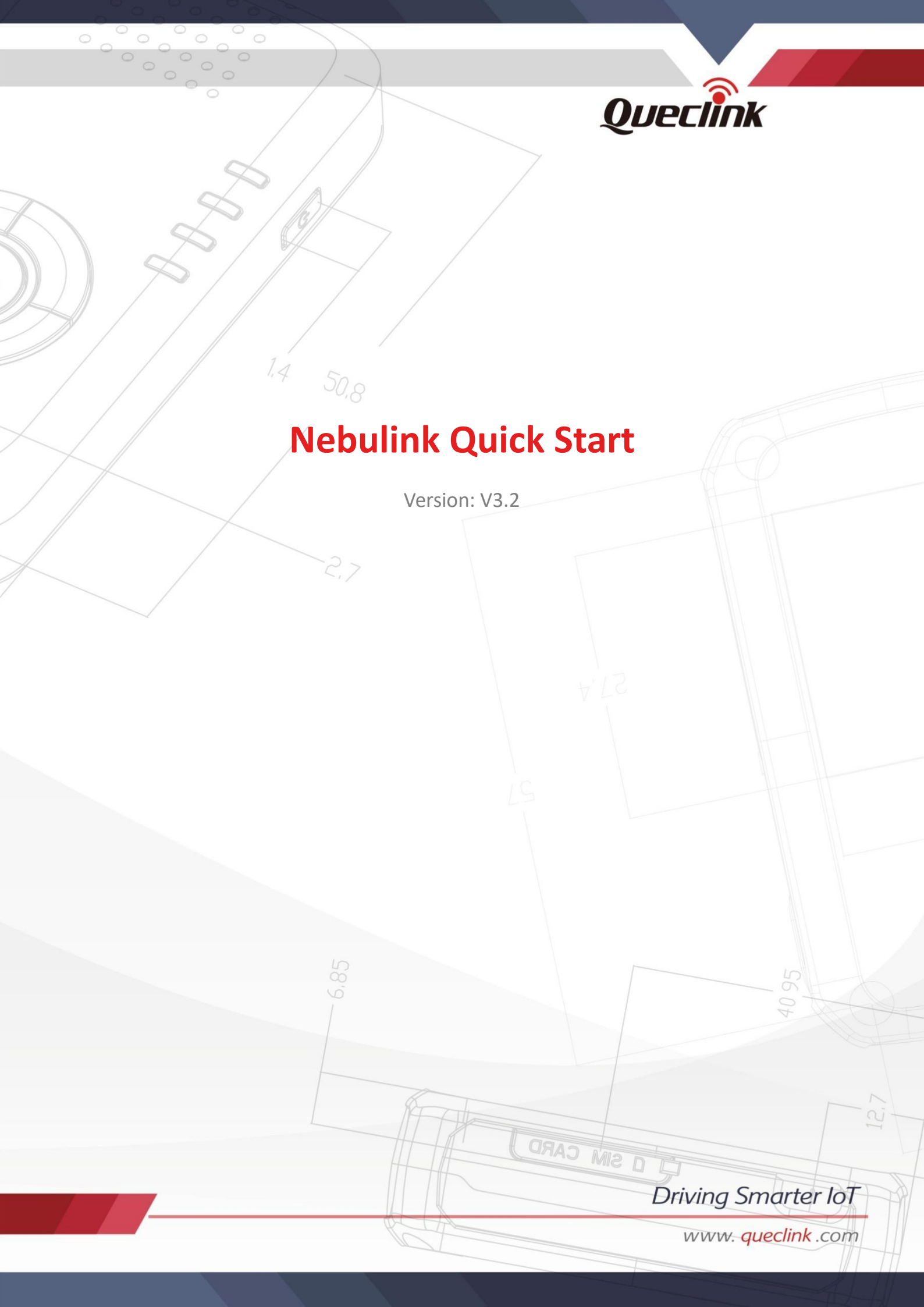
Nebulink Quick Start

Version: V3.2



Driving Smarter IoT

www. queclink .com

Document Title	Nebulink Quick Start
Version	3.2
Date	2025-03-25
Status	Released

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0. Revision History

Revision	Date	Author	Description of change
1.00	2023-06-05	Vincent	Initial.
1.10	2023-12-05	Vincent	Add some features.
2.00	2024-03-25	Vincent	Add some features.
2.50	2024-08-19	Vincent	Add Hotspot feature.
3.00	2025-03-13	Vincent	Provide detailed description on Hotspot.
3.20	2025-03-25	Vincent	Correct some contents.
3.50	2025-04-24	Vincent	Change the system name from RMS to Nebulink.

1. Nebulink Introduction

The Cellular Router Remote Management System, which is called Nebulink, is designed to monitor and manage the cellular routers from Queclink. The system allows the user to securely gather status information of the cellular routers and to change their configuration through Nebulink.

The RMS website address is: nebulink.queclink.com.

The following are the major features of Nebulink:

(1) Monitor the status and collect the data of devices, such as online status, device information, GPS data, etc.

(2) Remote management of devices, such as firmware upgrade (FOTA), configuration upgrade, log file download, restart, restore to the factory setting, etc.

(3) Perform statistical analysis of the devices registered in the system.

(4) Alarm monitoring and reporting.

(5) Remote access to WEBUI or lower end devices.

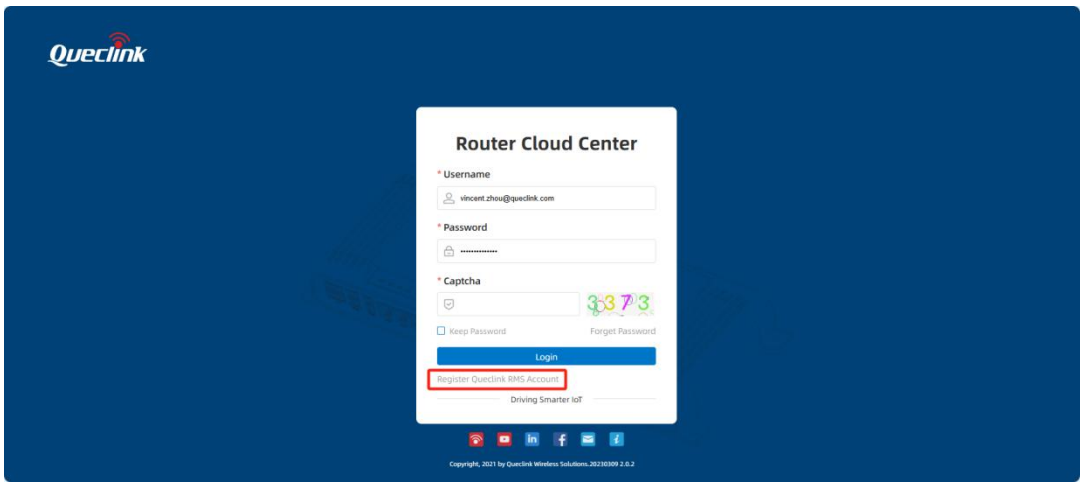
(6) Firmware release and download.

(7) Hotspot remote configuration, management and monitoring.

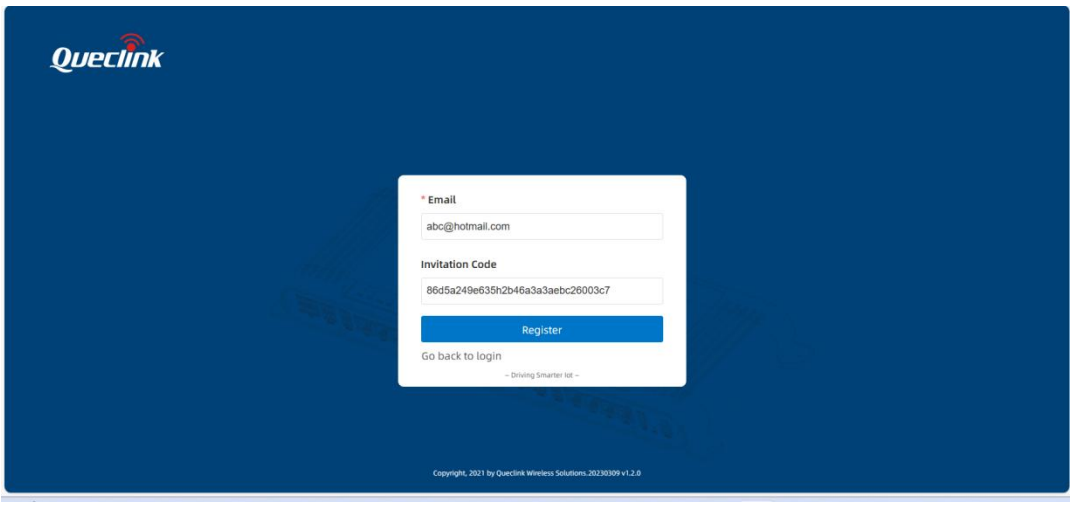
2. Registration

To access Nebulink for the first time, the users must register an account on the platform.

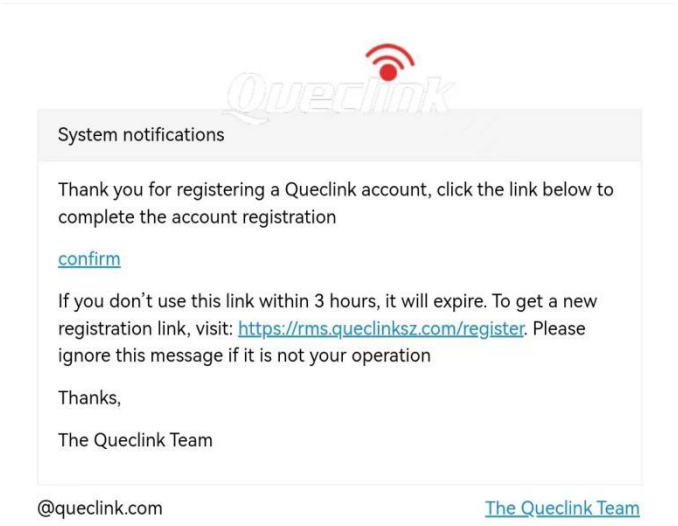
Click “Register Queclink Nebulink Account” on the login page,



The system will pop up a registration page, enter your email and invitation code, then click “Register” button, the system will send a registration confirmation email to your mailbox. To obtain an invitation code, please contact Queclink sales representative or technical engineer.



Check your email inbox for the registration message from Nebulink:



Click "confirm" to set your password to complete the registration.

3. Home Page

Use the Username and Password to log in to the system and the home page will be displayed by default. The home page includes 5 areas:

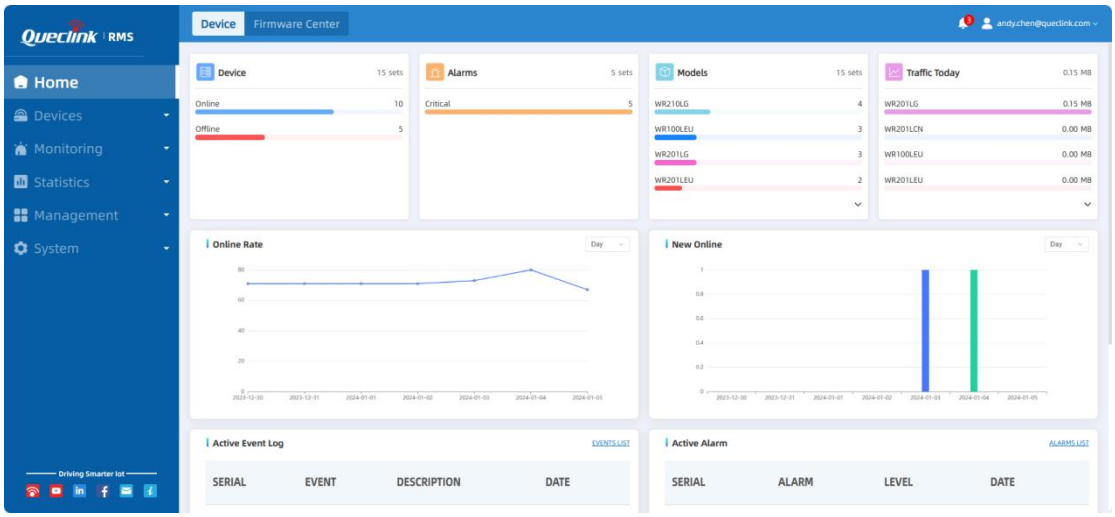
(1) Device Summarization Information: includes “Device (online & offline)”, “Alarms”, “Models” and “Traffic Today”.

(2) Online Rate: displays the trend of the number of devices is online in unit of day or month.

(3) New Online: displays the number of devices is newly online in unit of day or month.

(4) Device Events: displays the recent device events such as reboot, SIM card switchover.

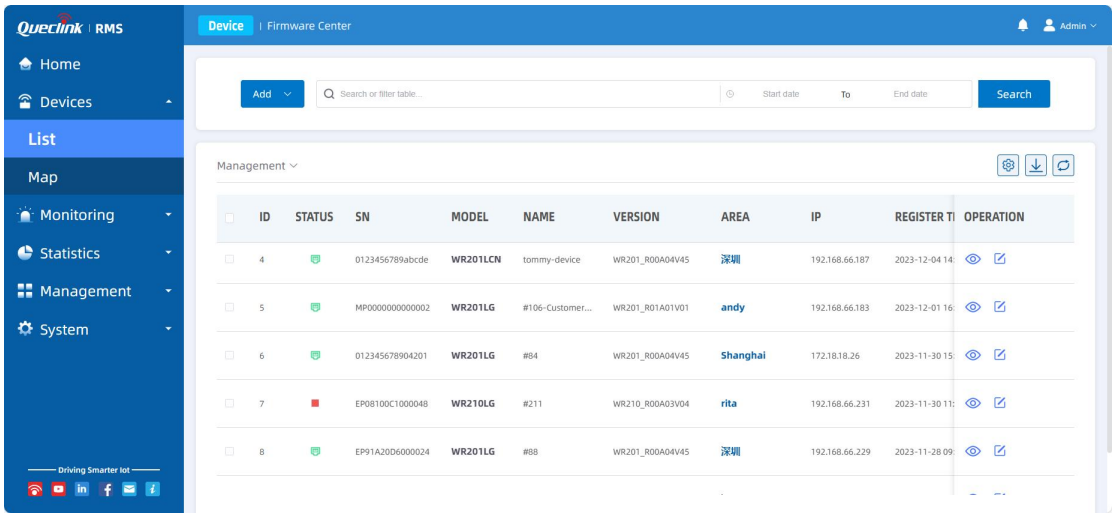
(5) Active Alarms: displays active device alarm information such as low signal value.



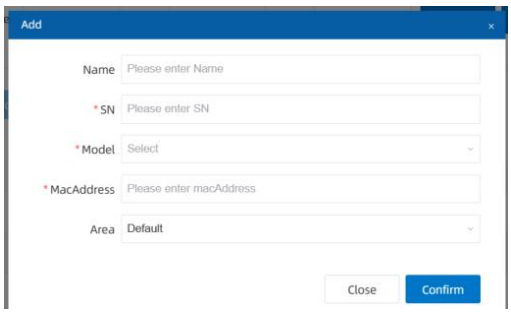
4. Device Management

4.1 Device List

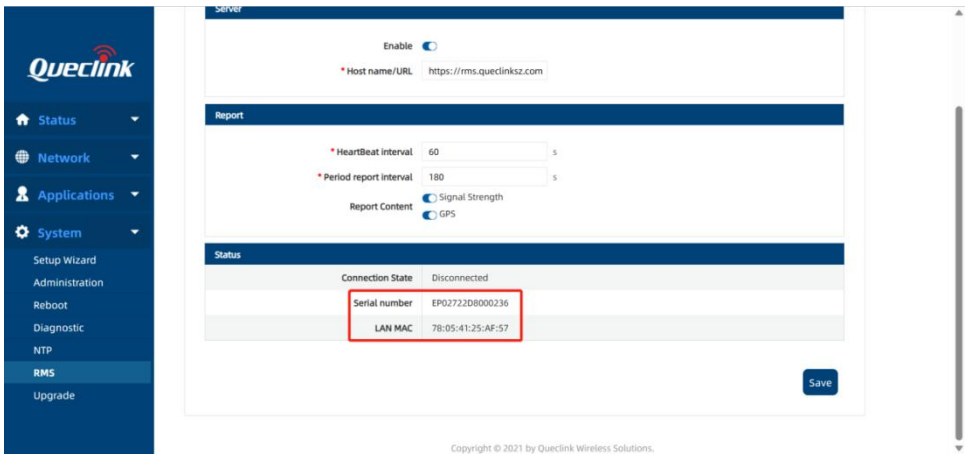
Click Devices->List to display all the devices that have been registered under this username. For new users, click the “+Add” button to add the devices. The list displays the device information such as “Status”, “Model”, “Name”, “Software Version”, “SN”, etc.



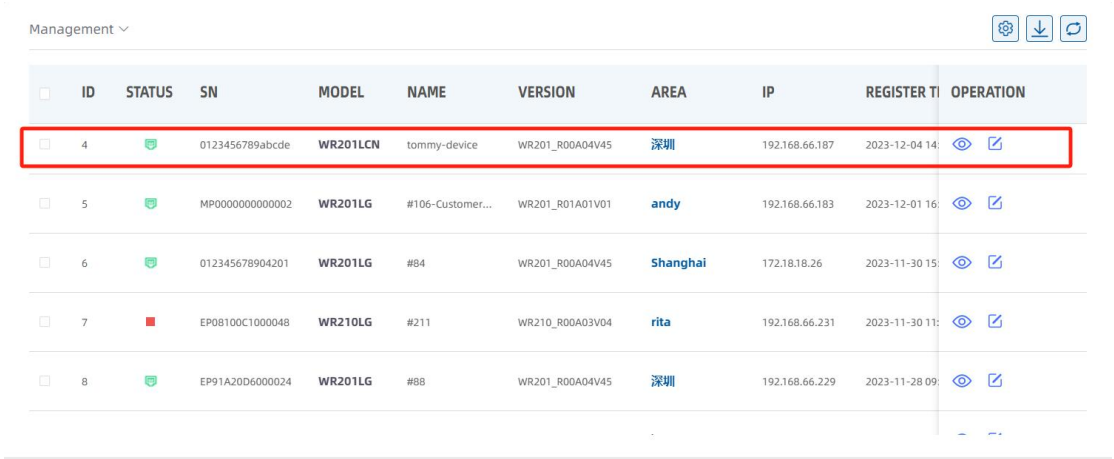
After clicking “+Add” button, the following interface will be displayed. Enter the Name (self-defined), SN, Model, MAC Address, Area and click “Confirm” to add the device.



In case the SN and MAC address of the device are unknown, please find them in “Nebulink” of “System” as shown in the following screenshot.



After adding a device, if the device can connect to the network normally, the user can wait for some time (the specific duration depends on the user's configured heartbeat interval) to see the device status displayed as online. The user can identify the device's online status and connection method through the icons.

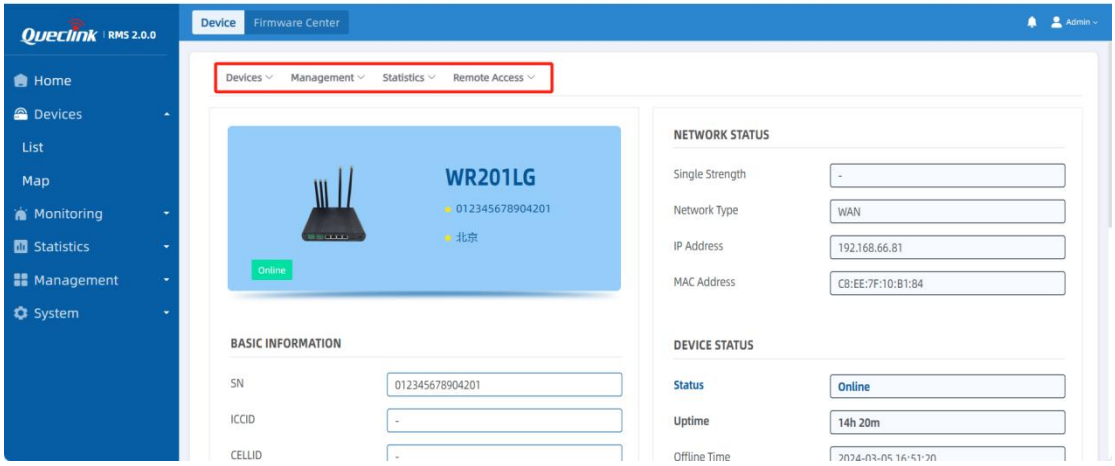


Users can click the icon  to view the detailed information of the device and modify the device information.

Select one or more devices, then choose an operation from the management menu to do operations to the device such as rebooting, upgrading firmware, updating configuration file, etc.

4.2 Device Details

Click the  icon to view detailed information of the device, such as SN, Online time, Longitude/Latitude, Alarm, Uptime, etc.



On the top of the page, there are 4 menus for device operations:

Device: Delete the device from Nebulink; Enable/disable alarm reporting; Configure report setting.

Management: Restart device; Upgrade device firmware; Upgrade a device patch; Upgrade device configurations; Download device configuration files; Download device log files; Report the device information immediately; Restore device to factory setting.

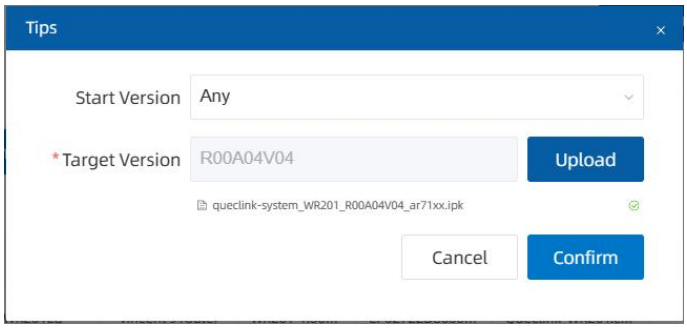
Statistics: Display Online statistics, Display Mobile statistics.

Remote Access: Remote access to device's WEBUI; Remote access to devices connected to Routers.

Here, the operation of upgrading software is used as an example:

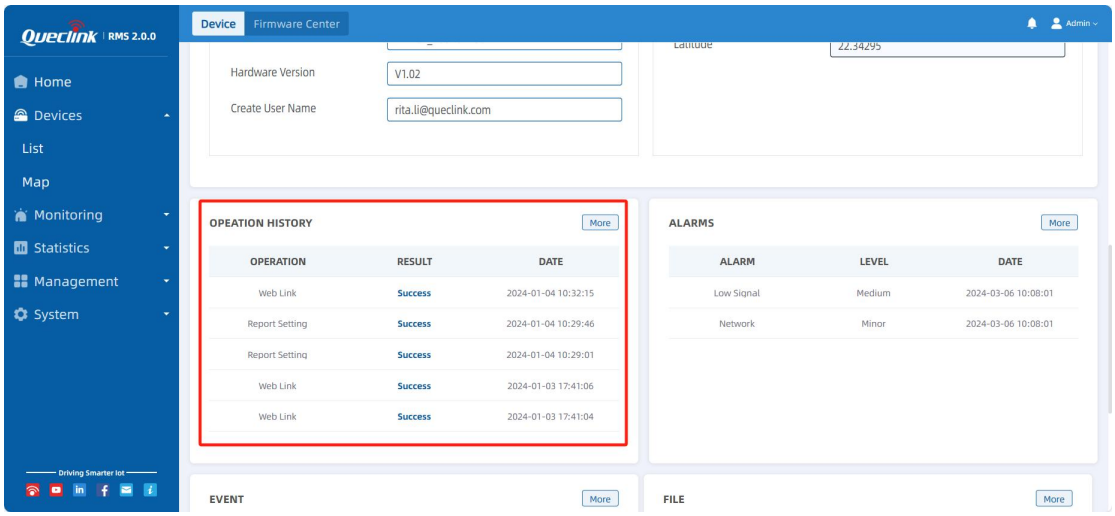
Click "Upgrade Firmware" and select the firmware version to be upgraded on the device;

(1) Users can click "Upload" to upload a firmware file. Please note that the firmware file should be in .ipk format.



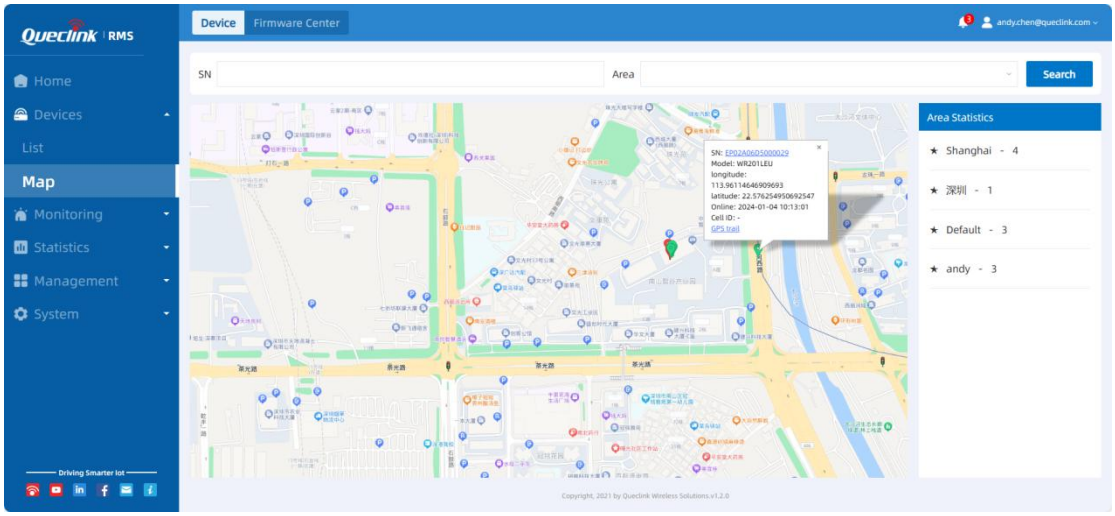
(2) Click "Confirm" to start the upgrade immediately.

(3) Check all the historical operations and results in the "Operation History" column.



4.3 Map

Click Devices->Map to see the positions of the devices on the map. Click the icon of the device to display detailed device information.



Users can view the device trail by selecting “GPS trail” menu in the pop-up window.

5. Devices Monitoring

5.1 Alarms

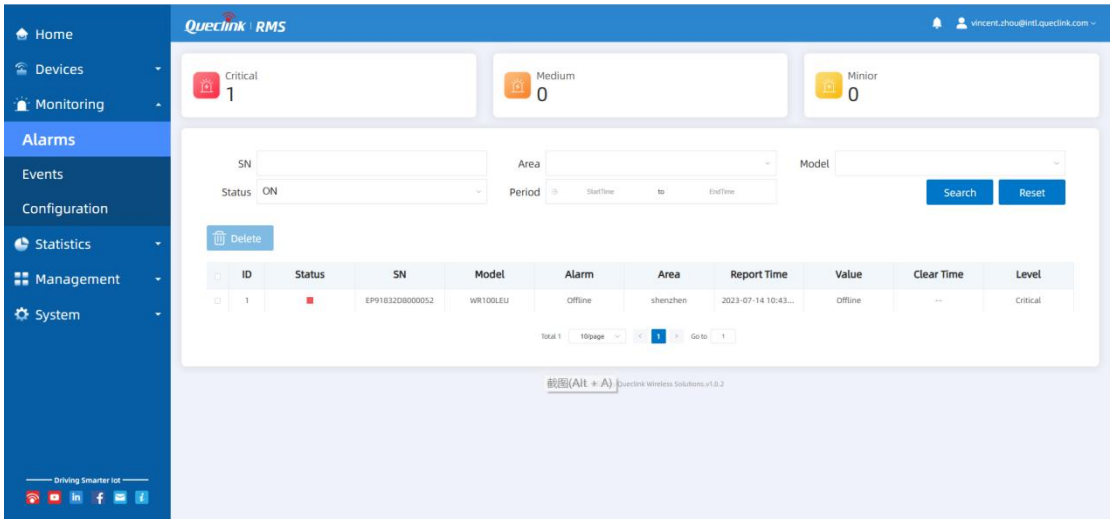
Alarms list displays all the alarm information for the devices. Currently, there are four types of alarm information:

1. Mobile network signal low alarm.

2. Offline alarm. When the device changes from online to offline. The platform triggers an alarm.

3. Network anomaly alarm, such as mobile network residing on 3G or 2G networks.

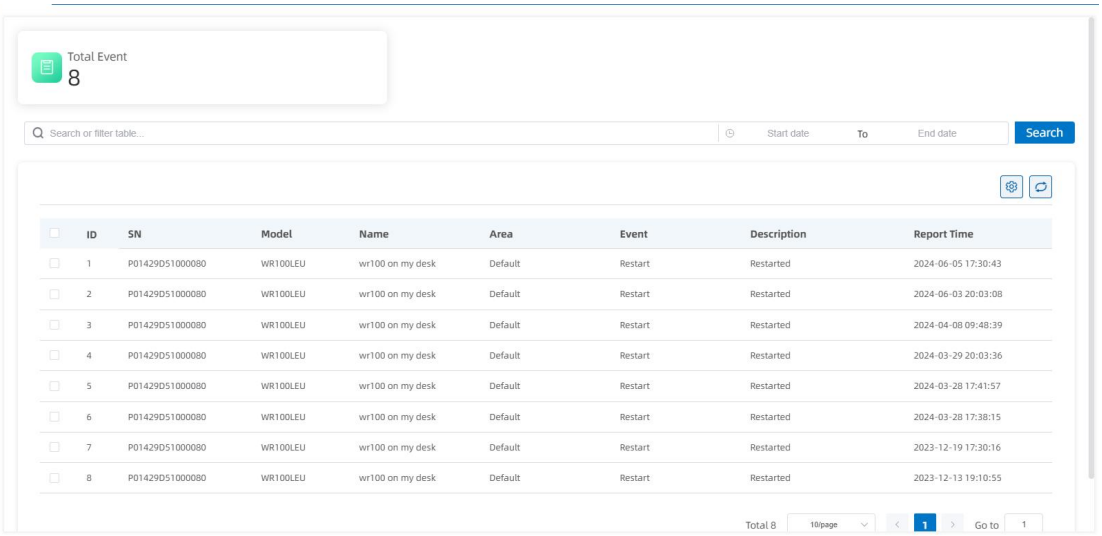
4. Flash, RAM and Tmp folder alarms. When the remaining FLASH, RAM, and TMP directory of the device exceeds or falls below the threshold values, the RMS system will trigger an alarm to notify the user that there may be an anomaly with the device.



On the ‘Configuration’ page, users can configure the alarm notifications and alarm thresholds.

5.2 Events

The "Events" page is designed to display notifications from online devices. An event typically means a non-critical occurrence within the device, such as a restart or SIM card switchover. Users can monitor the operational status of the devices based on their operations and knowledge.



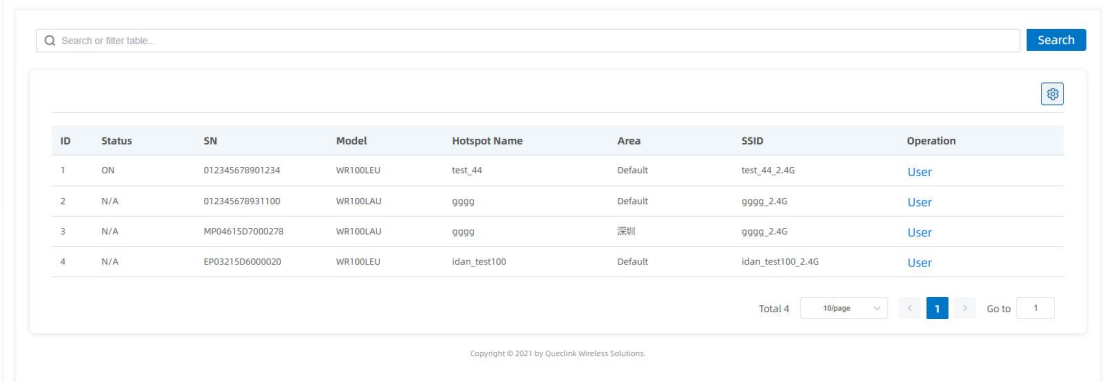
5.3 Hotspot

The "Hotspot" page provides a status overview of all Hotspots managed by the Nebulink. Each Hotspot has one of three possible statuses: ON, OFF, or N/A.

- ON: Indicates the Hotspot is active and functioning normally.
- OFF: Indicates the Hotspot is inactive, suggesting an abnormal condition.
- N/A: Means the Nebulink is unable to detect the Hotspot status, possibly due to the device being offline or local changes in Hotspot settings.

To address issues or manage Hotspots, users can navigate to the "Hotspot Management" page, where they can recreate a Hotspot to attempt recovery.

Additionally, clicking the "User" icon directs users to the user monitoring page. Here, administrators can view all current online users and review the history of users who have accessed the Hotspot. The administrator has the capability to forcibly disconnect any online user by clicking the designated kick-off icon.



6. Devices Statistics

The Nebulink platform supports data statistics and analysis of devices on the platform. The currently supported statistical items include:

(1) Online rate statistics: Calculate the online rate of devices over a period of time, so that users can understand the online status of all devices.

(2) Traffic statistics: Count the traffic consumed by the device over a period of time. Only wireless traffic is included.

(3) Model statistics: Calculate the model distribution and quantity of all devices on the platform.

(4) Network statistics: Calculate the network connectivity of all devices on the platform.

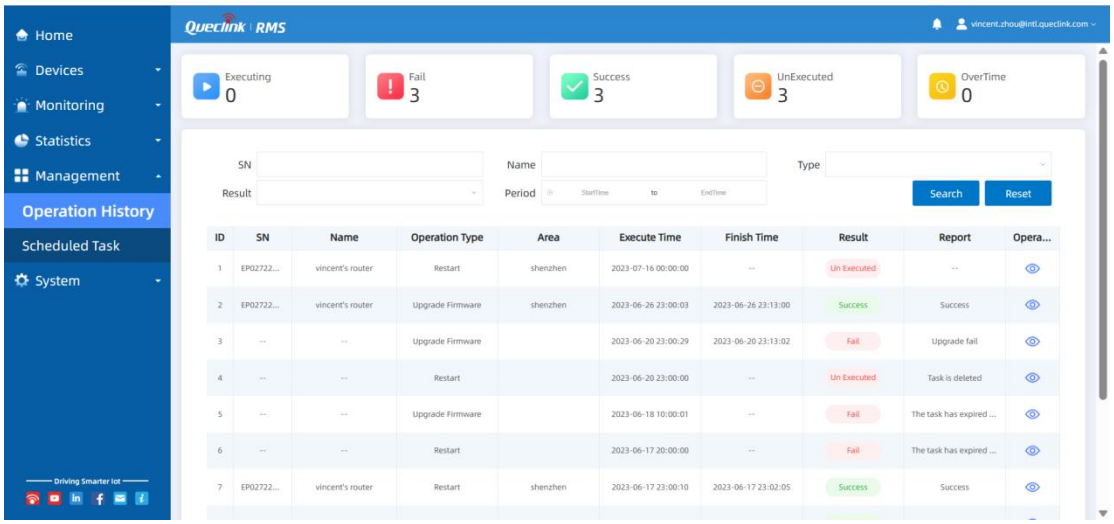
(5) Alarm statistics: Calculate the distribution of all alarms on the platform.

7. Devices Management

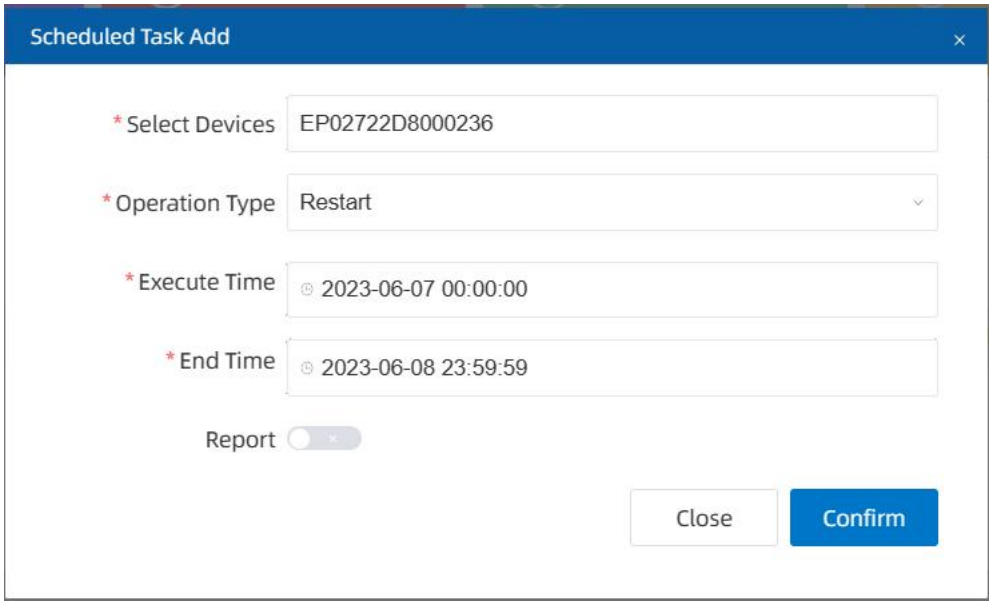
In the Management, users can upgrade firmware and update configuration file to the devices remotely in batches.

7.1 Operation History

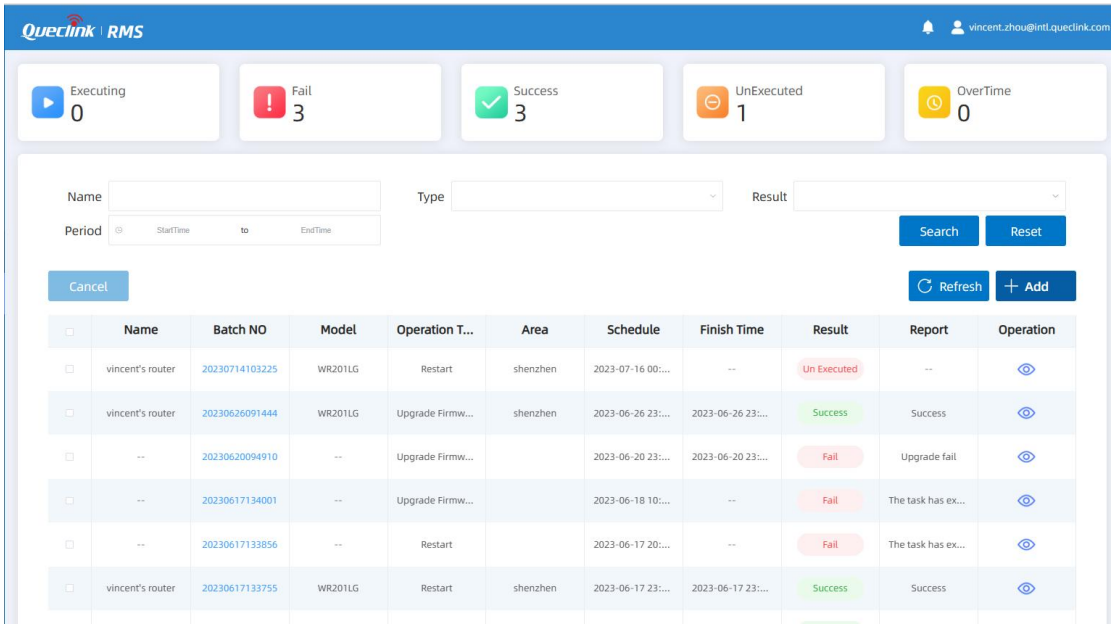
On the Operation History page, users can view all the operations on the platform for the devices, including firmware upgrades, configuration file updates, etc. Users can view the execution status of tasks through Result and the specific reasons through Report.



On the Scheduled Task page, users can add an operation task within a scheduled time range. Click the "+Add" button, and the system will pop up a dialog box. Select the device to be operated, the operation type, execution time and end time, and click Confirm. The system will create a task to be executed the specified time range. Once the time arrives, the corresponding task will be executed for the selected devices.



Returning to the Scheduled Task page, users can view the execution status of the created scheduled tasks. Click the details button to see the overall execution status of the task.

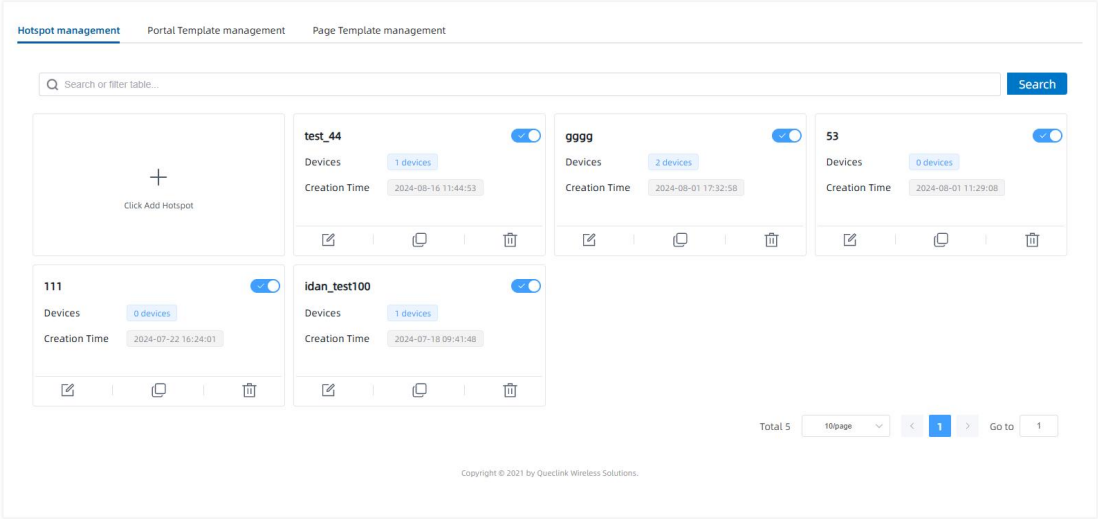


7.2 Hotspot Configuration

The Hotspot configuration interface within Nebulink allows users to set up and manage Hotspots for devices through three distinct tabs:

(1) Hotspot management.

This section enables users to create new Hotspots for any online devices. To initiate the process, click 'Add Hotspot' and follow the step-by-step instructions to complete the setup.

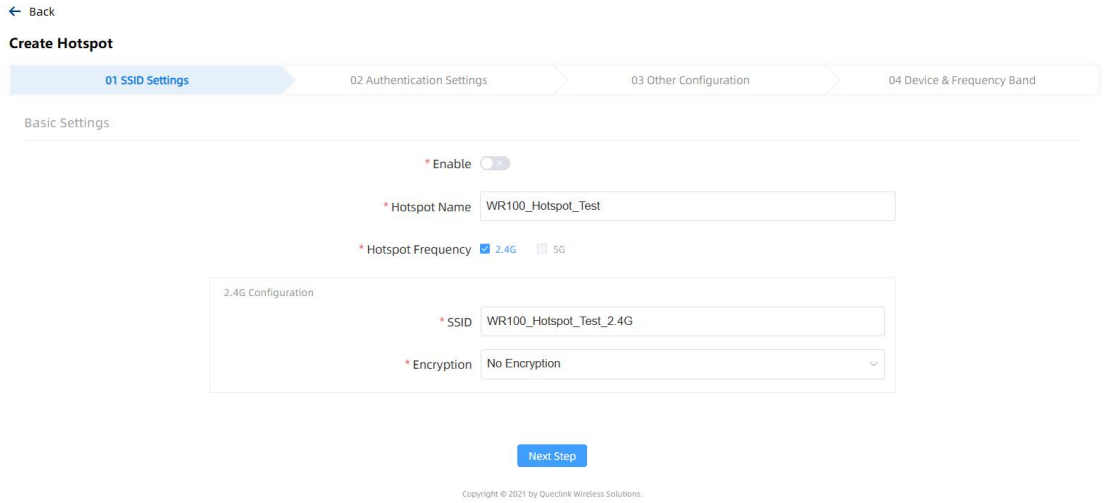


Users have the option to edit or delete existing Hotspots. Please note that all devices must be removed from a Hotspot before it can be deleted.

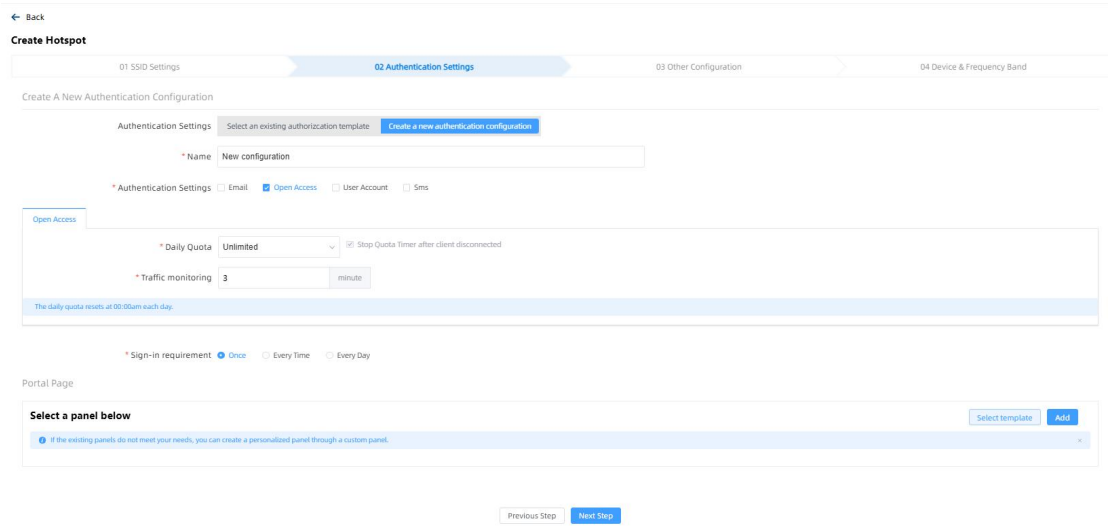
The following are the steps on how to create a new Hotspot:

A. Click the 'Click Add Hotspot' box to initiate Hotspot configuration.

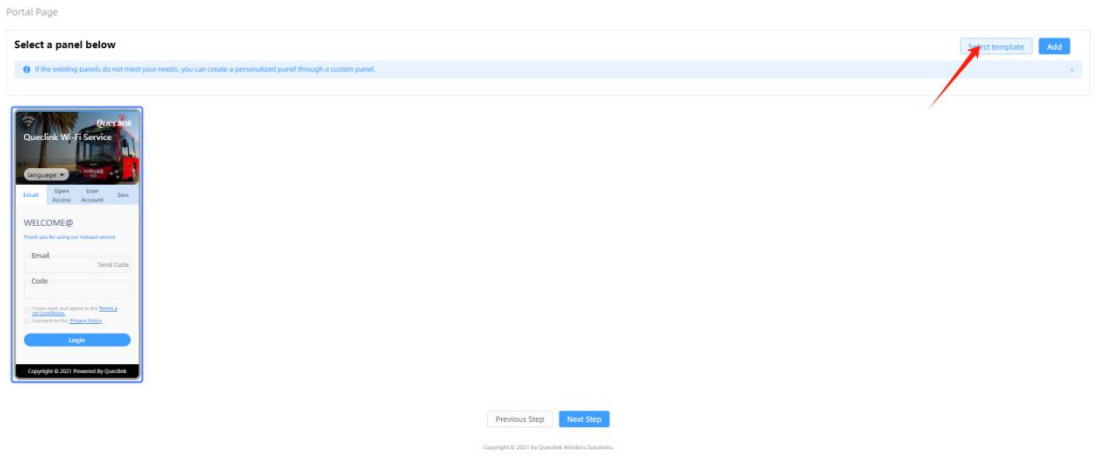
B. Enable the Hotspot, input the Hotspot name, and select the Wi-Fi frequency for the hotspot. Then click 'Next Step' to proceed to the next configuration stage.



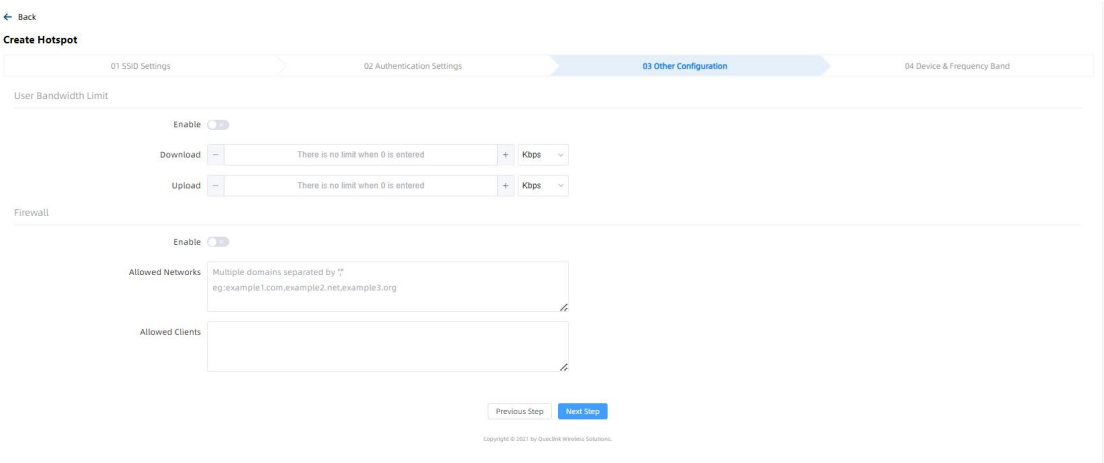
C. Configure the authorization methods and relevant parameters. Currently, the system can support four authorization types: email, open access, user account, and SMS. You can select multiple authorization methods for the Hotspot.



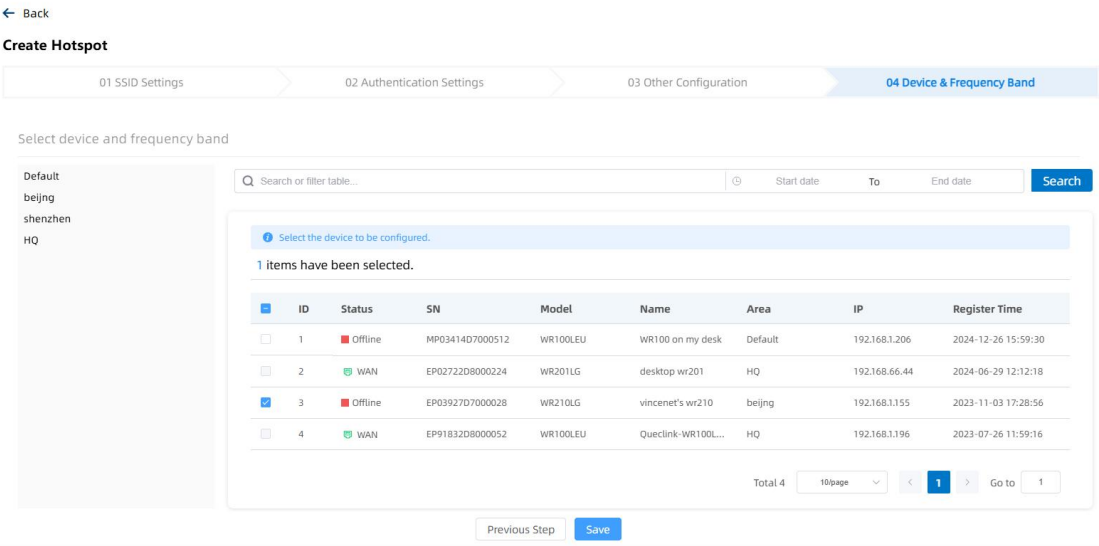
You can select an existing portal template by clicking the 'Select template' button or click 'Add' to create a new template on your own. On the portal configuration page, you can customize the background image, logo, slogan, etc.



D. Click ‘Next Step’ to configure the bandwidth for each user and set the firewall rules, such as allowed access website and clients.



Click ‘Next Step’ to select devices to which the configuration will be applied and click ‘Save’ to download the configuration. The selected devices will then apply the configuration and provide Hotspot services to users.



(2) Portal template management

Here, users can design new portal templates for use in Hotspot configurations. The page also allows for the editing or deletion of existing templates.

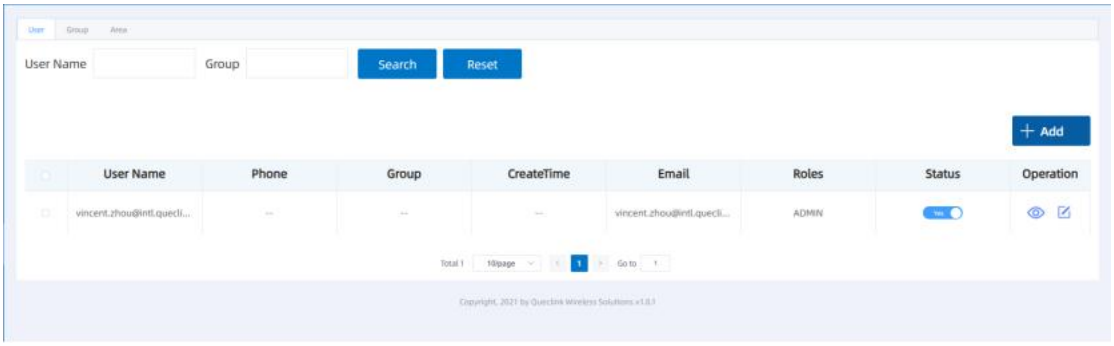
(3) Page template management

In this section, users can create custom portal pages for Hotspots or portal templates, offering the flexibility to modify them as needed.

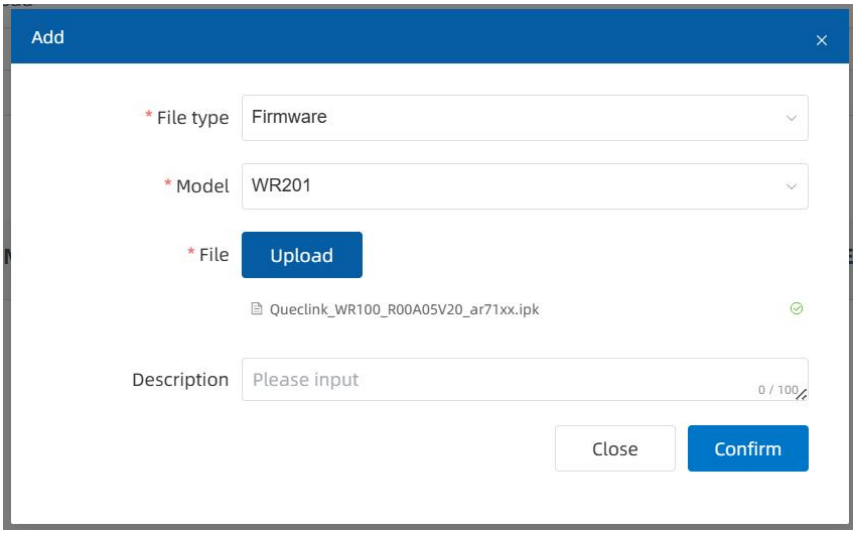
8. System

On the system configuration page, operations such as adding or deleting users, establishing regions, etc. can be done.

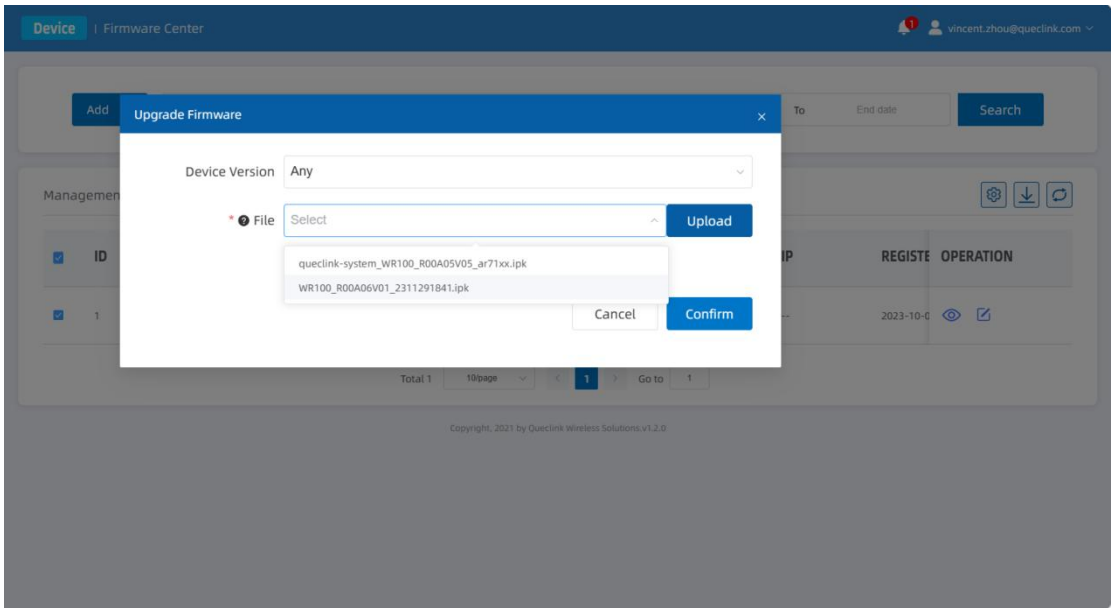
Users can create a sub account on the user page under his control. Go to User page and click “Add” icon and input the new account email on the pop up window, then click “confirm” to send out the registration email.



Users can also upload their own configuration file or firmware to upgrade other online devices.



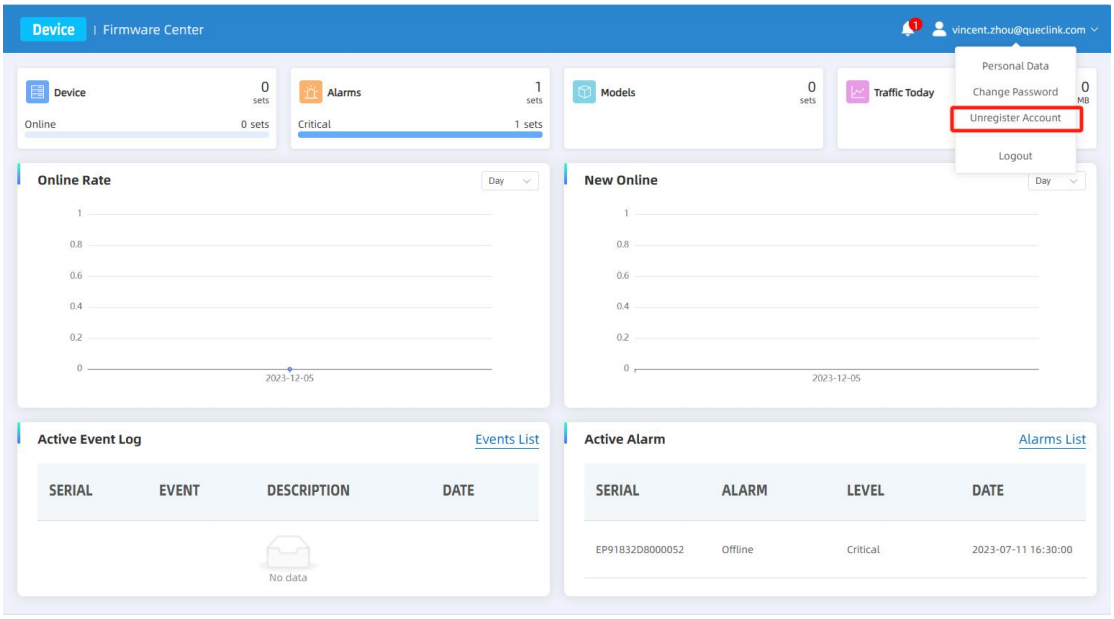
After successfully uploading the file, the uploaded file will be available during firmware or configuration upgrade.


Device
Firmware Center
vincent.zhou@queclink.com
Add
To
End date
Search
Upgrade Firmware
Device Version
Any
File
Select
Upload
queclink-system_WR100_R00A05V05_ar71xx.ipk
WR100_R00A06V01_2311291841.ipk
Cancel
Confirm
ID
REGISTE
OPERATION
Total 1
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Go to
Copyright, 2021 by Queclink Wireless Solutions,v1.2.0

9. Other Operations

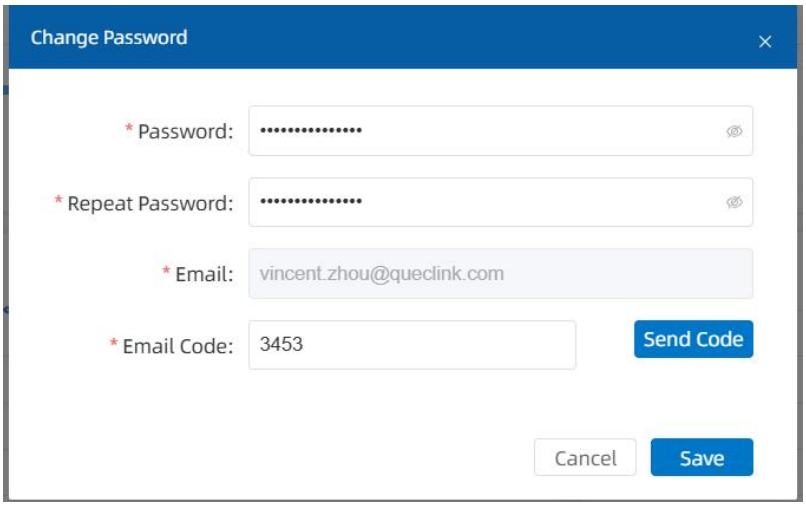
9.1 Unregister Account

If you choose to discontinue using the Nebulink service, you can unregister your account. To do so, navigate to the "Unregister Account" option located in the upper right corner of the system. Clicking this will initiate the account deletion process.



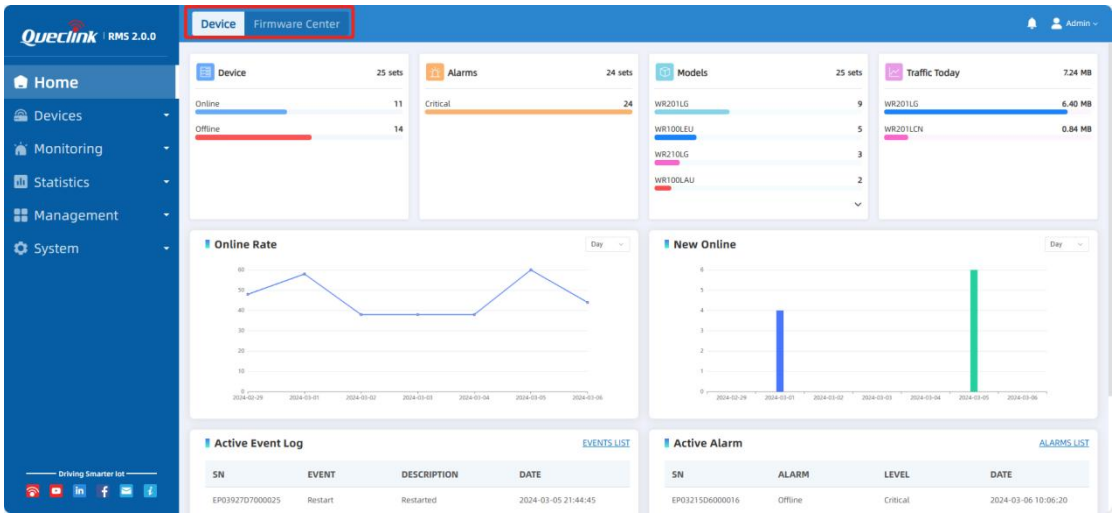
9.2 Change Password

In the dropdown menu, you will also find the option to change your password. To proceed, enter the email code, which you can acquire by clicking "Send Code" and then checking your email for the code.

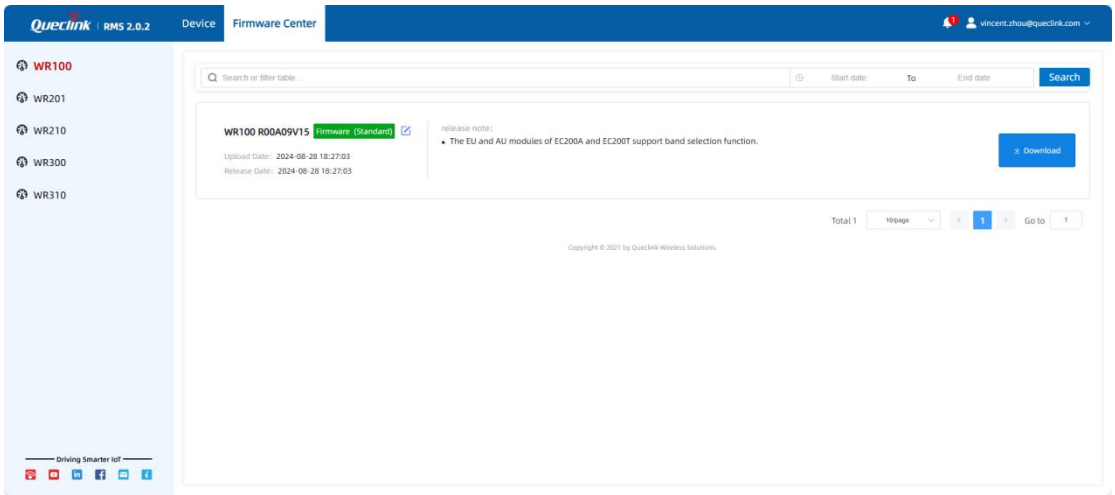


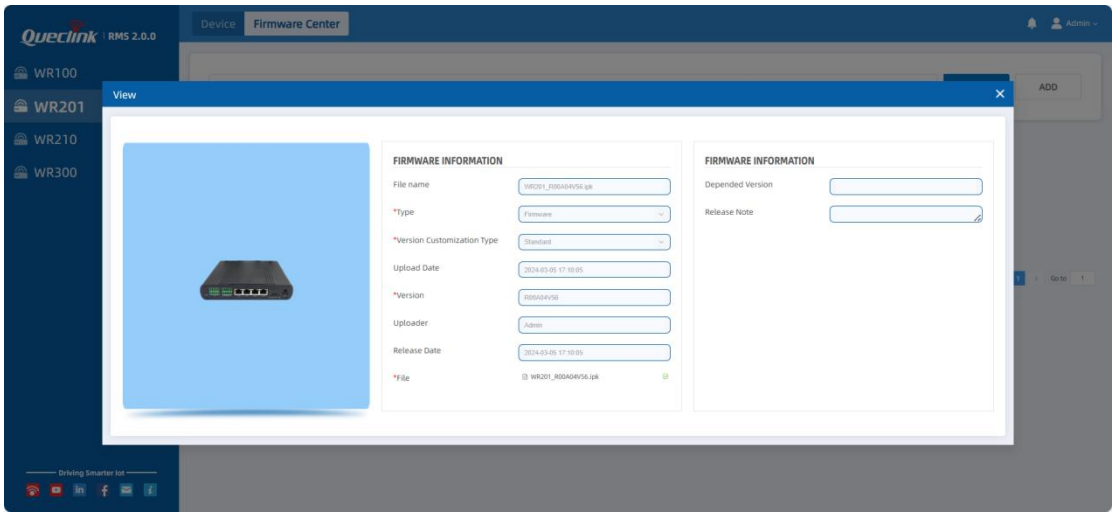
10. Firmware Center

All router firmware will be published and pushed to registered users through the Nebulink system. Users can click on the “Firmware Center”button on the top area to enter the Firmware Center.



In the Firmware center, users can select the specific model to find all available firmwares for this model. Users can click “download” button to download the firmware and click version number to view the detail information. All firmware can be directly used for upgrading online devices.




Queclink | RMS 2.0.0
Device
Firmware Center
WR100
WR201
WR210
WR300
ADD
View
FIRMWARE INFORMATION
File name
*Type
*Version Customization Type
Upload Date
*Version
Uploader
Release Date
*File
FIRMWARE INFORMATION
Depended Version
Release Note