

# Hikvision Intercom Video Devices Integration Guide

Yeastar P-Series Cloud Edition

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# Integrate Yeastar P-Series Cloud Edition with Hikvision Intercom Video Devices

This guide provides a configuration example to show you how to integrate Hikvision intercom video devices with Yeastar P-Series Cloud Edition to implement functions such as video intercom, access control, and intercom call forwarding.

## Restrictions

This solution is tested with Hikvision devices that support SIP protocol.

For Hikvision devices with the same model, SIP protocol may not be supported. For more information, contact your Hikvision account manager.

## Supported Hikvision product models

Device	Product Model
Hikvision Door Station	DS-KD8003-IME1 (VIS_OUTDOOR_H11_EN_STD_V2.2.45_210430)
Hikvision Villa Door Station	DS-KV8113-WME1(B), DS-KV8213-WME1(B), DS-KV8413-WME1(B) (VIS_VILLA_H11_EN_STD_V2.2.45_210430)
Hikvision Indoor Station	DS-KH6320-WTE1, DS-KH6320-TE1 (VIS_INDOOR_R0_EN_STD_V2.1.20_build210420)

## Highlight features

By registering the Hikvision intercom video devices with Yeastar P-Series Cloud Edition, you can achieve the following features:

### Real-time video communication with the visitor

In addition to audio communication, the door station also supports video calls with **Indoor station**, **Linkus Web Client**, **Linkus Desktop Client**, and **Video IP phone**.

### Auto-forward visitor calls to Linkus clients

By configuring the call forwarding feature, any unanswered calls will be automatically forwarded to the Linkus clients, preventing any missed calls.

### Flexible access control with different endpoints

In addition to indoor stations, you can also answer visitor calls and remotely open the door using Yeastar PBX extension endpoints, including the Linkus clients and IP phones.

## Test environment

The instructions provided in this guide are based on the following test environment.

Device	Firmware Version	IP Address / Domain Name
Yeastar P-Series Cloud Edition	84.12.0.34	demo.example.yeastarcloud.com
Hikvision DS-KH6320 Indoor Station	V2.1.10	192.168.66.43
Hikvision DS-KD8003 Door Station	V2.2.3	192.168.66.42

## Objectives

This guide provides instructions based on the above scenario to help you achieve the following objectives:

- [Manage Hikvision Devices on iVMS-4200 Client](#)
- [Register Hikvision Door Station to Yeastar P-Series Cloud Edition](#)
- [Register Hikvision Indoor Station to Yeastar P-Series Cloud Edition](#)
- [Set up Communication Between Hikvision Door Station and Indoor Station](#)
- [Forward Hikvision Door Station Calls to Linkus Client](#)

## Manage Hikvision Devices on iVMS-4200 Client

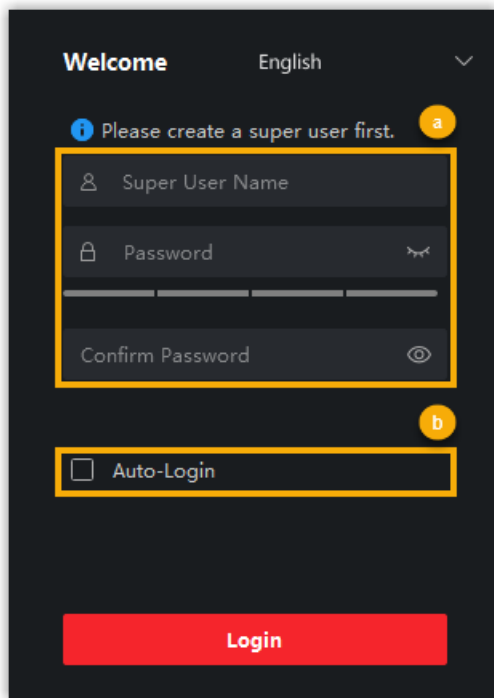
iVMS-4200 Client is a versatile device management software for Hikvision devices, which is designed to configure and manage the devices in a unified and intuitive manner.

### Step 1. Install Hikvision iVMS-4200 Client

Download [iVMS-4200 Client Software](#) and install it on your local PC for Hikvision device management.

### Step 2. Register and log in to Hikvision iVMS-4200 Client

1. Run iVMS-4200 Client.
2. Create a super user account.



- a. Set the user name and password for the account.
- b. **Optional:** Select the checkbox of **Auto-Login** if needed.
3. Click **Login**.  
The super user account is created and logged in.

**Note:**

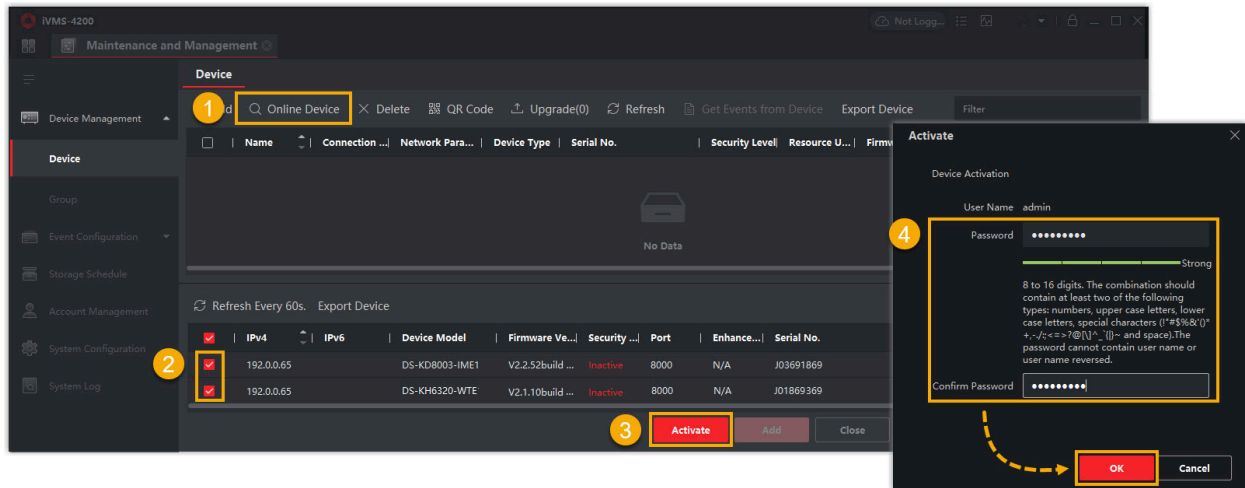
Enter the user name and password next time you want to access iVMS-4200 Client.

### Step 3. Activate intercom video devices

You need to activate Hikvision door station and indoor station first by setting a strong password for them to ensure the devices can work properly.

**Note:**

Make sure the devices to be activated is in the same network as the PC running the client.



1. On **Device Management > Device**, click **Online Device**.

The detected online devices are displayed at the bottom of the page.

2. Check device status (shown on **Security Level** column) and select **Inactive** devices.


3. Click **Activate**.



4. In the activation window, set a password for the device and click **OK** to activate it.

## Step 4. Add devices to iVMS-4200 Client

After the devices are activated, you can add them to the client for device management.

1. Configure the IP addresses for Hikvision devices.

a. Click  on the **Operation** column beside the detected devices.

<input type="checkbox"/>	IPv4	IPv6	Device Model	Firmware Ver...	Security ...	Port	Enhance...	Serial No.	Support ...	Hik Con...	Operation
<input type="checkbox"/>	192.0.0.65		DS-KD8003-IME1	V2.2.52build ...	Inactive	8000	N/A	J03691869	N/A	N/A	
<input type="checkbox"/>	192.0.0.65		DS-KH6320-WTE	V2.1.10build ...	Inactive	8000	N/A	J01869369	N/A	N/A	

b. Configure the IP address and gateway of the devices to ensure they are on the same network segment as the PC running the iVMS-4200 client.

In this example, the PC's IP address is **192.168.66.25**, and the devices' IP addresses are set as follows:

- Door station: 192.168.66.42
- Indoor station: 192.168.66.43

c. Click **OK**.

2. Select the activated devices and click **Add** on the bottom right.

Refresh Every 60s. Total (2) Filter

<input checked="" type="checkbox"/>	IPv4	I...	Device Model	Firmware Version	Security...	Port	Serial No.	Boot...	Added	Support...	Hik-Con...	Oper...
<input checked="" type="checkbox"/>	192.168.66.43		DS-KH6320-...	V2.1.10build 200713	Active	8000	DS-KH6320-WTE10...	2021...	Yes	Yes	Enable	⊕
<input checked="" type="checkbox"/>	192.168.66.42		DS-KD8003-...	V2.2.3build 200805	Active	8000	DS-KD8003-IME101...	2021...	Yes	N/A	N/A	⊕

Activate
Add
Close

3. In the pop-up window, fill in the required information.

**Add**
✕

User Name

Password

Synchronize Time
☒

Import to Group
☒

ⓘ Set the device name as the group name and add all the channels connected to the device to the group.

Add
Cancel

- **User Name:** Enter the user name of your account. In this example, enter `admin`.
- **Password:** Enter the [device password](#).
- **Synchronize Time:** Check the option to synchronize the device time with the PC running the client.
- **Import to Group:** Check the option to create a group by the device name, and import all the channels of the device to this group.

4. Click **Add**.

## What to do next

Register Hikvision devices to Yeastar P-Series Cloud Edition.

- [Register Hikvision Door Station to Yeastar P-Series Cloud Edition](#)
- [Register Hikvision Indoor Station to Yeastar P-Series Cloud Edition](#)

## Related information

[iVMS-4200 Client User Manual](#)

# Register Hikvision Door Station to Yeastar P-Series Cloud Edition

This topic takes Hikvision DS-KD8003 as an example to demonstrate how to register Hikvision door stations to Yeastar P-Series Cloud Edition.

## Prerequisites

Before you start, make sure:

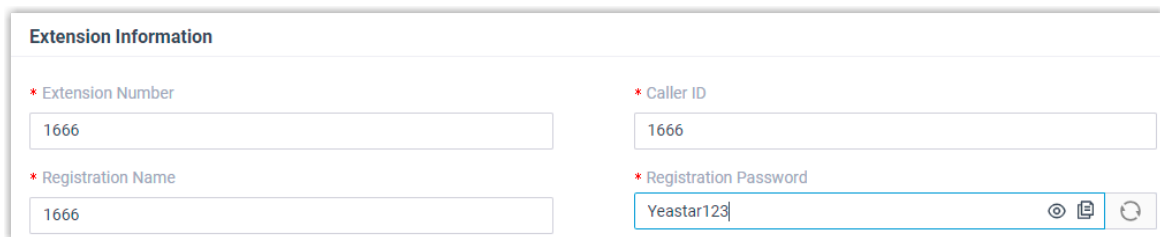
- The door station supports SIP protocol.
- The door station has been activated and added to iVMS-4200 Client.

For more information, see [Activate intercom video devices](#) and [Add devices to iVMS-4200 Client](#).

## Step 1. Create an extension for the door station

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, click **Add > Add**.
2. Change the user information and extension information, or leave the default settings.


In this example, create a SIP extension 1666 for Hikvision DS-KD8003 door station.



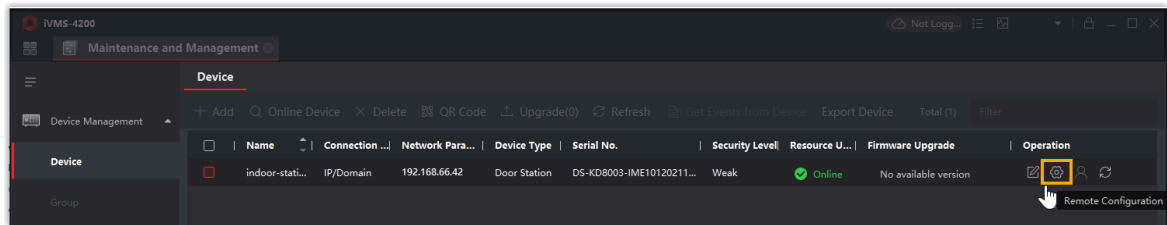
Extension Information	
* Extension Number	* Caller ID
1666	1666
* Registration Name	* Registration Password
1666	Yeastar123

3. Click **Save** and **Apply**.

## Step 2. Register door station to the PBX

1. Log in to iVMS-4200 Client, go to **Device Management > Device**.
2. Click  beside the DS-KD8003 door station to enter the **Configuration** page.





3. Set up DNS server.

- a. Go to **Network > Basic Settings > TCP/IP**.
- b. In the **DNS Server** section, enter the IP address of DNS server, then click **Save**.

### DNS Server

Preferred DNS Server

Alternate DNS Server

Save

4. Register the door station with the PBX extension 1666.

- a. Go to **Network > Basic Settings > SIP**.
- b. Select the checkbox of **Enable VOIP Gateway**.
- c. Enter the credentials of extension 1666.

☒ Enable VOIP Gateway

Register User Name  ☒

Registration Password  ☒

Server Address  ☒

Server Port

Expiry Time  minute(s)

Register Status

Number  ☒

Display User Name  ☒

- **Register User Name:** Enter the registration name of the extension. In this example, enter 1666.
- **Registration Password:** Enter the registration password of the extension. In this example, enter Yeastar123.
- **Server Address:** Enter the domain name of Yeastar P-Series Cloud Edition. In this example, enter demo.example.yeastarcloud.com.
- **Server Port:** Enter the SIP registration port of Yeastar P-Series Cloud Edition. In this example, enter 5060.
- **Expiry Time:** Retain the default value.
- **Number:** Enter the extension number. In this example, enter 1666.
- **Display User Name:** Enter the name to be displayed when sending calls. In this example, enter 1666.

d. Click **Save**.

The **Register Status** displays "Registered", indicating that the door station is registered to Yeastar P-Series Cloud Edition.

Enable VOIP Gateway ☒

Register User Name	1666	✓
Registration Password	••••••••	✓
Server Address	demo.example.yeastarcloud.	✓
Server Port	5060	✓
Expiry Time	60	minute(s) ✓
Register Status	Registered	
Number	1666	✓
Display User Name	1666	✓

## Register Hikvision Indoor Station to Yeastar P-Series Cloud Edition

This topic takes Hikvision DS-KH6320 as an example to demonstrate how to register Hikvision indoor stations to Yeastar P-Series Cloud Edition.

### Prerequisites

Before you start, make sure:

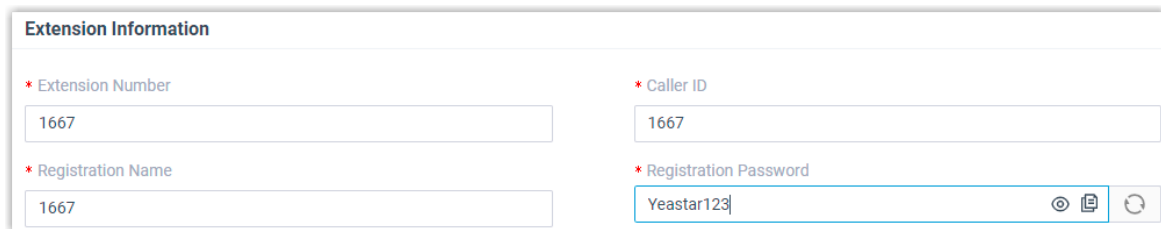
- The indoor station supports SIP protocol.
- The indoor station has been activated and added to iVMS-4200 Client.

For more information, see [Activate intercom video devices](#) and [Add devices to iVMS-4200 Client](#).

## Step 1. Create an extension for the indoor station

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, click **Add > Add**.
2. Change the user information and extension information, or leave the default settings.


In this example, add a SIP extension 1667 for Hikvision DS-KH6320 indoor station.

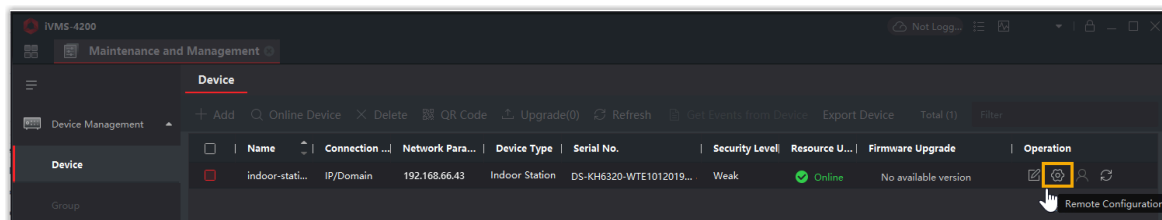


Extension Information	
* Extension Number	* Caller ID
1667	1667
* Registration Name	* Registration Password
1667	Yeastar123

3. Click **Save and Apply**.

## Step 2. Register indoor station to the PBX

1. Log in to iVMS-4200 Client, go to **Device Management > Device**.
2. Click  beside the DS-KH6320 indoor station to enter the **Remote Configuration** page.



3. Set up DNS server.
  - a. Go to **Network > Advanced Settings**.
  - b. In the **DNS Server** section, enter the IP address of DNS server, then click **Save**.

**Configuring the Advanced Network Settings**

DNS1 IP Address: 8.8.8.8

DNS2 IP Address: 114.114.114.114

**Save**

4. Register the indoor station with the PBX extension 1667.
  - a. Go to **Network > SIP Server Configuration**.
  - b. Select the checkbox of **Enable**.
  - c. Enter the credentials of extension 1667.

☒ **Enable**

Registration Status: Registered

Server: Domain Name

Server Domain Name: demo.example.yeast

Server Port: 5060

Register User Name: 1667

Password: ●●●●●●●●

Number: 1667

Display User Name: 1667

Registration Period: 60 min

**Save**

- **Server:** Select Domain Name.
- **Server Domain Name:** Enter the domain name of Yeastar P-Series Cloud Edition. In this example, enter demo.example.yeastarcloud.com.
- **Server Port:** Enter the SIP registration port of Yeastar P-Series Cloud Edition. In this example, enter 5060.
- **Register User Name:** Enter the registration name of the extension. In this example, enter 1667.

- **Password:** Enter the registration password of the extension. In this example, enter `Yeastar123`.
- **Number:** Enter the extension number. In this example, enter `1667`.
- **Display User Name:** Enter the name to be displayed when sending calls. In this example, enter `1667`.

d. Click **Save**.

The **Register Status** displays "Registered", indicating that the indoor station is registered to Yeastar P-Series Cloud Edition.

## Set up Communication Between Hikvision Door Station and Indoor Station

This topic describes how to set up the communication between Hikvision devices to form an intercom system together with Yeastar P-Series Cloud Edition.


### Prerequisites

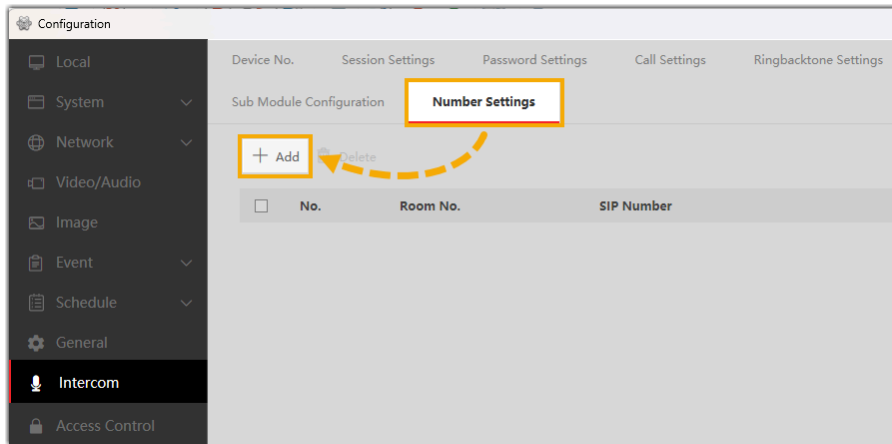
Make sure that you have registered Hikvision door station and indoor station to the PBX. For more information, see the following topics:

- [Register Hikvision Door Station to Yeastar P-Series Cloud Edition](#)
- [Register Hikvision Indoor Station to Yeastar P-Series Cloud Edition](#)

### Step 1. Set Hikvision door station to call indoor station

To achieve communication between door station and indoor station, you need to set the dial number(s) for door station's dial button.

1. Log in to iVMS-4200 Client, go to **Device Management > Device**, click  beside the DS-KD8003 door station to enter the **Configuration** page.
2. Go to **Intercom > Number Settings**, click **Add** to add the indoor station as the intercom device.



3. In the pop-up window, configure the intercom device information.

- **Room No.:** Enter the number of the room where the indoor station is located.
- **SIP1:** Enter the SIP extension number of DS-KH6320 indoor station.

In this example, enter 1667.

4. Click **OK**.

## Step 2. Configure codecs on the Hikvision door station and the PBX

To ensure the normal audio calls and video calls between Hikvision devices, make sure that the same codecs are selected both on Hikvision devices and PBX.

### Configure audio codec and video codec on Hikvision door station

1. On the **Configuration** page, go to **Video/Audio**.
2. Set up video codec.

- a. Click **Video** tab.
- b. In the drop-down list of **Video Encoding**, select **H.264**.

The screenshot shows the 'Video' configuration tab. It contains several settings: Stream Type (Main Stream), Video Type (Video&Audio), Resolution (1280\*720P), Bitrate Type (Variable), Video Quality (Medium), Frame Rate (25 fps), Max. Bitrate (2048 Kbps), Video Encoding (H.264), and I Frame Interval (50). The 'Video Encoding' dropdown is highlighted with a yellow box. A red 'Save' button is at the bottom.

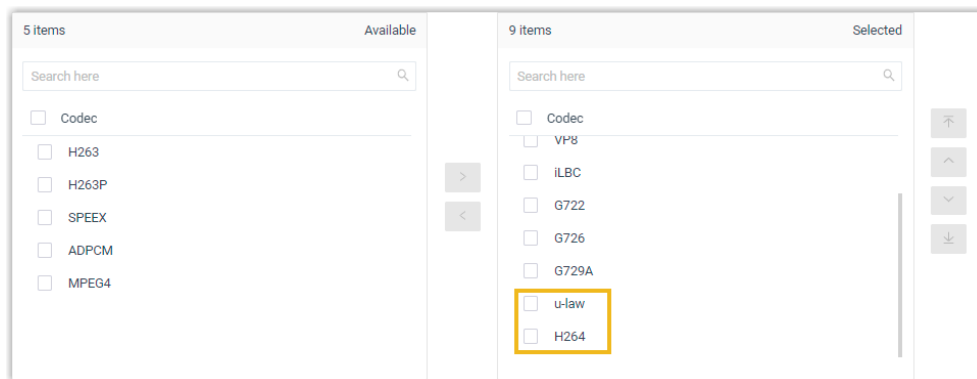
3. Set up audio codec.
  - a. Click **Audio** tab.
  - b. In the drop-down list of **Audio Encoding**, select **G.711ulaw**.

The screenshot shows the 'Audio' configuration tab. It contains settings for Stream Type (Main Stream), Audio Encoding (G.711ulaw), Input Volume (7), Output Volume (7), and Speak Volume (7). The 'Audio Encoding' dropdown is highlighted with a yellow box. A red 'Save' button is at the bottom.

4. Click **Save**.

**Configure audio codec and video codec of PBX**

1. Log in to PBX web portal, go to **PBX Settings > SIP Settings > Codec**.
2. Select **u-law** and **H264** from **Available** box to **Selected** box.



3. Click **Save** and **Apply**.

## Result

- When a visitor presses the door station call button, you can receive and answer the call on the indoor station, and also conduct a video communication with the visitor through the indoor station.
- During the call, you can open the door by directly tapping the unlock key on the indoor station.

## Forward Hikvision Door Station Calls to Linkus Client

To prevent from missing any visits, you can configure Hikvision door station to forward calls to Linkus clients by configuring the call forwarding feature on Yeastar P-Series Cloud Edition. In this way, you can receive visitors' calls anywhere on any Linkus clients (Linkus Mobile Client, Linkus Web Client, or Linkus Desktop Client).

### Prerequisites

You have [set up communication between Hikvision Door Station and Indoor Station](#).

### Step 1. Configure Call Forwarding destination on the PBX

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, double click the extension you have created for Hikvision indoor station.
2. Click **Presence** tab.



3. In the **Call Forwarding** section, configure Call Forwarding destination for internal calls.
  - a. Select the checkbox of **No Answer**.
  - b. Set the destination to **Extension**, then select an extension that is registered on Linkus clients.

**Call Forwarding**

**Internal Calls**

☐ Always


☒ No Answer      Extension      1000-1000

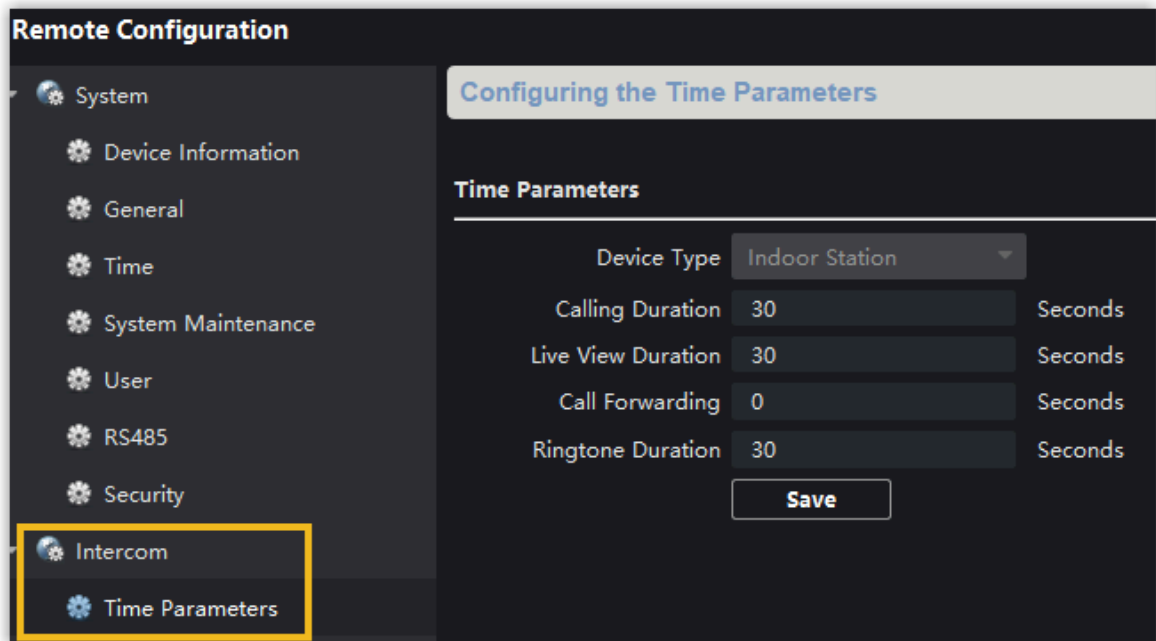
☒ When Busy      Voicemail

4. Click **Save** and **Apply**.

## Step 2. Configure Calling Duration on Hikvision indoor station

By configuring the Calling Duration, the call will be forwarded to the next destination if there is no answer over the calling duration.

1. Log in to iVMS-4200 client, go to **Device Management > Device**.
2. Click  beside the DS-KH6320 indoor station to enter the **Remote Configuration** page.
3. Go to **Intercom > Time Parameters** to configure the desired duration in **Calling Duration** field.



4. Click **Save**.

## Result

- The door station call will be forwarded to your Linkus clients if there is no answer from indoor station over the calling duration.
- During the call, you can open the door by directly pressing a feature code. In this example, the default unlocking button is **1#**.