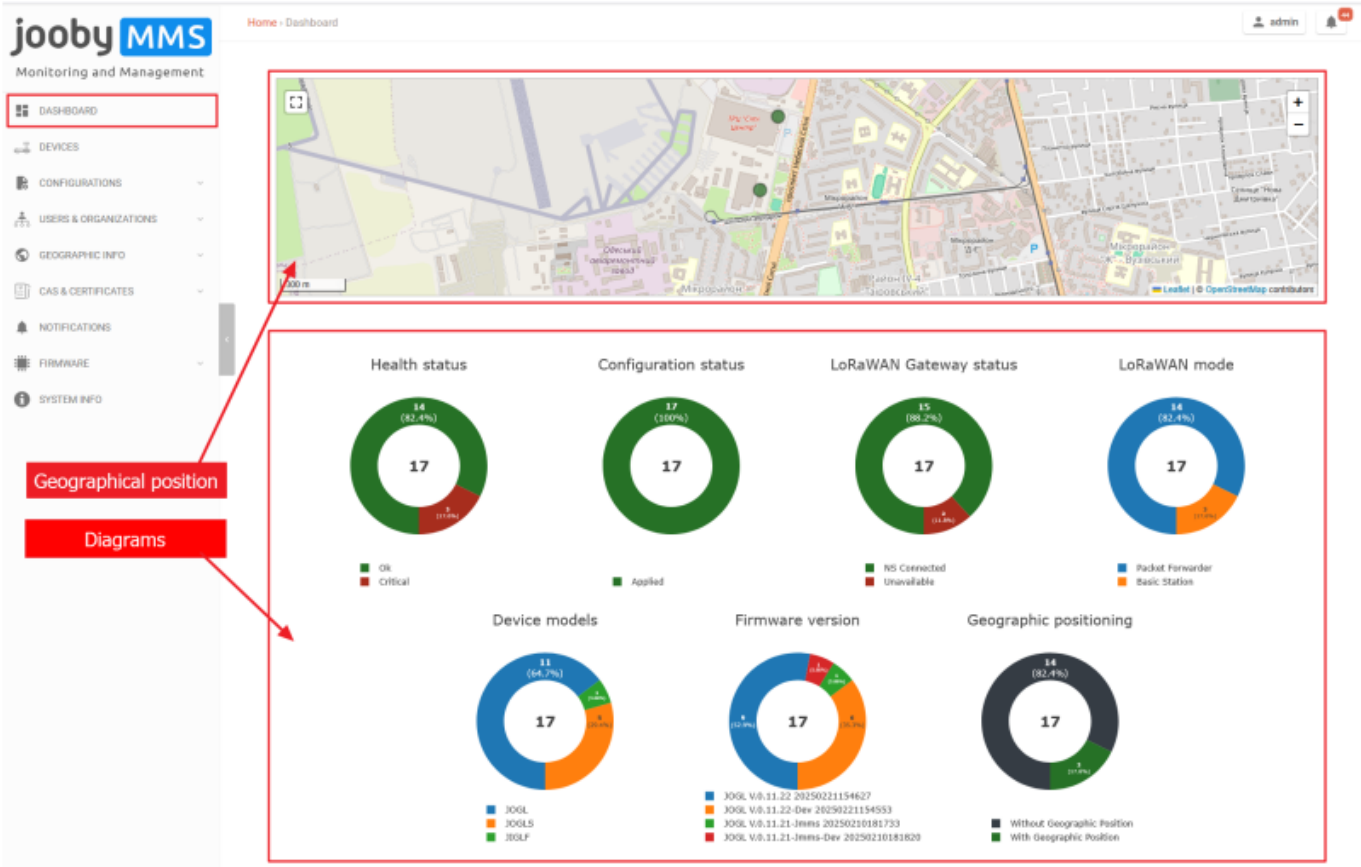
User flow

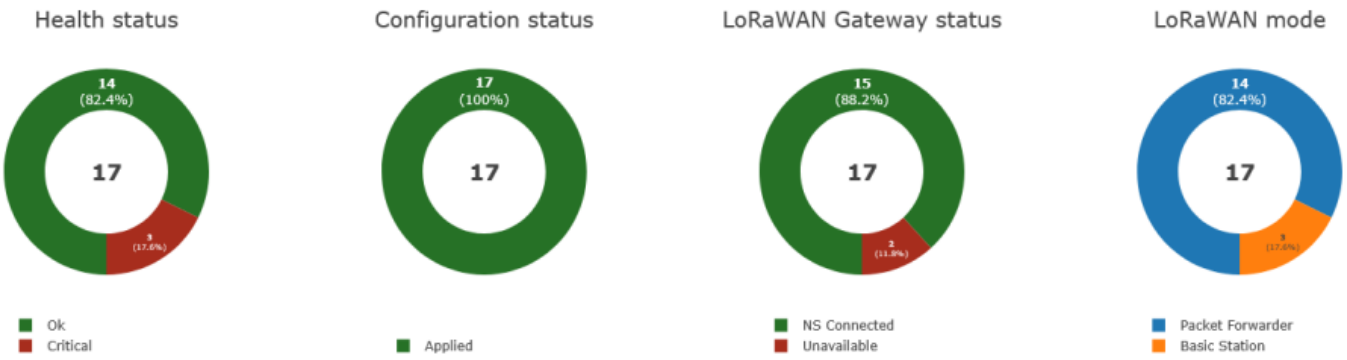
1. Login form



2. Dashboard

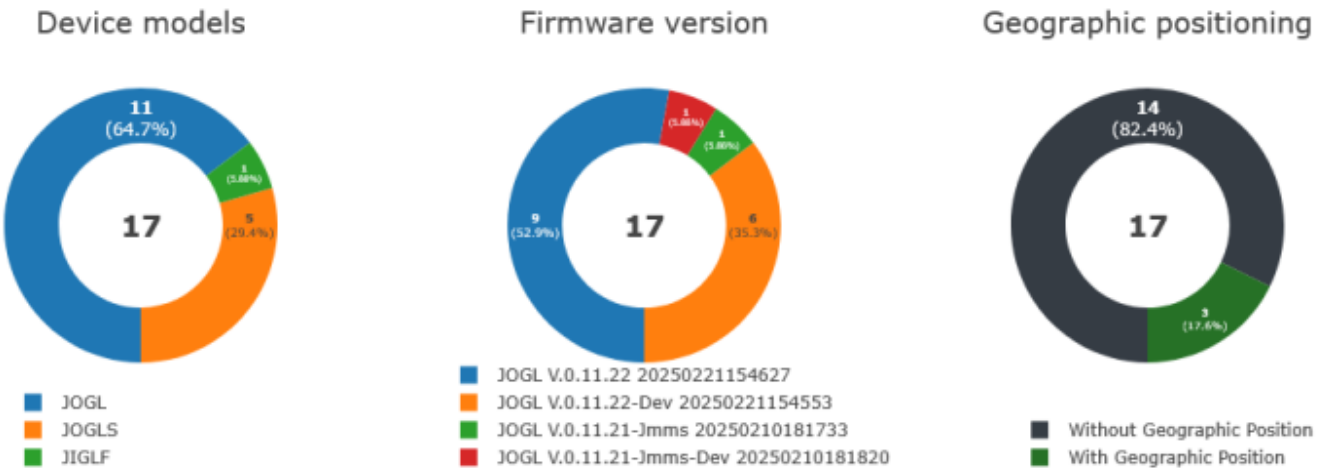
Gateways behavior visualization on diagrams





- **Health status** - displays device availability (note: if device unavailable - status is critical)
- **Configuration status** - displays the status of installing a new configuration on the device
- **LoRaWAN Gateway status**
- **LoRaWAN mode** (Packet forwarder or basic station)

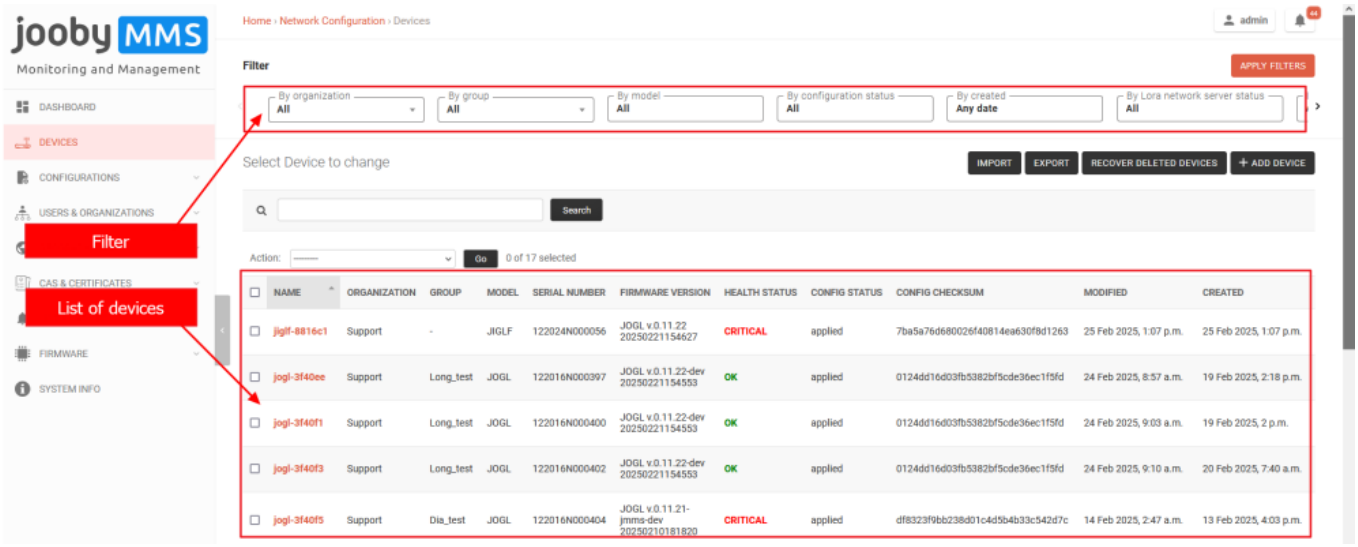
Off → All modules in admin p. is off. Unavailable → not exist anyone module with 'on' state and 'available'. NS Connected → if exists any module in state 'on' + available + ns connected NS Disconnected → If not exists anyone module in (state 'on' + available + ns connected)



- **Device models**
- **Firmware version**
- **Geographic position** - displays devices with assigned geolocation and marking them on a map

All diagram sections are clickable, the user could click and the system will redirect him to the corresponding tab

3. Devices

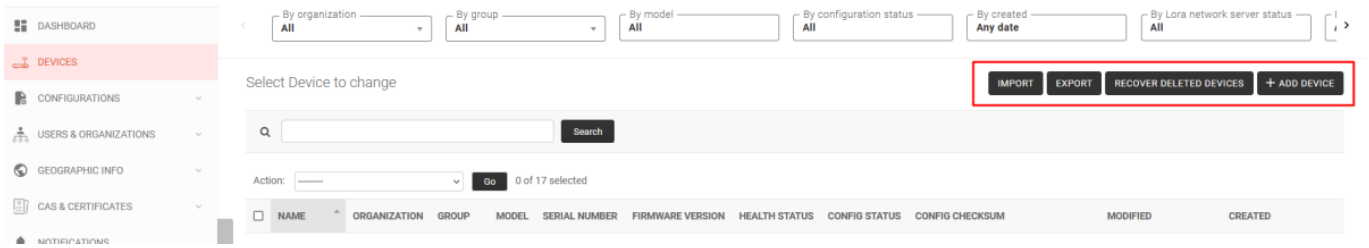


- **Filter** (by organization, by group, by model, by configuration status, by date created, by loRaWAN network server status, by mode, by geo position)
- **List of devices**

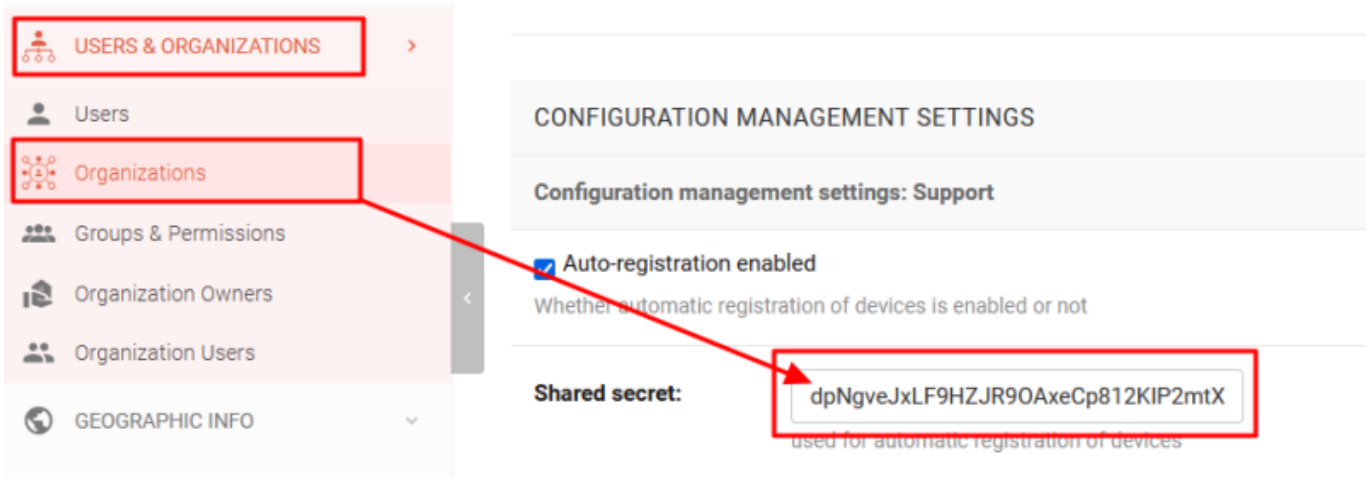
Config checksum is to understand whether the devices have the same configurations according to the selected templates or personal device config

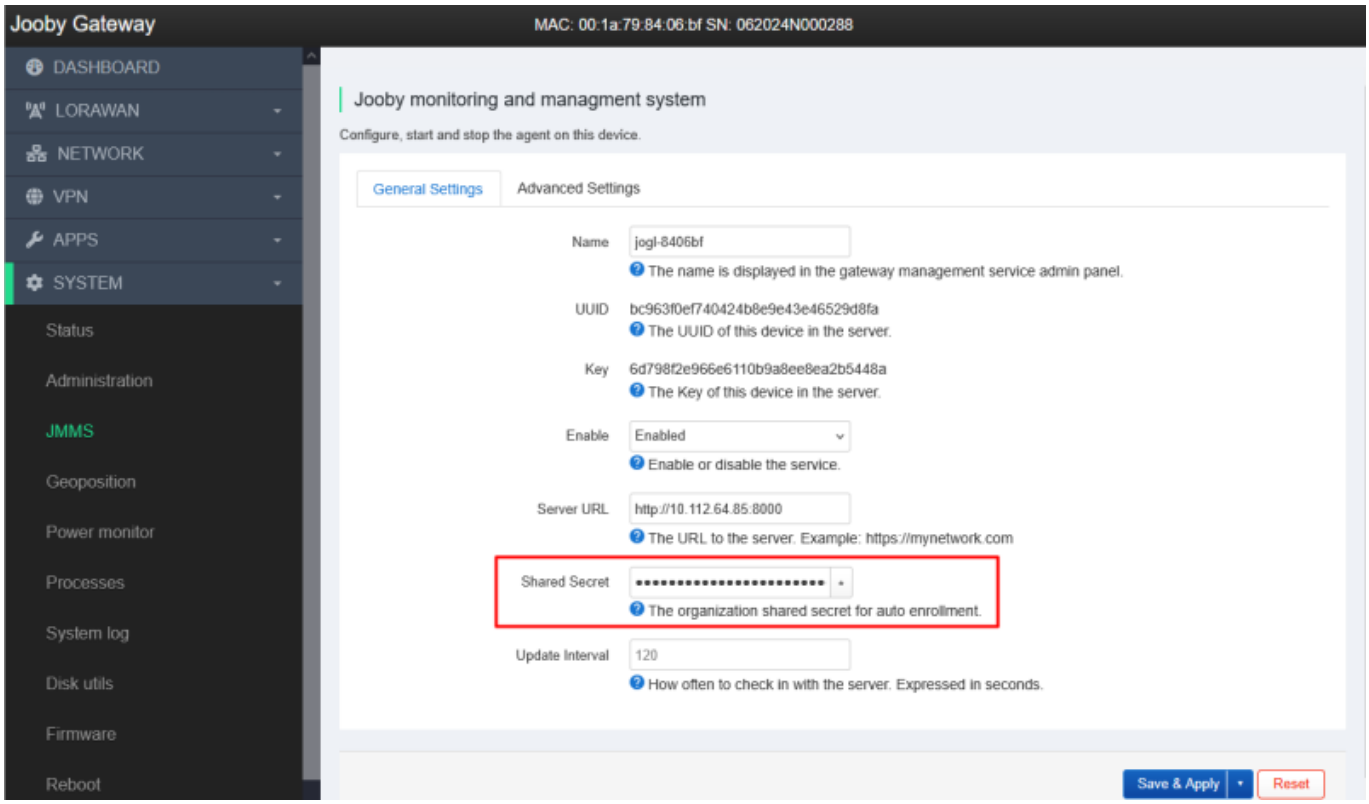
3.1 Device adding

- via service panel



- via shared secret (copy the secret key and add it to devise settings in the admin panel)





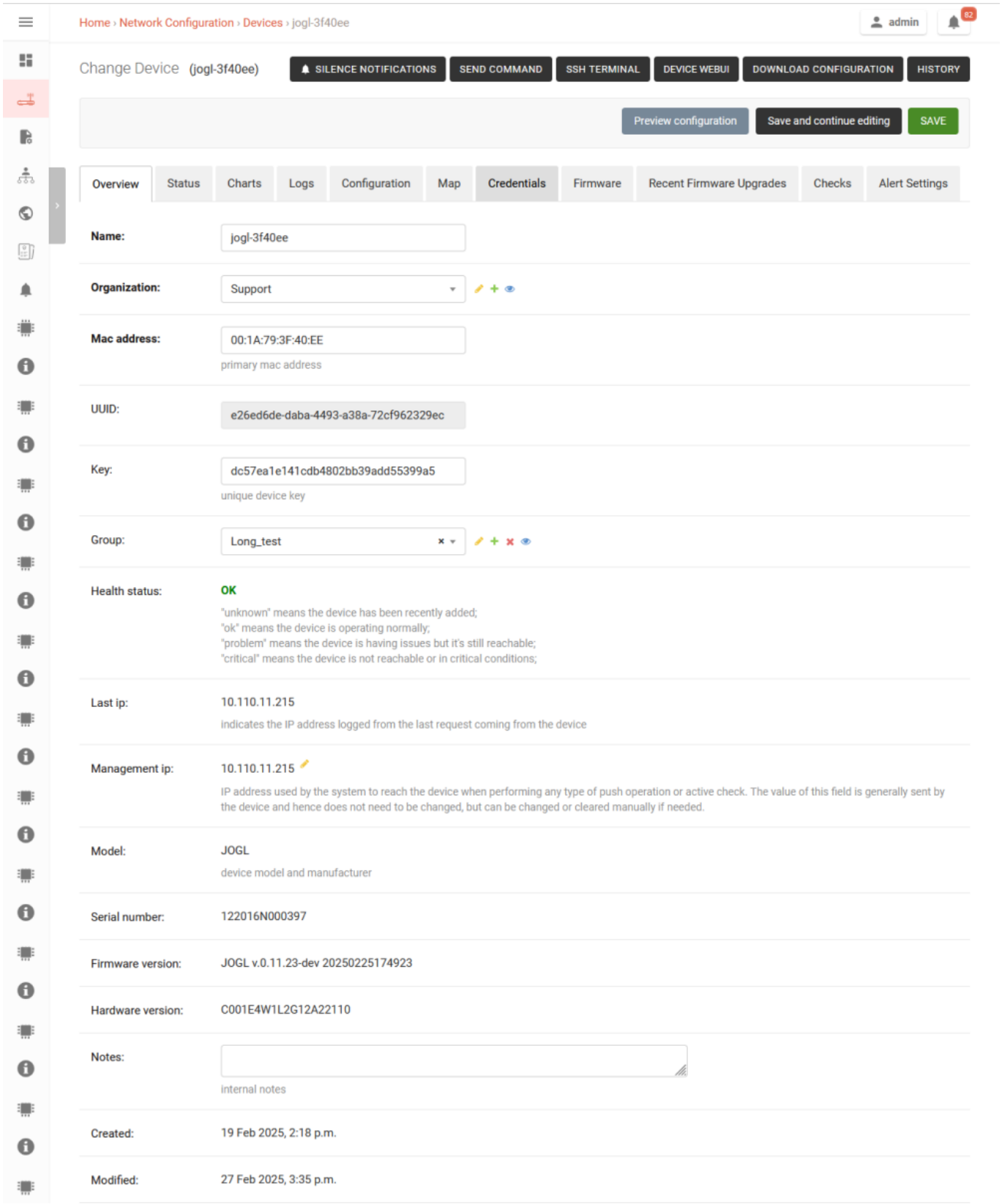
After the device receives URL and token it automatically displays at the device table

3.2 Device menu

- The user could click on any device and go into the device menu

Overview

- display all settings and configs that the device received from the admin panel and the device health check

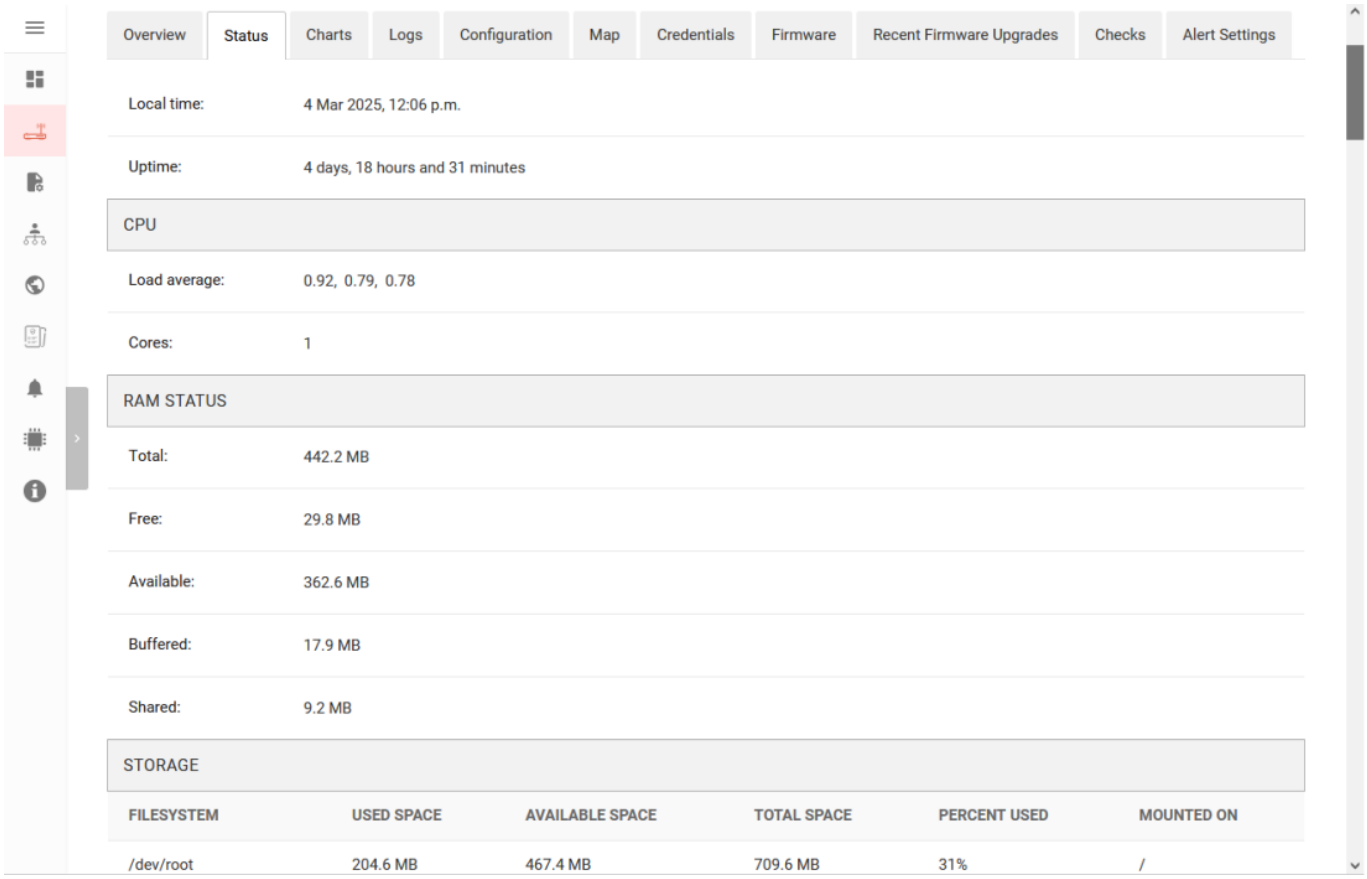


In this tab, the user can also add the device to some group

Status

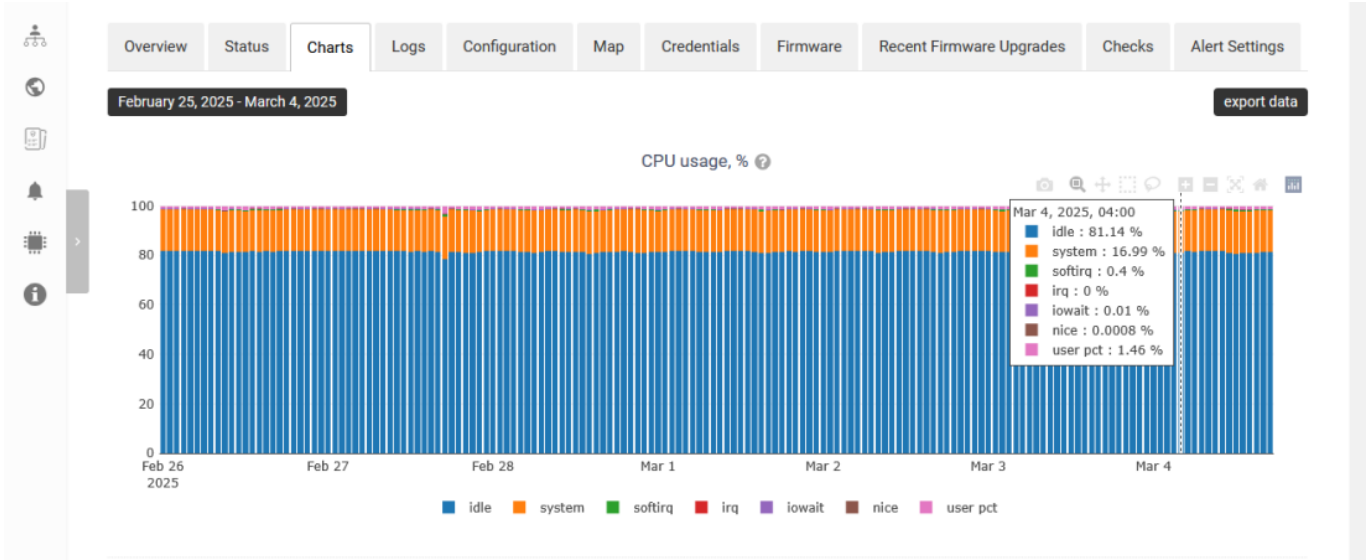
- the state of the metrics that the device gives (CPU, RAM status, Storage, Interface status,

Neighbors)

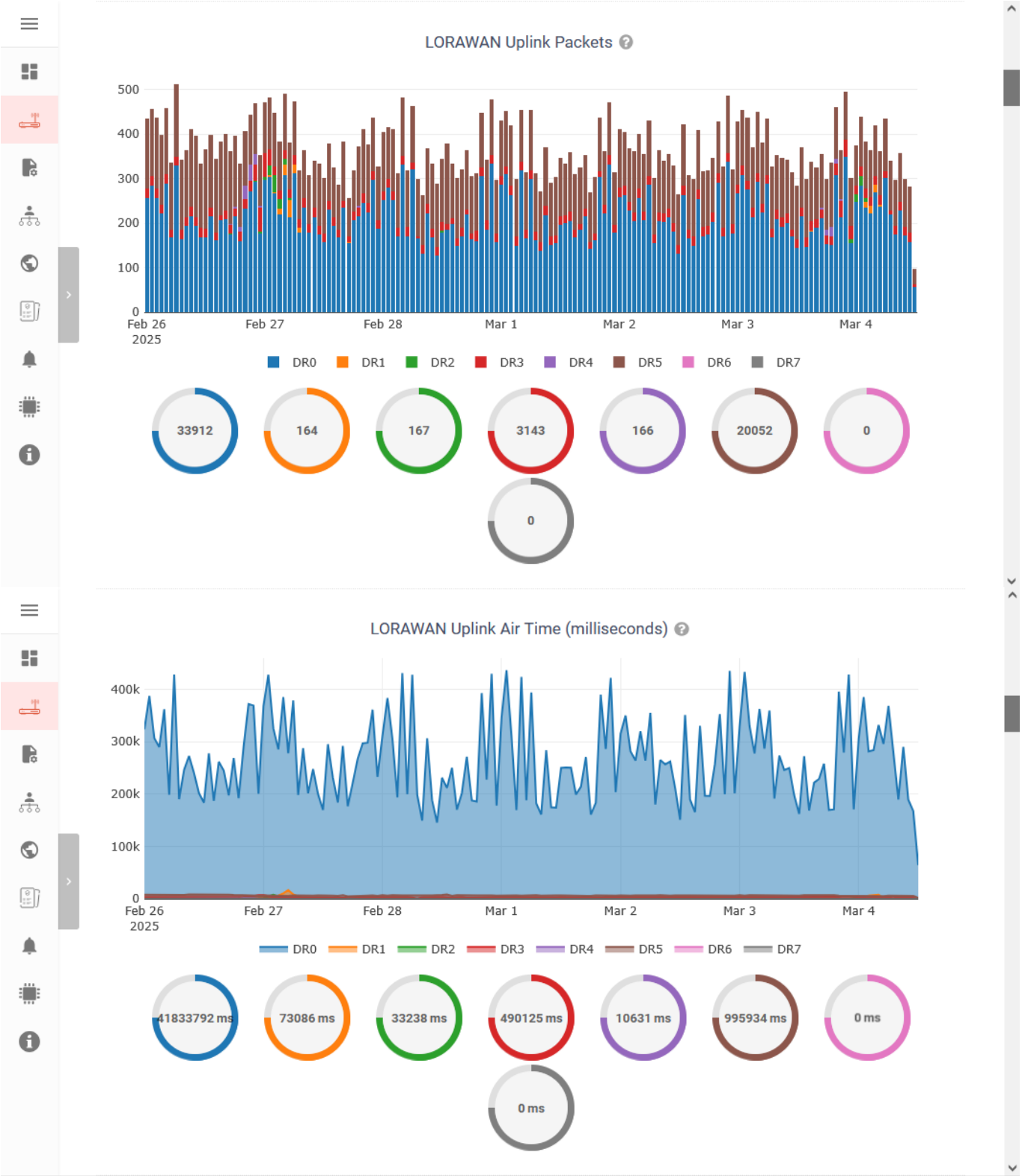


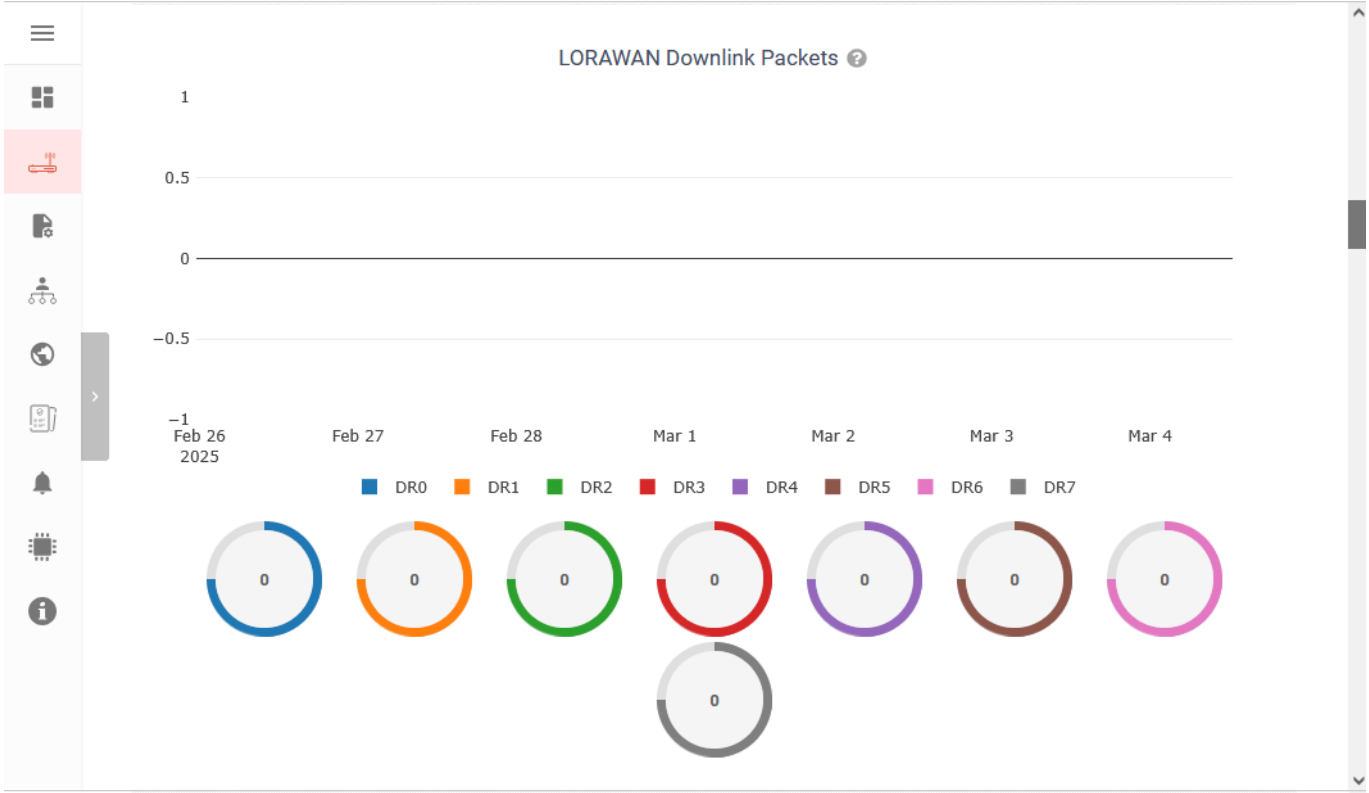
Charts

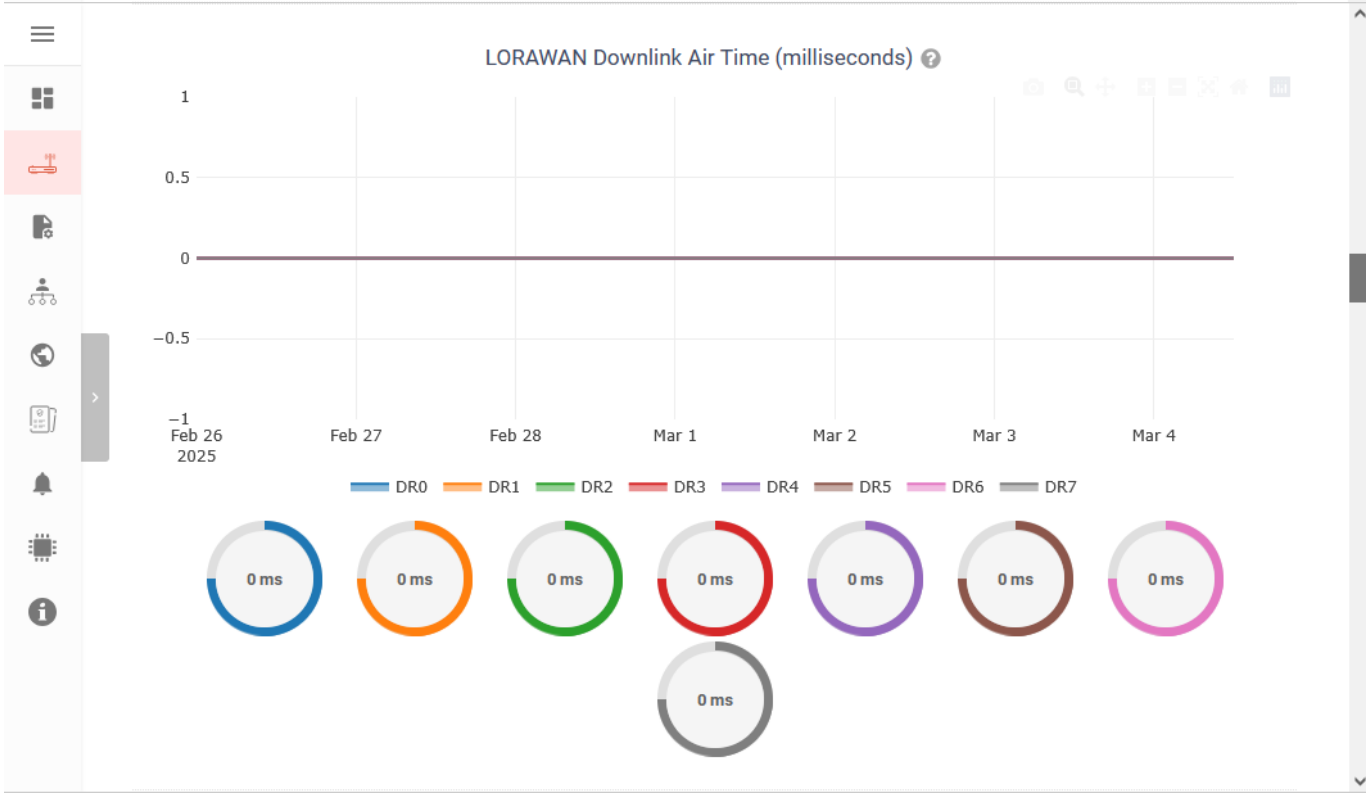
- with device statistics and monitoring (CPU usage, LoRowan uplink packages, LoRowan uplink\downlink air times, SNR, RSSI, Ping success rate, packet losts, round trip time, traffic wlan, memory usage, disk usage)

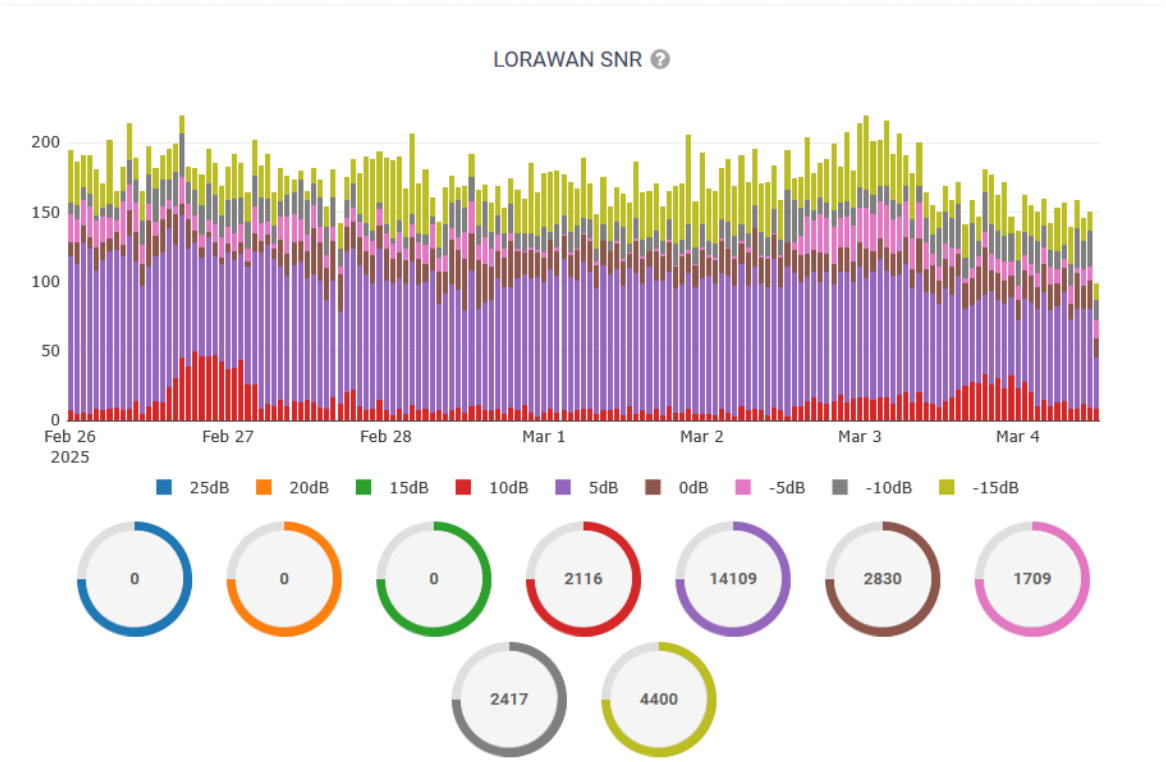


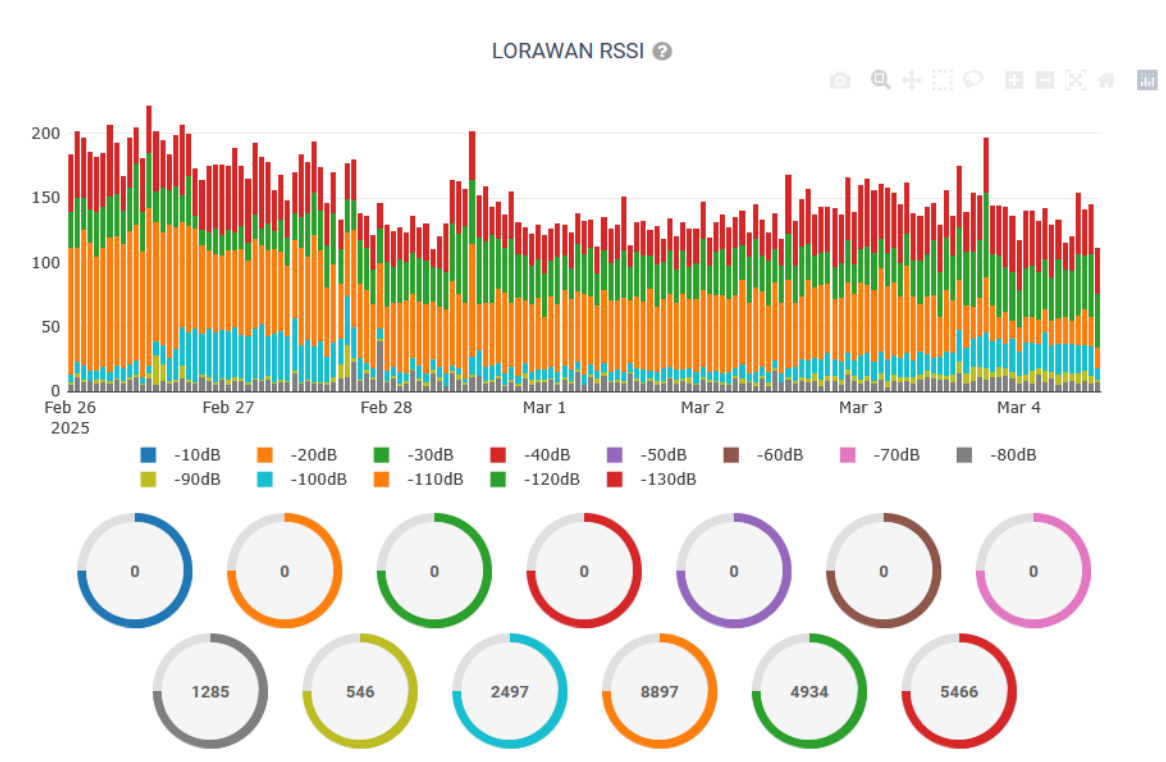
More screenshots of Device-Charts

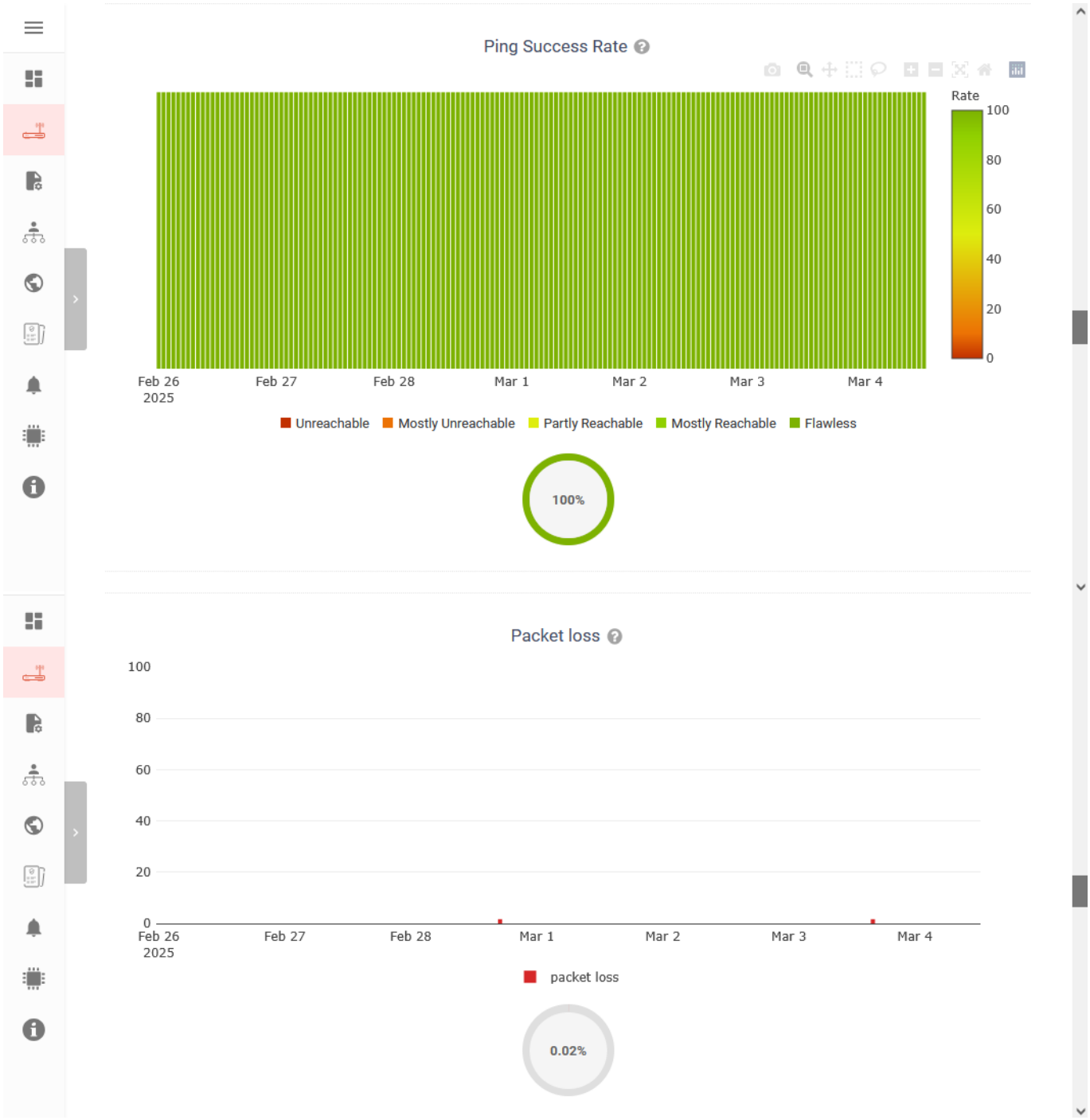

LORAWAN Uplink Packets
500
400
300
200
100
0
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
DR0
DR1
DR2
DR3
DR4
DR5
DR6
DR7
33912
164
167
3143
166
20052
0
0
LORAWAN Uplink Air Time (milliseconds)
400k
300k
200k
100k
0
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
DR0
DR1
DR2
DR3
DR4
DR5
DR6
DR7
41833792 ms
73086 ms
33238 ms
490125 ms
10631 ms
995934 ms
0 ms
0 ms

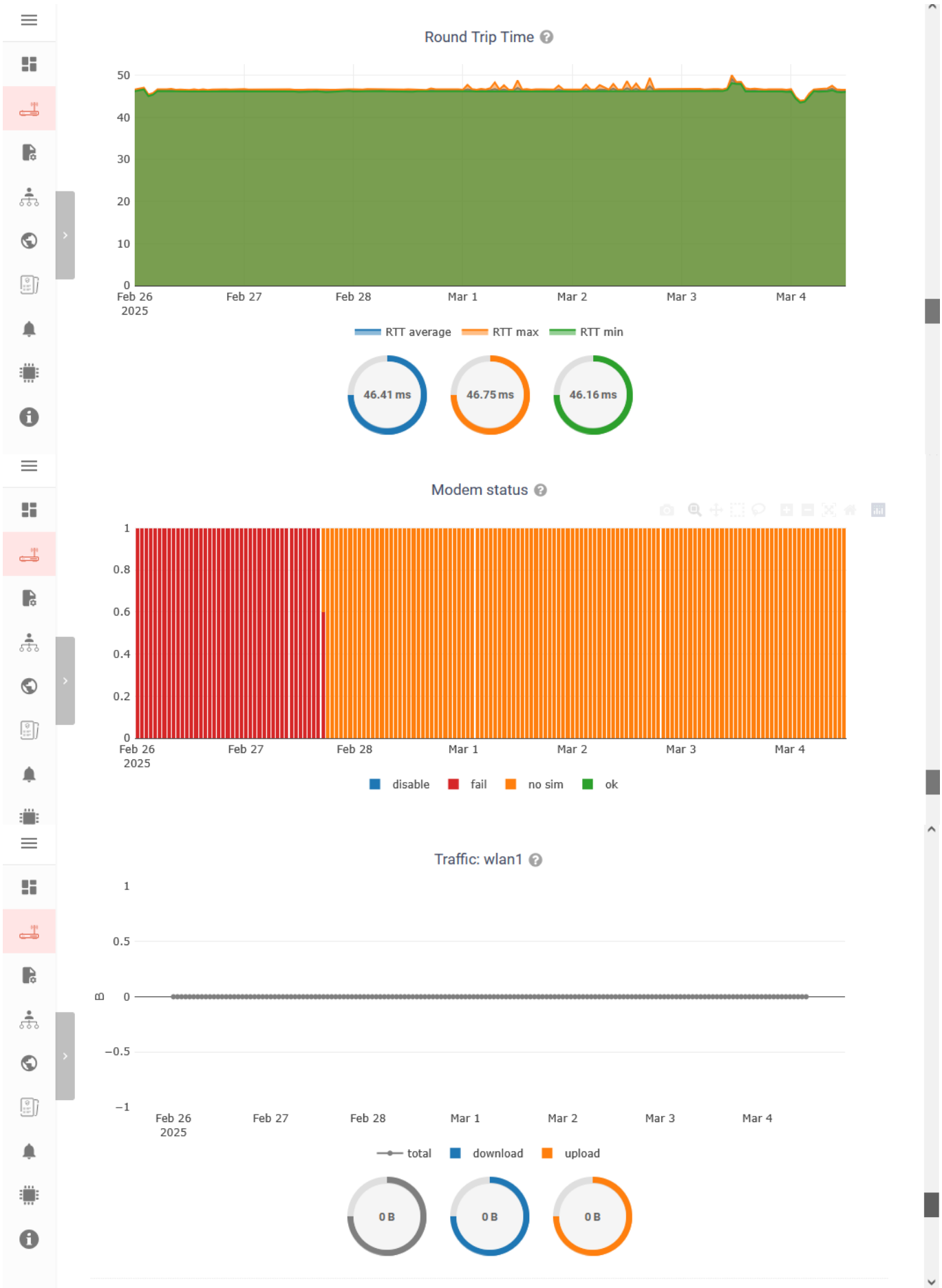

LORAWAN Downlink Packets
1
0.5
0
−0.5
−1
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
DR0
DR1
DR2
DR3
DR4
DR5
DR6
DR7
0
0
0
0
0
0
0
0


LORAWAN Downlink Air Time (milliseconds)
1
0.5
0
−0.5
−1
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
DR0
DR1
DR2
DR3
DR4
DR5
DR6
DR7
0 ms
0 ms
0 ms
0 ms
0 ms
0 ms
0 ms
0 ms


LORAWAN SNR
200
150
100
50
0
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
25dB
20dB
15dB
10dB
5dB
0dB
-5dB
-10dB
-15dB
0
0
0
2116
14109
2830
1709
2417
4400

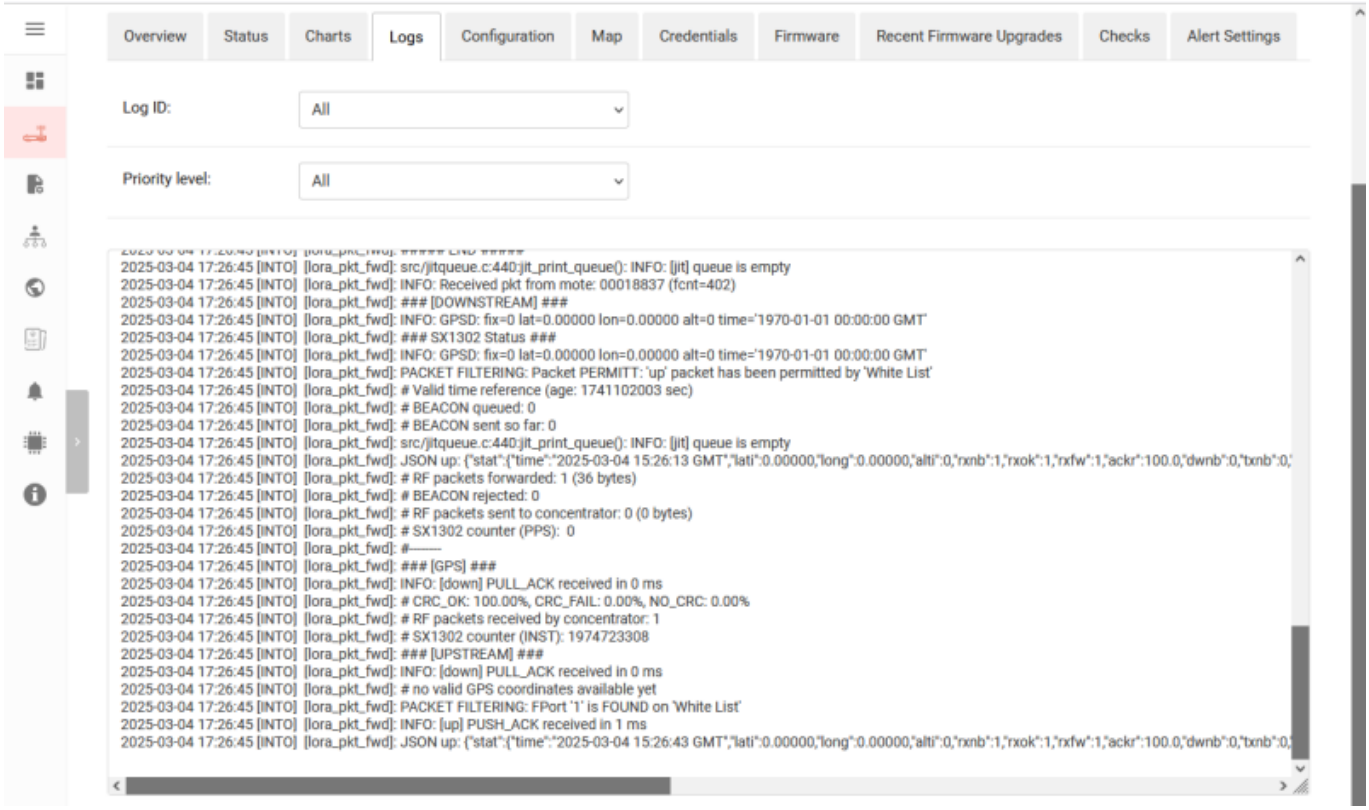

LORAWAN RSSI
200
150
100
50
0
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
-10dB
-20dB
-30dB
-40dB
-50dB
-60dB
-70dB
-80dB
-90dB
-100dB
-110dB
-120dB
-130dB
0
0
0
0
0
0
0
1285
546
2497
8897
4934
5466


Ping Success Rate
Rate
100
80
60
40
20
0
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
Unreachable
Mostly Unreachable
Partly Reachable
Mostly Reachable
Flawless
100%
Packet loss
100
80
60
40
20
0
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
packet loss
0.02%


Round Trip Time
50
40
30
20
10
0
Feb 26
2025
Feb 27
Feb 28
Mar 1
Mar 2
Mar 3
Mar 4
RTT average
RTT max
RTT min
46.41 ms
46.75 ms
46.16 ms
Modem status
1
0.8
0.6
0.4
0.2
0
disable
fail
no sim
ok
Traffic: wlan1
B
0.5
−0.5
−1
total
download
upload
0 B
0 B
0 B

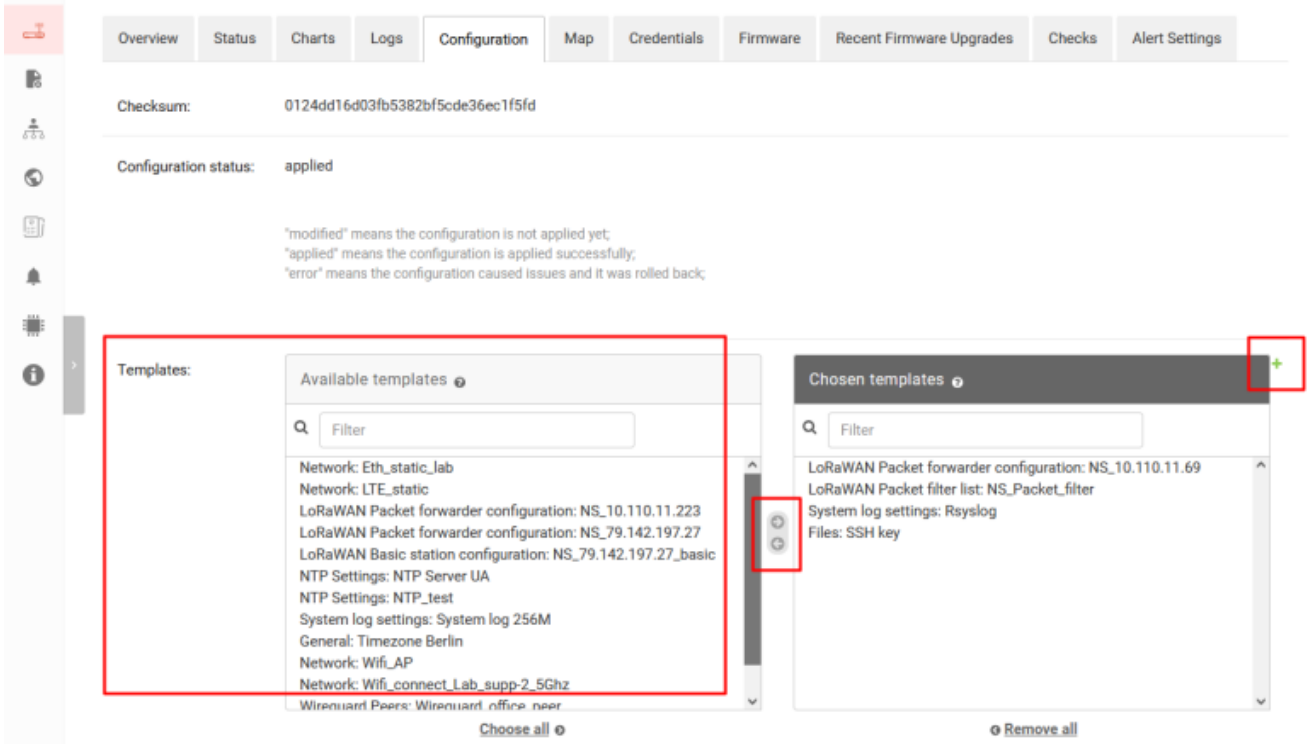
Logs

- Ability to view logs from devices (SSH, Firewall, Device manager, Kernel, Packet forwarder, Basic station, Modem manager, Network manager, NTPD, PPPD, SystemD)

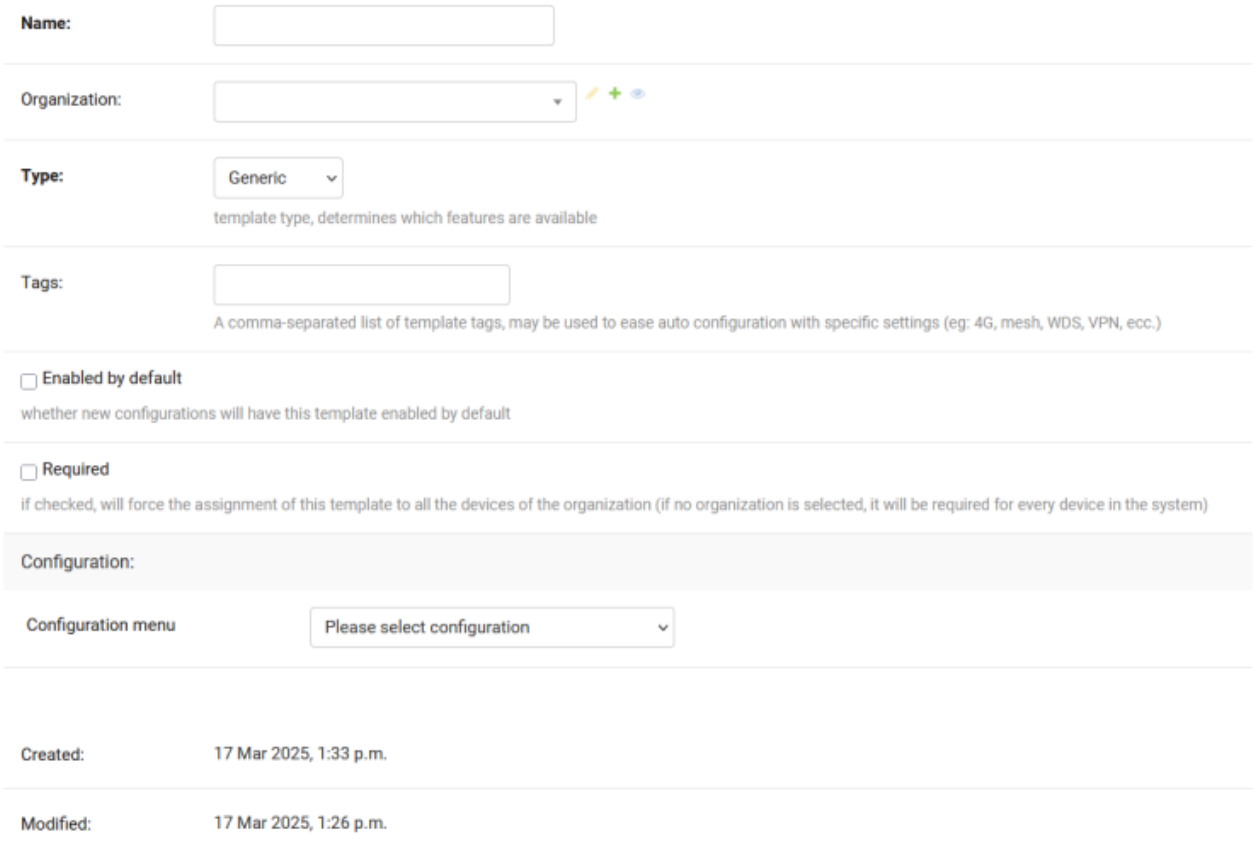


Configurations

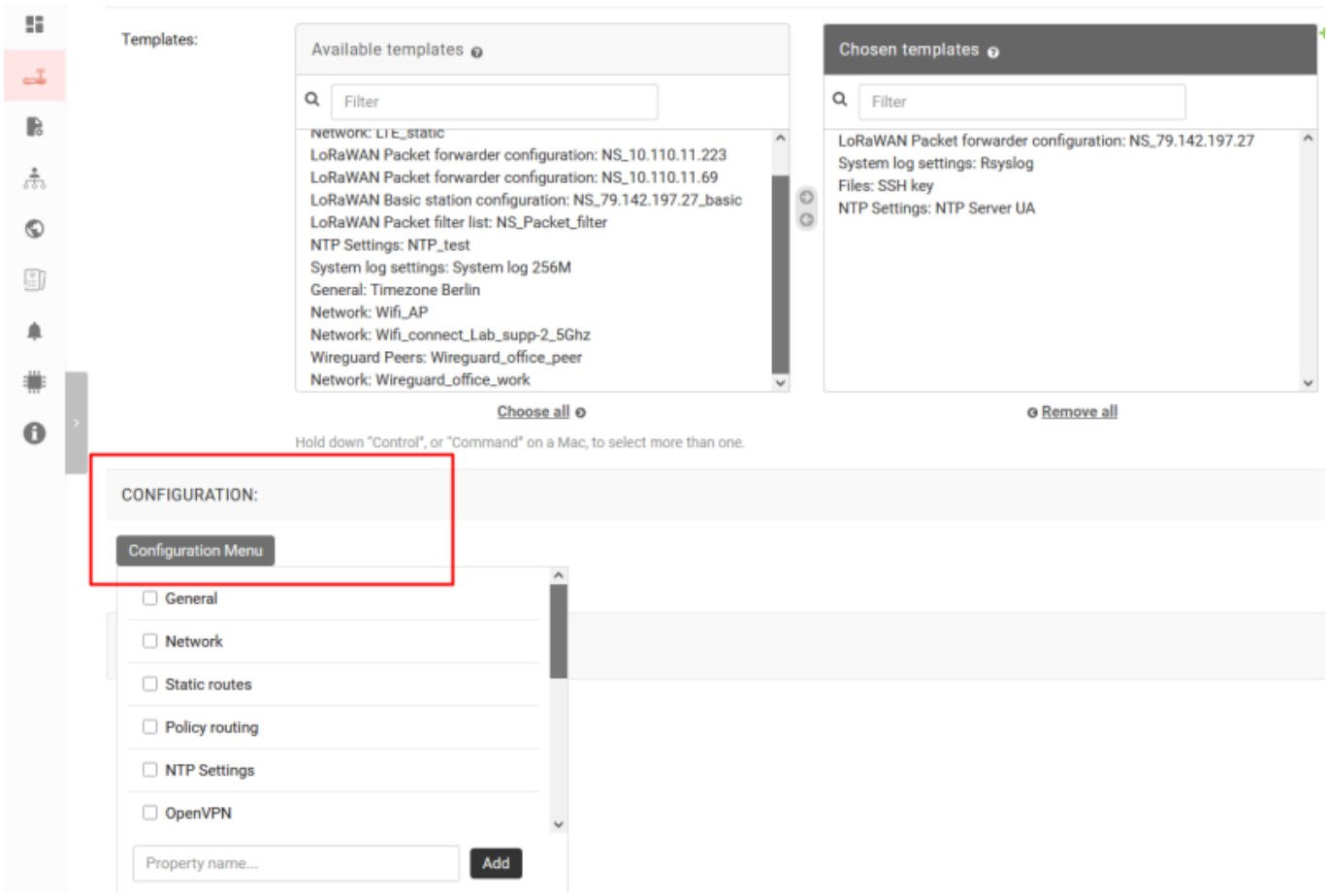
- One of the most important features - user can add\delete any configuration



add the template as a separate menu, user can create his configuration template for future use in a group of devices or a separate device

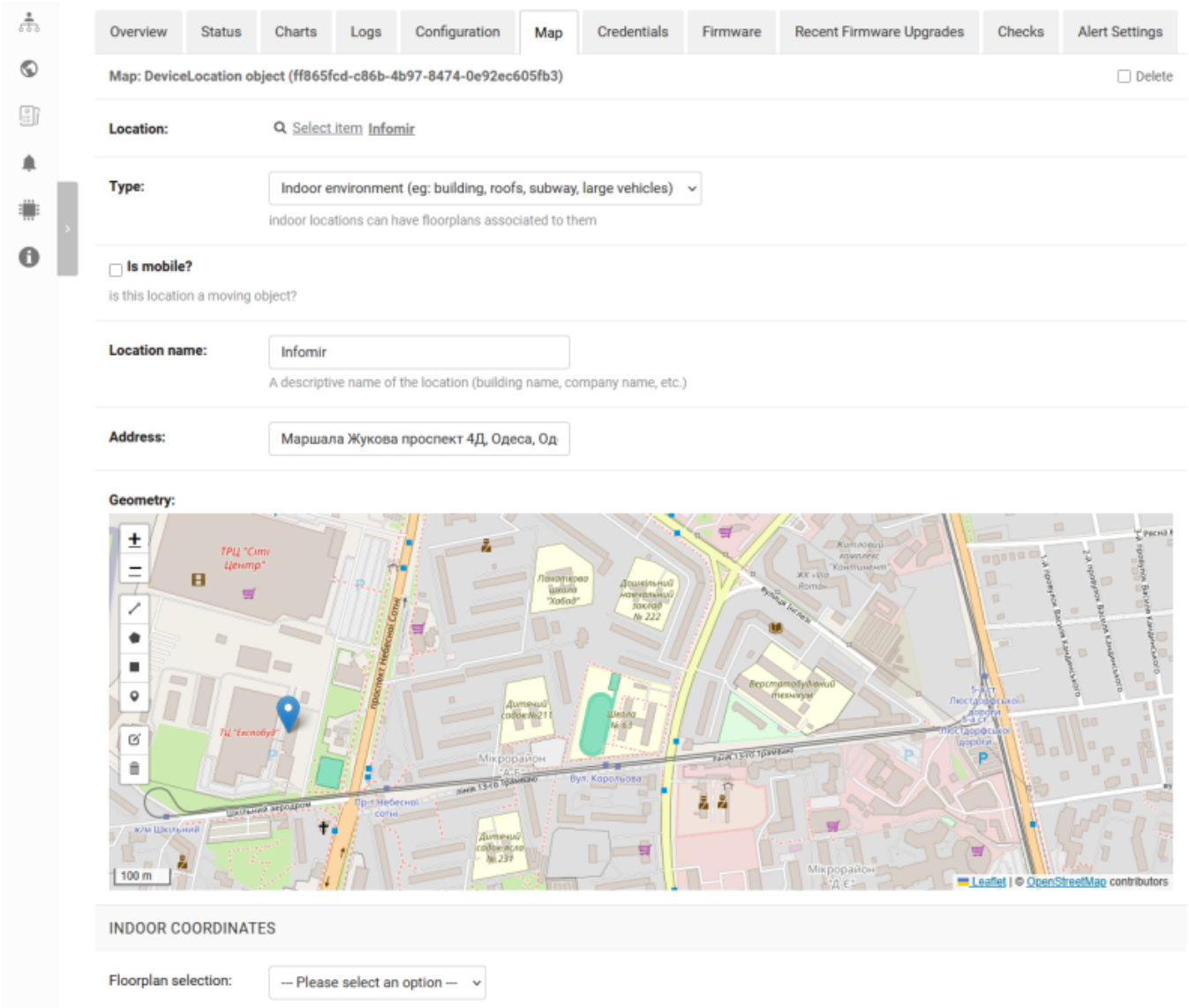


- After the user chooses a new template the program checks it and apply to the device or device group. Also user could choose already existing configurations from a list



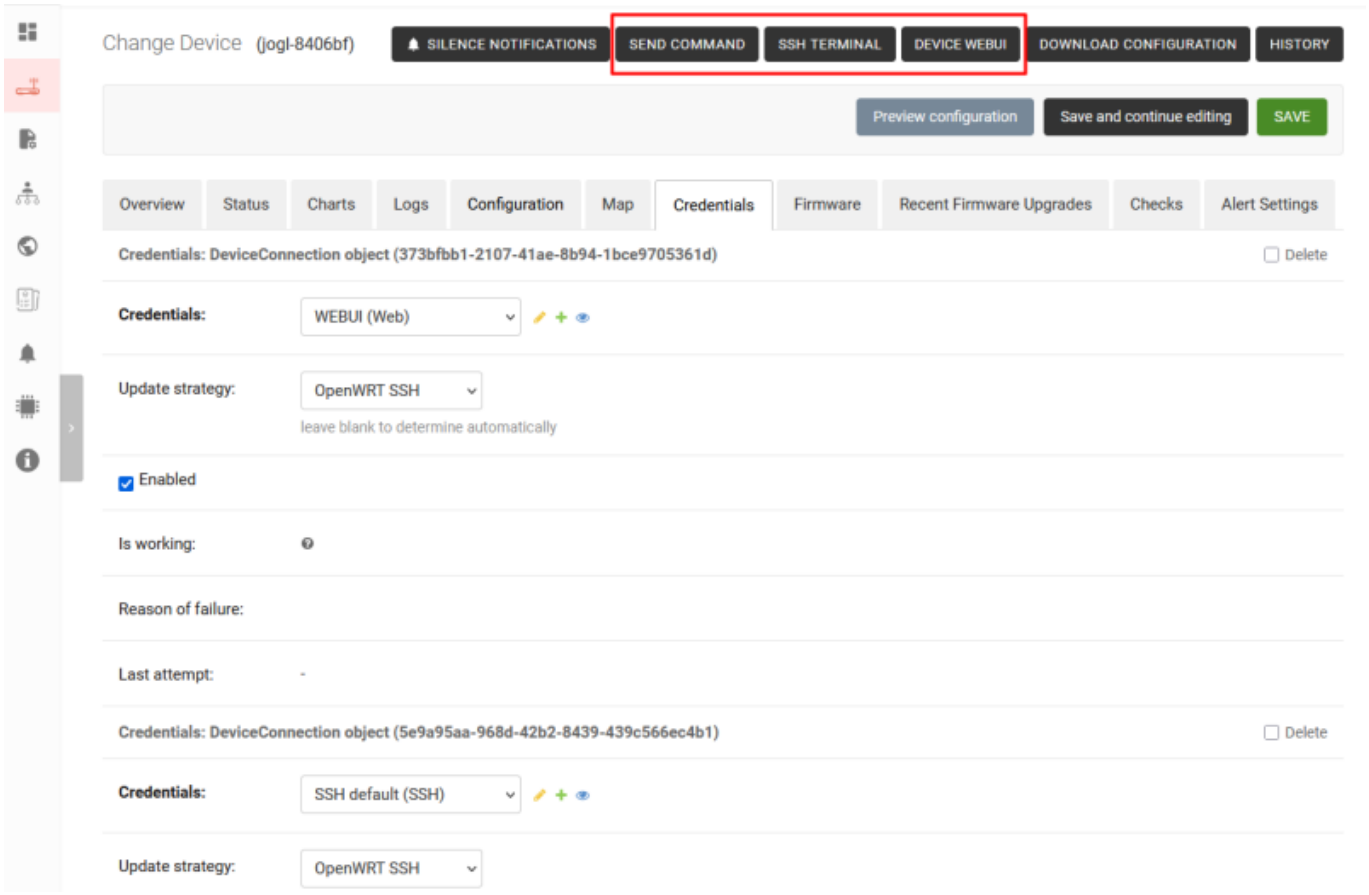
Map

- The user can choose an existing map of devices or create his own and mark the device's location



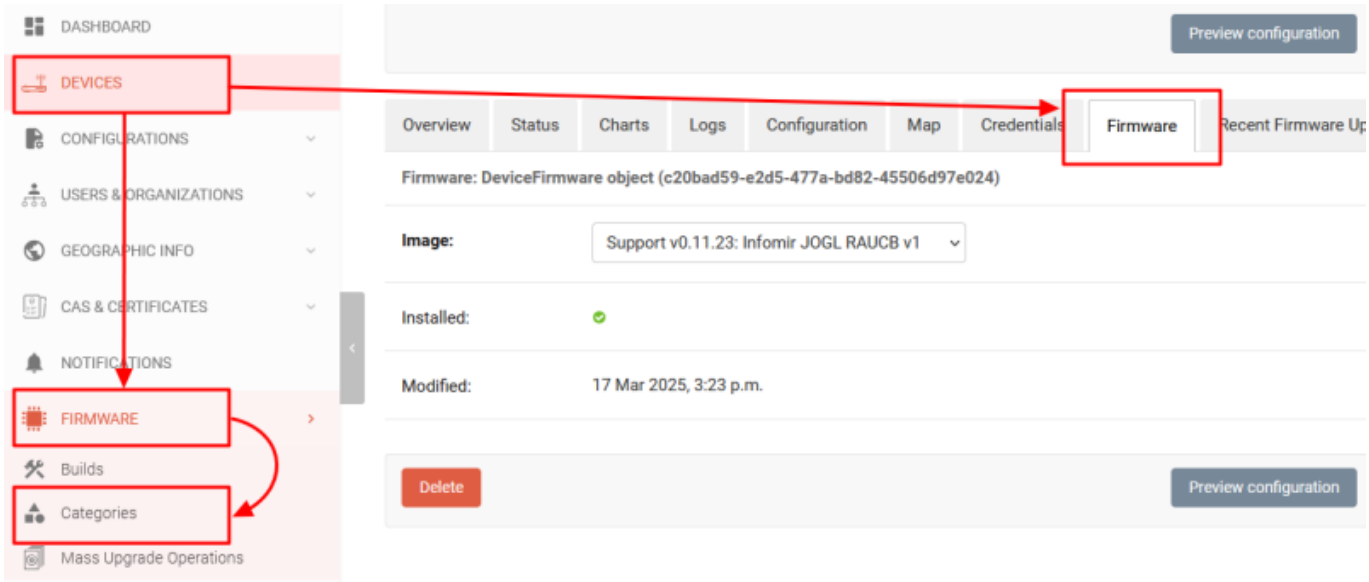
Credentials

- After adding the credentials the user can connect to device via SSH, web UI admin or send command reboot/change password (without authorization)

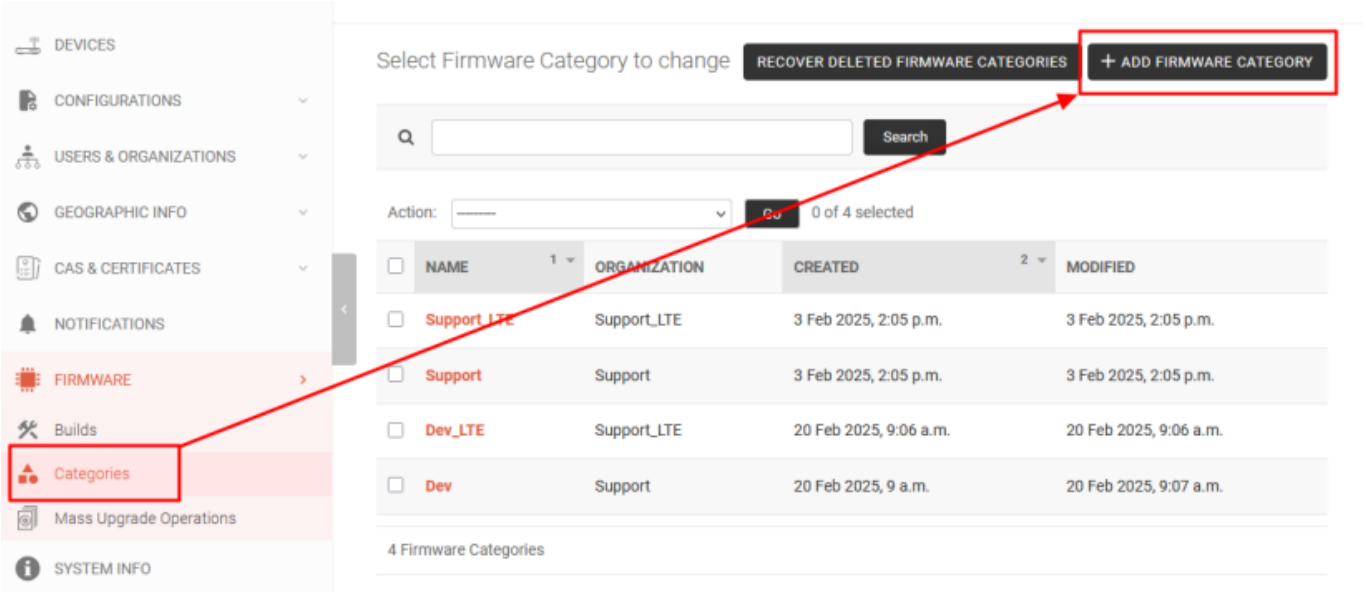


Firmware

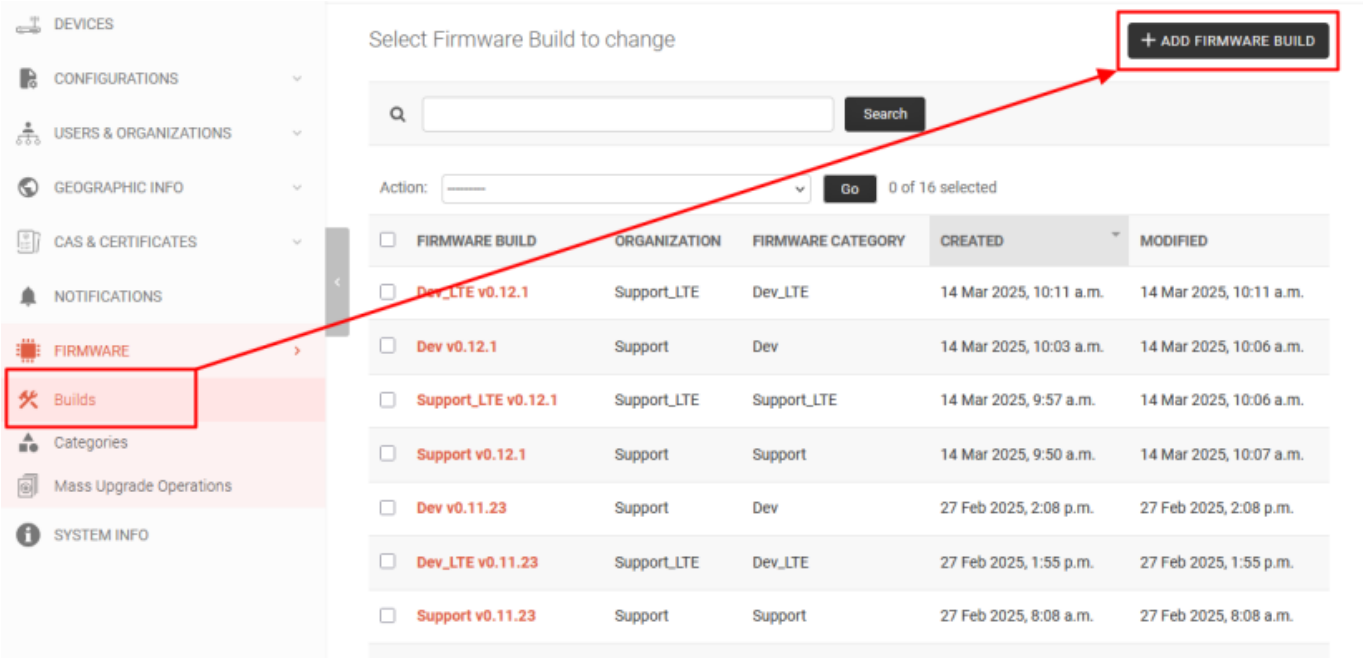
- The user can download new firmware and update the device group or separate the device



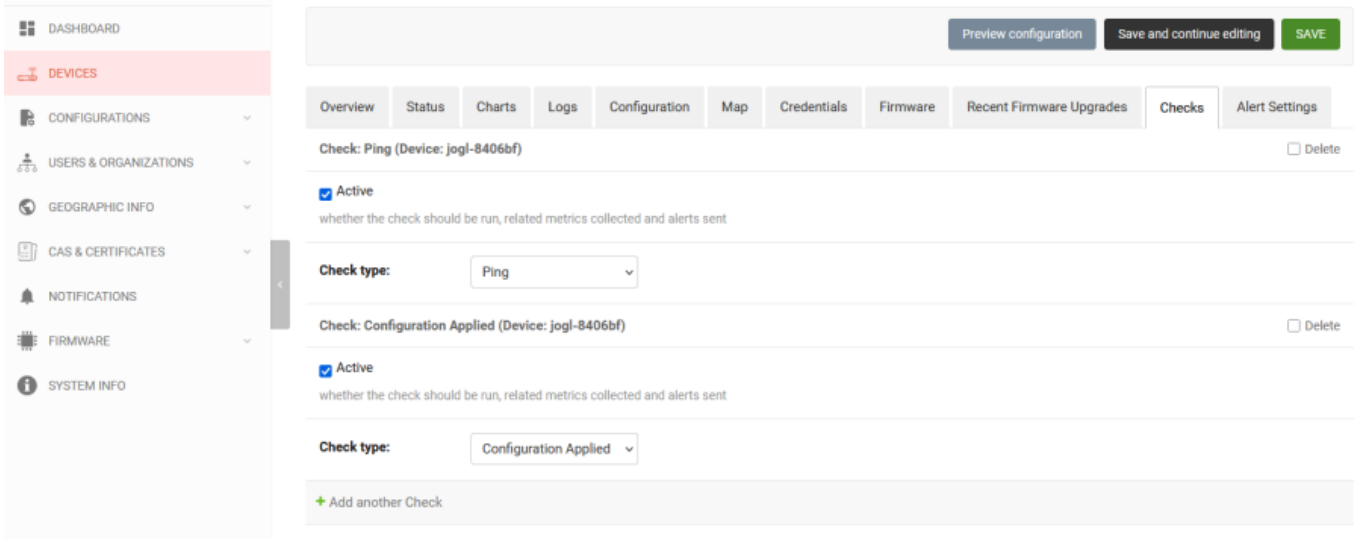
- Add the new firmware Category



- Use tab Builds for add new or edit existing firmware build

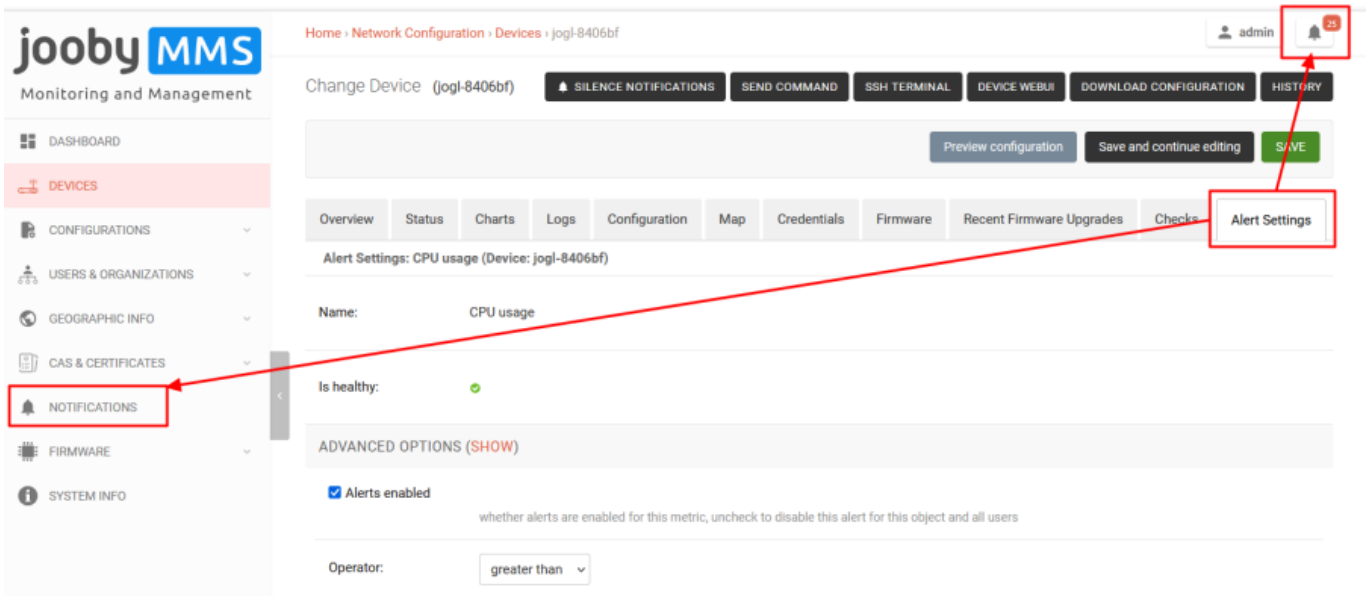


Checks - monitoring



Alert Settings

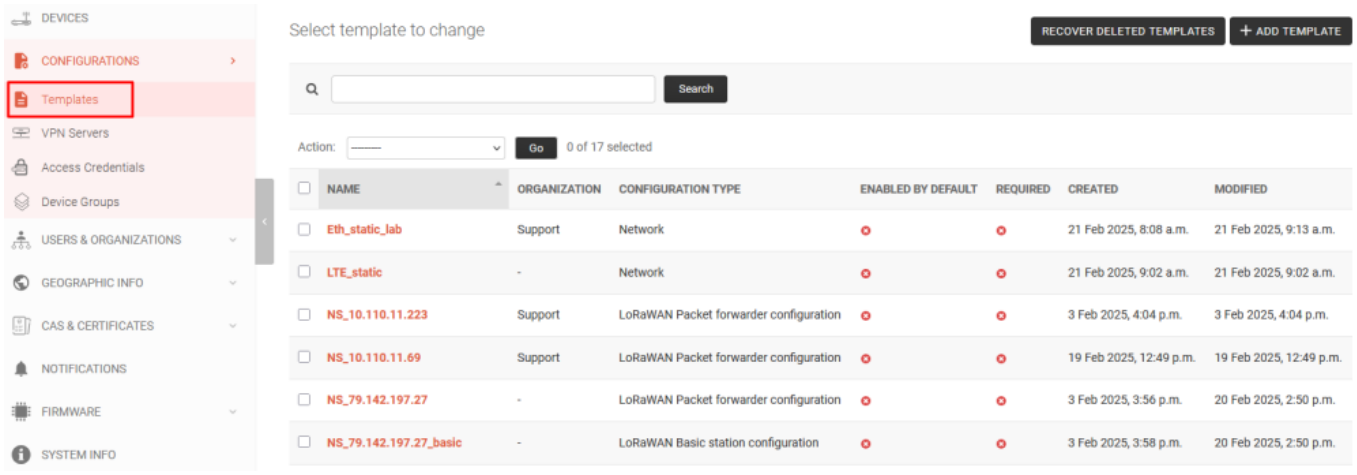
- The user could set alerts that will notify the ser about unexpected behavior (for example CPU or memory usage)



4 Configurations

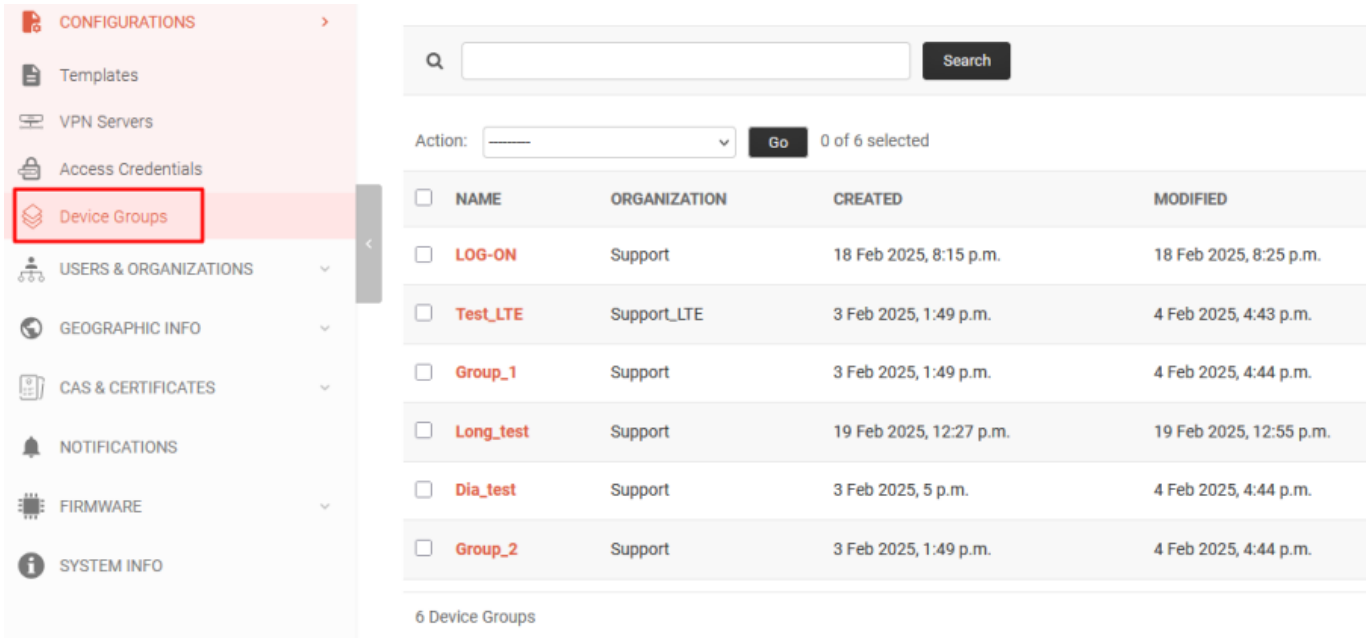
4.1 Templates

- for group device configuration update ===



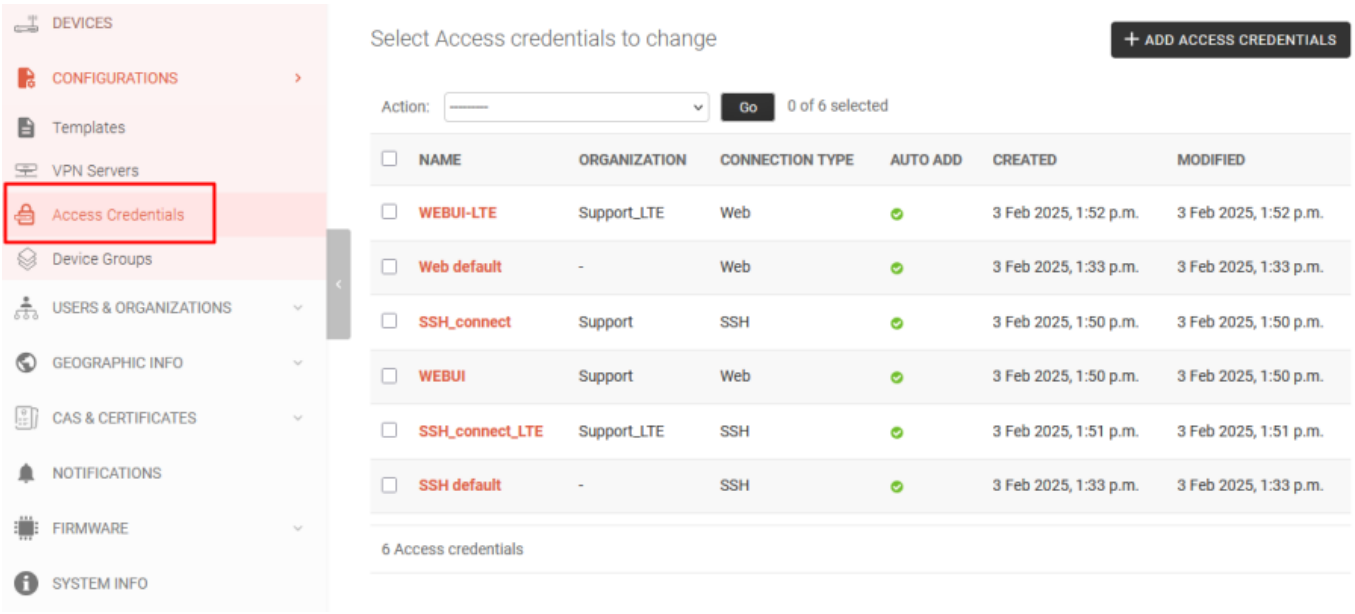
4.2 Device groups

- users could group devices via semantic feature. Choose and apply some already made or own templates for them



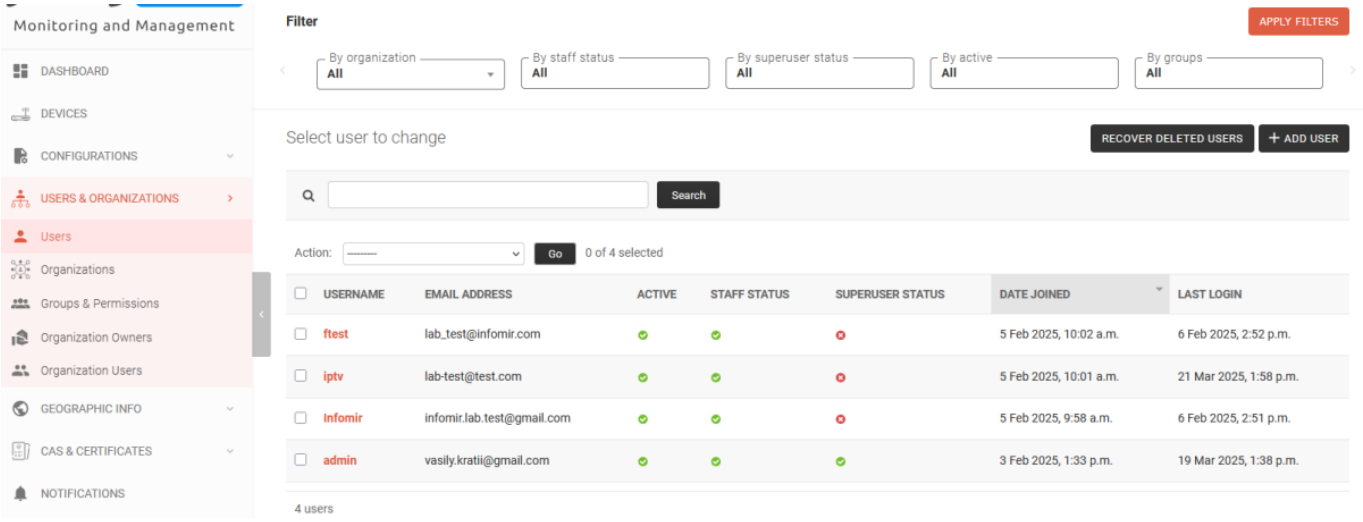
4.3 Access Credentials

* remote access from JOOBY JMMS via SSH and WEB UI



5. Users & Organizations

- Managing users, access rights, assignment to groups
- **Groups&Permission** - managing groups, access rights

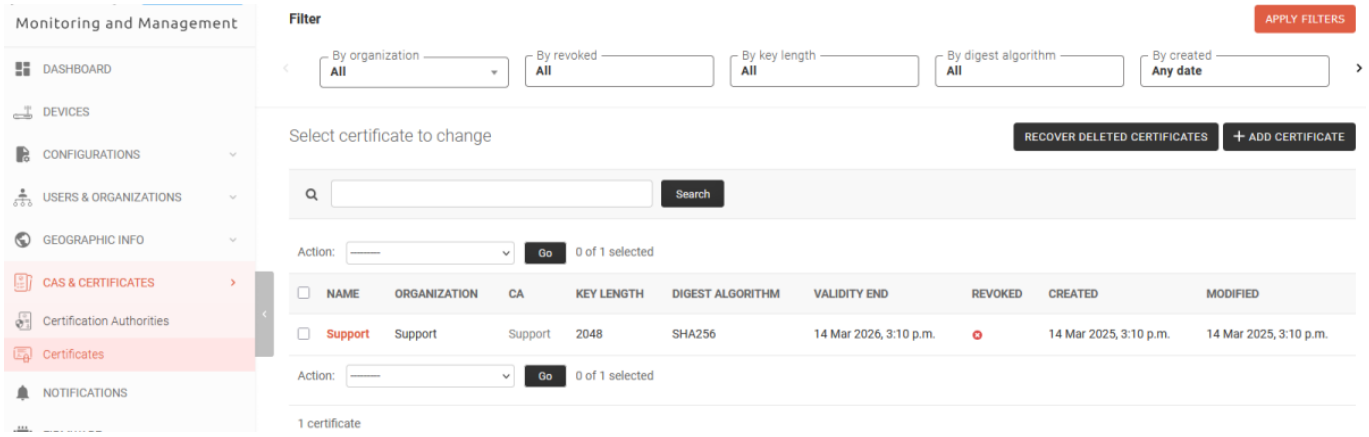


6. Geographic info

- List with locations on the map (dashboard). Users could mark devices on the map

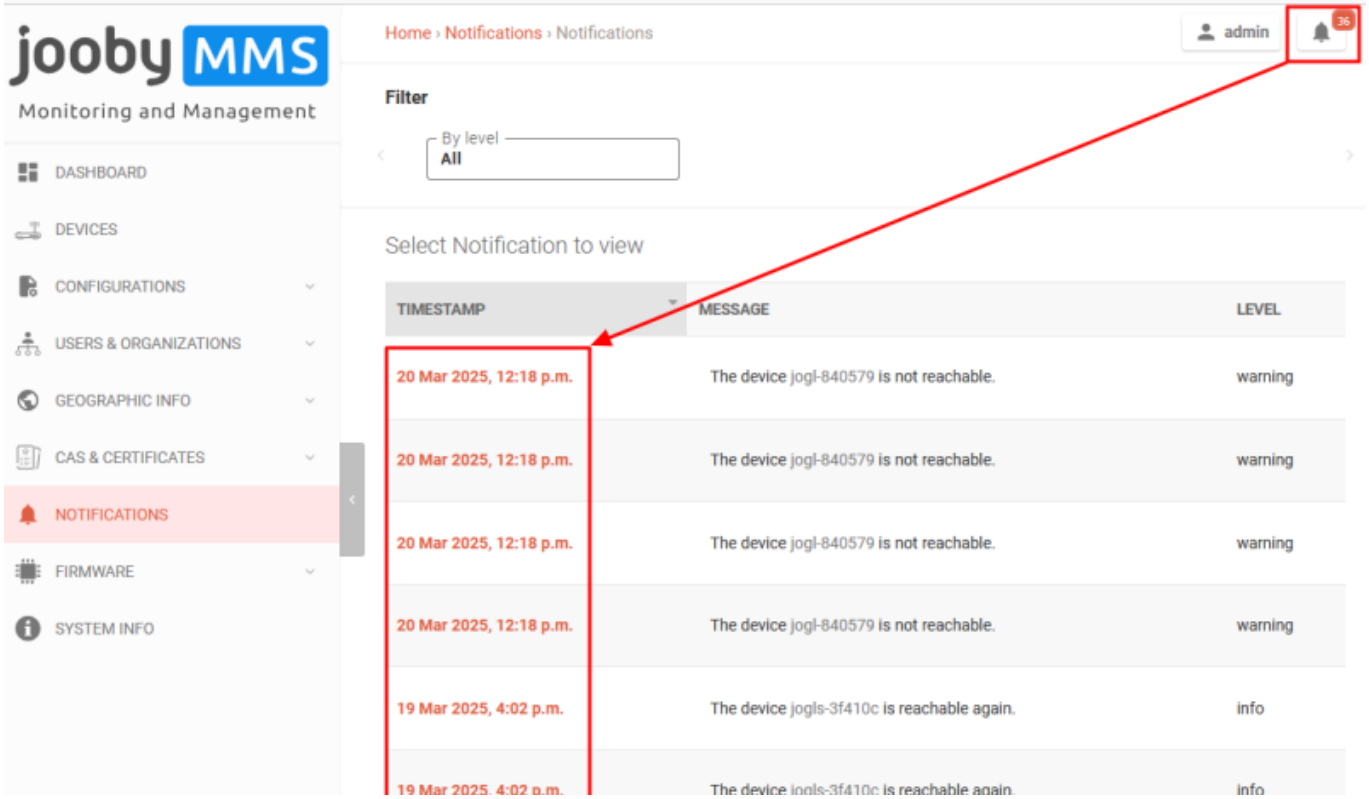
7. CAS & Certificates

- Users could add\import certificates for working with VPN



8. Notifications

- List with important notifications



9. Monitoring

- list of checks and metrics

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https://wiki.jooby.eu/ -

Permanent link:
https://wiki.jooby.eu/playground/jooby-mms

Last update: **2025/03/25 12:26**