V5008 Gateway Development Kit User Guide

V2.0

January 16, 2025

Note: This document is only applicable to the V5008 Gateway Development Kit

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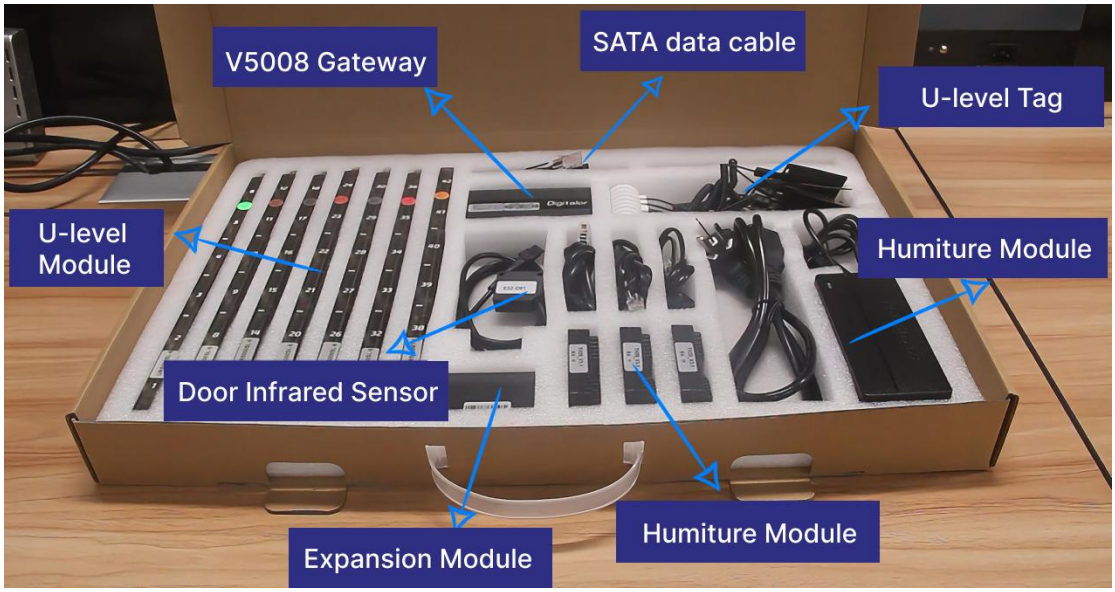
I. Hardware Product Assembly

1. Understanding the Product



Preparation:

- Understand the Networking and Wiring Methods Between Products
- Prepare 2 Ethernet Cables, 1 to Connect the Gateway and Expansion Module, and 1 to Connect the Gateway to the Network

2. Assemble the Product

2.1 Understanding the U-level Module

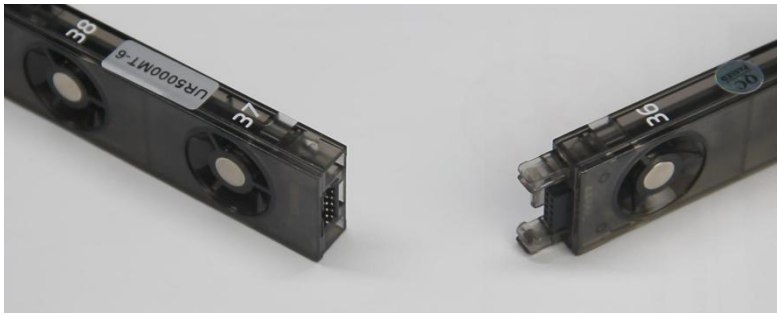
Understanding the U-level Master Module and Slave Module (In the image, the left side is the Master Module, and the right side is the Slave Module)

Capability: The U-level Module can map physical U-positions to digital U-positions.

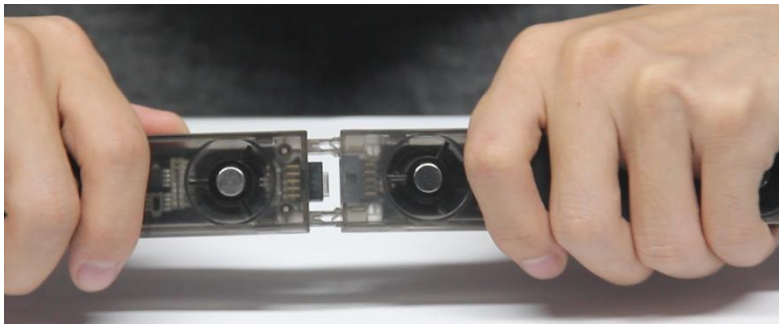
2.2 Splicing U-level Modules

Each U-level module has a corresponding scale mark. Sequentially splice U-level modules according to the scale mark order (1U-42U) using a building block method.

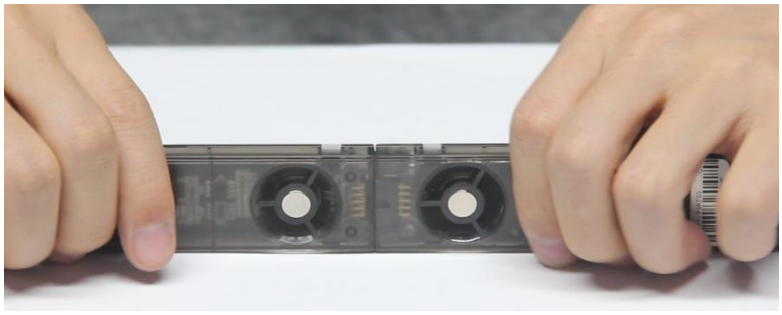
- Find the U-level modules with adjacent scale mark order.



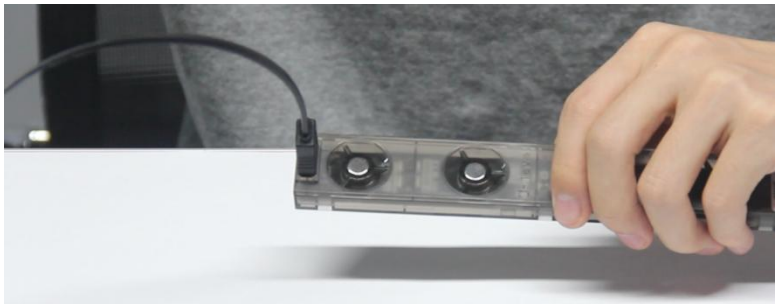
- Sequentially splice according to the U-level module scale mark order.



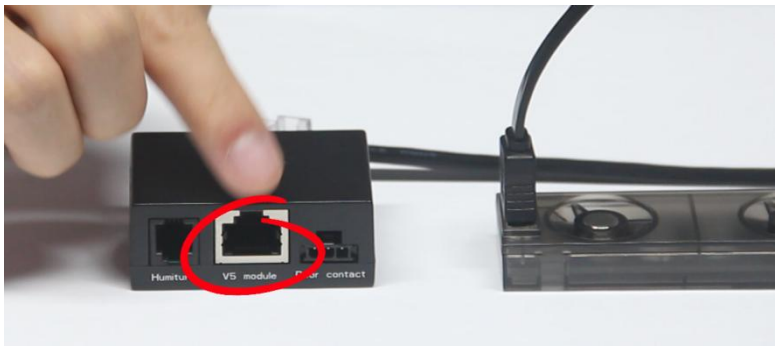
- Splicing completion effect (Note: There should not be too large a gap at the splicing points.)



- One end of the SATA data cable connects to U-level Master Module.



- The other end of the SATA data cable connects to the Expansion Module V5 Module interface.



- Connection completion effect.

2.3 Understanding the Humiture Module.

Connect the Humiture Module in series using an RJ11 crystal head connection cable.

Capability: Collect and monitor real - time temperature and humidity data of the air outlets and inlets inside the cabinet.

Notes:Each temperature and humidity monitoring module has a corresponding address. Connect them in the order of the addresses.

Address	Definition
10	Top of the front door (above the air inlet)
11	Middle of the front door (in the air inlet)
12	Bottom of the front door (below the air inlet)

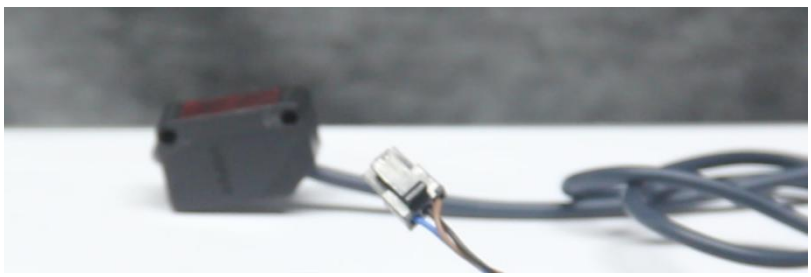
2.4 Connecting Humiture Modules

- Connect in sequence according to the address order of the Humiture Modules

- Connection Completion Effect

- The temperature and humidity monitoring module with an address of 10 is connected to the Humiture interface of the expansion module via an RJ11 crystal head.

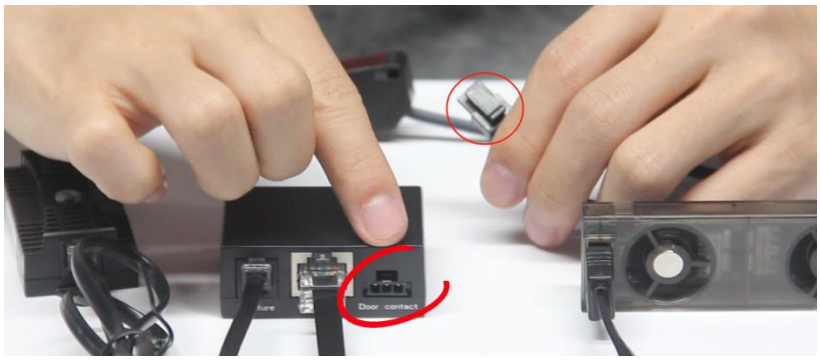
2.5 Understanding the Door Infrared Sensor



Capability: Monitoring the open/close status of the cabinet door

2.6 Connecting the Door Infrared Sensor

- The Door Infrared Sensor connects to the Expansion Module's Door Contact interface via an RJ45 connector

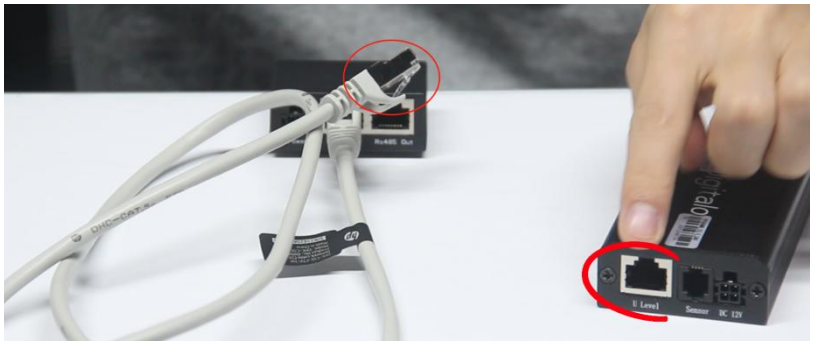


- Connection Completion Effect

2.7 Splicing V5008 Gateway

- Connect the expansion module RS485 In using a self-provided network cable

- The other end of the network cable connects to the V5008 Gateway U level interface

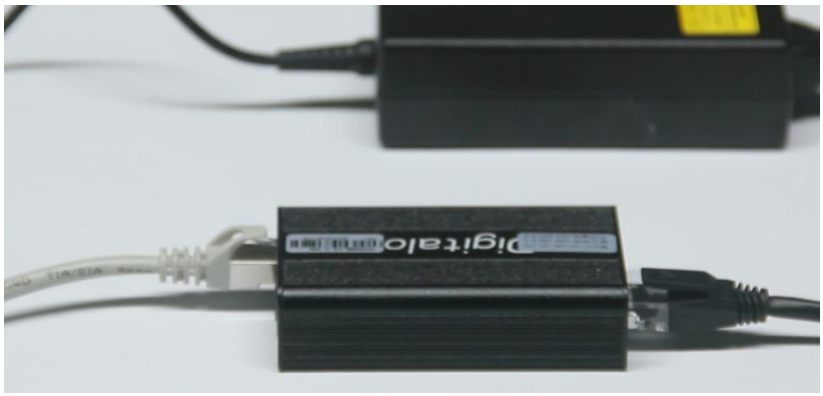


- Connection completion effect

2.8 Gateway connected to the network

- Connect to the network via the gateway LAN/POE interface

- Connection completion effect

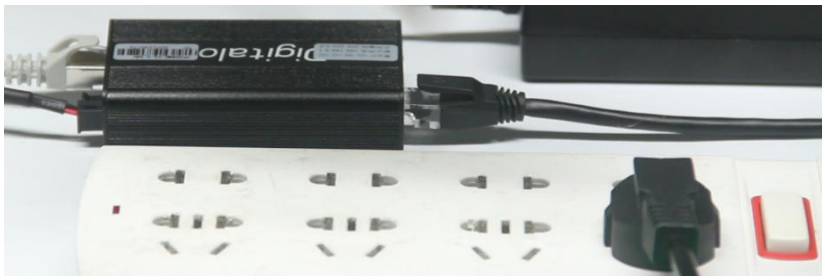


2.9 Gateway power supply

Powered by a power adapter

- Connect the power adapter to the gateway DC 12V interface

- Turn on the power through the power plug to complete the gateway power-up



Note: If using a POE switch, there is no need to connect the power adapter to power up

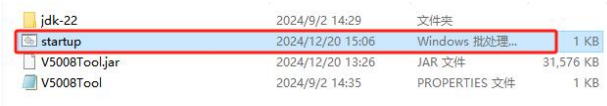
II. Gateway communication configuration

1. Configuration tool activation method

Contact the after-sales team of Digital Man to obtain the configuration installation package suitable for the current computer system.

1.1 Local activation method for Windows System

After decompressing the configuration toolkit, operate 【startup】 file, and the system will automatically launch the configuration tool in the browser;



1.2 Method to Enable on Mac OS System

- After decompressing the configuration toolkit, simultaneously hold down the Option key + right mouse button, click on the decompressed folder, find and use"V5008Tool-V2.0_240902-MacOS-x86_64"as the copy path name, and copy successfully.
- Open 【Terminal】 software, and execute the command to cd to the decompressed file path, such as cd"the path you copied

```
cd Paste path name
```

- Enter command

```
sh startup.sh start
```

After executing the program, the system will automatically launch the configuration tool in the browser.

2. Configuration Function Description

2.1 Default Gateway Parameter Information

IP Address: 192.168.100.100

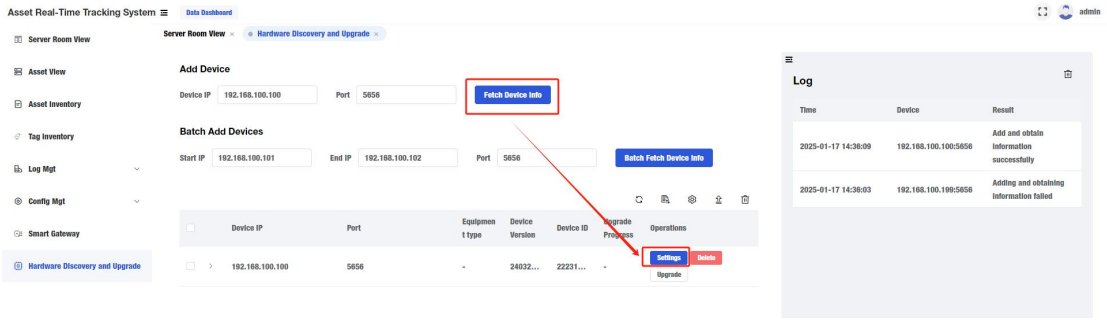
Subnet Mask: 255.255.0.0

Default Gateway: 192.168.0.1

2.2 Add Device

Default Gateway IP: 192.168.100.100; Port: 5656

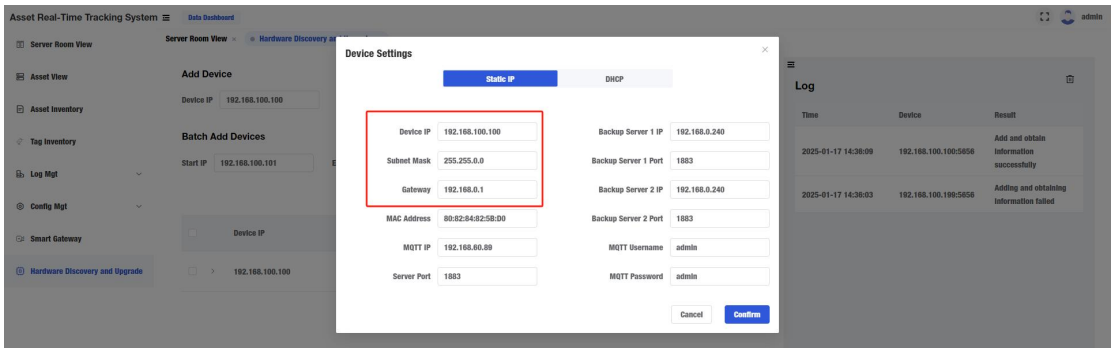
Enter the V5008 Gateway configuration page, confirm the input of the default gateway IP and port; Click 【Get Device Information】 function, after successfully obtaining device information, operate the 【Settings】 function to enter the Device Settings Network Parameters page.



2.3 Set Device Network Parameters

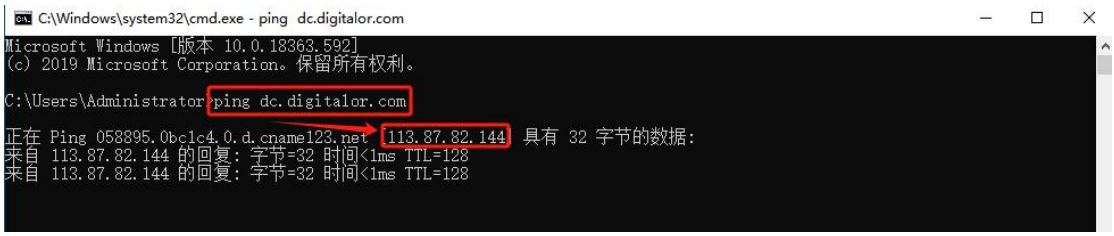
Configuration of device IP, subnet mask, and gateway: Configure according to the network address assigned on-site that can communicate with the MQTT server.

Note: If you do not know the assigned network address or if the network is unreachable after configuration, please contact the on-site network administrator.

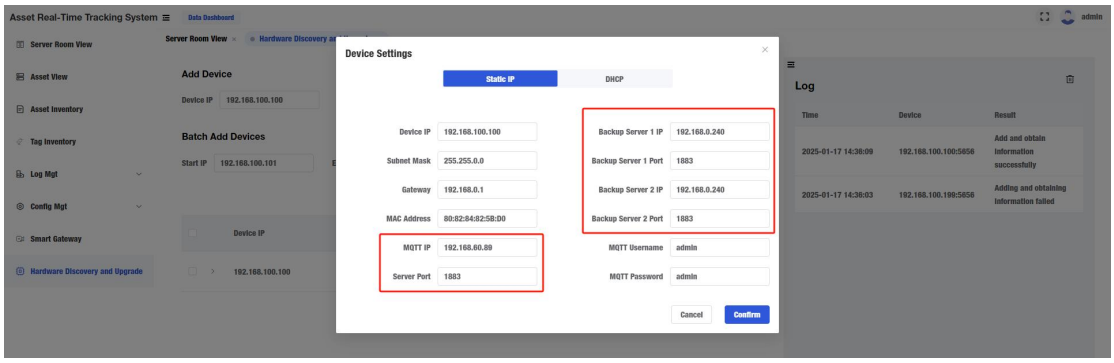


2.4 Set MQTT Server Information

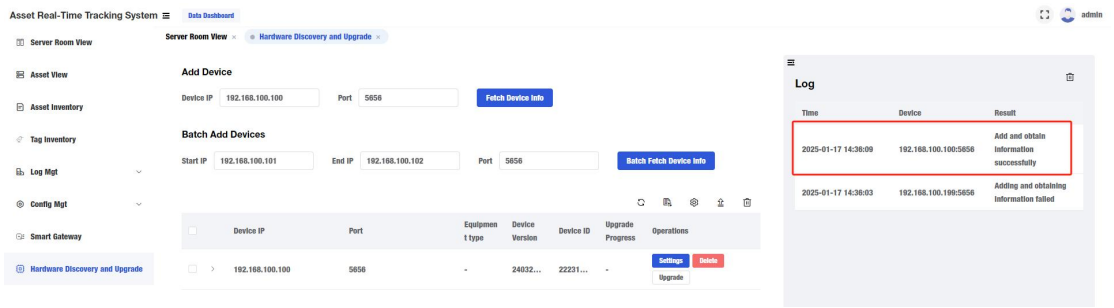
Open the Windows terminal, directly ping the cloud platform domain to obtain the cloud platform IP; the default port is 19135.



After configuration is complete, click 【Confirm】 to save and wait for the gateway to automatically restart successfully.

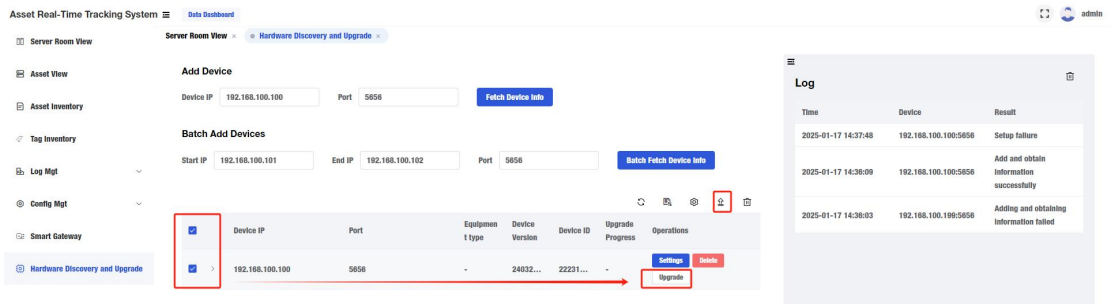


Operation logs can be viewed to record operation information.

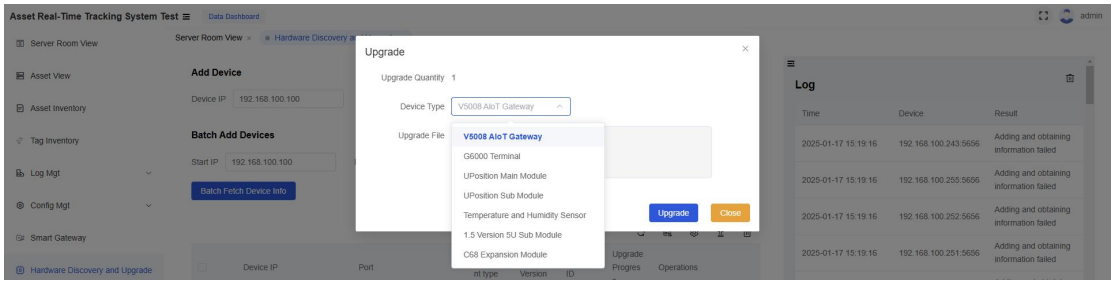


3. Upgrade Function Description

Select Upgrade Device: Operate 【Upgrade】 function, supporting batch upgrade and single upgrade.



Upgrade types include: V5008 AIoT Gateway, G6000 Terminal, U-level Master Module, U-level Slave Module, Temperature and Humidity Sensor, 1.5 Version 5U Slave Module, C68 Expansion Module.



Based on the selected upgrade device, operate to select 【Upgrade Type】 function, and operate 【Import】 upgrade file. Operate 【Upgrade】 function to confirm. (Note: Please contact the Digital Person after-sales team to obtain the upgrade file.)

The upgrade result can be checked in the operation log, whether successful or failed.

Precautions

Gateway reset: If you forget the gateway IP, while the gateway is powered on, use a tool like a SIM card ejector to press and hold the reset button. When you hear a long beep from the gateway, the reset is successful.

III. Cloud platform configuration

1. Login

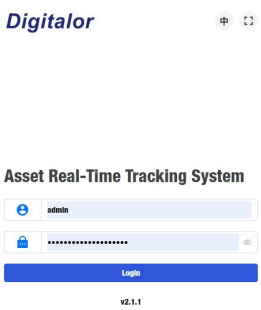
1.1 Obtain account

Contact a digital sales consultant to obtain access to the cloud platform for trial.

1.2 Login

Open the platform address, enter the account and password, and click login;

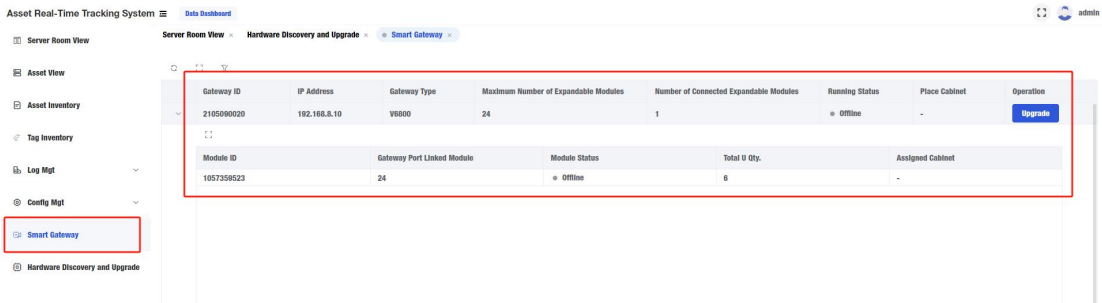
Note: The account will be locked after five incorrect password attempts, please use it wisely.



2. Scene Configuration

2.1 Confirm Device Status

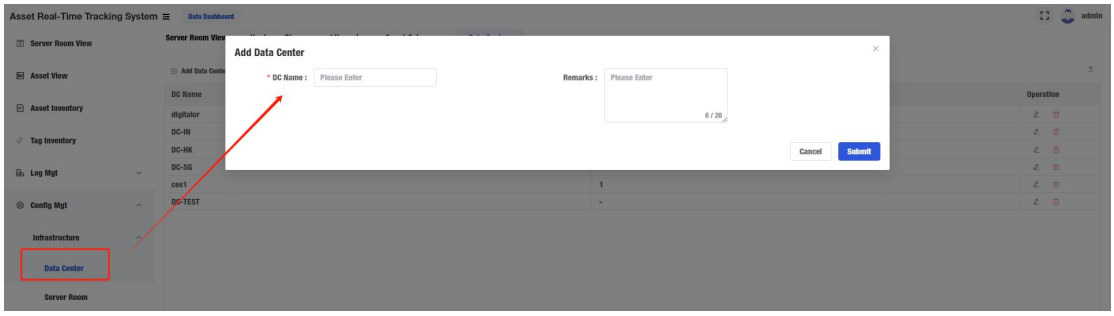
Open Smart Gateway menu, check the information and status of the gateway and U-level module, and ensure that the gateway and U-level module are online and functioning normally.



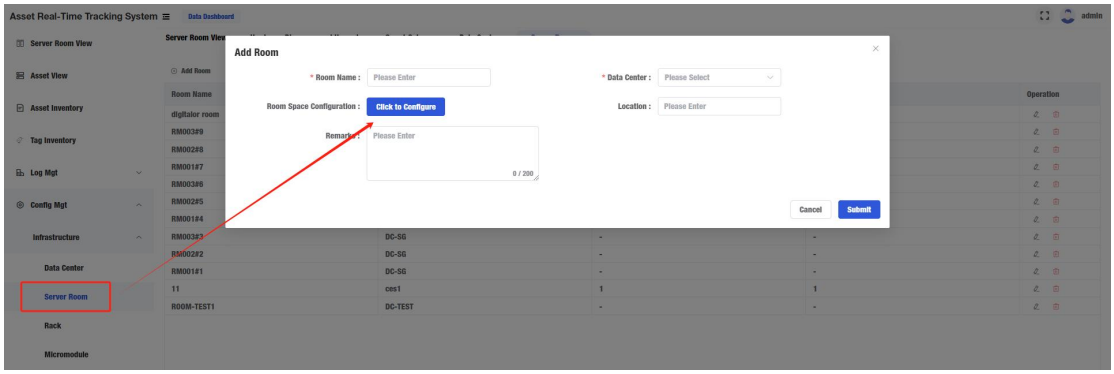
2.2 Configure Infrastructure

Please follow the process to configure during the initialization phase.

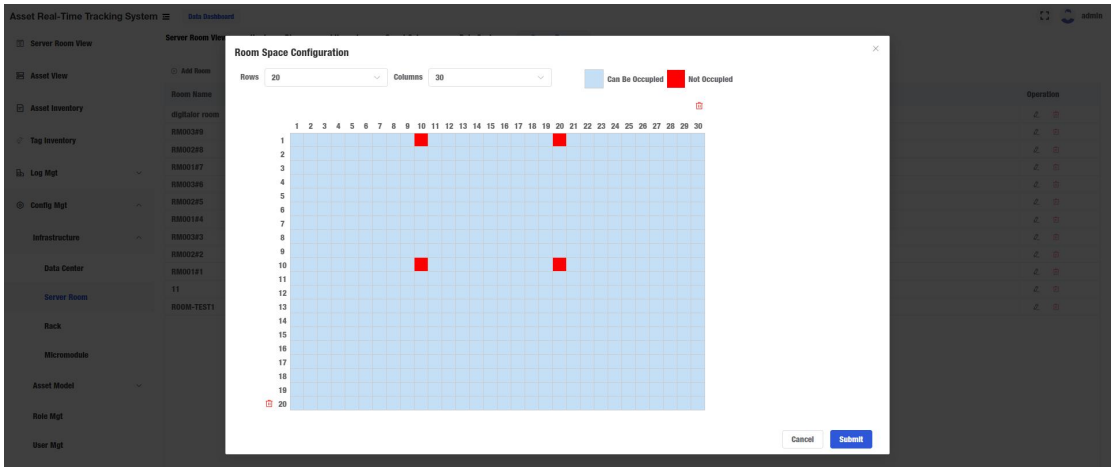
2.2.1 Create Data Center



2.2.2 Create Computer Room (Configure Computer Room Space)

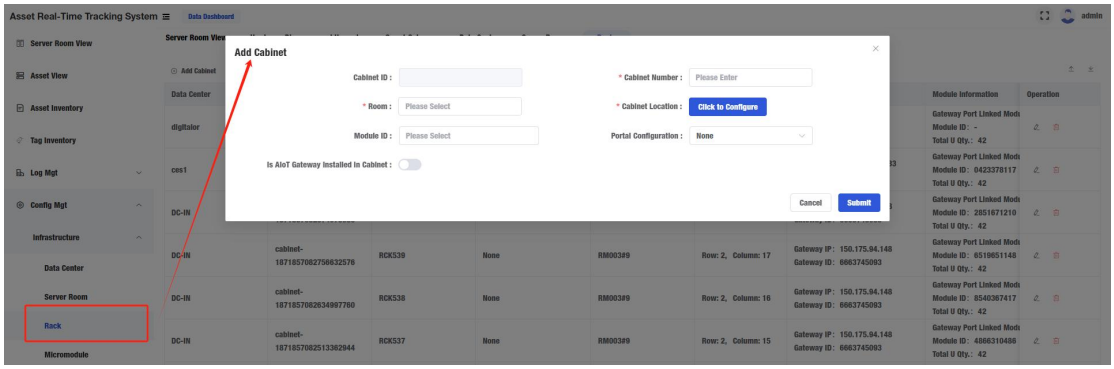


Operation 【Click Configure】 Function, configure according to the physical environment space of the computer room.

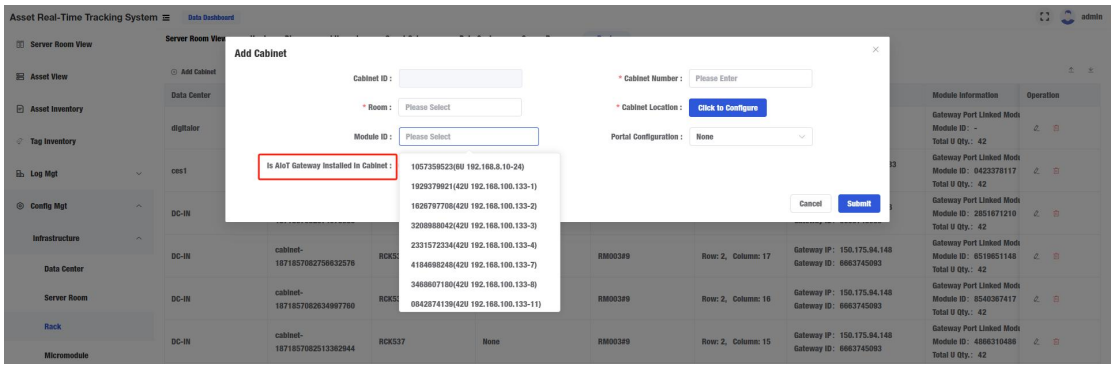


2.2.3 **Create Cabinet (Associate U-level Module and Gateway)**

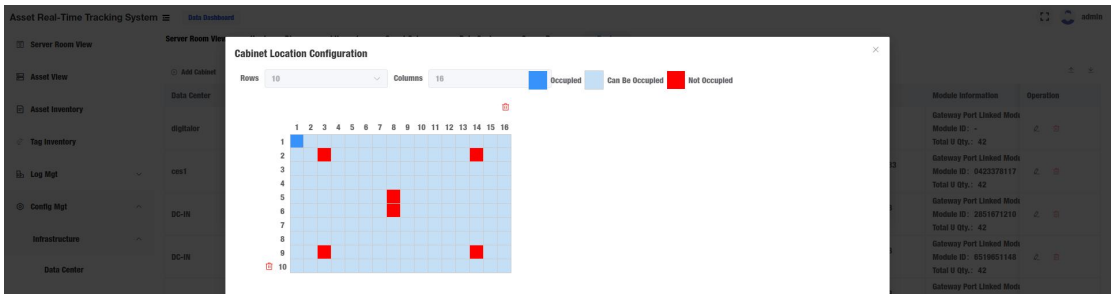
Enter the cabinet code, select the associated computer room, choose the location of the cabinet within the computer room, select the U-level module to associate with the cabinet, and choose the door sensor.



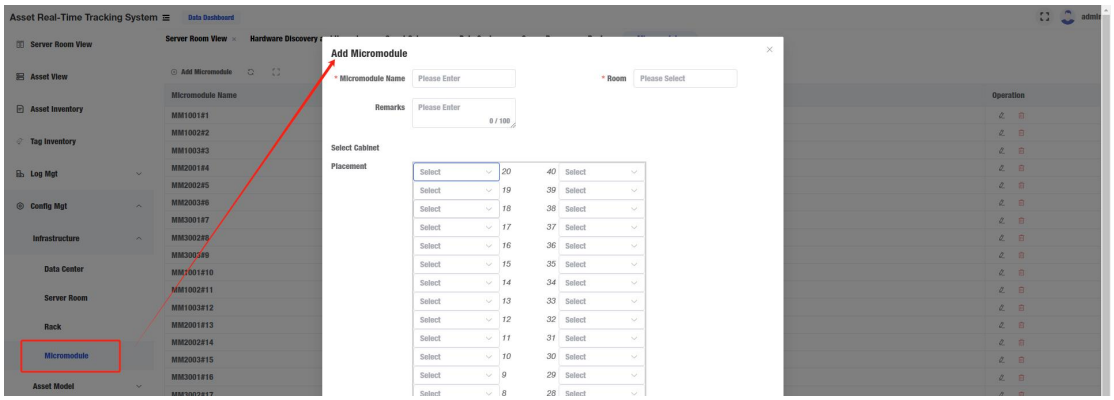
Cabinet Associated Gateway Information Description



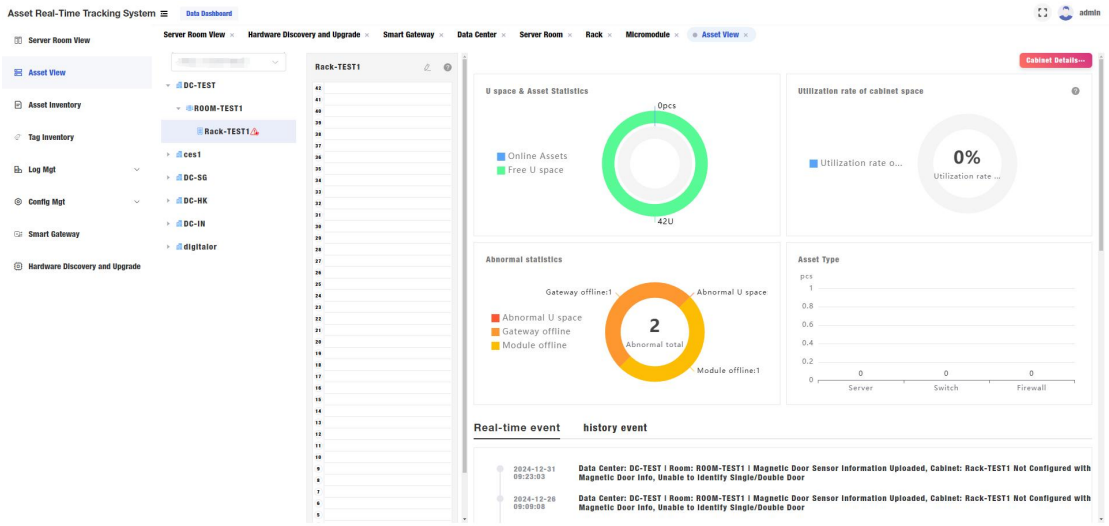
Configuration of the Cabinet's Location within the Computer Room



2.1.4 Create Micro Module



After completing the above operations, the physical cabinet mapping is successful; the mapped digital cabinet can be viewed in the asset view.

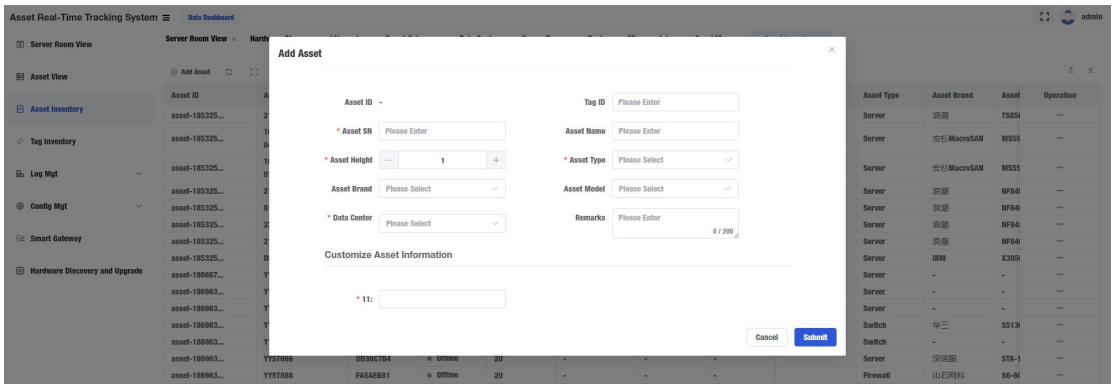


3. Asset Digitization

3.1 Create Asset Information

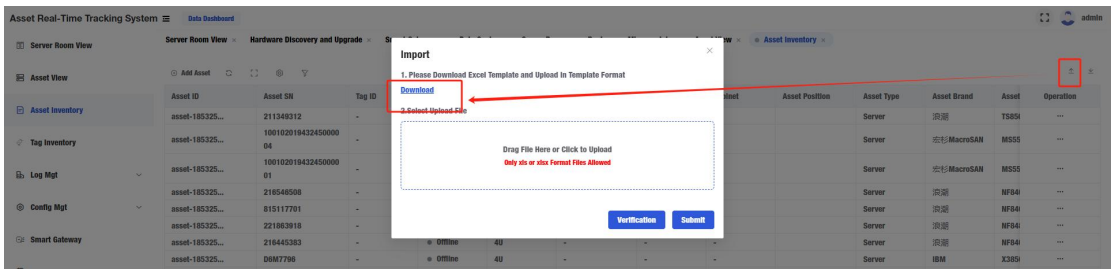
3.1.1 Manual Entry

Enter asset information; if label information is entered simultaneously, the asset and label will be automatically bound;



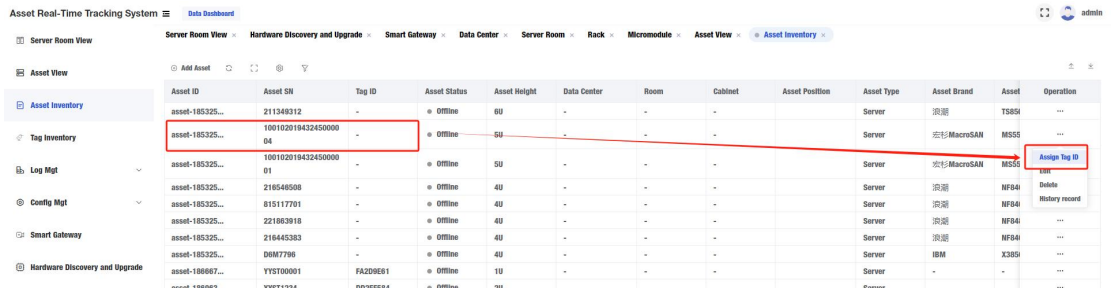
3.1.2 Batch Import

Open 【Import】 function, download the import template, and batch import data.

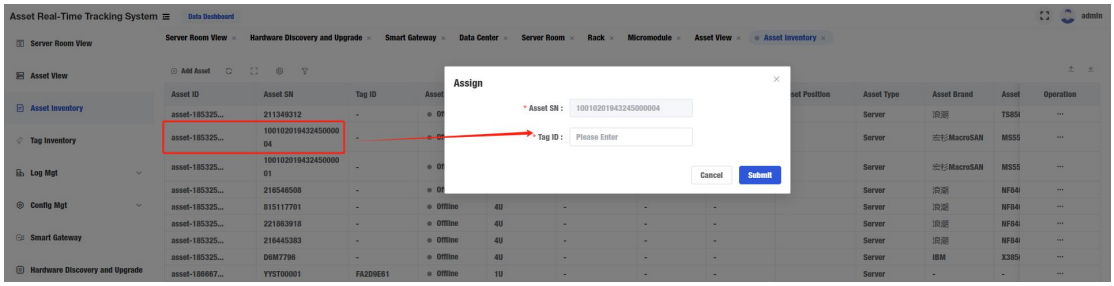


3.2 Bind Assets and Labels

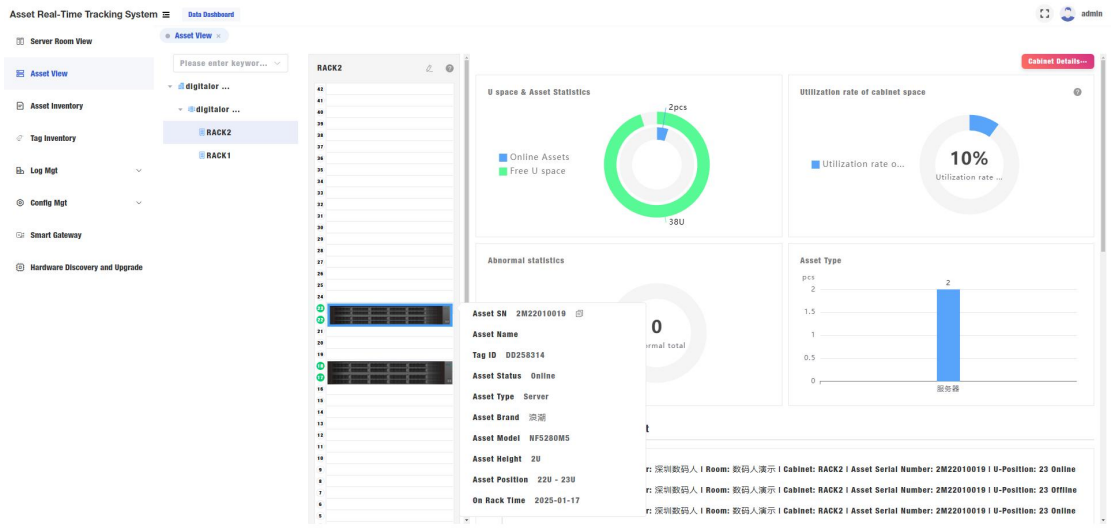
In the asset list, operate to bind labels to assets that are not bound, using the 【Bind Label】 function.



Enter the label ID, operate 【Confirm】, and the binding of assets and labels is successful, completing asset digitization.



View the real-time status of assets in the asset view.



3.3 Real-time Tracking, Inventory, and Monitoring

Real-time monitoring of asset status and cabinet U-Position status, real-time data synchronization and inventory, and real-time recording of asset change logs;