Yealink Meeting Server Administrator Guide V20.0.0.5

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# **About This Guide**

The enterprise administrator can read this guide to operate and maintain YMS.

This guide is applied to YMS.

- Introduction of Yealink Meeting Server
- Introduction of the Deployment Structure
- Targeted Audience
- Basic Concepts
- Browser Requirement
- Port Mapping Requirements
- Icons Introduction
- Related Documents
- In This Guide

# Introduction of Yealink Meeting Server

Yealink Meeting Server (YMS) is a distributed cloud-based videoconferencing infrastructure tailored for HD videoconferencing collaboration in the modern workplace. As a powerful all-in-one meeting server, YMS brings MCU, the registrar server, the directory server, the traversal server, the meeting and device management server, the SIP Trunk, the WebRTC server, and the GK & H.460 server together, to better provide users with an enjoyable conferencing experience while cutting costs and improving efficiency. Seamlessly working with multiple devices such as room systems, video phones, mobile apps and PC software, YMS brings people together at any time from any location with the touch of a button.

# Introduction of the Deployment Structure

YMS deployment structure can be divided into the standard version and the enterprise version, also called the single version and the cluster version.

Туре	Difference
Single Version	A single YMS but with all services.
Cluster Version	<ul> <li>Multiple YMSs and contains the following node types:</li> <li>Master node: it contains all YMS services.</li> <li>Sub-master node: it should contain 2 sub-master nodes to realize the disaster recovery function for all the features.</li> <li>Business node: you can deploy the service in each business node according to the enterprise deployment plan. The services contain SIP service, MCU service and so on.</li> </ul>

#### Table 1: The Differences Between the single Version and the Cluster Version

# **Targeted Audience**

This guide is mainly intended for the following audiences.

- The distributors
- The network administrators

# **Basic Concepts**

This section introduces the basic concepts which you may encounter in this document.

**Enterprise Directory:** it refers to the directory which includes the user accounts, the room system accounts and other accounts.

Yealink VC devices: it refers to the devices that support YMS, including VC880/VC800/VC500/VC200/VC400/ VC120/VC200 video conferencing system, SIP VP-T49G IP phone, SIP-T58V IP phone, VC Desktop and VC Mobile.

The interactive party: it refers to the participant who sends the audio or video in the broadcasting interactive conference.

The broadcasting party: it refers to the participant who only receives but does not send the audio or video the in the broadcasting interactive conference.

Content: it refers to the documents, the pictures or the videos shared by the moderator and the lecturer.

# **Browser Requirement**

Browser	Version
Firefox	50 or later
Google Chrome	50 or later
360	8.1 or later
Internet Explorer	10 or later

YMS supports the following browsers.

# **Port Mapping Requirements**

If the following ports are restricted in your network environment, please open these ports. If the YMS is deployed in an Intranet, you should solve the interconnection problem between the private and public network by port forwarding. You must forward the following ports to the public network on the router.

**Requirements of the internal service port**: make sure that the port from 8000--9999 (UDP+TCP), the port 27017 (UDP+TCP), and the port 22 (TCP) in every node of the cluster can communicate with each other.

Port	UDP/TCP	Description
443	ТСР	Web port
444	ТСР	

Port	UDP/TCP	Description
80	ТСР	
514	UDP/TCP	Rsyslog log service port
1719	UDP/TCP	H.323 port
1720	UDP/TCP	
1722	UDP/TCP	
3478	UDP/TCP	Turnserver port
3479	UDP/TCP	
5060	UDP/TCP	SIP port
5061	UDP/TCP	
5062-5070	UDP/TCP	
10000-60000	UDP/TCP	Select it according to the configuration of the media, the traversal service and so on (UDP is compulsory but TCP is optional).

# **Icons Introduction**

The icons on Yealink Meeting Server are introduced as below.

## Table 3:

Icon	Description
<del>0</del>	Recurrence conference
ŭ	RTMP live conference
	General meeting room (displayed on the Meeting Room Usage page)
-	Video meeting room (displayed on the Meeting Room Usage page)

# **Related Documents**

Apart from Yealink Meeting Server Admin Guide, we also provide the following documents:

- Yealink Meeting Server User Guide: it introduces how to use the common features of YMS.
- Yealink Web App User Guide: it introduces how to join the conference via browser.
- Yealink Meeting Server Network Deployment Guide: it introduces how to deploy and configure YMS.
- Yealink Meeting Server Installation Guide: it introduces how to install YMS software.
- Yealink Meeting Server RTMP Configuration Guide: it introduces how to configure RTMP on YMS, so that you can stream the conference to the live streaming platform.
- You Tube Streaming Guide: it introduces how to stream the conference to You Tube by RTMP, so that the You Tube user can watch the live broadcast of the conference.

• Yealink Meeting Server and Skype for Business Deployment Guide: it introduces how to make the YMS to communicate with Skype for Business server.

Read the Yealink Products Regulatory Notices guide for all regulatory and safety guidance.

# In This Guide

This guide contains the following chapters.

- Chapter 1 Basic Operations of the Enterprise Administrator
- Chapter 2 System Setting
- Chapter 3 Service Management
- Chapter 4 Call Settings
- Chapter 5 Account Management
- Chapter 6 Meeting Room Management
- Chapter 7 Conference Management
- Chapter 8 Conference Statistics
- Chapter 9 System Maintenance
- Chapter 10 Troubleshooting
- Chapter 11 Appendix-Time Zones

# **Basic Operations of the Enterprise Administrator**

This guide provides instructions for the enterprise administrator to use YMS.

- Logging into YMS
- Setting the Setup Wizard
- Introduction of the Home Page
- Account Management
- Logging out of Yealink Meeting Server

# Logging into YMS

- 1. Open a web browser.
- 2. Enter the IP address or the domain name of YMS in the address bar to go to the Login page of YMS.
- 3. Click Admin Login.
- 4. Enter the username and the password of the administrator account.

Yealink Yealink Meeting Server		Outlook plug-in download English > Join With Bros
	Admin Login	
	Account	
	Password	
	Log In	
	Forgot Password User Login>>	

- **Note:** By default, the username is "admin" and the password is "123456".
- 5. Optional: Select a language from the drop-down menu of Language.
- 6. Click Log In.
  - **Note:** If you have entered wrong passwords for 10 times, your account will be locked for 3 minutes. Please try again later.

If you forget the password, click Forgot Password and reset the password according to prompts.

# Setting the Setup Wizard

To meet the basic call usage, you can go to the Setup Wizard to configure the server.

#### About this task

When you log into YMS for the first time, the Setup Wizard will pop up.

#### Procedure

- 1. Click Setup Wizard in the top-right corner.
- 2. Setting the Primary Domain Name.
- 3. Editing the Login Password.
- 4. Configuring the Time .
- 5. Configuring the SMTP Mailbox.
- 6. Configuring the Node.
- 7. Configuring the Registration Service .
- 8. Configuring the Traversal Service.
- 9. Configuring the Interactive Media Service .
- **10.** Activating a License .

# Introduction of the Home Page

To familiarize yourself with various operation interfaces and system notifications, you can know the layout of home page. YMS is managed by group or by different authorities. The system administrator has the highest operation authority on YMS. Accounts with different permissions can see different Home pages, and this part takes the Home page viewed by the system administrator account as an example.

Yealink Yealink Meeting Ser	rer   Test-2 1	2 Setup Wizard English 🗸 🌒 admin	Exit Join With Browser	
= 🗎 Systen time	2018-12-03 20:17:57 UTC+08:00 O Running time : 746:09:53			
A Home 4 Overview	5	License 6	S Check	
🗗 Conference 🗸 🗸		Video Port Broadcast Port		
👤 Account 🗸 🗸	0 0			
🕱 Meeting Room 🗸	Online Users Ongoing Conferences			
🗠 Statistics 🗸 🗸	0	Your license has not been activated. Please a	ctivate	
📽 Call Configuration 🗸	Inline Room Systems	人		
	mation Default/10.82.24.202)		© Check	
System Setting V				
🔧 Maintenance 🗸 🗸	CPU IntelliR) Xeon(R) CPU E5-2620 v4 @ 2.10GHz			
CPU 2.1GHz(1.89	6)	Disk Space : 131G		
	%Usage	100% Available : 107G		
Memory 12.4/19.4GB	64%)	19%		
Network Outgoing : Incoming :				

## Table 4:

Num	NumberDescription		
1	Go to the Home page quickly.		
2	Go to the Setup Wizard.		
3	Join the conference by browser. For more information about Joining With Browser, refer to <i>Yealink Web App User Guide</i> .		
4	The navigation bar.		
5	<ul> <li>View the number of the online users, the ongoing conferences and the online room system accounts.</li> <li>Go to the corresponding module quickly.</li> </ul>		
6	<ul> <li>Go to the License page quickly.</li> <li>View the video port.</li> <li>View the broadcast port.</li> </ul>		
7	<ul> <li>View the node information.</li> <li>View the server CPU, the memory, the network, and the disk space.</li> <li>View the information of the software version.</li> </ul>		

# **Account Management**

- Editing the Login Password
- Editing the Registered Email

## **Editing the Login Password**

For account security, we recommend that you change your password periodically.

- 1. Click the account name in the top-right corner.
- 2. In Password field, click Change.
- 3. Enter the current password, and enter the new password twice.

4. Click OK.

## **Editing the Registered Email**

You can edit the registered email. This email is used to receive the information of resetting password and the system warning when an error occurs to the system.

#### About this task

The registered email is admin@yealink.com by default.

#### Procedure

- 1. Click the account name in the top-right corner.
- 2. In the Mailbox field, click Change.
- 3. Enter the new email address.
- 4. Click OK.

# Logging out of Yealink Meeting Server

If you want to use other account to log into YMS, you can log out of the current account first.

## Procedure

Click Exit in the top-right corner to return to the Login page.



**Note:** If the system has been idle on either page for more than 30 minutes, the system will log out of your account automatically and return to the Login page.

# System Setting

- Setting the Primary Domain Name
- Setting the Web Service Address
- Setting the Log Service Address
- Configuring the Port
- Configuring the Time
- Setting the Data Space
- Configuring the SMTP Mailbox
- Allocating the Number Resource
- Configuring the Node
- Viewing the Node Information
- Configuring the Address Port Mapping
- Setting the IP Property
- Adding a Sub Admin Account
- Editing the Information of a Sub Admin Account
- Delete the Abnormal IP
- Adding a Security Group
- Configuring Intelligent Security Strategy
- Applying for the Accesskey
- Adding the User-Agent Blacklist

- Adding the User-Agent Compatible List
- Activating a License
- Disassociating the License
- Importing the Trusted CA Certificate
- Importing the HTTPS Certificate
- Importing the TLS Certificate
- Setting the Display on the Web Page
- Configuring the Email Template
- Configuring SIP Trunk IVR
- Configuring the Audio IVR

# Setting the Primary Domain Name

You can configure the primary domain name which can be accessed by the devices to register.

## Procedure

- 1. Click System Settings > Common Settings > Network Association.
- 2. Enter the address in the **Primary Domain**, and the domain name directs to any server node IP. Default domain name is <IP>.xip.io.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# **Setting the Web Service Address**

Considering the security, you can set access addresses for the internal and the external network respectively, to realize the separation of the internal and external network when the device is accessing the server and YMS contacts, downloading or uploading the firmware from the server.

## Procedure

- 1. Click System Settings > Common Settings > Network Association.
- 2. In the WEB service address field, click Add service address.
- 3. In the Service network field, select Internal network/External network.
- 4. In the Service URL field, enter the URL.

Enter the domain name of the master node in the internal **Service URL** field, and enter the address of the mapped public network in the external **Service URL** field.

* Primary domain :	10.82.24.202.xip.io		
WEB service address :	Service network :	Service URL :	
	Internal network	https://10.82.24.202	×
	External network	https://ymstest2.yealink.com	×
	+ Add service address		



**Note:** You cannot edit the intranet listener port. In general, the internal network uses port 80 for HTTP protocol and port 443 for HTTPS protocol. If the extranet cannot use port 80 and 443, you need map the port, and the external network can visit the URL which the mapped port is added into.

- 5. Click Save.
- 6. Operate according to prompts, and click OK

# Setting the Log Service Address

You can set the log service address, so that the devices can upload the log to log service address.

#### Procedure

- 1. Click System Settings > Common Settings > Network Association.
- 2. In the Log service address field, click Add service address.
- 3. Configure the basic parameters.

#### Table 5: Basic Parameter

Parameter	Description
Service network	The network of the node to which the devices upload the log.
Transmission type	When the devices uploading the log to YMS, the transmission type is UDP.
IP address	The IP address of the node to which the devices upload the log.
	<b>Note</b> : If you use cluster version, you need to specify the master node or the sub-master node for uploading the device log. The master node is recommended.

#### 4. Click Save.

5. Operate according to prompts, and click OK.

# **Configuring the Port**

When the default port range fails to satisfy the actual demand, you can set the IVR port, the BFCP/FECC port, the stack signaling port, and the stack media port.

#### About this task

To avoid the port conflict, the gap between the maximum signaling port and the minimum port should be not less than 200. For example, you set 10000 as the minimum port, the maximum port should be not less than 10199.

- 1. Click System Settings > Common Settings > Network Association.
- 2. Configure the port parameters.

## Table 6:

Parameter	Description
IVR port	The range of the IVR port.
	Default port range: from 10000 to 19999.
BFCP/FECC port	The range of the BFCP/FECC port.
	<b>Default port range</b> : from 11000 to 12999.
Stack signaling port	If you want to configure two or more MCU services, you need to configure the stack signaling port.
	<b>Default port range</b> : from 13000 to 13199.
Stack media port	If you want to configure two or more MCU services, you need to configure it the stack media port.
	<b>Default port range</b> : from 13200 to 13399.

## 3. Click Save.

4. Operate according to prompts, and click OK.

# **Configuring the Time**

The time and date used by YMS are synced automatically from the SNTP server by default. If YMS cannot access the time and date from the SNTP server, you need to configure them manually.

#### Procedure

- 1. Click System Settings > Common Settings > Time.
- **2.** Configure the parameters.

#### Table 7: Time parameter

Parameter	Description
Current server time	The current time of YMS.
Time access	The method used by YMS to access the time and date.  • SNTP • Date & time configuration Default: SNTP.
Server domain	If you select <b>SNTP</b> , configure the primary server and the backup server of NTP. <b>Default</b> : the first one is the primary server, and its default value is pool.ntp.org.
Date & time	The date and the time.

Parameter	Description
Timezone	The time zone used by YMS and the default time zone for scheduling the conference.
Auto adjust conference DST	<ul> <li>The type of DST.</li> <li>The supported types in YMS are as follows:</li> <li>Auto-YMS will automatically use the corresponding DST according to the selected time zone. When users schedule conferences in countries using the DST, the DST is enabled by default.</li> <li>Disable-DST is not used.</li> <li>Default: disable.</li> </ul>

## 3. Click Save.

4. Click OK, and the system will reboot.

# Setting the Data Space

You can allocate the space quota for the **Syslog**, the **Device log**, the **Backup space**, and the **Device firmware** manually.

## Before you begin

The space quota should be an integer value, and the space quota of each part should be not less than its default space quota.

#### Procedure

- 1. Click System Settings > Common Settings > Data Space.
- 2. Enter the desired quota in the corresponding field.
- 3. Click Save.

# **Configuring the SMTP Mailbox**

You can use the SMTP mailbox to send emails to users. For example, sending the account information to users by email.

- 1. Click System Settings > Common Settings > SMTP Mailbox.
- 2. Configure the SMTP mailbox parameters.

Network Association	Time	Data Space	SMTP Mailbox	Number Resource Allocation
SMTP server :		mail.yealink.com		
Mailbox :		gl@yealink.com		
Username :		yl0026@yealink.co	m	
Password :				
Port :		587 (C	)nly1~65535)	
		🗸 This server requi	ires a secure connectio	n
		TLS		~

#### 3. Click Test Mailbox Setting.

- 4. Enter the email address of the recipient in the Test mailbox field.
- 5. Click OK.

If the mailbox connection succeeds, the prompt "Operation success" is popped up.

**Note:** If the mailbox connection fails, make sure the connection between YMS and SMTP server can work and the account information is correct.

If the test fails, it may be caused by the failure of YMS testing the SMTP server, and *Importing the Trusted CA Certificate* need to be done.

6. Click Save.

# Allocating the Number Resource

You can customize the range of the account number or the conference number to meet the enterprise need.

#### About this task

Edit the number resource allocation with caution, because it may cause the allocated number unavailable to use.

- 1. Click System Settings > Common Settings > Number Resource Allocation > Add.
- **2.** Configure the parameters.

Parameter	Description
Number type	The type of the number.
	The supported types are as follows:
	<ul> <li>System account: it contains the user accounts and the room system accounts.</li> <li>All conference: it contains the number of scheduled conferences, Meet Now conferences and permanent VMRs.</li> <li>Meet Now</li> <li>Scheduled conference</li> <li>VMR</li> </ul>
	<b>Note</b> : if you set <b>All conference</b> and <b>Meet Now</b> , the system will use the <b>Meet Now</b> with priority. This can also be applied to <b>Scheduled conference</b> and <b>VMR</b> .
Origin section	The origin section.
Rear section	The rear section.
Description	The additional description.

## Table 8: Parameters of the number

3. Click OK.

# **Configuring the Node**

You can configure the basic network information of the server node to get a smooth network.

## Procedure

- 1. Click System Settings > Node Management.
- 2.

Click icon **I** on the right side of desired node, and edit the parameters.

Note: E.

- Make sure that the DNS server is available. Otherwise, the service will be abnormal. ٠
- The routing rules came with your server cannot be deleted. If they are deleted, other added routing rules will be abnormal.

eth0	🛃 Enab	led Network status : Conne	ected				
eth1	Netw	vork Gateway D	NS Routing Rules				
	Sel	ected 0					+ Add
		Destination network addr ess	Gateway	Network Card IP	Priority	Enabled	Operation
		192.168.0.0/16	10.200.112.254	10.200.112.200	10		ß
		10.0.0/8	10.200.112.254	10.200.112.200	10		ß
		default	10.200.112.254	10.200.112.77	0		Ø
		10.200.112.0/24	10.200.112.254	10.200.112.200	0		Ø

For a single network adapter deployment in the external network, you need to configure two intranet • IP addresses, one mapped to the public network with the public button on and the other mapped to the intranet (only mapping one IP address is not allowed). Only mapping one intranet IP address to the public network will make the service abnormal. For more information, refer to *Yealink Meeting Server Network Installation Guide*.

• If your YMS is the cluster version, you cannot edit the IP address of the master node on the management platform. You can edit it in the installation file and re-install it. For more information, refer to *Yealink Meeting Server Software Installation Guide*.

#### **Related concepts**

Introduction of the Deployment Structure

## Viewing the Node Information

You can view the status of the server and the service, the information of the progress, the port, and the disk.

#### Procedure

- 1. Click System Settings > Node Management.
- 2. Click a on the right side of desired node.

# **Configuring the Address Port Mapping**

You can map the IP address and the port of the intranet to the extranet, so that the extranet can access the IP address and the port for various services.

#### Procedure

- 1. Click System Setting > Address Port Mapping > Add.
- 2. Configure the parameters of the address port mapping.

These parameters should be consistent with the mapping address configured on the router.

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# **Setting the IP Property**

When there are multiple operators, you can set the IP property for the edge business node, so that the device can register a YMS account quickly by the route, to guarantee the conference quality.

#### Procedure

- 1. Click System Setting > Address Port Mapping > IP Property > Add.
- **2.** Configure the parameters.

Table 9:

Parameter	Description
IP address	The IP address of this node.

Parameter	Description
Operator	Select the operator type.
	<b>Note</b> : If it is an operator other than China Telecom, China Unicom, China Mobile and Education Network (China Netcom), choose BGP.

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# Adding a Sub Admin Account

To ensure the system security, you can configure different sub admin accounts with different admin authorities.

## About this task

Sub admin account contains the conference manager, the conference operator, and the operation manager. You can add up to 100 sub admin accounts.

## Procedure

- 1. Click System Setting > Sub Admin Account > Add.
- 2. In the Username field, enter the name.
- **3.** In the Level field, select the level.
- 4. Click Save.



Tip: The password of the sub admin is password by default.

# Editing the Information of a Sub Admin Account

You can edit the password and authority type for a sub admin account.

## Procedure

- 1. Click System Settings > Sub Admin Account.
- 2. Click I on the right side of the sub admin account.
- 3. To reset the password of the sub admin account, click Reset, and click OK.
- 4. In the Level field, select the level.
- 5. Click Save.

# **Delete the Abnormal IP**

If you want to cancel the restriction of the device, you can delete its abnormal IP.

#### About this task

The device IP is abnormal in the following situation:

- Within one minute, the device fails to register a YMS account via the same IP address for several times (the times depends on the **Max frequency of IP call or auth failure** in *Configuring Intelligent Security Strategy*).
- Within one minute, the device fails to join a conference via the same IP address for several times (the times depends on the **Max frequency of IP call or auth failure** in *Configuring Intelligent Security Strategy*).

• The times of the device calling the same IP address exceeds the max frequency during the device detection period (refer to *Configuring Intelligent Security Strategy*).

#### Procedure

- 1. Click System Setting > Security > Abnormal IP.
- 2. Select the desired account, and click Delete.
- 3. Click OK.

# Adding a Security Group

You can add security groups applied to the whitelist and the blacklist for various services to ensure the server security.

#### Procedure

- 1. Click System Setting > Security > Security Group.
- 2. Configure the parameters.

#### Table 10: Parameters of the security group

Parameter	Description
Name	The name of this security group.
Туре	<ul><li>The type of this security group.</li><li>The supported types are as follows:</li><li>Single IP</li><li>Section IP</li></ul>
IP Address	Enter the IP address or the IP address range.

#### 3. Click Save.

## **Related tasks**

Configuring the Registration Service Configuring the Third Party REG Service Configuring the IP Call Service Configuring the PSTN Gateway Service Setting the Peer Trunk Service Configuring the SfB Service

# **Configuring Intelligent Security Strategy**

You can customize the security strategy for IP calls or the registration.

- 1. Click System Setting > Security > Intelligent Security Strategy.
- 2. Configure the parameters of the SIP signaling.

Parameter	Description
Attack detection cycle	The detection cycle.
	Default: 25 seconds.
Max frequency of IP call or auth failure	During a period, if the number of IP calls from the same IP address exceeds the max frequency, this IP is considered as suspicious attack and is forbidden during a specified time.
	<b>Default</b> : 10 times.
Suspected attack banned duration	The banned duration.
	<b>Default</b> : 10 minutes.
Max suspected attacks frequency within 24 hours	Within 24 hours, if the number of IP calls from the same IP address exceeds the max frequency, this IP is forbidden for a long time, and you can free this IP via web (refer to <i>Delete the Abnormal IP</i> ).
	Default: 3 times.
Long term banned duration	The banned duration. You can free this IP via web (refer to <i>Delete the Abnormal IP</i> ).
	Default: 7 days.
Max concurrent IP call per node	The max number of the concurrent IP calls from the same IP address. If the number of IP calls exceeds the max number, the IP address will be forbidden.
	Default: 30.

## Table 11: Parameters of the SIP Signaling

- **3.** In the **Whitelist** field, select the security group, and the devices in this group are not affected by the security strategy.
- 4. Click Save.

# Applying for the Accesskey

To call the YMS API to integrate with your own system, you need apply for the accesskey.

- 1. Click System Setting > Security > Accesskey.
- 2. Click Apply.

# Adding the User-Agent Blacklist

If you know the User-Agent type of devices and you want to forbid devices of this type to call into YMS or to register YMS accounts, you can add them into the blacklist.

#### Procedure

- 1. Click System Setting > Security > > User-Agent Blacklist > Add.
- 2. Configure the parameters.

	Add	×
Enabled :		
* Regular expression :	^T49	
Description :		
	OK Cancel	

#### Table 12:

Parameter	Description
Enable	Enable or disable this blacklist.
	Default: enable.
Regular expression	The Perl Compatible Regular Expressions (PCRE).
	<b>Note</b> : for example, if you set the PCRE as ^T49, all User-Agent devices whose model type starts with T49 cannot call into YMS.
Description	The additional description for this blacklist.

3. Click OK.

# Adding the User-Agent Compatible List

If you know the User-Agent type of devices and you want to allow devices of this type to call into YMS or to register YMS accounts, you can add them into the list.

- 1. Click System Setting > Security > User-Agent Compatible List > Add.
- 2. Configure the parameters.

	Add	×
Enabled :		
* Regular expression :	^polycom	8
Description :		
	OK Cancel	

#### Table 13:

Parameter	Description
Enable	Enable or disable this compatible list.
	Default: enable.
Regular expression	The Perl Compatible Regular Expressions (PCRE).
	<b>Note</b> : for example, if you set the PCRE as ^polycom, all User-Agent devices whose model type starts with polycom can call into YMS.
Description	The additional description for this list.

3. Click OK.

# Activating a License

You can activate the license to make sure that you can use the video conference service normally.

Follow the steps to activate the license: 1. Import the server device license; 2. Activate the license online or offline.

- Importing the Server Device License
- Activating a License Online
- Activating a License Offline

#### **Related tasks**

Enabling the Broadcasting Interactive

## Importing the Server Device License

You need import the server device license for unique association with this server.

#### Before you begin

You submit the enterprise name, the distributor name, the applicant, and the country to Yealink, to get the device license.

#### Procedure

1. Click System Setting > License > Refresh.

- **2.** Select the device license.
- 3. Click OK.

#### Results

If the association between the license device ID and the server succeeds, the page will display as follows:

License Device ID : E0E767F76A3A0C92

Unbind License
 ORefresh
 HOffline Activation License

## Activating a License Online

If the server can access the public network, you can activate the license online.

#### Before you begin

- *Importing the Server Device License* is done.
- You can get the license by submitting the applicant, the license type, the concurrent number, and the period of validity to Yealink.

## Procedure

Click System Setting > License > Refresh.

**Results** The license is displayed on the page. **Related information** *Failing to Activating a License Online* 

## Activating a License Offline

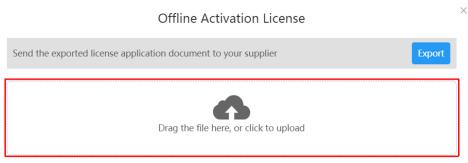
If the server cannot access the public network, you can activate the license offline.

#### About this task

Importing the Server Device License is done.

## Procedure

- 1. Click System Setting > License > Offline Activation License.
- 2. Click Export, and send the exported file to Yealink.
- 3. Click the dotted box area to upload the license obtained from Yealink.



Only .lic format file up to 1MB is available.

#### Results

The license is displayed on the page.

#### **Related information**

Failing to Activating a License Offline

## **Disassociating the License**

If you import the wrong license, you can disassociate it.

#### Procedure

- 1. Click System Setting > License > Unbind License.
- 2. Click OK.

# Importing the Trusted CA Certificate

When the server sends the request about TLS connection to the device, the server need check whether or not the device is reliable. The device will send the default certificate to the server to verify.

#### Procedure

- 1. Click System Setting > Certificate > Trusted CA Certificate > Import.
- 2. Click Upload, select the desired file, and click OK.
- 3. Operate according to prompts, click OK, and the system will reboot to make it take effect.

## Importing the HTTPS Certificate

When you access YMS by HTTPS protocol, the browser will prompt that it is insecure. To solve this problem, you can import the certificate trusted by the browser.

#### Before you begin

You have obtained the device certificate issued by CA.

#### Procedure

- 1. Click System Setting > Certificate > HTTPS Certificate > Import.
- 2. Click Upload, and select the desired file.
- 3. Click OK.

# Importing the TLS Certificate

When the device sends request about TLS connection to the server, the device will check whether or not the server is reliable. The server will send the certificate to the device, and the device will verify this certificate according to the list of the reliable certificate.

- 1. Click System Setting > Certificate > TLS Certificate > Import.
- 2. Click Upload, and select the desired file.
- 3. Click OK.

# Setting the Display on the Web Page

According to the enterprise need, you can customize the logo, the web protocol, the WebRTC protocol, and the video conference.

## About this task

The parameters are described as below:

## Table 14: Parameters of the Logo

Parameter	Effect			
Portal logo	Yealink Yealink Meeting Server   PROSERIA	Setup Wizard English 🗸	🌒 admin 🕞 Exit	Join With Browser
Tab logo	Vealink Meeting S × Not secure   10.200.112			
	🕞 Bina S 🤷 Gooale T			

## Table 15: Parameters of the Web Portal

Parameter	Effect
Background image	Vecilink Vesilink Meeting Server     Outwet gag in downed     Topich     Downed
Email header logo	Yealink         Hello,         You have been invited to join this video conference.         Subject: Mike's video conference         Time: 2018-11-12 11:30 ~ 2018-11-12 12:00 (UTC+08:00)

Parameter	Effect
Enterprise name	Yealink Yealink Meeting Server Test-1
Platform name	Yealink Meeting Server Test-1
Display copyright	Vicializity Yealinity Meeting Server       Oxford play in download       Topics       In the meeting         User Login       Image:
Display Outlook plug-in download	Outlook plug-in download English > Join With Browser

## Table 16: Parameters of the WebRTC Portal

Parameter	Effect
Background image for WebRTC home screen	Vealink Ergent Welcome Luxer are Los untre encourer
Background image of WebRTC end page	Yealink         Thanks for attending!         RECONNICT         Return to Home Page         To make a better video experience, please by VC APP.
Extension download address	When you use Google Chrome to visit Yealink Web app, and share contents with the remote, you need to download the content sharing plugin.

Parameter	Effect
Display PC soft- client download	Yealink Thanks for attending! Reconnect Return to Home Page To make a better video experience, pressed try VC APP. Cort the APP
Windows	The address for downloading Yealink VC Desktop for Windows.
Mac	The address for downloading Yealink VC Desktop for Mac.

<b>Table 17: Parameters</b>	of the	Video	Conference
-----------------------------	--------	-------	------------

Parameter	Effect
Audio call image	语音通话 Audio call
License limited image	会议许可不足,将自动转为语音通话 License limited, audio call only

Parameter	Effect
No video data image	
Camera OFF image	損像头已关闭 Camera OFF
Welcome screen image	Welcome to Yealink

Parameter	Effect
The sole video call party image	会议中只有您一位视频与会者 You are the only video participant in the conference
Conference lobby image	您正处于等待状态 You are on hold
Waiting for the lecturer image	<b>读</b> 请等待演讲者 Please waiting for the lecturer

Parameter	Effect
Waiting image	译 请等待… Waiting…

## Procedure

- 1. Click System Setting > Customization > Email Template.
- **2.** Configure the logo.
- **3.** Configure the web portal.
- 4. Configure WebRTC portal.
- 5. Configure the video conference.

If the device negotiates with the server to use the resolution of 360P, 720P, and 1080P, the video conference is displayed in 16:9; if they negotiate to use the resolution of CIF and 4CIF, the video conference is displayed in 4:3.

# **Configuring the Email Template**

According to the enterprise needs, you can customize the email template for the enterprise administrators and the users.

#### About this task

The code in the email template cannot be deleted, otherwise, you might fail to send the email.

#### Procedure

- 1. Click System Setting > Customization > Email Template.
- 2. Configure the parameters.
- 3. Click Save.

# **Configuring SIP Trunk IVR**

You can customize the SIP trunk IVR so that the user can join conferences or place calls according to the voice prompts.

#### About this task

If the regular expression replacement string is main\_ivr@server domain name, you will go to the SIP trunk IVR.

## Procedure

1. Click System Setting > Customization > SIP Trunk IVR.

- 2. Configure the receptionist greeting prompt, and do one of the following:
  - Select **Default Greeting**. The language depends on the IVR language. For more information, refer to *Setting the Audio IVR language*.
  - Select Personal Greeting.

Click Upload to upload the desired file.

(Optional:) if you want to dial extension directly without pressing the key, select the **Enable first-level** extension dialing checkbox.

Select the desired key, enter the description and the operation which contains transferring to extension/ conference, extension IVR dialing, conference IVR dialing, and repeating menu.

3. Click Save.

# **Configuring the Audio IVR**

You can customize the audio IVR so that the user can join the conference according to the voice prompt.

#### About this task

If the regular expression replacement string is conference\_ivr@server domain name, you will go to the audio IVR.

## Procedure

- 1. Click System Setting > Customization > Audio IVR.
- 2. Configure the voice prompt, and do one of the following:
  - Select Default Greeting. The language depends on the IVR language.
  - Select Personal Greeting.
    - Click Upload to upload the desired file.
- 3. Click Save.

# Service Management

- Configuring the Registration Service
- Communicating with Other Devices via IP Call
- Configuring the Third Party REG Service
- Communicating with PSTN
- Setting the Peer Trunk Service
- Configuring the REG Trunk Service
- Communicating with Skype for Business Server
- Configuring the GK Service
- Configuring the H.323 Gateway
- Configuring the Interactive Media Service
- Configuring the Broadcast Media Service
- Configuring the RTMP Media Service
- Configuring the Media Bypass Service
- Configuring the Traversal Service

# **Configuring the Registration Service**

You need configure the registration service, so that the user in the intranet and the extranet can register YMS accounts. When the device registering, the proxy server directs to this node.

## Procedure

- 1. Click Service > SIP Service > Registration Service > Add.
- 2. Configure the basic parameters.

#### Table 18: Parameters of the Registration Service

Parameter	Description
Enable	Enable or disable this service. <b>Default</b> : enable.
Name	The service name.
Node	The node used by this service.

3. Configure the parameters of the service address.

## Table 19: Parameters of the Service Address

Parameter	Description
Network	The IP address used by this node.
TLS Port	The TLS port used by this node.
	<b>Note</b> : it only provides TLS registration.

4. Configure the security policy.

## Table 20: Parameters of the Security Policy

Parameter	Description		
Enable security policy	Enable or disable the security policy. <b>Default</b> : disable.		
Mode	<ul> <li>Select a mode.</li> <li>The supported modes are as follows:</li> <li>Whitelist: allowing the person in this group to register.</li> <li>Blacklist: forbidding the person in this group to register.</li> </ul>		
Security Group	Select a security group.		

5. Click Save.

6. Operate according to prompts, and click OK.

## Related tasks

Adding a Security Group

# **Communicating with Other Devices via IP Call**

For convenience, you can set the rules for the incoming and outgoing IP calls, and you need set the IP call service (refer to *Configuring the IP Call Service*) and the call routing rules (refer to *Adding a Call Routing Rule*)(if you set the outgoing call rules).

• Configuring the IP Call Service

## **Configuring the IP Call Service**

For friendly calls, you can configure the outgoing and the incoming call rules in the IP call service.

## Procedure

- 1. Click Service > SIP Service > IP Call Service > Add.
- 2. Configure the basic parameters of the IP call service.

Parameter	Description			
Enable	Enable or disable this service.			
	Default: enable.			
Name	The service name.			
Node	The node used by this service.			
Outgoing protocol	<ul> <li>Select a protocol for transmitting the SIP signaling.</li> <li>The supported protocols are as follows:</li> <li>UDP— the optimal protocol for transmitting SIP signaling.</li> <li>TCP—the reliable protocol for transmitting SIP signaling.</li> <li>TLS—the safe protocol for transmitting SIP signaling. TLS is available only when the YMS is registered at a SIP gateway that supports TLS.</li> <li>Default: UDP.</li> </ul>			

## **Table 21: Basic Parameters**

3. Configure the parameters of the service address.

## Table 22: Parameters of the Service Address

Parameter	Description	
Network	The IP address used by this node.	
UDP/TCP Port	The UDP/TCP port used by this node.Note: 5060 port is compulsory.	
TLS Port	The TLS port used by this node.	

**4.** Enable **Support video**, so that you can place a video call to the remote that supports video call. It is enabled by default.

5. Enable Support content sharing, so that you can share the content with the remote that supports receiving or sending contents.

It is enabled by default.

6. Enable **Replace the calling domain with the local IP**, so that when inviting the device to join the conference by IP call, the device will display the server IP address as the caller ID.

It is enabled by default.

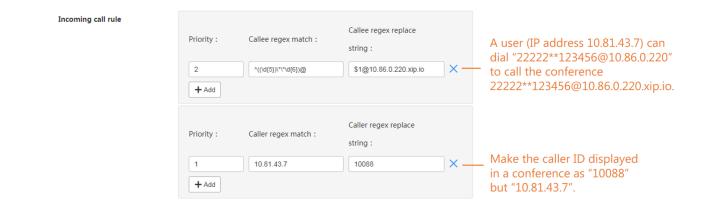
- 7. Enable **Media Bypass** to improve the server performance and to support a larger number of participant in the conference. Note that third-party devices have a lower compatibility.
- **8.** Configure the security policy.

Parameter	Description		
Enable security policy	Enable or disable the security policy.		
	Default: disable.		
Mode	Select a mode.		
	The supported modes are as follows:		
	<ul> <li>Whitelist: allowing the person in this group to call into.</li> <li>Blacklist: forbidding the person in this group to call into.</li> </ul>		
Security Group	Select a security group.		

9. Configure the outgoing call rule.

Outgoing call rule	Priority :          1         1         + Add	Callee regex match : ^10088 ^conf_(\d{5})@	Callee regex replace string : 10.81.43.7 \$1@10.86.0.201.xip.io	) × ) ×—	SIP account 3802 can dial "10088" to call "10.81.43.7". Account 8888 registered in YMS (IP address 10.86.0.33) can dial "conf_55555 " to call the conference (ID 55555) in YMS (IP address 10.86.0.201).
	Priority :	Caller regex match : ^3802	Caller regex replace string : 95588	J	Make the caller ID displayed in the remote call or conference as "95588" but " 3802".
	2 + Add	.+	95599	X	Make the caller ID displayed in the YMS conference 55555 as "95599" but "3802@10.86.0.33.xip.io".

**10.** Configure the incoming call rule.



#### 11. Click Save.

12. Operate according to prompts, and click OK.

#### **Related concepts**

Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings Related tasks

Adding a Security Group

# **Configuring the Third Party REG Service**

To solve the compatibility problem with the third-party devices, you can configure the third-party REG service. If there is an abnormal situation when all third-party devices are registered on this server, you only need edit the third-party REG service to improve the editing efficiency.

#### About this task

Using TLS to register third-party devices in the server is not supported.

#### Procedure

- 1. Click Service > SIP Service > Third Party REG Service > Add.
- 2. Configure the basic parameters.

#### **Table 24: Basic Parameters**

Parameter	Description
Enable	Enable or disable this service. <b>Default</b> : enable.
Name	The service name.
Node	The node used by this service.

3. The parameters of the service address.

# Table 25: Parameters of the Service Address

Parameter	Description		
Network	The IP address used by this node.		

Parameter	Description		
UDP/TCP Port	The UDP/TCP port used by this node.		

- **4.** Enable **Support video**, so that you can place video calls to the remote that supports video call. It is enabled by default.
- 5. Enable Support content sharing, so that you can share contents with the remote that supports receiving or sending contents.

It is enabled by default.

- 6. Enable Media Bypass to improve the server performance and to support a larger number of participants in the conference. Note that third-party devices have a lower compatibility.
- 7. Configure the security policy.

#### Table 26: Parameters of the Security Policy

Parameter	Description		
Enable security policy	Enable or disable the security policy. <b>Default</b> : disable.		
	Derault. disable.		
Mode	Select a mode.		
	The supported modes are as follows:		
	<ul> <li>Whitelist: allowing this group to make third- party registration.</li> <li>Blacklist: forbidding this group to make third- party registration.</li> </ul>		
Security Group	Select a security group.		

8. Click Save.

9. Operate according to prompts, and click OK.

#### **Related tasks**

Adding a Security Group

# **Communicating with PSTN**

To communicate with Microsoft PSTN, you need do the following: *Configuring the PSTN Gateway Service* and *Adding a Call Routing Rule*.

• Configuring the PSTN Gateway Service

# **Configuring the PSTN Gateway Service**

To communicate with the device in PSTN network (such as the telephone), you need configure the PSTN gateway service.

#### Procedure

- 1. Click Service > SIP Service > PSTN Gateway Service > Add.
- 2. Configure the basic parameters.

Parameter	Description
Enable	Enable or disable this service.
	<b>Default</b> : enable.
Name	The service name.
Node	The node used by this service.
Network	The IP address of this node.
Port	The source port on YMS to communicate with the PSTN gateway.
	<b>Note</b> : the value can be any integer from 0 to 65535.
Gateway address	The IP address or the domain name of the gateway.
Gateway Port	the port of the PSTN gateway.
	<b>Default port</b> : 5060. The value can be any integer from 0 to 65535.
Transport protocol	Select a protocol for transmitting the SIP signaling.
	The supported protocols are as follows:
	<ul> <li>UDP— the optimal protocol for transmitting the SIP signaling.</li> <li>TCP—the reliable protocol for transmitting the SIP signaling.</li> <li>TLS—the safe protocol for transmitting the SIP signaling. TLS is available only when the YMS is registered at a SIP gateway that supports TLS.</li> </ul>
	Default: UDP.
Support video	Enable it if the PSTN gateway supports video.
	Default: disable.
Support content sharing	Enable it if the PSTN gateway supports receiving or sending contents.
	<b>Default</b> : disable.
Media Bypass	Enable it to improve the server performance and to allow a larger number of participants in the conference. Note that the third-party devices has a lower compatibility.
	Default: disable.

### **Table 27: Basic Parameters**

**<sup>3.</sup>** Configure the security policy.

Parameter	Description		
Enable security policy	Enable or disable the security policy.		
	Default: disable.		
Mode	Select a mode.		
	The supported modes are as follows:		
	• Whitelist: allowing the person in this group to call into.		
	• <b>Blacklist</b> : forbidding the person in this group to call into.		
Security Group	Select a security group.		

4. Configure the outgoing call rule.

Outgoing call rule	Priority : 1 + Add	Callee regex match : ^0(/d{11})	Callee regex replace string : \$1@10.88.0.97	]×—	The user whose phone number starts with 0 can be called through this PSTN gateway (IP address 10.88.0.97). For example, SIP account 3802 can call 018359710211.
	Priority : 1 + Add	Caller regex match : ^3802	Caller regex replace string : 95588	] ×	Make the caller ID displayed in the remote party as "95588" but "3802".

**5.** Configure the incoming call rule.

Incoming call rule	Priority : 1 + Add	Callee regex match :	Callee regex replace string : main_ivr@10.86.0.220.xij	]×	The user whose phone number starts with 183 can call 0592- 3792232 to go to the YMS conference lobby (IP address 10.86.0.220).
	Priority : 1 + Add	Caller regex match : ^183	Caller regex replace string : 10088	]×—	Make the caller ID displayed in the conference as "10088" but the number starts with 183.

#### 6. Click Save.

7. Operate according to prompts, and click OK.

#### Related concepts

Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings

#### **Related tasks**

Adding a Security Group

# **Setting the Peer Trunk Service**

To make users of two systems call each other by any number (for example, the communication of two YMSs), setting the peer trunk service and *Adding a Call Routing Rule* need to be done.

#### Procedure

- 1. Click Service > SIP Service > Peer Trunk Service > Add.
- 2. Configure the basic parameters.

#### Parameter Description Enable or disable this service. Enable **Default**: enable. Name The service name. Node The node used by this service. Network The IP address of this node. Port The source port on YMS that communicates with the other YMS. Note: the value can be any integer from 0 to 65535. Transport protocol Select a protocol for transmitting the SIP signaling. The supported protocols are as follows: **UDP**— the optimal protocol for transmitting SIP signaling. **TCP**—the reliable protocol for transmitting SIP signaling. TLS—the safe protocol for transmitting SIP signaling. TLS is available only when the YMS is registered at a SIP gateway that supports TLS. Default: UDP. **Outbound proxy** Enable or disable the outbound proxy server. Default: disable.

#### Table 29: Basic Parameter

Parameter	Description
Proxy address	The IP address or domain name of the other system.
Proxy port	The port of the other system. <b>Note</b> : the value can be any integer from 0 to 65535.
Support video	If the other system supports the video, you can enable this. Default: enable.
Support content sharing	If the other system supports receiving or sending the content, you can enable this. <b>Default</b> : enable.
Media Bypass	<ul><li>Enable it to improve the server performance and to allow a larger number of participant in the conference. Note that third-party devices have a lower compatibility.</li><li>Default: disable.</li></ul>

**3.** Configure the security policy.

# Table 30: Security policy parameter

Parameter	Description		
Enable security policy	Enable or disable the security policy.		
	Default: disable.		
Mode	Select a mode.		
	The supported modes are as follows:		
	<ul> <li>Whitelist: allowing the person in this group to call into.</li> <li>Blacklist: forbidding the person in this group to call into.</li> </ul>		
Security Group	Select a security group.		

4. Configure the outgoing call rule.

Outgoing call rule	Priority : 1 + Add	Callee regex match : ^0('d{4})	Callee regex replace string : \$1@10.86.0.201.xip.io	]×—	Account 3802 registered in YMS (IP address10.86.0.33.xip.io) can dial "03702" to call the account 3702 registered in YMS (IP address 10.86.0.201.xip.io).
	Priority : 1 + Add	Caller regex match : ^3802	Caller regex replace string : 95588	]×—	Make the caller ID displayed in the remote party as "95588" but "3802".

5. Configure the incoming call rule.

Incoming call rule	Priority : 1 + Add	Callee regex match : ^1(/d[4])	Callee regex replace string : \$1@10.86.0.33.xip.io	]× —	Account 3702 registered in YMS (IP address 10.86.0.201.xip.io) can dial "13802" to call the account 3802 registered in YMS (IP address 10.86.0.33.xip.io).
	Priority : 1 + Add	Caller regex match :	Caller regex replace string : 96866	) × —	Make the caller ID displayed in the local party as "96866" but "3702".

- 6. Click Save.
- 7. Operate according to prompts, and click **OK**.

### **Related concepts**

Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings

#### **Related tasks**

Adding a Security Group

# **Configuring the REG Trunk Service**

To communicate with the third-party PBX, you need configure the REG trunk service and add call routing rules (refer to *Adding a Call Routing Rule*). For example, when communicating with 3CX or BSFT server, YMS need register a 3CX or BSFT account.

#### About this task

The third-party accounts can only call into the conference in YMS, but cannot place P2P calls to YMS accounts.

### Procedure

- 1. Click Service > SIP Service > REG Trunk Service > Add.
- **2.** Configure the basic parameters.

# Table 31: Basic Parameter

Parameter	Description
Enable	Enable or disable this service.
	Default: enable.
Name	The service name.
Node	The node used by this service.
Network	The IP address of this node.
Port	The port on YMS to communicate with the third- party server.
	<b>Note</b> : the value can be any integer from 0 to 65535.
Transport protocol	Select a protocol for transmitting the SIP signaling. The supported protocols are as follows:
	<ul> <li>UDP— the optimal protocol for transmitting the SIP signaling.</li> <li>TCP—the reliable protocol for transmitting the SIP signaling.</li> <li>TLS—the safe protocol for transmitting the SIP signaling. TLS is available only when the YMS is registered at a SIP gateway that supports TLS.</li> <li>Default: UDP.</li> </ul>
Outbound proxy	Enable or disable the outbound proxy server.
	Default: disable.
Proxy address	The IP address or the domain name of the third- party server.
Proxy port	The port of the third-party server.
	<b>Note</b> : the value can be any integer from 0 to 65535.
Display name	The name of the third-party server account.
URL	The IP address or the domain name of the third- party server.
Auth name	The authentication name of the third-party server account.
Auth domain	The authentication domain name of the third-party server account.

Parameter	Description
Password	The password of the third-party server account.
Expires	The registration timeout (in seconds) on YMS. If the time is out, the YMS will send the registration request to the third-party server again. <b>Default</b> : 3600 seconds.
Support video	Enable it if the remote supports video. <b>Default</b> : disable.
Support content sharing	Enable it if the remote supports receiving or sending contents. Default: disable.
Media Bypass	Enable it to improve the server performance and to allow a larger number of participants in the conference. Note that third-party devices have a lower compatibility. <b>Default</b> : disable.

**3.** Configure the outgoing call rule.

Outgoing call rule	Priority : 1 + Add	Callee regex match : ^9(d{3})	Callee regex replace string : \$1@10.200.108.42	]× —	Account 3802 registered in YMS (IP address 10.86.0.33.xip.io) can dial "9025" to call the 3CX account 025.
	Priority : 1 + Add	Caller regex match :	Caller regex replace string : 024@10.200.108.42	]×	3802 is replaced by 024@10.200.408.42, because 3CX server cannot recognize 3802.

4. Configure the incoming call rule.

Incoming call rule	Priority : 1 + Add	Callee regex match :	Callee regex replace string : conference_ivr@10.86.0.:	)×—	When the 3CX account 025 calls 024, it will go to the YMS conference lobby (IP address 10.86.0.220).
	Priority : 1 + Add	Caller regex match :	Caller regex replace string : 9025	] ×	Make the caller ID displayed in the local as "9025" but "025".

- 5. Click Save.
- 6. Operate according to prompts, and click OK.

#### **Related concepts**

Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings

# **Communicating with Skype for Business Server**

YMS can communicate with the local Skype for Business (SfB) server, Microsoft Office 365 and other enterprise SfB servers.

Note: SfB 2016 and 2015 are supported.

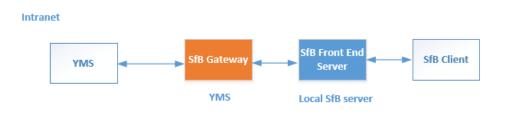
For more information about the deployment of YMS with SfB, refer to *Skype for Business and Yealink Meeting Server Deployment Guide*.

- Communicating with the Local SfB Server
- Communicating with Microsoft Office 365
- Communicating with Other Enterprise SfB Servers
- Configuring the SfB Service
- Configuring the SfB Gateway Media Service

#### Communicating with the Local SfB Server

In the intranet, if you want the YMS and SfB communicates with each other and the users can use both of them, you can deploy YMS to communicate with the SfB.

To communicate with the local SfB server, you need do the following steps: *Configuring the Local SfB Server*, *Importing the TLS Certificate*, *Configuring the SfB Service*, *Configuring the SfB Gateway Media Service*, and *Adding a Call Routing Rule*.



Configuring the Local SfB Server

#### Configuring the Local SfB Server

If YMS need communicate with the local SfB server, you can follow the steps below to add YMS to the SfB server topology in the SfB front-end server.

#### About this task

Take the local environment as an example, you need run the example command below to complete the configuration:

- If you use the cluster YMS and you plan to use the business node in YMS to connect to SfB, the FQDN of this node is sfb1.5060.space and the A record of this business node is added to the DNS server.
- The FQDN of the SfB Front-End Pool is xiamenpool.xiamen.yealinksfb.com, and the A record of this SfB pool is added to the DNS server.

#### Procedure

Run the command below to add YMS to the Front-End Pool generated by SfB server via powershell:

Note that only the account in the Front-End Pool can communicate with YMS after the integration.

For more information the command, refer to *https://docs.microsoft.com/en-us/powershell/module/skype/? view=skype-ps*.

#### Table 32:

Procedure	Command	Syntax description
<b>1.</b> Get the Site ID of SfB Front-End Pool.	Get-CsSite	None

Procedure	Command	Syntax description
2. Add YMS into the trusted application pool created by the SfB server.	New-CsTrustedApplicationPool -Identity <yms dns="" fqdn=""> -ComputerFqdn <yms dns="" fqdn=""> -Registrar <front End Pool DNS FQDN &gt; -Site &lt; Site ID - RequiresReplication Sfalse -ThrottleAsServer Strue -TreatAsAuthenticated \$true Example command: New-CsTrustedApplicationPool -Identity sfb1.5060.space -ComputerFqdn sfb1.5060.space -Registrar xiamenpool.xiamen.yealinksfb.com -Site 5 -RequiresReplication \$false - ThrottleAsServer \$true -TreatAsAuthenticated Strue</front </yms></yms>	<ul> <li>-Identity: defines the name of the trusted application pool and the name should be DNS FQDN.</li> <li>-ComputerFqdn: defines the YMS DNS FQDN which communicates with the SfB in the trusted application pool.</li> <li>The name of the trusted application pool should be consistent with the name of YMS, because when integrating SfB with YMS, there is only one YMS.</li> <li>-Registrar: defines the DNS FQDN of the SfB Front-End Pool to which this trusted application pool belongs.</li> <li>-Site: defines the SfB Site ID to which this trusted application pool belongs. Run command Get-CsSite to get the Site ID.</li> <li>Others are the same with the default value.</li> <li>Note: When creating a trusted application pool (and a trusted application computer in the next step) in this way, SfB/Lync will issue a warning state: "WARNING: Machine sfb1.5060.space from the topology you are publishing was not found in Active Directory and will result in errors during Enable-CsTopology as it tries to prepare Active Directory entries for the topology machines.", and you should answer Yes to this warning.</li> </ul>

Procedure	Command	Syntax description
<b>3.</b> Add other trusted applications to the trusted application pool.	New-CsTrustedApplication - <b>ApplicationId</b> <application id=""> - <b>TrustedApplicationPoolFqdn</b> <yms dns<br="">FQDN&gt; -Port <available port=""> <b>Example command:</b></available></yms></application>	-ApplicationId: defines a friendly identifier for the YMS. You can customize the name and it is unique.
	New-CsTrustedApplication -ApplicationId sfb1 -TrustedApplicationPoolFqdn sfb1.5060.space.space -Port 5067	TrustedApplicationPoolFqd : defines the trusted application to pool to which this YMS belongs.
		<b>-Port</b> : defines the port on YMS that communicates with SfB server. It can be any unoccupied port from 0 to 65535. In YMS, the default port is 5067, which is recommended.
<b>4.</b> View the trusted application to ensure that YMS is added into the trusted application pool.	Get-CsTrustedApplication	None
<b>5.</b> View information about whether or not there is a registrar to which you want to add the static routing configuration. If there is no desired registrar, run the command 6.	Get-CsStaticRoutingConfiguration	None
<b>6.</b> Create a new static routing configuration for the desired registrar.	New- CsStaticRoutingConfiguration – <b>Identity</b> "Service:Registar: <front dns<br="" end="" pool="">FQDN&gt;"</front>	-Identity: defines the registrar to which we want to apply the static routing configuration.
	Example command: New- CsStaticRoutingConfiguration –Identity "Service:Registrar:xiamenpool.xiamen.yealinksfb.	com"

Procedure	Command	Syntax description
7. Create the static SIP domain route, and associate this route with a trusted application.	<pre>\$newroute = New-CsStaticRoute -TLSRoute - Destination<yms dns="" fqdn=""> -Port <yms port=""> -MatchUri &lt; YMS DNS FQDN&gt; - UseDefaultCertificate \$true Example command:</yms></yms></pre>	-Destination: defines the YMS DNS FQDN where SfB should send SIP requests matching the domain specified in -MatchUri.
	<pre>\$newroute = New-CsStaticRoute -TLSRoute -Destination "sfb1.5060.space" -Port 5067 - MatchUri "sfb1.5060.space"</pre>	<b>-Port</b> : defines the port on YMS that communicates with SfB server. It can be any unoccupied port from 0 to 65535. In YMS, the default port is 5067, which is recommended.
		-MatchUri: defines the matched YMS DNS FQDN.
8. Apply your required static route to your registrars' static routing	Set-CsStaticRoutingConfiguration <b>-Identity</b> "Service:Registar: <front dns<br="" end="" pool="">FQDN&gt;" -Route @{Add=\$newroute} <b>Example command:</b></front>	<b>-Identity</b> : defines the registrar to which we want to apply the static routing configuration.
configuration.	Set-CsStaticRoutingConfiguration -Identity " Service:Registrar:xiamenpool.xiamen.yealinksfb.c -Route @{Add=\$newroute}	Others are the same with the default value. om"
<b>9</b> . View all routes in your static routing configuration to ensure that your required static route is added successfully.	Get-CsStaticRoutingConfiguration   Select- Object -ExpandProperty Route	None
<b>10</b> .Enable the new topology.	Enable-CsTopology	None

# **Communicating with Microsoft Office 365**

To communicate with Microsoft Office 365, you need do the following: *Configuring Microsoft Office 365*, *Importing the TLS Certificate*, *Configuring the SfB Service*, *Configuring the SfB Gateway Media Service*, and *Adding a Call Routing Rule*.

Note that you need enable the federation on Microsoft Office 365.

• Configuring Microsoft Office 365

# **Configuring Microsoft Office 365**

### Procedure

1. Make sure that the federation is enabled on Office 365.

	Office 365 Micro	osoft T	eams & Skype for Business Admin Center
		≡	Dashboard \ External access
	Dashboard		External access
දීරී	Teams	~	External access lets your Teams and Skype for Business users communicate with users that are outside of your organization. By
	Devices	~	Exerting access res your reams and skype for business users communicate with users that are outside or your organization, by turning this on and adding domains to the allowed list, your users can communicate with other users in other domains and organizations. Learn more.
٢	Locations		organications <u>beam more</u>
දර	Users		External access On
Ē	Meetings	~	Users can communicate with external Skype users On
	Messaging policies		
٥	Org-wide settings	^	+ Add a domain
	External access		Name Status
	Guest access		
	Teams settings		
	Teams upgrade		
S	Legacy portal 🖸		
Ø	Call quality dashboard 🖸		
S	Firstline Worker configurat	tion 🖸	

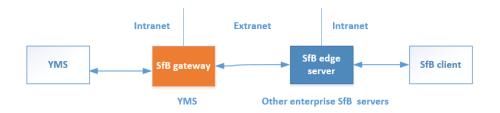
2. Make sure that the SRV record and the A record of YMS and SfB is configured on the public DNS server.

# **Communicating with Other Enterprise SfB Servers**

The YMS device communicate with the SfB device through the public network, you can configure the YMS to communicate with other enterprise SfB servers.

To communicate with the other enterprise SfB servers, you need do the following: *Configuring Other Enterprise SfB* Servers, Importing the TLS Certificate, Configuring the SfB Service, Configuring the SfB Gateway Media Service, and Adding a Call Routing Rule.

YMS communicates with the edge servers of other enterprise SfB via the SfB gateway. Note that edge servers of other enterprise SfB should enable the federation.

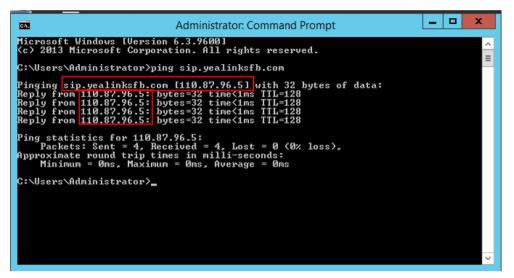


• Configuring Other Enterprise SfB Servers

#### **Configuring Other Enterprise SfB Servers**

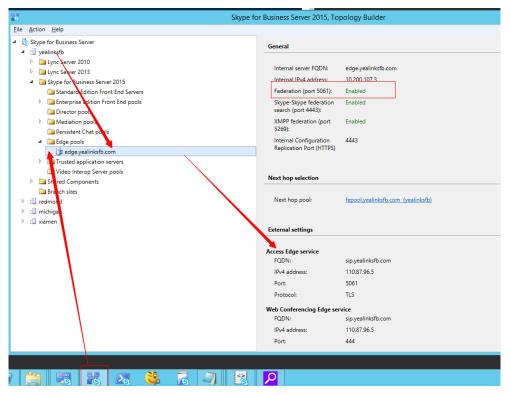
#### Procedure

- 1. Make sure that other enterprise SfB servers have edge servers, and the IP address of the public network is configured on these edge servers or the IP addresses of these edge server are mapped to the public network by NAT. Do one of the following:
  - Verify the public DNS FQDN of the SfB edge server on the Command Prompt, for example, ping sip.yealinksfb.com. If the verification fails, you need check the DNS A-record of the SfB edge server.



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View the information of the SfB edge server in the Front End topology. The information includes whether or not the federation is enabled on the SfB edge server.



- 2. Make sure that the SRV record and the A record of both YMS and SfB are configured on the public DNS server.
  - Log into the public DNS server where the SfB edge server is located to view the SRV record and the A record. The host machine record must be\_sipfederationtls\_tcp in the SRV record.

A	sip	默认	110.87.96.5
A	sipexternal	默认	110.87.96.5
SRV	_siptls	默认	0 100 5061 sip.yealinksfb.com
SRV	_sipfederationtlstcp	默认	0 100 5061 sip.yealinksfb.com
SRV	_siptcp	默认	0 0 5060 sip.yealinksfb.com

- Log into the public DNS server where the YMS is located to view the SRV record and the A record. The host machine record must be\_sipfederationtls\_tcp in the SRV record.
- **3.** Make sure that you purchase the certificate of the SfB edge server from a trusted third-party organization. The procedure of importing the certificate is described as below:
  - a) Go to the Deployment Wizard of the Lync Server, and click **Install or Update Skype for Business Server System**.

3	Skype for Business Server 2015 - Deploy	ment Wizard	x
Welco	me to Skype for Business Server 2015 deployment		
Deploy			2
	Prepare Active Directory Prepares the Active Directory schema, forest, and domain for Skype for Business Server. Help ► Install or Update Skype for Business Server System Install or update a Skype for Business Server Core components, and a local replica configuration store. Note: Before installing a server, you need to have a valid topology created and published. Help ►	Prepare first Standard Edition server Prepares a single Standard Edition server to host Central Management Service. Note: This task requires local administrator rights. This task does not apply to Standard Edition Servers that are not planned to host the Central Management Service, or for deployments that include Enterprise Edition. Install Administrative Tools ✓ Installs the Administrative Tools ✓ Installs the Administrative Tools ✓ Installs the Administrative Tools to the current system. Your deployment requires at least one installation of the Topology Builder. Deploy Monitoring Reports Deploy Monitoring Reports Deploy Monitoring Revices (SSRS) instances. Call Quality Dashboard Skype for Business Server 2015, Call Quality Dashboard is a portal that provides OLAP reports to Skype for Business Server administrators to help troubleshoot Call Quality issues. First Run Yideos Click to view getting started videos.	^
		<u>B</u> ack Exit	

b) Click Run Again.

3	Skype for Business Server 2015 - Deployment Wizard	x
Install or update	member system	
<u>Deploy</u> > Install or up	vdate	\$
	al Configuration Store al configuration store and populates with data from Central Management Store.	^
Prerequisi Help 🕨	✓ Complete Run Again	
	Remove Skype for Business Server Components activate, or deactivate and uninstall Skype for Business Server Components based on the topology	=
Prerequisi Help 🕨	✓ Complete Run Again	-
This step s	nstall or Assign <u>C</u> ertificates tarts the Certificate Wizard. Create certificate request for local system. Install, and assign certificates for based on the topology definition.	
Prerequisi Help ►	✓ Complete Run Again	
You can st To start th the server	ve installed Skype for Business Server on all of the servers in the pool, you'll need to start the services. art the services in a pool with the Skype for Business Server cmdlets. e services in a user pool, connect to one of the servers in the pool and run the Start-CsPool cmdlet. All s in the pool should be running Skype for Business Server before you use the Start-CsPool cmdlet. e services in a non-user pool, run the Start-CsWindowsService cmdlet on every server in the pool.	~
	<u>B</u> ack	E <u>x</u> it

c) Click **Import Certificate** and import the external edge certificate.

Certificate		Friendly Name	Expiration Date	Location	<u>R</u> equest
<ul> <li>Edge internal</li> </ul>	$\checkmark$	edge.yealinksfb.com	4/22/2020 1:19:14 PM	Local	Assign
✓ Edge internal	$\checkmark$	edge.yealinksfb.com	4/22/2020 1:19:14 PM	Local	Remove
<ul> <li>External Edge certificate (p</li> </ul>	ι 🗸		4/24/2019 9:33:42 AM	Local	
✓ SIP Access Edge external	~		4/24/2019 9:33:42 AM	Local	View
Web conferencing Edge			4/24/2019 9:33:42 AM	Local	
✓ A/V Edge external	<ul><li>✓</li></ul>		4/24/2019 9:33:42 AM	Local	
✓ XmppServer	✓		4/24/2019 9:33:42 AM	Local	

After importing, the page is shown as below:

Certificate		Friendly Name	Expiration Date	Location	Request
Edge internal		edge.yealinksfb.com	4/22/2020 1:19:14 PM	Local	
_		edge.yealinksfb.com	4/22/2020 1:19:14 PM	Local	<u>A</u> ssign
Edge internal	~	edge.yealinksib.com		LOCAI	Re <u>m</u> ove
<ul> <li>External Edge certificate</li> </ul>	(рг 🗸		4/24/2019 9:33:42 AM	Local	View
					View

d) Select the imported edge server certificate, click **View**, and make sure that the user name (commonName attribute) or the user optional name (altNames attribute) must contain the FDQN name of the edge server.

<b>R</b>	Cer	tificate	x
General Details	Certification Path	]	
Show: <all></all>		~	
Field		Value	~
Signature l	nash algorithm	sha256	
Issuer		WoSign DV SSL CA, WoSign C	
Valid from		Tuesday, April 24, 2018 9:33	≡
Valid to		Wednesday, April 24, 2019 9	
Subject		sip.yealinksfb.com, CN	
Public key		RSA (2048 Bits)	
CRL Distrib	ution Points	[1]CRL Distribution Point: Dist	r
🔉 Authority I	nformation Access	[1]Authority Info Access: Acc	🗸 🔰
CN = sip.yealin C = CN		lit Properties Copy to F	=ile
			ОК

- 4. Configure the federation information on the SfB and YMS.
  - a) Open the Control Panel in the SfB Front End, click **Federation and External Access**, and add the YMS DNS FQDN that connects to the SfB business node to the **SIP FEDERATION DOMAINS** field.

<b>1</b>		Skype	for Business Server 2015	5 Control Panel	
Skype for Busine	ess Server				
Home	EXTERNAL ACCESS POLICY	ACCESS EDGE SIP FEDE		XMPP FEDERATED PARTNERS	
Users	Polici			PARTICLO	
			٩		
Topology		/			
IM and Presence	🖶 New 🔻 🦯 F n	🔻 🔃 Refresh			
Persistent Chat	Allow op block	Domain	<ul> <li>Edge Server</li> </ul>	Comment	
Voice Routing	Allew	5060.space	sfb4.5060.space		
Voice Features	Allow	bilwan.msftonlinelab.com	sip.bilwan.msftonlinelab.c	om	
Response Groups	Allow	inter.ru	yms.inter.ru		
Conferencing	Allow	ipmatika.ru	yms.ipmatika.ru		
Clients	Allow	joyce.cz kontel.pl	yms.joyce.cz yms.kontel.pl		
Federation and	Allow	lyncpro.com	sip.yealinkuc.com		
External Access	Allow	phonoway.com.br	yms.phonoway.com.br		
Monitoring	Allow	sumteccorp.com	yms.sumteccorp.com		
and Archiving	Allow	vc.yealink.com	pexipmeet.vc.yealink.com		
Security	Allow	yealink.com	sip.yealink.com		
Network Configuration	Allow	yealink5.onmicrosoft.com	sipfed.microsoft.com		
	Allow	yealinkuc.com	sip.yealinkuc.com		
5			Skype for B	usiness Server 20	15 Control Panel
Skype for E	Business Server				
	EXTERNAL	ACCESS ACCESS EDG	E SIP FEDERATED	SIP FEDERATED	XMPP FEDERATED
Home	POLICY	CONFIGURA	TION DOMAINS	PROVIDERS	PARTNERS
Users					
	New SIP	Federated Domains			
Topology	Com	imit 💥 Cancel			
IM and Presence	Allowed	domain			
Persistent Chat	Domain	name (or FQDN): *		-	
	sfb0.506	50.space			
Voice Routing	Access	dge service (FQDN):			
Voice Features	sfb0.506			<u> </u>	
Response Groups					
Conferencing	Comme	nt;			
Clients					
Federation and External Access					
Monitoring					
and Archiving					
Security					
Network					
Configuration					

# **Configuring the SfB Service**

To ensure calls can be routed to the specified SfB server, you need add a SfB gateway on YMS, to provide the destination gateway for the call routing.

#### Before you begin

Make the SfB server trust this YMS by Importing the TLS Certificate on this YMS.

The methods of obtaining the certification are described as follows:

- If it is the local SfB server, you can use a certificate issued by a public CA, or a certificate issued by the organization's internal CA (trusted by SfB and YMS).
- If it is Microsoft office 365 or other enterprise SfB server, you can use the certificate issued by a public CA.

The certificate should meet the following:

 The Subject name (commonName attribute) or the Subject Alternative Name (altNames attribute) of the certificate should contain the DNS FQDN name of the YMS business node.

R Certifi	cate ×
General Details Certification Path	
Show: <all></all>	~
Field Va	alue
🛅 Valid to 🛛 🖤	ednesday, April 24, 2019 9:
Subject sf	b1.5060.space
Public key RS	SA (2048 Bits)
CRL Distribution Points [1	]CRL Distribution Point: Distr 🗏
Authority Information Access [1	]Authority Info Access: Acc
🔄 Authority Key Identifier Ke	eyID=ca 9b 8d 2e 44 50 42 8
😨 Subject Key Identifier 8e	e 3a 5e c7 0c b1 c7 f4 2f 4b
Certificate Policies [1	]Certificate Policy:Policy Ide 🗸
CN = sfb1.5060.space C = CN Edit P	roperties
	OK

• The certificate should contain the public key and the private key.

#### ----BEGIN CERTIFICATE---MIIEczCCA1ugAwIBAgIJALSY12RyrkNWMA0GCSqGSIb3DQEBBQUAME8xEzARBgoJ kiaJk/IsZAEZFgNjb20xGjAYBgoJkiaJk/IsZAEZFgp5ZWFsaW5rc2ZiMRwwGgYD VQQDExN52WFsaW5rc2ZiLUFELUNBLUNBMB4XDTE3MTIyODAyMTI0M1oXDTI3MTIy NjAyMTI0MlowgZAxCzAJBgNVBAYTAkNOMQ8wDQYDVQQIEwZGdWppYW4xDzANBgNV BAcTB1hpYW11bjEQMA4GA1UEChMHWWVhbG1uazELMAkGA1UECxMCSVQxHzAdBgNV BAMTFnBleGlwMm11ZXOueWVhbGluav5jb20xHzAdBgkghkiG9w0BC0EWEG1pbG9A eWVhbGluay5jb20wggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQCephdy ddIJJ9Rh/Ykx7kksD4bxK+qz50LLcIwY/qPI7ZcPUd0kf+zzd07/AQQkjza/cZgF 36R3oUBwrqJRRUZhdyHhxRYr/+wOCHrmcCkKPKLSmpKezjxTzd/x3EqlMyM4jD8j TbTbRLjt3dZumZ03a5gBzjaj2wnFwexQ7Pmb6e4EnViW7PNfDfrtrlsQEcNUCDbc b0+7LIPPDpP/trpYDB8U4fNuVHjko455jwTz3/wdsTwbosDISX46nywn01K8QpEB 9QlfKglA6/Tzp5yNhoT6Zx0szADdOVZ6EBh0dZc8fduNiS8rIrVj+8Bfjl4VktG2 eOJubaQcxHtZQ7k3AgMBAAGjggEOMIIBCjAMBgNVHRMEBTADAQH/MIHNBgNVHREE gcUwgcKCFnBleGlwMm11ZXQueWVhbGluay5jb22CD1NGQjAuNTA2MC5zcGFjZYIP U0ZCMS41MDYwLnNwYWN1gg9TRkIyLjUwNjAuc3BhY2WCD1NGQjMuNTA2MC5zcGFj ZYIPU0ZCNC41MDYwLnNwYWN1gg9TRkI1LjUwNjAuc3BhY2WCD1NGQjYuNTA2MC5z cGFjZYIPU0ZCNy41MDYwLnNwYWN1gg9TRkI4LjUwNjAuc3BhY2WCD1NGQjkuNTA2 MC5zcGFjZTAdBgNVHQ4EFgQUxXmjM3vh1JEgQX2WpmFTpNEJZoowCwYDVR0PBAQD AgXgMA0GCSqGSIb3DQEBBQUAA4IBAQBtp42P05TXqPNvEqn104QcEBXbukKmEr0q CqxksUVyudOQ/5qqyd6x9K1M/6BmAS2Fi/1463PaciQEZDAbDHw0UyAvisOyUDDw WYEAYa2vIe2tvE/NW7TFysWgHPWcvjLN91wtLNDVjJkb7r4Et7//TnRc5oHL5ok9 En43cfZ3inev1HgFhne3C6iHVip5X4T7rZ05j9G51QYp9Jw4GwiCT2syP2D010u/ Yf6h/yIwnYLE3s4MFwqkD4fRJh8p+aCjabhjxUPWvk7PCctmaceWUg1VRDIgZB4L xSzPAeywK+qgvrYfAQFTB2OpAxVBXHuBswo/6oPmtvJso50R+Qdt ----END CERTIFICATE------BEGIN RSA PRIVATE KEY-----MIIEogIBAAKCAQEAnqYXcnXSCSfUYf2JMe5JLA+G8Svqs+dCy3CMGP6jy02XD1Hd JH/s83d0/wEEJI82v3GYBd+kd6FAcK6iUUVGYXch4cUWK//sDgh65nApCjyi0pqS

#### Procedure

- 1. Click Service > SIP Service > Skype for Business > Add.
- 2. Configure the basic parameters.

Table	33:	Basic	Parameter	
-------	-----	-------	-----------	--

Parameter	Description
Enable	Enable or disable the SfB gateway server. <b>Default</b> : enabled.
Name	The name of SfB gateway.
Node	The node used by this SfB gateway.
Network	The IP address of this node.
Transport protocol	Only TLS is available if communicating with SfB.
FQDN	The name of YMS. Example: sfb1.5060.space
	<b>Method</b> : add this domain name on DNS server to which the A record of YMS is added.
Port	The source port on YMS that communicates with the SfB server.
	<b>Note</b> : the value can be any integer from 0 to 65535. This port must be consistent with the port configured in SfB server and cannot be occupied.
	<b>Default</b> : 5067.
	If the SfB enables federation, this port should be 5061. First of all, change the registration port to other port, and set the port as 5061, otherwise the port will be closed by the firewall.
Domain	The domain name of SfB server. For example: xiamen.yealinksfb.com.
Port	The source port on the SfB server that communicates with YMS.
	<b>Default</b> : 5061.
Federation	Enable or disable the federation.
	Default: disabled.
	According to different SfB servers, you can enable or disable the federation in one of the following scenarios:
	<ul> <li>If the SfB server is the local SfB server, you can disable the federation.</li> <li>If the SfB server is Microsoft Office 365 or other enterprise SfB servers, you can enable federation.</li> </ul>
Outbound proxy	Enable or disable it to allow the SfB server to send requests to the outbound proxy server.
	Default: disabled.

Parameter	Description
Proxy address	The IP address or the domain name of this outbound proxy server.
Proxy port	The port of this outbound proxy server. <b>Note</b> : the value can be any integer from 0 to 65535.
Support video	If you enable this, you can place video calls to the remote that supports video call. <b>Default</b> : enabled.

**3.** Configure the security policy.

# Table 34: Parameters of the Security Policy

Parameter	Description			
Enable security policy	Enable or disable the security policy.			
	Default: disabled.			
Mode	Select a mode.			
	The supported modes are as follows:			
	• Whitelist: allowing the person in this group to call into.			
	• <b>Blacklist</b> : forbidding the person in this group to call into.			
Security Group	Select a security group.			

4. Configure the outgoing call rule.

Outgoing call rule	Priority : 1 + Add	Callee regex match : ^888(\d+)@	Callee regex replace string : yl\$1@xiamen.yealinksfb.(	] ×	Account 3802 registered in the local YMS can dial "888751" to call SfB account yl751@xiamen.yealinksfb.com.
	Priority : 1 + Add	Caller regex match : (.+)@	Caller regex replace string : \$1@sfb1.5060.space	] <b>×</b>	Make the caller ID displayed in the remote call or conference as "3802@sfb1.5060.space" but " 3802".
	Priority : 1 + Add	SfB conference regex match : ^666(\d+)@	SfB conference regex replace string : \$1@xiamen.yealinksfb.com	] ×	Account 3802 registered in the local YMS can dial "66671920" to join SfB conference 71920@xiamen.yealinksfb.com.

**5.** Configure the incoming call rule.

Incoming call rule	Priority :	Callee regex match :	Callee regex replace string : \$1@10.86.0.220.xip.io	) <b>×</b>	SfB account yl751@xiamen.yealinksfb.com can dial "3802" to call the account 3802 registered in the local YMS (IP address 10.86.0.220.xip.io).
	Priority : 1 + Add	Caller regex match : yl('d+)@	Caller regex replace string : 888\$1@10.86.0.220.xip.ir	) ×	Make the caller ID displayed in the local call as "888751@10.86.0.220.xip.io" but " yl751@xiamen.yealinksfb.com".
	Priority : 1 + Add	0	SfB conference regex replace string : 666\$1@10.86.0.220.xip.io	) ×	Make the caller ID displayed in the local conference as "666751@10.86.0.220.xip.io" but " yl751@xiamen.yealinksfb.com".

- 6. In the SfB certificate field, select the desired certificate to make the SfB server trust this YMS.
- 7. Click Save.
- 8. Operate according to prompts, and click OK.

#### **Related concepts**

Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings Related tasks Adding a Security Group

# Configuring the SfB Gateway Media Service

If you want to communicate with the SfB server, you need to configure the SfB gateway media service.

#### Procedure

- 1. Click Service > MCU Service > SfB Gateway Media Service > Add.
- **2.** Configure the basic parameters.

### Table 35: Basic Parameter

Parameter	Description
Enable	Enable or disable this service. <b>Default</b> : enable.
Name	The service name.
Node	The node used by this service.

Parameter	Description
External media port	Configure the port range for the SFB gateway media service. <b>Default port range</b> : 61000-63999. To avoid the port conflict, the gap between the maximum port and the minimum port should be more than 200. For example, you set 61000 as the minimum port, and the maximum port should be more than 61199.
All local networks	The IP address used by this service.

### 3. Click Save.

4. Operate according to prompts, and click OK.

# Configuring the GK Service

You can configure the GK service, so that a YMS Account can be registered in the H.323 device, therefore, the H.323 devices can call each other, join conferences, and communicate with the SIP devices.

#### Procedure

- 1. Click Service > H.323 Service > Embedded GK Server > Add.
- **2.** Configure the basic parameters.

#### Table 36: Basic Parameter

Parameter	Description
Enable	Enable or disable it to allow the server to send registration request to the GK server. <b>Default</b> : enable.
Name	The server name.
Node	The server
GK ID	The network ID of the GK server in which YMS is registered.
TTL timeout duration	After YMS is registered at the GK server, it will periodically send handshake messages (Registration Request) to the GK server to maintain the registration status. If the GK server does not receive the handshake messages when the time is out, it means this GK server does not exist, and the YMS will log out of this server automatically.
	<b>Default</b> : 600 seconds.

Parameter	Description	
TTL timeout duration	The GK can decide whether or not the server can be called according to IRR (Information Request Response) sent by the server.	
	Default: 120 seconds.	
RAS broadcast port (UDP)	It defaults to 1718 and is not configurable.	
RAS port (UDP)	It defaults to 1719 and is not configurable.	
H.225 listener (TCP)	It defaults to 1722 and is not configurable.	
Q.931/H.245(TCP)	Configure the range of the Q.931/H.245 port used by the registration service.	
	<b>Default port range</b> : from 20000 to 23999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 20000 as the minimum port, the maximum port should be not less than 20199.	
Media forwarding port (UDP)	Specify the range of the media forwarding port.	
	<b>Default port range</b> : from 20000 to 29999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 20000 as the minimum port, the maximum port should be not less than 20199.	
H.225 listener	It defaults to 1721 and is not configurable.	
Q.931/H.245(TCP)	Configure the range of the Q.931/H.245 port used by the conference gateway.	
	<b>Default port range</b> : from 24000 to 26999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 24000 as the minimum port, the maximum port should be not less than 24199.	
H.235 encryption	The supported types are as follows:	
	<ul> <li>Optional—negotiate with the remote whether or not H.235 encryption can be used in H.323 calls.</li> <li>Compulsory—H.235 encryption has to be used in H.323 calls.</li> <li>Disable—H.235 encryption cannot be used in H.323 calls.</li> <li>Default: disable.</li> </ul>	

Parameter	Description		
H.239	Enable or disable the H.239.		
	<b>Default</b> : enable. When the H.323 devices use H.323 protocol to request YMS to initiate a video conference, H.239 protocol is used to receive and send contents.		

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# Configuring the H.323 Gateway

You can configure the H.323 gateway and *Adding a Call Routing Rule*, which can be used for the H.323 devices to join the conference via IP call (the listener port is 1720). You can also take the gateway as a device and register it in the third-party GK server for communication.

#### Procedure

- 1. Click Service > H.323 Service > H.323 Gateway > Add.
- 2. Configure the basic parameters of the H.323 gateway.

Parameter	Description
Enable	Enable or disable the H.323 gatekeeper.
	Default: enable.
Name	The server name.
Node	The server.
Username	The authentication ID used by this gateway.
GK address	Configure the registration timeout (in seconds) on YMS.
	If the time is out, YMS will send the registration request to the embedded GK server again.
	Default: 600 seconds.
GK authentication	It is the timeout of the status response message, which is sent by the H.323 gateway to the built-in GK server according to the interval or IRO set by the ACF command.
	Default: 120 seconds.
GK auth name	It defaults to 1718 and is not configurable.
GK auth password	It defaults to 1719 and is not configurable.
H.225 listener (TCP)	The H.225 listener should be 1722.

#### Table 37: Basic Parameter

Parameter	Description
Q.931/H.245(TCP)	Configure the range of Q.931/H.245 port under YMS H.323 gatekeeper.
	<b>Default port range</b> : from 20000 to 23999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 20000 as the minimum port, the maximum port should be not less than 20199.
H.235 encryption	The supported types are as follows:
	<ul> <li>Optional—negotiate with the remote whether or not H.235 encryption can be used in H.323 calls.</li> <li>Compulsory—H.235 encryption has to be used in H.323 calls.</li> <li>Disable—H.235 encryption cannot be used in H.323 calls.</li> <li>Default: disable.</li> </ul>
Н.239	Enable or disable the H.239.
	<b>Default</b> : enable. When the H.323 devices use H.323 protocol to request YMS to initiate a video conference, H.239 protocol is used to receive and send contents.
H.460	Enable or disable the H.460 protocol to support firewall traversal for H.323 signaling.

3. Click Advanced Option, and configure the outgoing call rules.

Outgoing Rule :	Priority : 1 + Add	Incoming regex match : ^00(\d(4))	Incoming regex replace string : \$1@10.86.0.201.xip.jo	×—	The H.323 device 3501 registered in YMS (IP address 10.86.0.33.xip.io) can dial "003701" to call the H.323 device 3701 registered in YMS (IP address 10.86.0.201.xip.io).
	Priority : 1 + Add	Outgoing regex match : ^3501	Outgoing regex replace string : 95588	×—	Make the caller ID displayed in the remote party as "95588" but "3501".

**4.** Configure the incoming call rules.

Incoming Rule :	Priority : 1 + Add	Incoming regex match : ^11(\d{4})	Incoming regex replace string : \$1@10.86.0.33.xip.io	] ×—	The H.323 device 3701 registered in YMS (IP address 10.86.0.201 ) can dial "113501" to call the H.323 device 3501 registered in YMS (IP address 10.86.0.33.xip.io ).
	Priority : 1 + Add	Outgoing regex match :	Outgoing regex replace string : 96886	) ×—	Make caller ID displayed as 96866" but "3701".

#### 5. Click Save.

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6. Operate according to prompts, and click OK.

**Note:** If the H.323 devices fail to join conference by IP call, make sure that *Configuring the Interactive Media Service* is correct.

#### **Related concepts**

Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings

# **Configuring the Interactive Media Service**

You need configure the interactive media service to ensure the user can join the conference, .

#### Procedure

- 1. Click Service > MCU Service > RTMP Media Service > Add.
- 2. Configure the basic parameters of the interactive media service.

#### Table 38: Basic Parameter

Parameter	Description
Enable	Enable or disable this service.
	Default: enable.
Name	The service name.
Node	The node used by this service.
External media port	The port range of the interactive media service.
	<b>Default port range</b> : from 50000 to 54999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 50000 as the minimum port, the maximum port should be not less than 50199.
All local networks	The IP address used by this service.

4. Operate according to prompts, and click OK.

# **Configuring the Broadcast Media Service**

If you want to use the broadcasting interactive, you need configure the broadcast media service.

### Procedure

- 1. Click Service > MCU Service > Broadcast Media Service > Add.
- 2. Configuring the basic parameters.

#### Table 39: Basic Parameter

Parameter	Description
Enable	Enable or disable this service. <b>Default</b> : enable.
Name	The service name.
Node	The node used by this service.
External media port	The port range of the broadcast media service. <b>Default port range</b> : from 55000 to 59999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 55000 as the minimum port, the maximum port should be not less than 55199.
All local networks	The IP address used by this service.

#### 3. Click Save.

4. Operate according to prompts, and click OK.

#### **Related tasks**

Enabling the Broadcasting Interactive

# **Configuring the RTMP Media Service**

If you want to use the RTMP live broadcast, you need configure the RTMP media service.

#### Procedure

- 1. Click Service > MCU Service > RTMP Media Service > Add.
- **2.** Configure the basic parameters.

#### Table 40: Basic Parameter

Parameter	Description		
Enable	Enable or disable this service.		
	Default: enable.		

Parameter	Description
Name	The service name.
Node	The node used by this service.
External media port	The port range of the RTMP media service.
	<b>Default port range</b> : from 60000 to 60999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 60000 as the minimum port, the maximum port should be not less than 60199.
All local networks	The IP address used by this service. If the user logs into YMS via intranet IP to schedule conference and enable the live broadcast, you can select the intranet IP. If not, you can select
	schedule conference and enable the live broadcas

### 3. Click Save.

4. Operate according to prompts, and click OK.

#### **Related tasks**

Configuring the RTMP Live

# **Configuring the Media Bypass Service**

When the number of servers exceeds the concurrent ports allowed in the certificate, and you want to make the server support a larger number participants, you can configure the media bypass service.

#### Procedure

- 1. Click Service > MCU Service > Media Bypass Service > Add.
- 2. Configure the basic parameters.

#### Table 41: Basic Parameter

Parameter	Description
Enable	Enable or disable this service.
	Default: enable.
Name	The service name.
Node	The node used by this service.
External media port	The port range of the media bypass service.
	<b>Default port range</b> : from 64000 to 64999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 64000 as the minimum port, the maximum port should be not less than 64199.
All local networks	The IP address used by this service.

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# **Configuring the Traversal Service**

You need configure the traversal service for the network traversal of the call media. If the server is deployed in the intranet, you also need configure the traversal service to ensure that the device can place point-to-point call.

#### About this task

- If you use cluster YMS and all nodes are deployed in the intranet, you must add the traversal service on the master node.
- If you use cluster YMS and it need be available for the registration and joining conference both in the intranet and the extranet, you must add the traversal service on the business node (in both the intranet and the extranet). Adding the traversal service in only the intranet node is not allowed. If not, there will be an abnormal situation in the traversal service.

### Procedure

- 1. Click Service > Traversal Service > Add.
- 2. Configure the basic parameters.

Table 4	2: Basic	Parameter
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Parameter	Description
Enable	Enable or disable this service.
	Default: enable.
Name	The service name.
Node	The node used by this service.
Listener (UDP & TCP)	Select the desired listener.
	<b>Default</b> : 3478.
Spare listener (UDP & TCP)	Select the desired spare listener.
	<b>Default</b> : 3479.
Relay port range	Configure the range of the range port.
	<b>Default port range</b> : from 40000 to 49999. To avoid the port conflict, the gap between the maximum port and the minimum port should be not less than 200. For example, you set 40000 as the minimum port, the maximum port should be not less than 40199.

#### 3. Click Save.

4. Operate according to prompts, and click OK.

#### **Related concepts**

Introduction of the Deployment Structure

# **Call Settings**

- Call Control Policy
- Video Display Policy
- Restricting the Dialing Number
- Call Routing Rule

# **Call Control Policy**

- Setting the Video and the Content Resolution
- Configuring the Call Bandwidth
- Configuring the Max Video Parties per Conference
- Configuring the Max Audio-Only Parties per Conference
- Setting the Audio IVR language
- Configuring the Time for Joining Conference Beforehand
- Enabling Auto Dialing
- Enabling the Auto Redialing
- Displaying the Native Video
- Setting the Last Participant Backstop Timeout
- Setting the Auto End Conference Without Moderator
- Enabling the Content Only
- Disabling the Roll Call Setting
- Configuring the iOS Push Address
- Enabling the Broadcasting Interactive
- Configuring the RTMP Live
- Enabling the Conference Recording
- Setting the QoS

# Setting the Video and the Content Resolution

Due to the limit of enterprise bandwidth, you can set the maximum video resolution and maximum content sharing resolution for a better video definition.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Configure the parameters of the video and the content resolution.

#### Table 43: Parameters of video resolution

Parameter	Description
Max video resolution	You can set the maximum video resolution. <b>Default</b> : 720P/30FPS.
Max content sharing resolution	Configure the maximum content sharing resolution. Default: 1080P/5FPS

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# **Configuring the Call Bandwidth**

According to the limit of enterprise bandwidth, you can limit the media bandwidth sent by YMS to conference participants. For example, if you set the call bandwidth as 2M and the bandwidth of a participant is 4M, when he joins the conference and his devices negotiate with the server, he can only receive the bandwidth of 2M.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. In Max call bandwidth field, select the desired bandwidth. Defaults to 2Mbps.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# **Configuring the Max Video Parties per Conference**

You can limit the max audio-only parties per conference, to meet the concurrent needs of other important conferences. If the number of the video parties exceeds the max number, the participants cannot place video calls to join the conference (except the permanent VMR).

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- Enter the desired number in the Max video parties per conference field. The default value is 1500 party.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# **Configuring the Max Audio-Only Parties per Conference**

You can limit the max audio-only parties per conference, to meet the concurrent needs of other important conferences. If the number of audio-only parties exceeds the max number, the participants cannot place audio call to join the conference (except the permanent VMR).

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- **2.** Enter the desired number in the **Max audio-only parties per conference** field. The default value is 1500 party.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# Setting the Audio IVR language

You can set the voice prompt language for IVR service.

#### Procedure

- **1.** Click Call Configuration > Call Control Policy.
- 2. Select a language from the drop-down menu of Audio IVR language.
- 3. Click Save.

4. Operate according to prompts, and click OK.

# Configuring the Time for Joining Conference Beforehand

You can specify the time when users can join the scheduled conferences in advance.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. In the Join conference beforehand field, enter the desired value. The default value is 60 minutes.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

### **Enabling Auto Dialing**

You can enable Auto dialing feature. When the scheduled conference begins, the system will automatically place calls to the invited participants to join the conference. The invited participants are devices registered with YMS accounts and other third-party devices in the enterprise directory.

#### About this task

The supported devices are: the VC880/VC800/VC500/VC400/VC200/VC120/VC200 videoconferencing system, SIP VP-T49G IP phone, SIP-T58V IP phone, and other third-party devices.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Enable Auto dialing.

It is enabled by default.

- 3. In the Device field, select the device type.
- 4. Click Save.
- 5. Operate according to prompts, and click OK.

#### **Enabling the Auto Redialing**

During a scheduled conference, if the device you invite disconnects with YMS, you can enable the **Auto redialing**, so that the system can invite it to join the conference again after the account is registered in the device again.

#### Before you begin

Enabling Auto Dialing is done.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Enable Auto redialing.

It is enabled by default.

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

| Call Settings | 72

# **Displaying the Native Video**

If you want to make all the participants in the conference can view the native video, you can enable **Display native video**.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Enable Display native video.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

# Setting the Last Participant Backstop Timeout

If there are only the last participant staying in the conference, you can set the timeout, if the time is out, the conference will end automatically, so that you can manage the useless conference and the server resource.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- **2.** Enable **Last participant backstop timeout**. It is enabled by default.
- **3.** Configure the timeout.
- The default value is 30 minutes.
- 4. Click Save.
- 5. Operate according to prompts, and click OK.

# Setting the Auto End Conference Without Moderator

When there is no moderator in the conference, you can set the system to end conference automatically to manage the useless conference and the server resource.

#### Procedure

- **1.** Click Call Configuration > Call Control Policy.
- 2. Enable Auto End Conference Without Moderator.
- **3.** Configure the timeout.
- 4. Click Save.
- 5. Operate according to prompts, and click OK.

# **Enabling the Content Only**

If you want the device that does not support dual-stream protocol to receive the content, you can enable **Content only**. When the devices share content in a call, the device that do not support dual-stream protocol can only receive the content and the audio.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Enable Content Only.

It is enabled by default.

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

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## **Disabling the Roll Call Setting**

By default, the participant whose name is called out is unmuted automatically. If other participants do not want to hear the called party, you can disable the Roll call.

### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Disable the Roll call .

It is enabled by default.

- 3. Click Save.
- 4. Operate according to prompts, and click OK.

### **Configuring the iOS Push Address**

You can configure the iOS push address, so that the user can receive the incoming calls or conference notifications when Yealink VC Mobile for iOS is running in the background or exited.

#### About this task

You use YMS account to log into Yealink VC Mobile for iOS.

### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. In the iOS push address field, enter the push address. the default address is https://ios.push.yealinkvc.com:8443.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

### **Enabling the Broadcasting Interactive**

If you want to create a conference with a larger number of participants, you can enable the broadcasting interactive.

### Before you begin

- You enable the broadcast license, refer to Activating a License .
- Configuring the Broadcast Media Service and Configuring the Broadcast Media Service are done.

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Enable Broadcasting interactive.
- 3. Click Save.
- 4. Operate according to prompts, and click OK.

#### **Related tasks**

Configuring the Broadcast Media Service Related information Activating a License

## **Configuring the RTMP Live**

To allow users to watch the live conference, you can enable the RTMP live.

### Before you begin

- You obtain the information about You Tube live streaming service.
- Configuring the RTMP Media Service is done.

#### About this task

For more information about RTMP Live, refer to *http://support.yealink.com/documentFront/ forwardToDocumentFrontDisplayPage* 

#### Procedure

- 1. Click Call Configuration > Call Control Policy.
- 2. Enable RTMP live.
- 3. Configure the parameters.

#### Table 44: RTMP live parameters

Parameter	Description
Organizer Logo	The logo displayed on the Live Broadcast page.
Domain	The domain name of the live server.
Application name	The application name in the authentication URL.
Live domain	The live video domain name.
Enable GK authentication	Enable or disable the authentication. <b>Default:</b> disable.
Authentication key	The authentication password.

#### 4. Click Save.

5. Operate according to prompts, and click OK.

#### **Related tasks**

Configuring the RTMP Media Service

### **Enabling the Conference Recording**

If you enable the **Recording** feature, you can configure the recording server to record conferences.

#### About this task

Before you configure the recording server, make sure that Yealink technical support engineer has deployed the recording server. If the recording server is deployed, you need obtain the corresponding information of the recording server from the Yealink technical support engineer.

- 1. Click Call Configuration > Call Control Policy.
- 2. Enable Recording.
- 3. Enter the corresponding information of the recording server.
- 4. Click Save.

5. Operate according to prompts, and click OK.

### Setting the QoS

You can set Differentiated Services Code Points (DSCP) for the audio or video packets, which can be used to adjust the traffic and manage the packet loss when transmitting the audio and video packets. The value should be consistent with the one set in the switch or the network topology, to ensure that the data packet is not lost during the transmission.

### Procedure

- 1. Click Call Configuration > Call Control Policy.
- Enter the corresponding value in the Video QoS field. The default value is 34.
- **3.** Enter the corresponding value in the **Audio QoS** field. The default value is 63.
- 4. Operate according to prompts, and click OK.

# **Video Display Policy**

- Setting the Default Layout
- Setting the 1+N Video Layout
- Setting the Equal N×N Video Layout
- Displaying the Participant Name
- Displaying the Participant Status
- Displaying the Participant Quantity

### Setting the Default Layout

You can set the default conference layout, which takes effect for the participants in Meeting Now conferences, the participants in schedule conference of discussion mode, and the moderators in scheduled conference of training mode.

### Procedure

- 1. Click Call Configuration > Video Display Policy.
- 2. Select a default layout.

### Table 45: Parameters of the Default Layout

Parameter	Description
Default layout	The supported layouts are as follows:
	<ul> <li>Equal N×N: participants are displayed in an equal image.</li> <li>1+N: the first participant is given the prominence with the largest pane, and other participants are displayed in a strip around the first participant.</li> <li>Default: 1+N.</li> </ul>

### 3. Click Save.

# Setting the 1+N Video Layout

In 1+N video layout, if the number of the current participants exceeds the maximum video images, the video carousel is enabled automatically and the system will switch among the video images of participants automatically. You can set the rules per carousel and the interval of auto-switching video images. You can enable voice-activated feature so that the system will automatically identify the speaking participant. When the participant continues speaking for a specific time, he will be given prominence with the largest pane, other participants will be displayed in a strip around the speaking participant.

### Procedure

- 1. Click Call Configuration > Video Display Policy.
- 2. Configure the 1+N video layout parameters.

### Table 46: 1+N Video Layout Parameters

Parameter	Description
OnePlusN	Configure the max number of small videos displayed in 1+N video layout.
	<b>Default:</b> 1+7.
	Set the interval per carousel.
	Configure the participant video image per carousel. The maximum video image depends on the N in 1+N video layout.
	Configure the voice-activated time.

3. Click Save.

## Setting the Equal N×N Video Layout

In the Equal N×N video layout, if the current participants are more than the maximum video images, the video carousel is enabled by default and the system will switch among the video images of participants automatically. You can set the rules per carousel and the interval of auto-switching video images.

### Procedure

- 1. Click Call Configuration > Video Display Policy.
- **2.** Configure the Equal N×N video layout.

### Table 47: Parameters of Equal N×N video layout

Parameter	Description
Equal N×N	Configure the maximum number of video images in Equal N×N video layout. <b>Default:</b> 4*4.
	Set the interval per carousel.

3. Click Save.

| Call Settings | 77

### **Displaying the Participant Name**

To display the participant name in the conference, you can enable the **Display participant name**.

#### Procedure

- 1. Click Call Configuration > Video Display Policy.
- **2.** Enable **Display participant name**. It is enabled by default.
- 3. Click Save

### **Displaying the Participant Status**

If you want to see status information on the video conference image, like muted/blocked/applying for speaking and so on, you can enable **Display participant name**.

#### Procedure

- 1. Click Call Configuration > Video Display Policy.
- **2.** Enable **Display participant name**. It is enabled by default.
- 3. Click Confirm.

### **Displaying the Participant Quantity**

If you want to view the number of participants that join the conference by audio or video, you can enable the **Display Participant Quantity.** 

#### Procedure

- 1. Click Call Configuration > Video Display Policy.
- **2.** Enable **Display participant quantity**. It is enabled by default.
- 3. In the Type field, select the audio or video.
- 4. Click Save.

# **Restricting the Dialing Number**

You can restrict the dialing number.

Restricting the dialing number: 1. *Add a Number Filter* is used to configure the dialing number; 2. *Adding a Call Routing Rule* defines the service type used by the number filter rules.

• Add a Number Filter

### Add a Number Filter

- 1. Click Call Configuration > Number Filter > Add.
- 2. Configure the basic parameters.

Table	48:	Basic	Parameters
-------	-----	-------	------------

Parameter	Description
Enable	Enable or disable this rule. <b>Default</b> : enable.
Name	The rule name.
Note	The additional description of this rule.

3. Click Add, configure the number filter, and click  $OK_{\circ}$ 

	Add	$\times$
* Type :	• Extension section	
* Origin extension :	8000	
* Rear extension :	8999	
Description :		1
	OK Cancel	

### Table 49:

Parameter	Description
Туре	The match type of this number.
	<ul><li> Extension section</li><li> Regular expression</li></ul>
Origin extension, Rear extension	The length of these two extensions should be the same.
Regular expression	The Perl Compatible Regular Expressions (PCRE).
Description	The additional description of this rule.

# 4. Click Save.

### **Related concepts**

Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings

### Related tasks

Adding a Call Routing Rule

# **Call Routing Rule**

When you place a call, the server will select the desired gateway according to your call routing rules and send the request message. You can edit or delete call routing rules.

- Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings
- Adding a Call Routing Rule
- Configuring the Call Routing Rule

# **Common Perl Compatible Regular Expressions (PCRE) and Replacement Strings**

## Table 50: Common Perl Compatible Regular Expressions (PCRE) are described as below:

PCRE	Description
^(1\d{10})\$	Match an 11-digit number which starts with 1. For example: 12345678912
^0(\d+)\$	Match the number (2 or more digits) which starts with 0. For example: 02, 0157
^(13[0-9] 14[5 7] 15[0 1 2 3 5 6 7 8 9] 18[0 1 2 3 5 6  7 8 9])\d{8}\$	Match an 11-digit mobile phone number, the first 3 digits includes the following types, the rest digits can be any digits:
	<ul> <li>Start with 13 and the third number is any digit from 0 to 9</li> <li>Start with 14 and the third number is 5/7</li> <li>Start with 15 and the third number is 0/1/2/3/5/6/7/8/9</li> <li>Start with 18 and the third number is 0/1/2/3/5/6/7/8/9</li> <li>For example: 13012345678, 14512345678,</li> </ul>
^(\d{3,4}-)?\d{7,8}\$	15987654321 or 18243218765 The format for matching the number is described as follows:
	<ul> <li>XXX-XXXXXXX, 10-digit</li> <li>XXX-XXXXXXX, 11-digit</li> <li>XXXX-XXXXXXX, 11-digit</li> <li>XXXX-XXXXXXX, 12-digit</li> <li>XXXXXXXX, 7-digit</li> <li>XXXXXXXX, 8-digit</li> <li>For example: XXXX-XXXXXX represents</li> <li>07311234567 or other 7-digit number</li> </ul>

PCRE	Description
\d{3}-\d{8} \d{4}-\d{7}	The format for matching the number is described as follows:
	<ul><li>XXX-XXXXXXXX, 11-digit</li><li>XXXX-XXXXXXXX, 11-digit</li></ul>
	For example: XXX-XXXXXXX represents 012-12345678 or other 11-digit number, XXXX- XXXXXXX represents 0123-1234567 or other 11- digit number
(\d{11}) ((\d{3,4})-)?(\d{7,8})(-(\d{1,4}))?	The format for matching the number is described as follows:
	<ul> <li>11-digit mobile phone number</li> <li>XXXXXXX, 8-digit number</li> <li>XXXXXXX, 7-digit number</li> <li>XXX/XXXX-7-digit number</li> <li>XXX/XXX-XXXXX/XXXXXX, 4 formats in total</li> <li>XXX/XXXX, 16 formats in total</li> <li>XXXX/XXXX/XXXXXXX/XXXXX, 8 formats in total</li> <li>SXXXXXX/XXXXXXXX/XXXXX, 8 formats in total</li> <li>For example: XXXX-XXXXXX represents 0731-8784888 or other 11-digit number</li> </ul>

## Table 51: Regex replace string

PCRE	Description
\$1@\$2	Take the parts of the first and the second parentheses in the PCRE. For example: the compatible regular expression is avmcu\.(\d{1,10})@(xiamen.yealinksfb \.com), and the regex replace string is (\d{1,10}@(xiamen.yealinksfb\.com).

# Adding a Call Routing Rule

- 1. Click Call Configuration > Call Routing > Add.
- 2. Configure the parameters of the call routing rules.

Parameter	Description	
Enable	Enable or disable the call routing rule.	
	Default: enable.	
	All the disabled rules are ignored, though they are displayed in the rule list.	
Name	The name of the call routing rule.	
Priority	The priority of the call routing rule. The smaller the number is, the higher the priority is.	
	When you place a call, the server will look up the first appropriate call routing rule according the priority in ascending order.	
Destination regex match	The Perl Compatible Regular Expressions (PCRI used to match the target call number.	
	If the match succeeds, the server will use this call routing rule.	
Call target	The call target.	
	The supported type are as follows:	
	• Reject	
	<ul><li>IP Call</li><li>Peer Trunk</li></ul>	
	• PSTN	
	• SfB	
	Register Trunk	
	• H.323 GW	
Outgoing location	The gateway used to place the call.	
	If the call number matches this call routing rule, it is called via this gateway.	

# Table 52: Parameters of the Call Routing Rule

3. If you want to restrict the number you call, enable Caller filtering policy, and configure the parameters.

Parameter	Description
Mode	Select a mode.
	The supported modes are as follows:
	<ul> <li>Whitelist: if a call number in this whitelist matches the target regular expression, it will be called by this call routing rule.</li> <li>Blacklist: even if a call number in this blacklist matches the target regular expression, it will not be called by this call routing rule.</li> </ul>
Caller filtering policy	Select the filtering policy.

### Table 53:

#### 4. Click Save.

5. Operate according to prompts, and click OK.

#### **Related tasks**

Add a Number Filter

## **Configuring the Call Routing Rule**

You can add the call routing rules for rejecting the outgoing calls, when the number you call meet the regular expression set in the call routing rule, your call will be rejected.

#### Procedure

- 1. Click Call Configuration > Call Routing Rule > Add.
- 2. Configure the parameters of the call routing rule.

Routing Information	
* Enabled : 🕐	
* Name :	Rejection
* Priority : 🕐	10 (Only1~200)
Rule Settings	
* Destination regex match :	^(1\d{10})@
	*Call target : *Outgoing location :
	Reject V X
	+ Add

- **3.** If you want to forbid the number you call, enable **Caller filtering policy**, and configure the parameters. For example, if you want to make the call to the YMS account (whose number is not within 5555 to 9999) be rejected, you can put the number within 5555 to 9999 into the blacklist. Otherwise, you can put the number into the whitelist.
- 4. Click Save.
- 5. Operate according to prompts, and click OK.

# Account Management

You can manage the user accounts and other accounts by group, you can also add, edit, and delete the user accounts, the room system accounts, and other accounts.

- User Accounts, Room System Accounts and Other Accounts
- Group Management
- Adding an User Account
- Adding a Room System Account
- Adding Other Account
- Sending an Email to a YMS Account
- Adjusting the Account Group
- Editing the Authority

- Editing the GK Registration Parameter
- Editing a Batch of Accounts
- Configuring the LDAP

# **User Accounts, Room System Accounts and Other Accounts**

The differences among user accounts, room system accounts and other accounts are as follows.

Туре	Description	Note
User account Users can log into devices using the account. The same user accou can log into 5 devices at most at the same time.		They are called as YMS accounts.
Room system account	The account is associated with the device in the video meeting room. The same room system account can log into 5 devices at most at the same time.	
Other account	The devices that are added by entering IP address or URL. Those devices do not have 4-digit YMS account.	No limit.

# **Group Management**

In order to manage users and other accounts by group, you can customize the group according to the enterprise organization.

The organization root is the enterprise name by default. You can manage users and other accounts of your group and the subordinate groups.

- Adding a Group
- Editing/Deleting the Group

### Adding a Group

You can add groups according to enterprise department to make account management convenient.

#### Procedure

- 1. Click Account > User Account/Other Account > Add Group.
- 2. In Group name field, enter the group name.
- 3. In Upper group field, select a upper group.
- 4. Click Save.

### **Editing/Deleting the Group**

#### About this task

If the group has subordinated groups, you cannot delete this group.

### Procedure

1. Click Account > User Account/Other Account.

<sup>2.</sup> In the Organization list, select the desired group, and click  $\mathbf{\Sigma}$  to edit this group or click  $\mathbf{\overline{\Box}}$  to delete this group.

	📩 Import	Add Group	+ Add Account
Test-2 🔟 🧻			
Selected 10 Adjust Grouping Sclearly Modify Authority SK REG	Delete		

# Adding an User Account

You can add user account and users can use it to log into YMS.

- Parameters of User Account
- Adding an User Account Manually
- Importing a Batch of User Accounts

## **Parameters of User Account**

Before adding user accounts, you need to know the parameters of user accounts.

Method	Parameter	Description
Adding Manually or adding in	Name	The user name.
batch	Account	The account to log into YMS.
	AD account	If <b>Obtain from AD server</b> is selected, it is the account on AD server used to obtain the AD account name and account number. The account on AD server can be obtained from the AD server administrator.
	Group	Name of the department to which the user is added.

Method	Parameter	Description			
	Authority	The user authority.			
		The available rights are as follows:			
		<ul> <li>A: this account can see all user accounts, room system accounts, and the permanent VMRs synced to the directory.</li> <li>B: this account can see only the user accounts, room system accounts, and the permanent VMRs (synced to the directory) in his group and the same level group. If the user is in root node, this account can also see the third-party devices.</li> <li>C: this account can see only the user accounts, room system accounts, and the permanent VMRs (synced to the directory) in his group.</li> <li>D: this account can only see himself, and cannot see any meeting room when scheduling conferences.</li> <li>Custom: you can customize the authority for this account.</li> </ul>			
	Email       The user email. It receive the initial conference notific				
Adding Manually	Account Information	If the LDAP feature is enabled, select the way to add account.			
		The supported ways are as follows:			
		<ul> <li>Manual: you need add account information manually.</li> <li>Obtain from AD server: you can obtain the account information from the specified AD server.</li> </ul>			
	Obtain	Obtain the AD account name and account number from the specified account on AD server.			
	Enable schedule	Enable or disable this account to schedule meeting room or video conference.			
		Default: enable.			

Method	Parameter	Description			
	Enable Meet Now	Enable or disable this account to create a Meet Now conference.			
		Default: enable.			
	Enable call authority	<ul> <li>Enable or disable this account to use call authority. If it is enabled, the account with lower authority cannot call the account with the higher authority. For example, if the authority of account 2549 is A and account 2550 is B, 2549 can call 2550, but 2550 cannot call 2549.</li> <li>Default: disable.</li> </ul>			
	Support H.323 registration	If <i>Configuring the GK Service</i> is done, you can enable or disable this account to use H.323 to register at a device. <b>Default:</b> disable.			
	GK REG	If this feature is enabled, the account need password to register in GK servers. Note: it is recommended to enable.			
Adding in Batch	Password	You can customize the password.			

### **Related tasks**

Adding an User Account Manually Importing a Batch of User Accounts Configuring the LDAP Editing the Authority

# Adding an User Account Manually

If you want to add a single user account, you can add it manually.

- 1. Click Account > User Account > Add Account.
- 2. Configure the parameters.
- 3. Click OK.
- 4. If you enter the email address, click Send email, the account information will be sent to the user by email.

Add Accou	nt Successful			
Account :	2584			
Name :	Amada			
Password :	304107			
Group :	Test-2			
Email	Done			

5. Click OK.

E.

Note: If you do not add email when adding the user account, you can inform the user of the initial password, and remind the user to change password promptly.

#### **Related concepts**

Parameters of User Account

### Importing a Batch of User Accounts

If you want to add a batch of user accounts at the same time, you can import user accounts by the template (excel file). Note that you cannot customize the template, you need to download a blank template.

#### About this task

You can import up to 5000 user accounts at one time.

#### **Procedure**

- 1. Click Account > User Account > Import.
- 2. Click Download Template to download the template.
- 3. Add the user account parameters to the template and save it on your computer.

- 4. Click the dotted box area to upload the template.
- 5. Click OK.

#### **Related concepts**

Parameters of User Account

# Adding a Room System Account

You can add a room system which can be used to associate with the device in the video meeting room.

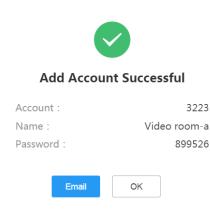
- 1. Click Account > Room System Account > Add.
- 2. Configure the parameters.

Parameter	Description			
Account Information	If the LDAP feature is enabled, select the method to add an account.			
	The supported methods are as follows:			
	<ul> <li>Manual: you need add the account information manually.</li> <li>Obtain from AD server: you can obtain the account information from the specified AD server.</li> </ul>			
Name	The user name.			
Account	The account to log into YMS.			
AD account	If <b>Obtain from AD server</b> is selected, it is the account (on AD server) used to obtain the AD account name and the account number. The account on AD server can be obtained from the AD server administrator.			
Obtain	Obtain the AD account name and account number from the specified account on AD server.			
Email	The user email. It is used to receive the initial password and the conference notification.			
Authority	The user authority. The available rights are as follows:			
	<ul> <li>A: this account can see all user accounts, room system accounts, and permanent VMRs synced to the directory.</li> <li>B: this account can see only the user accounts, the room system accounts, and the permanent VMRs (synced to the directory) in his group and the same level group. If the user is in root node, this account can also see the third-party devices.</li> <li>C: this account can see only the user accounts, the room system accounts, and the permanent VMRs (synced to the directory) in his group.</li> <li>D: this account can see only the user accounts, the room system accounts, and the permanent VMRs (synced to the directory) in his group.</li> <li>D: this account can only see himself, and cannot see any meeting room when scheduling conferences.</li> <li>Custom: you can customize the authority for this account.</li> </ul>			
Enable schedule	Enable or disable this account to schedule meeting room or video conference.			
	Default: enable.			

Parameter	Description	
Enable Meet Now	Enable or disable this account to create a Meet Now conference.	
	Default: enable.	
Enable call authority	<ul> <li>Enable or disable this account to sync the call authority. If it is enabled, the account with lower authority cannot call the account with the higher authority, but the account with higher authority can. For example, if the authority of account 2549 is A and account 2550 is B, 2549 can call 2550, but 2550 cannot call 2549.</li> <li>Note: disable.</li> </ul>	
Support H.323 registration	If <i>Configuring the GK Service</i> is done, you can enable or disable this account to register at a device via H.323 protocol. <b>Note:</b> disable.	
GK REG	Enable or disable this account to use a password to register in GK server. <b>Note:</b> it is recommended to enable.	

3. Click OK.

4. If you enter the email address, click Send email, and the account information will be sent to the user by email.



5. Click OK.

**Related tasks** 

Editing the Authority

# **Adding Other Account**

If you want to invite other devices to join the conference, you can add them into the directory.

- Parameters of Other Devices
- Adding Other Account Manually
- Adding a Batch of Other Accounts

### **Parameters of Other Devices**

Before adding other devices, you need know parameters of other devices.

#### **Table 54: Parameters of Other Devices**

Parameter	Description		
Name	The name of this device.		
Protocol	The call protocol used by the device.		
Number	The URL of this device.		
Group	The name of the group to which the device belongs.		
Email	The email address of the device owner. This email is used to receive conference notifications.		

#### Related tasks

Adding Other Account Manually Adding a Batch of Other Accounts

### Adding Other Account Manually

If you want to add other account one by one, you can add them manually.

#### Procedure

- 1. Click Account > Other Account > Add.
- 2. Configure the parameters.
- 3. Click Save.

#### **Related concepts**

Parameters of Other Devices

### Adding a Batch of Other Accounts

If want to add other accounts at one time, you can import other accounts by template (excel file). Note that you cannot customize template, you need download a blank template first.

#### Procedure

- 1. Click Account > Other Account > Import.
- 2. Click Download Template to download the template.
- 3. Enter parameters of other accounts to the template and save it on your computer.
- 4. Click the dotted box area to upload the template.
- 5. Click OK.

#### **Related concepts**

Parameters of Other Devices

# Sending an Email to a YMS Account

You can send the YMS account information to the specified user by email.

#### Procedure

1. Click Account > User Account/Room System Account .

2. Select the desired account, and click Email.

# Adjusting the Account Group

If the group of the user accounts and other accounts changes, you can adjust the group.

### Procedure

- 1. Click Account > User Account/Other Account.
- 2. Select the desired meeting room, and click Adjust Grouping.

est-2							
Selec	ted 2 👫 Adjust Grouping	A Modify Authority	🖌 GK REG	Email 🗇 Delete			
	Name \$	Account \$	Status $^{\vee}$	Group	GK REG	Device	Operation
	I Mike	2846	Offline	Test-2	No	Details	ß
	2888	2888	Offline	Test-2	Yes	Details	Ø

3. Select the group, and click Save.

# **Editing the Authority**

You can configure the authority for the user accounts and the room system accounts, including scheduling conference authority, creating Meet Now conference authority, and the call authority.

#### Procedure

- 1. Click Account > User Account/Room System Account .
- 2. Select the desired account, and click Modify Authority.
- 3. Edit the authority parameters.
- 4. Click Save.

#### **Related concepts**

Parameters of User Account Related tasks Adding a Room System Account

# **Editing the GK Registration Parameter**

You can edit the GK registration parameter of the user accounts and the room system account. GK registration parameter includes whether or not the account is registered in the device by H.323 protocol, and whether or not the account need a password to register in the GK server.

- 1. Click Account > User Account/Room System Account .
- 2. Select the desired account, and click GK REG.
- 3. Configure the GK registration parameter.
- 4. Click Save.

# **Editing a Batch of Accounts**

If you want to edit a batch of user accounts or other accounts, you can export excel file of all user account or other accounts, and download it to your computer, edit details in the excel file and import the edited file.

#### About this task

If you add a batch of user accounts and other devices by importing template, you can edit account details in the template, and import this template to YMS to complete editing.

#### Procedure

- 1. Click Account > User Account/Other Account > Export.
- 2. Edit the parameters in the exported file.
- 3. Click Import.
- 4. Click the dotted box area to upload the template.
- 5. Click OK.

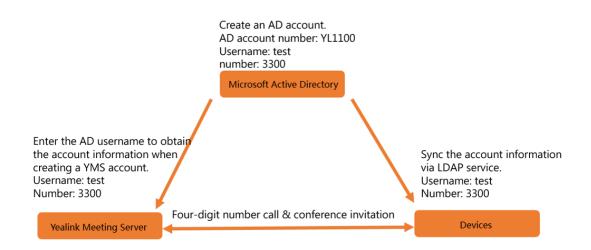
# **Configuring the LDAP**

You can connect YMS to LDAP server that supports LDAPv3, so that the devices which register in YMS by standard SIP/H.323 can obtain YMS contacts. Microsoft Active Directory is supported by YMS.

#### About this task

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Because the AD server can only be read, the accounts should be created on both YMS and AD server and be associated with each other. Take the image below as an example: the accounts created on AD server and the accounts created on YMS, you should follow the same rule to create their account names and account numbers. The account name should be less than 64 characters, and the account number should be within the number range of the system account (refer to *Allocating the Number Resource*). When creating an account on YMS, you can enter the corresponding AD account, and the system can get the account information automatically from AD server. The device registered in YMS can sync the YMS contacts from AD server to realize the 4-digit number call among YMS contacts, the conference invitation and so on.



**Note:** When the AD server administrator edits the AD account number and account name, the corresponding account on YMS will sync the account name but not the account number.

The organizational structure of YMS and LADP server are independent. If you want to edit the organizational structure, the organizational structure viewed by the third-party devices should be edited via AD server, and the one viewed by YMS devices should be edited via YMS.

### Procedure

- 1. Click Account > LDAP.
- **2.** Configure the parameters.

# Table 55: LDAP parameters

Description
Enable or disable the LDAP.
Default: disable.
The domain name or IP address of the AD server.
The port of the AD server.
The root path that YMS obtains the AD account.
For example: OU=test_yms,DC=ldap,DC=yealink,DC=cn
Obtaining method: the image below is the contents of AD server, if you want to obtain the user information under this directory, right click test_yms. >Attribute->Attribute Editor-> and view the distinguishedname, and the value is OU=test_yms,DC=ldap,DC=yealink,DC=cn. Enter the value in the Base field on YMS. Active Directory 用户和计算机 [win2008.ldap.yealink.cn] Active Directory 用户和计算机 [win2008.ldap.yealink.cn] Builtin Computers Domain Controllers FAE ForeignSecurityPrincipals LostAndFound Managed Service Accounts Forers yealink CRH-用户

Parameter	Description
Username	The username used to log into the AD server. Note: The user name is provided by the AD server administrator. For example, the "chensheng" account in the test_yms contents. The user in in the test_yms contents is all acceptable. Username is "chensheng@ldap.yealink.cn". Username is "chensheng@ldap.yealink.cn". Username is "ianjuyao5 用户 tianjuyao5 用户 tianjuyao5 用户 tianjuyao3 用户 TIDS Quotas 用户 FAE 安全组 chensheng02 用户 baiyf 用户 baiyf 用户 baiyf 用户
Password	The password used to log into the LDAP server. <b>Note</b> : The password is provided by the LDAP server administrator. For example, the AD username is "chensheng@ldap.yealink.cn" Enter the password of this username.
Name attribute	The name attribute of the AD account returned by the LDAP server. <b>Example</b> : name or cn. For example, when the name attribute is name and when you create a YMS account by obtaining from the AD server, the YMS account name equals to the corresponding value of AD user name attribute.
Number attribute	The number attribute of the AD account returned by the LDAP server. <b>Example</b> : telephoneNumber, mobile, or ipPhone and so on, when the number attribute is telephoneNumber and when you create a YMS account by obtaining from the AD server, the YMS account number is the corresponding value of AD account telephoneNumber attribute. In additionally, the corresponding value of telephoneNumber should be within the number range of the system account (refer to <i>Allocating the Number Resource</i> ) and cannot be null. If it does not meet the condition, there will be an error when creating a YMS account by obtaining from the AD server.
AD account attribute	The AD account attribute. Example: sAMAccountName

## 3. Click Connection Test.

If the configuration is correct, the prompt "Connection successful" will be popped up.

### 4. Click Save.

### **Related concepts**

Parameters of User Account

# **Meeting Room Management**

You can view, edit and delete entity meeting rooms and permanent VMRs.

- The Entity Meeting Room and the Permanent VMR
- Managing the Meeting Room Group
- Adding a General Meeting Room
- Adding a Video Meeting Room
- Discussion Mode and Training Mode
- Adding a Permanent VMR
- Adjusting the Meeting Room Group
- Sending Emails about Joining the Conference

# The Entity Meeting Room and the Permanent VMR

Difference Description Type Definition **Entity meeting room** The entity meeting rooms can be used to schedule OA conferences. For more information, refer to Yealink Meeting Server User Guide. Users can join the permanent VMR at any time. But Permanent VMR the permanent VMR cannot be used to schedule conferences. Classification **Entity meeting room General meeting room** The general meeting room is not deployed with devices. Video meeting room The video meeting room is deployed with devices. Permanent VMR No

The meeting room includes the entity meeting room and the permanent VMR.

# Managing the Meeting Room Group

In order to manage meeting rooms by group, you can customize the organization relationship according to meeting room location.

The organization root is the enterprise name by default. You can manage meeting rooms in your group and your subordinate groups.

- Adding the Meeting Room Group
- Editing/Deleting the Meeting Room Group

### Adding the Meeting Room Group

You can add a group according to the location of meeting room.

#### Procedure

1. Click Meeting Room > Entity Meeting Room/Virtual Meeting Room > Adding Group.

- 2. In Group name field, enter the group name.
- 3. In Upper department, select the upper group.
- 4. Click Save.

### **Editing/Deleting the Meeting Room Group**

#### About this task

If the group has subordinated groups, you cannot delete this group.

#### Procedure

1. Click Meeting Room > Entity Meeting Room/Virtual Meeting Room.

In the Organization list, select the desired group, and click  $\mathbf{\Sigma}$  to edit this group or click  $\mathbf{\overline{\Box}}$  to delete this group.

	👬 Add Group	+ Add Meeting Room
Test-1 🗹 💼		

# Adding a General Meeting Room

If the user wants to initiate conferences in an entity meeting room without devices, you can add a general meeting room.

#### Before you begin

You add the meeting room group.

#### Procedure

- 1. Click Meeting Room > Entity Meeting Room > Adding Meeting Room.
- 2. In the Type field, select Common.
- 3. In the Name field, enter the meeting room name.
- 4. In Group field, select the desired group.
- 5. Click Save.

# Adding a Video Meeting Room

If the user wants to initiate conference in an entity meeting room with devices, you can add a video meeting room.

#### Before you begin

You add the meeting room group.

- 1. Click Meeting Room > Entity Meeting Room > Add Meeting Room.
- 2. In Type field, select Video.
- 3. In the Name field, enter the meeting room name.
- 4. In Group field, select the desired group.
- 5. Select the desired account from the drop-down menu of Account bound.

6. Click Save.

# **Discussion Mode and Training Mode**

The differences between these two modes are listed as below:

### Table 56:

Difference	Discussion	1 Mode	Training M	ode
		You can set any participants		You can set any participants in the enterprise directory as moderators.
	Moderato	rin the enterprise directory as moderators.	Moderator	If the broadcasting interactive feature is enabled, the moderators are the interactive parties by default.
Participant Role		It refers to the participants who join the permanent VMR but are not set as moderators.	Lecturer	Moderators can set any moderators or guests as lecturers during the conference.
	Guest		Guest	It refers to the participants who join permanent VMR but are not set as moderators.
			Guest	If the broadcasting interactive feature is enabled, the guests are the broadcasting parties by default.
	during the	ators can configure the layout discussion mode conferences or conferences.	training mod reject/ignore	tors can configure the layout in the de conference, they can also allow/ e the participant application for d switch the roles between lecturers tors/guests.
Feature Privilege	can also se share the c up particip join the co switch the	nd messages, invite participants, in onference information, call partici- ants, move the participants into the nference, mute/unmute participant roles between the moderators and es, view the conference recording,	nvite the third pants, call par e waiting cent s, turn on/off guests, contro	es, and during the conference, they parties, invite participants by email, ticipants from the call history, hang er, allow/reject the participant to the camera, block/unblock the voice, of the far-end camera, lock or unlock TMP Live, and leave conferences/end
	Other part	cipants can only view the conferen	nce details.	

Difference	Discussion Mode	Training Mode
Layout	Moderators and guests can view all participants. For setting the default layout, refer to <i>Setting the Default Layout</i> .	<ul> <li>The moderators can view all participants by default. For setting the default layout, refer to <i>Setting the Default Layout</i>.</li> <li>If the broadcasting interactive feature is enabled, the moderators can view all interactive parties by default.</li> <li>For guest, all lecturers are given equal prominence in the layout by default. If there is no lecturer, all guests can view the reminder of waiting for the lecturer.</li> <li>If broadcasting interactive feature is enabled, the broadcasting parties will see that all lecturers are displayed in equal video images by default If there are no lecturers, all broadcasting parties can view the reminder of waiting for the lecturers.</li> </ul>
Speaking rule	Free speaking.	All guests and moderators are muted by default. After cancelling the mute status, the moderators can speak. The guests can speak only when the moderators allow their application for speaking.
Contents	All moderators and guests can share contents by default.	Only moderators and lecturers can share contents. The guests cannot share contents.

### **Related tasks**

Adding a Permanent VMR

# Adding a Permanent VMR

You can add a permanent VMR, so that users can call into the permanent VMR to join the video conference anytime.

### Before you begin

You add the meeting room group.

#### Procedure

- 1. Click Meeting Room > Virtual Meeting Room > Adding Meeting Room.
- 2. Configure the parameters.

### Table 57: Parameters of the permanent VMR

Parameter	Description
Mode	The mode of the permanent VMR. For more information, refer to <i>Discussion Mode and Training Mode</i> .
Conference ID	The conference ID used to call into this meeting room. <b>Default range</b> : from 20000 to 89999.

Parameter	Description
Password	Enable or disable it to join the conference with the password.
	If it is enabled, a password is needed to join the conference.
	Default: disable.
Group	The group name of this meeting room.
Moderator	They can control the permanent VMR at any time.
	For more information, refer to <i>Yealink Meeting</i> <i>Server User Guide</i> .
Favorites	During a conference, you can select the favorites to invite them to join the permanent VMR.
Sync contacts	Enable or disable it to sync this meeting room to the device enterprise directory.
	Default: enable.
Max video parties	The max video parties of this meeting room. Reserving the video party can meet the concurrent needs of other important conferences. If the video parties in this meeting room exceed the max number, the user cannot place a video call to this meeting room.
Max audio-only parties	The max audio-only parties for this meeting room. Reserving the audio party can meet the concurrent needs of other important conferences. If the audio-only parties exceed the max number, the participants cannot place an audio call to this meeting room.
Max video resolution	The max video resolution.
	Default: 720P/30FPS.
Max content resolution	The max content resolution.
	Default: 1080P/5FPS
Max call bandwidth	According to the limit of the enterprise bandwidth, you can limit the media bandwidth sent by YMS to conference participants.
Default layout	The default layout which takes effect for participants in permanent VMRs of discussion mode and for moderators in permanent VMRs of training mode.
Display native video	Enable or disable the native video to be displayed in the conference.
	Note: disable.

Parameter	Description
Content Only	If the device does not support dual-stream protocol, you can enable <b>Content only</b> feature. When other devices share content in a call, this kind of devices can only receive the content and the audio.
	Default: enable.
Roll call setting	In <b>Training</b> mode, enable or disable it to unmute the participant whose name is called out on the list.
	If the participants do not want to hear the voice of the participant whose name is called out on the list, you can disable the <b>Roll call setting</b> .
	Default: enable.
Broadcasting interactive	In <b>Training</b> mode, enable or disable it to create a broadcasting interactive conference.
	If it is enabled, you can create a conference with a large number of participants.
IP Call Blacklist	If it is enabled, the user can join the conference by IP call.
Join with browser	If it is enabled, the user can join the conference by Yealink Web app.

#### 3. Click Save.

#### **Related concepts**

Discussion Mode and Training Mode

# Adjusting the Meeting Room Group

If the group of the entity meeting rooms and the permanent VMRs change, you can adjust the group.

### Procedure

- 1. Click Meeting Room > Entity Meeting Room/Virtual Meeting Room.
- 2. Select the desired meeting room, and click Adjust Grouping.
- 3. Select the group, and click Save.

# Sending Emails about Joining the Conference

If you want to create a single conference in the permanent VMR, you can inform the corresponding participants about the information by email.

- 1. Click Meeting Room > Virtual Meeting Room.
- 2. Click icon Son the right side.

- **3.** Configure the email information.
- 4. Click Send.

# **Conference Management**

You can view, delete and control video conferences. The video conferences include scheduled conferences, Meet Now conferences and permanent VMRs.

- Viewing the Conference
- Viewing the Meeting Room Usage
- Deleting a Conference
- Controlling the Conference

# Viewing the Conference

You can view the ongoing conference, the scheduled conference that can join in advance (refer to *Configuring the Time for Joining Conference Beforehand*) and the free permanent VMRs. Conference information contains the subject, the type, the number, the password, the organizer, the start time and the duration.

#### Procedure

Click Conference > Conference Control.

# Viewing the Meeting Room Usage

You can view the details of the free entity meeting rooms and the occupied meeting rooms to know the usage of meeting rooms.

#### Procedure

Click Conference > Meeting Room Usage.

=	Meeting Room Usage				1							
Home	Test-2	I meeting rooms	<ul> <li>Monica's v</li> <li>12:30 - 18:30</li> </ul>	ideo conference								
Conference ^	iiii 2018-12-05	):30 11:00	2549 ID:200280	Password:220492	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17
Meeting Room Usage	🕋 test			0								
	a room-1											
Account V	Test-1				-							

reserved and you cannot reserve it during this time. Hover your mouse over the progress bar, you can view the pop-up window, click the pop-up window and you can view the conference details.

# **Deleting a Conference**

You can delete the ongoing conference and the scheduled conference that can join in advance (refer to *Configuring the Time for Joining Conference Beforehand*).

#### About this task

If you delete an ongoing conference, the conference ends immediately.

#### Procedure

- 1. Click Conference > Conference Control > Ongoing/Scheduled.
- 2. On the right side of the desired conference, click  $\overline{\Box}$ .
- 3. If you delete a recurrence conference, click Cancel occurrence/Cancel series to delete conferences.
- 4. If you want to delete a single conference, click **OK** to delete conferences.

# **Controlling the Conference**

You can control the unoccupied permanent VMRs, the ongoing conference, and the scheduled conference that can join in advance (refer to *Configuring the Time for Joining Conference Beforehand*). The conference control includes configuring the conference layout, configuring messages, managing conference participants and so on.

#### Procedure

- 1. Click Conference > Conference Control.
- 2. Select Ongoing, Scheduled, and VMR.
- **3.** On the right side of desired conference, click to go to the Conference Control page.
- 4. Control the conference. For more information, refer to Yealink Meeting Server User Guide.

# **Conference Statistics**

You can view the call statistics, the MCU usage, and the records of different call types.

- Viewing the MCU Resource
- Viewing the Conference Statistics
- Viewing the Call History

# Viewing the MCU Resource

You can view the max concurrent port, the usage of the video port, the broadcast port and the audio-only port.

#### Procedure

Click Statistics > MCU Resource.

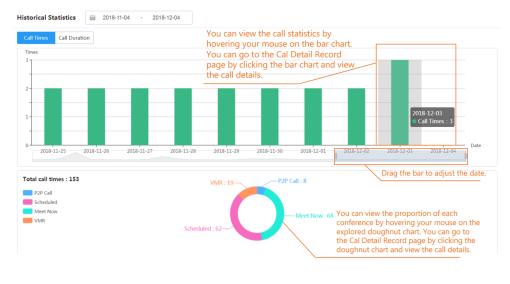
MCU Resource 2018-11-05 -	2018-12-05
Video Port Broadcast Port Audio-only Port	
Current Port Usage	
Port capacity : 50 Valid until : 2019/01/14 Used : 0 Available : 50	0% Used
	You can view the max concurrent ports by hovering your mouse on
Max Concurrent Ports in History	the bar chart.
3 2.5 2 1.5 1	2018-11-19     Drag the bar to adjust the date.       • VideoMax concurrent ports : 3     Date
2018-11-17 2018-11-18 201	8-11-19 2018-11-20 2018-11-21 2018-11-22 2018-11-23 2018-11-24 2018-11-25 2018-11-26

# **Viewing the Conference Statistics**

You can view the call duration and the times.

#### Procedure

Click Statistics > Historical Statistics.



#### **Related tasks**

Viewing the Call History

# **Viewing the Call History**

If you want to know the information of conferences and participants, you can view the call history.

- 1. Click Statistics > Historical Statistics.
- 2. Select the desired period.

- 3. Select Video Conference or P2P.
- 4. Do the following:
  - Click 0 on the right side of the desired conference to view the participant information.
  - Click the 🗠 on the right side of the desired conference, to export the statistics to your computer to view the participant information.
  - If you want to view conferences or calls of specified type in the specified period, click **Export** to export them on your computer.

#### **Related tasks**

Viewing the Conference Statistics

# System Maintenance

- Viewing the System Version
- Upgrading the System
- Enabling the Device Upgrade
- Adding the Firmware
- Updating the Firmware
- Setting the Auto Backup
- Creating a Backup Manually
- Downloading a Backup
- Backup/Restore
- *Rebooting the System*
- Clearing up All Accounts and the Conference Statistics
- Viewing the Operation Log
- Viewing the System Log
- Viewing the Device Log

# **Viewing the System Version**

You can view the current system version to update the system in time.

#### Procedure

Click Maintenance > Upgrade > System Update.

# **Upgrading the System**

When a new version is available, you contact Yealink to upgrade your YMS to the latest version.

- 1. Click Maintenance > Upgrade > System Update.
- 2. Click Update, and select the desired software version.

# **Enabling the Device Upgrade**

After you enable it, you can remotely update VC800/VC500/VC400/VC120/VC110 video conferencing endpoint, SIP VP-T49G IP phone and SIP-T58V IP phone which are registered with the YMS accounts.

#### Procedure

- 1. Click Maintenance > Upgrade > Device Upgrade.
- 2. Select the Enable checkbox.

System Upgrade Device Upgrade					
Enable Search (	a				+ Add
Selected 0					
File Name ≑	Version	Model	Upload Time 🌩	Up to Date	Operation
		No data			

# Adding the Firmware

Before upgrading the firmware, you need add it.

#### Procedure

- 1. Click Maintenance > Upgrade > Device Upgrade > Add.
- 2. Click Upload to upload the desired file.
- 3. If you also want to upgrade the accessory firmware, select the desired one in the Accessory firmware field.
- 4. Click Save.

# **Updating the Firmware**

You can update the firmware manually or automatically.

#### Procedure

- 1. Click Maintenance > Upgrade > Device Upgrade.
- 2. Select the desired firmware, enable Up to Date and the firmware will be updated automatically if it is not the latest one.
- **3.** If you want to update the firmware manually, click  $\mathfrak{O}$ .
- 4. Click OK to update the same type devices.

# Setting the Auto Backup

You can enable the auto backup, so that the server can create a backup of the important information automatically.

- 1. Click Maintenance > Backup/RestoreSetting.
- 2. Configure the parameters.

3. Click OK.

# **Creating a Backup Manually**

You can create a backup for YMS manually.

### Procedure

- 1. Click Maintenance > Backup/Restore > Add.
- 2. Enter the file name.
- 3. Click OK.

# **Downloading a Backup**

You can download the desired backup.

#### Procedure

- 1. Click Maintenance > Backup/Restore.
- **2.** Click  $\blacksquare$  on the right side of the desired file.

# **Backup/Restore**

- Restoring a backup by Selecting a Backup Directly
- Restoring a backup by Uploading a Backup

### Restoring a backup by Selecting a Backup Directly

In the backup list, you can select the desired backup to restore.

#### Procedure

- 1. Click Maintenance > Backup/Restore.
- **2.** Click  $\bigcirc$  on the right side of the desired file.
- 3. Click OK.

### Restoring a backup by Uploading a Backup

When an exception occurs to the server or the data is lost by accidental operation, you can restore the data by the backup file to keep the server working normally.

- 1. Click Maintenance > Backup/Restore > Upload.
- 2. Click Upload, and select the desired file.
- 3. Click OK to restore.

# **Rebooting the System**

When YMS fails to upgrade, for example it remains on a certain page, you can reboot the system.

#### Procedure

- 1. Click Maintenance > System Restart.
- 2. select the node, and clickRestart.
- 3. Click OK.

# **Clearing up All Accounts and the Conference Statistics**

You might need clear up all of the accounts and the conference statistics to solve some problem you may encounter in YMS.

#### Procedure

- 1. Click Maintenance > System Restart > Clear.
- 2. Click OK.

# Viewing the Operation Log

The operation log keeps a record of the change history, including the visit record and the configuration record.

#### Procedure

Click Maintenance > Support Log > Operation Log > Export Log.

# Viewing the System Log

You can view the system log to find out the reason when a problem occurs to the server.

#### Procedure

- 1. Click Maintenance > Support Log > System log.
- 2. Select the time, the module, and the node to export the log.
- 3. Click Operation Log.

# Viewing the Device Log

To view the SIP information communicated between the device and the server, for example, the device registration, you can enable the device log.

### About this task

- After you enable it, the device logs will occupy some bandwidth and the system performance may vary according to the number of devices.
- For offline devices, you cannot view their log.

### Procedure

- 1. Click Maintenance > Support Log > Device log.
- 2. Select the Enablecheckbox.

Center Content Device	Please select the	e desired time to export logs :	2018-12-04 - 2018-12-04
Name Account Device			
Hume Account Device	Model IP Address	Online/Offline	e Operation
1001 1001 T49G	10.81.48.13	3 Online	<u>1</u>

**3.** Click  $\checkmark$  on the right side of desired file.

# Troubleshooting

- Users Do Not Receive Emails
- Users Fail to Register Accounts
- Failing to Activating a License Online
- Failing to Activating a License Offline

# **Users Do Not Receive Emails**

#### Situation:

When you send user account information to users by email, but users do not receive any emails.

#### Cause:

- The emails may be in the spam folders.
- The emails may be intercepted by the back-end server.

### Solution:

#### Procedure

- 1. Remind users to check the spam folders.
- 2. Contact the enterprise IT staff to check the back-end server.

# **Users Fail to Register Accounts**

### Condition

Users fail to register accounts.

#### Cause

- Account information error.
- The IP address of the user is set as abnormal IP.

#### Remedy

#### Procedure

- 1. Check whether or not the account information is correct.
- 2. Check whether or not the IP address of the user is set as abnormal IP, if it is, refer to Delete the Abnormal IP.

# Failing to Activating a License Online

#### Situation:

Click Refresh, and the prompt "Unable to connect to LicenseServer due to network problem" is popped up.

#### Cause:

- Network configuration error.
- The license was used by other YMS, or the CPU, the network adapter or the motherboard on YMS is changed, that causing the mismatch between the license and the YMS hardware information.

#### Solution:

#### Procedure

- 1. Check whether or not the network cable of the YMS server physical machine is connected.
  - a) Click System Settings > Node Management.
  - b) Click C on the right side of desired node, to view the network status.

< Enabled	Network status	: Connected	
Network	Gateway	DNS	Routing Rules ?

- 2. If you use a Linux console, execute the command "ping license.yealinkops.com".
  - If it fails, there is a problem with the DNS or gateway route configured on the network.
  - If it succeeds but takes a long time, the reason may be the DNS configuration problem, or the poor network.
- **3.** Make sure that the server license is not used by other YMS, or the CPU, the network adapter or the motherboard on YMS is not changed. If the above remedy cannot work, you can contact Yealink to get the license again.

#### **Related tasks**

Activating a License Online

# Failing to Activating a License Offline

#### Situation:

Import the authority file obtained from Yealink, but the page prompts "Certificate import failed".

#### Cause:

- Authority file error.
- The license was used by other YMS, or the CPU, the network adapter or the motherboard on YMS is changed, that causing the mismatch between the license and the YMS hardware information.

#### Solution:

#### Procedure

- 1. Contact Yealink to confirm whether or not the authority file can match the series number associated with your YMS.
- 2. Make sure that the server license is not used by other YMS, or the CPU, the network adapter or the motherboard on YMS is not changed. If the above remedy cannot work, you can contact Yealink to get the license again.

#### **Related tasks**

Activating a License Offline

# **Appendix-Time Zones**

Time zone
(UTC-11:00) Coordinated Universal Time-11
(UTC-11:00) Samoa
(UTC-10:00) Hawaii
(UTC-09:00) Alaska
(UTC-08:00) Baja California
(UTC-08:00) Pacific Time (US & Canada)
(UTC-07:00) Arizona
(UTC-07:00) Chihuahua, La Paz, Mazatlan
(UTC-07:00) Mountain Time (US & Canada)
(UTC-06:00) Central America
(UTC-06:00) Central Time (US & Canada)
(UTC-06:00) Guadalajara, Mexico City, Monterrey
(UTC-06:00) Saskatchewan
(UTC-05:00) Bogota, Lima, Quito
(UTC-05:00) Eastern Time (US & Canada)
(UTC-05:00) Indiana (East)
(UTC-04:00) Asuncion
(UTC-04:00) Atlantic Time (Canada)
(UTC-04:00) Cuiaba
(UTC-04:00) Georgetown, La Paz, Manaus, San Juan
(UTC-04:00) Santiago
(UTC-03:30) Newfoundland
(UTC-03:00) Brasilia
(UTC-03:00) Buenos Aires

Time zone
(UTC-03:00) Cayenne, Fortaleza
(UTC-03:00) Greenland
(UTC-03:00) Montevideo
(UTC-02:00) Coordinated Universal Time-02
(UTC-02:00) Mid-Atlantic
(UTC-01:00) Azores
(UTC-01:00) Cape Verde Is.
(UTC) Casablanca
(UTC) Coordinated Universal Time
(UTC) Dublin, Edinburgh, Lisbon, London
(UTC) Monrovia, Reykjavik
(UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
(UTC+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
(UTC+01:00) Brussels, Copenhagen, Madrid, Paris
(UTC+01:00) Sarajevo, Skopje, Warsaw, Zagreb
(UTC+01:00) West Central Africa
(UTC+01:00) Windhoek
(UTC+02:00) Amman
(UTC+02:00) Athens, Bucharest, Istanbul
(UTC+02:00) Beirut
(UTC+02:00) Cairo
(UTC+02:00) Damascus
(UTC+02:00) Harare, Pretoria
(UTC+02:00) Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius
(UTC+02:00) Jerusalem
(UTC+02:00) Minsk
(UTC+03:00) Baghdad
(UTC+03:00) Kuwait, Riyadh
(UTC+03:00) Moscow, St. Petersburg, Volgograd
(UTC+03:00) Nairobi
(UTC+03:30) Tehran
(UTC+04:00) Abu Dhabi, Muscat
(UTC+04:00) Baku
(UTC+04:00) Port Louis

UTC+04:00) Tbilisi UTC+04:00) Yerevan UTC+04:30) Kabul UTC+05:00) Ekaterinburg UTC+05:00) Islamabad, Karachi UTC+05:00) Tashkent UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi
UTC+04:30) Kabul UTC+05:00) Ekaterinburg UTC+05:00) Islamabad, Karachi UTC+05:00) Tashkent
UTC+05:00) Ekaterinburg UTC+05:00) Islamabad, Karachi UTC+05:00) Tashkent
UTC+05:00) Islamabad, Karachi UTC+05:00) Tashkent
UTC+05:00) Tashkent
UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi
UTC+05:30) Sri Jayewardenepura
UTC+05:45) Kathmandu
UTC+06:00) Astana
UTC+06:00) Dhaka
UTC+06:00) Novosibirsk
UTC+06:30) Yangon (Rangoon)
UTC+07:00) Bangkok, Hanoi, Jakarta
UTC+07:00) Krasnoyarsk
UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi
UTC+08:00) Irkutsk
UTC+08:00) Kuala Lumpur, Singapore
UTC+08:00) Perth
UTC+08:00) Taipei
UTC+08:00) Ulaanbaatar
UTC+09:00) Osaka, Sapporo, Tokyo
UTC+09:00) Seoul
UTC+09:00) Yakutsk
UTC+09:30) Adelaide
UTC+09:30) Darwin
UTC+10:00) Brisbane
UTC+10:00) Canberra, Melbourne, Sydney
UTC+10:00) Guam, Port Moresby
UTC+10:00) Hobart
UTC+10:00) Vladivostok
UTC+11:00) Magadan
UTC+11:00) Solomon Is., New Caledonia
UTC+12:00) Auckland, Wellington

# Time zone

(UTC+12:00) Coordinated Universal Time+12

(UTC+12:00) Fiji

(UTC+13:00) Nuku'alofa