Video Conferencing System
Multi-Point Control Unit
DH-VCS-MCU91XX series
User Manual

V1.0.1

Zhejiang Dahua Technology Co., Ltd

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Overview

This document describes in detail the quick configuration of the DH-VCS-MCU91XX series.

Applicable to models: DH-VCS-MCU91B0 and DH-VCS-MCU91F0.

Note

The names of the models will henceforth be shortened as MCU9110 and MCU9150.

Symbol Conventions

For the purpose of this document, the following signs that may exist herein mean as below:

Symbol	Description
Danger	Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
Warning	Warning indicates a moderately or lowly hazardous situation which, if not avoided, will result in minor or moderate injury.
Caution	Caution alerts you to possible equipment damage, data loss, performance degradation or unpredictable results if you do not follow instructions.
Anti-static	Alert you to static-sensitive equipment.
Protection Against Electric Shock	Alert you to high voltage.
Laser Radiation	Alert you to intense laser radiation.
Tip	Help you with solving a problem or saving your time.
Note	Additional information for the main body, which can be known as an emphasis and supplement to the main body.

Safety Precautions

Before using the product, read and abide by the following requirements to prevent damage to the product or your belongings.

⚠ Caution

- Transport, use, and store the product only under the appropriate temperatures and humidity.
- Install the product in a well-ventilated place and do not block the device's air vents.
- Install the product in a steady place.
- Do not place the product in damp, dusty, or smoky areas.
- Do not place the product in direct sun light or near a heat source.
- Do not let the product come in contact with liquids.
- Do not disassemble the product at will.

⚠ Warning

- Turn off all power sources when opening the device cover or when repairing the device to prevent electric shock.
- Use a new battery of the same kind to replace the old one.
- Use the recommended power cord and use it within its rated specifications.
- If a power plug or appliance coupler is used as a disconnecting device, please ensure that the disconnecting device is always easy to operate.

Important Statements

- The physical product shall prevail while this User Manual is for reference only.
- The product will automatically update itself. If there is an upgrade, no notifications will be given.
- For the latest procedure and supplementary documentation, please contact the service center.
- Should there be any doubts or any disputes over the product instructions, the company reserves the rights of final interpretation.

Table of Contents

1 Overview

1.1 Introduction to the Product

Model	Product Introduction	Hardware architecture
MCU91B0	The MCU91B0 is a fully adaptable, cost-effective, and high performance MCU product, suitable for small-scale conference system networks. Smart connection with various terminals provides the ultimate conferencing experience for users. Supports 10 meeting places at 1080P 30FPS for fully adaptable conferencing, and 5 simultaneous meetings including management for 32 conference terminals.	1U rack. 4 USB ports at the back and 2 USB2.0 ports at the front for convenient debugging. 1 RS232 debugging port. Dual gigabit Ethernet ports.
MCU91F0	MCU91F0 is a new generation high performance, high density, high reliability, and fully adaptable MCU product. It is suitable for mid-sized conference system networks and can be stacked to implement large conference system networks. Smart connection with various terminals provides the ultimate conferencing experience for users. Supports 80 meeting places at 1080P 30FPS for fully adaptable conferencing, and 40 simultaneous meetings including management for 256 conference terminals.	2U rack. 4 hot-swappable nodes. Supports 1 + 1 redundant power supply. 4 gigabit Ethernet ports, 2 USB ports, and 1 RS232 debugging port at each node.

1.2 Port Descriptions
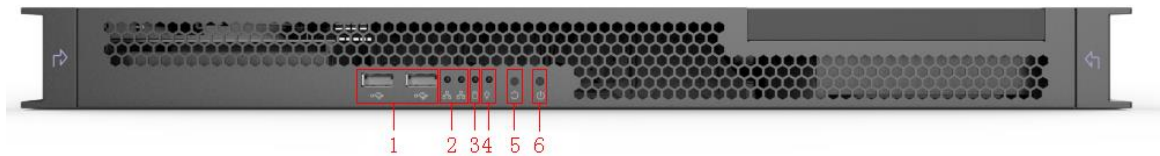
1.2.1 MCU91B0

1.2.1.1 Front Panel

Figure 1-1

Serial Number	Name	Function Description
1	USB ports	Connect to mouse/keyboard.
2	Network indicator	Network indicator lights for network port 1 and 2 on the back panel of MCU91B0. Flashes yellow when the device is successfully connected to the network.
3	Hard disk indicator	Red light Flashes when hard disk reads and writes.
4	Power indicator	A blue light will show when power is connected.
5	Reset button	● Short press for soft reset. ● Long press for hard reset. 📖 Note A forced reset may lead to data loss.
6	Power button	Switches on the device. Short press the power button to turn the device on/off.

Table 1-1

1.2.1.2 Back Panel

- **Master device:** When connected using the master device network port, the device will be the master device. It will be set as the core scheduling and media processing server.
- **Slave device:** When connected using the slave device network port, the device will be a slave device. It will be set as the media processing server.
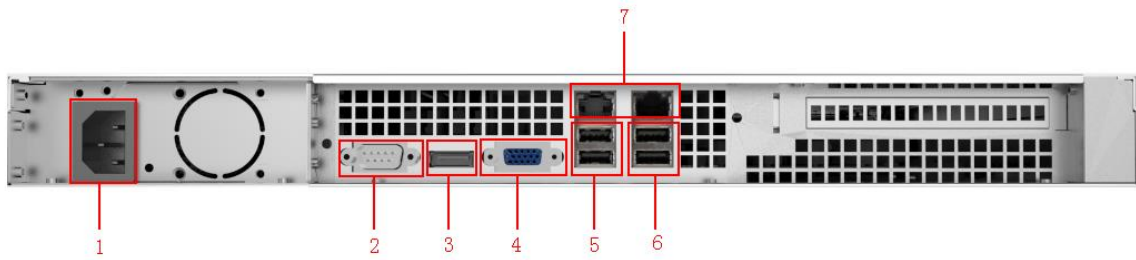
Figure 1-2

Serial Number	Name	Function Description
1	Power port	Connects to 220V AC power source.
2	RS232 port	Used for regular serial debugging, IP address configuration, and transparent serial data transmission.
3	DP port	Use the accompanying DP to VGA cable to connect to the monitor.
4	VGA port	Not supported currently.
5	USB 2.0 port	Connect to mouse/keyboard.
6	USB 3.0 port	
7	Network port	Used to connect to a network. The left side is the master device network port, and the right side is the slave device network port. Refer to step 5 of "3.3 Quick Guide" for system network parameter setting. **Note** Left port default IP address: 192.168.1.108. Right port default IP address: 192.168.2.108.

Table 1-2

1.2.2 MCU91F0

1.2.2.1 Front Panel

Figure 1-3

Serial Number	Name	Function Description
1	Indicator light for board 1	Indicator light for the host board in the MCU91F0 back panel. From top to bottom: Board 1, host 2 Board 1, host 1 Board 3, host 2 Board 3, host 1
2	Power switch 1	Power switch for board 1 and 3.
3	Indicator light for board 2	Indicator light for the host board in the MCU91F0 back panel. From top to bottom: Board 2, host 2 Board 2, host 1 Board 4, host 2 Board 4, host 1
4	Power switch 2	Power switch for board 2 and 4.

Table 1-3

1.2.2.2 Back Panel

- **Master device:** When connected using the master device network port, the device will be the master device. It will be set as the core scheduling and media processing server.
- **Slave device:** When connected using the slave device network port, the device will be a slave device. It will be set as the media processing server.
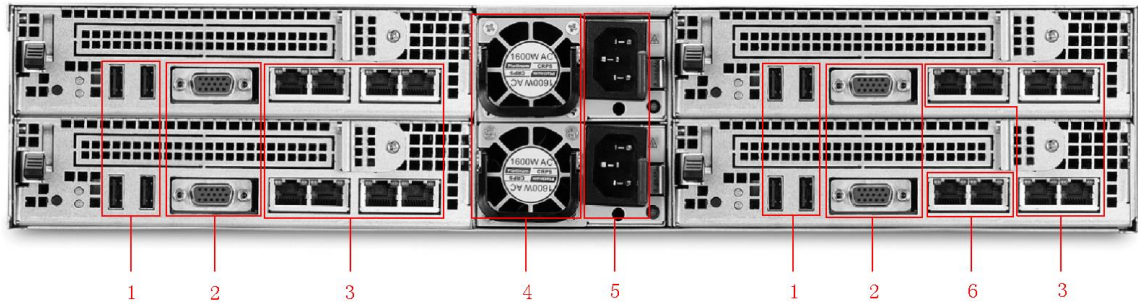
Figure 1-4

Serial Number	Name	Function Description
1	USB ports	Connect to mouse/keyboard.
2	VGA port	Used to connect with monitor.
3	Slave device network port	Used to connect to a network. Refer to "3.3 Quick Guide" for further details. 📖 Note ● Default IP address for the left port in each group: 192.168.1.108. ● Default IP address for the right port in each group: 192.168.2.108.
4	Fan	Heat dissipation.
5	Power port	Connects to 220V AC power source.
6	Master device network port	Used to connect to a network. Refer to "3.3 Quick Guide" for further details. 📖 Note ● Default IP address for the left port in each group: 192.168.1.108. ● Default IP address for the right port in each group: 192.168.2.108.

Table 1-4

📖 Note

Expansion boards can be removed and replaced.

2 Networking Diagram

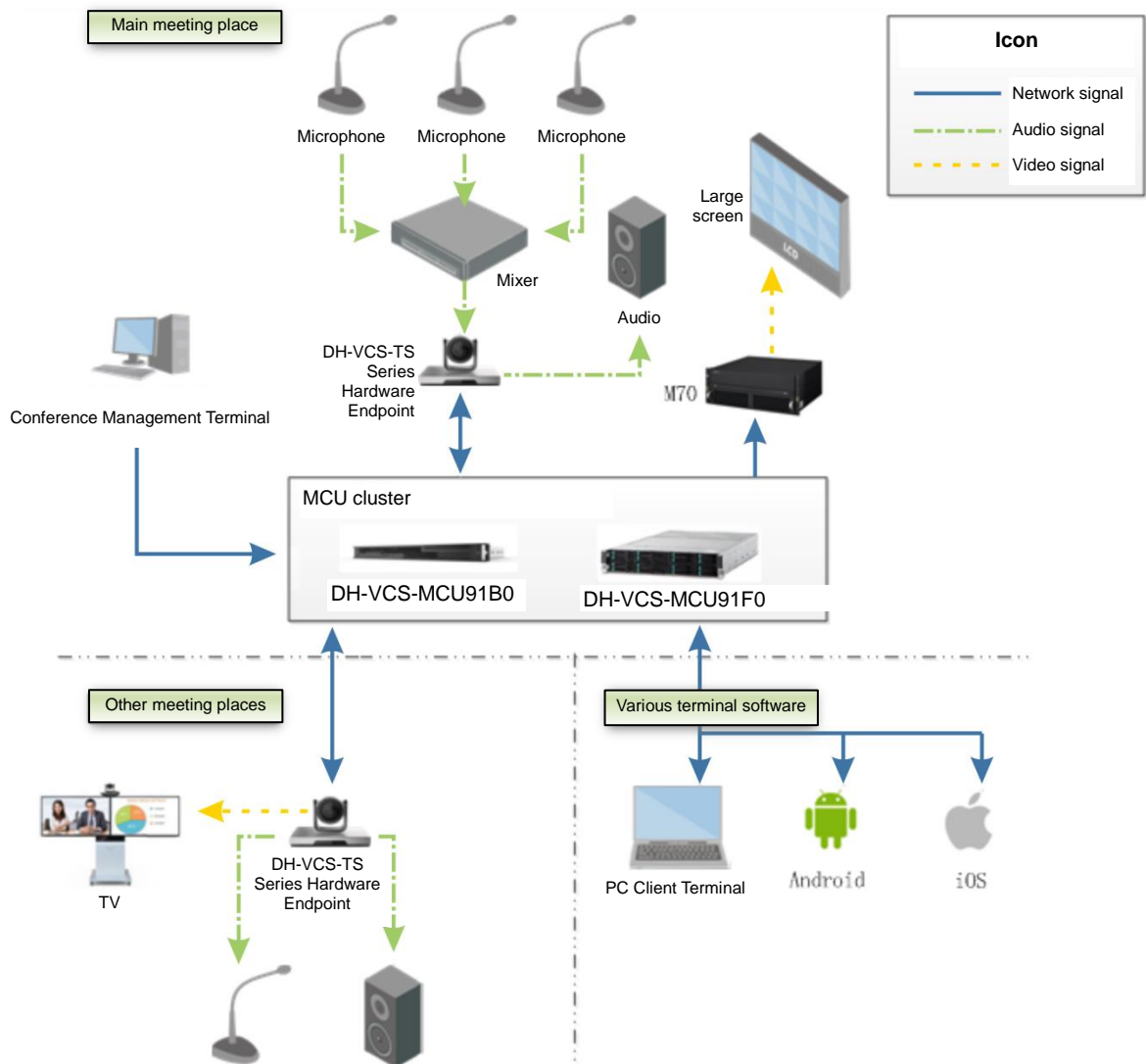The networking diagram for the MCU91XX series is shown in Figure 2-1

Figure 2-1

3 **Web Operation**

The web client terminal system provides meeting creation, current meeting, reserved meeting, meeting history, regular meetings, device management, system configuration, and other functions.

3.1 Config Flow

You can refer to the following config flow to complete the interface operation of video conferencing management system, which is shown in Figure 3-1.
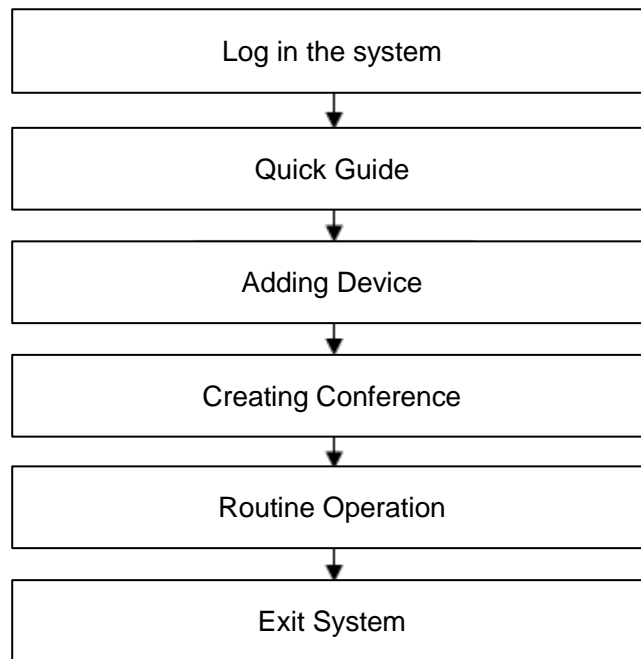
```
┌─────────────────────────────┐
│      Log in the system      │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│        Quick Guide          │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│       Adding Device         │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│     Creating Conference     │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│      Routine Operation      │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│        Exit System          │
└─────────────────────────────┘
```

Figure 3-1

3.2 System Login

Step 1

Enter the default "master device IP address" of video conferencing system in the IE address bar, then press [Enter].

 Note

- Default IP address for the left port in each group: 192.168.1.108.
- Default IP address for the right port in each group: 192.168.2.108.

The system will display the login interface shown in Figure 3-2.

Figure 3-2

Step 2

Enter "User Name" and "Password"

The default user name is "admin" and the default password is "12345678".

Step 3

Click "Login".

- The system will display the booting wizard interface if it is the first time to log in the system. Please refer to "3.3 Quick Guide" for more details.
- It will directly enter the main interface if you log in the system next time.

Note

- If a password has already been modified in the startup wizard, use the new password to log in.
- You can go to "System Config > User" interface to select the user which needs to be modified, click to modify the password.

3.3 Quick Guide

 Caution

The quick guide only appears when logging in the system for the first time.

You can refer to the quick guide to quickly familiarize yourself with the system process if this is your first time using the system or if you are unfamiliar with the system,

Step 1

Log in the system for the first time. The system will display the interface which is shown in Figure 3-3.

Modify the initial password of the admin account. Input "New Password" and "Confirm Password".

Figure 3-3

Step 2

Click "Next" and then the system will display the interface which is shown in Figure 3-4.

For basic setting, you can select "Manual Sync", "NTP Time Sync" and select "Time Zone".

Note

- As for manual sync, you can input sync time into the box of time.
- When you select "NTP Time Sync", you can input the IP address of NTP server into the box of "NTP Server".
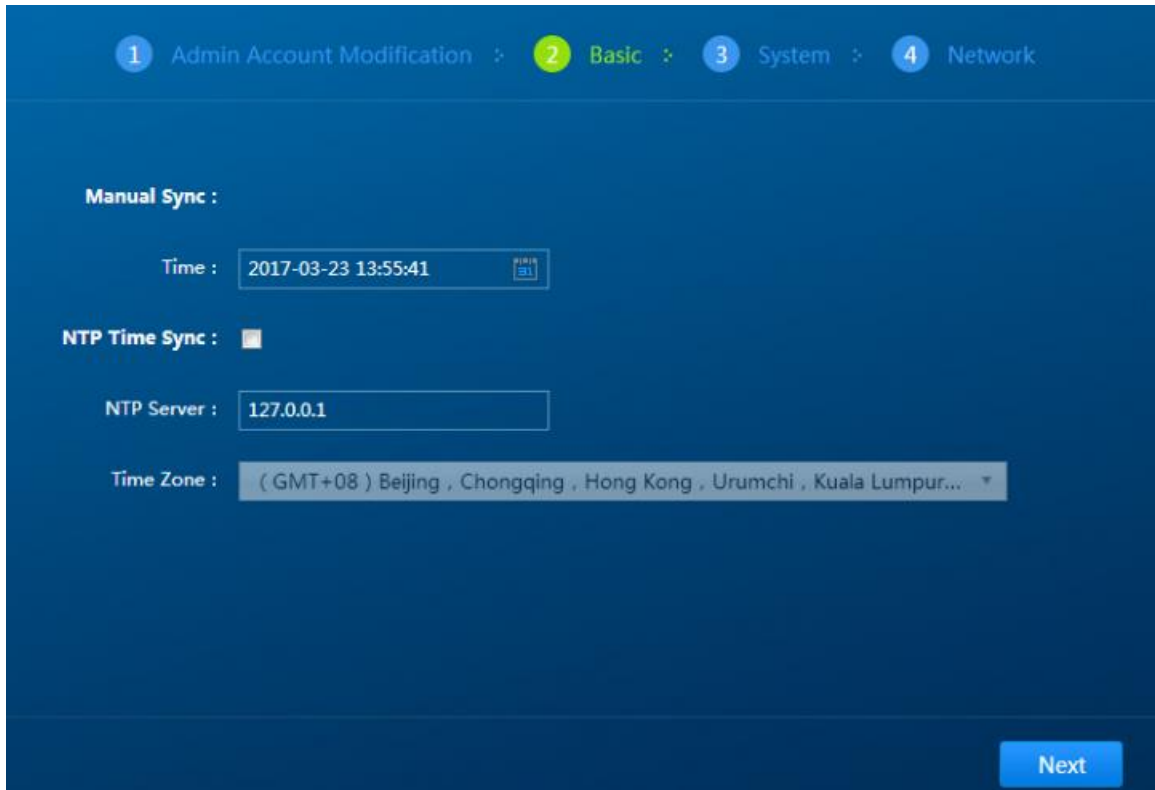
Figure 3-4

Step 3

Click "Next". The system will display the interface which is shown in Figure 3-5.

For system setup, you can bind the administrator with binding phone number and Email.
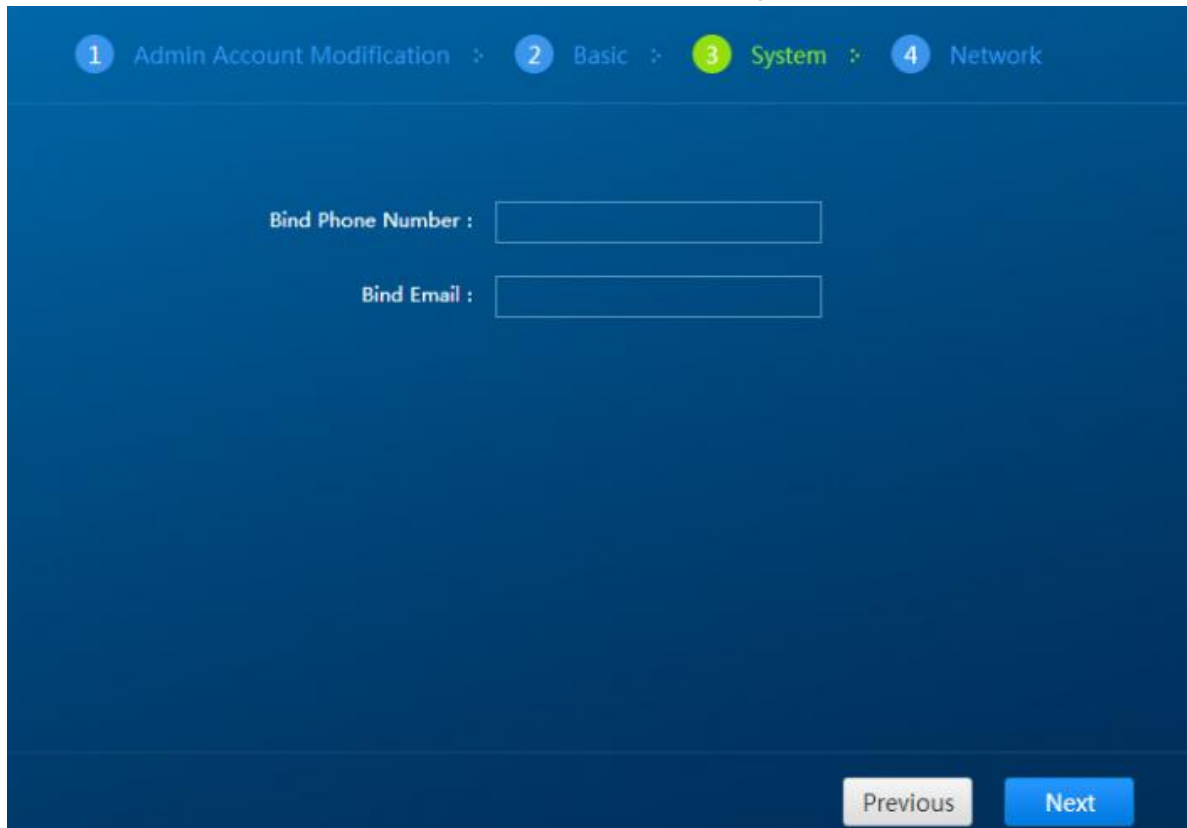
Figure 3-5

Step 4

Click "Next". The system will display the interface which is shown in Figure 3-6.
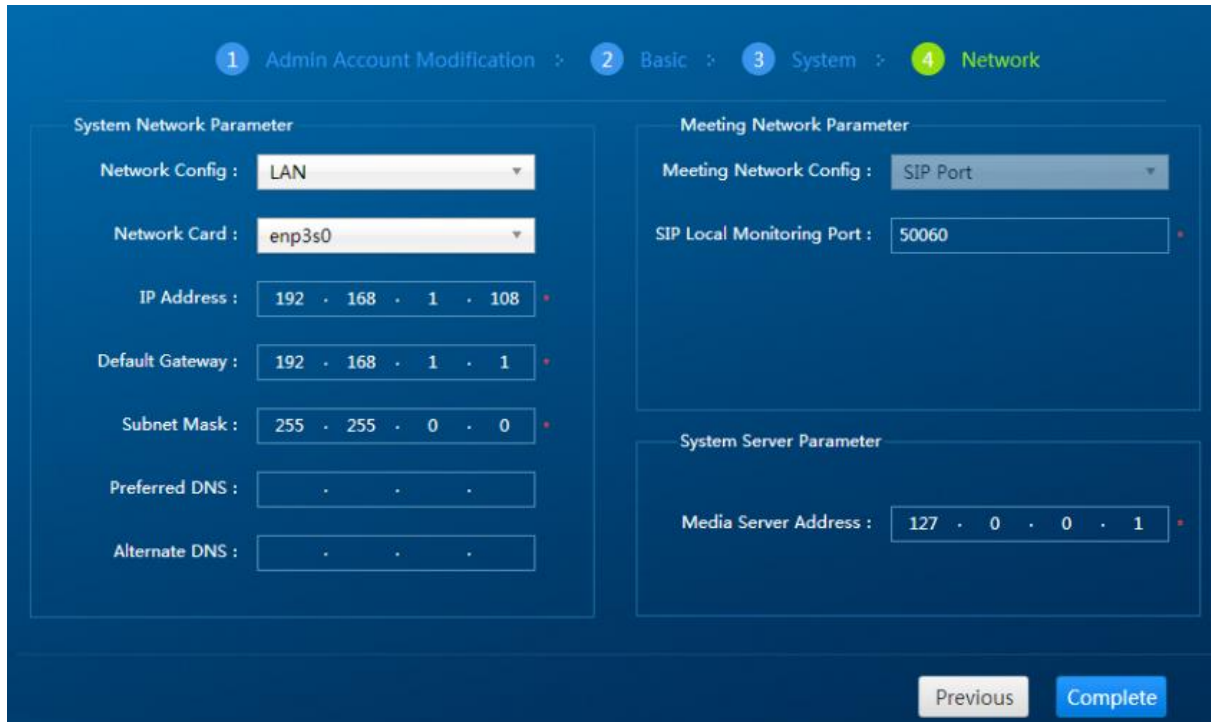
Figure 3-6

It is to set the parameters of system network.

Note

All endpoints shall be connected to the master device.

● Connect the network cable directly to the network port of master device to configure network.

1. Please refer to Table 3-1 for the configuration of network parameters.

Parameter		Note
System Network Parameter Setting	Network config	Default LAN port.
	Network card	Here you can select which network card you need to configure master or slave IP address.
	IP address	Enter the pre-determined IP address (e.g. 172.10.3.148), then configure the relevant "subnet mask" and "default gateway" for the IP address.
	Subnet mask	
	Default gateway	
	Preferred DNS server	We recommend keeping the default DNS server IP address. If you configure a DNS server in the network, modify the DNS server IP address.
	Alternate DNS server	
Conference Network Parameter Setting	Meeting network config	SIP (Session Initial Protocol), which is used to create, modify and release the dialog of one or several participants.
	SIP local monitoring port	It is 50060 by default.
System Service Parameter Setting	Media server address	The default address is 127.0.0.1; the local machine is used as a media server. Please input the server address here if you are using the exclusive video media server.

Table 3-1

2. Click "Complete" to finish the setting of booting wizard.
- Connect the network cable directly to the network port of slave device to configure the slave network.
1. Input "Slave Device Default IP Address" into the IE address bar and press [Enter]. The system will enter the network setup interface, which is shown in Figure 3-7.

Figure 3-7

2. In the setting of system network parameter, input the IP address planned for slave config which is slave IP (such as 192.168.1.100).

3. In the setting of system server parameter, input host IP address in the blank of "MCU Server Address (such as 192.168.1.108).

4. Click "Complete" to finish the setting of slave config network.

3.4 Device Management

3.4.1 Adding Devices

The video conferencing management system supports adding both soft endpoints and hard endpoints devices.

- Hard endpoint: TS series devices.
- Soft endpoint: mobile conferencing endpoint and PC conferencing endpoint. The client software needs to be applied separately.

The specific operation steps are shown as follows:

Step 1

Select "Device Management > Management Devices > All Devices" and the system will display the interface which is shown in Figure 3-8.
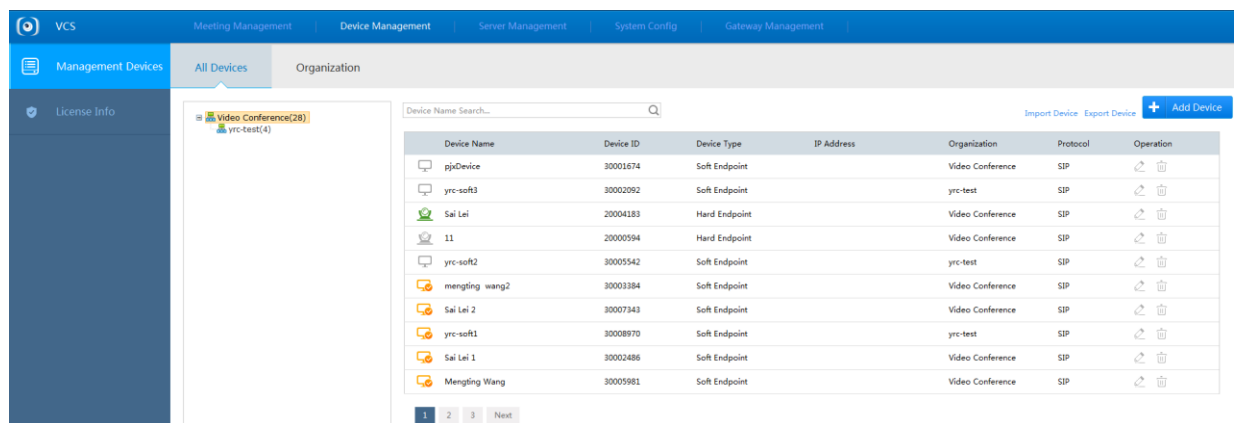
Figure 3-8

Step 2

Click ![Add Device] and the system will display the interface of "Add Device", which is shown in Figure 3-9.

Figure 3-9

Step 3

Configure parameters. Please refer to Table 3-2 for more details.

Parameter	Note
Device type	Categorized as hard endpoints and soft endpoints.
Organization Name	The organization which the endpoint belongs to.
Device Name	Custom name.
Device ID	The device ID is automatically generated and is used as: Hard endpoints: the device ID for system registration. Soft endpoints: user name to log into PC or mobile conferencing endpoints.
Password	Applies to login passwords for hard and soft endpoints. ◻ **Note** If the authentication password has not yet been set, the system automatically assigns the default password: 123456.
Number of Cameras	Input the number of cameras, default 1 is integrated endpoint.
IP address	Device IP address. Enter the device IP address. By default, endpoints under this IP address can create and join conferences.
Phone	The phone number for the person responsible for this device.
Email	The email address for the person responsible for this device.
Continue to add devices	Checked: continue to add devices. Unchecked: do not continue adding devices.

Step 4

Click "OK" to finish adding devices, the system will display the interface of "All Devices", which is shown in Figure 3-10.
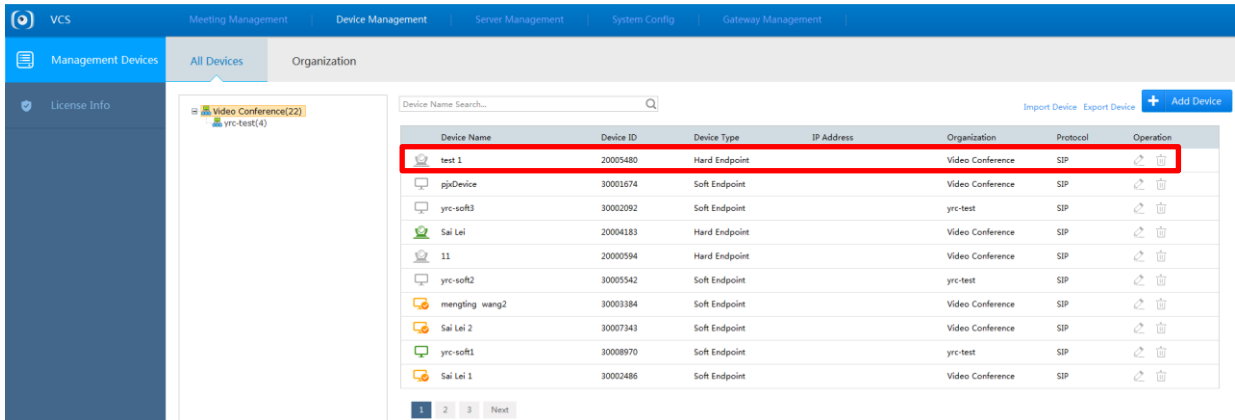
Figure 3-10

● Select the device, and then click ✎ to modify the device information.

● Select the device, and then click 🗑 to delete the device.

3.4.2 Modifying Device

Step 1 Select "Device Management > All Devices". The system will display the interface shown in Figure 3-11.
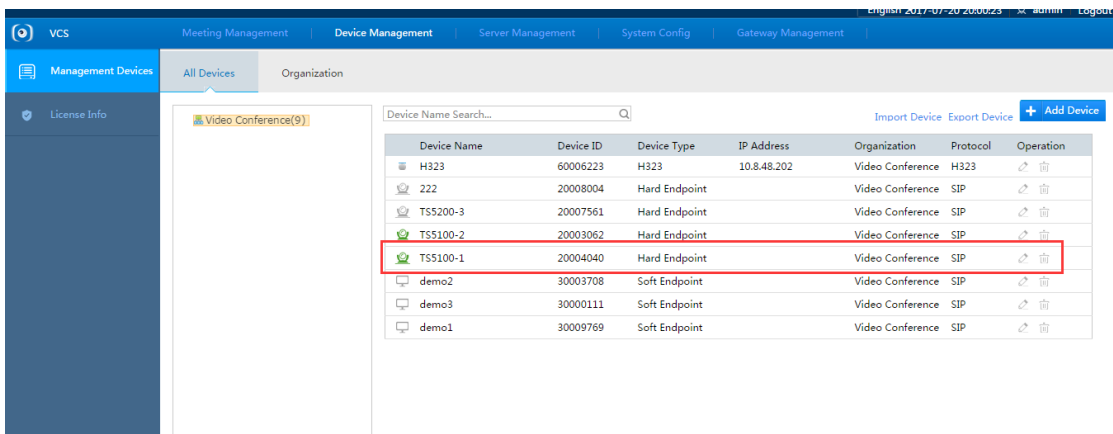
Figure 3-11

Step 2 Click ✎ .
The system will display the "Modify Device" interface as shown in Figure 3-12.

Figure 3-12

Step 3   Modify the related information of the selected device.

Step 4   Click OK to save.

3.4.3 Deleting Devices

Step 1   Select "Device Management > All Devices".

The system will display the "Modify Device" interface as shown in Figure 3-13.

Figure 3-13

Step 2   Click 🗑 .

The system will display the "Confirm Delete" interface as shown in Figure 3-14.
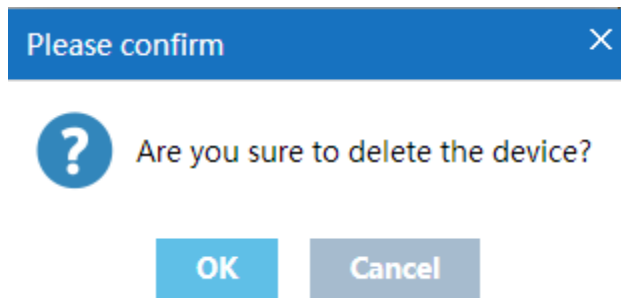
Figure 3-14

Step 3   Click [OK] to confirm delete.

3.5 Service Management

3.5.1 Service Status

You can check the current service status of the system.

Select "Service Management > Service Status".

The system will display the interface of "Service Status", which is shown in Figure 3-15, please refer to Table 3-3 for more details about parameter description.
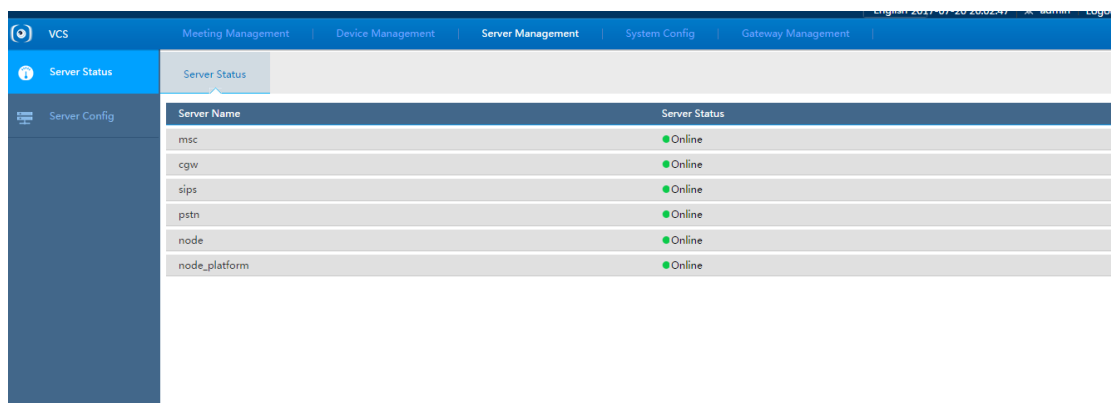
Figure 3-15

Parameter	Note
msc	Conference media processing service, the service status is online or offline.
cgw	Third party device access gateway service, the service status is online or offline.
sips	Sip processing service, service status is online or offline.
pstn	Phone gateway, service status is online or offline.
node	Web management service, service status is online or offline.
node_platform	Platform cascade service, service status is online or offline.

Table 3-3

3.5.2 Service Config

You can implement service config in this chapter.

Step 1

Select "Service Management > Service Config" and the system will display the interface of "Service Config" which is shown in Figure 3-16.
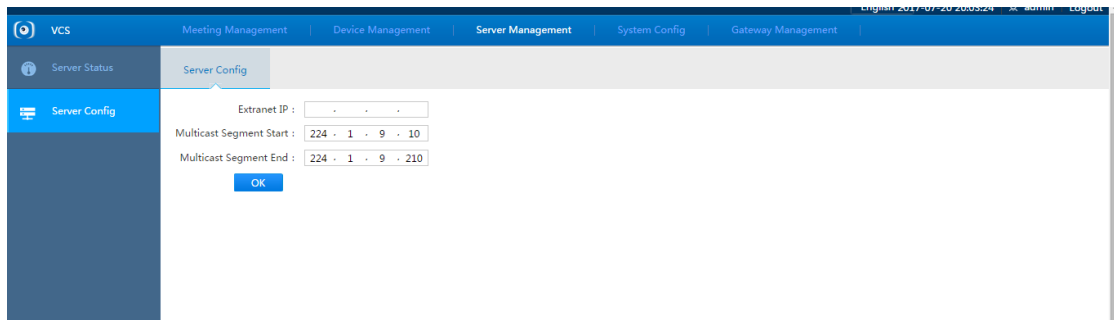
Figure 3-16

Step 2

It is to set the IP address of Extranet.

Step 3

It is to set the network segment of multicast.

Step 4

Click ![OK] to complete setting.

3.6 Conference Management

3.6.1 Creating Meeting
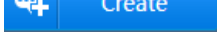
You can create a conference immediately or schedule a conference for the future.

- **Immediate:** set a conference name, duration; add participants and other information to start a conference immediately.
- **Reserved:** You can set a time to create a conference.

📖 Note

- The minimum duration for a conference is 30 minutes.
- A conference can be scheduled a minute after the current time at the earliest.

Using "Reserved" as an example, the steps to start a conference are as follows:

Step 1   Select "Meeting Management" on the main interface and click ![Create] to create a meeting.

The system will display the "Create" interface as shown in Figure 3-17.
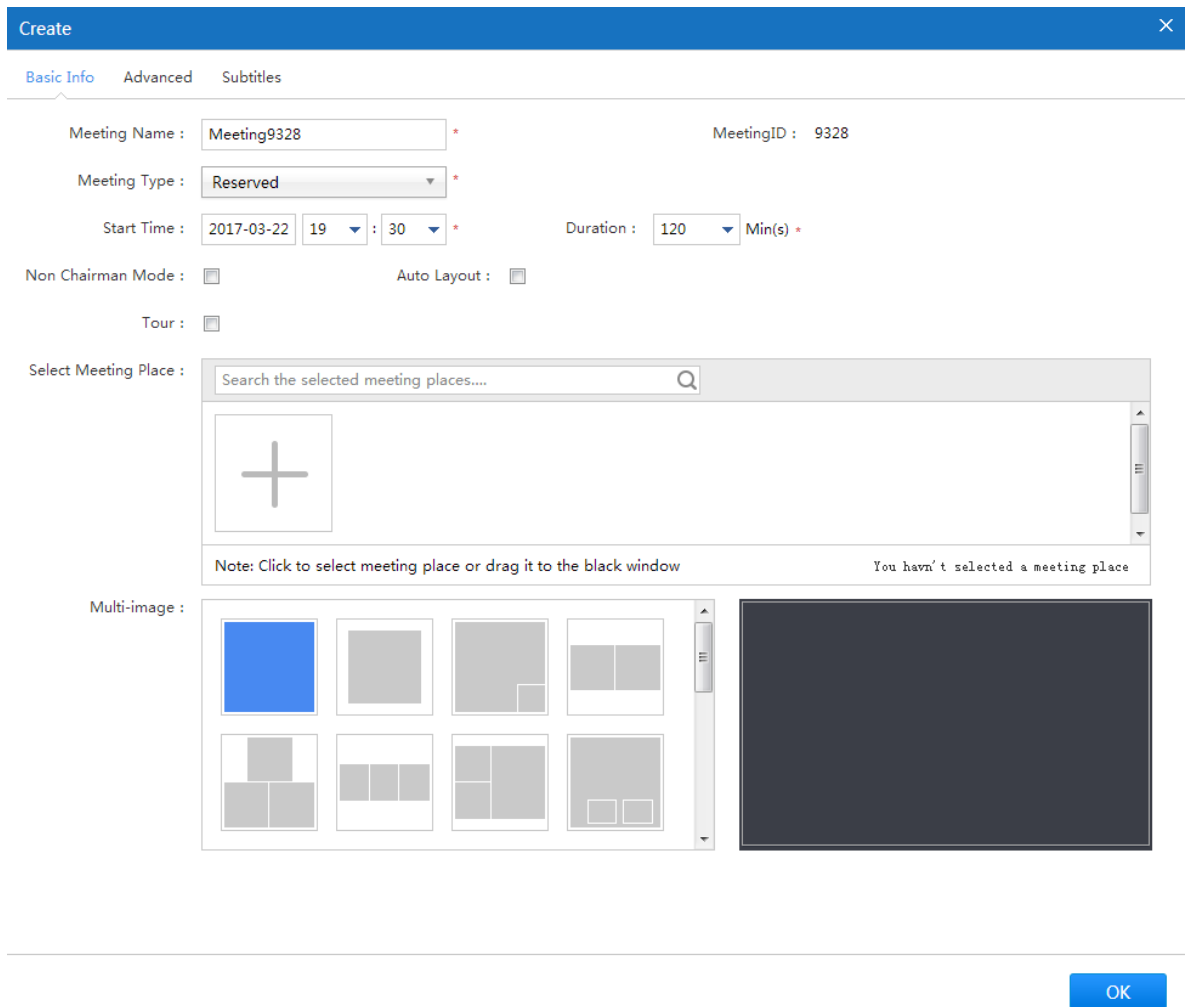
Figure 3-17

Step 2

Click "Basic Info" to set the basic info of the meeting, please refer to Table 3-4 for more details.

Parameter		Note
Basic Information	Meeting Name	Custom meeting name.
	Meeting Type	Classified as "Immediate Meeting" or "Scheduled Meeting". ● Immediate Meeting: set a meeting name, duration, meeting place and other such information, then start the meeting immediately. ● Scheduled Meeting: schedule a meeting time according to user requirements.
	Start Time	Set up the meeting start time. When "Immediate Meeting" is chosen for the "Meeting Type", there is no need to set a start time.
	Duration	The duration of the meeting, the minimum is 30 minutes.
	Non Chairman Mode	It will create meeting in the non-chairman mode if it is selected, it can't allocate chairman when selecting meeting place.
	Auto Layout	It will enable auto layout if it is selected, the multi-image

Parameter		Note
		below can't be set.
	Tour	Select the check box to enable tour function among the meeting places.
	Select Meeting Place	Select the device which needs to join the meeting. ● Input meeting name in the box, click 🔍 to add meeting place. ● Click ＋ and select device in the dialog box of "Add Device", click "OK" to add meeting place. ● Move the mouse to the [demo2] and click it to set it as chairman if "Non Chairman Mode" is not selected, click again to cancel.
	Multi-image	You can select multiple image preview layout according to your requirements.

Table 3-4

Step 3

Click "Advanced" and the system will display the interface of "Advanced", which is shown in Figure 3-18.
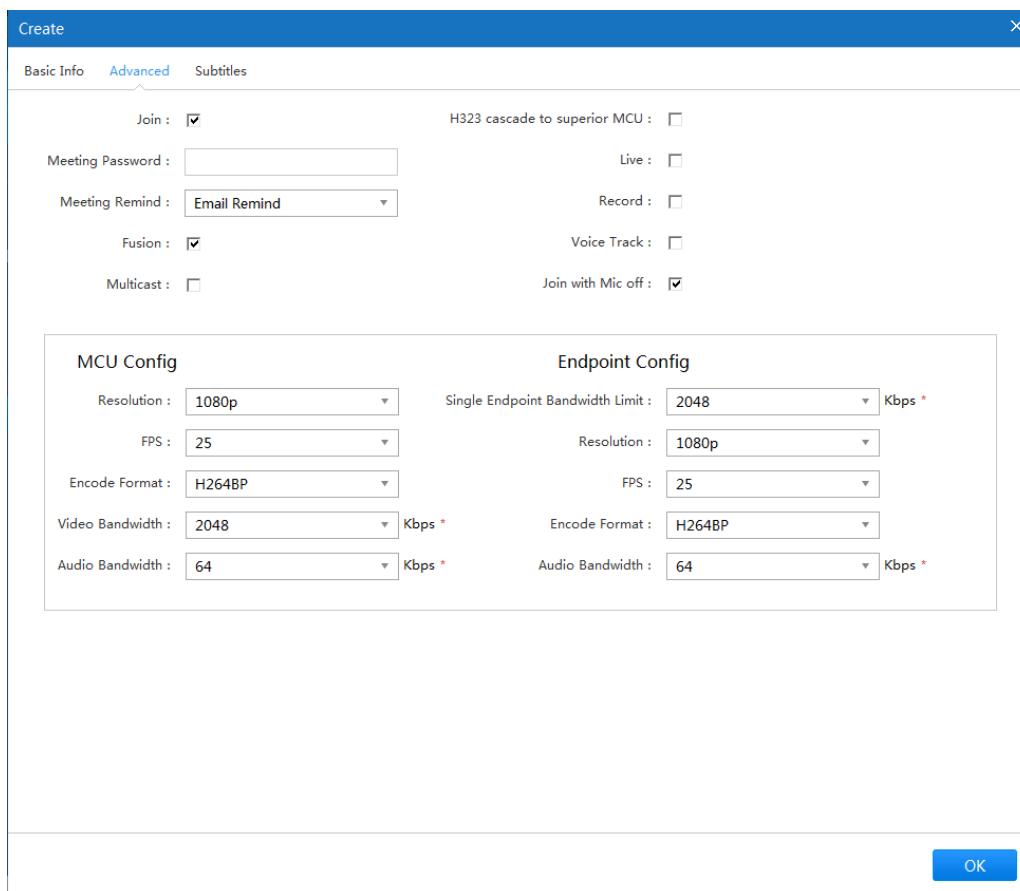
Figure 3-18

Step 4

It is to set the parameters of advanced, please refer to Table 3-5 for more details.

Note	Parameter
Join	Select the check box and you can join meeting automatically.
Meeting Password	It is to set meeting password, it needs to input corresponding password if others want to join the meeting.
Meeting Remind	Select in the drop-down box, you can set no remind and email remind. When setting email remind, first please implement email server config in the interface of "System Config > Config > Network Service Config".
Fusion	Click it to enable fusion function, and then you can set the "MCU Config" below, it can fuse a video with the video of each endpoint via MCU, which is to save bandwidth.
Multicast	Click it to enable multicast mode.
H323 cascade to superior MCU	Select the box and the meeting can be cascaded to superior MCU via H323 protocol.
Live	Click it to enable live, then you can make the meeting live in the recording and broadcasting system. You need to configure the IP address of RRS in "System Config > RRS Config" before enabling the function.
Record	Click it to enable record, then you can record and replay the meeting in the recording and broadcasting system. You need to configure the IP address of RRS in "System Config > RRS Config" before enabling the function.
Voice Track	Click it to enable the function. ● The meeting place with loudest voice of participant will be displayed in the big image if it is set in the meeting layout. ● The meeting place with loudest voice of participant will be displayed in the first image if the big image is not set in the meeting layout.
Join with Mic off	Click the box and the participants will join the meeting in the form of Mic off.

Note	Parameter
MCU Config	When fusion function is enabled, it can set the image resolution, PFS, encode format, video bandwidth and audio bandwidth after fusion. ● Resolution, it can select standard definition, high definition and ultra-high definition, such as 720P, 1080P and 2160P. ● FPS, the frame rate of fusion stream shall be set in accordance with that of the endpoint device, select 25 FPS. ● Encode format, H264HP, H264BP and H265 optional. ● Video bandwidth, select video transmission bandwidth according to the actual situation. ● Audio bandwidth, select audio transmission bandwidth according to the actual situation.
Endpoint Config	It is to set the image parameter when sending video to each endpoint. ● If fusion is enabled, then it will send one channel video signal which has been fused to endpoint according to the configured parameters. ● If fusion is not enabled, it will send each video signal of all meeting places to each endpoint according to the "Single Endpoint Bandwidth Limit" which has been set. "Single Endpoint Bandwidth Limit", it can be set according to the actual bandwidth, refer to MCU config for other parameters.

Table 3-5

Step 5

Click "Subtitles" and the system will display the interface of "Subtitles', which is shown in Figure 3-19

Figure 3-19

Step 6

Set "Banner" and "Subtitles".

- Banner, it is displayed on the top of the screen; you can adjust display location, font size, color and background transparency according to requirements.

- Subtitles, it is scrolling displayed on the bottom of the screen, you can adjust font size, color and background transparency according to requirements.

Step 7

Click "OK" to finish creating meeting, you can check on the interface of "System Setting > Meeting Management > Current Meeting".

3.6.2 Meeting Control

Select the interface of "Meeting Management > Current Meeting" and the system will display the interface of "Current Meeting", which is shown in Figure 3-20.
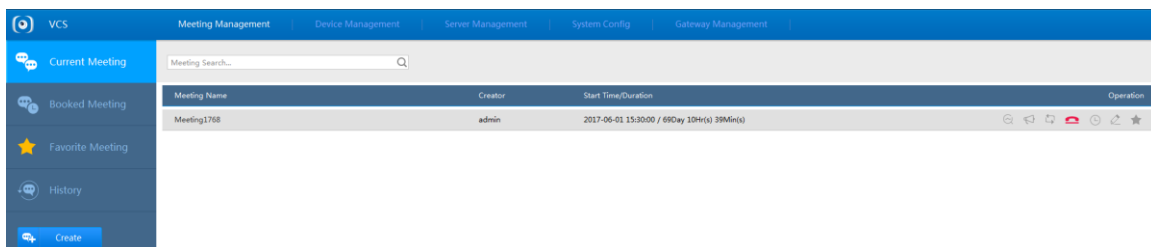
Figure 3-20

Icon	Note
	Click it to check the report of meeting quality.
	Click it to set broadcast info, it will disappear automatically after it is displayed and reminded on the endpoint screen.
	Click it to set roll call tour. It can make roll call upon each meeting place according to the "Tour Interval" which has been set. **Note** Only after the chairman is set, the chairman has authority to use the function.
	Click it to end meeting.
	Click it to modify meeting end time.
	Click it to modify meeting info.
	Click it to add it as regular meeting, you can check on the interface of "Meeting Management > Favorite Meeting".

Table 3-6

Click the selected meeting to check the detailed info of the meeting, which is shown in Figure 3-21.
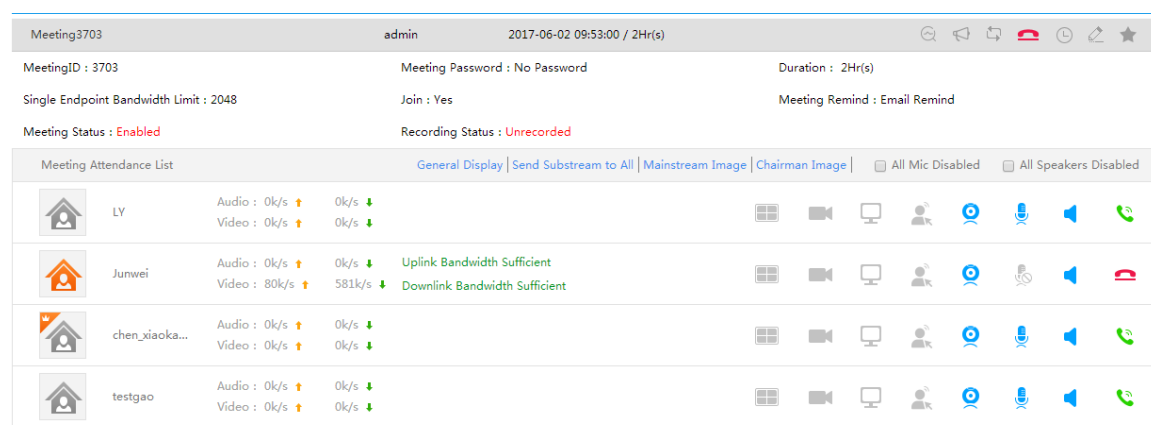
Figure 3-21

Icon	Note
☐ | All Mic Disabled	Click it to disable Mic for all the members.
☐ | All Speakers Disabled	Click it to make it mute for all meeting members.

Icon	Note
🏠	Click the icon to apply for and cancel chairman. ● 👑🏠 , it means chairman. ● 🏠 , it means non-chairman.
▦	Click the icon to select fusion stream of the endpoint image, switch image of other participants and the image layout displayed on the endpoint. ● Image select, it is to select fusion stream according to the actual network situation, click "OK" to make it valid. ● Layout setting, it is to select the needed layout, click "OK" to make it valid.
🎥	Click the icon to preview endpoint video, adjust endpoint image, resolution, and total bandwidth etc. You can select the meeting place which needs to be adjusted in the "Meeting Place List".
🖵	Click the icon to switch if it is to display demo image.
👤	Click the icon and the chairman can make roll call of the meeting participants, both chairman and meeting participant can see the image of opposite side, but it fails to see his own image.
◎	Click the icon to control the video signal of the meeting place. ● Blue means that it can see the image of the meeting place. ● Gray means that it fails to see the image of meeting place.
🎤	Click the icon to control if it is to disable mic. ● Blue means that mic is enabled. ● Gray means that mic is disabled.
🔊	Click the icon to control if it is to make the meeting place mute. ● Blue means that it can hear the voice of the meeting place. ● Gray means that the meeting place is mute.
☎	Click the icon to hang up and ask meeting participant to leave.
📞	Click the icon to invite the participant to join the meeting.

Table 3-7

3.6.3 Booked Meetings

Select "Meeting Management > Booked Meeting" and the system will display the interface of "Booked Meeting", which is shown in Figure 3-22.
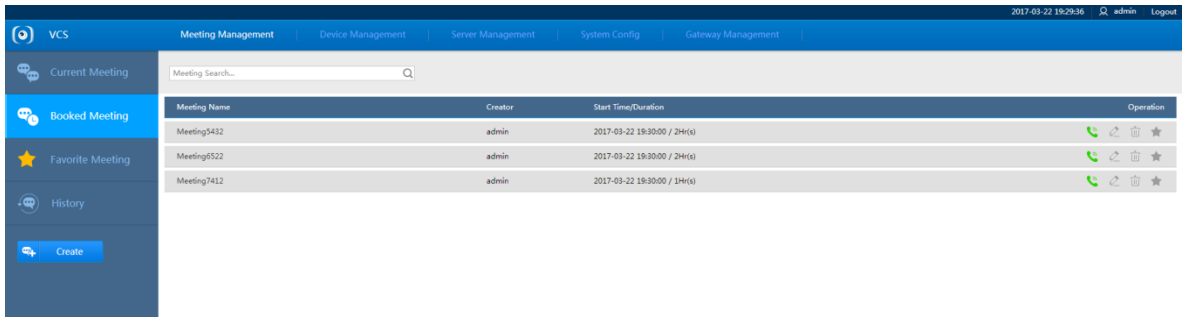
Figure 3-22

Parameter	Description
	Click this icon to start the meeting immediately.
	Click this icon to edit meeting information.
	Click this icon to cancel the booked meeting.
	Click this icon to add to favorite meetings. You can view details on the "System Configuration > Meeting Management > Favorite Meeting" interface.

Table 3-8

📖 Note

Enter the "Meeting Name" into the search bar for a quick search.

3.6.4 Favorite Meetings

Select "Meeting Management > Favorite Meeting".

The system will display the "Favorite Meeting" interface which is shown in Figure 3-23.
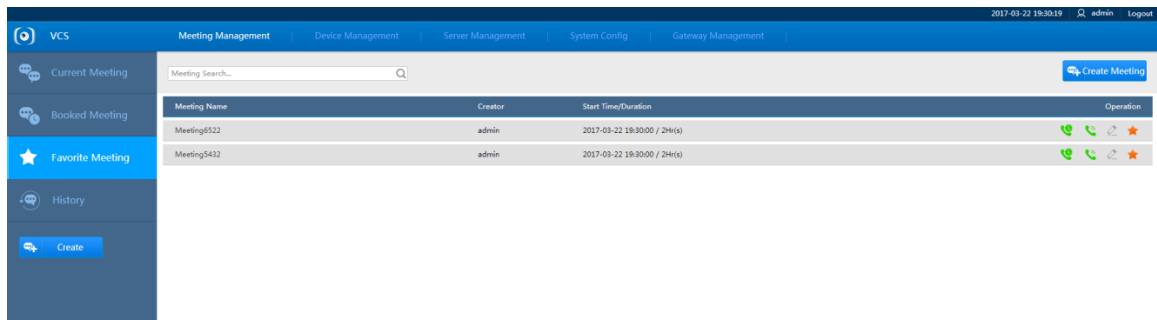
Figure 3-23

Parameter	Description
	Click this icon to start a meeting.
	Click this icon to hold the meeting immediately.
	Click this icon to edit meeting information.

Parameter	Description
⭐	Click this icon to delete the meeting from favorites.

📖 Note

Enter the "Meeting Name" into the search bar for a quick search.

3.6.5 Meeting History

Select "System Configuration > Meeting Management > History".

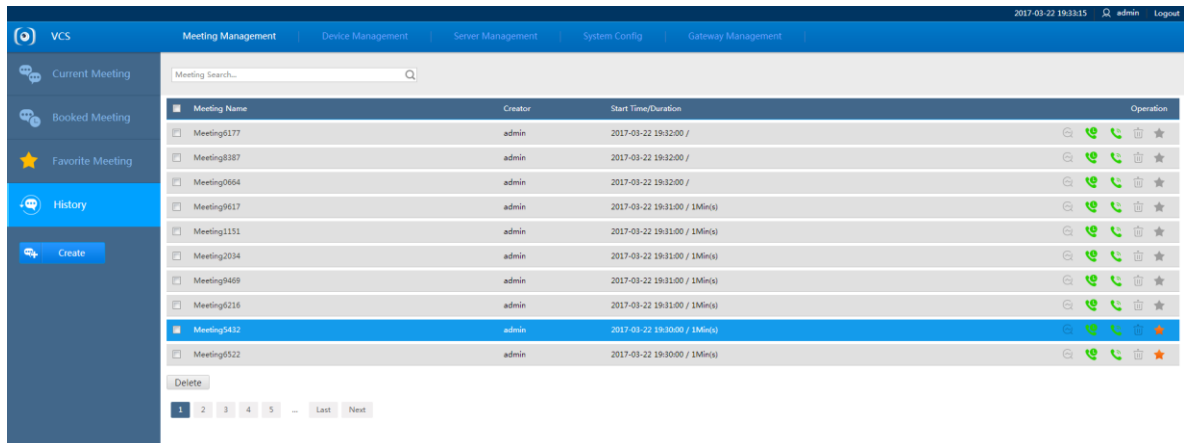The system will display the "History" interface which is shown in Figure 3-24.

Figure 3-24
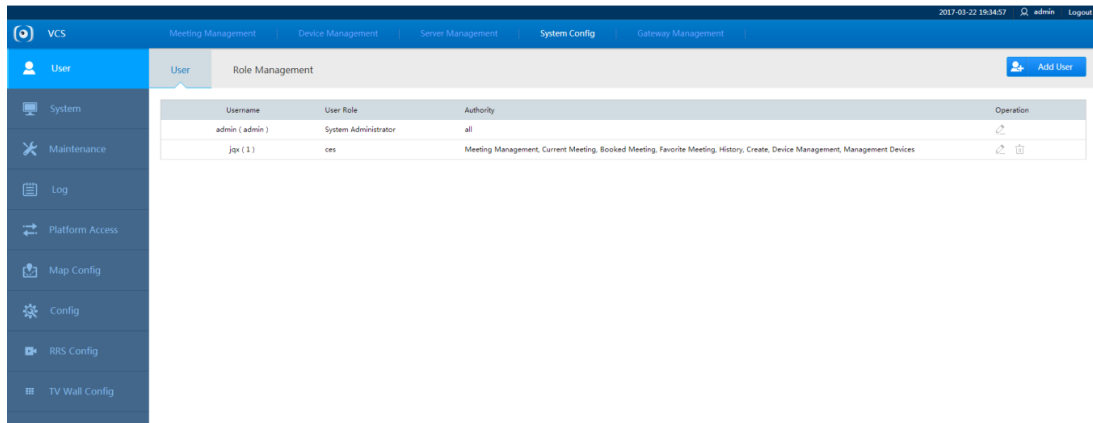
Parameter	Description
📞	Click to create a meeting. Refer to "3.6.1Creating Meeting" for further details.
📞	Click to start the meeting immediately.
🗑	Click to delete the meeting.
⭐	Click to delete the meeting from favorites.

Table 3-9

3.7 System Management

3.7.1 User Management

You can create and delete users. The administrator can edit all users' rights and administrative Privileges including his own. Different users can be allocated different privileges, which are shown in Figure 3-25.
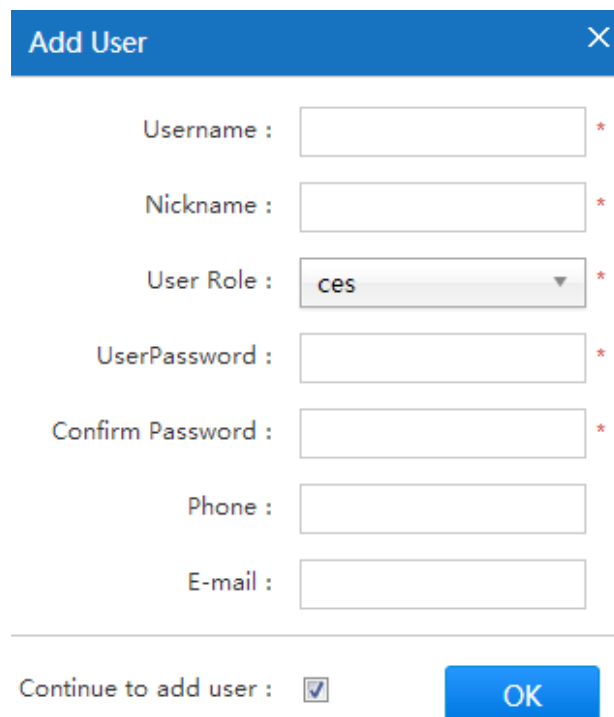

Figure 3-25

3.7.1.1 Adding Users

Step 1

Click [Add User] in "System Configuration > System > User" and the system will display the interface of "Add User", which is shown in Figure 3-26.

Figure 3-26

Step 2

Set the user name, nickname, user role, user password, and other relevant information.

📖 **Note**

You can continue to add users by checking "Continue to add user". If you do not select the option, the system will exit the "Add User" interface after adding the user.

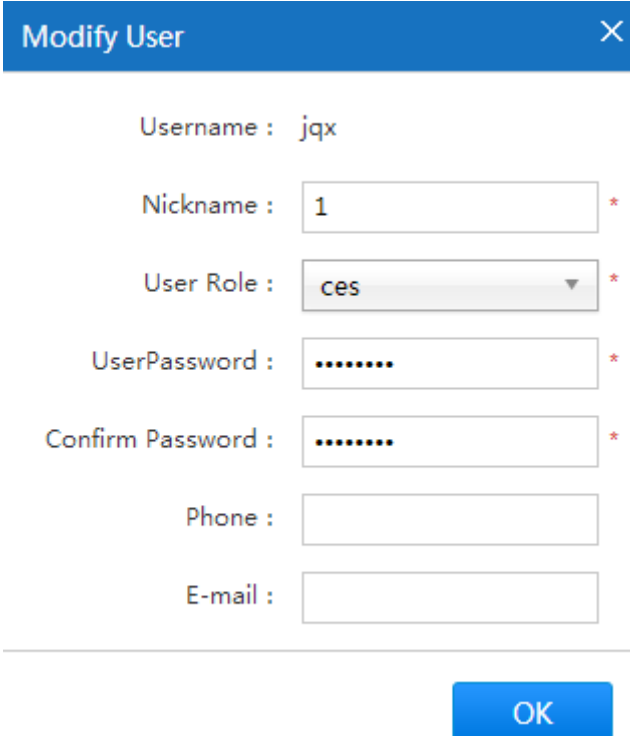| Parameter	Description
System Administrator	It has meeting, device, user, operation and maintenance, system settings, and other management privileges.
Conference Administrator	It has conference, device, and user management privileges.

Table 3-10

Step 3

Click [OK] to complete adding users.

3.7.1.2 Modifying User Accounts

Step 1

Click ✎ in "System Configuration > User" and the system will display the interface of "Modify User", which is shown in Figure 3-27.

Figure 3-27

Step 2

It is to set the nickname, password, user role and other relevant information of the user which has been selected by you.

Step 3

Click [OK] after setting is completed to save modifications.

3.7.1.3 Deleting Users

Step 1

Select "System Configuration > User" and the system will display the interface which is shown in Figure 3-28.
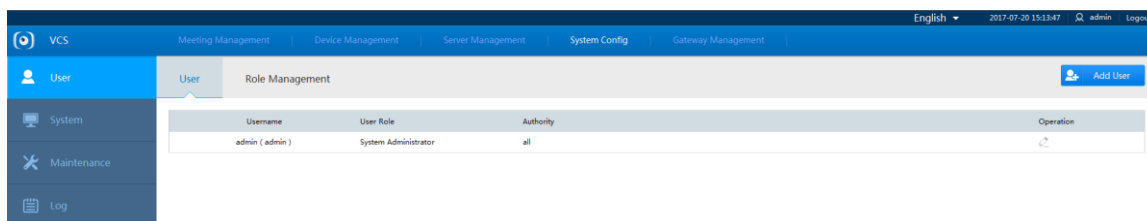

Figure 3-28

Step 2

Click 🗑 and the system will display the interface of "Delete", which is shown in Figure 3-29.
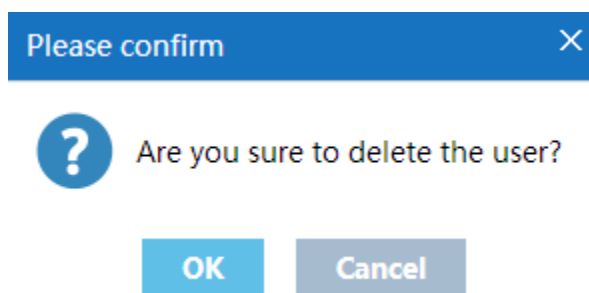

Figure 3-29

Step 3

Click [OK] to confirm delete.

3.7.2 System Management

3.7.2.1 System Status

Step 1

Go to "System Configuration > System > System Status".

The system will display the interface of "System Status", which is shown in Figure 3-30.
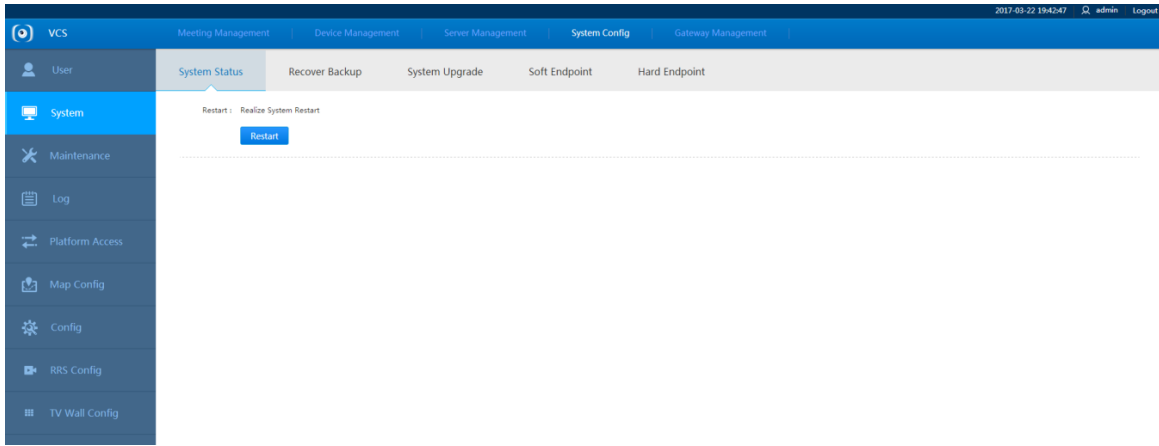
Figure 3-30

Step 2

Click ![Restart] and the system will restart.

3.7.2.2 Backup Recovery

Select "System Configuration > System > Recover Backup" and the system will display the interface which is shown in Figure 3-31.

- Backup Export: Click to select the path for the backup location. This will back up all the configuration data from the web client.

⚠️ **Caution**

Incorrect import will cause the system to be unrecoverable.

- Import backup: Click to select the backup file you want to import and recover the backed up data.
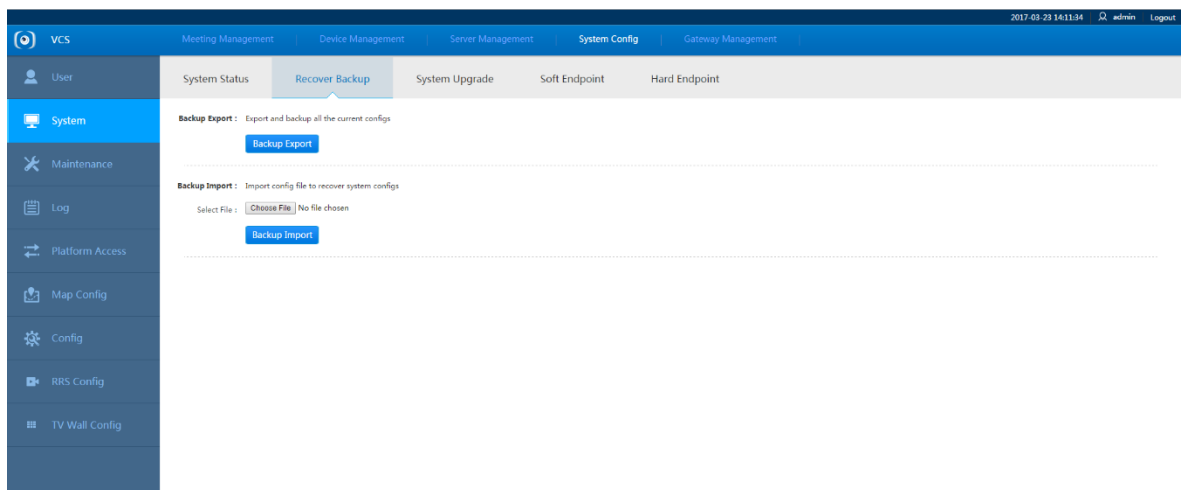

Figure 3-31

3.7.2.3 System Upgrade

⚠️ **Caution**

Incorrect system upgrade may lead to the system not functioning properly.

During firmware upgrade, select the upgrade file to import and perform the upgrade. The update file will have a .bin extension. During the upgrade process, do not disconnect the power or network connection, reset, or shutdown the device.

Step 1

Select "System Config > System > System Upgrade".

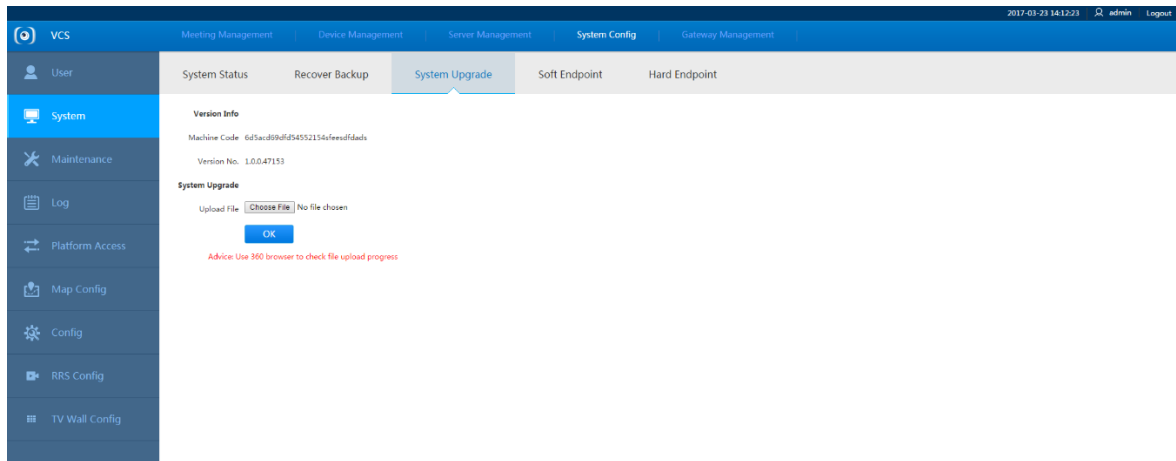The system will display the interface of "System Upgrade", which is shown in Figure 3-32.

Figure 3-32

Step 2

Click "Browse" and select the update file on the local system. The update file will have a .bin extension.

Step 3

Click [OK] to begin the system upgrade.

3.7.2.4 Soft Endpoint

It can realize software version upgrade via uploading and downloading soft endpoint installation file.

3.7.2.4.1 Soft Endpoint Downloads

Step 1

Select "System Configuration > System > Soft Endpoint".

The system will display the "Soft Endpoint" interface as shown in Figure 3-33.
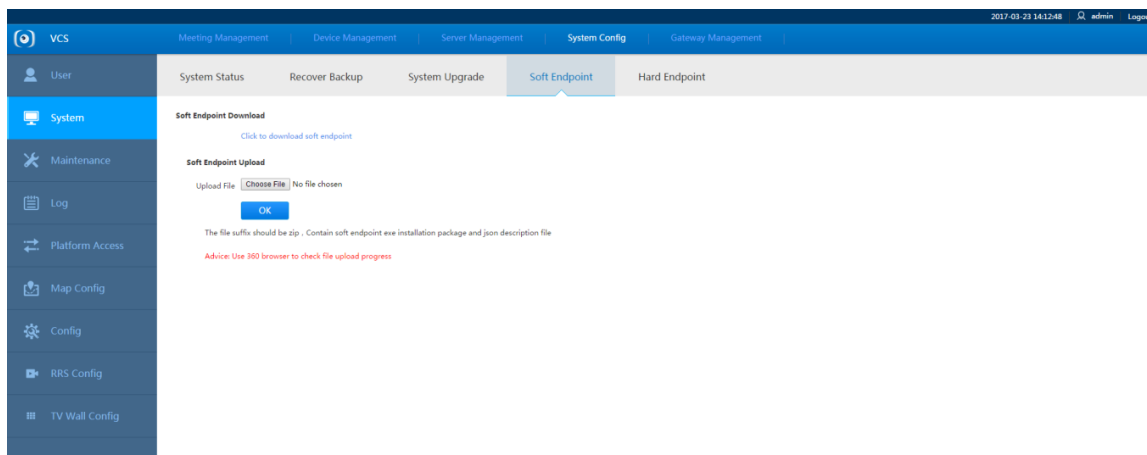
Figure 3-33

Step 2

Click "Click to download soft endpoint" and the system will display the interface of "File Download".

Step 3

Click "Save" and select the download path.

The system will display the "Save As" interface.

Step 4

Click "Save" to start download.

3.7.2.4.2 Soft Endpoint Upload

Step 1

Select "System Configuration > System > Soft Endpoint".

The system will display the "Soft Endpoint" interface.

Step 2

Click "Browse".

The system will display the "Select File to Upload" interface.

Step 3

Select the upload file from the local system.

Step 4

Click "Open" and the system will display the "Soft Endpoint" interface which is shown in Figure 3-34.
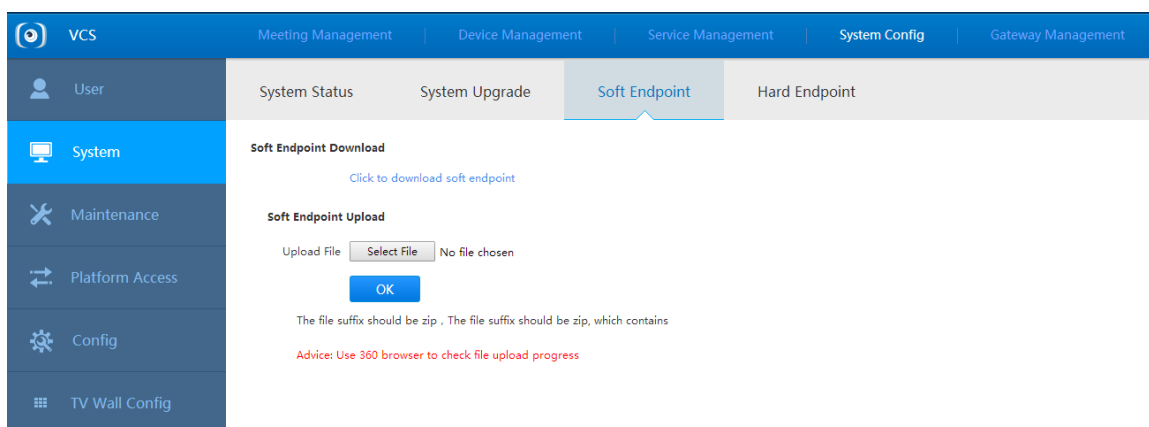

Figure 3-34

Step 5

Click "OK" to start upload.

3.7.2.5 Hard Endpoint

It can realize program upgrade via uploading and downloading hard endpoint installation file.

3.7.2.5.1 Hard Endpoint Download

Step 1

Select "System Configuration > System > Hard Endpoint".

The system will display the interface of "Hard Endpoint".

Step 2

Select actual hard endpoint device model in the drop-down box of "Endpoint Model".

Step 3

Click "Click to download hard endpoint" and the system will display the interface of "File Download".

Step 4

Click "Save" and select download path.

The system will display the interface of "Save As".

Step 5

Click "Save" to start download.

3.7.2.5.2 Hard Endpoint Upload

Step 1

Select "System Configuration > System > Hard Endpoint".

The system will display the interface of "Hard Endpoint".

Step 2

Select actual hard endpoint device model in the drop-down box of "Endpoint Model", and then input version number.

Step 3

Click "Browse" and the system will display the interface of "Select file to upload".

Step 4

Select upload file in the local system.

Step 5

Click "Open".

The system will display the interface of "Hard Endpoint", which is shown in Figure 3-35.
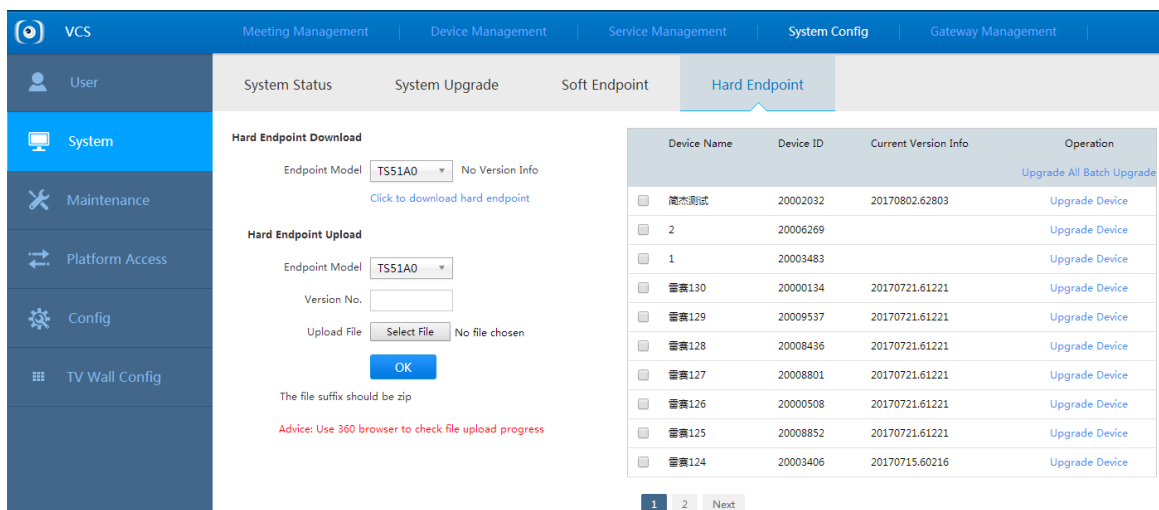
Figure 3-35

Step 6

Click "OK" to start upload.

3.7.3 Maintenance Management

3.7.3.1 Clustering and Stacking

Clustering and Stacking refers to using multiple devices to form a single cluster. When the capacity from one or more devices has been exceeded, you can manually switch to use multiple slave devices and allow them to perform the tasks of the master device.

⚠ **Caution**

Slave device connection and system configuration must be completed first. For further details, refer to "3.3 Quick Guide".

Step 1

Select "System Configuration > Maintenance".

The system will display the "Capacity" interface which is shown in Figure 3-36.
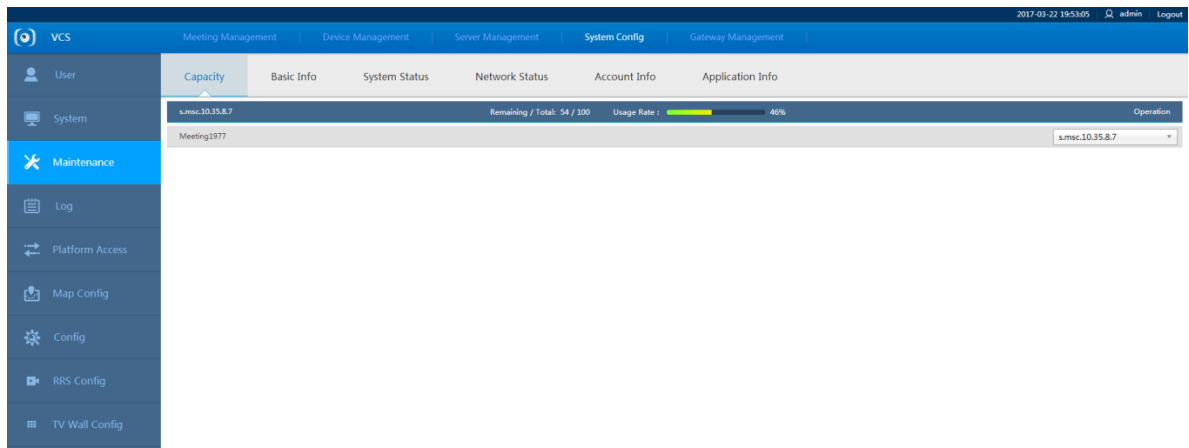

Figure 3-36

Step 2

Click and select the required meeting on the drop-down menu on the right side. Select the switching device as shown in Figure 3-37.
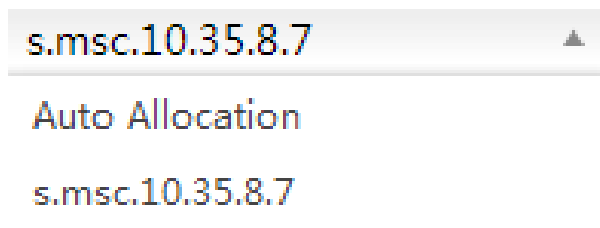

Figure 3-37

📖 **Note**

The largest amount of resources of a single device is 70.

3.7.3.2 Basic Information

It is to display and check basic system information, memory configuration, CPU configuration, and hard disk IO status.

Select "System Configuration > Maintenance > Basic Information" and the system will display the interface which is shown in Figure 3-38.
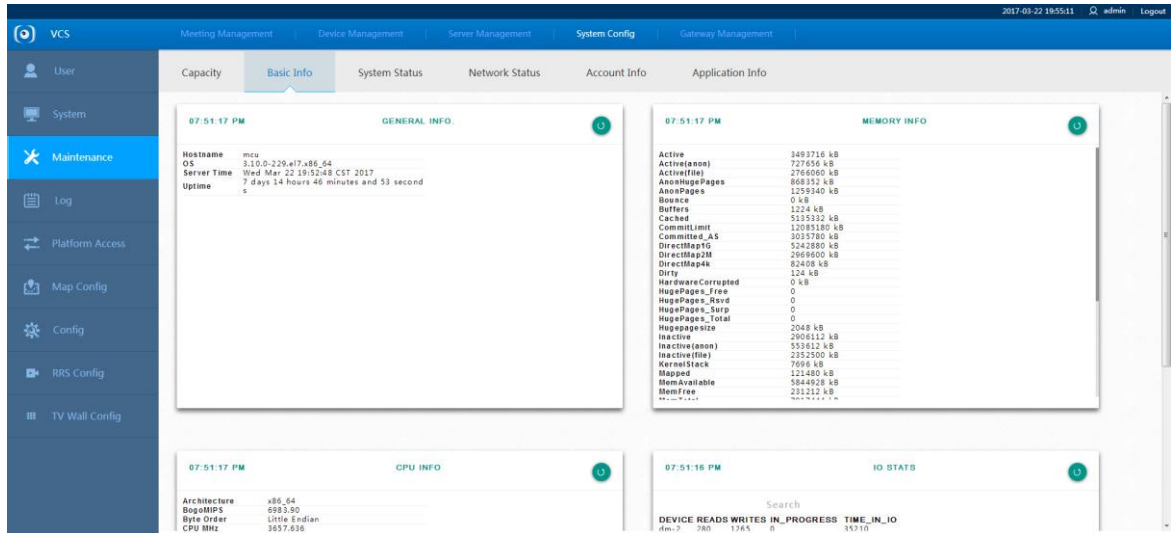

Figure 3-38

3.7.3.3 System Status

It is to display and check memory, CPU, hard disk partition, and various other usage statuses.

Select "System Configuration > Maintenance > System Status" and the system will display the interface which is shown in Figure 3-39.
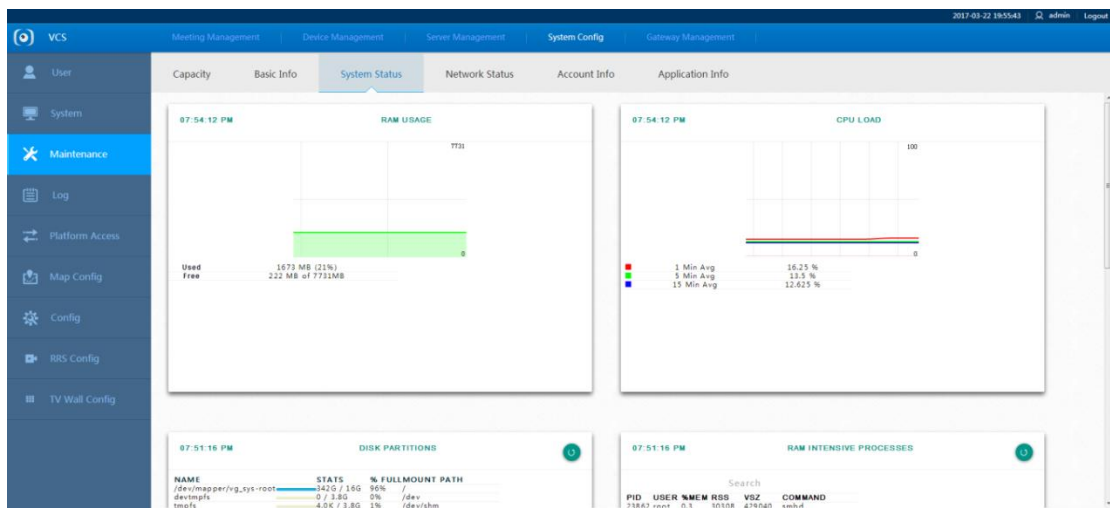

Figure 3-39

3.7.3.4 Network Status

It is to display and check network monitoring status and network speed.

Select "System Configuration > Maintenance > Network Status". The system will display the interface
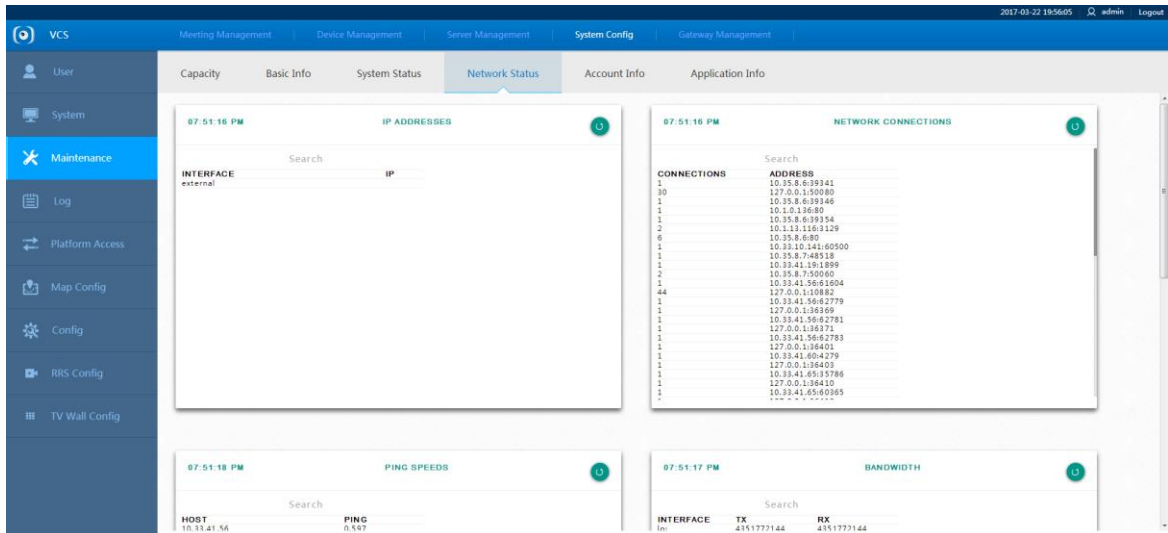
which is shown in Figure 3-40.

Figure 3-40

3.7.3.5 Account Information

It is to display information about system back-end accounts, logged in accounts, and recent logins

Select "System Configuration > Maintenance > Account Information". The system will display the interface which is shown in Figure 3-41.
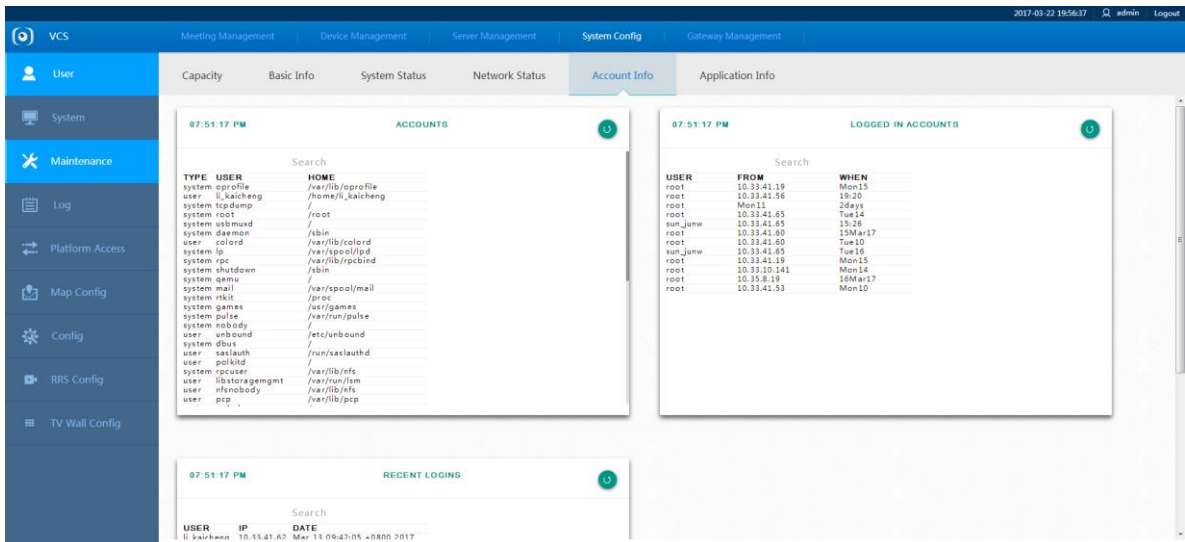

Figure 3-41

3.7.3.6 Application Information

Select "System Configuration > Maintenance > Application Information". The system will display the interface which is shown in Figure 3-42.
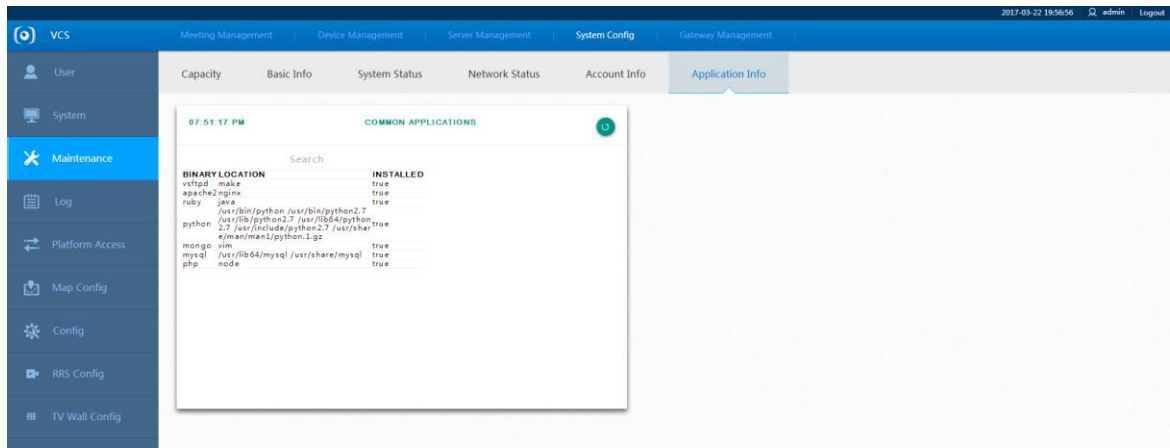
Figure 3-42

3.7.4 Platform Access

It can display log according to time range, which makes it convenient for users to check and export.

Step 1

Select "System Config > Platform Access". The system will display the interface of "Platform Access", which is shown in Figure 3-43.
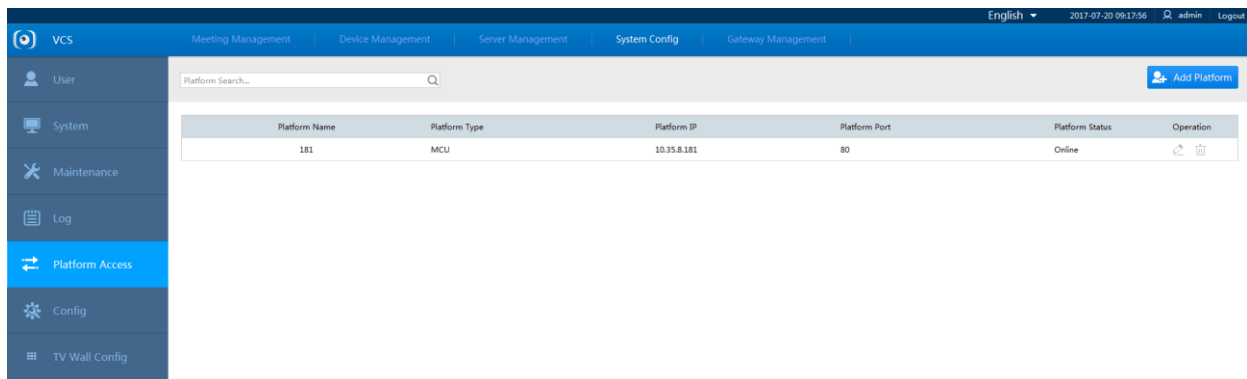

Figure 3-43

Step 2

Click and the system will display the interface of "Add Platform", which is shown in Figure 3-44.

Figure 3-44

Step 3

It is to configure parameters, please refer to Table 3-11 for more details about parameters.

Parameter	Note
Platform Name	Customized platform name.
Platform Type	dss_1 type by default.
Platform IP	Set IP address of added platform.
Platform Port	Set port number of the platform.
Username	User and password of the connected platform.
Password	
Continue to add device	• Selected: continue to add device. • Unselected: do not continue to add device.

Table 3-11

Step 4

Click to complete adding.

Note

● Click to modify the platform information.

● Click to delete the platform.

3.7.5 Config

3.7.5.1 Local Setting

You can set or modify local basic parameters on this interface if you haven't made settings in the boot wizard.

Step 1

Select "System Config > Config > Local Setting" and the system will display the interface of "Local Setting", which is shown in Figure 3-45.
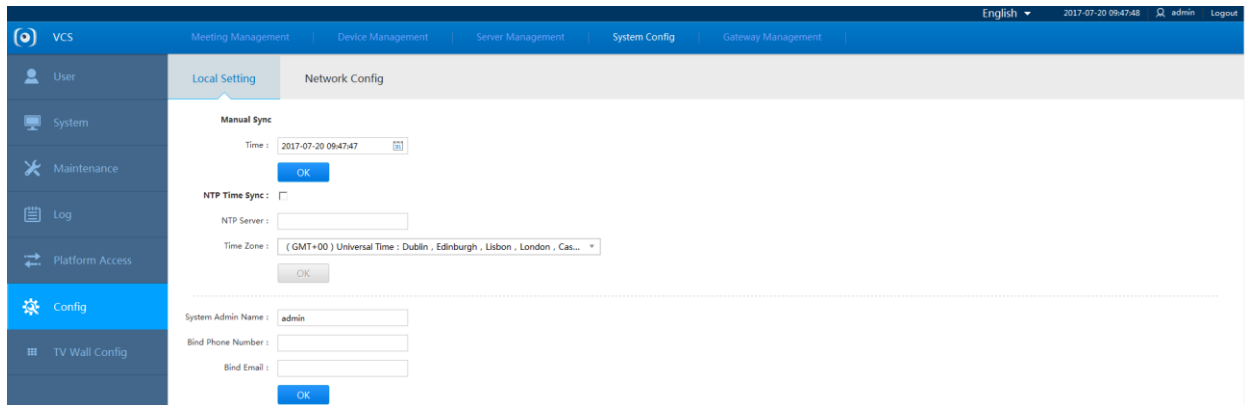

Figure 3-45

Step 2

It can make settings of time sync mode, admin name and account binding according to the actual requirements of users.

Step 3

Click [OK] to save.

3.7.5.2 Network Config

You can set network config on this interface if you haven't set it in the chapter of boot wizard.

Step 1

Select "System Config > Config > Network Config" and the system will display the interface of 'Network Config", which is shown in Figure 3-46.
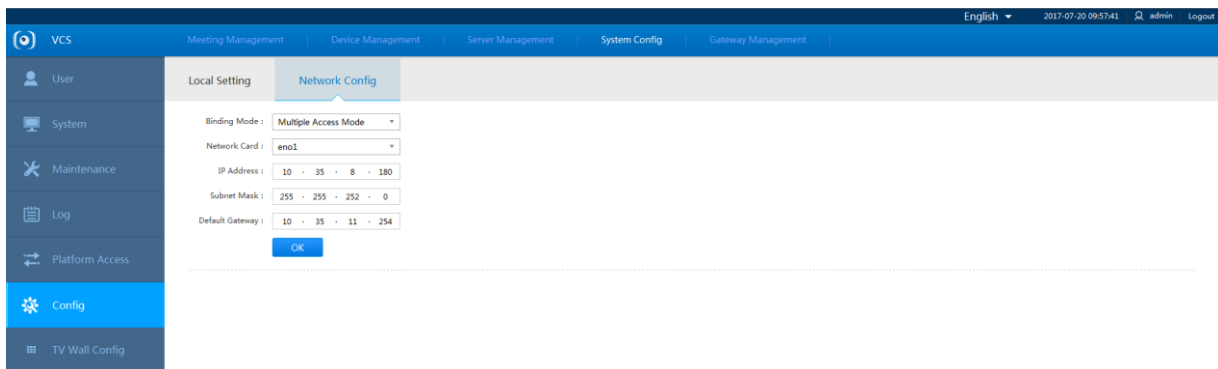

Figure 3-46

Parameter	Note
Binding Mode	Select multiple access mode.
Network Card	Select the needed network card.
IP Address	MCU91XX series IP address, and its corresponding "subnet mask" and "default gateway".
Subnet Mask	
Default Gateway	

Table 3-12

Step 2

Click [OK] after complete setting.

3.7.6 TV Wall Config

It can output the video conferencing image and display it on the big screen via configuring TV wall.

Step 1

Select "System Config > TV Wall Config" and the system will display the interface which is shown in Figure 3-47.
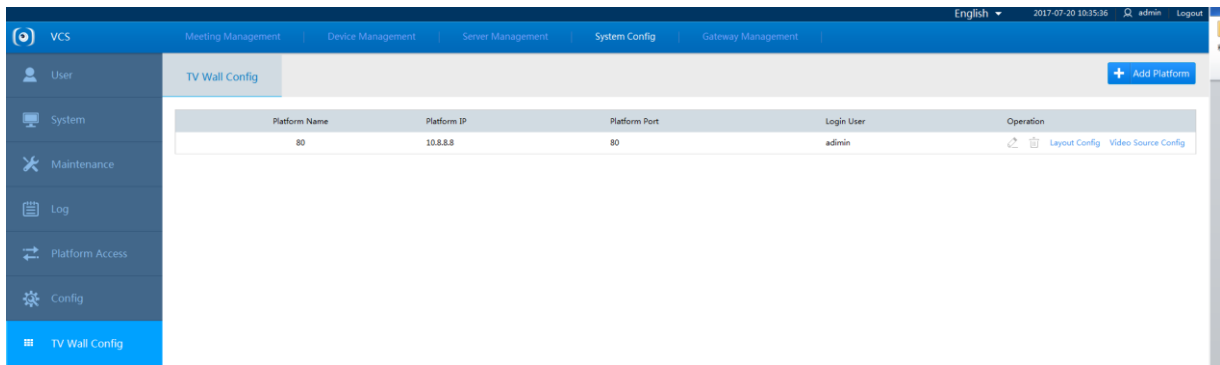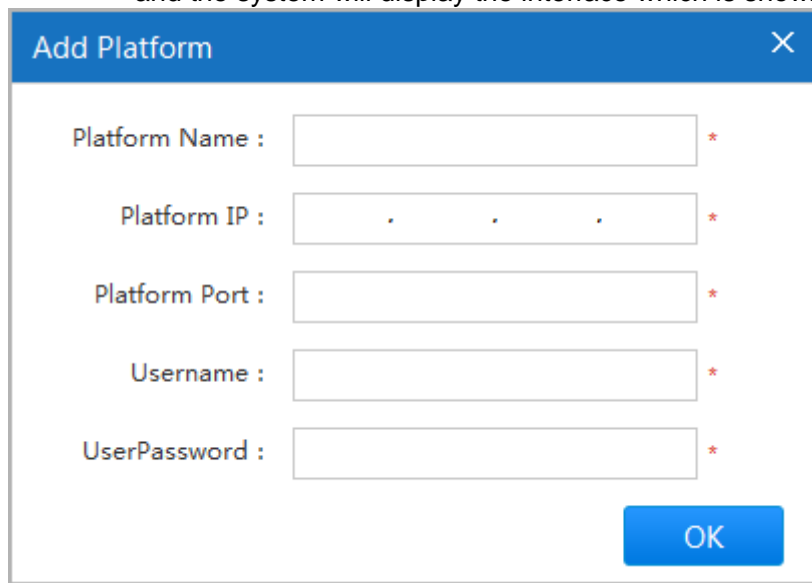

Figure 3-47

Step 2

Click [+ Add Platform] and the system will display the interface which is shown in Figure 3-48.

Figure 3-48

Step 3

According to the actual situation, configure the name, IP, port, username and password of TV wall accessed platform, which is shown in Figure 3-49.

Figure 3-49

Step 4

Click "OK" to complete adding.

The system will display the interface which is shown in Figure 3-50.

Figure 3-50

Step 5

Click "Layout Config" to skip to the added video comprehensive platform to make config. Click "Video Source Config" to configure video source which can be output to TV wall.

3.8 Gateway Management

3.8.1 All Gateways

You can check all the gateways which are connected to the system.

Select "Gateway Management > All Gateway" and the system will display the interface which is shown in Figure 3-51.

Figure 3-51

3.8.2 Cloud Proxy

Step 1

Select "Gateway Management > Cloud Proxy" and the system will display the interface of "Cloud Proxy", which is shown in Figure 3-52.
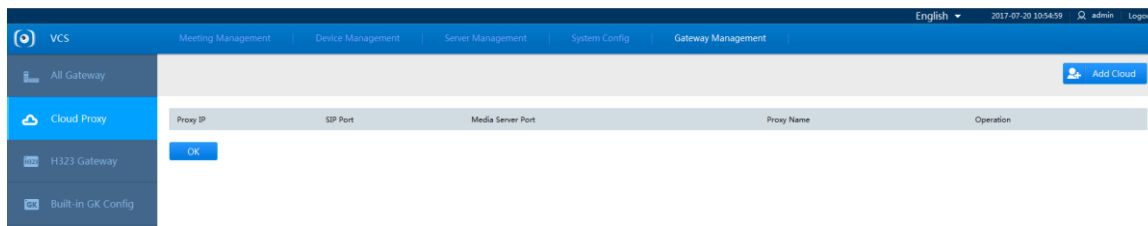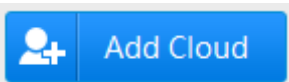

Figure 3-52

Step 2

Click and the system will display the interface which is shown in Figure 3-53.
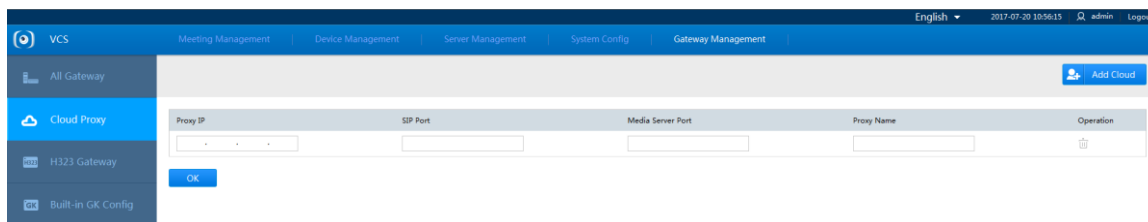

Figure 3-53

Step 3

Set "Proxy IP", "SIP Port", "Media Server Port" and "Proxy Name" according to the actual situation.

Step 4

Click to save settings.

3.8.3 H323 Gateway

3.8.3.1 H323 Config

Step 1

Select "Gateway Management > H323 Gateway > H323 Config" and the system will display the interface which is shown in Figure 3-54.
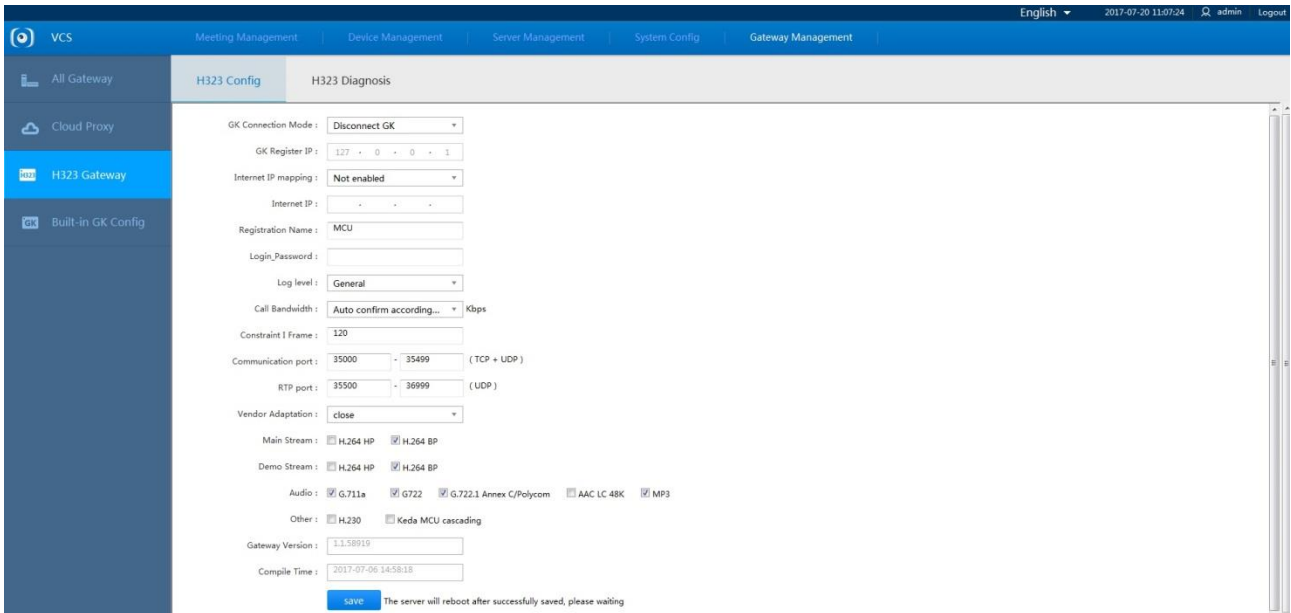
Figure 3-54

Step 2

Configure H323 gateway according to actual needs.

Step 3

Click "Save' to save config.

3.8.3.2 H323 Diagnosis

H323 diagnosis can detect if there is any H323 device joins meeting.

Step 1

Select "Gateway Management > H323 Gateway > H323 Diagnosis" and the system will display the interface which is shown in Figure 3-55.
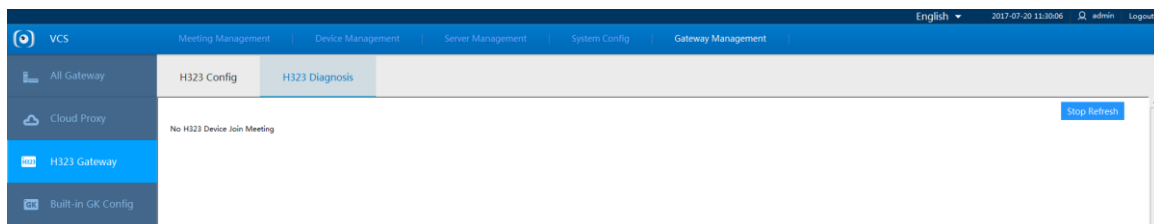

Figure 3-55

Step 2

Click ![Start Refresh] to begin to detect H323 device, click ![Stop Refresh] to stop detection.

3.8.3.3 Built-in GK Config

It can use specific number for interaction among video conferencing endpoints via configuring GK.

Select "Gateway Management > Built-in GK Config" and the system will display the interface which is shown in Figure 3-56, please refer to Table 3-13 for more details about parameters.
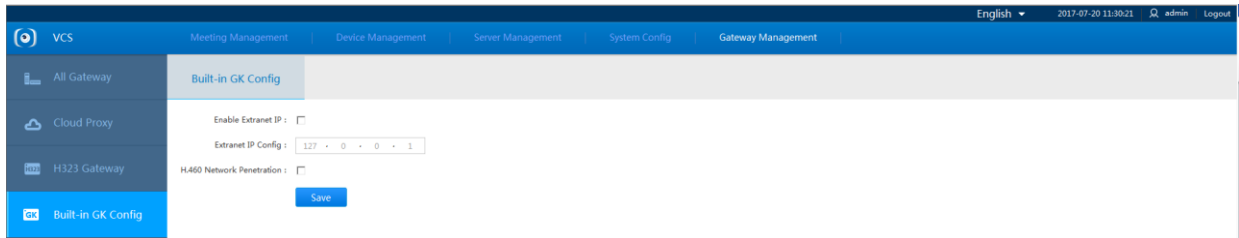
Figure 3-56

Parameter	Note
Enable Extranet IP	It is to set if it enables extranet IP.
Extranet IP Config	It is to set extranet IP according to actual situation.
H.460 Network Penetration	It is to set all the endpoints have to be accessed to GK.

Table 3-13

Dahua Technology Co., Ltd

Address：No.1199 Bin'an Road, Binjiang District, Hangzhou, PRC.

Postcode: 310053

Tel: +86-571-87688883

Fax: +86-571-87688815

Email:overseas@dahuatech.com

Website: www.dahuasecurity.com