



Synway SIMCLOUD System

SIMCLOUD

User Manual

Version 1.0.0

Synway Information Engineering Co., Ltd
www.synway.net

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Revision History

Version	Date	Comments
Version 1.0.0	2018-05	Initial publication

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Chapter 1 Product Introduction

Thank you for choosing the Synway SMG Series SIMCLOUD products!

The Synway SMG series SIMCLOUD products (hereinafter referred to as ‘SIMCLOUD’) is a unified and confluent management platform for the gateway devices developed by Synway. It aims at the effective monitoring and management of the wireless gateway and the SIMBANK products from Synway, as well as the remote allocation of SIM cards.

1.1 Typical Application

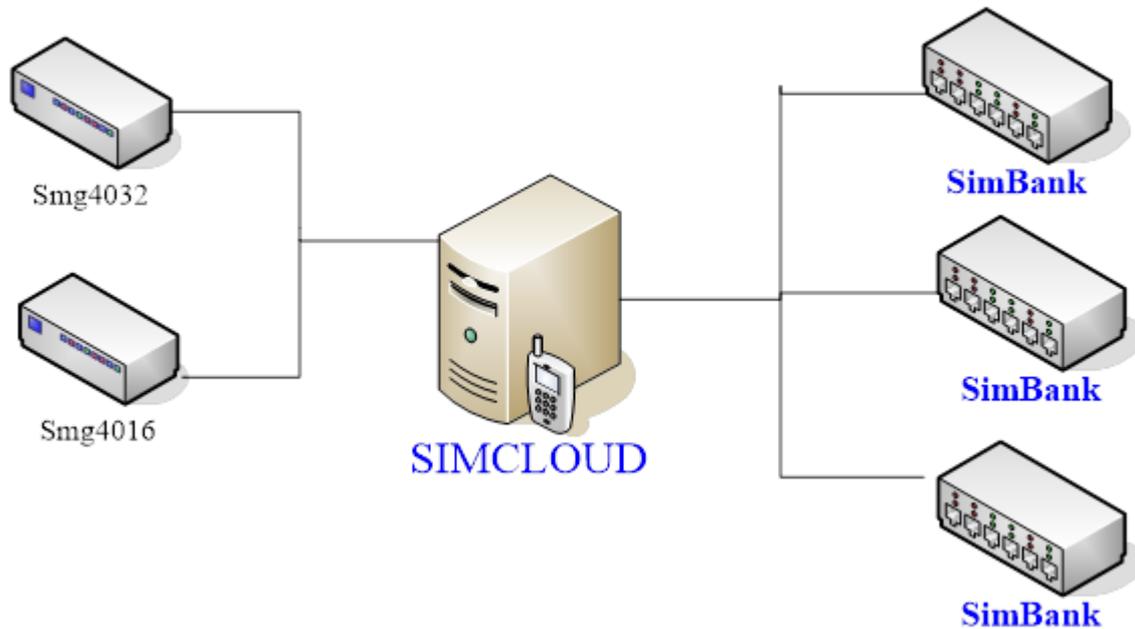


Figure 1-1 SIMCLOUD Typical Application

1.2 Feature List

Basic Features	Description
Configuration	Supports grouping of SIM cards.
	Supports SIM card switchover based on time, call, SMS and fixed time.
	Support of enabling or disabling a SIM card, specializing a card group, setting call limit and clearing SIM cards, etc.
	Support of specializing card groups for a device or a port.
	Supports a port to lock a SIMBANK port or a SIM card.
Device Maintenance	Supports remote control of devices, including creating and backing up configurations, restarting the device and restoring it to factory settings.
	Supports the check of system information, running information, network card and port information, etc.
	Support of jumping to the WEB interface of a device.
	Support of remote upgrading.

System Log	Records such information as a device's ports go abnormal, the system is abnormally restarted, etc.
User Management	Supports multi-user management.
System Warning	Support of warning sending, warning policy, etc.
Node Administration	Support of node management, facilitating device grouping.
System Setting	Supports setting refresh period, max amount of simultaneous device upgrading, etc.
	Support of platform upgrading.
Security	Description
Admin Authentication	Supports admin authentication to guarantee the resource and data security.
Maintain & Upgrade	Description
WEB Configuration	Support of configurations through the WEB user interface.
Language	Chinese, English.
Software Upgrade	Support of user interface, service program, monitor program and database upgrades based on WEB.

Chapter 2 Quick Guide

This chapter is intended to help you grasp the basic operations of the SIMCLOUD system in the shortest time.

Step 1: Prepare a PC in Linux operating system to work as SIMCLOUD. Currently only the 64 bit Centos7.2 system is supported.

Step 2: Install the SIMCLOUD installation package on the server.

Step 3: Log on to the SIMCLOUD.

Enter the IP address of SIMCLOUD in the browser to go to the system. Refer to [3.1 System Login](#). You should register before your first login. Remember the verification code upon your registration, as it will be the key for connection of the device to the SIMCLOUD system.

Step 4: Connect SIMBANK to SIMCLOUD.

Log onto the WEB interface of SIMBANK, find System Tools on the left column, click to enter the SIM Mode Configuration interface, select SimBank for the option SIM Mode, enable the Centralized Manage feature and fill in the IP Address, company name, description and verification code of SIMCLOUD. Restart the system following the prompt on the webpage.

Step 5: Connect the wireless gateway to SIMCLOUD.

Log onto the WEB interface of the wireless gateway, find System Tools on the left column, click to enter the Centralized Manage interface, enable the Centralized Manage feature and fill in the IP Address, company name, description and verification code of SIMCLOUD. Then go to the wireless settings and enter the SIM Mode Configuration interface, select SimBank Mode for the option SIM Card Mode. Restart the system following the prompt on the webpage.

Step 6: Configure SIMCLOUD.

Log into the SIMCLOUD system on the web page and click the item Configuration on the top menu of the interface. Now a default group named group-default already exists. All devices as long as connected will display in the device list. However, group-default will always be the specified one. If there is an available SIM card on SIMBANK, it will be grouped into group-default and subsequently be allocated to the wireless gateway upon the SIM card is ready.

Chapter 3 WEB Configuration

3.1 System Login

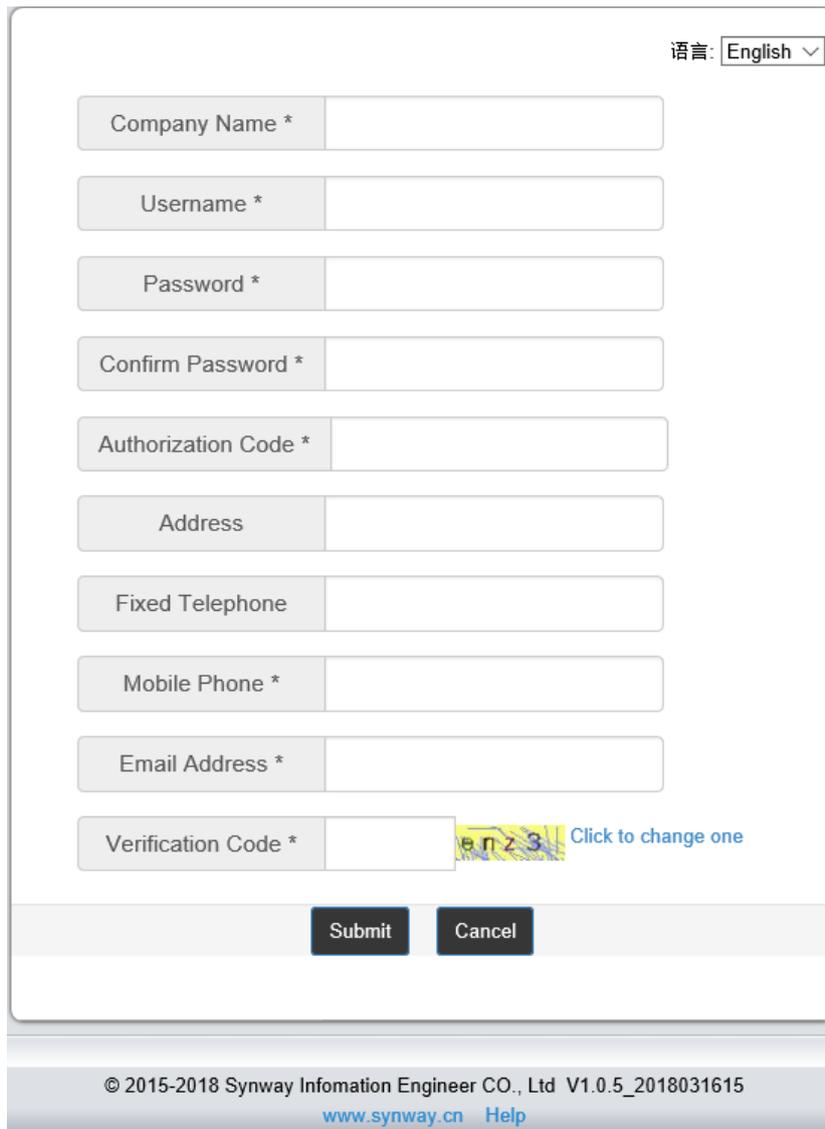
Type the IP address into the browser and enter the login interface. See Figure 3-1.



The screenshot shows the login interface for the Device Cloud Management System. At the top, there is a header with the text "Device Cloud Management System" and a decorative blue bar. Below the header, there are language options: "中文 | English". The main login area contains four input fields: "Company Name", "UserName", "Password", and "Verification Code". The "Verification Code" field is filled with the code "3p g d" and has a "Click to change one" link next to it. A "Login" button is located at the bottom right of the login area. Below the login area, there are links for "Register" and "Forget Password".

Figure 3-1 Login Interface

Register before your first login and remember your username, password and verification code. The verification code will be your key to connect your device and the platform. See Figure 3-2.



The image shows a registration form with the following fields: Company Name *, Username *, Password *, Confirm Password *, Authorization Code *, Address, Fixed Telephone, Mobile Phone *, Email Address *, and Verification Code *. The Verification Code field contains the code 'e n z 3' and a link 'Click to change one'. At the bottom of the form are 'Submit' and 'Cancel' buttons. The footer contains the text: © 2015-2018 Synway Infomation Engineer CO., Ltd V1.0.5_2018031615, www.synway.cn, and [Help](#).

Figure 3-2 Register Interface

After login, you can see the main interface as below.

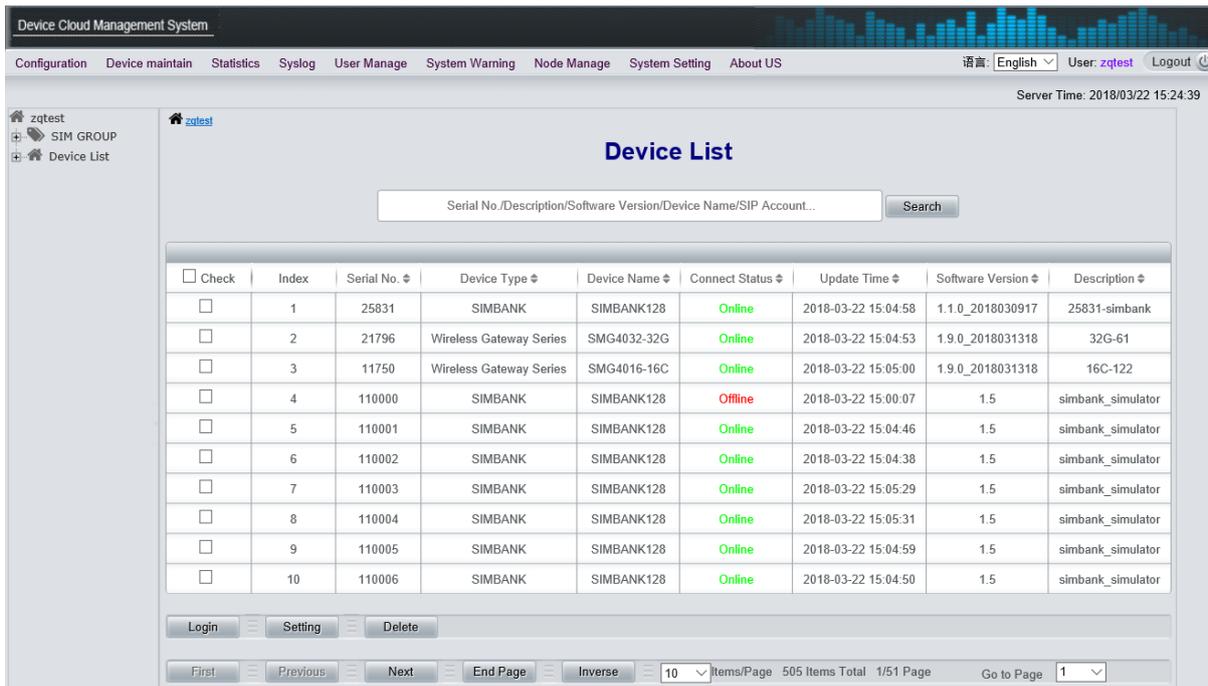


Figure 3-3 Main Interface after Login

3.2 Configuration

It is mainly for allocating the SIM cards to the wireless gateway and SIMBANK, divided into two parts: SIM Group and Device List, involving the information of the SIM card groups, the information of a single SIM card, as well as the port list. See Figure 3-4.



Figure 3-4 Configuration List

3.2.1 SIM Group

A SIM group is just like a container which stores SIM cards. The cards on a SIMBANK can be allocated to different groups to serve the wireless gateway. SIM groups can be added, modified and deleted, except group-default which cannot be deleted. Double click any group to see its detailed information. The SIM List involved include such information as IMSI, administration status, run status, operator, mobile phone, balance, call times, bounded gateway and SIMBANK ports, etc. Double click any card to see its detailed information. The Group Info involved can be used to set the administration status and the group of SIM cards, clear the SIM card flags and statistical results.

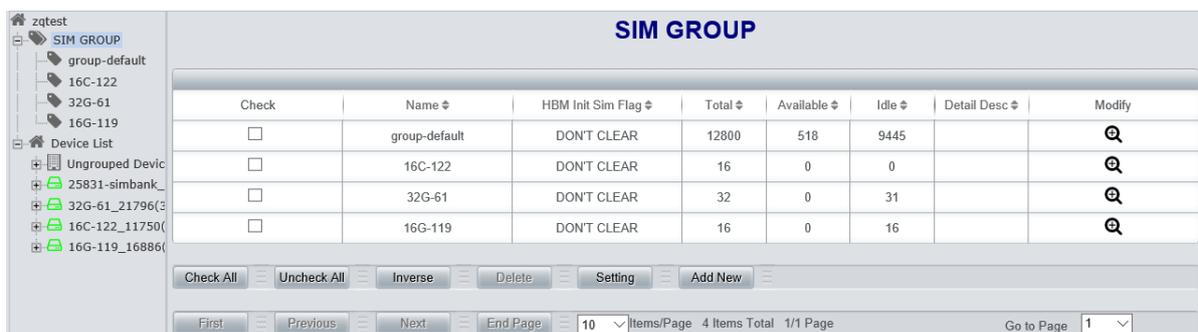


Figure 3-5 SIM Group Information

See Figure 3-5 for the SIM Group Information interface which displays the status information of all SIM card groups on the SIMCLOUD system.

Item	Description
Name	The name of the SIM card group.
HBM Init SIM Flag	Whether to clear the previous SIM card records and statistical information when the SIM card enters the group at the second time.
Total	The total number of all SIM cards in the group.
Available	The number of the SIM cards which are available to allocate in the group.
Idle	The number of the SIM cards which have been allocated to the wireless gateway in the group.
Detail Desc	Detailed description of the SIM card group.

Click **Add New** to add a new group. See Figure 3-6. Click **Setting** to set an existing group. See Figure 3-7. After configuration, click **Save** to save the new group or settings into SIMCLOUD; click **Reset** to restore the configurations.

Figure 3-6 Add SIM Group

Figure 3-7 Set SIM Group

Click **Modify** in Figure 3-5 or double click a piece of information or click the name of a group in the left tree structure to go into the modification interface. See Figure 3-8, Figure 3-9.

Group Info
SIM List

Basic Info

Name group-default

Description

Detail Info

Init New SIM Card Mode

SIM Module Type

Unusable SIM Keep Time (Minutes)
note: The value range is -1~65535, -1 means don't delete, 0 means delete immediately

Total SIM 12801

Available SIM 1258

Idle SIM 8448

SIM Card Select Order

SIM Card Select Order

SIM Card Switchover Condition

Based on Time (Minutes)

Based on Call (Times)

Based on SMS (Pieces)

Fixed Time Hour Minute

Call Limit

Apply to all SIM

Unit

Single Call Limit

Day Call Limit

All Call Limit

Figure 3-8 SIM Group Detailed Information

Check	simCard #	IMEI #	Group Start Time #	Admin Status #	Run Status #	Operator #	Sim Type	Mobile #	Last Balance #	Last Balance Time #	Current Balance #	Call Time #	Day Call Time #	Call Count #	Deactive Reason #	Lock Gateway(Port) #	Simbank(Port) #	Links	
<input type="checkbox"/>	12856	100110035200003	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003500	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12856	100110035200013	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003501	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12857	100110035200023	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003502	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12858	100110035200033	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003503	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12859	100110035200043	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003504	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12860	100110035200053	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003505	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12861	100110035200063	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003506	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12862	100110035200073	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003507	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12863	100110035200083	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003508	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt
<input type="checkbox"/>	12864	100110035200093	2018-03-19 18:40:15	ENABLE	Sim unavailable	-	-	10011003509	0.0		0.0	0	0	0	0	DEV_OFFLINE	-	-	SIMBank.Ppt Gateway.Ppt

1/21 Page
10
Items/Page
12801 Items Total
1/1281 Page
Go to Page

Figure 3-9 SIM Card List

Item	Description
Init New SIM Card Mode	The mode in which a SIM card enters the group. There are three options available: DON'T CLEAR, CLEAR STATUS AND STATS, HOLD LAST STATUS
SIM Module Type	Just displays the module configured by the group, having no relation to the actual

	module of the SIM cards in the group.
Unusable SIM Keep Time	-1 means not to delete; 0 means to delete immediately; a digit larger than 0 means to delete in the minutes which equals the digit in number. The default setting is -1. Once the value is set larger than 0, all the records and statistical information of a SIM card will be cleared after it is deleted.
SIM Card Select Order	There are six options available: Ascending, Descending, Min Call Time, Max Call Time, Min Call Count, Max Call Count. Among that, Ascending and Descending submit to the order in which the SIM cards enter the group.
SIM Card Switchover Condition	There are four conditions available: Based on Time, Based on Call, Based on SMS and Fixed Time.
Call Limit	There are three settings available: Single Call Limit, Day Call Limit, All Call Limit.

Click **Add** in Figure 3-9 to add a new SIM card. See Figure 3-10. Click **Setting** to set an existing SIM card. See Figure 3-11. After configuration, click **Save** to save the new card or settings into SIMCLOUD; click **Reset** to restore the configurations.

Figure 3-10 Add SIM Card

Figure 3-11 Set SIM Card

Double click a piece of information in the SIM card list (Figure 3-9), the following interface will

appear.

100110035200003

Basic Info

IMSI	100110035200003
SIM Alias	
Admin Status	ENABLE <input type="button" value="v"/> Run:Sim connect
Group	group-default <input type="button" value="v"/>
Description	<input style="width: 100%;" type="text"/>

Detail Info

Bind SIMBank Port	<input type="button" value=">>To SIMBank Port"/>
Operator	
SMSC	
ICCID	1100110035220033
Mobile	<input style="width: 100%;" type="text" value="10011003500"/>
Deactive Reason	DEV_OFFLINE
Last Deactive Reason	DEV_OFFLINE
Group Start Time	2018-03-16 16:40:15
Last Bind Time	2018-03-26 15:34:10
Last Used Time	00:04:30

Call Limit

Unit	<input type="button" value="v"/> 60s
<input type="checkbox"/> Single Call Limit	<input style="width: 100%;" type="text" value="0"/>
<input type="checkbox"/> Day Call Limit	<input style="width: 100%;" type="text" value="0"/>
<input type="checkbox"/> All Call Limit	<input style="width: 100%;" type="text" value="0"/>

Balance Info

Last Balance	0.0
Last Balance Time	
Current Balance	0.0
Call-Time	0

Figure 3-12 SIM Card Detailed Information

The table below explains the items shown in the above interface.

Item	Description
IMSI	IMSI of the SIM card which is unique.
SIM Alias	Alias of the SIM card.
Admin Status	Enable or disable. If it is disabled, the wireless gateway is prohibited to use the SIM card.
Run Status	The running status of the SIM card, which has four conditions: SIM connect, SIM lock, SIM wait, SIM unavailable.

Group	The group where the SIM card lies in.
Description	The detailed information of the SIM card.
Bind SIMBank Port	The SIMBANK port which the SIM card belongs to. Click it to see the detailed information of the port.
Operator	The operator information of the SIM card. Usually, it only appears after the SIM card is allocated to the gateway and registered to the base station.
SMSC	The SMS center number of the SIM card.
ICCID	The ICCID information of the SIM card.
Mobile	The mobile number of the SIM card.
Deactive Reason	The cause of the SIM card's disconnection, including DEV_OFFLINE, SIM_PULLOUT, DISABLED, SIM_CUT.
Last Deactive Reason	The cause of the last SIM card's disconnection, including DEV_OFFLINE, SIM_PULLOUT, DISABLED, SIM_CUT.
Group Start Time	The time that the SIM card enters the group.
Last Bind Time	The last time that the SIM card is allocated to the gateway.
Last Used Time	The last time that the SIM card is used by the gateway.
Last Balance	The balance of the SIM card queried last time, which appears only after the Balance Query feature is enabled by the wireless gateway.
Last Balance Time	The last time to query the balance.
Current Balance	The current balance of the SIM card, which appears only after the Balance Query feature is enabled by the wireless gateway.
Call Time	The total call time of the SIM card.
Unit	The unit for the call time limit.
Single Call Limit	Limit on the time of a single call.
Day Call Limit	Limit on the time of calls in a day.
All Call Limit	Limit on the total time of calls.

3.2.2 Device List

Figure 3-13 Device List

See Figure 3-13 for the Device List interface which displays related information of all the devices on the SIMCLOUD system. The table below explains the items shown in this interface.

Item	Description
Serial No.	Unique serial number of a device.
Device Type	Type of a device, SIMBANK or Wireless Gateway Series.
Device Name	Name of a device.
Connect Status	There two states: Online and Offline.
Update Time	The time of the last update of device information.
Software Version	The software version of a device.
Description	The description of a device.

Click **Setting** to set the administration status and specialized group for all current devices. See Figure 3-14. After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations.

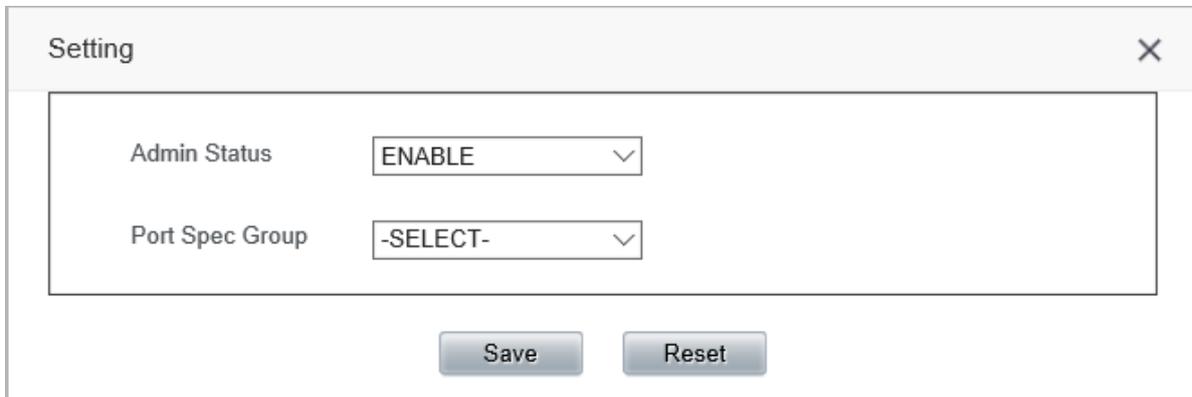


Figure 3-14 Setting Interface

Click **Login** and you can visit the WEB interface of your device. Enter your username and password to log in. See Figure 3-15.

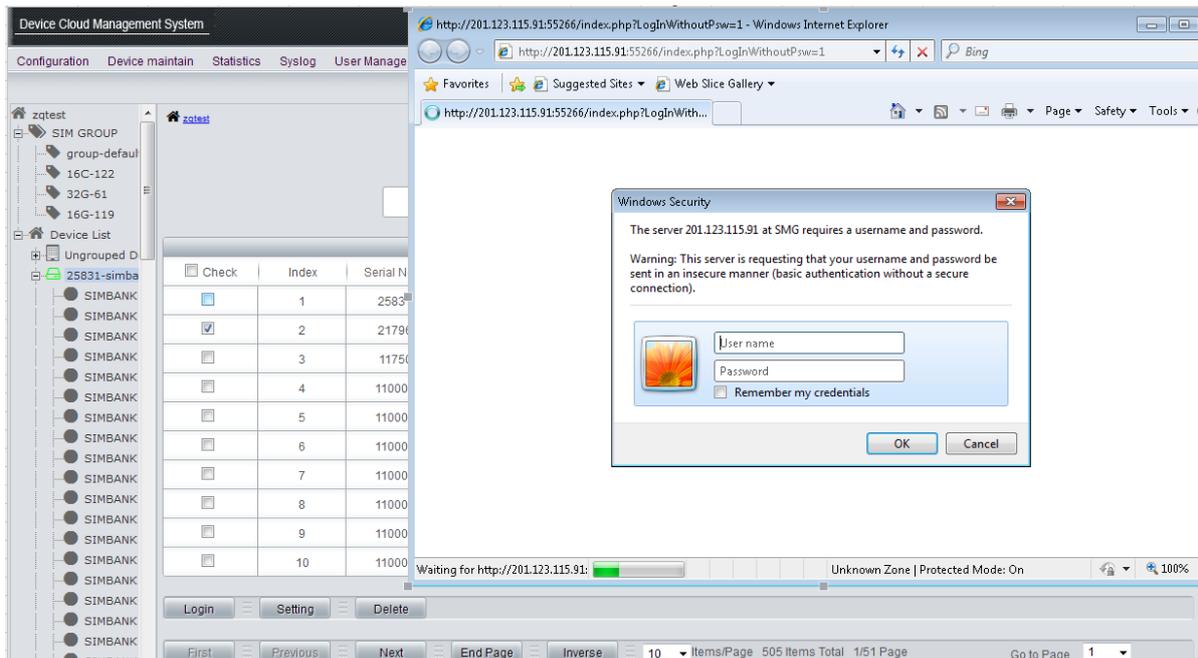


Figure 3-15 Device Login Interface

Double click any piece of information in the list or click a device name in the left tree structure to go into the Device Information interface where you can modify the device's administration status, specified group, description and so on. See Figure 3-16.



Figure 3-16 Device Information

Click **Port List** and you can see all the port information of the current device. See Figure 3-17 for wireless gateway information and see Figure 3-18 for SIMBANK information.

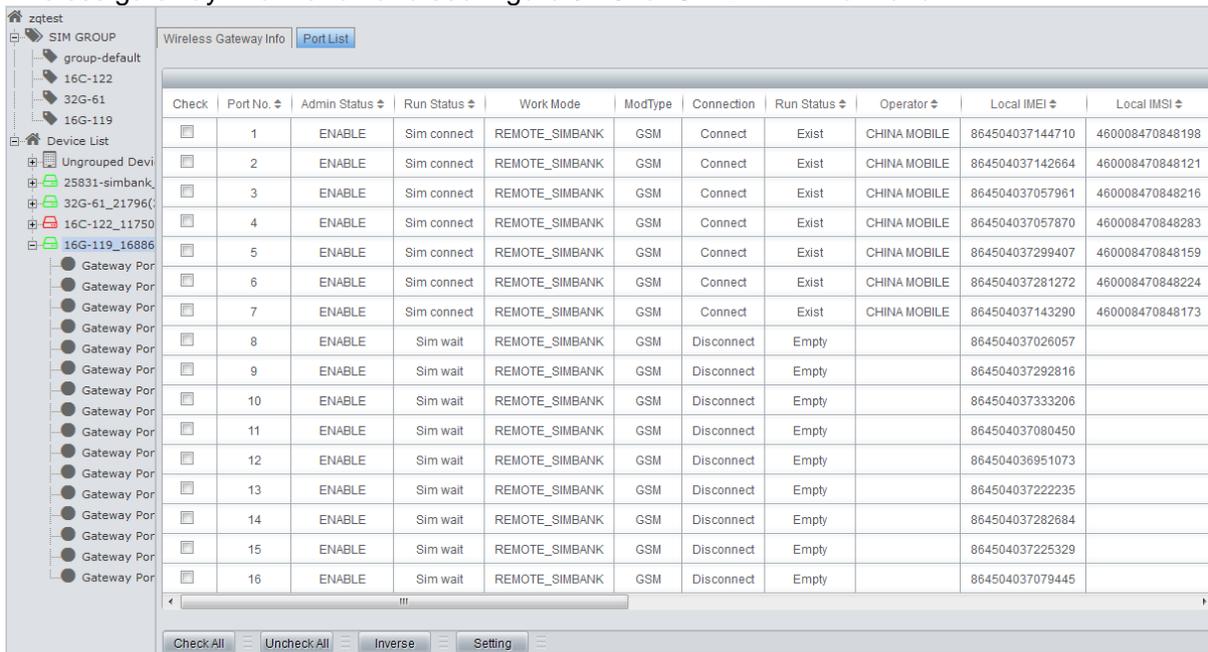


Figure 3-17 Wireless Gateway Information

Check	Port No.	Admin Status	Run Status	Run Status	Operator	Sim Imsi	Mobile	Sim Type	Last Bind Time	Last
<input type="checkbox"/>	1	ENABLE	Sim connect	Exist		460008470848143		GSM	2018-03-27 15:18:55	01:2
<input type="checkbox"/>	2	ENABLE	Sim connect	Exist		460008470848201	13588247543	GSM	2018-03-27 15:18:55	01:2
<input type="checkbox"/>	3	ENABLE	Sim connect	Exist		460008470848183	13588243204	GSM	2018-03-27 15:18:55	01:2
<input type="checkbox"/>	4	ENABLE	Sim connect	Exist		460008470848211	13588245209111	GSM	2018-03-27 15:18:55	01:2
<input type="checkbox"/>	5	ENABLE	Sim connect	Exist	CHINA MOBILE	460008470848157	13588228840	GSM	2018-03-27 13:53:23	
<input type="checkbox"/>	6	ENABLE	Sim connect	Exist		460008470848197		GSM	2018-03-27 15:24:26	00:2
<input type="checkbox"/>	7	ENABLE	Sim connect	Exist		460008470848188	13588243536	GSM	2018-03-27 15:35:46	00:3
<input type="checkbox"/>	122	ENABLE	Sim unavailable	Empty				-		
<input type="checkbox"/>	123	ENABLE	Sim unavailable	Empty				-		
<input type="checkbox"/>	124	ENABLE	Sim unavailable	Empty				-		
<input type="checkbox"/>	125	ENABLE	Sim unavailable	Empty				-		
<input type="checkbox"/>	126	ENABLE	Sim unavailable	Empty				-		
<input type="checkbox"/>	127	ENABLE	Sim unavailable	Empty				-		
<input type="checkbox"/>	128	ENABLE	Sim unavailable	Empty				-		

Figure 3-18 SimBank Information

The table below explains the items shown in the above interfaces.

Item	Description
Port No.	Port number of a device.
Admin Status	Administration status of a port, including ENABLE and DISABLE.
Run Status	Running status of a SIM card, which has four conditions: SIM connect, SIM lock, SIM wait, SIM unavailable.
Work Mode	Work mode of a device, including LOCAL_SIM and SIMBANK.
ModType	Network mode of a SIM card, including GSM, CDMA, etc. Only wireless gateway ports support this item.
Connection	Connection status of a port base station, including Connect, Disconnect, etc. Only wireless gateway ports support this item.
Work Status	Work status of a port, including Exist and Empty.
Operator	Operator of a SIM card.
Local IMEI	IMEI of a port module. Only wireless gateway ports support this item.
Local IMSI	IMSI of a port SIM card. Only wireless gateway ports support this item.
Mobile	Mobile number of a SIM card.
Last Bind Time	The last time to bind the port and the remote SIM card.
Last Use	The time length of the last use of the remote SIM card.
Port Spec Group	The group specified by a port.
Lock SIMBANK (Port)	The SimBank port locked by this port. Only wireless gateway ports support this item.
Lock Card Group (SIM Card)	The SIM card in a group locked by this port. Only wireless gateway ports support this item.
Bind SIMBANK (Port)	The SimBank port bound with this port. Only wireless gateway ports support this item.
Links	Skip to a SimBank (gateway) port or a SIM card bound with this port.
Sim Imsi	IMSI number of a SIM card. Only SimBank ports support this item.

Sim Type	Type of a SIM card. Only SimBank ports support this item.
Lock Gateway (Port)	The gateway port locked by this port. Only SimBank ports support this item.
Bind Gateway (Port)	The gateway port bound with this port. Only SimBank ports support this item.

Click **Setting** to set the administration status, specialized group and advanced setting for all current ports. See Figure 3-19. After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations.

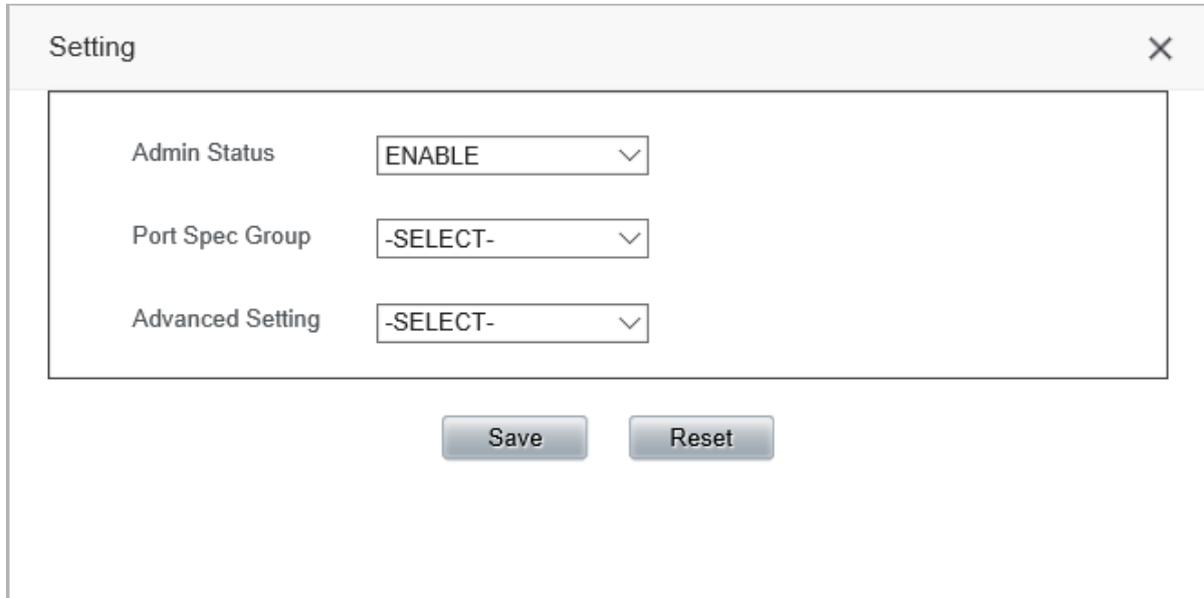


Figure 3-19 Port Setting Interface

Double click any piece of information in the list or click a port in the left tree structure to go into the Port Setting interface where you can modify the port’s administration status, specified group, description and so on. See Figure 3-20 for the Gateway Port Setting interface. See Figure 3-21 for the SimBank Port Setting interface.



Figure 3-20 Gateway Port Setting Interface



Figure 3-21 SimBank Port Setting Interface

3.3 Device Maintenance

Control management helps realize the remote maintenance of terminals. Through the SIMCLOUD platform, you can remotely check whether a terminal is online or offline, configure a terminal's parameters, restart a device and reset to factory settings, etc. Device maintenance includes four parts: Control Management, Device Information, Upgrade Strategy, Software Storage. See Figure 3-22.



Figure 3-22 Device Maintain Menu

3.3.1 Control Management

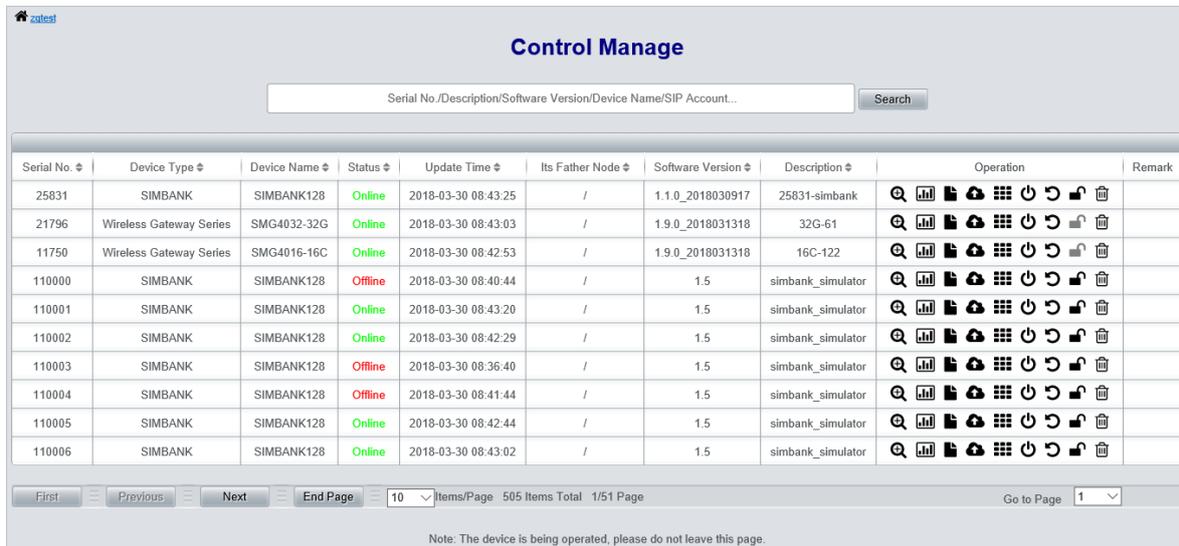


Figure 3-23 Control Manage Interface

See Figure 3-23 for the Control Manage interface which displays all devices on the SIMCLOUD system. The table below explains the items shown in the above interface.

Item	Description
Status	Device status, online or offline.

Its Father Node	The node where the device lies in.
Software Version	Software version of the device.
Description	Description on the device.
Operation	<p> : Detailed information.</p> <p> : Call count.</p> <p> : Create a new configuration. Click it to enter the device configuration interface. You can modify or create a configuration and save it to SIMCLOUD.</p> <p> : Back up a configuration. Click it to directly back up your terminal's configuration to SIMCLOUD.</p> <p> : Configuration storehouse which is used to store newly created and backed up configurations and perform a corresponding management.</p> <p> : Restore. Click it to restore your terminal's configurations to those saved by SIMCLOUD.</p> <p> : Device restart. Compulsively restart the terminal by remote control.</p> <p> : Restore the terminal to factory settings by remote control. However, those configurations related to IP and SNMP will be remained.</p> <p> : Go into the gateway locking interface to lock the terminal by remote control. Also, this icon represents the current device is in the state of unlock.</p> <p> : Go into the gateway locking interface to unlock the terminal by remote control. Also, this icon represents the current device is in the state of lock.</p>

Note: Do not leave this page as the device is being operated.

3.3.2 Device Information

See Figure 3-24 for the Device Information interface which includes: basic information, LAN information, port information, SIP trunk/SIP server information, warning information, etc. Basic Information contains: Device Name, Serial No, Software Version, Running Status, Channel States, CPU Usage, Memory Size, etc. LAN Information contains: MAC Address, IP Address, DNS, etc. Port Information mainly displays the type and working status of the current port. SIP Trunk/SIP Server shows the corresponding address and port information. Warning Information lists all the warnings on the device, including warning level, start time, content and port information.



Figure 3-24 Device Info Interface

3.3.3 Upgrade Strategy

The feature is designed for remote maintenance of terminals by SIMCLOUD. It allows you to remotely select a terminal for software upgrading, as well as select a device or all the gateway devices under a node for software upgrading.



Figure 3-25 Upgrade Strategy Interface

See Figure 3-25 for the Upgrade Strategy interface. Select the gateway type, the device you require and the corresponding software package which should be already uploaded to the software storage. After configuration, click **OK** to save the new strategy into SIMCLOUD; click **Reset** to restore the configurations.

3.3.4 Software Storage



Figure 3-26 Software Storage Interface

Figure 3-27 Upload Interface

See Figure 3-26 for the Software Storage interface. Click **Upload** to go into the Package Uploading interface. See Figure 3-27. The table below explains the items shown in the above interface.

Item	Description
Software Version	The version of the package to be uploaded.
Adaptive Device Type	The device type which the package corresponds to.
Description	The description of the package.
Update File	Select a package to upload.

After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations.

3.4 Statistics

The statistical report shows the count of total call times and length. See Figure 3-28 and Figure 3-29. You can check the statistical value about all the devices in SIMCLOUD, or devices under a node, or a single device. Click **Export** at the left bottom corner, and you can export the statistical report to an Excel file.

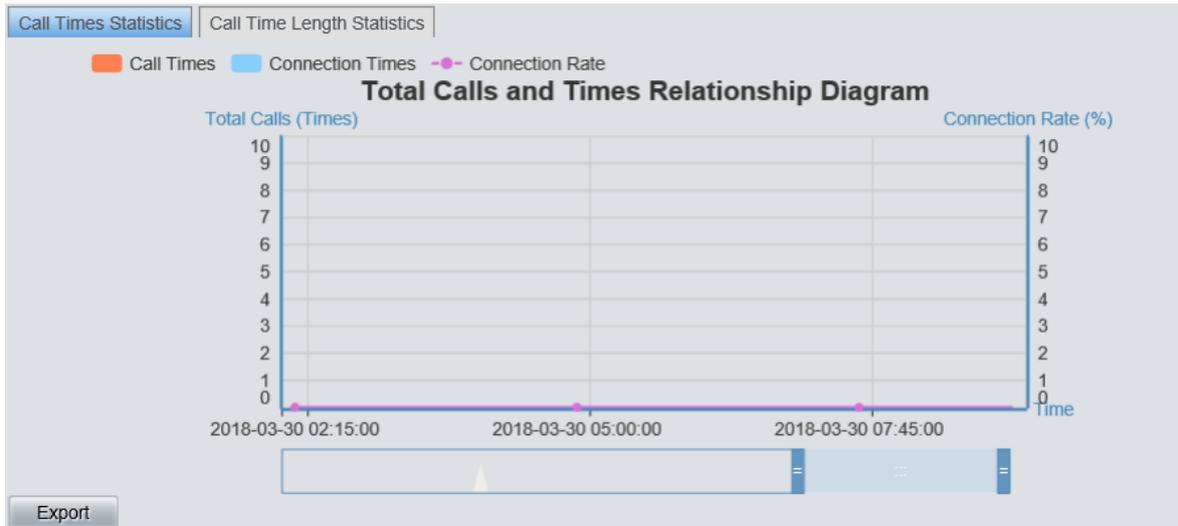


Figure 3-28 Call Times Statistics Interface

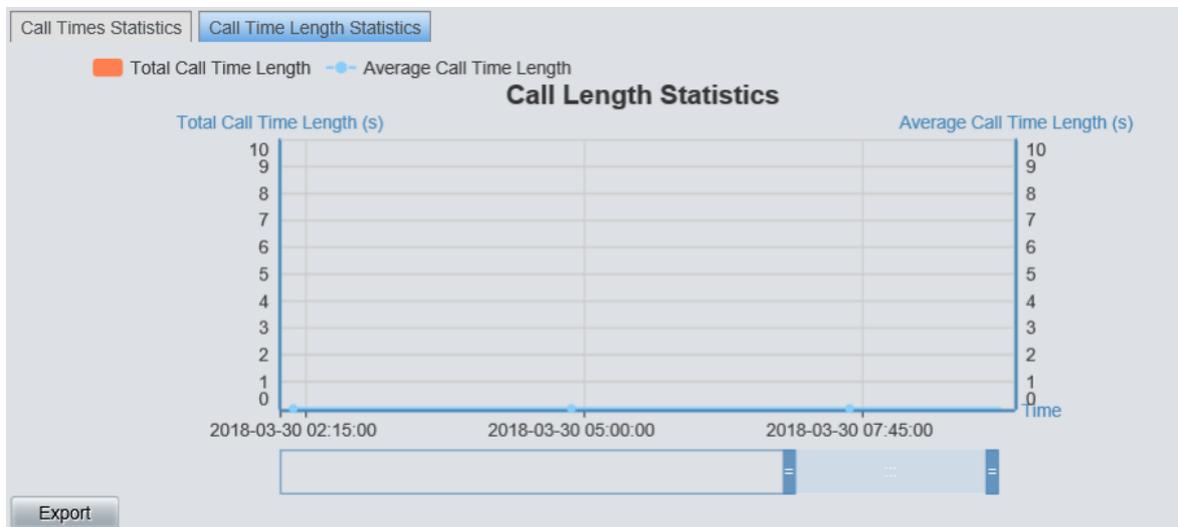


Figure 3-29 Call Length Statistics Interface

3.5 System Log

This feature is mainly used to record the page operating logs of terminals and the warning logs of system.

At present Syslog supports a search based on time, log level, log type, serial number, log content, etc. Searches based on serial number and keywords support fuzzing matching and export. See Figure 3-30.

Syslog											
Time	-	Log Level	all	Log Type	all	Serial No.		Keywords		Search	Export
Time	Operating User	Device Serial No.	Log Level	Log Type	Log Content						
2018-03-30 09:35:47		110051	Warning	Alarm	Network Disconnected,change to normal						
2018-03-30 09:35:00		16886	Fatal	Alarm	System Reboot Abnormal						
2018-03-30 09:33:50		110035	Warning	Alarm	Network Disconnected						
2018-03-30 09:33:22		310082	Warning	Alarm	Network Disconnected,change to normal						
2018-03-30 09:33:09		110044	Warning	Alarm	Network Disconnected,change to normal						
2018-03-30 09:33:00		310073	Warning	Alarm	Network Disconnected,change to normal						
2018-03-30 09:30:12		310262	Warning	Alarm	Network Disconnected,change to normal						
2018-03-30 09:29:01		110054	Warning	Alarm	Network Disconnected,change to normal						
2018-03-30 09:28:57		310266	Warning	Alarm	Network Disconnected,change to normal						
2018-03-30 09:28:18		310260	Warning	Alarm	Network Disconnected,change to normal						

Figure 3-30 System Log Interface

3.6 User Management

User Management includes three parts: User Manage, Personal Setting and Modify Password. See Figure 3-31.



Figure 3-31 User Manage Menu

3.6.1 User Manage

This feature is mainly used to add, delete or modify user information. You are allowed to set the access and administration authorities.

Access Authorities include: Configuration, Device Maintenance, Statistic, System Log, User Management, System Warning, Node Management, etc. Different users can be set with different access authorities. Only a user with the corresponding authorities can check a certain page.

Administration Authority means the right of a user to manage nodes. If a user has the right to manage a node, it can manage all the devices under the node (including all the devices under its subnode).



Figure 3-32 User Manage

Username (*)

Password (*)

Confirm Password (*)

Fixed Telephone

Mobile Phone (*)

Email Address (*)

Access Authority (*)

Description

Configuration

Statistics

User Manage

Node Manage

Device maintain

Syslog

System Warning

Check All

Save Return Reset

Figure 3-33 Add New User

See Figure 3-32 for the User Management interface. Click **Add New** to go into the interface shown as Figure 3-33. After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations.

3.6.2 Personal Setting

Username

Fixed Telephone

Mobile Phone (*)

Email Address (*)

Language of Send Warning

Authorization Code (*)

zqtest

123

123@163.com

Chinese

zqtest

Save Reset

Figure 3-34 Personal Setting Interface

See Figure 3-34 for the Personal Setting interface which is used to set the information of the current user. The item Username is unmodifiable; the item Language of Send Warning only supports the sending mode of email. After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations.

3.6.3 Password Modification



The screenshot shows a web interface titled "Modify Password". It contains three text input fields labeled "Old Password", "New Password", and "Confirm Password". Below the input fields are two buttons: "Save" and "Reset".

Figure 3-35 Modify Password Interface

See Figure 3-35 for the Password Modification interface. Only the password of the current user can be modified. Enter your current password and the new one. Then confirm your new password. Click **Save** to save the new password; click **Reset** to restore the configurations. After you modify your password, you are required to log in the system again.

3.7 System Warning

System Warning include three parts: Send Warning, Warning Policy and Policy Group. See Figure 3-36.



Figure 3-36 System Warning Menu

3.7.1 Warning Send



The screenshot shows a web interface titled "Send Warning". It contains a section titled "Way to Send Warning" with three checkboxes: "Email", "Wechat", and "SMS". Below the checkboxes are two buttons: "Save" and "Reset".

Figure 3-37 Send Warning Message

See Figure 3-37 for the Warning Send interface. There are three ways available for you to choose: Email, Wechat, SMS, which will respectively send warning information to the email box, the Wechat and SMS platforms of the user you designate.

To choose the way of SMS, you need purchase the SMS service first and set in the page of Warning Send Settings.

To choose the way of Wechat, you should scan our QR code and bind with our official account. Go into our official account, click Service->Warning Subscribe, and then operate following the prompts.

Note: The warnings are sent by the principle of nearby. That is, find the next higher level of the node the current device lies in. If this user has the administration authority, just send the warning information to it; if it doesn't has the administration authority, search for the upper level until you find a user that has the administration authority and then send the warning information to it. This feature can be used with user and node administrations, refining the administration of each node. If there is a low level user, the warning sent by a device under its node can be received only by this user (not by any other levels higher than it) so as to prevent repeated sending of a piece of warning information.

After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations.

3.7.2 Warning Policy

See Figure 3-38 for the Warning Policy interface which is used to set level, filter cycle, threshold and the like for all kinds of warning content. Click **Modify** to go into the Warning Policy Modification interface. The item of Content is unmodifiable. See Figure 3-39.

Warning Policy						
Content	Level	Save Logs	Send Message	Filter Cycle	Threshold	Modify
High Rate of Concurrent Call	Info	Yes	No	300	80	
Network Disconnected	Warning	Yes	No	300	---	
High Memory Occupancy	Critical	Yes	No	300	90	
Registration Failed	Warning	Yes	No	300	---	
System Reboot Abnormal	Fatal	Yes	No	---	---	
Port Abnormal	Critical	Yes	No	300	---	
SMGSvr Reboot Abnormal	Fatal	Yes	No	---	---	
Low Connection Rate	Info	Yes	No	300	0	
High CPU Temperature	Critical	Yes	No	300	50	
High CPU Utilization	Critical	Yes	No	300	80	

Figure 3-38 Warning Policy

Modify Warning Policy

Content	High Rate of Concurrent Call ▼
Level	Info ▼
Save Logs	<input checked="" type="checkbox"/>
Send Message	<input type="checkbox"/>
Filter Cycle (s)	<input style="width: 80%;" type="text" value="300"/>
Threshold (percentage)	<input style="width: 80%;" type="text" value="80"/>

Save
Reset
Cancel

Figure 3-39 Modify Warning Policy

The table below explains the items shown in the above interface.

Item	Description
Content	The content of the warning information, include Network Disconnected, System Reboot Abnormal, Port Abnormal, etc.
Level	The level of the warning information, include Fatal, Critical, Warning, etc.

Save Logs	Sets whether to record logs.
Send Message	Sets whether to send messages.
Filter Cycle	If a warning lasts for a time longer than the set value of Filter Cycle, it will be displayed and sent out.
Threshold	Sends a warning once the percentage of content exceeds the value of this item.

After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations; click **Cancel** to cancel your modification.

3.7.3 Policy Group



Figure 3-40 Policy Group List

See Figure 3-40 for the Policy Group interface which displays all policy groups in SIMCLOUD. Click **Modify** to enter the Policy Group Modification interface. See Figure 3-41. Click **Add New** to enter the Policy Group Adding interface. See Figure 3-42. **Check All** means to select all available items on the current page; **Uncheck All** means to cancel all selections on the current page; **Inverse** means to uncheck the selected items and check the unselected. To clear all policy groups at a time, click the **Clear All** button in Figure 3-40.



Figure 3-41 Modify Policy Group

Add New

Policy Group Name

SMGSvr Reboot Abnormal

Port Abnormal

Registration Failed

Network Disconnected

High CPU Utilization

High Memory Occupancy

Low Connection Rate

High Rate of Concurrent Call

System Reboot Abnormal

High CPU Temperature

Description

Figure 3-42 Add Policy Group

The table below explains the items shown in the above interface.

Item	Description
Policy Group Name	Name of the policy group.
SMGSvr Reboot Abnormal	A warning that a terminal's service goes abnormal.
Port Abnormal	A warning that the wireless gateway's port module goes abnormal or the SIM card is offline.
Registration Failed	A warning that a terminal fails to register to SIP.
Network Disconnected	A warning that the current terminal is disconnected from the network.
High CPU Utilization	A warning that the CPU usage of terminals exceeds the set value of SIMCLOUD.
High Memory Occupancy	A warning that the memory occupancy of terminals exceeds the set value of SIMCLOUD.
Low Connection Rate	A warning that the connection rate (the successful calls/total calls of the gateway) is less than the set value of SIMCLOUD.
High Rate of Concurrent Call	A warning that the call channels of the current terminal exceeds the set value of SIMCLOUD.
System Reboot Abnormal	A warning that a terminal restarts abnormally.
High CPU Temperature	A warning that the CPU temperature of a terminal exceeds the set value of SIMCLOUD.
Description	Description of a policy group.

After configuration, click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations; click **Cancel** to cancel your modification.

3.8 System Setting

System Setting includes two parts: System Setting and Software Platform Update. See Figure 3-43. System Setting is used to set refresh period, max amount of simultaneous device upgrading, etc. Software Platform Update is used to upgrade SIMCLOUD.

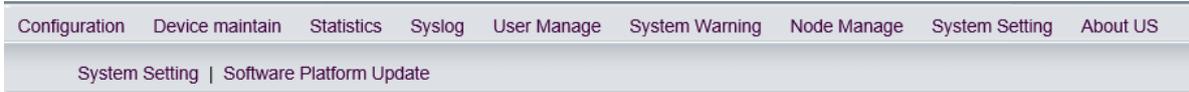


Figure 3-43 System Setting Menu

Note: Only the first company successfully registered to a SIMCLOUD platform has the authority of system setting.

3.8.1 System Setting

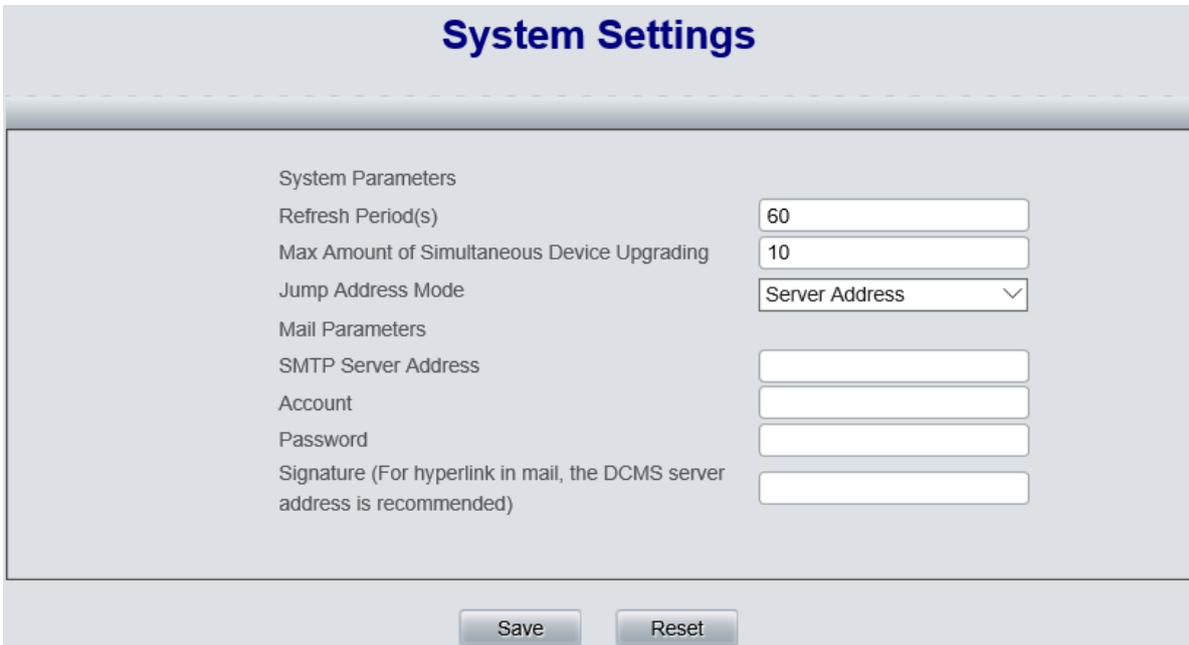


Figure 3-44 System Settings Interface

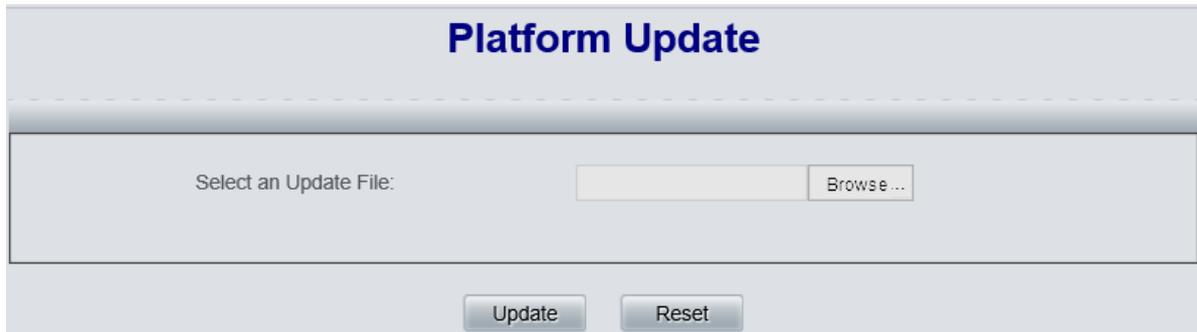
See Figure 3-44 for the System Settings interface which is used to set refresh period, max amount of simultaneous device upgrading, etc. You can modify the configurations directly on the interface. Click **Save** to save the new settings into SIMCLOUD; click **Reset** to restore the configurations.

The table below explains the items shown in the above interface.

Item	Description
Refresh Period	The cycle of refreshing device information, set to 60s by default.
Max Amount of Simultaneous Device Upgrading	Sets the maximum amount of devices upgrading at a time.
Jump Address Mode	Sets the IP address used for jumping, include Server Address, Browse Address, Static Address. This feature is used in intranet.
SMTP Server Address	Sets the SMTP server for a mail.
Account	Account of a mail.
Password	Password of a mail.

Signature	Used for hyperlink in a mail.
------------------	-------------------------------

3.8.2 Software Platform Update



The screenshot shows a web interface titled "Platform Update". It features a central area with the text "Select an Update File:" followed by a text input field and a "Browse..." button. Below this area are two buttons: "Update" and "Reset".

Figure 3-45 Platform Update Interface

See Figure 3-45 for the Platform Update interface which is used for upgrading the SIMCLOUD platform. Select an upgrade file “.tar.gz” via **Browse...** and click **Update** for upgrading. Clicking **Reset** can only delete the selected update file but not cancel the operation of **Update**.

Chapter 4 Troubleshooting

Q1. Which browsers does SIMCLOUD support?

At present, it only supports Google and Firefox. Using other browsers may cause disorder in page arrangement and composition.

Q2. How to deal with the problem of browser buffer?

After the SIMCLOUD system is upgraded, there may appear disorder in page arrangement and composition. That is because the upgrading file has adjusted some page information and what in the browser buffer is still the old one. To solve such problem, we suggest you clear your browser buffer and log in the system again.

Q3. Which gateways are supported?

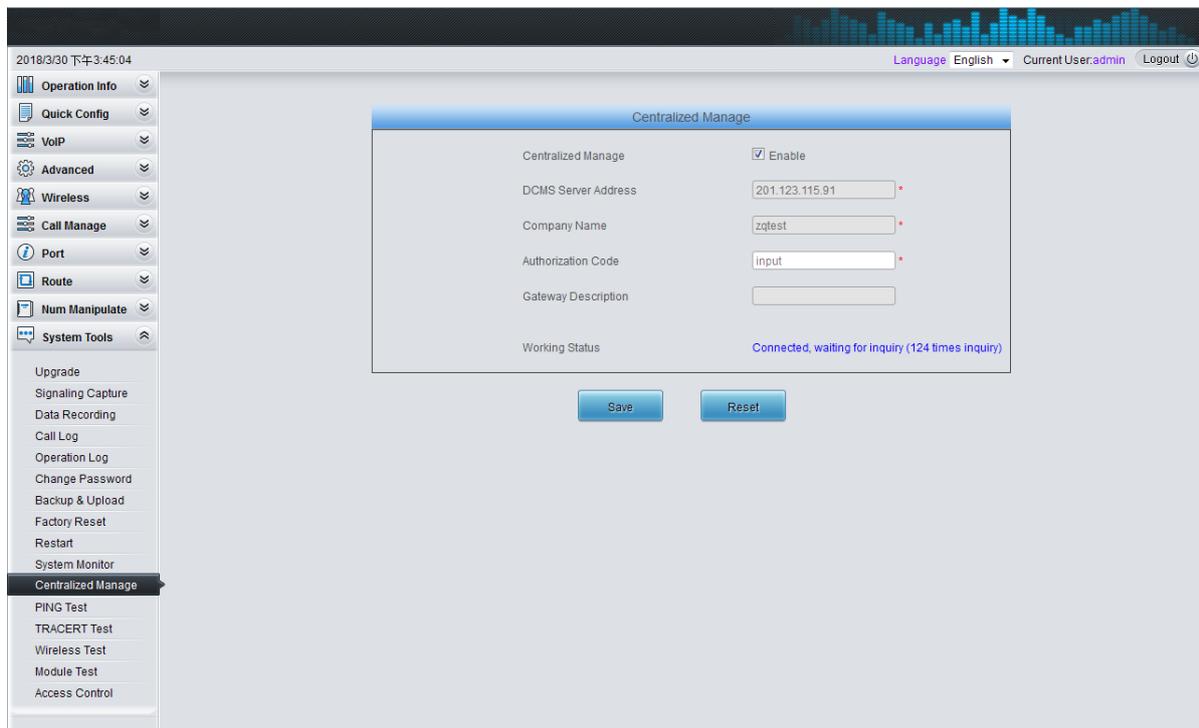
SIMCLOUD supports all gateways that can be connected to it. At present, only the Synway wireless gateway and SimBank products can be connected.

Q4. How to confirm a gateway can be connected to SIMCLOUD? And how to configure?

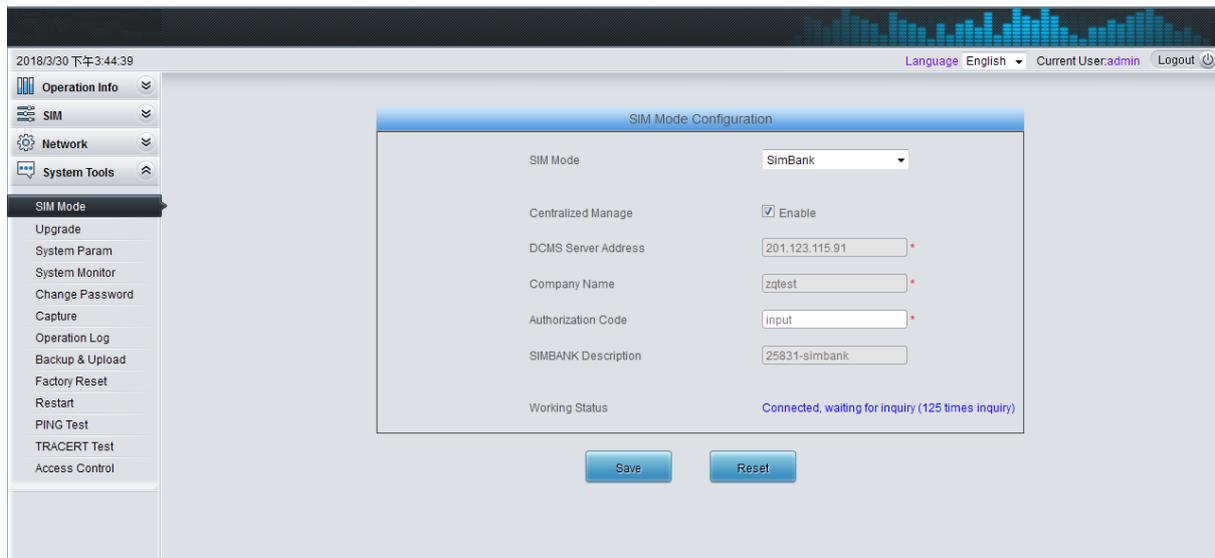
First of all, use an upgrade file that supports the connection of SIMCLOUD to upgrade your gateway. Then, do some necessary configurations.

To configure your gateway:

1. Go **System Tools** —>**Centralized Manage**, as shown in the figure below.



2. For SimBank, select **SimBank** as the SIM mode and then click to enable **Centralized Manage**. Fill in related information, as shown in the figure below.



Note: Company Name is just the one you register in SIMCLOUD; DCMS Server Address is the address of SIMCLOUD; Authorization Code is the one that you fill in upon your registration to SIMCLOUD.

Q5. How to acquire the software package that supports your connection to SIMCLOUD?

Please contact our technicians to get.

Q6. How soon will a gateway normally display after it is connected to SIMCLOUD?

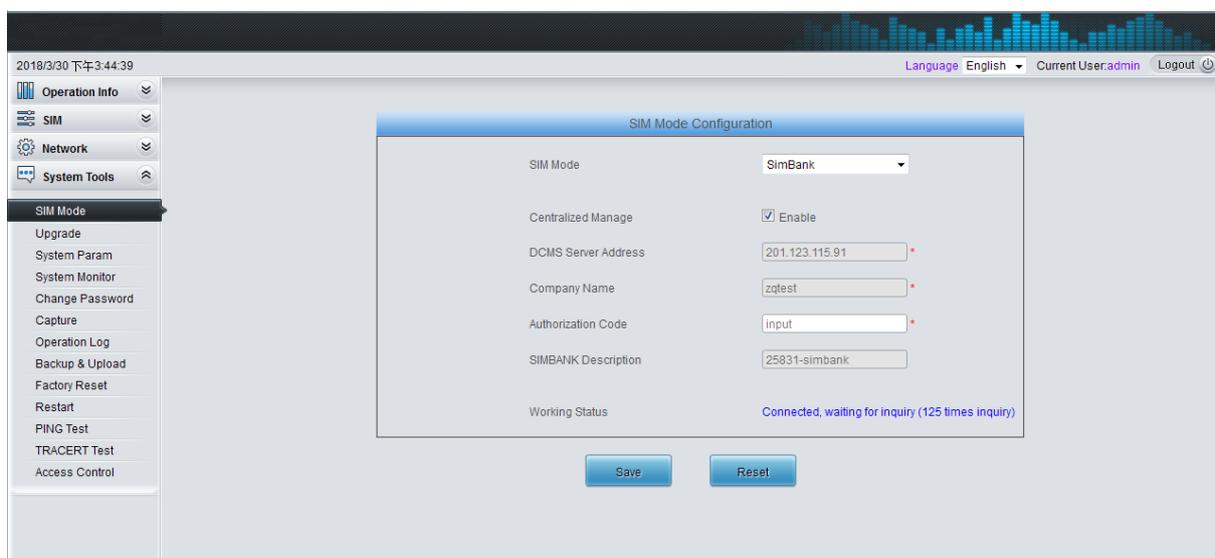
Wait about 5 minutes.

Q7. Why not receive the corresponding warning information in time in case that your gateway meets the warning conditions?

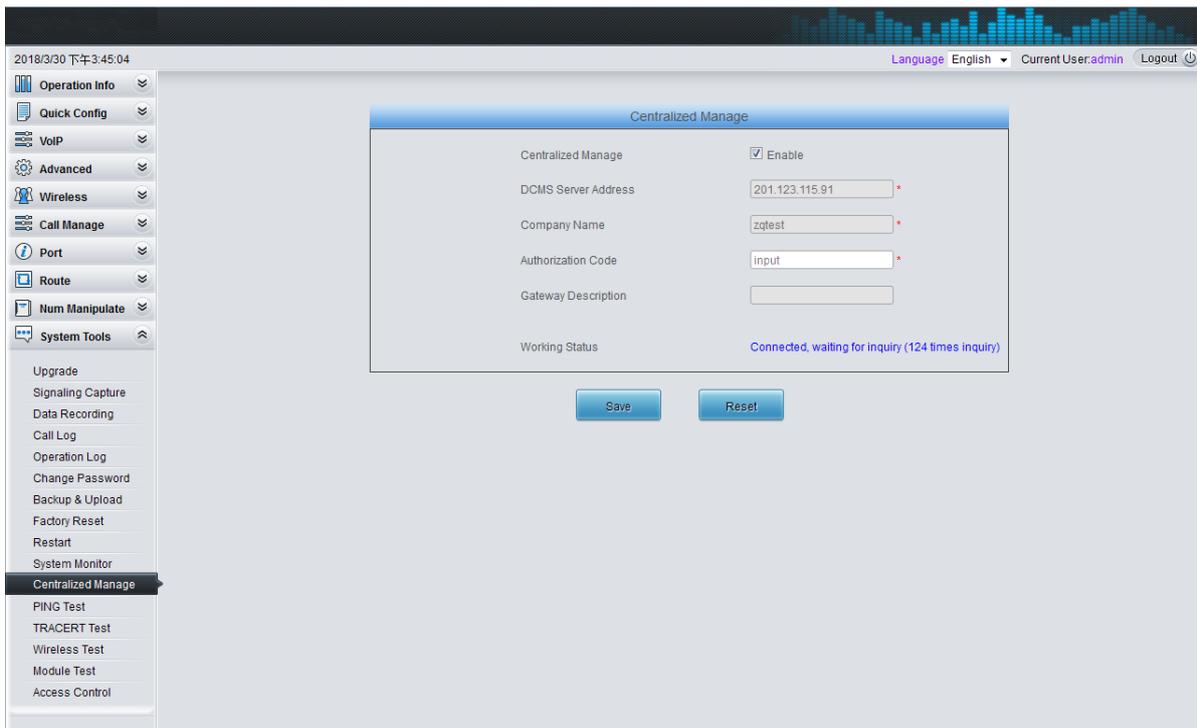
There is some delay in sending the warning information.

Q8. How to do a fast configuration of the connection between SIMBANK and the wireless gateway?

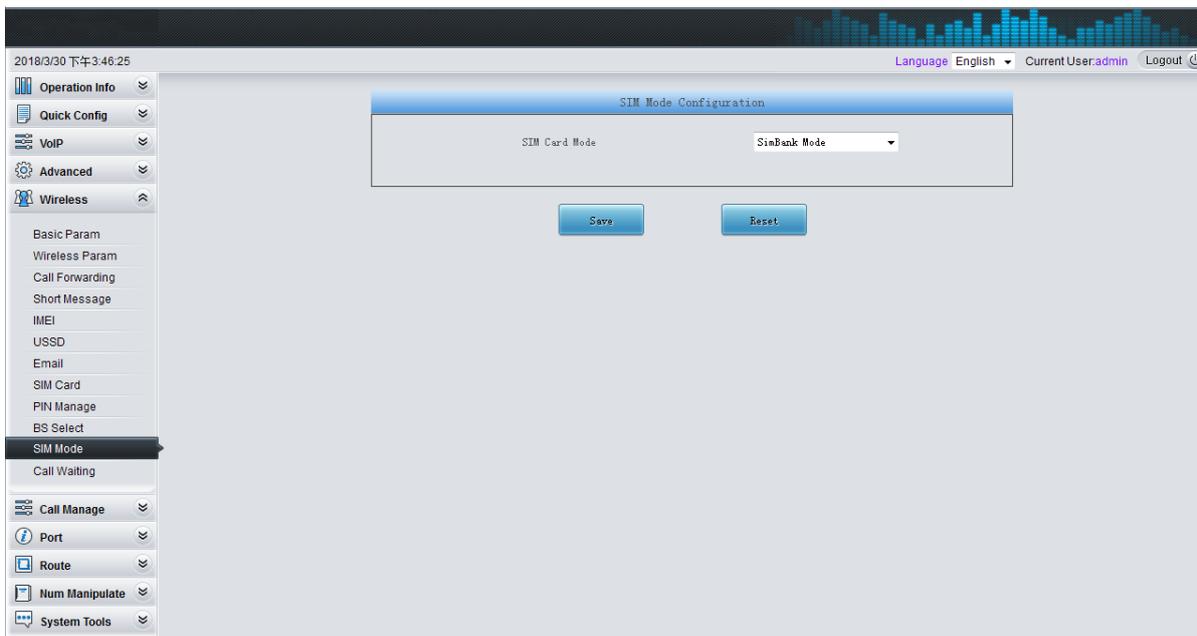
1. Log in the WEB page of SIMBANK, go to the SIM mode interface, select **SimBank** as the SIM mode and tick the **Centralized Manage** feature. Then configure **DCMS Server Address**, **Company Name**, **Authorization Code**, etc. See the figure below.



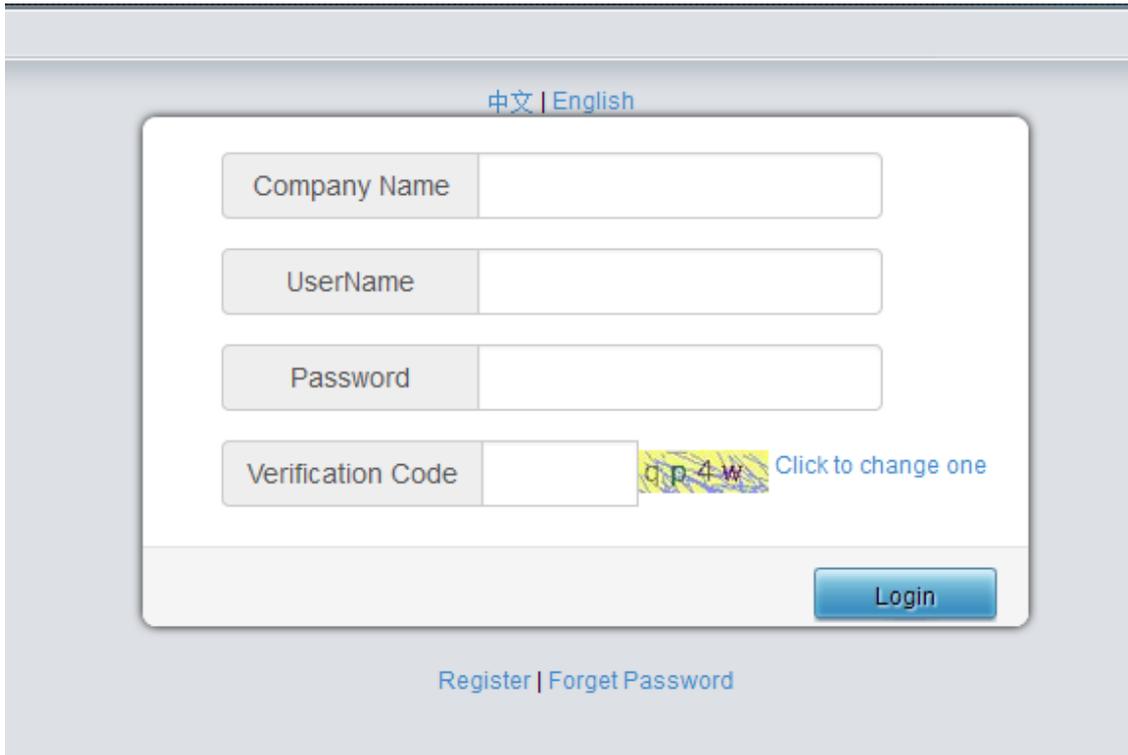
2. Log in the WEB page of the wireless gateway, and go to the Centralized Manage interface to configure necessary information.



3. Go to the SIM Mode Configuration interface, select **SimBank Mode** and restart the system.



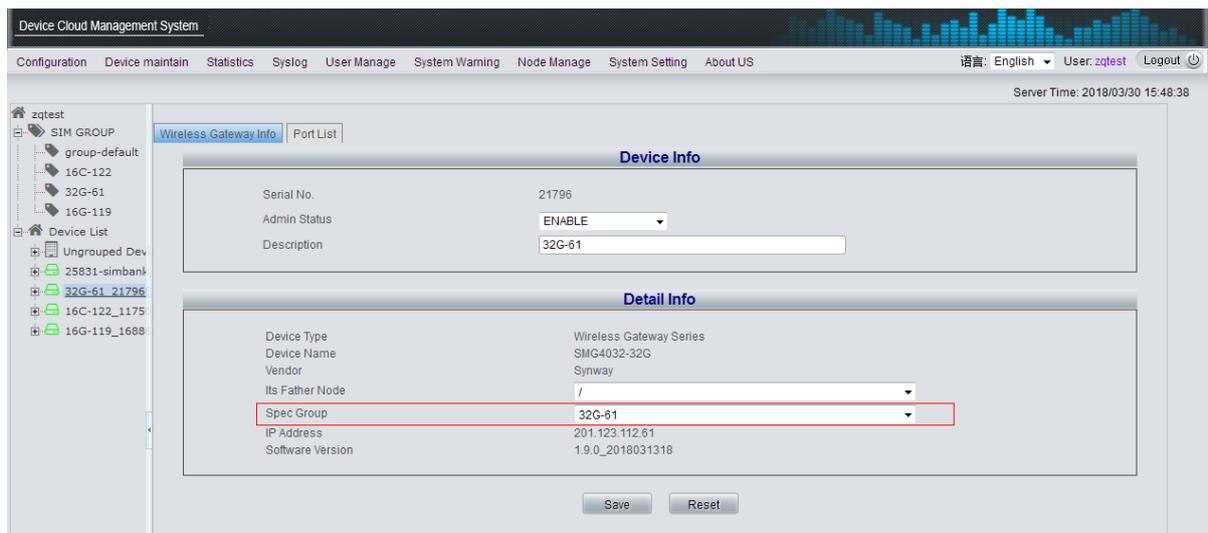
4. Open the login interface of SIMCLOUD and enter Company Name, UserName, Password and Verification Code to log in.



5. Click **SIM Group** in the left column to configure. You can add, modify and delete SIM card groups on this interface. However, the default group cannot be deleted.



6. Click a SIMBANK or gateway device in the left column to configure a specialized SIM card group. Before that, the device always specifies the default group.



When you specify a new group for SIM cards as shown in the figure above, the group of those SIM cards that already existed before your configuration will not change, and those SIM cards newly inserted will go into the group you designate where the gateway can acquire for use.

Q9. How to allocate SIM cards to a group?

- Manually add SIM cards on the SIM Card List interface, or;
- Configure SIMBANK to connect it with SIMCLOUD. Then SIMCLOUD will automatically acquire SIM cards from SIMBANK and allocate them to the specified group. If a port of SIMBANK specifies a SIM card group, the SIM card on this port will be allocated to this group; if no group is specified, the SIM card will be allocated to a group specified by the device. That is, the group specified by port has higher priority than that specified by device. Note that the group specified by device is the default group which cannot be deleted.

Q10. How to allocate SIM cards to different groups?

- Go to the SIM card list, tick the SIM cards you require, click **Set**, then select a group you want, click **Save**; now those SIM cards enter the group you choose. Note that such operation only moves SIM cards from a group to another, which will not disconnect them.
- Connect SIMBANK to SIMCLOUD first and specify different groups for different channels. Then insert SIM cards to SIMBANK. Those cards, after being recognized, will be allocated to different groups according to the group specified by port.

Q11. Why is the SIM card still in the old group specified by SIMBANK or SIMBANK port as it has been modified?

Only a SIM card which doesn't exist in any group of SIMCLOUD can be allocated to a port or a group specified by device. If it already exists in Group 1, it will not enter Group 2 even after you modify the setting of port to specify Group 2 and pull out and insert the card again. To solve such problem, you can manually do Step B in Q10 to move the card to Group 2; or disable the card and delete it from Group 1, and then insert it again.

Q12. Why does the running status of SIM cards shown in SIMCLOUD not consistent with that in SIMBANK?

It is because the devices in SIMCLOUD are usually more than SIMBANK, which reduces the refreshing speed of SIMCLOUD (about 30s every time).

Q13. Why can a SIM card not be deleted?

A SIM card which is being used cannot be deleted. Only an unavailable SIM card which is disabled can be deleted.

Q14. How does the wireless gateway acquire a remote SIM card?

First of all, enable the centralized management feature of the wireless gateway, select SIMBANK for SIM mode, and restart the system to connect the gateway with SIMCLOUD. Then SIMCLOUD will allocate SIM cards according to the group information specified by the gateway port or the devices. By priority, if a port of the wireless gateway (Port A) locks a port of SIMBANK (Port B), SIM cards on Port B will be allocated to Port A first; if a port of the wireless gateway (Port A) locks a SIM card (Card A) in a group, Card A will be allocated to Port A first. A port of the wireless gateway can lock either a SIMBANK port or a SIM card, but not both. Suppose a port of the wireless gateway (Port A) locks neither a SIMBANK port nor a SIM card: if Port A specifies a group, SIM cards will be allocated to this group; if Port A doesn't specify a group, SIM cards will be allocated to the group specified by device. What's more, SIM cards will be allocated in the set order of card selection in a group.

Q15. What do ascending and descending orders of card selection in a group mean?

Ascending and descending orders are determined by the time sequence when a SIM card enters the group. As there may be SIM cards from multiple SIMBANKs in a group, they will not be ordered by the channel sequence of SIMBANK.

Q16. How to disconnect a SIM card?

- A. Find this card from the SIM card list and disable it by setting. Thus, this SIM card will be disconnected and allocated again after being enabled.
- B. Find the SIMBANK or wireless gateway where the SIM card lies and disable the device or port. Thus the SIM card will be disconnected. In case of disabling the device, all SIM cards on the device will be disconnected.
- C. Disable the centralized management feature, all SIM cards connected with the device will be disconnected.

Q17. How to check the status of SIM cards?

Go to Port List or SIM Card List to check the running status of SIM cards. There are four conditions: SIM connect, SIM lock, SIM wait, SIM unavailable. In the state of SIM wait, if the gateway is allocated with channels, the state will turn to SIM lock; if the gateway receives the SIM card information and give a reply, the state will turn to SIM connect, which proves the card has been used by the wireless gateway but not that it has been registered to the base station.

Q18. How to do a quick positioning of the channel which the SIM card lies in or the wireless gateway is connected to?

- A. Go to the Port List interface, click the link **SIM** to skip to see detailed information about the SIMBANK channel where the SIM card lies to; click the link **Gateway Port** to skip to see detailed information about the gateway channel where the SIM card is connected to.
- B. Go the SIMBANK Information interface, click **>>To SIM Card** for the item **Bind SIM** to skip and see detailed information about the SIM card or click **>>To Gateway Port** for the item **Bind Gateway Port** to skip and see detailed information about the wireless gateway port.
- C. Go the Wireless Gateway Information interface, click **>>To SIM Card** for the item **Bind SIM** to skip and see detailed information about the SIM card or click **>>To SIMBank Port** for the item **Bind SIMBank Port** to skip and see detailed information about the SIMBANK port.

Note:

- The information of a gateway whose state shows offline still remains in SIMCLOUD.
- Do not leave the current page immediately after you do device maintenance or control management. Please wait patiently.

Appendix A Technical/sales Support

Thank you for choosing Synway. Please contact us should you have any inquiry regarding our products. We shall do our best to help you.

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