



### Paging Management System User Manual





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# **Chapter 1 Introduction**

Paging Management System (Abbreviated as PMS) is a software application developed exclusively by ZYCOO and associated with CooVox-U60/U100 only. The primary purpose of PMS is to provide unified management capability for SIP Speakers. Each SIP Speaker can be managed as an extension and can be centrally configured, grouped, monitored and managed by PMS. Even standard desk phones can be used for making announcements by simply connecting them to your CooVox IP PBX system via the SIP protocol.PMS allows you to make announcements using a specified voice file on a scheduled time and date and all announcement logs are available to review from the paging management system.PMS is a flexible solution that can through a simple and intuitive interface expand your system to add more SIP Speakers to your network at any time.

PMS has been designed to complement Zycoo's SIP based audio system iSpeaker which is a dedicated PA device that utilizes the built-in intercom and paging capability already inherent in most modern IPPBX systems and enhances this to improve end user experience by providing a dedicated high performance digital amplifier on which to broadcast announcements or play background music. There are two models currently available which are the iSpeaker B20 and iSpeaker C20.

#### **PMS Highlights:**

- Group announcements
- Volume Control
- PA for specified area
- PA at scheduled time
- Real-time announcement
- Unified management of audio files
- Remote settings /management/ upgrade
- Real-time and remote monitor speakers status
- Unified configuration of SIP speakers
- Simple to use with user friendly Web interface
- Custom service is available (e.g.: emergency announcement)
- Paging to up to 70 SIP Speakers (U100)

#### **Instructions:**

- Paging Management System requires integration with Zycoo CooVox IP PBX to function (U60 and U100 currently supported).
- This initial release version of PMS will work as a plugin to existing firmware and will require
  installing on your CooVox system before use. Please find details in PMS Installation Guide.
- Later versions will be integrated into CooVox IP PBX firmware.
- Supported web browsers version of Paging Management System include:
  - FireFox-5.0 and above:
  - Chrome-19 and above;
  - ❖ IE10 and above.



# **Chapter 2 Paging Management System**

### 2.1Login

Login IP of PMS is the same as the CooVox IP PBX on which it is hosted, the only difference is the port number which is 9997 for PMS which differs from the 9999 for CooVox IP PBX.

For example, where the login IP of your IP PBX is 192.168.1.210:9999; therefore the login IP of the related PMS would be 192.168.1.210:9997.

Default username and password is: admin/admin

Supported Language: English/Chinese (We will introduce other languages gradually)

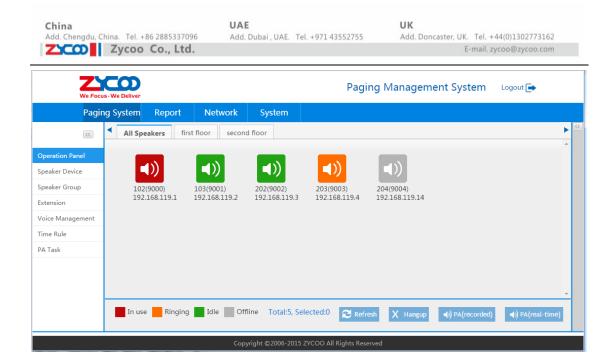
After select language, input username and password to login.



Note: To protect system security, please change your login password at first login from System -->My Information.

### 2.20peration Panel

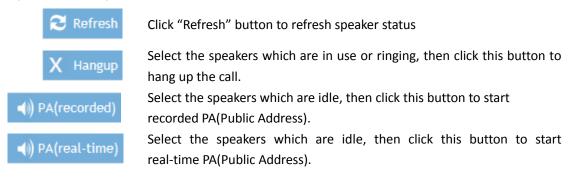
Operation Panel will be displayed after sign in. The status of all speakers will be displayed on this panel and you can also broadcast directly from this page.



#### **Speakers Status Description:**

- SIP Speaker is in use now.
- SIP Speaker is offline and cannot work at this time.
- SIP Speaker is idle and can work at this time.
- SIP Speaker is ringing.

#### **Operation Description:**

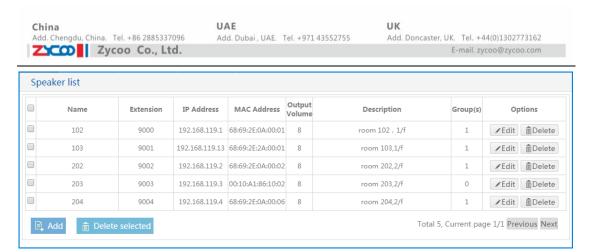


#### **Emergency Operation (Customizable)**

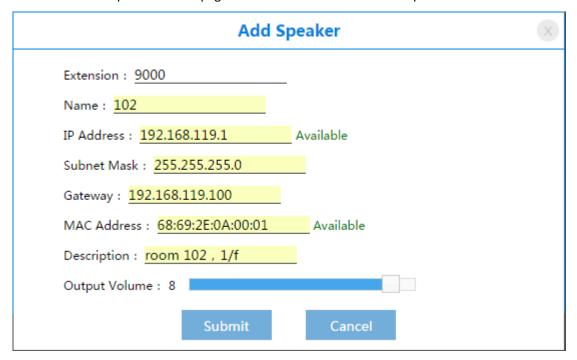
Emergency operation is not available at this time, but can be added as a customized feature. For example if "Fire" is associated to an emergency number, then click "Fire" to call this emergency number; or if "Earthquake" is associated to an emergency group, then click "Earthquake" to call this related emergency group.

### 2.3Speaker List

Speaker list is used to manage all SIP Speakers. From below picture, you can find speaker name, extension, IP address, MAC address, output volume, description, and also identify the groups the device belongs to.



You can add new speaker on this page and define an extension to the speaker. See below:



#### Speaker Parameters:

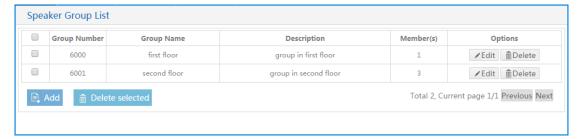
Item	Explanation
Extension	Define an extension number for this speaker
Name	Define the name for this speaker, e.g.: room102
IP Address	Distribute IP address for this speaker
Subnet Mask	Set subnet mask
Gateway	Set gateway
MAC Address	Set MAC address of this speaker
Description	Describe this speaker in detail, e.g.: room 102, 1st floor
Output Volume	Set output volume for speaker (volume ranges from 0 to 9)

### 2.4Speaker Group

Speaker group is used to group speakers. From the example below, you can see there is one speaker in the first floor which belongs to group 6000 and there are three speakers in the second

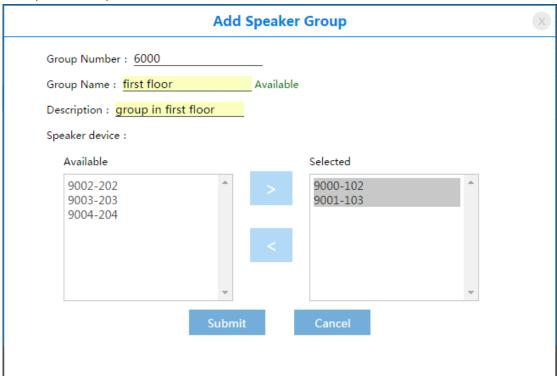


#### floor which belong to group 6001.



An administrator can add or delete a speaker group from this page.

#### Add Speaker Group



#### **Speaker Group Parameters:**

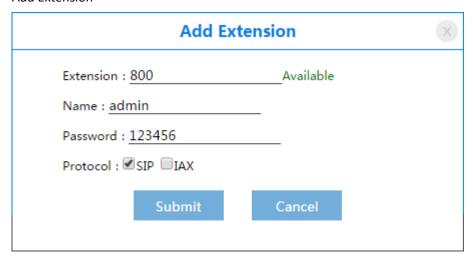
Item	Explanation
Group Number	Define a number for this group
Group Name	Define a name for this group
Description	Describe this group in detail
Speaker device	Select some available devices to this group

## 2.5Extension Management

Extensions in PMS are used to make announcements and broadcasts and are exactly the same as extensions on your CooVox IP PBX, and are synchronized in real-time with the IP PBX. Announcements can be made via any extension shown in the extension list which can be any

SIP or IAX2 terminal device.

#### Add Extension



#### **Extension Parameters:**

ltem	Explanation
Extension	Define the extension number
Name	Define the name for this extension
Password	Password for login
Protocol	Select the protocol(SIP or IAX2) for this extension.

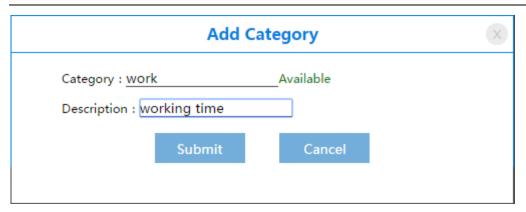
# 2.6Voice Management

A Voice file can pre-loaded into the system for later playback. This voice file can be any audio file for announcements such as background music or a recorded notification... Category list is used to centrally manage different voice files.

The voice file format can be gsm, wav, mp3.

Suggested standard voice file should be 8Khz,16bit, mono. Please refer to this standard requirement to avoid any problem with higher quality voice file in announcement.

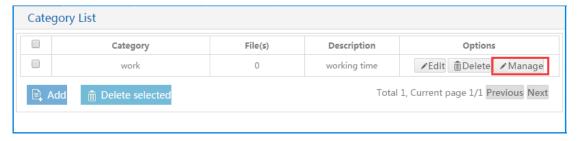
Add Category



#### **Category Parameters:**

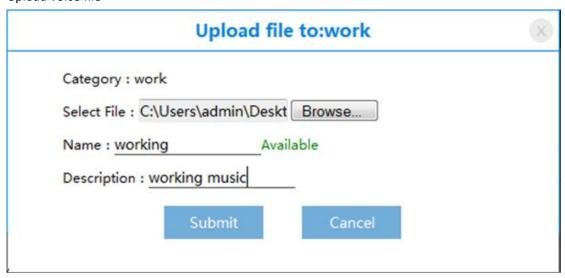
ltem	Explanation
Category	Define this category
Description	Describe this category in detail

When category is created, you can manage the files in this category.



Click **Manage** and upload voice files for this category.

Upload voice file



#### Voice File Parameters:

ltem	Explanation
Category	Voice file category

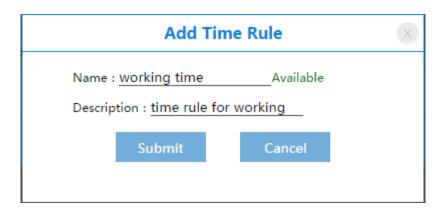


### 2.7Time Rule

Time rules are used to manage the announcement task based on a defined time rule. This allows the flexibility to set different tasks to be executed at different times of the day or week.

Multiple time rules can be set to support the requirement for multiple tasks.

Click **Add** from the Time Rule List to create a new time rule. Add Time Rule



#### Time Rule Parameters:

ltem	Explanation
Name	Define a name for this time rule
Description	Describe this time rule in detail

After successfully creating the time rule, you must configure the detailed time rule.

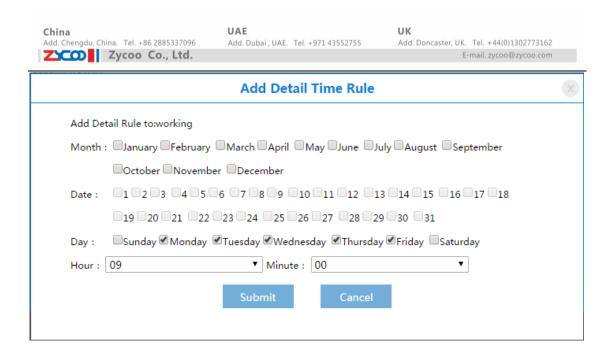
E.g.:

Month: Empty Date: Empty

Day: Select Monday/ Tuesday/ Wednesday/ Thursday/ Friday

Hour: 9:00

This rule means 9:00 am on every Monday to Friday



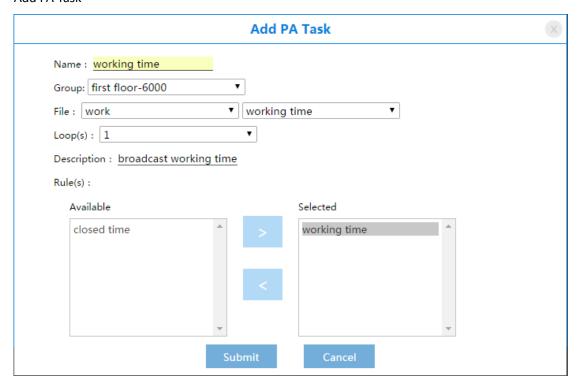
#### Detail Time Rule Parameters:

ltem	Explanation
Month	Select the month
Date	Select the date
Day	Select the day (Note: Day and Date cannot be selected simultaneously
Hour/Minute	Select hour/minute

# 2.8Public Address(PA) Task

Public Address (PA) task is used to manage all tasks.

#### Add PA Task



#### PA Task Parameters:

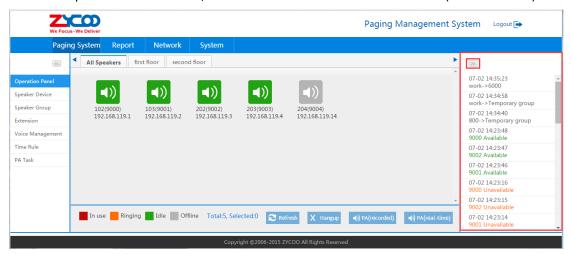
ltem	Explanation
Name	Define a name for this task
Group	Define a group for this task
File	Select the voice file for this task
Loops	How many loop times to play this task
Description	Describes this task in detail
Rule(s)	Select the time rule for this task (Multiple rules are available)

## 2.9System Log

System log is to display the real-time status or any operation logs. It is displayed on the right of web GUI, and available to be hidden.

See attached example:

Select the speakers which are idle, then click this button to start real-time PA(Public Address).



# **Chapter 3 Report**

The report section provides information relating to public address logs and alarm logs in the paging management system.

Public address logs comprise of 1) real-time PA logs and 2) pre-recorded PA logs.

## 3.1PA (real-time) Log

Real-time PA is normally addressed by someone and is therefore generally a live announcement.

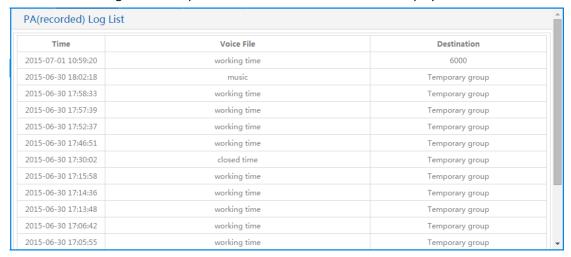
Time	Source	Destination
2015-07-01 10:53:11	800	Temporary group
2015-06-30 17:57:57	800	Temporary group
2015-06-29 15:08:59	800	Temporary group
2015-06-29 14:20:18	800	Temporary group
2015-06-29 14:19:41	800	6000
2015-06-29 14:13:03	800	6000
2015-06-29 14:12:57	800	Temporary group
2015-06-29 14:12:28	800	6000
2015-06-29 11:05:50	800	Temporary group
2015-06-29 09:52:36	800	Temporary group

#### PA (real-time) Log Parameters:

ltem	Explanation
Time	Time the public address started
Source	The source device that made this public address
Destination	Destination device or group that received the public address

## 3.2PA(pre-recorded) log

Pre-recorded PA log details the pre-recorded voice files that have been played.

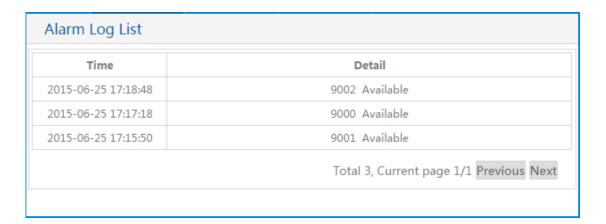


#### PA(recorded) Log Parameters:

ltem	Explanation
Time	Time that the public address started
Voice File	Voice file name which was played in the public address
Destination	Destination device or group that received the announcement

## 3.3Alarm Log

The alarm log details speakers status and will show information such as which speakers are available and which ones are offline, etc.



#### Alarm Log Parameters:

Item	Explanation		
Time	The time the alarm event occurred.		
Detail	Detail status of iSpeaker		

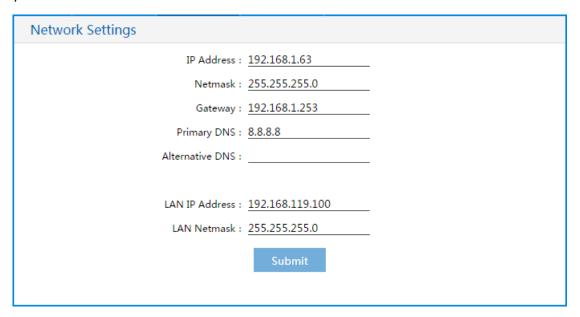
# **Chapter 4 Network**

The Network section relates to the network management of the PMS (Paging Management System), and helps users in tracking system problems and undertaking simple networking troubleshooting activities.

### 4.1 Network Settings

Network settings of PMS is the same as and synchronized with CooVox IP PBX. (Only workable when IPPBX is in static network)

It is not necessary to configure this section if you have already configured the static IP address on your CooVox IPPBX.

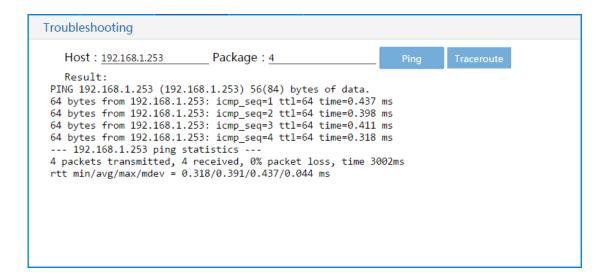


#### **Network Settings Parameters:**

Item	Explanation		
IP Address	IP Address of WAN port		
Netmask	Netmask of WAN		
Gateway	IP address of Gateway		
Primary DNS	Default DNS address		
Alternative DNS	Alternative DNS address		
LAN IP Address	IP Address of LAN port		
LAN Netmask	Netmask of LAN port		

### 4.2Troubleshooting

Troubleshooting is used to track the network problems and allows you to determine if you can communicate with other network devices directly from PMS.



#### **Troubleshooting Parameters:**

ltem	Explanation					
Host	IP Address of the host					
Package	Number of Ping packets to send					
Ping	Test the reachability of the host on the network. It measures the					
	round-trip time from transmission to reception, reporting errors and					
	packet loss.					
Traceroute	Traceroute will measure transit delays of packets to a host across the					
	Network and will detail the path your packets travelled to reach the					
	host.					

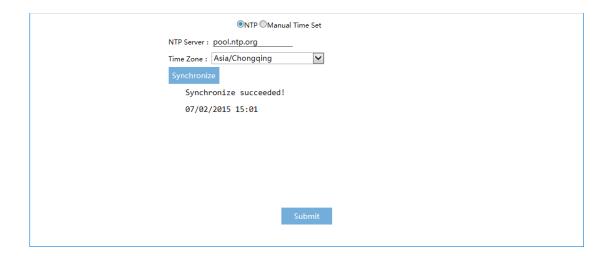
# **Chapter 5 System**

The system section is used to manage the basic information and settings of PMS including time settings, system reboot & restore, user extension and admin password settings.

## 5.1Time settings

Time settings can be configured in two ways which are NTP service and manual settings.

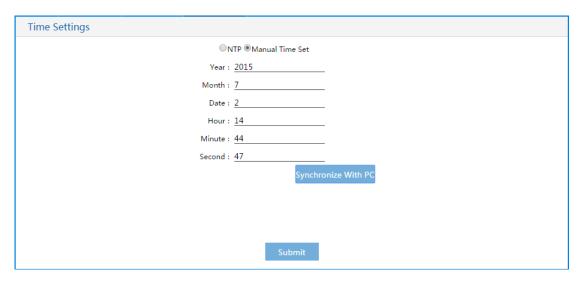
### 5.1.1 NTP Service



#### NTP Service Parameters:

Item	Explanation		
NTP Server	NTP server address		
Time Zone	Select your time zone		
Synchronize	Synchronize with NTP server		

#### 5.1.2 Manual Time Set



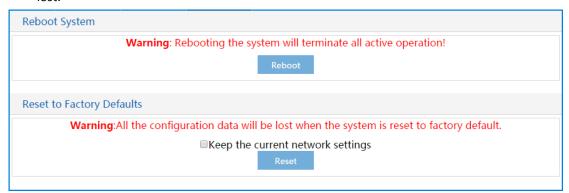
Input the year, month, date, hour, minute and second, click [Submit] to finish the manual settings.

Or alternately you can click "Synchronize With PC" to synchronized with your PC time.

### 5.2Reboot & Restore

#### Note:

- \* Rebooting the system will terminate all active operation.
- All the configuration data will be lost when the system is reset to factory default. If you choose "Keep the current network settings", all the data except network settings will be lost.

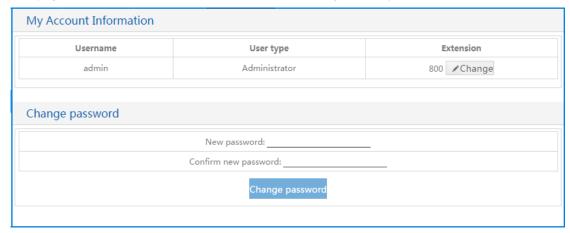


#### Reboot&Restore Parameters:

The boot carrest of a far in the correction				
Item	Explanation			
Reboot	Reboot system			
Keep the current	Network settings will be saved when reset to factory default			
network settings				
Reset	Reset to factory default			

# 5.3My Information

This page is used to edit user extension numbers or change admin password.



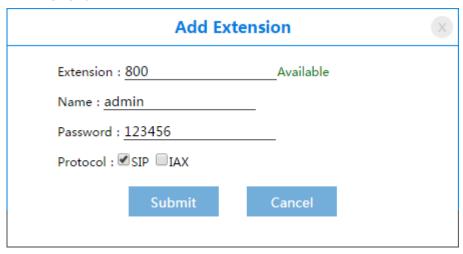
# **Chapter 6 Application Example**

The following section provides a simple configuration example of how to get PMS up and running quickly and efficiently.

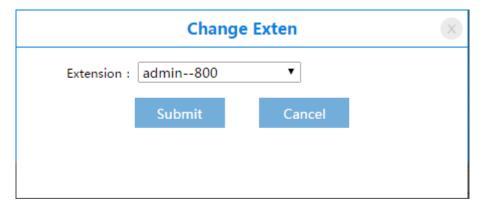
### 6.1Admin Settings

First, configure an extension for the admin. E.g.: 800.

Click Paging System → Extension:



Click **System** → **My Information** → **Change** the extension to admin, then submit and apply.



Extension 800 can be registered by any sip enabled device such as CooCall softphone or an alternate IP Phone.

### 6.2iSpeaker Settings

Next you must login to your CooVox IP PBX system and ensure the PnP is enabled. This is a fast way to auto provision of iSpeaker.

To achieve this, go to your CooVox IP PBX web interface using either the default IP – 192.168.1.100:9999 or an alternate address that you have programmed.

Click **Advanced**→ **Phone Provisioning**→ **PnP Settings** to enable PnP and use multicasting for LAN port.

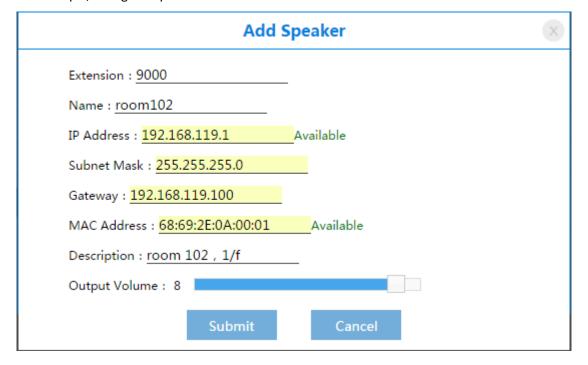
Plug and Play(PnP) Settings						
	Phones Settings	Pr	nP Settings			
Plug and Play(PnP) Settings						
	Enable: Interface: Custom URL: Multicasting Address: Port:	5060				

Then visit PMS web interface with either the default IP: 192.168.1.100:9997 or an alternate one that you have programmed

Click **Paging System**→ **Speaker Device** to configure iSpeaker; then **Apply**.

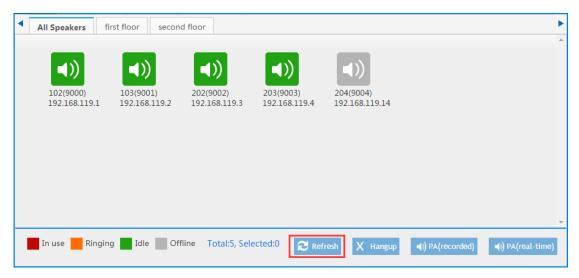
(E.g.: iSpeaker extension number: 9000/ 9001/ 9002/ 9003.)

For example, configure iSpeaker extension 9000 as below:



If the iSpeaker is in the same network segment as PMS then all the settings of iSpeaker will be automatically generated once it has been connected to the network.

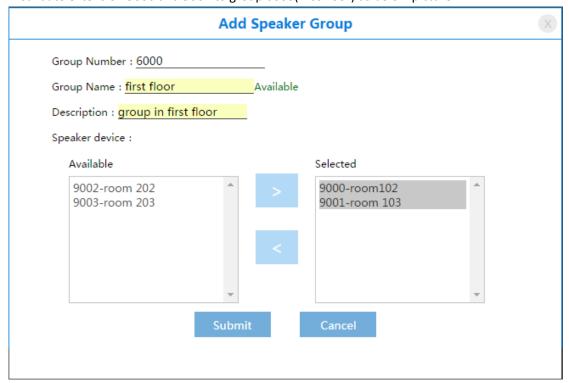
Note: After power on, it takes one minute for iSpeaker to receive the configuration data automatically and register to the IP PBX. However, there may be some problem regarding the status of the newly configured iSpeaker; and to resolve this problem you can click Paging System -> Operation Panel -> Refresh to refresh its status.



Now you can group the speakers and note that one speaker can be distributed to multiple groups.

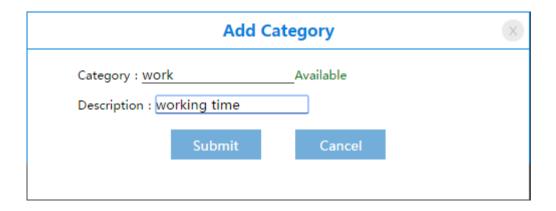
#### Click Paging System→ Speaker Group:

Distribute extension 9000 and 9001 to group 6000(first floor) as below picture:

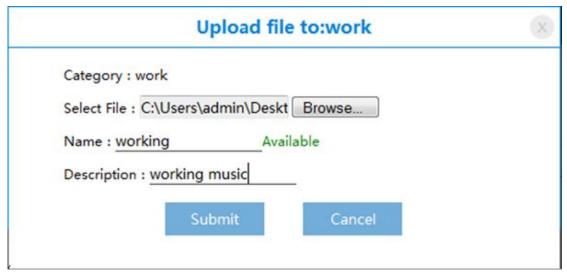


### 6.3Prepare Voice File

To prepare a voice file, click **Paging System > Voice Management** to create file category as below:



After the category has been successfully created, click **Manage**  $\rightarrow$  **Add** to add voice file for this category as detailed below:

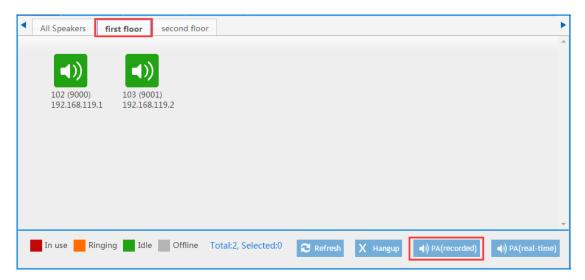


## 6.4Application of PMS

After you have created an extension for the login user, then they can execute any operation on the Operation Panel, such as hang up, pre-recorded PA, or real-time PA.

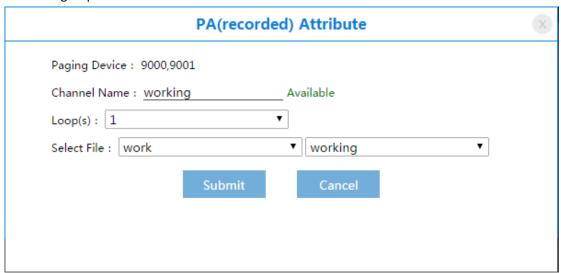
### PA (recorded)

Choose group-first floor, then click PA (recorded)



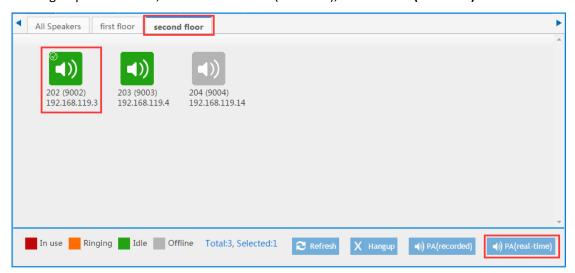
Next you need to define the **Channel Name**, select **File** and **Loop** times to play the selected voice file.

After this is complete then submit the change, now the PA is started for all the members in the first floor group.



### PA (real-time)

Ensure the login user extension is registered before real-time PA.
Select group-second floor, and extension 9002(room202), then click **PA(real-time)** as below:



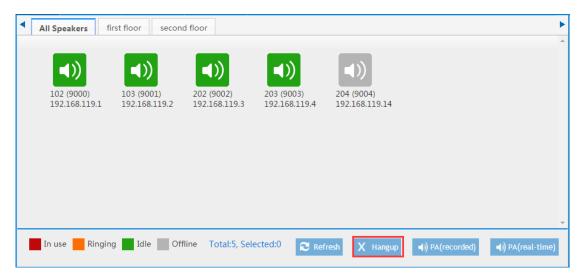
#### Define the Channel Name and Submit.



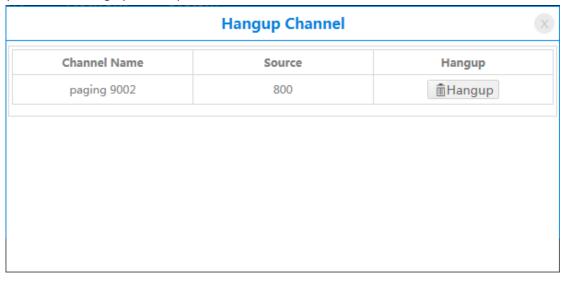
The above configuration will allow the real-time PA to work in the following manner.

- Extension 800 will be called.
- Answer 800 and it will automatically dial extension 9002
- Extension 9002 will ring briefly before answering the call automatically and you can then start your real-time PA over the device.

### Hang up



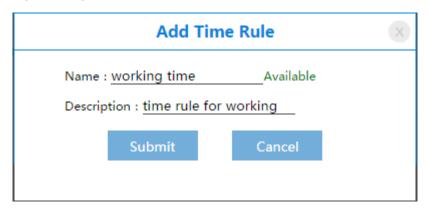
Finally, when you click **Hangup**, **Hangup Channel** will be displayed as in the below diagram and you can then hang-up all the speakers in the channel.



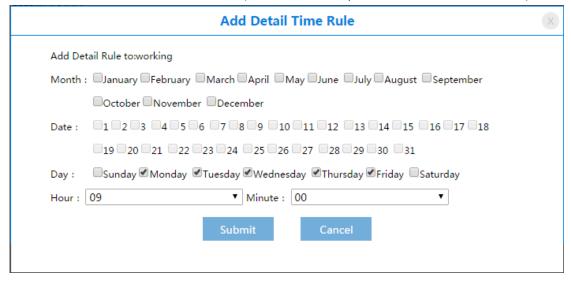
### 6.5Timed Task

To create a timed task, first, add time rule from Paging System→Time Rule:

E.g.: working time

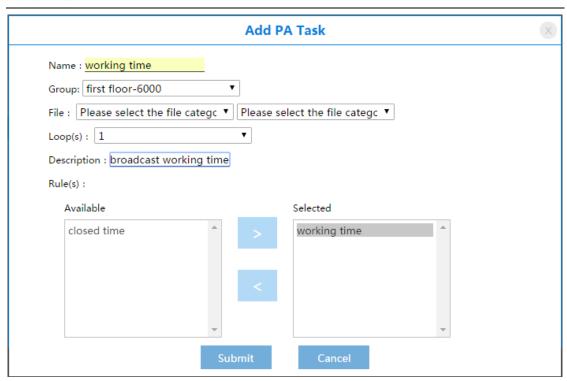


Then add detailed time rule for this rule. (You can add multiple detail time rule for one rule)



Add timed task from **Paging System**→**PA Task**.

Define task name, select which group this task belongs, choose voice file, play loops and time rule (multiple rules can be available), then **Submit** and **Apply**.



From above settings, every morning 9:00 from Monday to Friday, there will be a recorded PA for the members in first floor-6000.