Yealink

Yealink VC Desktop User Guide

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About This Guide

Yealink VC Desktop is an easy-to-use video conferencing application that extends video communications to mobile professionals, other than only in the typical conference room. With Yealink VC Desktop, not only it is easy for you to realize video conferencing, but also you can initiate a presentation, pictures, etc. on your computer in HD quality.

This guide provides everything you may need to start your Yealink VC Desktop quickly. Before use, read the **Getting Started** chapter in this guide carefully, and be sure that the computer performance and IP network environment are ready for VC Desktop configuration.

Typographic Conventions

You need to know the following basic typographic conventions to distinguish types of in-text information:

Convention	Description
Bold	Highlights the user interface items such as menus or menu selections when they are involved in a procedure or user action (e.g., Click **Check for Update**). Also used to emphasize text
Blue Text	Used for cross references to other sections within this documentation (e.g., refer to Troubleshooting).
Blue Text in Italics	Used for hyperlinks to Yealink resources outside of this documentation such as the Yealink documentations (e.g., For more information, refer to *Yealink Meeting Server User Guide*.

You also need to know the following writing conventions to distinguish conditional information:

Convention	Description
< >	Indicates that you must enter specific information. For example, when you see <IP address>, enter the IP address.
->	Indicates that you need to select an item from a menu. For example, ⚙ ->**About** indicates that you need to select **About** from ⚙ .

Terms

As you read this guide, you'll notice that the same terms are used repeatedly. Make sure you familiarize yourself with these terms.

Cloud platform: This term refers to Yealink VC Cloud Management Service and Yealink Meeting Server.

Cloud endpoints: This term refers to the endpoints that support Cloud feature, including SIP VP-T49G IP phone, VC400/VC120/VC800 video conferencing system, VC110 all in one HD video conferencing endpoint.

Software

If it is your first time to install and use Yealink VC Desktop, we recommend you to download the latest software from the Yealink official website: *http://www.yealink.com* using Internet Explorer 8 or later.

If you have already installed the Yealink VC Desktop, you can upgrade the Yealink VC Desktop in order to the latest version. For more information on how to upgrade the Yealink VC Desktop, please refer to Updating Yealink VC Desktop on page 16.

Hardware and Software Requirements for Windows

These hardware and software requirements are determined by the specific test scenarios. Your system's actual performance may vary based on software or hardware configuration.

Windows	Windows 7 or later, both 32 bit and 64 bit
Processor	Dual cores and four threads, 1.7GHz or higher
RAM	4GB
Video Memory	Minimum: 512MB
Hard Drive Space	150MB
Cameras	Integrated or external cameras
Audio Devices	Integrated or external microphones and speakers For best audio result, it is recommended that you connect a headset as the audio device
Monitor	XGA, 16-bit color or higher
Network Speed	128 kbps and above. (Cable, ADSL, or LAN)
Microsoft Software	DirectX 9.0 or later

System Capabilities and Constraints

The following capabilities, resolution and algorithms are supported for Yealink VC Desktop.

Capabilities

Call Rate	Video Capability
900kpbs	720P
560kpbs	448P
360kpbs	352 x 288

Resolution

The following table lists the resolutions supported by Yealink VC Desktop.

Resolution and Frame Rate (Maximum)	Source
720p, 30fps	Video sent from camera
720p, 30fps	Video received from far site
1080p	Content showing from the computer
1080p	Content received from far site

Actual transmitted video resolution is affected by several factors, such as camera capability, computer performance, network conditions, the far-end system's capability, and whether content is being received, it can also be affected by the presentation frame rate of far-site device.

Algorithm

The following table lists the algorithms supported by Yealink VC Desktop.

Algorithms	Description
Audio	• G.722 • G.722.1 • G.722.1 Annex C • G.711µ or G.711a • Acoustic Echo Cancellation(AEC) • Automatic Gain Control(AGC) • Acoustic Noise Suppression(ANS)
Video	• H.264 HP • H.264 BP • H.263
Encryption	AES-128 media encryption

Icon Instruction

Icons appearing on the user interface are described in the following table:

Icon	Description
🖥	Network is available
SIP	SIP account is registered
H.323	H.323 account is registered
VC	Yealink Cloud account or YMS account is registered
👤	Local contacts
👥	Yealink Cloud contacts or YMS contacts
VMR	Permanent VMR

Icon	Description
📞	Dial
👤	Directory
📞	Call history
⚙️	Settings
📞	Missed calls (H.323 account/SIP account/IP Call)
☁️	Missed calls (Cloud platform)
📞	Outgoing calls (H.323 account/SIP account/IP Call)
☁️	Outgoing calls (Cloud platform)
📞	Incoming calls (H.323 account/SIP account/IP Call)
☁️	Incoming calls (Cloud platform)
📞	Answer calls
📞	Reject calls
🗑️	Delete local contacts or call records
📇	Add contacts to local directory from the call history list
✏️	Edit local contacts
🔓	SRTP call or H.235 call
☰	Call statistics
⚫	Non-current page
⚫	Current page

Icon	Description
	Invite conference members
	Apply for speaking (icon displays on the in-call toolbar)
	Apply for speaking (icon displays on the in-call toolbar)
	Cancel the application of speaking
	The microphone is unmuted
	The speaker is unmuted
	The microphone is muted (icon displays on the in-call toolbar)
	The microphone is muted (icon displays on the video image)
	The speaker is muted (icon displays on the in-call toolbar)
	The speaker is muted (icon displays on the video image)
	The volume is 0
	Initiate presentation
	Full screen
	Exit full screen mode
	End a call
	Turn off your video
	Turn on your video
	Change the video layout
	Change audio and video devices

Icon	Description
⦂⦂⦂	DTMF keypad
📌	The sharing toolbar is unlocked
📌	The sharing toolbar is locked
⇄	Change the sharing content
⧉	Share full screen
✕	Exit presentation
▬	Minimize the window
▢	Maximize the window
⧉	Restore the window
✕	Close the window

In This Guide

Topics provided in this guide include:

- Chapter 1   Getting Started

- Chapter 2   Customizing Yealink VC Desktop

- Chapter 3   Using Yealink VC Desktop

- Chapter 4   Troubleshooting

Summary of Changes

This section describes the changes to this guide for each release and guide version.

Changes for Release 1, Guide Version 1.23.0.43

The following sections are new for this version:

- Noise Block on page 62

- Permanent Virtual Meeting Room (YMS Account) on page 82

Major updates have occurred to the following sections:

- Yealink Cloud Accounts on page 32

- Enabling H.460 Firewall Traversal for H.323 Call on page 40

- Directory on page 54

- Conference Management (YMS Account) on page 83

Changes for Release 1, Guide Version 1.23.0.25

The following sections are new for this version:

- YMS Accounts on page 36

- Conference Schedules (YMS Account) on page 78

- Meet Now (YMS Account) on page 81

- Conference Management (YMS Account) on page 82

Major updates have occurred to the following sections:

- License Activation on page 7

- Account Settings on page 32

- Directory on page 54

- Placing Calls on page 65

- Using the In-call Toolbar on page 69

Changes for Release 1, Guide Version 1.21.3.2

The following sections are new for this version:

- System Capabilities and Constraints on page vii

- Yealink Cloud Accounts on page 32

Major updates have occurred to the following sections:

- Directory on page 54

- Placing Calls on page 65

Table of Contents

Getting Started

This chapter contains the following information about Yealink VC Desktop:

- Installing Yealink VC Desktop

- Uninstalling Yealink VC Desktop

- Login Interface

- License Activation

- About

- Updating Yealink VC Desktop

- User Interface Overview

- Audio and Video Device

- Configuring Yealink VC Desktop for use with a Firewall or NAT

- Adapter

- Account Settings

- DTMF

- Dual-Stream Protocol

- Configuring Security Features

Installing Yealink VC Desktop

After you have downloaded the Yealink VC Desktop application, you can install it on your computer.

To install the Yealink VC Desktop:

1. Double-click Yealink VC Desktop application.

    The data extraction process is shown as below:

2. Select the desired language from the pull-down list of **Language**.

The Setup interface will be displayed in the your selected language.
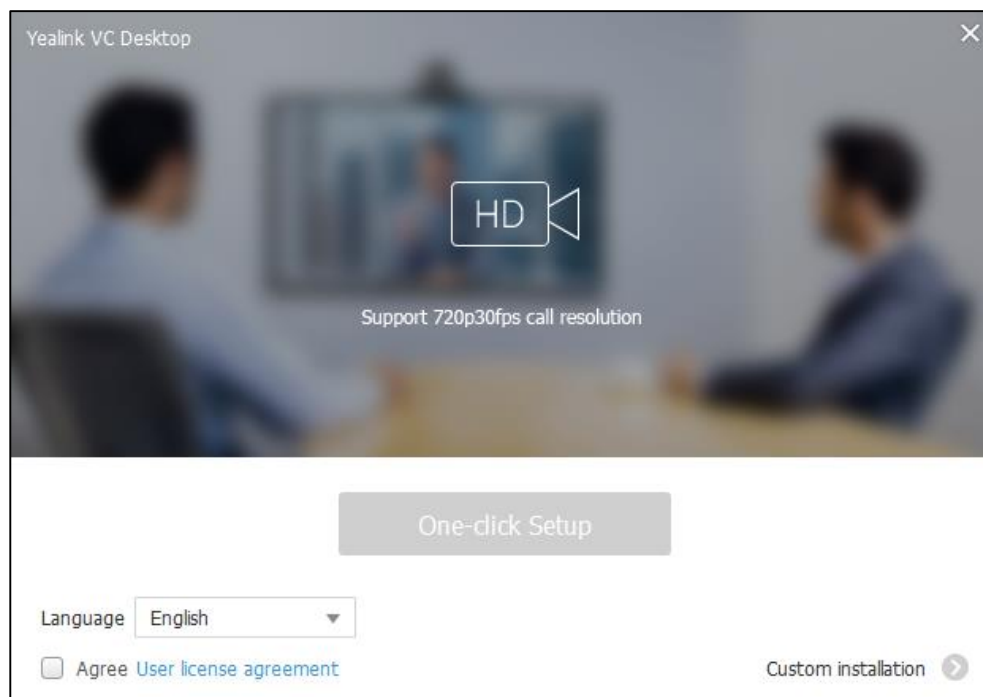
3. Check **Agree User license agreement** checkbox to continue installing the Yealink VC Desktop.

4. Do one of the following to install the Yealink VC Desktop:

- Click **One-click Setup** to install it immediately.

  Yealink VC Desktop is installed by default at "C:\Users\administrator\AppData\Roaming\Yealink\VC Desktop".

- Click ⬤ to proceed with Custom installation.

  Click **Browse…** to locate the destination.

The Yealink VC Desktop Setup dialog box will prompt:
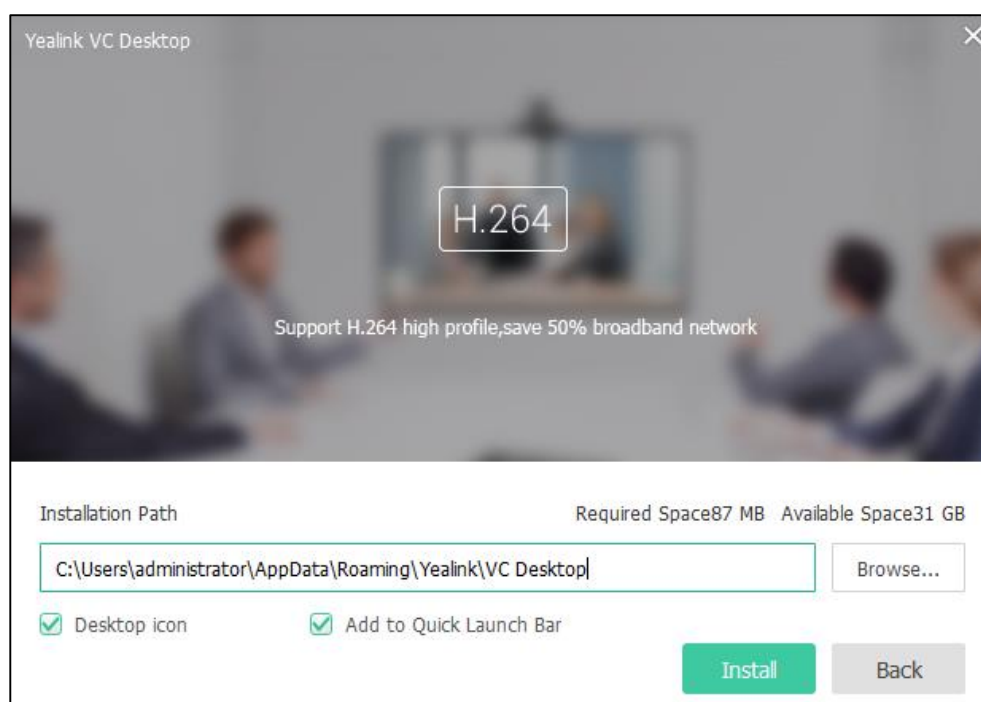
The **Desktop icon** checkbox and **Add to Quick Launch Bar** checkbox are checked by default, allowing you to fast launch the application from the desktop icon or quick launch bar next time. And then click **Install** to begin the installation.

5. After finishing installing, click **Start Experiencing**.

You can check **Start on boot** checkbox, the Yealink VC Desktop will start automatically when your computer starts.

The Yealink VC Desktop Setup dialog box will prompt:
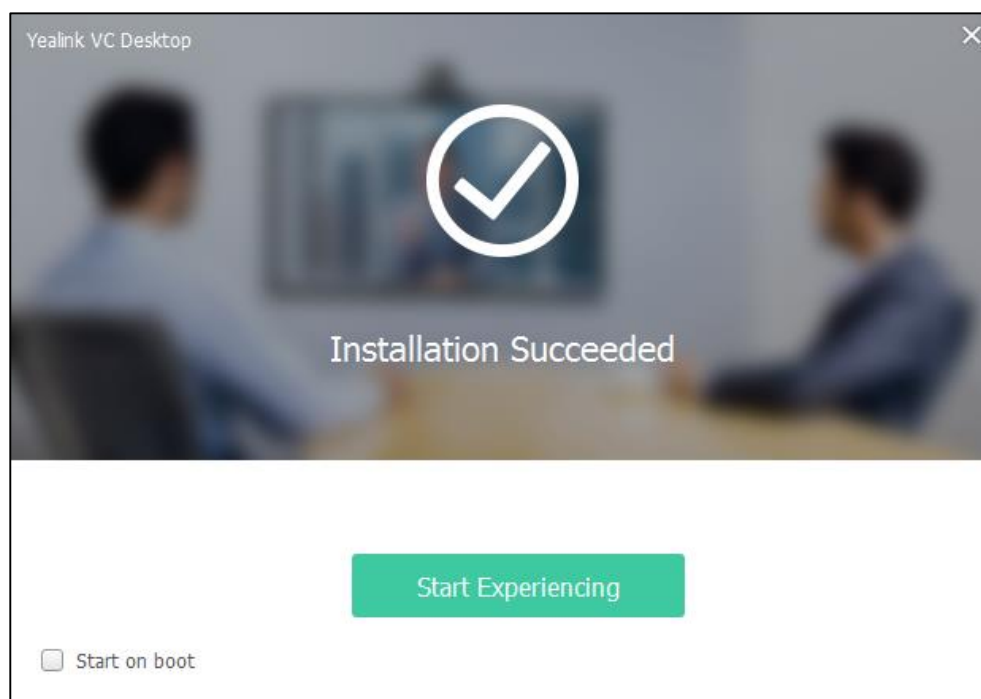
After you click **Start Experiencing**, the Yealink VC Desktop application starts on your computer automatically and the icon [icon] is displayed in notification area of your system tray.
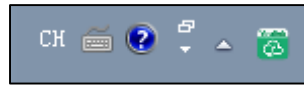
To start the Yealink VC Desktop manually:

Do one of the following:

- Double-click shortcut [icon] to start the Yealink VC Desktop.

- Click [icon] in the quick launch bar.

To exit the Yealink VC Desktop:

1. Right-click [icon] in the system tray.

2. Select **Exit**.

To configure start on boot via the Yealink VC Desktop:

1. Click [icon] ->**Basic Setting**.

2. Check **Start on boot** checkbox.

The Yealink VC Desktop will start automatically when your computer starts.
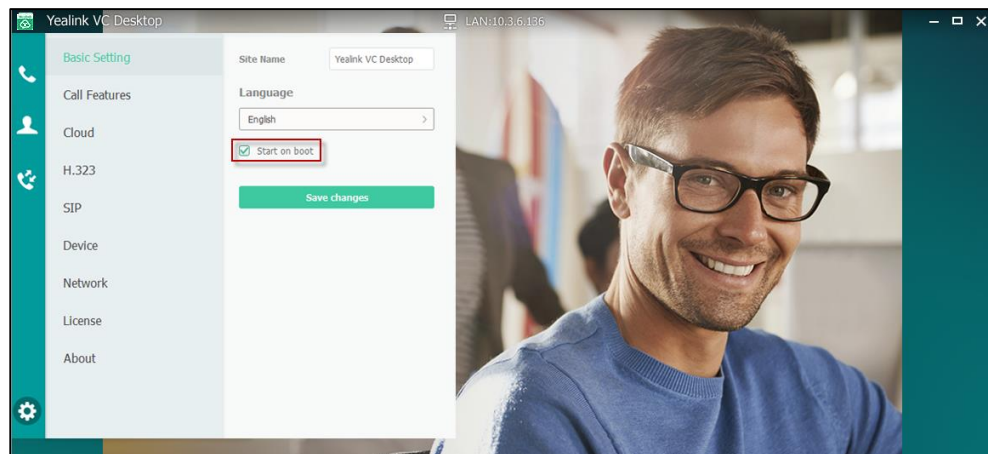
3. Click **Save changes**.

These settings take effect the next time you restart the computer.

Uninstalling Yealink VC Desktop

You can uninstall the Yealink VC Desktop at any time. Note that after you uninstall the Yealink VC Desktop, you can no longer use it. If you decide to use the Yealink VC Desktop again, you must reinstall it.

Do one of the following to uninstall the Yealink VC Desktop:

- Click **Uninstall** executable file (Setup.exe) in the installation folder.

- Click in the quick launch bar of your computer.

- Use system uninstall program (control panel).

- Use the third-party software (e.g., 360 Security Guard).

The way of clicking **Uninstall** executable file(Setup.exe) in the installation folder is introduced in details as an example. For more information on how to uninstall the Yealink VC Desktop in other ways, please refer to network resources. Before you uninstall the Yealink VC Desktop, please exit the Yealink VC Desktop first.

To uninstall the Yealink VC Desktop via uninstalling packages:

1. Enter the installation folder of Yealink VC Desktop.

2. Double-click **Uninstall** executable file (Setup.exe) in the installation folder.

   A dialog box pops up to ask if you confirm to uninstall the Yealink VC Desktop, shown as below:
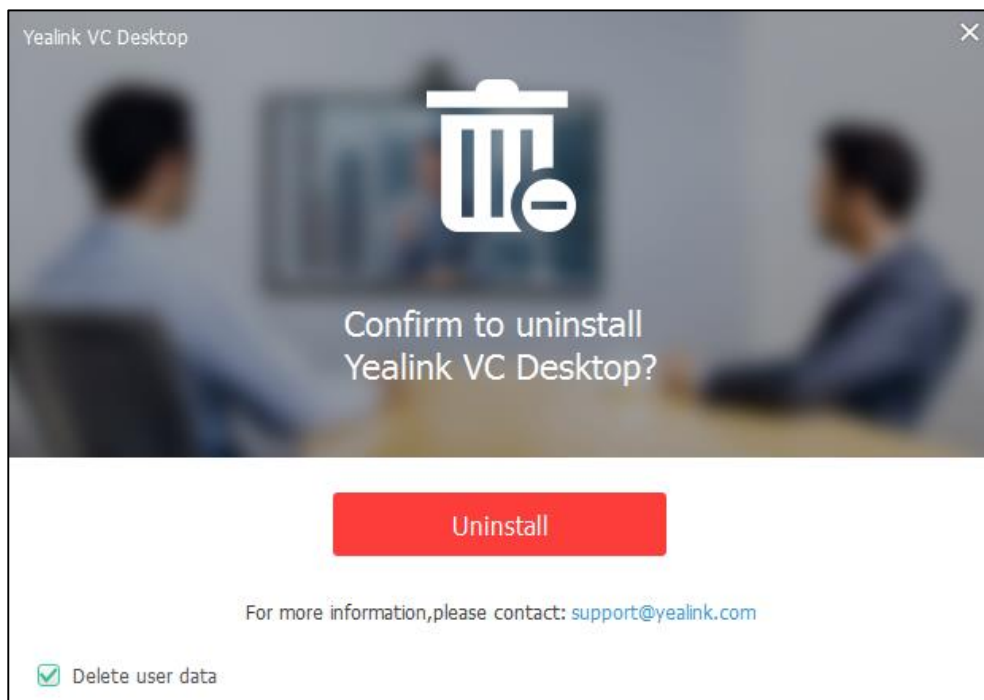
   The **Delete user data** checkbox is checked by default. If you want to keep your call history, local directory or the configuration information after uninstallation, please uncheck **Delete user data** checkbox.

3. Click **Uninstall**.

The uninstallation progress of Yealink VC Desktop is shown as below:
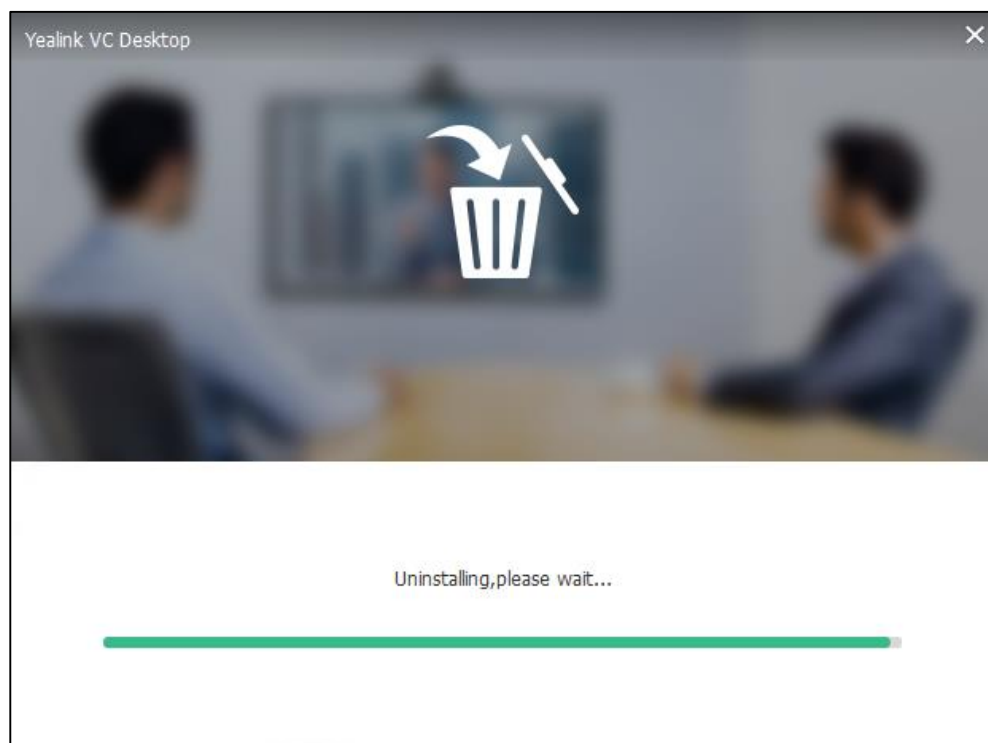
Login Interface

In the first time you start the Yealink VC Desktop, the login interface is displayed as below:
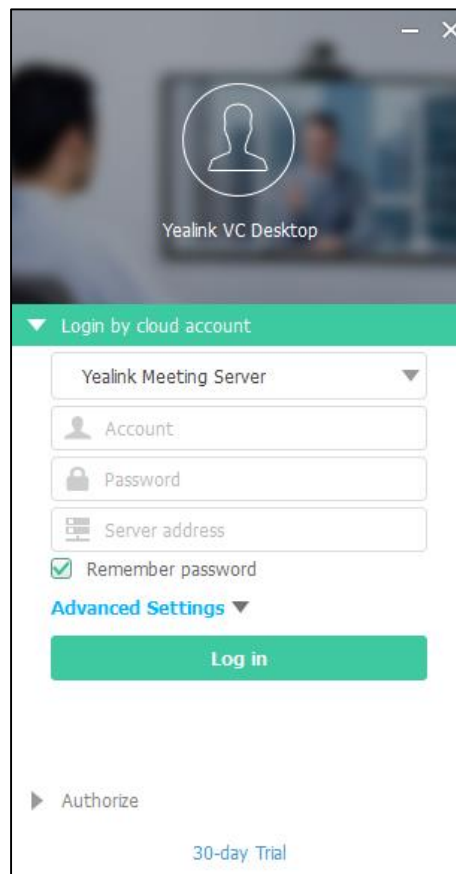
If you want to activate the Yealink VC Desktop directly, you can click **Authorize.** For more information, refer to License Activation on page 7.

If you want to log into Yealink VC Desktop using Yealink Cloud accounts or YMS accounts directly, you can click **Login by cloud account**. For more information, refer to Account Settings on page 32.

License Activation

When you first start Yealink VC Desktop, you can click **30-day Trial** to use the trial version.

For a permanent version, you should activate the Yealink VC Desktop by activation code. You can obtain the activation code from Yealink resellers. You can also log into the Yealink VC Desktop using a Yealink Cloud account or a YMS account instead of activation. For more information, please refer to Account Settings on page 32.

You can activate the Yealink VC Desktop in the login interface or settings menu.

To activate the Yealink VC Desktop in the login interface:

1. Click **Authorize**.

2. Enter the activation code.
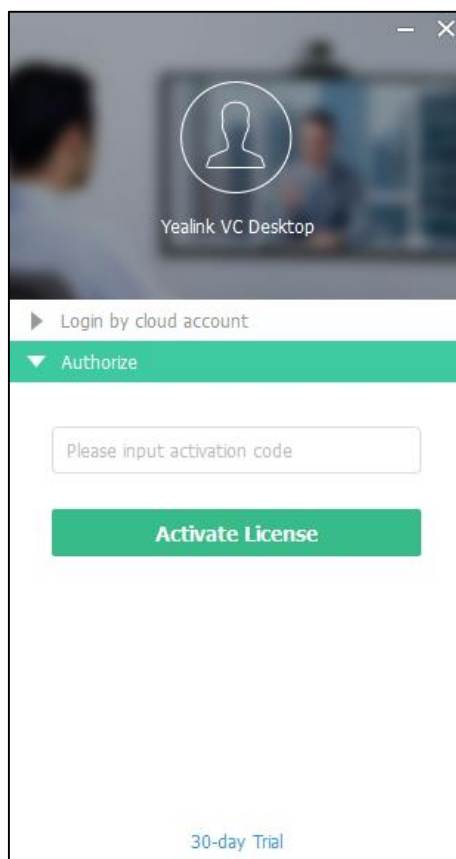
3. Click **Activate License**.

To activate the Yealink VC Desktop in the settings menu:

1. Click ⚙ ->**License**.

The current software activation state is shown as below:
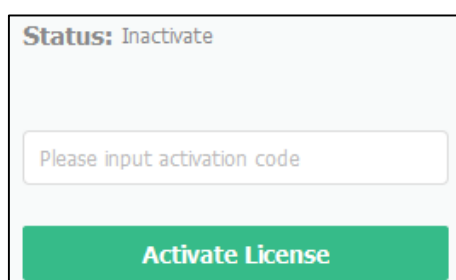
2. Enter the activation code.

3. Click **Activate License**.

About

You can view the Yealink VC Desktop information and update status.

Do the following:

1. Click ->**About**.

   You can view the current version number and copyright information.
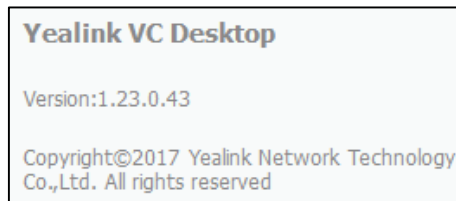
   You can do one of the following:

   – Click **Check for Update**.

   The Yealink VC Desktop will automatically check for update and prompt you whether to update to the latest software.
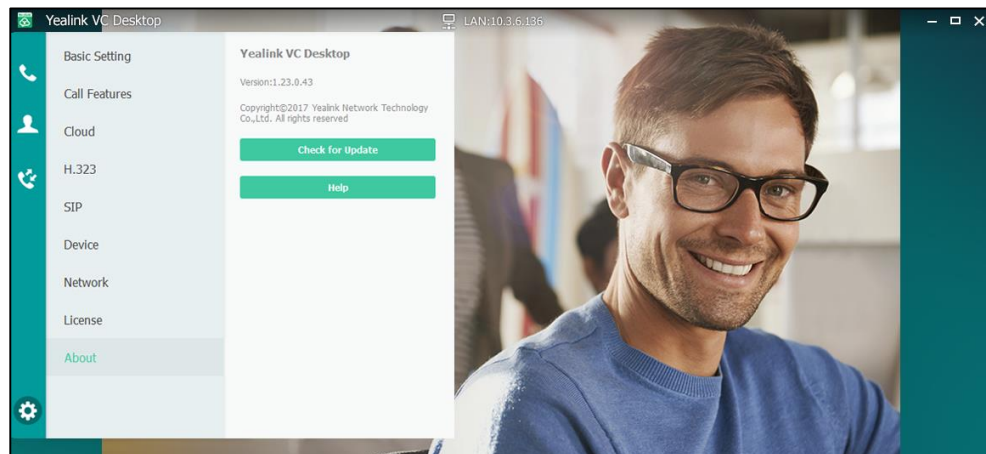
   For more information, please refer to

   – Click **Help** to visit the Yealink official website.

Updating Yealink VC Desktop

Yealink VC Desktop will check of updates automatically and give you an update notification, you can choose to update or just ignore it.

You can do one of the following:

● One-click Update

● Installation Package Update

One-click Update

To update the Yealink VC Desktop using one-click update:

1. Click ⚙ ->**About**->**Check for Update**.

    –   If the current version is the latest, you do not need to update.
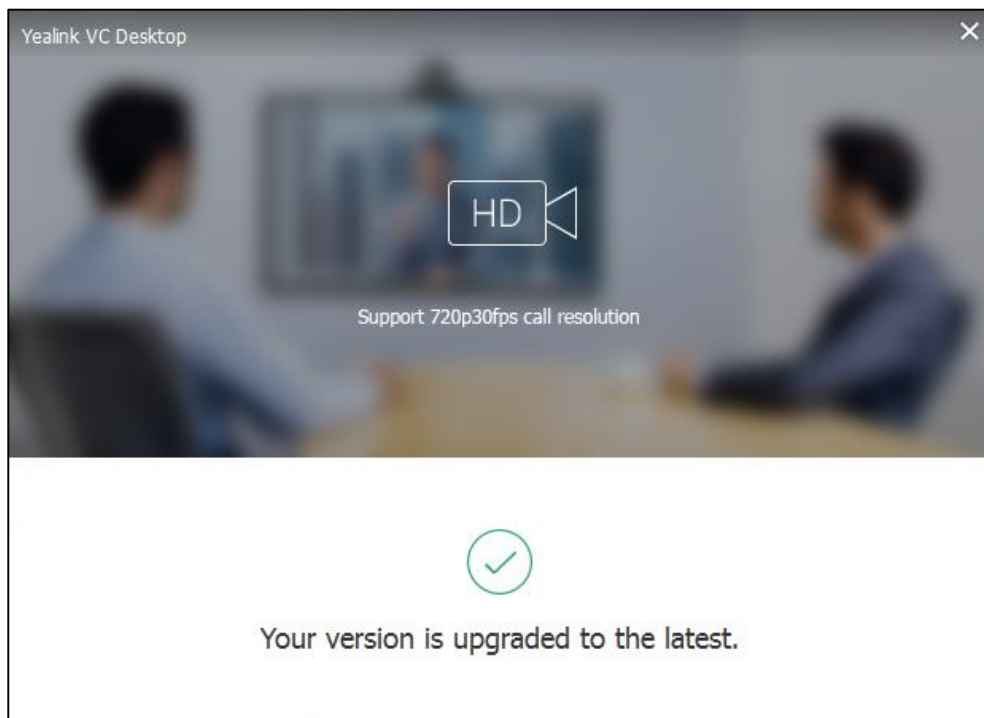
    –   If a new software version is detected:

Click **One-click Update**.
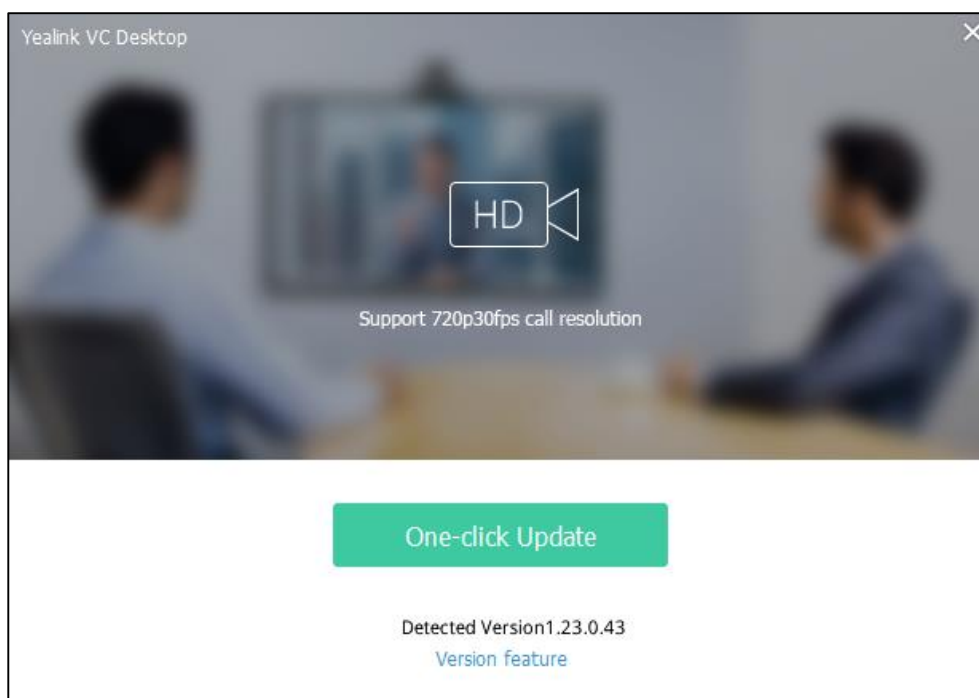
A dialog box pops up to show the updating progress of Yealink VC Desktop, shown as below:
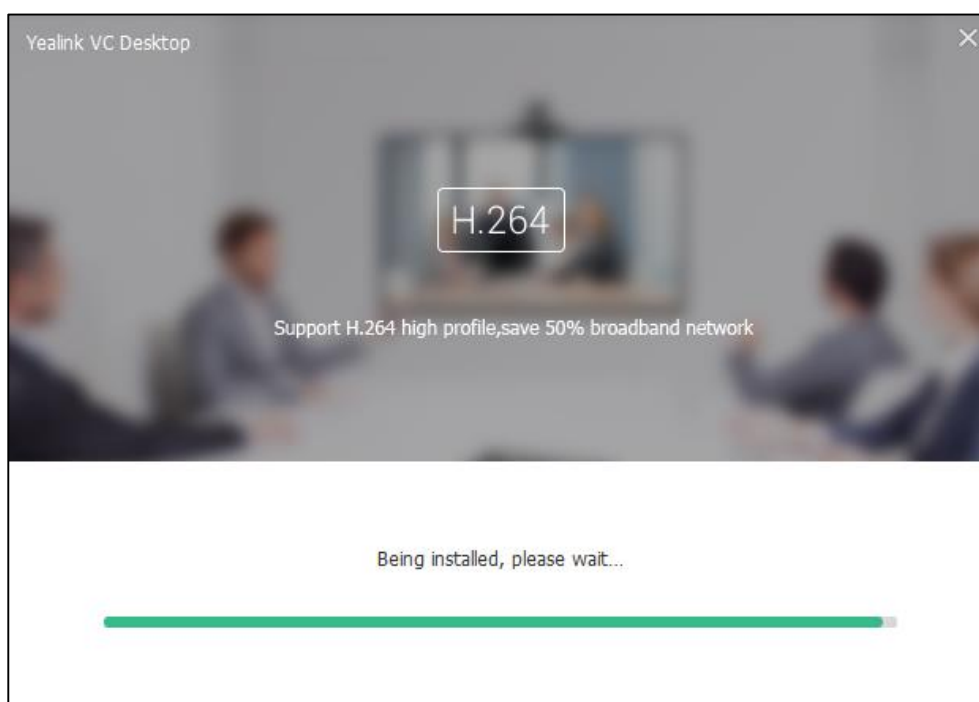
A dialog box pops up to prompt that you need to exit the Yealink VC Desktop, shown as below:
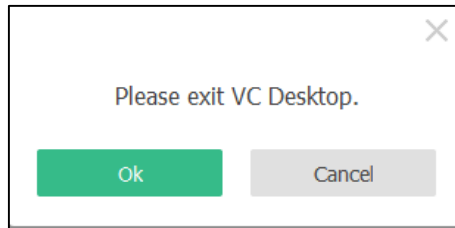
Click **OK** to continue updating or click **Cancel** to stop upgrading.

The Yealink VC Desktop Setup dialog box will prompt:
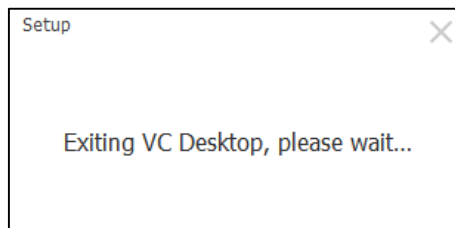
Click **Start Experiencing** to enjoy the Yealink VC Desktop in its new version.

If the Yealink VC Desktop fails to update, the failure reasons will be given in the dialog box. For more information, please refer to General Issues on page 88.

Installation Package Update

When you update the Yealink VC Desktop by using the installation package, the software will identify whether the software has already been installed on your computer.

To update the Yealink VC Desktop using installation package update:

1. Double-click Yealink VC Desktop application.
2. Do one of the following:

   – When the installation package version is the same as the current version:

If the Yealink VC Desktop needs to be fixed, you can click **One-click Reinstallation** and follow the installation steps.
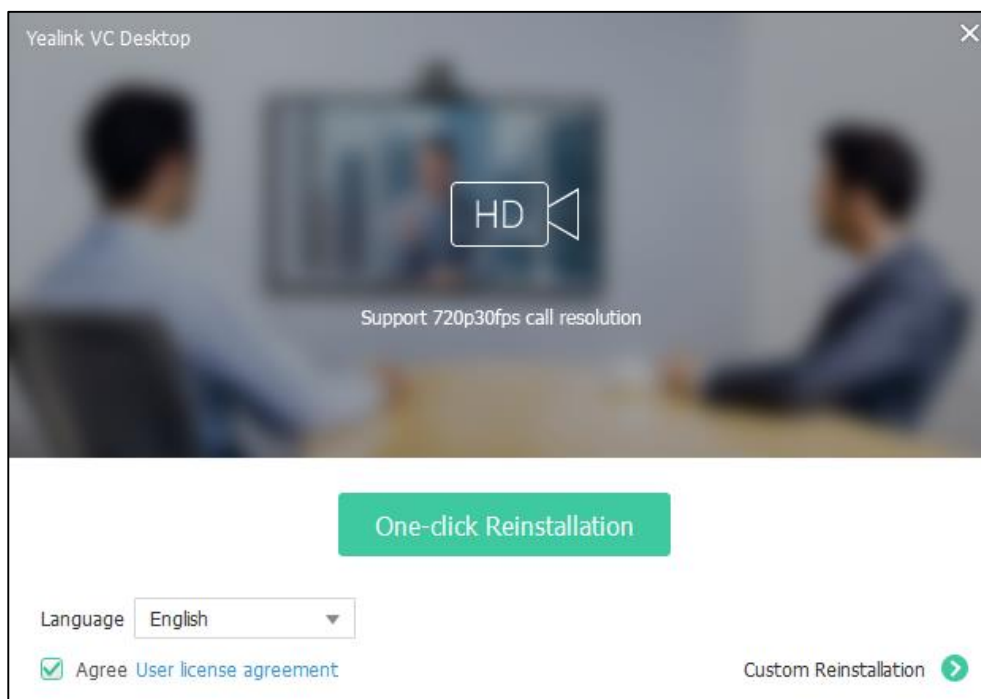
- When the installation package version is higher than the current version:

  Click **One-click Update** and follow the update steps.
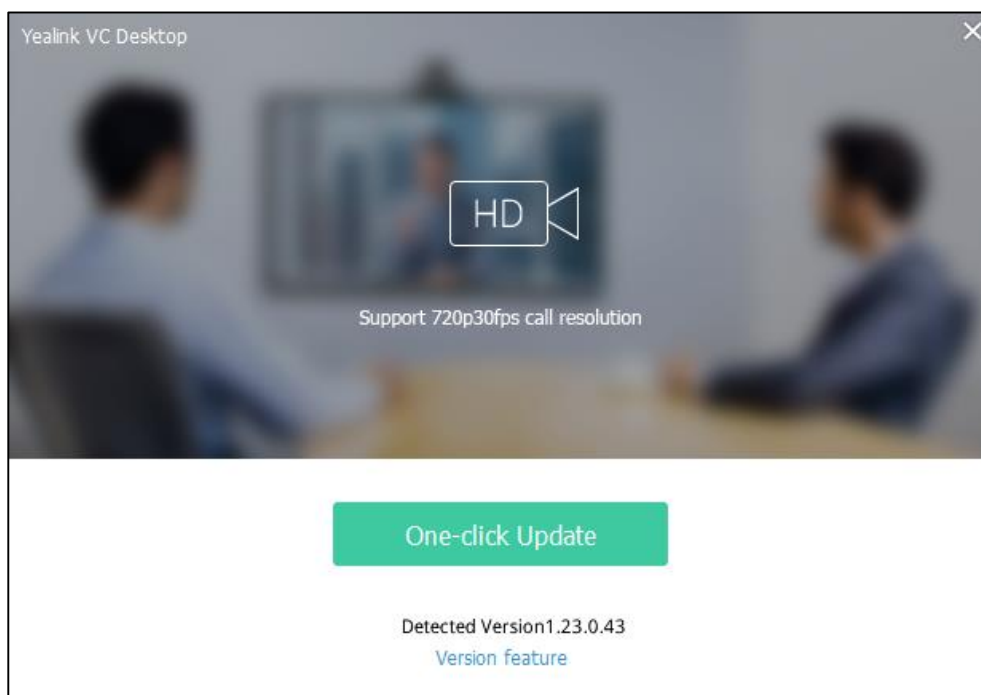
- When the installation package version is lower than the current version:

Click **One-click Downgrade**.
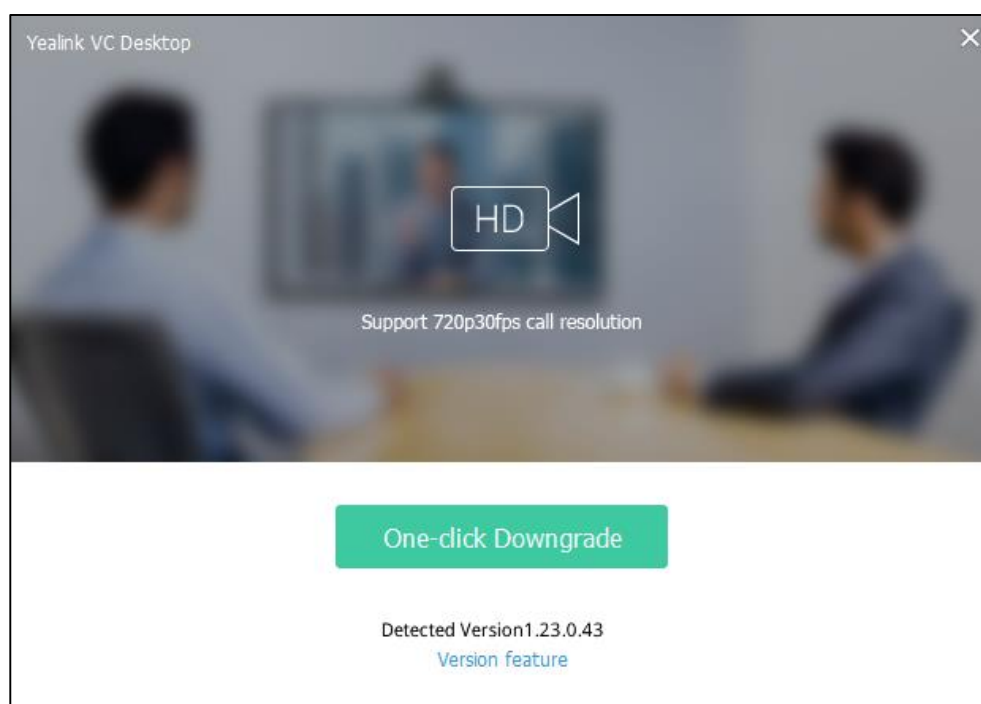
User Interface Overview

Main Window

The main window appears when Yealink VC Desktop starts. From the main window, you can place a call, manage contacts, view history and modify settings. When you log into Yealink VC Desktop using a YMS account, **Conference Schedule** and **Meet Now** menu appear. Then you can view the scheduled conferences, join conferences and initiate the meet now conference.

No.	Name	Description
1	Site name	Displays the site name of Yealink VC Desktop. For more information on how to change the site name, refer to Site Name on page 53.
2	Registered account	If a SIP account is registered on Yealink VC Desktop, the account icon is shown as SIP . For more information, refer to H.323 Accounts on page 40.
		If an H.323 account is registered on Yealink VC Desktop, the account icon is shown as H.323 . For more information, refer to H.323 Accounts on page 38.
		If a Yealink Cloud account or YMS account is registered on Yealink VC Desktop, the account icon is shown as VC . For more information, refer to Yealink Cloud Accounts on page 32.
3	IP Address	Displays the IP address of your computer.
4	Window control area	Control the main window. You can minimize, maximize, restore the window or close the window.
5	Video image	Show local video.
6	Dial	Enter dialing window.

No.	Name	Description
7	Directory	• Manages the local directory. • If Yealink VC Desktop is registered with the Yealink Cloud account, you can also manage the Yealink Cloud directory. • If Yealink VC Desktop is registered with the YMS accounts, you can also manage the enterprise directory. For more information, refer to Directory on page 54.
8	Call history	Includes incoming, outgoing and missed calls. For more information on how to manage the call history, refer to Call History Management on page 59.
9	Conference Schedule	View conference schedules or join conferences. For more information, refer to Conference Schedule on page 69.
10	Meet Now	Initiate the meet now conference. For more information, refer to Meet Now (YMS Account) on page 81.
11	Settings	Enter settings window.

Dialing Window

Click 📞 to enter the dialing window.
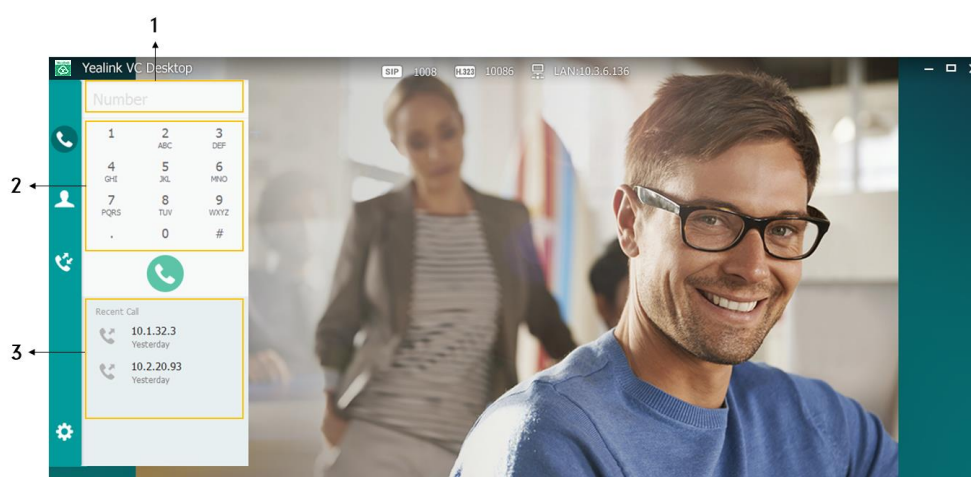
No.	Name	Description
1	Input box/Search box	Displays the calling information you entered.
2	Keypad	Provides numbers, "#" and ".".
3	Recent calls/Search results	Displays the recent calls or the search results.

No.	Name	Description
		When you don't enter any character in the search box, the recent calls are displayed.

Directory Window

Click ![icon] to enter the directory window. If Yealink VC Desktop is registered with the Yealink Cloud account or the YMS account, you will enter the Yealink Cloud directory listed under the Cloud tab or enterprise directory listed under the Enterprise tab by default. Use the local directory, Yealink Cloud directory/enterprise directory to place a call or search for contacts. For more information, please refer to Directory on page 54.
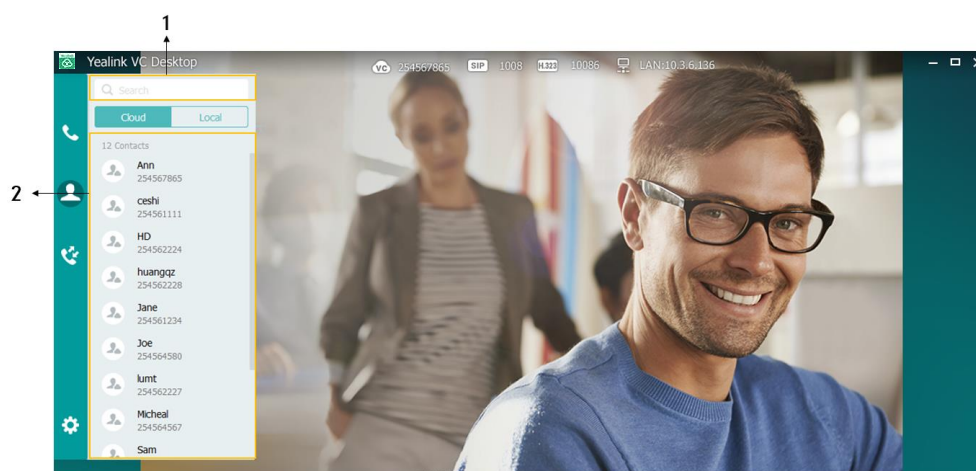
(Logging into the Yealink VC Desktop using Yealink Cloud accounts: 254567865)

No.	Name	Description
1	Search box	Displays the searching information you entered.
2	Contact list/Search results	Displays the list of contacts or the search results.

History Window

Click to enter the history window. The History lists show you the incoming, outgoing and missed calls. Manage call history by deleting entries.
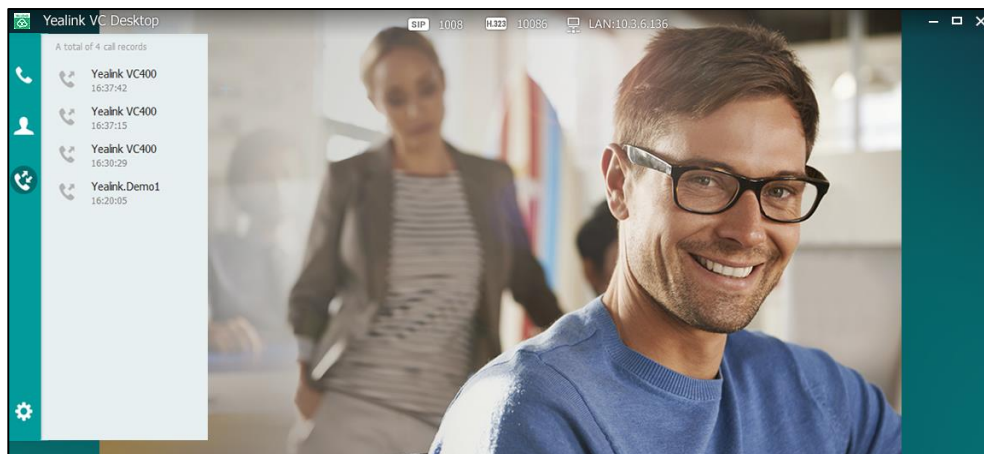
Settings Window

Click to enter the settings window.
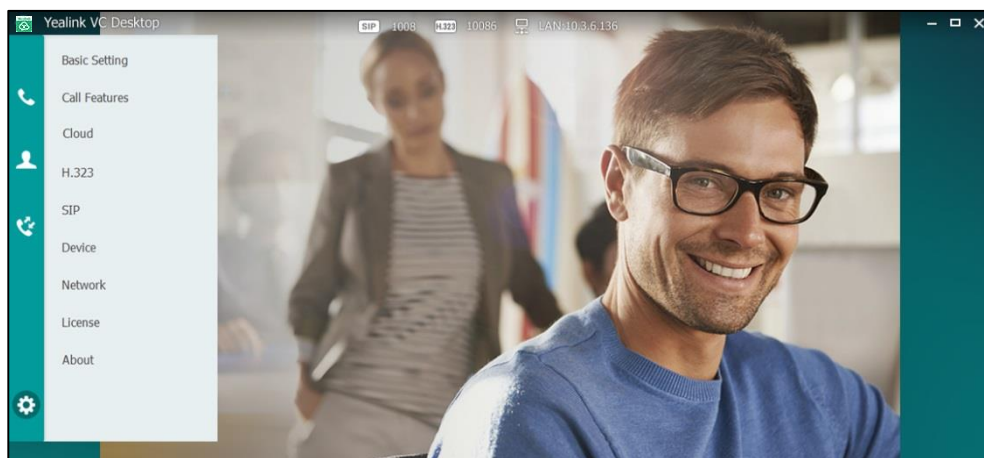
Call Window

The call window is the main work area during calls. You can use the call window to perform operations on currently active calls, such as ending the call or sending DTMF tones.

To close the call window during a call:

1. Click .

A dialog box pops up to ask if you confirm to end the call, shown as below:
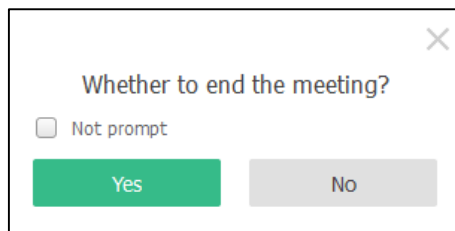
2. You can do one of the followings:

- Click **Yes** to end the call. The call window is closed and Yealink VC Desktop application is hidden in the system tray.

- Click **No** to continue the call. The call window will be zoomed out and displayed in the bottom-right of the computer and will bring to front.

  You can check the **Not prompt** checkbox to turn off the prompt. This setting takes effect immediately.

To minimize the call window during a call:

1. Click .

  The far-site video image will be zoomed out and displayed in the bottom-right of the computer and will bring to front.

2. Do one of the following to restore the call window:

- Double-click the any area of small window to restore call window.

- Click in the top-right of the call window.

Video Call Window

If the far site supports video, Yealink VC Desktop enters the video call window. The far-site video image displays in a large window, the local site displays in a small window in the top-right corner of the window by default.

No.	Name	Description
1	Far-site name	Displays the site name of the far site.
2	Call duration	Displays the duration time of the current call.
3	Video image	Provides near-site video by default. You can swap the video images and show or hide the video image in the small window. For more information, refer to Changing the Video Layout on page 73.
4	Window control area	Provides the control of the call window. You can minimize the window, maximize the window, restore the window and close the window.
5	In-call toolbar	Provides the basic operations on currently active calls. For more information on the icons, refer to Icon Instruction on page viii.
6	Video image	Provides far-site video by default. You can swap the video images. For more information, refer to Swapping the Video Images on page 73.
7	Call statistics	Contain the parameters about audio, video and share. For more information on how to view the call

No.	Name	Description
		statistics, refer to Call Statistics on page 75.

Note   The layout list might vary, depending on whether the local or far site initiates presentation.

Audio Call Window

If the far site does not support video, Yealink VC Desktop enters the adaptive audio call window.

No.	Name	Description
1	Far-site name	Displays the site name of the far site.
2	Window control area	Provides the control of windows. You can minimize the window, maximize the window, restore the window and close the window.
3	Call duration	Displays the duration time of the current call.
4	In-call toolbar	Provides the basic operations on currently active calls. The icons in gray indicate that you cannot share presentation, turn on video and change layout during an audio call. For more information on the icons, refer to Icon Instruction on page viii.
5	Call statistics	Contains the parameters about audio, video and share. For more information on how to view the call statistics, refer to Call Statistics on page 75.

Audio and Video Device

If you do not connect new audio or video device, the Yealink VC Desktop will select a system default device for audio or video capture. If you connect new audio or video device, you can select the desired audio or video device manually.

To configure audio input device via the Yealink VC Desktop:

1. Click ![settings icon] ->**Device**.

2. Select the available microphone from the pull-down list of **Microphone**.

3. Click ![play icon] to test the volume.
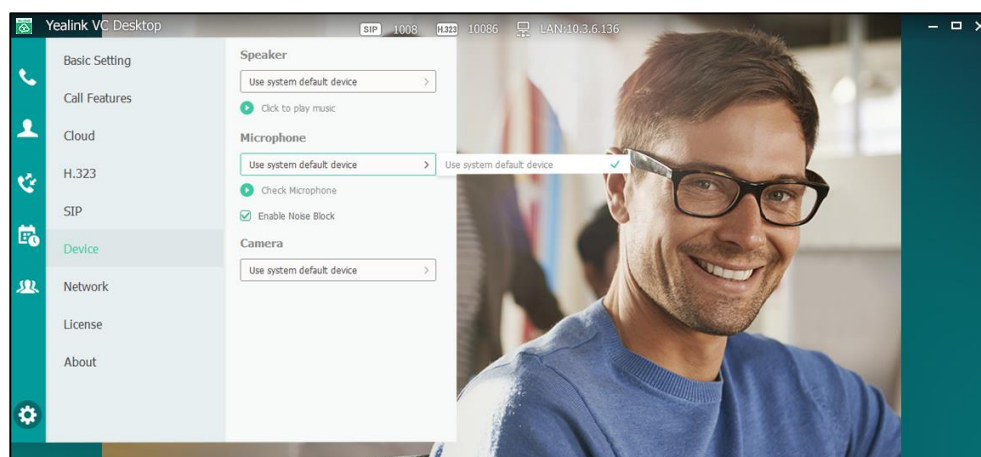
4. Click **Save changes**.

To configure audio output device via the Yealink VC Desktop:

1. Click ![settings icon] ->**Device**.

2. Select the available speaker from the pull-down list of **Speaker**.

3. Click ![play icon] to test the volume.
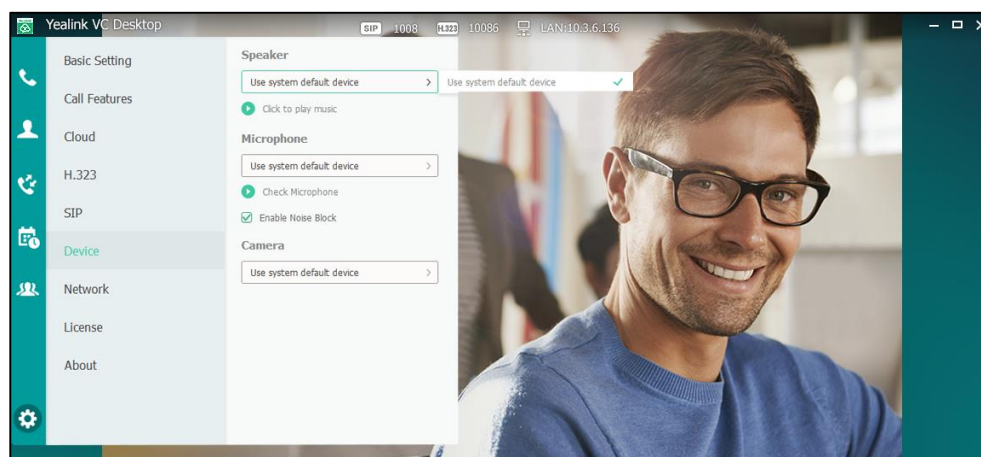
4. Click **Save changes**.

To configure video device via the Yealink VC Desktop:

1. Click ⚙ -> **Device.**

2. Select the available camera from the pull-down list of **Camera**.
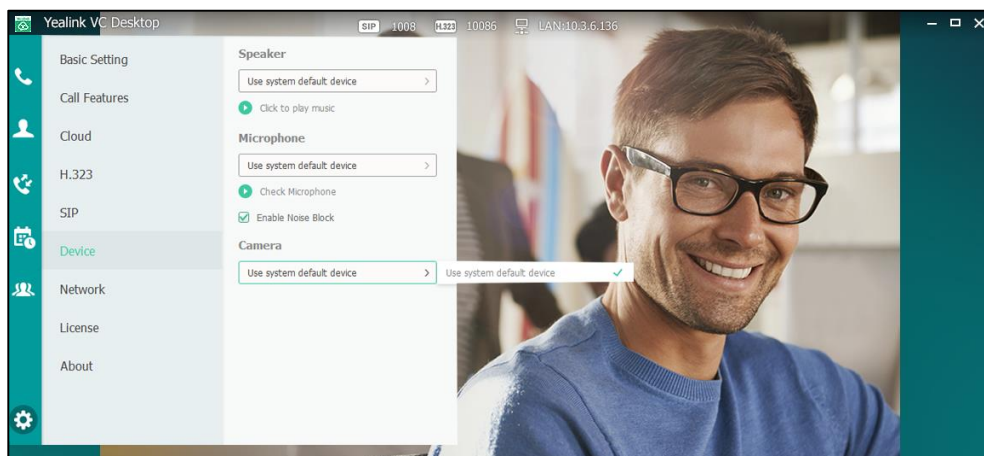
3. Click **Save changes**.

If your computer does not have available devices or connects a bad device, the user interface prompts the error.
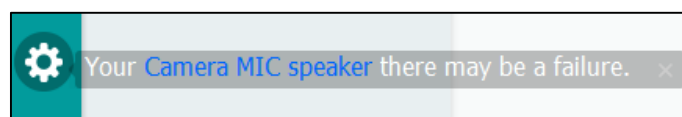
Click the links in blue to enter the audio and video device settings window directly. And then the error prompt will disappear.

For more information on the error, please refer to and .

Configuring Yealink VC Desktop for use with a Firewall or NAT

A firewall protects an organization's IP network by controlling data traffic from outside the network. Unless the firewall is designed to work with video conferencing equipment, you must configure the firewall to allow incoming and outgoing traffic to the Yealink VC Desktop through the reserved ports. Users placing calls through a firewall to the Yealink VC Desktop may experience one-way audio or video if the firewall is not properly configured.
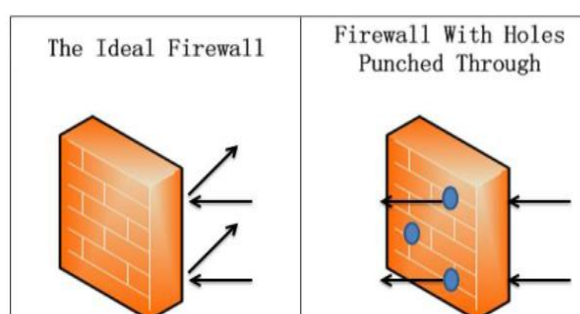
You must configure your firewall to allow incoming and outgoing traffic through the following ports:

Description	Port Range	Port Type
Gatekeeper	1719	UDP
H.323 signal port	1720	TCP
SIP (default transport protocol)	5060	UDP
SIP (when selecting the TCP transport protocol)	5060	TCP
SIP (when selecting the TLS transport protocol)	5061	TCP
Reserved ports of the Yealink VC Desktop. For more information, refer to Reserved Ports on page 24.	50000-50499 (default range)	TCP/UDP

Reserved Ports

By default, the Yealink VC Desktop communicates through TCP and UDP ports in the range of 50000 - 54999 for video, voice and presentations, and only a small number of these ports will be used during a call. The amount of used ports depends on how many people join the call, which protocols are used, what kind of call you are making (audio or video) and what kind of presentation you are making. You can configure the range of reserved ports to limit the amount of TCP and UDP ports.

Parameters for reserved ports on the Yealink VC Desktop are described below:

Parameter	Description
UDP Port Scope	Configures the range of the UDP ports. **Valid values:** 1-65535 **Default range:** 50000-50499 **Note**: SIP and H.323 calls share the configured ports.
TCP Port Scope	Configures the range of the TCP ports. **Valid values:** 1-65535 **Default range:** 50000-50499 **Note**: SIP and H.323 calls share the configured ports.

To configure reserved ports via the Yealink VC Desktop:

1. Click [icon] ->**Network**.

2. Configure the UDP port range in the **UDP Port Scope** field.

3. Configure the TCP port range in the **TCP Port Scope** field.
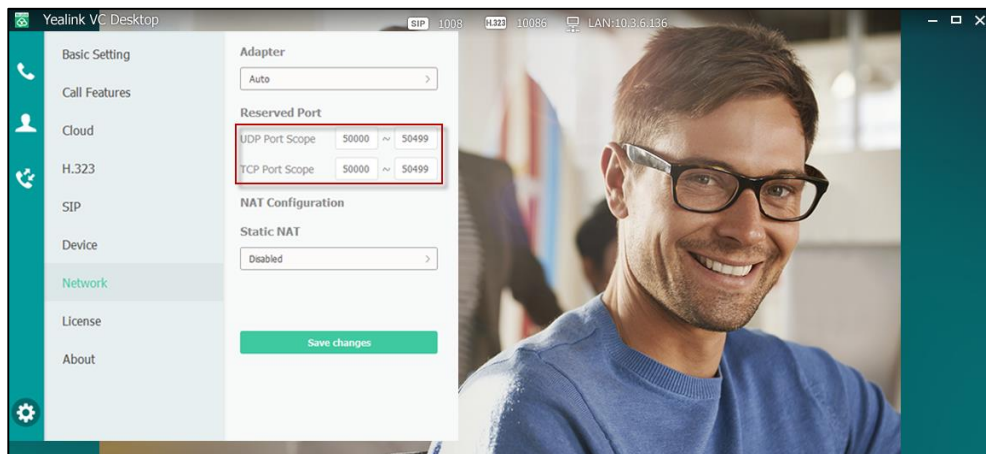
4. Click **Save changes.**

Note   The gap between the maximum UDP/TCP port and the minimum UDP/TCP port should be not less than 200. For example, you set 50000 as the minimum UDP port, the maximum UDP port should be not less than 50200.

Network Address Translation

If Yealink VC Desktop is in a private LAN, you must use NAT to communicate with outside
devices. This may include enabling static NAT on your Yealink VC Desktop.
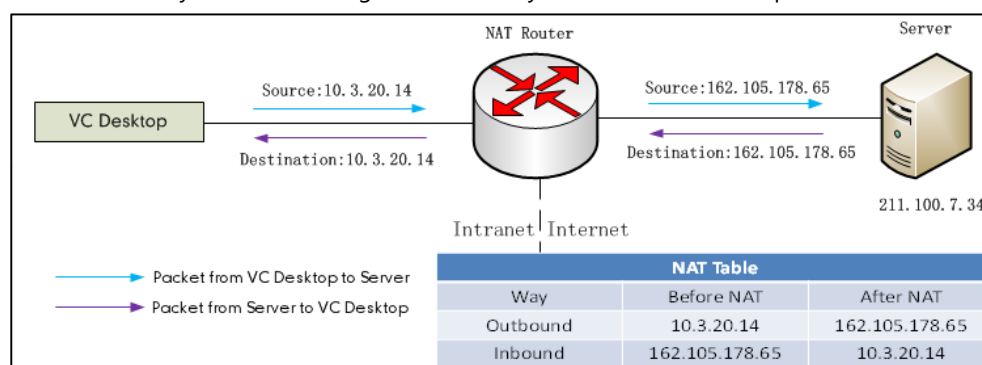
Static NAT

NAT enables communication between devices on your LAN that have private IP addresses and
devices that are accessed through a public IP network. Static NAT ensures that the same public
IP address always maps to a Yealink VC Desktop's private IP address, so that data from the
public network intended for the private Yealink VC Desktop can be routed to the destination
reliably. If you are using static NAT to associate a public IP address with the private IP address of
Yealink VC Desktop, you must configure your Yealink VC Desktop to work with your static NAT
server.

Note   If H.460 Firewall Traversal is enabled on the Yealink VC Desktop, H.323 calls will automatically
ignore the static NAT settings. For more information on H.460 Firewall Traversal, refer to Enabling
H.460 Firewall Traversal on page 40.

NAT feature parameters apply to SIP protocol. NAT feature parameters on the Yealink VC
Desktop are described below:

Parameter	Description
Static NAT	Specifies whether Yealink VC Desktop should determine the NAT public address automatically. • **Disabled**—the Yealink VC Desktop does not use the NAT feature. • **Manual Setting**—the Yealink VC Desktop uses the manually configured NAT public address. • **Auto**—the Yealink VC Desktop obtains the NAT public address from the specified Yealink server. **Default:** Disabled

Parameter	Description
NAT IP Address	• Displays the NAT public address automatically obtained from the Yealink-supplied server if the static NAT is set to **Auto.** • Configures the NAT public address for the Yealink VC Desktop if the static NAT is set to **Manual Setting.**
NAT Type	Configures the NAT traversal type. • **Disabled** • **STUN** • **Static** **Default:** Disabled **Note:** Static NAT works only if this parameter is set to **Static.**

To configure NAT via the Yealink VC Desktop:

1. Click ⚙ ->**Network**.

2. Select the desired value from the pull-down list of **Static NAT**.

3. Configure the NAT public address in the **NAT IP Address** field if **Manual Setting** is selected from the pull-down list of **Static NAT**.
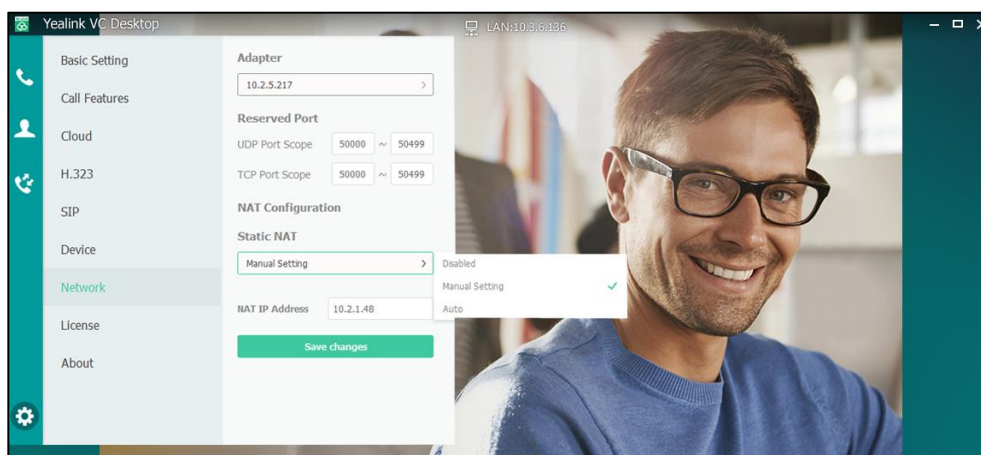
4. Click **Save changes**.

To configure Static NAT for SIP account via the Yealink VC Desktop:

1. Click ⚙ ->**SIP**->**Advanced Settings**.

2. Select **Static** from the pull-down list of **NAT Type**.
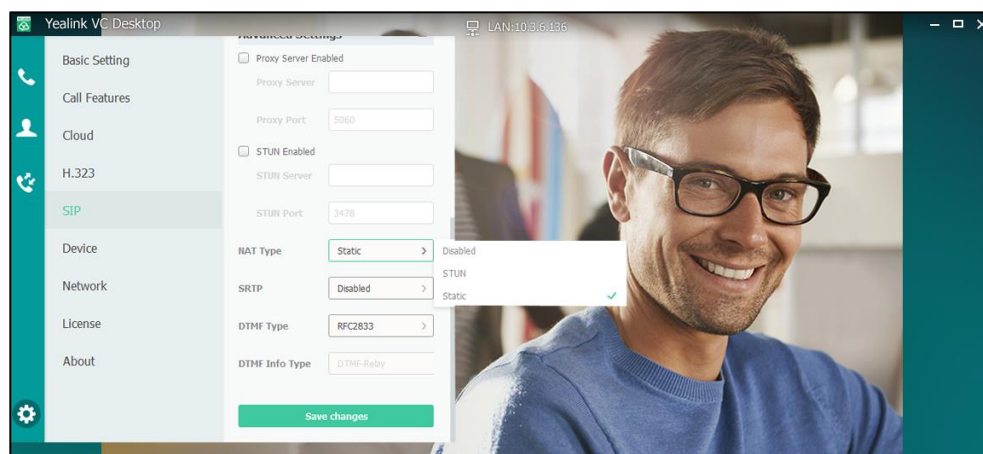
3. Click **Save changes**.

STUN

STUN (Session Traversal Utilities for NAT) is a network protocol, used in NAT traversal for applications of real-time voice, video, messaging, and other interactive IP communications. The STUN protocol allows entities behind a NAT to first discover the presence of a NAT and the type of NAT (for more information on the NAT types, refer to NAT Types on page 30.) and to obtain the mapped (public) IP address and port number that the NAT has allocated for the UDP connections to remote parties. The protocol requires assistance from a third-party network server (STUN server) usually located on public Internet. The Yealink VC Desktop can be configured to work as a STUN client, to send exploratory STUN messages to the STUN server. The STUN server uses those messages to determine the public IP address and port used, and then informs the client. For more information, refer to RFC3489.
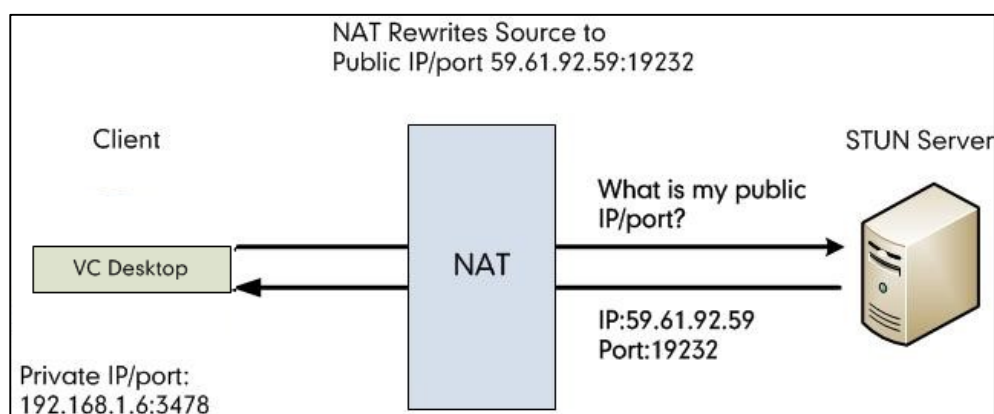
Capturing packets after you enable the STUN feature, you can find that the Yealink VC Desktop sends Binding Request to the STUN server, and then mapped IP address and port is placed in the Binding Response: Binding Success Response MAPPED-ADDRESS: 59.61.92.59:19232.

No.	Time	Source	Destination	Protocol	Length Info
444	18.587848	192.168.1.6	218.107.220.74	STUN	62 Binding Request
447	18.711349	218.107.220.74	192.168.1.6	STUN	98 Binding Success Response MAPPED-ADDRESS: 59.61.92.59:19232

STUN feature parameters apply to SIP protocol. STUN feature parameters on the Yealink VC Desktop are described below:

Parameter	Description
STUN Enabled	Enables or disables the STUN. **Default**: Disabled
STUN Server	Configures the IP address or the domain name of the STUN (Simple Traversal of UDP over NATs) server. **Default**: Blank
STUN Port	Configures the port of the STUN (Simple Traversal of UDP over NATs) server. **Default:** 3478
NAT Type	Configures the NAT traversal type. • **Disabled** • **STUN** • **Static** **Default:** Disabled **Note:** STUN works only if this parameter is set to **STUN**.

To configure STUN server via the Yealink VC Desktop:

1. Click 🔧 ->**SIP**->**Advanced Settings**.
2. Check **STUN Enabled** checkbox.

3. Enter the IP address or the domain name of the STUN server in the **STUN Server** field.
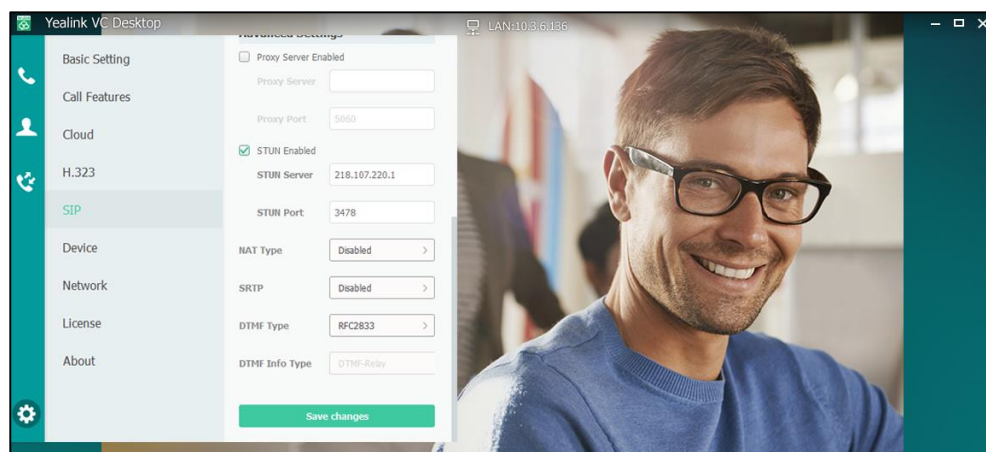
4. Enter the port of the STUN server in the **STUN Port** field.

5. Click **Save changes**.

To configure STUN for SIP account via the Yealink VC Desktop:

1. Click ⚙ ->**SIP**->**Advanced Settings**.

2. Select **STUN** from the pull-down list of **NAT Type**.
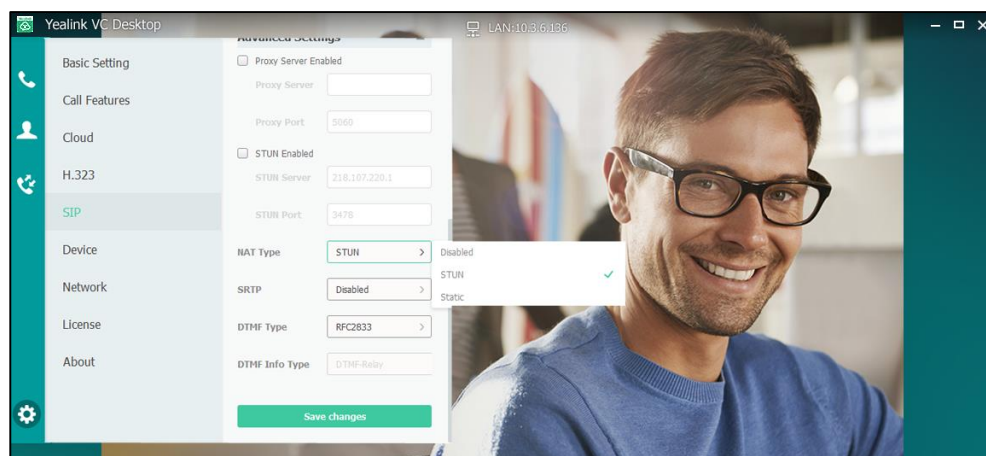
3. Click **Save changes**.

NAT Types

Full Cone:

A full cone NAT is one where all requests from the same internal IP address and port are mapped to the same external IP address and port. Furthermore, any external host can send a packet to the internal host, by sending a packet to the mapped external address.

Restricted Cone:

A restricted cone NAT is one where all requests from the same internal IP address and port are mapped to the same external IP address and port. Unlike a full cone NAT, an external host (with IP address X) can send a packet to the internal host only if the internal host had previously sent a packet to IP address X.

Port Restricted Cone:

A port restricted cone NAT is like a restricted cone NAT, but the restriction includes port numbers. Specifically, an external host can send a packet, with source IP address X and source port P, to the internal host only if the internal host had previously sent a packet to IP address X and port P.

Symmetric:

A symmetric NAT is one where all requests from the same internal IP address and port, to a specific destination IP address and port, are mapped to the same external IP address and port. If the same host sends a packet with the same source address and port, but to a different destination, a different mapping is used. Furthermore, only the external host that receives a packet can send a UDP packet back to the internal host.

ICE

ICE (Interactive Connectivity Establishment) is a technique that use STUN, TURN and other methods to solve the NAT traversal issue. Meanwhile, it is also a considerable solution to the complex problem of NAT traversal which always enables connectivity regardless of how many NATs is involved. Since ICE incorporates many of the methods proposed for NAT traversal of SIP which do not rely on the firewall or NAT device, the Yealink VC Desktop can discover other peers and then establish a connection with it.

The advantage of ICE is that the client does not need to judge the NAT types by itself. Besides, ICE uses a server to allocate unilateral address and at the same time is allowed to connect with the client directly, while STUN and TURN are totally dependent on an additional server. Hence, either of a STUN server or a TURN server fails, ICE can still continue the call process. Moreover, the main disadvantage of the traditional STUN is that it cannot work fine in all network topologies, especially for the symmetric NAT (for more information on symmetric NAT, please refer to NAT Types on page 36). And for STURN protocol, packet loss and packet delay are easy to come by since the server is overload. However, ICE provides a solution to load balancing by means of turning the transmitted service to the lowest priority service, ensuring the service reliability and flexibility.

ICE is supported, but it is configurable on Yealink VC Desktop.

TURN

TURN (Traversal Using Relay around NAT) is the relay extensions to STUN. To put it simply, the similarity between TURN and STUN is that both of them realize NAT traversal by changing the

31

private network address in application layer, and the difference between them is that TURN realizes NAT traversal by the relay.

If a host is behind NAT, it cannot realize direct point-to-point connection with other host. In this case, the intermediate nodes are required to provide connection services. TURN protocol allows the host to control the relay's action and to use the relay to exchange data with the terminal. The difference between TURN and other relays is that TURN can allow a client to be connected with multiple terminals by using one relay address.

TURN is supported, but it is configurable on Yealink VC Desktop.

Adapter

If your computer has more than one adapter, you can choose the desired IP address that Yealink VC Desktop uses.

This value is set to **Auto** by default, Yealink VC Desktop will use the adapter which the computer uses to get on the Internet.

To select the adapter via the Yealink VC Desktop:

1. Click ![gear icon] ->**Network**.

2. Select desired value or **Auto** from the pull-down list of **Adapter**.
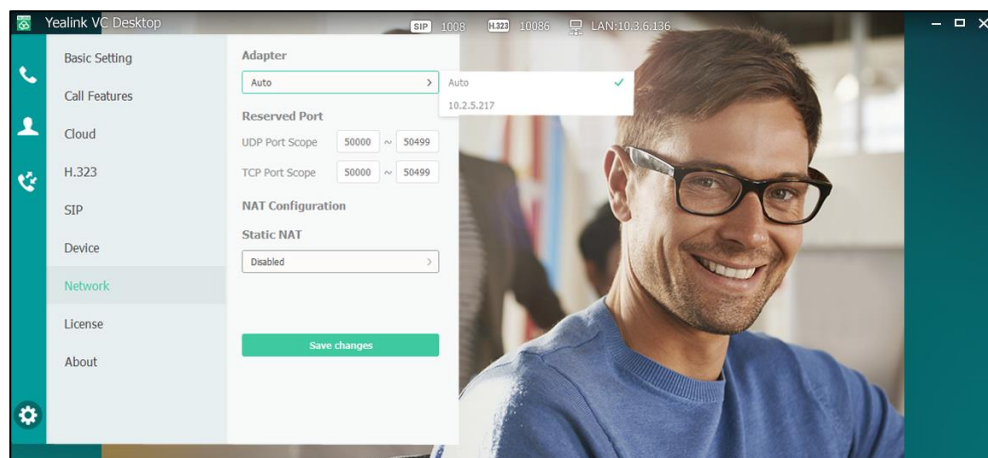
3. Click **Save changes**.

Account Settings

Yealink Cloud Accounts

When you first start Yealink VC Desktop, you can log into the Yealink VC Desktop using Yealink Cloud account in the login interface directly instead of activation. You can also log into the Yealink VC Desktop using Yealink Cloud account in the settings menu.

The Yealink Cloud account information contains pincode, Cloud number, password and the IP

address or domain name of Yealink VC Cloud Management Service, which can be obtained from your administrator. And you can only log into Yealink VC Desktop by one account. While one Yealink Cloud account can be used to log into five Cloud endpoints at most simultaneously.

The Yealink VC Desktop supports two ways to log into Yealink VC Desktop using Yealink Cloud accounts:
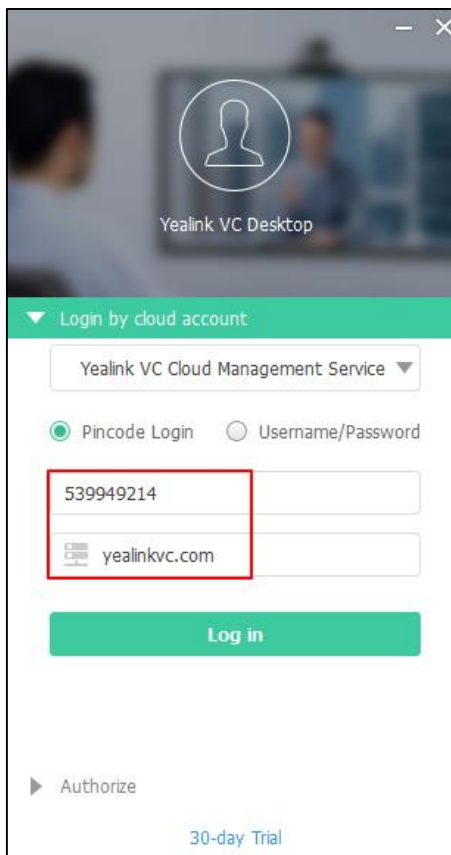
- Pincode Login

- Username/Password

Pincode Login

You can register the Yealink Cloud account using pincode in the login interface or the settings menu. Note that the pincode can only be used once.

To register the Yealink Cloud account using pincode in the login interface:
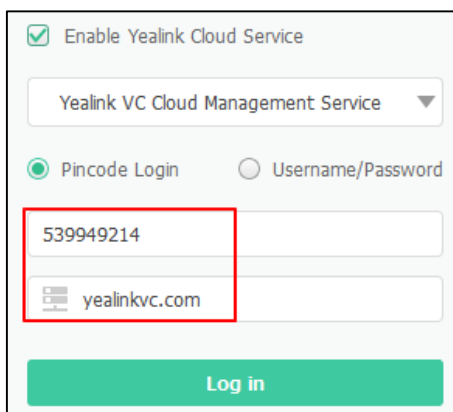
1. Click **Login by cloud account**.

2. Select **Yealink VC Cloud Management Service** from the pull-down list.

3. Mark the radio box of **Pincode Login**.

4. Enter the pincode and the IP address or domain name of Yealink VC Cloud Management Service in the corresponding field.

5. Click **Log in**.

To register the Yealink Cloud account using pincode in the settings menu:

1. Click ![gear icon] ->**Cloud**.

2. Check the **Enable Yealink Cloud Service** checkbox.

   It is checked by default.

3. Select **Yealink VC Cloud Management Service** from the pull-down list.

4. Mark the radio box of **Pincode Login**.

5. Enter the pincode and the IP address or domain name of Yealink VC Cloud Management Service in the corresponding field.

6. Click **Log in**.

Note	If you fail to register the Yealink Cloud account using pincode, you can re-enter the pincode according to the prompt or contact your administrator.
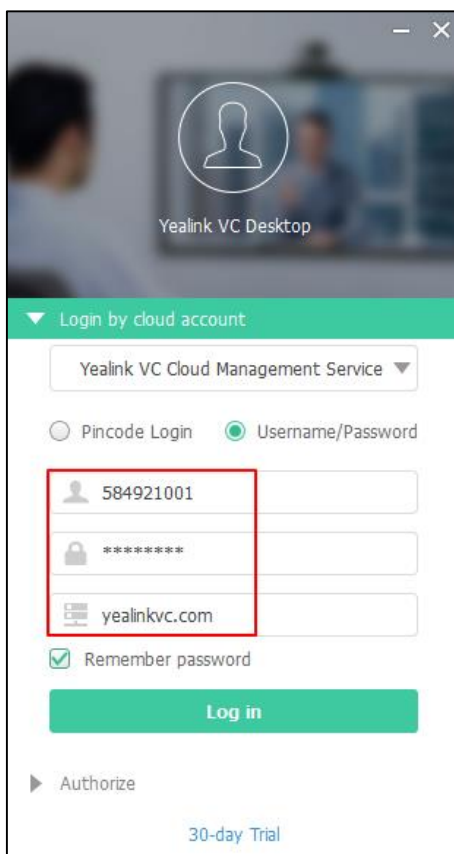
Username/Password

You can register the Yealink Cloud account using username/password in the login interface or the settings menu.

To register the Yealink Cloud account using username/password in the login interface:

1. Click **Login by cloud account.**

2. Select **Yealink VC Cloud Management Service** from the pull-down list.

3. Mark the radio box of **Username/Password**.

4. Enter the Cloud number, password and the IP address or domain name of Yealink VC Cloud Management Service in the corresponding field.

5. To remember the password, check the **Remember password** checkbox, therefore you do not need to enter the password next time.
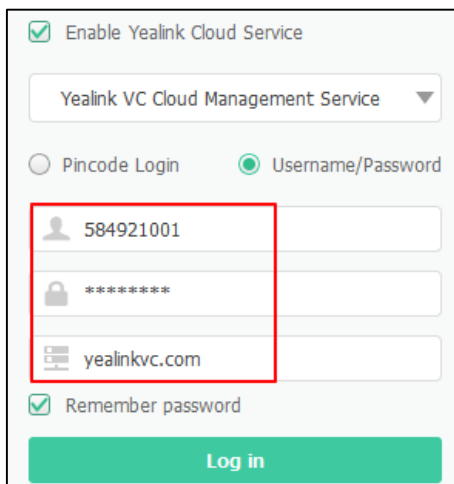
It is checked by default.

6. Click **Log in**.

To register the Yealink VC Desktop using username/password in the settings menu:

1. Click ⚙ ->**Cloud.**

2. Check **Enable Yealink Cloud Service** checkbox.

   It is checked by default.

3. Select **Yealink VC Cloud Management Service** from the pull-down list.

4. Mark the radio box of **Username/Password**.

5. Enter the Cloud number, password and the IP address or domain name of Yealink VC Cloud Management Service in the corresponding field.

6. To remember the password, check the **Remember password** checkbox, therefore you do not need to enter the password next time.

   It is checked by default.

7. Click **Log in**.

Note   If you fail to register the Yealink Cloud account using user/password, you can re-enter the Cloud number and password according to the prompt or contact your administrator.

YMS Accounts

When you first start Yealink VC Desktop, you can log into the Yealink VC Desktop using YMS account in the login interface directly instead of activation. You can also log into the Yealink VC Desktop using YMS account in the settings menu. The YMS account information contains account, password and the domain name of YMS. You can obtain the YMS account information from your administrator.

You can only log into Yealink VC Desktop by one account. A YMS account can be used to log into five Cloud endpoints at most simultaneously.

To log into the Yealink VC Desktop using YMS account in the login interface:

1. Click **Login by cloud account.**

2. Select **Yealink Meeting Server** from the pull-down list.

3. Enter the number, password and the domain name of YMS in the corresponding field.

4. To remember the password, check the **Remember password** checkbox, you do not need to enter the password next time.

5. (Optional.) Click **Advanced Settings**, enter the IP address or domain name of the proxy server.

6. Click **Log in**.

To log into the Yealink VC Desktop using YMS account in the settings interface:

1. Click ->**Cloud.**

2. Check **Enable Yealink Cloud Service** checkbox.

It is checked by default.

3. Select **Yealink Meeting Server** from the pull-down list.

4. Enter the number, password and the domain name of YMS in the corresponding field.

5. To remember the password, check the **Remember password** checkbox, you do not need to enter the password next time.

6. (Optional.) Click **Advanced Settings**, enter the IP address or domain name of the proxy server.

7. Click **Log in**.

H.323 Accounts

Yealink VC Desktop supports H.323 protocol. If a gatekeeper is used on your network, you can register an H.323 account for Yealink VC Desktop, and specify its H.323 name and extension, which allows others to call the Yealink VC Desktop via its H.323 name or extension instead of its IP address.

H.323 settings parameters on Yealink VC Desktop are described below:

Parameter	Description
H.323 Switch	Enables or disables the H.323 protocol. **Note:** Check H.323 checkbox to enable this feature. If it is set to disabled, the Yealink VC Desktop cannot place or receive calls using H.323 protocol.
User Name	Specifies the name that gatekeepers and gateways use to identify different Yealink VC Desktop. You can make point-to-point calls using H.323 names if both Yealink VC Desktop are registered to one same gatekeeper.

Parameter	Description
	Default: Blank
Extension Number	Specifies the extension that gatekeepers and gateways use to identify different Yealink VC Desktop. **Note:** Users can place point-to-point calls using the extension if both Yealink VC Desktop are registered with one same gatekeeper,
GK Server	Configures the IP address of the primary gatekeeper.
H.235 Encryption	Enables or disables the H.235 encryption. **Note:** Check H.235 checkbox, and the Yealink VC Desktop negotiates with the far site whether to use H.235 for media encryption in H.323 calls. Otherwise, the Yealink VC Desktop does not use H.235 in H.235 calls.
GK Authentication	Enables or disables gatekeeper authentication. **Default:** Disabled **Note:** When Gatekeeper Authentication is enabled, only the trusted Yealink VC Desktop is allowed to access the gatekeeper.
GK Username	Specifies the user name for authentication with gatekeeper **Default**: Blank
GK Password	Specifies the password for authentication with gatekeeper. **Default**: Blank
H.460 Switch	Enables or disables H.460 firewall traversal feature on the Yealink VC Desktop. **Default:** Disabled

To configure H.323 account via the Yealink VC Desktop:

1. Click ⚙ ->**H.323**.
2. Configure the H.323 account settings.
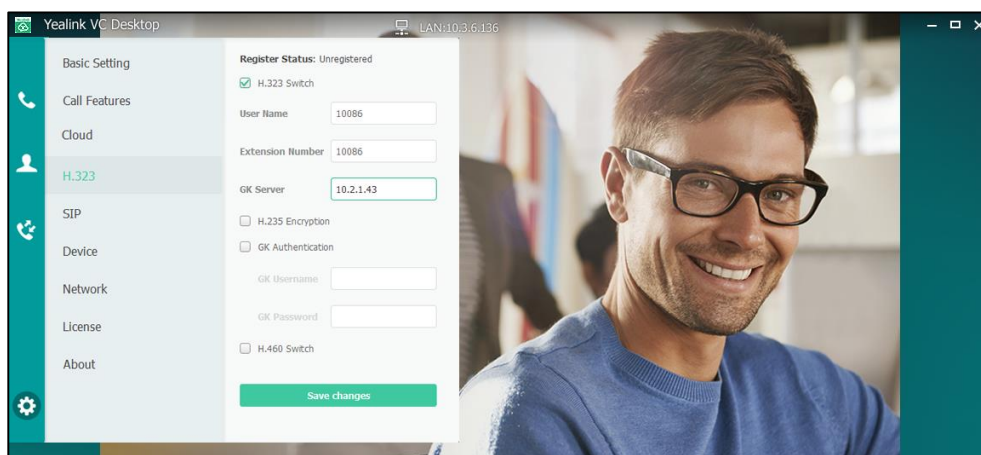
3. Click **Save changes**.

The H.323 name appears in the status bar if it is registered successfully.

Enabling H.460 Firewall Traversal for H.323 Call

Yealink VC Desktop supports firewall traversal of H.323 calls using H.460 protocols. You must have an H.460 server configured in your environment for this feature to function properly.

Note

If you configure H.323 settings and enable H.460 support, the system ignores Static NAT settings. For more information on NAT, refer to Static NAT on page 26.

The process is shown as below:
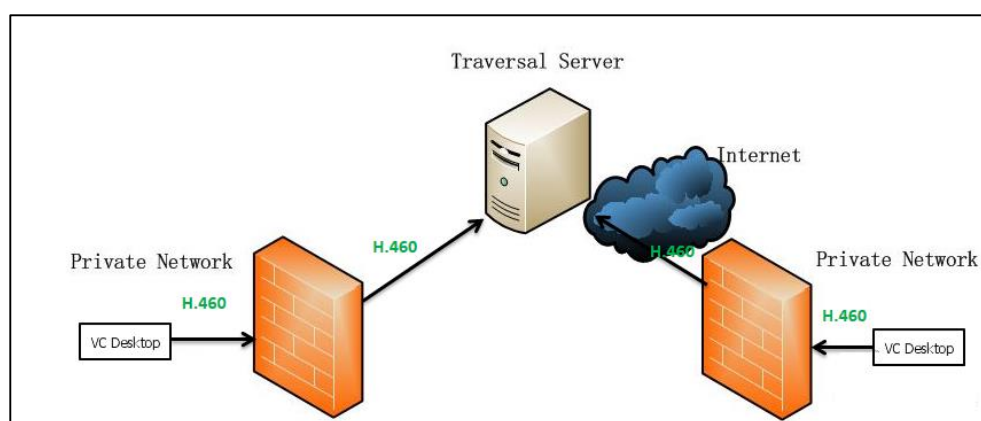
The H.460 firewall traversal parameter is described below:

Parameter	Description
H.460 Switch	Enables or disables H.460 firewall traversal feature on the Yealink VC Desktop. **Default:** Disabled

To configure H.460 firewall traversal via the Yealink VC Desktop:

1. Click ⚙ ->**H.323**.

2. Check **H.460 Switch** checkbox to enable H.460 firewall traversal feature.
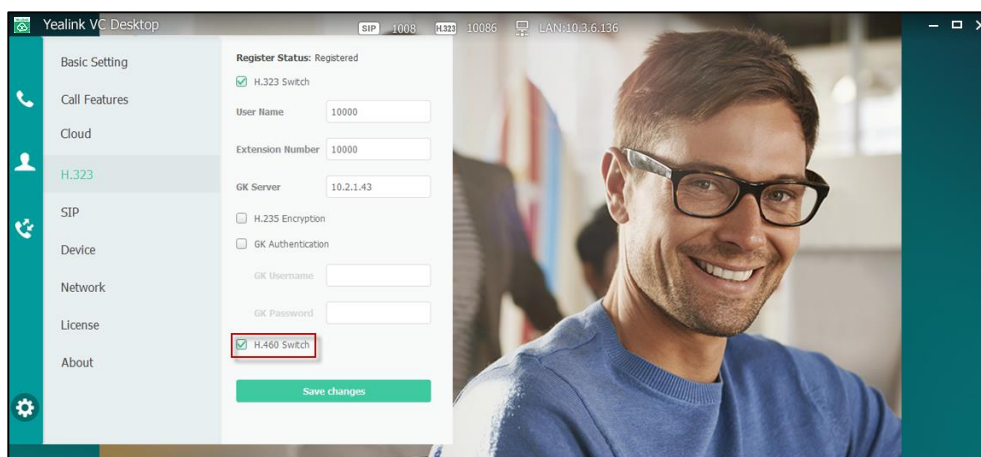
3. Click **Save changes**.

SIP Accounts

Yealink VC Desktop supports Session Initiation Protocol (SIP). You can establish and receive audio/video calls using Session Initiation Protocol (SIP) on Yealink VC Desktop if your current server supports it. And to use this feature, you should configure a SIP account for Yealink VC Desktop first.

SIP account parameters on the Yealink VC Desktop are described below:

Parameter	Description
SIP Switch	Enables or disables the SIP protocol. **Default:** Enabled **Note**: Check **SIP Switch** checkbox. Otherwise, the Yealink VC Desktop cannot place or receive calls with the SIP protocol.
User Name	Specifies the user name for authentication when registering on a SIP server. **Default**: Blank
Register Name	Configures the user name of the SIP account for authentication registration. **Default**: Blank
Password	Specifies the password associated with the user name used to authenticate the Yealink VC Desktop to the SIP server. **Default**: Blank
Server	Configures the IP address or domain name of the SIP server for the SIP account. **Default**: Blank

Parameter	Description
Port	Configures the port number for the SIP account. **Default:** 5060 **Note**: An integer between 1 and 65535.
Proxy Server Enabled	Enables or disables the proxy server. **Default:** Disabled
Proxy Server	Configures the IP address or domain name of the proxy server for the SIP account. **Default:** it is configurable only when the Proxy Server is enabled.
Proxy Port	Configures the port number for the proxy server port. **Default:** 5060 **Note**: An integer between 1 and 65535.
Transport	Configures the type of transport protocol for the SIP account. ● **UDP—**provides best-effort transport for SIP signal. ● **TCP—**provides reliable transport for SIP signal. ● **TLS—**provides encrypted transport of SIP signal. ● **DNS-NAPTR—**performs the DNS NAPTR and SRV queries for the service type and port if no server port is given. **Default:** UDP **Note**: TLS is available only when the Yealink VC Desktop is registered on a SIP server that supports TLS.

To configure SIP account via the Yealink VC Desktop:

1. Click ![gear icon] ->**SIP**.

2. Configure the SIP account settings.
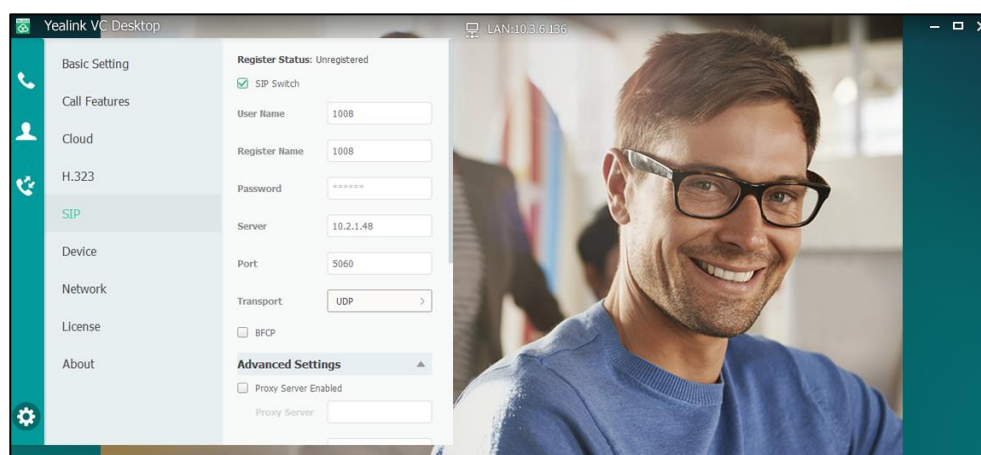
3. Click **Save changes**.

The SIP name appears in the status bar if it is registered successfully.

DTMF

DTMF (Dual Tone Multi-frequency), better known as touch-tone, is used for telecommunication signaling over analog telephone lines in the voice-frequency band. DTMF is the signal sent from the Yealink VC Desktop to the network, which is generated when clicking the keypad during a call. Each key clicked on the Yealink VC Desktop generates one sinusoidal tone of two frequencies. One is generated from a high frequency group and the other from a low frequency group.

The DTMF keypad is laid out in a 4×4 matrix, with each row representing a low frequency, and each column representing a high frequency. Clicking a digit key (such as '1') will generate a sinusoidal tone for each of two frequencies (697 and 1209 hertz (Hz)).

DTMF Keypad Frequencies:

	1209 Hz	1336 Hz	1477 Hz	1633 Hz
697 Hz	1	2	3	A
770 Hz	4	5	6	B
852 Hz	7	8	9	C
941 Hz	*	0	#	D

Methods of Transmitting DTMF Digit

Three methods of transmitting DTMF digits on SIP calls:

● **RFC2833 --** DTMF digits are transmitted by RTP Events compliant to RFC2833.

● **INBAND --** DTMF digits are transmitted in the voice band.

● **SIP INFO --** DTMF digits are transmitted by SIP INFO messages.

The method of transmitting DTMF digits is configurable on a per-line basis.

RFC2833

DTMF digits are transmitted using the RTP Event packets that are sent along with the voice path. These packets use RFC2833 format and must have a payload type that matches what the other end is listening for. The payload type for RTP Event packets is configurable. The Yealink VC Desktop defaults to 101 for the payload type, which use the definition to negotiate with the other end during call establishment.

The RTP Event packet contains 4 bytes. The 4 bytes are distributed over several fields denoted as Event, End bit, R-bit, Volume and Duration. If the End bit is set to 1, the packet contains the end of the DTMF event. You can configure the sending times of the end RTP Event packet.

INBAND

DTMF digits are transmitted within the audio of the Yealink VC Desktop conversation. It uses the same codec as your voice and is audible to conversation partners.

SIP INFO

DTMF digits are transmitted by the SIP INFO messages when the voice stream is established after a successful SIP 200 OK-ACK message sequence. The SIP INFO message is sent along the signaling path of the call. The SIP INFO message can transmit DTMF digits in three ways: DTMF, DTMF-Relay and Telephone-Event.

DTMF parameters apply to SIP protocol. DTMF parameters on the Yealink VC Desktop are described below:

Parameter	Description
DTMF Type	Configures the DTMF type. • **INBAND—**DTMF digits are transmitted in the voice band. • **RFC2833—**DTMF digits are transmitted by RTP Events compliant to RFC 2833. • **SIP INFO—**DTMF digits are transmitted by the SIP INFO messages. **Default:** RFC2833
DTMF Info Type	Configures the DTMF info type when DTMF type is set to SIP INFO. • **DTMF-Relay** • **DTMF** • **Telephone-Event** **Default:** DTMT-Relay

To configure DTMF type for SIP account via the Yealink VC Desktop:

1. Click ![icon] ->**SIP**->**Advanced Settings**.
2. Select the desired value from the pull-down list of **DTMF Type**.

If **SIP INFO** is selected, select the desired value from the pull-down list of **DTMF Info Type**.
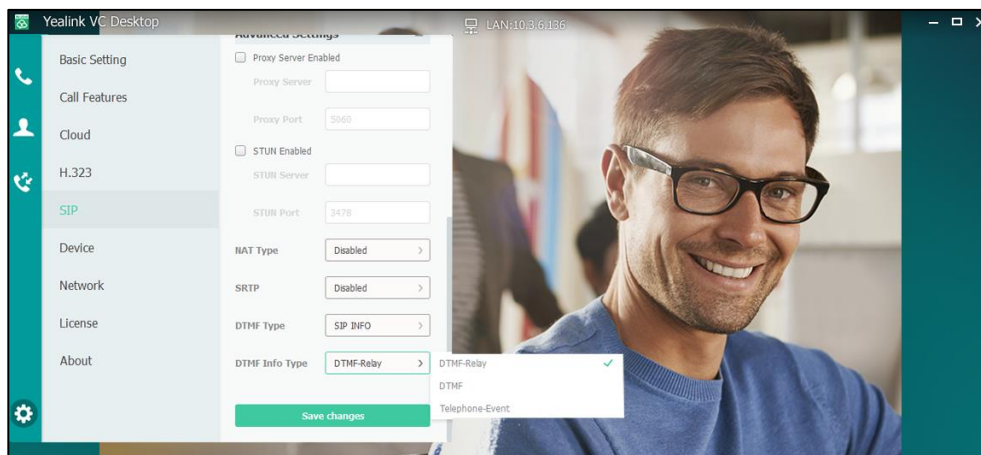
3. Click **Save changes**.

Dual-Stream Protocol

To enhance the process of communicating with others over video, the dual-stream protocol provides the ability to share content from a computer, such as video clips or documentation. Both the video and the documentation can be transmitted to the far site simultaneously, thus meeting the requirements of different conference scenarios, such as training or medical consultation.

The Yealink VC Desktop supports the standard H.239 protocol and BFCP (Binary Floor Control Protocol). H.239 protocol is used when sharing content with the far site in H.323 calls. H.239 protocol is enabled by default and is not configurable. BFCP protocol is used when sharing content with the far site in SIP calls. Before enabling BFCP protocol, ensure that the protocol is supported and enabled by the far site you wish to call.

BFCP parameters apply to SIP protocol. BFCP parameters on the Yealink VC Desktop are described below.

Parameter	Description
BFCP	Enables or disables the BFCP protocol for sharing content in SIP calls. **Default:** Disabled

To configure BFCP dual-stream protocol for SIP call via the Yealink VC Desktop:

1. Click ⚙ -> **SIP**.

2. Check **BFCP** checkbox to enable the BFCP protocol for sharing content in SIP calls.
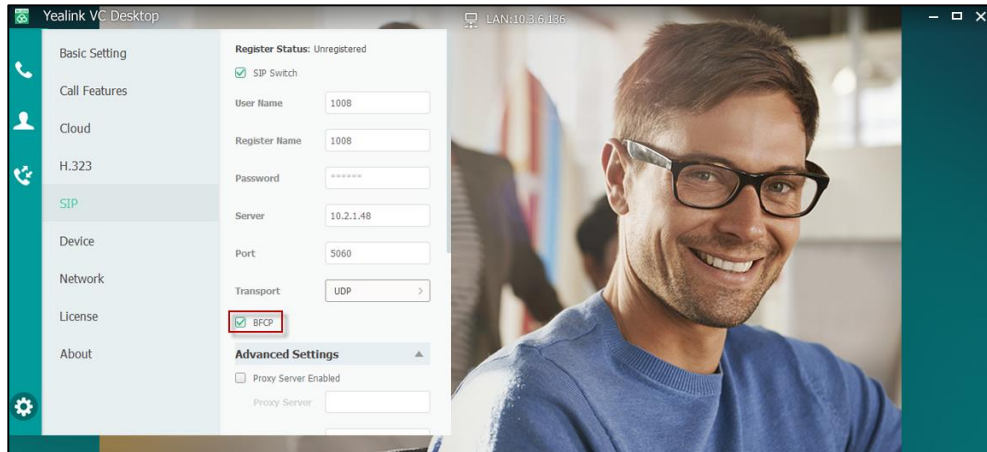
3. Click **Save changes**.

Configuring Security Features

Transport Layer Security

TLS is a commonly-used protocol for providing communications privacy and managing the security of message transmission, allowing the Yealink VC Desktop to communicate with other remote parties and connect to the HTTPS URL for provisioning in a way that is designed to prevent eavesdropping and tampering.

TLS protocol is composed of two layers: TLS Record Protocol and TLS Handshake Protocol. The TLS Record Protocol completes the actual data transmission and ensures the integrity and privacy of the data. The TLS Handshake Protocol allows the server and client to authenticate each other and negotiate an encryption algorithm and cryptographic keys before data is exchanged.

Yealink VC Desktop supports TLS 1.0. A cipher suite is a named combination of authentication, encryption, and message authentication code (MAC) algorithms used to negotiate the security settings for a network connection using the TLS/SSL network protocol. The Yealink VC Desktop supports the following cipher suites:

- DHE-RSA-AES256-SHA

- DHE-DSS-AES256-SHA

- AES256-SHA

- EDH-RSA-DES-CBC3-SHA

- EDH-DSS-DES-CBC3-SHA

- DES-CBC3-SHA

- DHE-RSA-AES128-SHA

- DHE-DSS-AES128-SHA

- AES128-SHA

- IDEA-CBC-SHA

- DHE-DSS-RC4-SHA

- RC4-SHA

- RC4-MD5

- EXP1024-DHE-DSS-DES-CBC-SHA

- EXP1024-DES-CBC-SHA

- EDH-RSA-DES-CBC-SHA

- EDH-DSS-DES-CBC-SHA

- DES-CBC-SHA

- EXP1024-DHE-DSS-RC4-SHA

- EXP1024-RC4-SHA

- EXP1024-RC4-MD5

- EXP-EDH-RSA-DES-CBC-SHA

- EXP-EDH-DSS-DES-CBC-SHA

- EXP-DES-CBC-SHA

- EXP-RC4-MD5

The following figure illustrates the TLS messages exchanged between the Yealink VC Desktop and TLS server to establish an encrypted communication channel:

Step1: The Yealink VC Desktop sends "Client Hello" message proposing SSL options.

Step2: Server responds with "Server Hello" message selecting the SSL options, sends its public key information in "Server Key Exchange" message and concludes its part of the negotiation with "Server Hello Done" message.

Step3: The Yealink VC Desktop sends key session information (encrypted by server's public key) in the "Client Key Exchange" message.

Step4: Server sends "Change Cipher Spec" message to activate the negotiated options for all future messages it will send.

The Yealink VC Desktop can encrypt SIP with TLS, which is called SIPS. When TLS is enabled for the SIP account, the message of the SIP account will be encrypted after the successful TLS

negotiation.

Secure Real-Time Transport Protocol

You can configure Secure Real-Time Transport Protocol (SRTP) to encrypt RTP streams to avoid interception and eavesdropping. Both RTP and RTCP signaling may be encrypted using an AES algorithm as described in RFC3711. Encryption modifies the data in the RTP streams so that, if the data is captured or intercepted, it cannot be understood—it sounds like noise, and only the receiver knows the key to restore the data. To use SRTP encryption for SIP calls, all participants in the call must enable SRTP simultaneously, and then Yealink YC Desktop will negotiate with the far-site device for the encryption algorithm used in the session. This negotiation process is compliant with RFC 4568.

When a site places a call on the SRTP enabled, the Yealink VC Desktop will sends an INVITE message with the RTP encryption algorithm to the destination device.

The following is an example of INVITE message carried with RTP encryption in SDP:

```
m=audio 11780 RTP/SAVP 0 8 18 9 101

a=crypto:1 AES_CM_128_HMAC_SHA1_80 inline:NzFlNTUwZDk2OGVlOTc3YzNkYTkwZWVkMTM1YWFj

a=crypto:2 AES_CM_128_HMAC_SHA1_32

inline:NzkyM2FjNzQ2ZDgxYjg0MzQwMGVmMGUxMzdmNWFm

a=crypto:3 F8_128_HMAC_SHA1_80 inline:NDliMWIzZGE1ZTAwZjA5ZGFhNjQ5YmEANTMzYzA0

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:9 G722/8000

a=fmtp:101 0-15

a=rtpmap:101 telephone-event/8000

a=ptime:20

a=sendrecv
```

The callee receives the INVITE message with the RTP encryption algorithm, and then answers the call by responding with a 200 OK message which carries the negotiated RTP encryption algorithm.

The following is an example of 200 OK message carried with RTP encryption in SDP:

```
m=audio 11780 RTP/SAVP 0 101

a=rtpmap:0 PCMU/8000

a=rtpmap:101 telephone-event/8000

a=crypto:1 AES_CM_128_HMAC_SHA1_80 inline:NGY4OGViMDYzZjQzYTNiOTNkOWRiYzRlMjM0Yzcz
```

```
a=sendrecv

a=ptime:20

a=fmtp:101 0-15
```

The SRTP parameter applies to SIP protocol on Yealink VC Desktop and is described below:

Parameter	Description
SRTP	Specifies the SRTP type. ● **Disabled—**do not use SRTP in SIP calls. ● **Enabled**−negotiate with the far site whether to use SRTP for media encryption in SIP calls. ● **Compulsory—**compulsively use SRTP for media encryption in SIP calls. **Default:** Disabled

Rules of SRTP for media encryption in SIP calls:

Far　　　　　　　Near	Compulsory	Enabled	Disabled
Compulsory	SRTP Call	SRTP Call	Fail to establish call
Enabled	SRTP Call	SRTP Call	RTP Call
Disabled	Fail to establish call	RTP Call	RTP Call

When SRTP is enabled on both devices, calls will be encrypted, and the lock icon will appear on the user interface of each site during a call.

Note	If SRTP is enabled for the SIP account, you should also configure the transport type to TLS, ensuring the security of SRTP encryption. For more information on TLS, refer to Secure Real-Time Transport Protocol on page 48.

To configure SRTP for SIP protocol via the Yealink VC Desktop:

1.　　Click ->**SIP**->**Advanced Settings**.

2. Select the desired value from the pull-down list of **SRTP**.
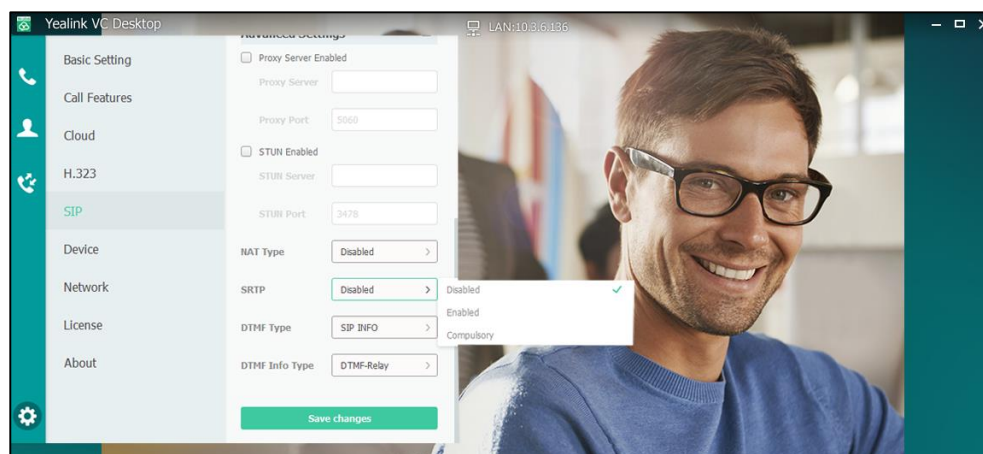
3. Click **Save changes**.

H.235

Yealink VC Desktop supports H.235 128-bit AES algorithm using the Diffie-Hellman key exchange protocol in H.323 calls. To use H.235 feature for H.323 calls, the participants in the call must enable the H.235 feature simultaneously. After that, if a site places a call on Yealink VC Desktop, the Yealink VC Desktop negotiates the encryption algorithm with the destination devices.

The H.235 parameter on the Yealink VC Desktop is described below:

| Parameter	Description
H.235 Encryption	Enables or disables the H.235 encryption. **Note:** Check **H.235 Encryption** checkbox, the Yealink VC Desktop negotiates with the far site whether to use H.235 for media encryption in H.323 calls. Otherwise, the Yealink VC Desktop does not use H.235 in H.235 calls.

Rules of H.235 security in H.323 calls:

Far \ Local	Enabled	Disabled
Enabled	H.235 Call	RTP Call
Disabled	RTP Call	RTP Call

When H.235 is enabled on both sites, calls will be encrypted, and the lock icon 🔓 will appear on the user interface of each site during a call.

To configure H.235 for H.323 account via the Yealink VC Desktop:

1. Click ⚙ ->**H.323**.

2.   Check **H.235 Encryption** checkbox.
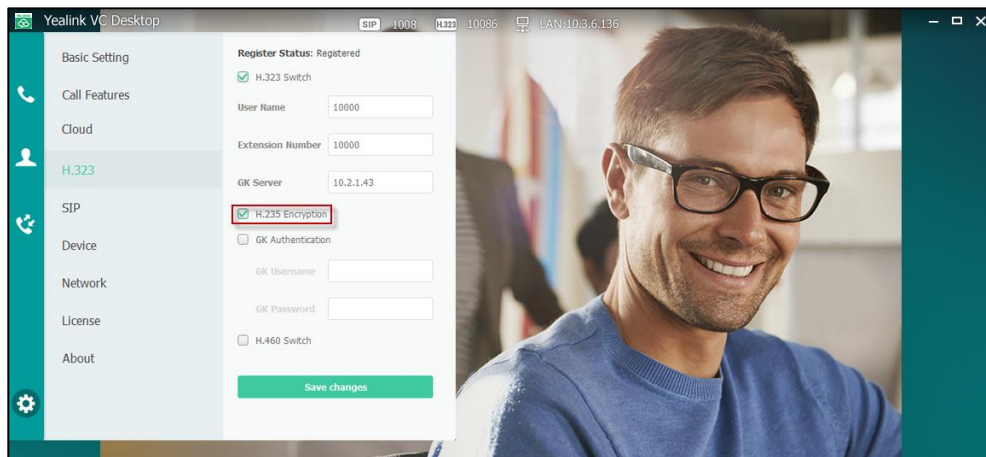
3.   Click **Save changes**.

Customizing Yealink VC Desktop

You can customize your Yealink VC Desktop by personally configuring certain settings, for example, site name, languages. You can add contacts to the local directory manually or from the call history.

This chapter provides basic operating instructions for customizing your VC Desktop. Topics include:

- Basic Settings

- Directory

- Call History Management
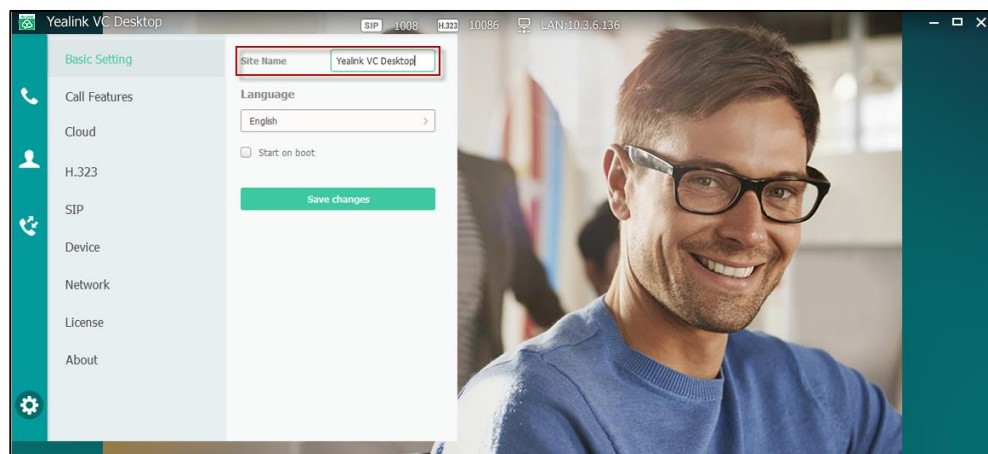
- Call Protocol

- Call Bandwidth

Basic Settings

Site Name

Site name, consisting of letters, numbers or special characters, is displayed on the status bar of the Yealink VC Desktop. You can modify the site name via the Yealink VC Desktop.

To modify site name via the Yealink VC Desktop:

1. Click ⚙️ ->**Basic Setting**.
2. Edit the site name in the **Site Name** field.

3. Click **Save changes**.

Language

The languages supported in Yealink VC Desktop are English, Chinese Simplified, Chinese Traditional, French, German, Italian, Polish, Portuguese, Spanish, Turkish, Russian and Czech.

To specify the language for the Yealink VC Desktop:

1. Click ⚙ ->**Basic Setting**.

2. Select the desired language from the pull-down list of **Language**.
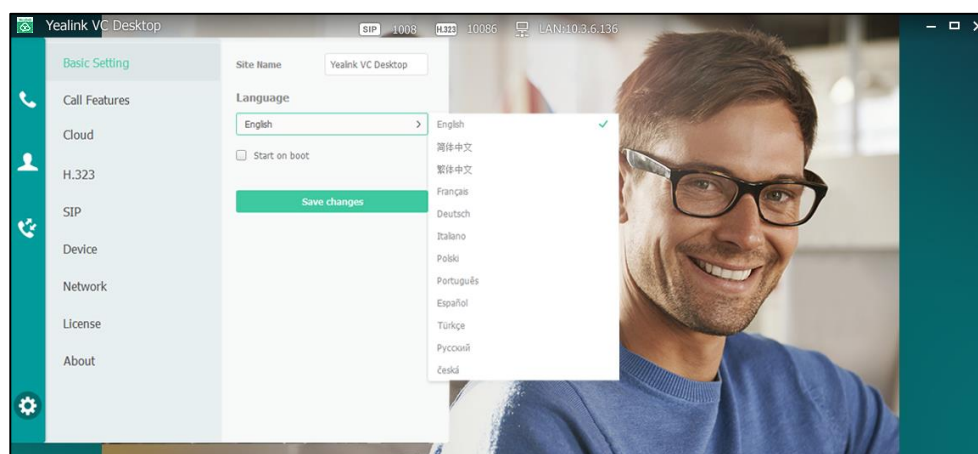
3. Click **Save changes**.

Volume Settings

The ringer volume is adjustable when Yealink VC Desktop is idle. Besides, during a call, you can adjust the volume of audio output devices for Yealink VC Desktop. For more information, please refer to Adjusting Your Speaker Volume on page v. And the volume of speaker and microphone is also adjustable by your computer itself.

For best result, set the volume level of your computer to one-half the maximum volume before adjusting the volume.

To adjust the ringer volume:

You can adjust the ringer volume of the Yealink VC Desktop by adjusting the speaker volume of your computer.

Directory

Local contacts and Yealink Cloud contacts/YMS contacts are displayed in the directory window.

- **Local contacts**: You can add local contact information to the Yealink VC Desktop. Besides, you can add up to 100 local contacts and manage them on the Yealink VC Desktop.

- **Yealink Cloud contacts**: If you log into the Yealink VC Desktop using Yealink Cloud account, Yealink Cloud directory, which is created by your administrator, appears in the

directory window. Note that only the administrator has the permission to add, edit and delete Yealink Cloud contacts on the Yealink VC Cloud management service, while others can only place calls to or search for the Yealink Cloud contacts. For more information on the Yealink VC Cloud management service, please refer to *Yealink VC Cloud Management Service Administrator Guide*.

- **YMS contacts**: If you log into the Yealink VC Desktop using the YMS account, enterprise directory, which is created by your administrator, appears in the directory window. Note that only the administrator has the permission to add, edit and delete contacts and permanent VMR on Yealink Meeting Server (YMS). The administrator can also determine whether synchronize the permanent VMR to the Yealink VC Desktop. while others can only place calls to or search for the YMS contacts and permanent VMR. For more information on Yealink Meeting Server, please refer to *Yealink Meeting Server Administrator Guide*.

This chapter provides operating instructions for directory. Topics include:

- Adding Contacts to Local Directory

- Placing Calls to Contacts

- Editing Contacts in Local Directory

- Deleting Contacts in Local Directory

- Searching for Contacts

Adding Contacts to Local Directory

When you add a contact to your local directory, only a contact name and number are required to enter for each new contact.

To add a local contact via the Yealink VC Desktop:

1. Click ![person icon] ->**Local**-> ![+ box] .
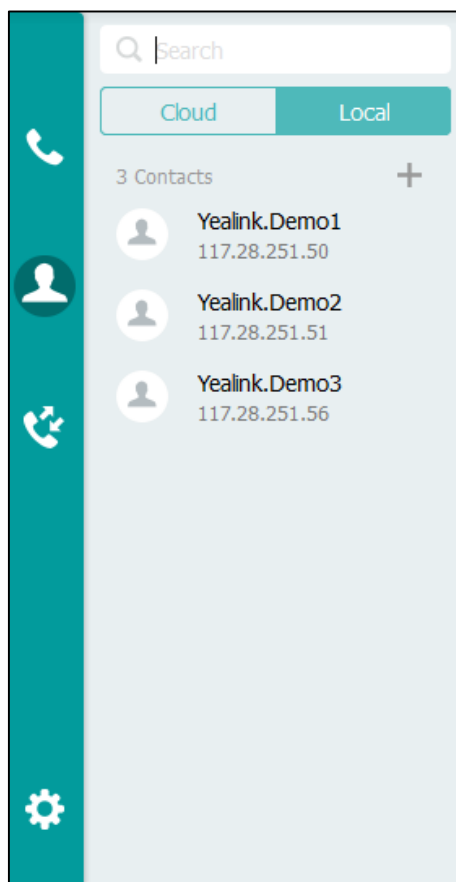
(Logging into the Yealink VC Desktop using Yealink Cloud accounts)

2. Enter the display name in the **Name** field.

3. Enter numbers or IP addresses in the **Number 1** field.

4. Click **Add Number** to add more numbers. Up to 3 numbers can be added to a contact.

5. Enter the second number of the contact in the **Number 2** field.

6. Repeat the step 4 to add the third number to the contact in the **Number 3** field.

7. Click **Save**.

Note	If the contact's name already exists in the directory, the user interface will prompt "Contact already exists!".

Placing Calls to Contacts

You can place a call to local contacts from the local directory. If you log into Yealink VC Desktop using Yealink Cloud accounts or YMS accounts, you can place calls to Yealink Cloud contacts or YMS contacts.

To place a call to the contact via the Yealink VC Desktop:

1. Click .

2. Select **Cloud/Enterprise** or **Local**.

3. Hover your mouse over a contact, select the number you want to dial.

If the contact's system does not support video, an audio call starts.

Editing Contacts in Local Directory

You can edit the contact's information after you create it.

To edit contacts via the Yealink VC Desktop:

1. Click ->**Local**.

2. Hover your mouse over a contact. The contact details are displayed.

3. Click to edit a contact.

4.   Edit the contact's name and number.

5.   Click **Save**.

Deleting Contacts in Local Directory

You can delete contacts from the local directory.

To delete contacts via the Yealink VC Desktop:

1.   Click ->**Local**.

2.   Hover your mouse over the local contact you want to delete. The contact details are displayed.

3.   Click to delete the local contact.

A dialog box pops up to ask if you confirm to delete the contact, shown as below:

4.   Click **Yes** to delete the contact.

You can also click **No** to cancel the operation.

Searching for Contacts

You can enter a part of a key word to do the search to quickly find someone in your local directory, Yealink Cloud directory and enterprise directory.

To search for contacts via the Yealink VC Desktop:

1.   Click .

2.   Enter a few or all characters of the contact name or numbers in the Search box.

As soon as you start entering in the search box, a search is performed in local directory and Yealink Cloud directory/enterprise directory.
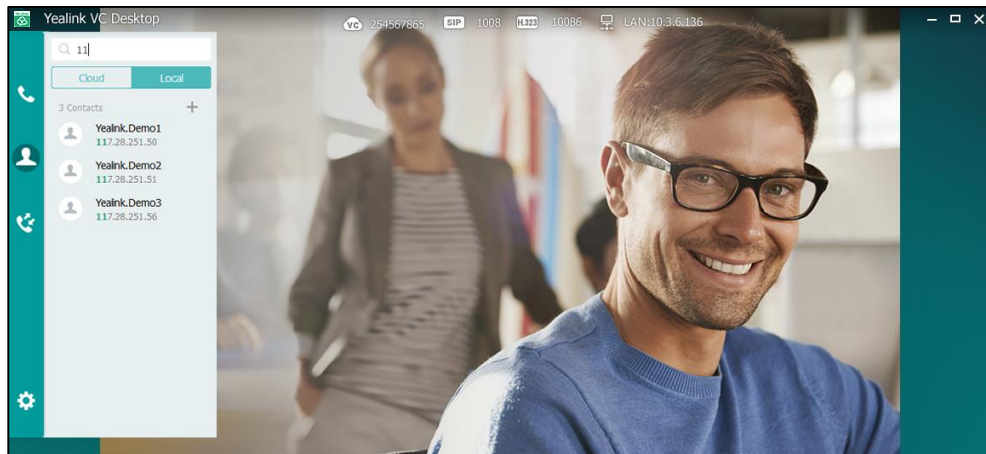
(Logging into the Yealink VC Desktop using Yealink Cloud accounts)

Call History Management

Call history includes incoming, outgoing and missed calls. The Yealink VC Desktop supports up to 100 history entries, including local entries and Cloud history entries.

Viewing Call History

To view call history via the Yealink VC Desktop:

1. Click .

2. Hover your mouse over the entry. The entry details are displayed as below:
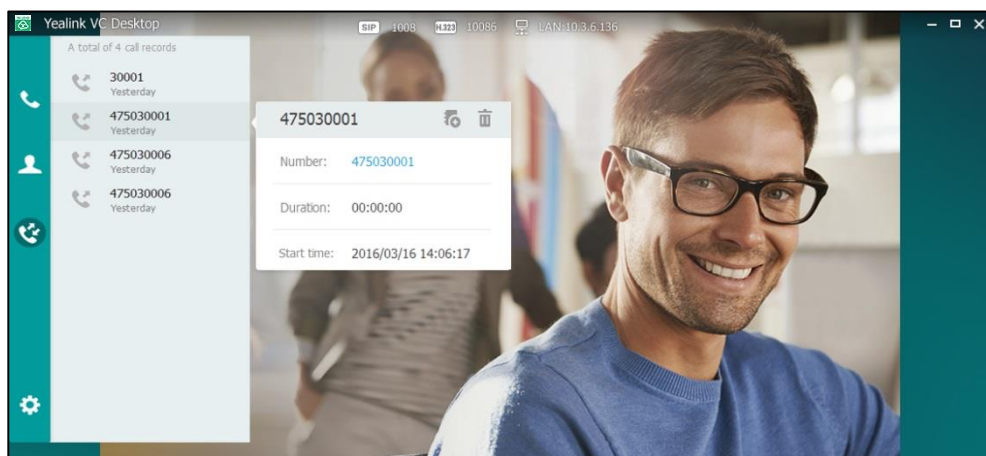
Each entry in history list reports the following information:

- Remote party of the call. The display name appears, if available.

- Number.

- Call duration.

- The start time of the call.

Placing Calls from the Call History List

You can place a call by selecting an entry from your history list. If the far site supports video calls, a video call will start automatically. Otherwise, an audio call starts.

To place a call from the call history list:

1. Click [icon] .

2. Hover your mouse over the entry, select the number you want to dial.

   If the contact's system does not support video, an audio call starts.

Deleting Entries from the Call History List

You can delete entries from the history list.
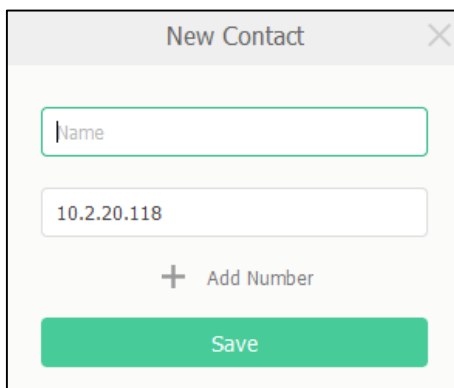
To delete an entry from the call history list:

1. Click [icon] .

2. Hover your mouse over the entry. The entry details are displayed.

3. Click [icon] to delete the entry.

Adding Contacts to Local Directory from the Call History List

To add a contact from the call history list:

1. Click [icon] .

2. Hover the mouse over the entry you want to add. The entry details are displayed.

3. Click [icon] .

4. Enter contact name in the **Name** field.

You can add more than one number for the contact. For more information, refer to Adding Contacts on page 55.
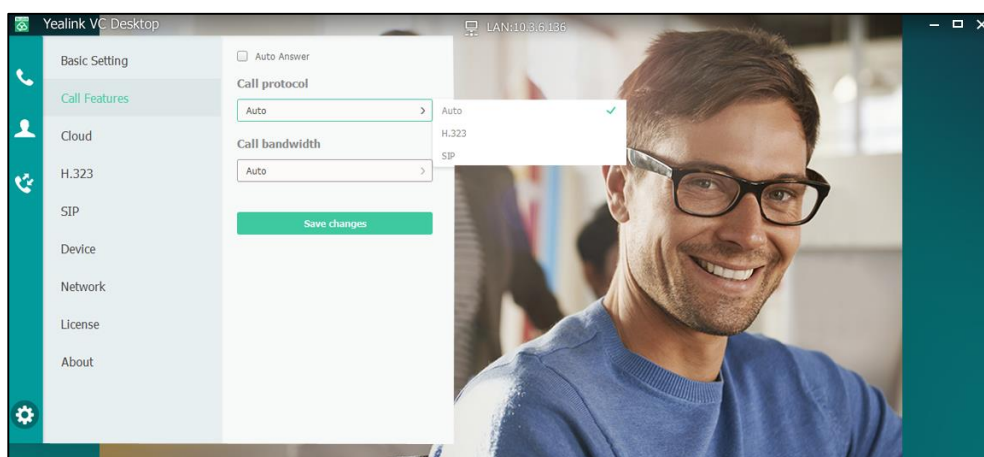
5. Click **Save**.

Call Protocol

The Yealink VC Desktop supports SIP and H.323 call protocols. You can configure which type is to be used when the Yealink VC Desktop is making calls. When the **Auto** call protocol is chosen, the Yealink VC Desktop preferentially uses the H.323 protocol to place calls. But if there is no available H.323 account on the Yealink VC Desktop, the Yealink VC Desktop will switch to use the SIP protocol.

To configure call protocol via the Yealink VC Desktop:

1. Click ⚙ ->**Call Features**.

2. Select desired type or **Auto** from the pull-down list of **Call protocol**.
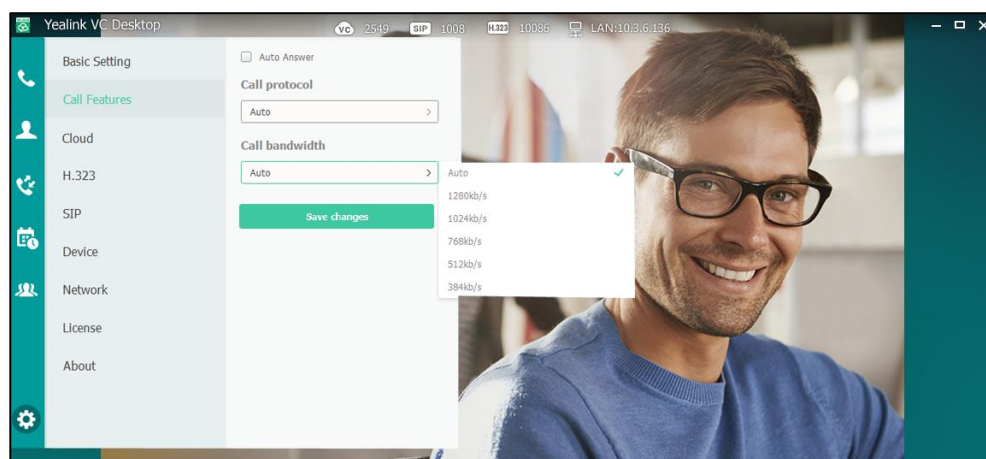

3. Click **Save changes**.

Call Bandwidth

By default, the Yealink VC Desktop automatically detects the available bandwidth and uses it to connect other devices. To achieve the best result, you can specify the call bandwidths for the Yealink VC Desktop.

Available bandwidths for the Yealink VC Desktop are: Auto (512 kb/s), 1280 kb/s, 1024 kb/s, 768 kb/s, 512 kb/s, 384 kb/s.

To configure the call bandwidth via the Yealink VC Desktop:

1.   Click 🔧 ->**Call Features**.

2.   Select the desired bandwidth from the pull-down list of **Call bandwidth**.

     If **Auto** is selected, the Yealink VC Desktop will negotiate the appropriate bandwidth automatically.

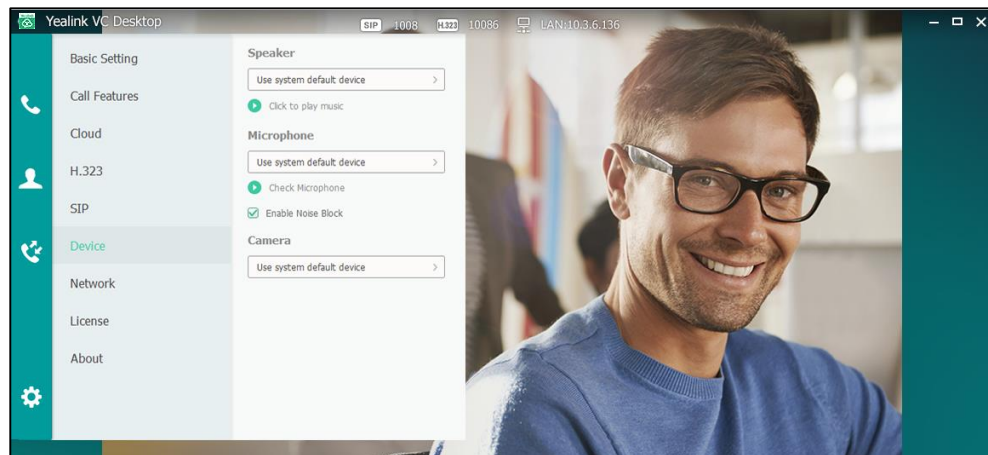3.   Click **Save changes**.

Noise Block

The impact noises in the room are picked-up, including paper rustling, coffee mugs, coughing, typing and silverware striking plates. These noises, when transmitted to remote participants, can be very distracting.

You can enable the noise block to suppress these noises.

To enable the noise block via the Yealink VC Desktop:

1.   Click 🔧 ->**Device**.

2.   Check the **Enable Noise Block** checkbox.

It is checked by default.

3. Click **Save changes**.

Using Yealink VC Desktop

You can use the Yealink VC Desktop to place calls, answer calls or reject calls and use the in-call toolbar to change audio and video devices or change the video layout. When you log into the Yealink VC Desktop using YMS accounts, you can also use **Conference Schedule** and **Meet Now** features.

This chapter provides basic operating instructions for the Yealink VC Desktop. Topics include:

- Placing Calls

- Answering or Rejecting Calls

- Auto Answer

- Ending Calls

- Using the In-call Toolbar

- Call Statistics

- Initiating Presentations

- Conference Schedules (YMS Account)

- Meet Now (YMS Account)

- Permanent Virtual Meeting Room (YMS Account)

- Conference Management (YMS Account)

Placing Calls

The Yealink VC Desktop supports two kinds of call types:

- Audio call

- Video call

To get a better sound quality, it is recommended that you should connect a headset as the audio device.

If the far site does not support video, an adaptive audio call starts. You can search and dial a contact from the call history and directory. For more information, refer to Directory on page 54 and Call History Management on page 59.

If the Yealink VC Desktop fails to establish the call, you can troubleshoot the problems according to the following prompts:

Prompts	Description
Call Failed Busy Here	- Remote endpoint rejects your SIP call. - Remote endpoint does not answer

Prompts	Description
	your SIP call. ● Remote endpoint has reached its maximum sessions when you place a SIP call.
Call Failed Remote Endpoint Refused Call	● Remote endpoint rejects your H.323 call ● Remote endpoint does not answer your H.323 call. ● Remote endpoint has reached its maximum sessions when you place an H.323 call.
Call Failed Network Broken	Local network is disconnected.
Call Failed Time Out	● Remote endpoint network anomaly ● Remote endpoint is powered off.

To place a call via dialing:

1. Click .

2. Enter the calling information in the input box. You can use any of the following number formats:

- 1008 (SIP user name, H.323 user name, Yealink Cloud account and YMS account)

- www.yealink.com (FQDN name)

- 1027@10.2.1.48 (<SIP_username>@<domain.com>)

- 1234@10.2.1.171 (conference ID@IP address)

- 10.2.1.171##1071 (IP address##conference ID)

- 10.11.12.13(IP address)

- 1234@10.11.12.13(<SIP user name>@<IP address>)
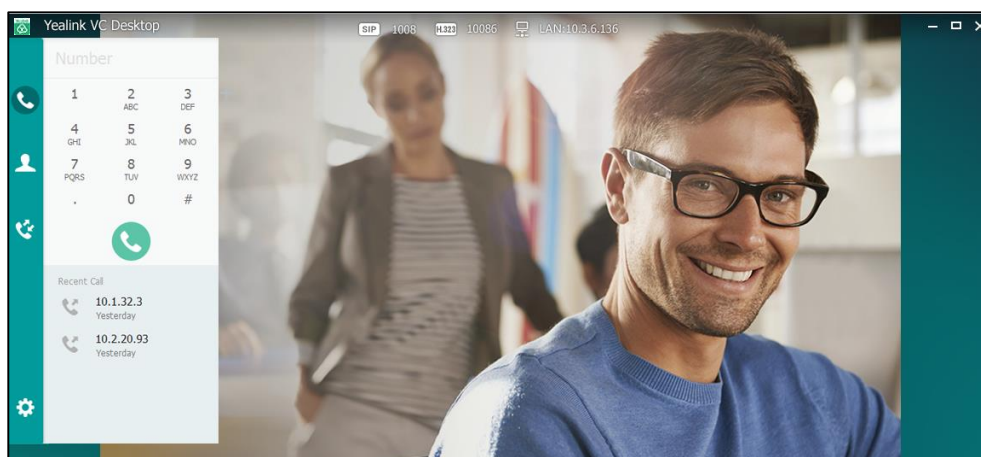
You can also enter the few continuous characters of the contact name, phone number to perform search. Then, a search is performing in the directory and history lists.

If you log into the Yealink VC Desktop using the Yealink Cloud account or YMS account and register SIP/H.323 account, the pull-down list of **Auto** appears. You can select the contact in desired directory to place a call in the pull-down list of **Auto**.

If you set the type of contact to **Auto**, the system priority of selection is as follows: Yealink VC Cloud Management/Yealink Meeting Server>H.323>SIP. For example, if a contact is saved in both Yealink Cloud directory/enterprise directory and local directory, Yealink VC Desktop will dial the number from Yealink Cloud directory/enterprise directory preferentially.
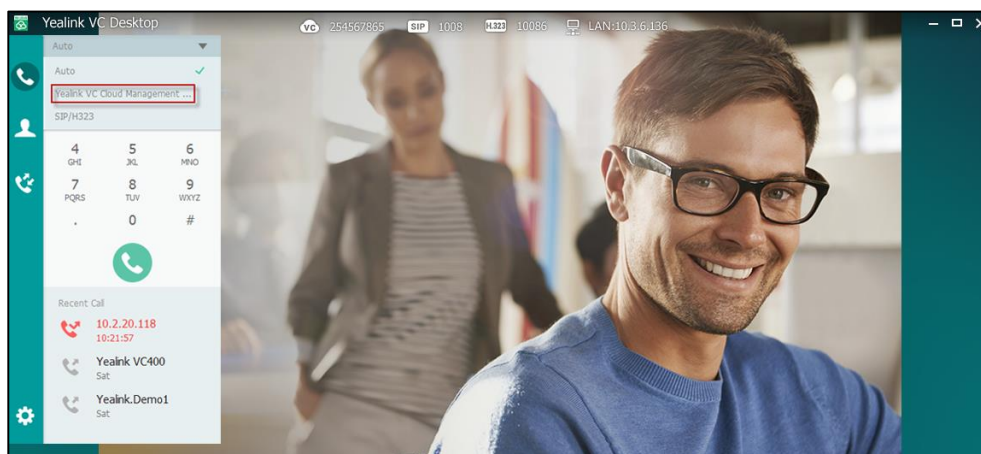
(Logging into the Yealink VC Desktop using Yealink Cloud accounts)

3. Click 📞 .

Note	If a Yealink Cloud contact is in a same enterprise directory as you, you can only enter an extension number (the last four Cloud number) to place a call. Otherwise, a full 9-digit Cloud number is required to place a call to.

Answering or Rejecting Calls

If there is an incoming call, a call notification will pop up to tell you who is calling you, and you can choose to answer or reject it.

To answer a call:

1.   Click 📞 to answer the call.

To reject a call:

1.   Click 📞 to reject the call.

The Yealink VC Desktop comes back to the main window.

Note   If you receive a call from the one who is both your Cloud contact and your local contact, the name priority of the call notification is as follows: Local contacts >Yealink Cloud contacts>YMS contacts.

Auto Answer

You can enable the auto answer feature for the Yealink VC Desktop to answer the incoming call automatically.

To configure auto answer via the Yealink VC Desktop:

1.   Click ⚙ ->**Call Features**.

2.   Check **Auto Answer** checkbox to enable the auto answer feature.
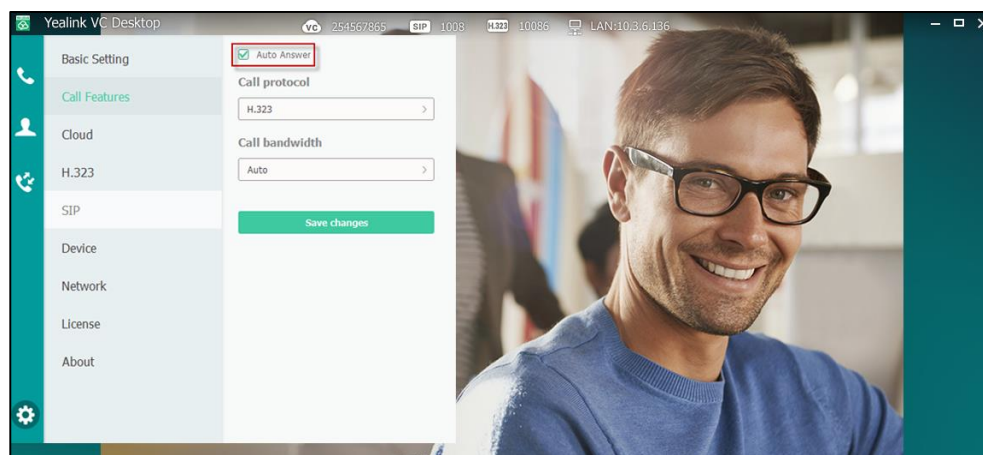
3.   Click **Save changes**.

Ending Calls

Either participant can end a call. When the call ends, the call window will close automatically.

To end a call:

1.   Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2.   Click to hang up.

Using the In-call Toolbar

During a call, you will see the in-call toolbar on the bottom of the call window. The in-call toolbar is temporarily showed when you establish a call. To display the in-call toolbar again, move your mouse.

To show in-call toolbar during a call:

1.   Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

Muting Your Microphone

You can mute your microphone when you don't want to speak in a call.

To mute the microphone when the Yealink VC Desktop is during a call:

1.   Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2.   Click .

When your microphone is muted during a call, the icon 🎤 will changes to the icon 🎤 on the in-call toolbar, and the icon 🎤 will appear on the bottom-right of the video image. As a result, you can hear the far-site voice, while the far site cannot hear you.

Unmuting Your Microphone

You can unmute your microphone after you mute it.

To unmute the microphone when the Yealink VC Desktop is during a call:

1.   Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2.   Click 🎤 .

The icon 🎤 disappears on the bottom-right of the video image. The far site can hear the near-site voice.
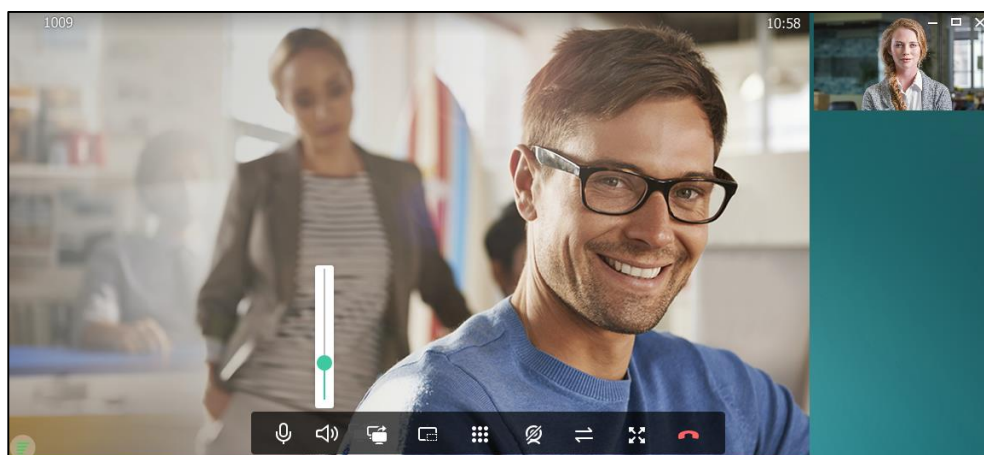
Adjusting Your Speaker Volume

You can adjust your speaker volume or mute it.

To adjust the speaker volume when the Yealink VC Desktop is during a call:
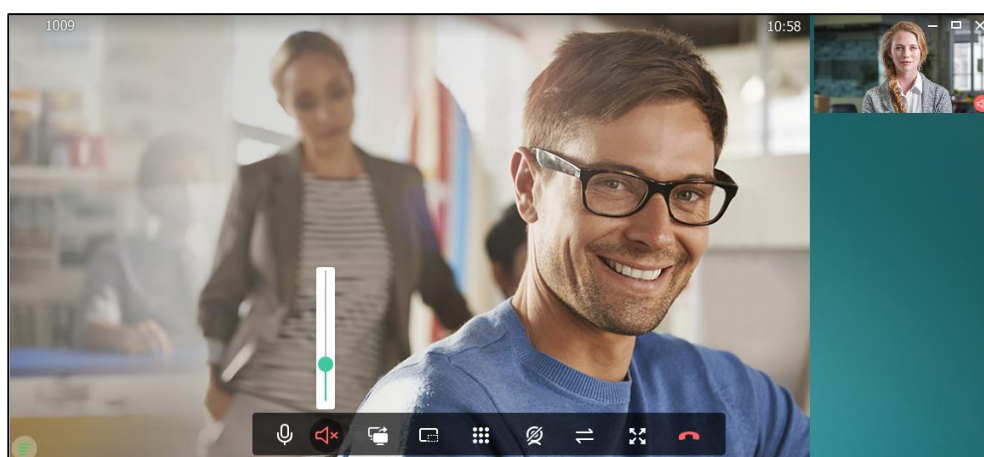
1.   Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2.   Hover your mouse over 🔊 .

Use the volume slider to adjust the volume. If the volume is minimum, the icon will change to ◁ .

3. To mute the speaker, click 🔊 .

When your speaker is muted during a call, the icon 🔊 will change to the icon 🔇 on the in-call toolbar, and the icon 🔇 will appear on the bottom-right of the local video image. As a result, you cannot hear the far-site voice, while the far site can hear you.

Changing Audio and Video Devices

To change devices during a call:

1. Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2. Click ⇄ to change audio and video devices.

    You can select speakers, microphones and cameras. For more information on how to change devices, refer to Audio and Video Device on page 22.

<table>
<tr><td>Note</td><td>During a call, if you connect new devices, the Yealink VC Desktop will switch to the latest device (speakers, microphones and cameras).</td></tr>
</table>

Turning off Your Video

You can stop your Yealink VC Desktop from automatically transmitting video image in the small window during a video call. However, you cannot turn off video image in the large window.

To turn off video image in the small window during a call:

1. Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2. Click ⊘ to turn off video image in the small window.

    ⊘ will replace the video image in the small window.

Turning on Your Video

You can turn on your video to resume showing video image in the small window.

**To turn on video image in the small window during a call:**

1. Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2. Click ⊘ to turn on video in the small window.

Sending DTMF Tones

During a call, the Yealink VC Desktop allows you to use the local dial pad to send DTMF tones. The DTMF tones are sent using the configured method. For more information, please refer to DTMF on page 43.

To send DTMF tones during a call:

1. Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2. Hover your mouse over ⊞ to open the dial pad.

3. Click the buttons to send the DTMF tones.
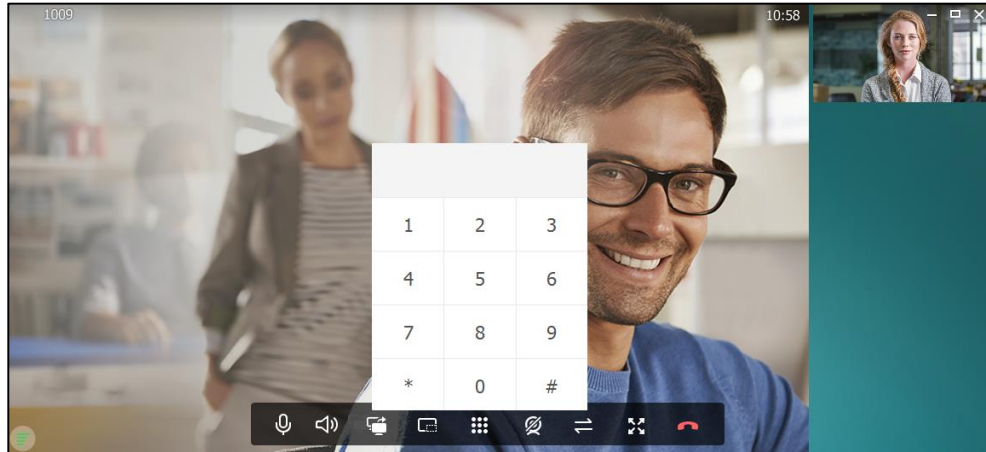
Changing the Video Layout

During a video call, the far-site video image displays in a large window, the local site displays in a small window in the top-right corner of the window by default.

Swapping the Video Images

To swap the video image:

1. Double-click the video image in small window to swap the windows that the two site display in.

   The local video image appears in a large window. While the far-site video image appears in a small window in the top-right corner of the window.

Showing or Hiding the Video Image in Small Window

To show or hide the video image in the small window:

1. Hover your mouse over the bottom of the video image in a large window to show the in-call toolbar.

2. Click [icon] to hide or display the video image in small window.
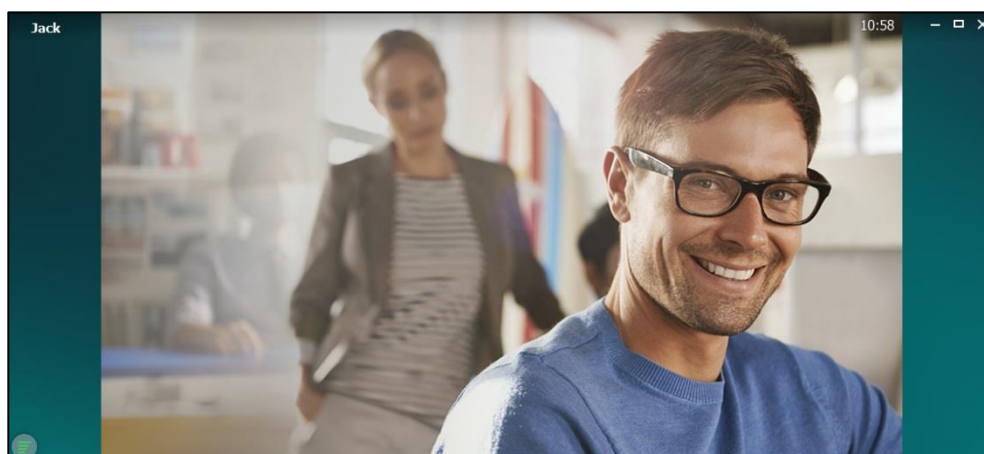
Maximizing Application Window

During a video call, you can maximize or restore the Yealink VC Desktop application window.

To maximize Yealink VC Desktop application window during a call:

Do one of the following to maximize application window:

- Hover your mouse over the bottom of the far-site video image to show the in-call toolbar. And then click [icon] on the in-call toolbar.

- Click [icon] on the top-right of the call window.

- Double-click the video image in a large window.

The video image is displayed in full screen.

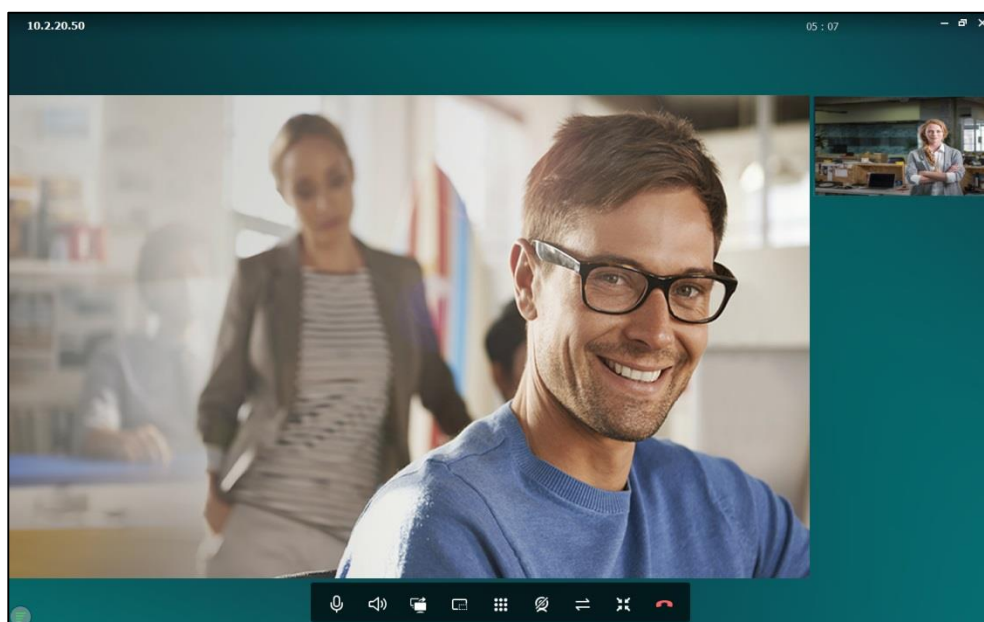## Restoring Application Window

During a video call, you can maximize or restore the Yealink VC Desktop application window.

To restore Yealink VC Desktop application window during a call:

Do one of the following to restore application window:

– Click ⬚ on the in-call toolbar.

– Click ⬚ on the top-right of the call window.

– Double-click the video image in a large window.

Call Statistics

If voice quality is poor during a call, you can enter the Call Statistics screen to view the current status of the call to find out the reason.

The call statistics mainly contain the parameters about audio, video and share. You can know about the call quality by viewing codec, bandwidth, total packet lost and other parameters. For example, when a delay occurs or the video has a 'mosaic' look, you can view the total packet loss to check whether the packet has been lost.

To view call statistics during a call:

1. On the lower-left of your screen, hover the mouse over ☰ .

    The ☰ icon changes according to your network signal strength.

2. (Optional) Click ● to turn to the next page.

Initiating Presentations

When you initiate presentations, the far site can see the contents (including slides, spreadsheets, or any other types of files) you selected on your Windows desktop at the same time, including the cursor. But the far site cannot control the cursor or edit the file. Note that only one

presentation can be initiated at a time and a presentation initiated later will replace the previous one.

Before you initiate presentations, make sure that your content is ready and dual-stream protocol is enabled on both devices. For more information, please refer to Dual-Stream Protocol on page 45.

If you want to initiate presentations using multiple monitors, make sure that your computer supports multiple monitors and you have configured it properly. For more information, please refer to network resources.

To initiate presentation during a call:

1. Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2. Hover your mouse over ⬛.

3. Do one of the following:

   – To share your windows desktop, select ⬛ (DISPLAY) in the Screen Share menu.

     When your computer uses multiple monitors, you can also select any one of the monitors icon ⬛ to share the windows desktop.

     The far-site video image will be in a small window and appear in the bottom-right of the window.
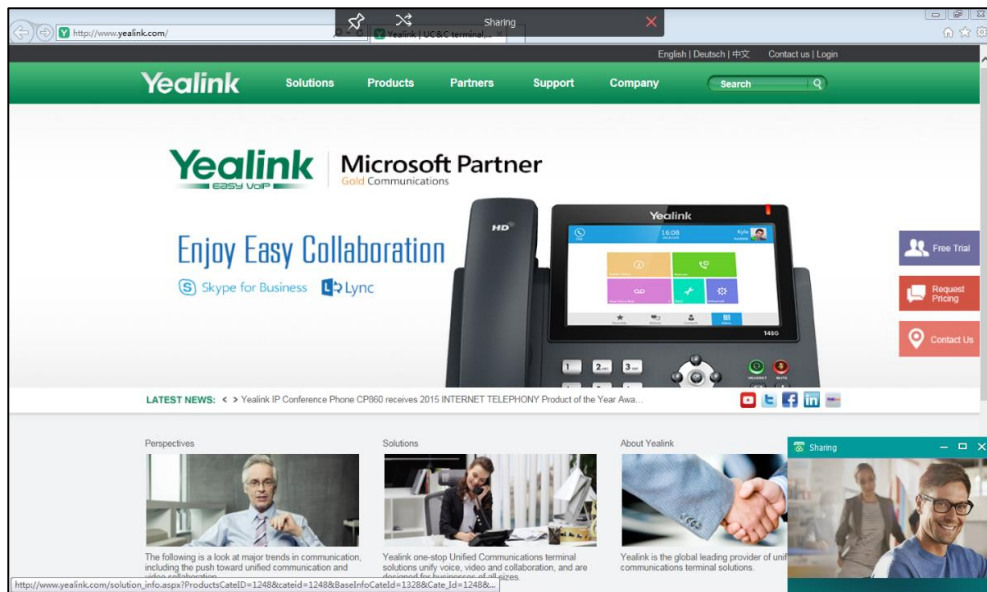
   – To share a running application, select a running application in the Screen Share menu.

You can share a running application. The far-site video image will be in a small window and appear in the bottom-right of the window.

If you close the far-site video image during the presentation, you can click ![icon] in the taskbar to restore.
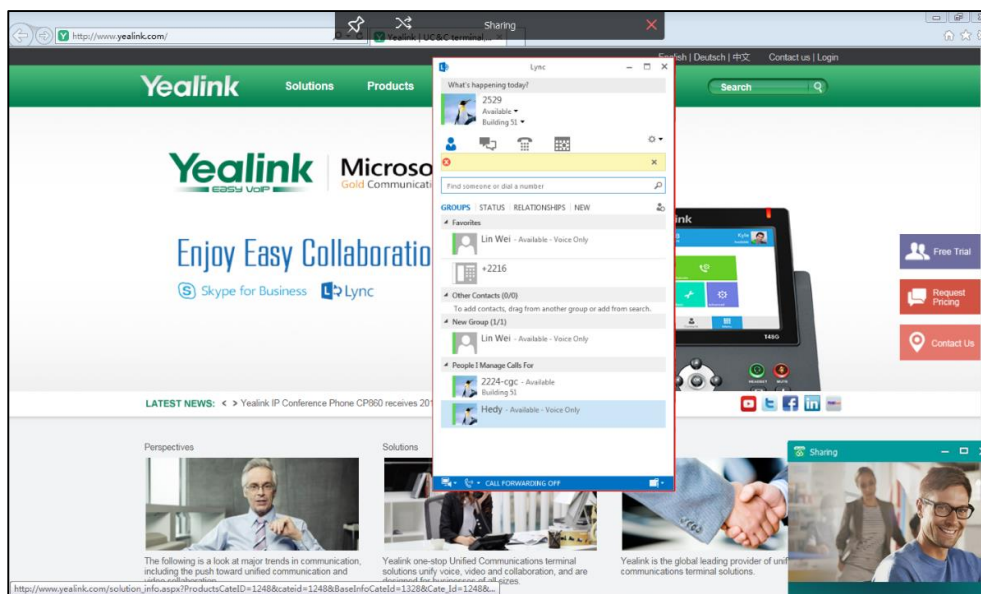
The sharing toolbar appears in the top of the windows desktop.

In the process of presentation, you can do the following:

- Click ![icon] to lock the sharing toolbar to avoid hiding automatically.

- Hover your mouse over ![icon] , and then change the shared content in the Screen Share menu.

  The content includes other monitors' windows desktop or a running application.
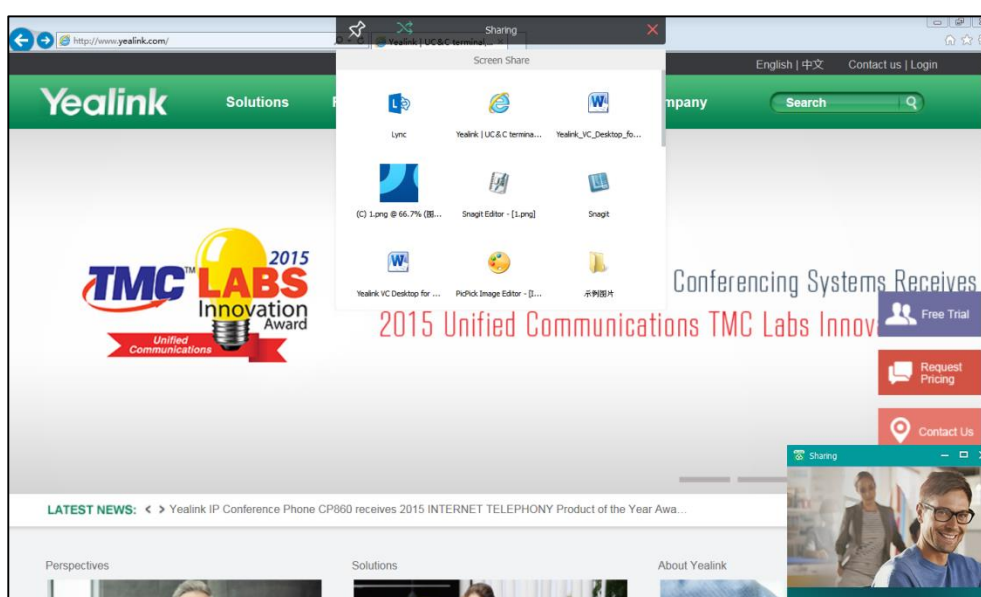
4. Click ![icon] to exit presentation.

Conference Schedules (YMS Account)

When you log into Yealink VC Desktop using YMS accounts, you can use **Conference Schedule** feature. You can view the scheduled conferences or join conferences.

If you want to schedule conferences or edit scheduled conference information, you should use Yealink Meeting Server (YMS) or Microsoft Outlook software. For more information, please refer to *Yealink Meeting Server User Guide*.

Viewing Conference Schedules

If the conference organizer edits the scheduled conference content (e.g., time and participants) or cancel the scheduled conference via Yealink Meeting Server or Microsoft Outlook software after the conference organizer has sent the invitation, conference schedules will update in real time in Yealink VC Desktop. Expired conferences will not be displayed.

To view conference schedules:

1. Click [icon] to view conference schedules.

    You can view the upcoming or ongoing conference near a month.
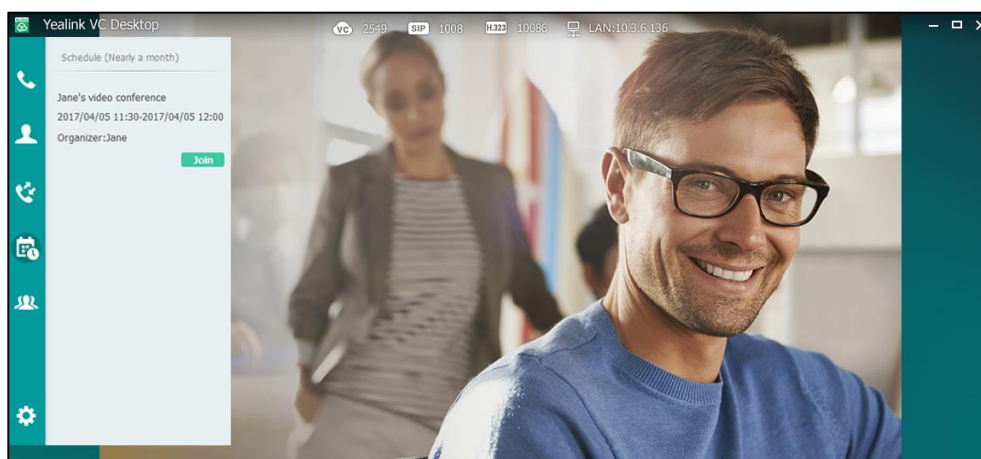
2. Click the desired conference.

    You can view time, conference ID, password, organizer and participants.

Note   When Yealink VC Desktop has unread conferences, the icon [icon] will turn to [icon].

Joining a Scheduled Conference

You can join a scheduled conference in following three ways:

*   **Joining a scheduled conference from a conference reminder**

*   **Joining a scheduled conference from a conference schedule**

● **Dialing to join a scheduled conference**

Joining a Scheduled Conference from a Conference Reminder

A reminder pop-up is displayed 5 minutes before the conference starts. The reminder shows the main information of the scheduled conference, including subject, time, organizer, participants and conference ID.
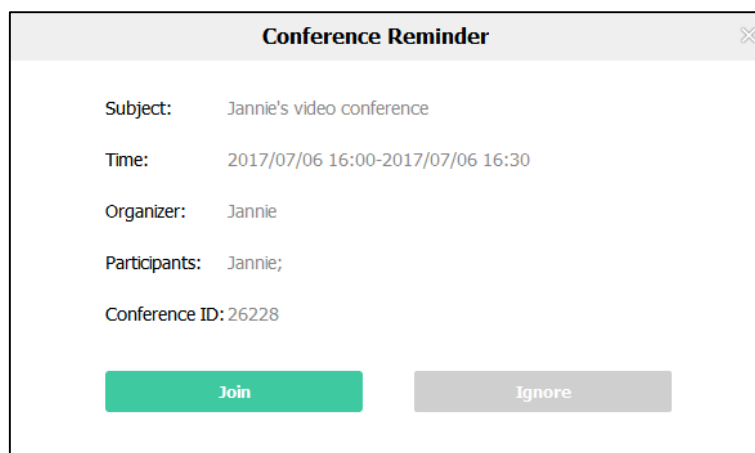
If you receive a conference reminder, you can:

● Click **Join** to join the conference.

● Click **Ignore** to remove the reminder from the window and stop all future reminders for this scheduled conference.

Note   When Yealink VC Desktop is in a call, the reminder will not pop up. After Yealink VC Desktop finishes the call and the scheduled conference is ongoing, the reminder will pop up. But if the scheduled conference ends, the reminder will not pop up.

Joining a Scheduled Conference from a Conference Schedule

To join a conference from a conference schedule:

1. Click   .

2. Select the desired conference in the conference list, click **Join**.

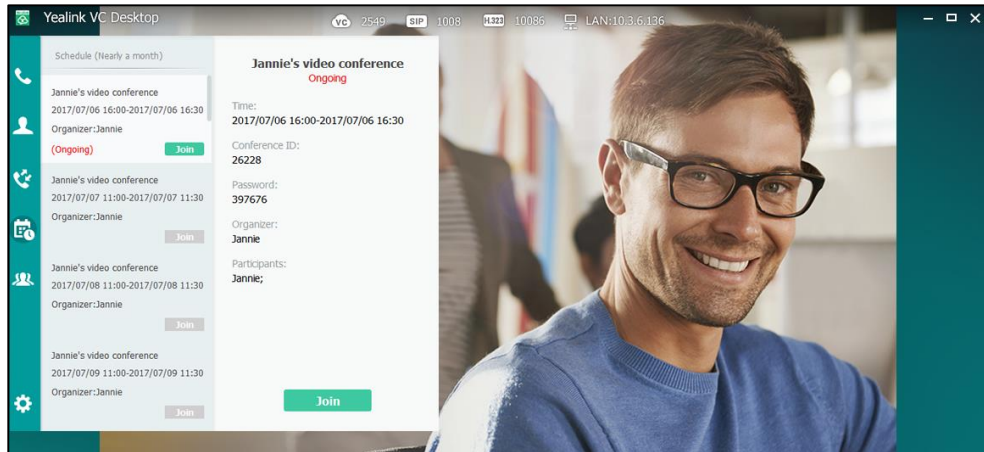**Note**   By default, you can join a scheduled conference that is about to take place in 5 minutes or less. The administrator can configure the time when participants can join the conference. For more information, please contact your administrator.

Dialing to Join a Scheduled Conference

If you schedule a conference or you are invited to join a scheduled conference, you can obtain the conference information in following ways:

- Invitee whose YMS account is associated with an email address will receive an email, which includes the IP address, conference ID, conference password and the way of joining a scheduled conference.

  The following is an example of the email:

```
Hello,
Jannie invites you to join video conference!


Subject: Jannie's video conference
Time: 2017-07-06 16:00:00 ~ 2017-07-06 16:30:00 (UTC+08:00)
Location:
ID: 26228
Password: 397676


The way to join conference:
1) One-button to join conference from Yealink VC device which receives conference reminder;
2) The device which has registered YMS account, please follow the voice prompt to enter conference ID 26228 &
password 397676 , and end with # key;
3) The device which hasn't registered YMS account, please dial 10.2.62.202 first, then follow the voice
prompt to enter conference ID 26228 & password 397676, and end with # key;
4) To join from a SIP device, please dial 26228**397676@10.2.62.202 and join the conference.
5) To join from a H.323 device, please dial 10.2.62.202##26228**397676 and join the conference.

Yealink Team www.yealink.com
```

- Yealink VC Desktop will display conference information, which includes conference ID and conference password. For more information, please refer to Viewing Conference Schedules

on page .

● Contact the conference participants.

To dial to join the scheduled conference:

1. Click   .

2. Do one of the following:

   – If you have registered a YMS account and you are invited to join the scheduled conference, you can dial the conference ID to join the conference.

     Obtain the conference information from Yealink VC Desktop or your email.

   – If you have registered a YMS account and you are not invited to join the scheduled conference, you can dial the conference ID, and then follow the voice prompt to enter conference password to join the conference.

     Obtain the conference information from the other conference participants.

   – If you have not registered a YMS account, you can dial the IP address of server first, and then follow the voice prompt to enter conference ID and conference password to join the conference.

     Obtain the conference information from the other conference participants.

   – To join from a SIP device, please dial conference **conference ID** conference password@ IP address of server** to join the conference.

     Obtain the conference information from your email and the other conference participants.

   – To join from a H.323 device, please dial conference **IP address of server##conference ID** conference password** to join the conference.

     Obtain the conference information from your email and the other conference participants.

Meet Now (YMS Account)

When you log into Yealink VC Desktop using YMS accounts, you can use **Meet Now** feature.
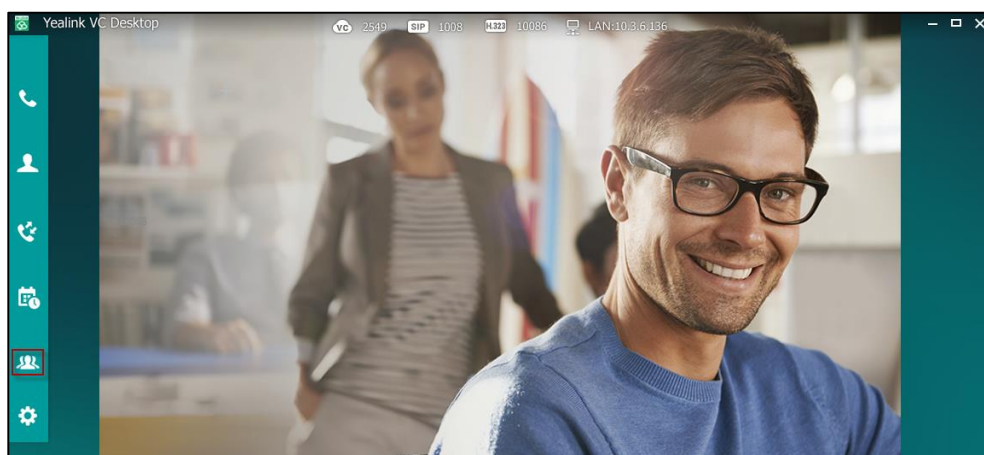
Initiating a Meet Now Conference

You can initiate a meet now conference at any time.

In meet now conference, if you receive a call from YMS contacts, a reminder will prompt that you can allow or refuse the contact to join the conference.

To initiate the meet now conference via Yealink VC Desktop:

1. Click 🖼️ .

The conference is initiated successfully.

Dialing to Join a Meet Now Conference

In the ongoing meet now conference, you can dial to join a meet now conference. And you can obtain the conference information from the participants of meet now conference.

To dial to join a meet now conference:

1. Click 🖼️ .
2. Do one of the following:

   − If you register a YMS account, you can dial the conference ID to join the conference.

   − To join from a SIP device, please dial conference **conference ID** conference password@ IP address of server** to join the conference.

   − To join from a H.323 device, please dial conference **IP address of server##conference ID** conference password** to join the conference.

Permanent Virtual Meeting Room (YMS Account)

When you log into Yealink VC Desktop using YMS accounts, you can use the permanent VMR feature.

The administrator can configure the permanent VMR via the Yealink Meeting Server. You can join the permanent VMR at any time, without a reservation.

Joining a Permanent Virtual Meeting Room from Enterprise Directory

The administrator can determine whether synchronize the permanent VMR to the Yealink VC Desktop. It is enabled by default.

To join a permanent VMR from enterprise directory:

1. Click .
2. Select **Enterprise**.
3. Hover your mouse over a permanent VMR, select the number you want to dial.

Dialing to Join a Permanent Virtual Meeting Room

Do one of the following to dial to join a permanent VMR.

a) If you register a YMS account, dial the conference ID to join the permanent VMR.

b) If you do not register a YMS account and the permanent VMR does not require a password:

- Dial **conference ID**@IP address of the server** to join the permanent VMR.

- Dial **IP address of the server ##conference ID**** to join the permanent VMR.

c) If you do not register a YMS account and the permanent VMR requires a password:

- Dial **conference ID**conference password@IP address of the server** to join the permanent VMR.

- Dial **IP address of the server ##conference ID**conference password** to join the permanent VMR.

Conference Management (YMS Account)

This chapter provides basic operating instructions for managing conference. To use this feature, you should log into Yealink VC Desktop using YMS accounts.

The conferences include scheduled conferences, meet now conferences and permanent Virtual Meeting Room (VMR).

In the conference, you can do the following:

- Mute your microphone (Muting Your Microphone on page 69)

- Unmute your microphone (Unmuting Your Microphone on page 70)

- Adjust your microphone (Adjusting Your Speaker Volume on page 70)

- Change audio and video devices (Changing Audio and Video Devices on page 71)

- Turn off your video (Turning off Your Video on page 72)

- Turn on your video (Turning on Your Video on page 72)

- Send DTMF tones (Sending DTMF Tones on page 72)

- Change the video layout (Changing the Video Layout on page 73)

- Maximize application window (Maximizing Application Window on page 74)

- Restore application window (Restoring Application Window on page 75)

- View call statistics (Call Statistics on page 75)

- Initiate presentations (Initiating Presentations on page 75)

- Invite conference participants

- Apply for speaking

- Leave the conference

Inviting Conference Participants

In **Discussion mode** scheduled conference/the permanent VMR or meet now conference, all participants can invite conference participants.

In **Training mode** scheduled conference/the permanent VMR, only moderators (or the organizer) can invite conference participants, other participants cannot.

Note | You are not allowed to invite other conference participates if you join the conference by dialing a URI.

To invite conference participants via Yealink VC Desktop:

1. Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

2. Click [icon] , you can do one of the following:

   - Select **Contact invitation** to invite conference participants.

     You can select the desired YMS contact in the YMS contacts list.
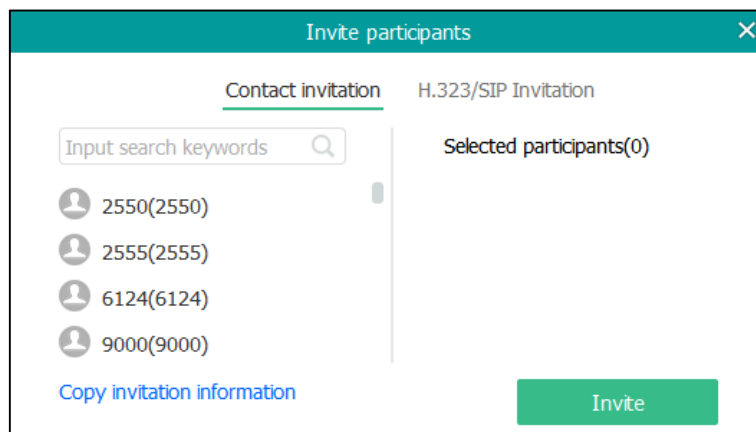
You can also enter a few or all characters of the YMS contact name or account in the Search box to search a contact.

If you want to delete the selected contacts, click ✕ .

Click **Copy invitation information**, and then paste the information to send the participants you want to invite.

Click **Invite** to call the selected contacts.

– Select **H.323/SIP Invitation** to invite conference participants.

Select the desired type from the pull-down list:

– If you select **H.323**, enter the IP address or H.323 account to invite the conference participants.

You can also enter **conference ID** conference password@IP address of server** or **IP address of server##conference ID**conference password** to invite other MCUs. Obtain the conference information from the conference participants or your email address.

– If you select **SIP**, enter the IP address to invite the conference participants.

You can also enter **conference ID** conference password@IP address of server** or **IP address of server##conference ID**conference password** to invite other MCUs. Obtain the conference information from the conference participants or your email address.

Click **Call**.

Note   If you fail to invite participants, follow the prompt to find the solution or contact your administrator.

Applying for Speaking

In **Discussion mode** scheduled conference/the permanent VMR or meet now conference, participants can speak freely.

In **Training mode** scheduled conference/the permanent VMR, all guests are muted automatically except moderators (or the organizer). Guests need to wait for the moderator to appoint lecturers. If guests want to speak, they should apply for speaking. Only when the moderator allows the application, can they speak freely.

To apply for speaking via Yealink VC Desktop:

1. Enter the **Training mode** scheduled conference/the permanent VMR, the top-middle of guests' call windows prompts "You are muted".

2. Hover your mouse over the bottom of the far-site video image to show the in-call toolbar.

3. Click [icon] to apply for speaking.

The [icon] icon appears on the guest's video image.

The moderator will deal with the application on Yealink Meeting Server. For more information, please refer to *Yealink Meeting Server User Guide*.

Leaving the Conference

All participants can leave the conference at any moment.

To leave the conference via Yealink VC Desktop:

1. Click to leave a conference.

   Other participants remain connected.

Troubleshooting

This chapter provides general troubleshooting information to help you solve problems you might encounter when using your VC Desktop.

Troubleshooting Methods

The Yealink VC Desktop can provide feedback in two forms, they are packets and call statistics, which can help an administrator to find the problem more easily and then solve it.

The administrator can check the working status in the following two ways and find the fault cause quickly:

- Capturing Packets
- Viewing Call Statistics

Capturing Packets

The administrator can capture packets using the Ethernet software, and then analyze it to troubleshoot problems.

To capture packets using the Ethernet software:

Use Sniffer, Ethereal or Wireshark software to capture the signal traffic.

Viewing Call Statistics

You can enter the view call statistics screen during an active call. Information includes:

- **Total Bandwidth**: Receive Bandwidth and Send Bandwidth.
- **Video: Resolution**, Codec, Bandwidth, Frame Rate, Jitter, Total Packet Lost, Packet Lost (%).
- **Audio**: Codec, Bandwidth, Sample Rate, Jitter, Total Packet Lost, Packet Lost (%)
- Protocol used during a call.
- Device information of the far site.
- **Share**: Resolution, Codec, Bandwidth, Frame Rate.

Troubleshooting Solutions

This chapter provides general troubleshooting solutions to help you solve the problems you might encounter when using your VC Desktop.

If problems you encounter are not mentioned in this chapter, you can contact your distributor or Yealink FAE.

General Issues

Why does the Yealink VC Desktop fail to call the far site?

- Check whether the local network is available.
- Check whether the far-site network is available.
- Check whether the accounts have been registered correctly, and the Yealink VC Desktop uses the appropriate account to call the far site.
- Ensure that the number you are calling is correct.
- If you log into the Yealink VC Desktop using the Yealink Cloud account or YMS account and register SIP/H.323 account, ensure that you select the right type of contact to place a call.
- Check whether the far site rejects your call.
- Check whether the firewall blocks the inbound traffics from the other site.
- Check whether the far site has already up to maximum call-in limitation.
- If you are forced to use encryption, ensure that the far site also enables encryption too. For more information on call encryption, refer to Secure Real-Time Transport Protocol on page 48.
- Ensure that the call protocol is supported by both sites. For more information on call types, refer to Call Protocol on page 61.

Why is activation unsuccessful?

- Check whether the local network is available.
- Check whether the activation code you entered is wrong.
- Check whether the activation code has been activated on 3 computers.

Why does the Yealink VC Desktop fail to update?

- Check whether the local network is available.
- Check whether the file for updating is wrong.
- Check whether the file for updating is limited by the antivirus software.

Why does the Yealink VC Desktop fail to join conference from conference schedule?

- Check whether the local network is available.

Why does the Yealink VC Desktop fail to join conference?

- Check whether the conference is expired.

- Check whether the conference password is wrong.

- Check the current time is more than 5 minutes before its scheduled starting time.

  By default, you can join a scheduled conference that is about to take place in 5 minutes or less. The administrator can configure the time when participants can join the conference. For more information, please contact your administrator.

Why does the Yealink VC Desktop leave the conference automatically when the conference is ongoing?

- Checks whether more than one endpoint registered the same YMS account join the same conference. The conference only allows one of them to join the conference, the former endpoint which joined the conference will leave the conference automatically.

Camera Issues

Why is the video quality bad?

- Ensure that the resolution of the video device and the computer have been configured appropriately.

- Check whether the packet has been lost. For more information on packet loss, refer to Viewing Call Statistics on page 87.

- Avoid high-intensity indoor light or direct sunlight on the camera.

Video & Audio Issues

Why cannot I hear the voice during a call?

- Ensure that that an available audio output device is selected.

- Ensure that the volume is set to the proper level.

Why cannot I hear the other site clearly during a call?

- Ensure that the speaker volume of the far site is not set too low.

- Muffled audio reception from the far side may be caused by highly reverberant rooms. Speak in close proximity to the microphone.

Why is the voice quality poor?

Users may receive poor voice quality during a call, such as intermittent voice, low volume, echo or other noise. But it is difficult to diagnosis the root causes of poor voice quality. The possible

reasons are:

- Users sit too far from or too near to the microphone.

- The audio pickup device is moved round frequently.

- Intermittent voice is probably caused by voice packet loss or jitter. Voice packet loss may occur due to network congestion, while jitter may occur due to information reorganization of the transmission or receiving equipment, such as, delay processing, retransmission mechanism or buffer overflow.

- Noise devices, such as computers or fans, may make it difficult to hear each other clearly.

Why cannot I view the local video image?

- Check the screen layout to see whether the remote video image is shown in full size.

Why cannot I initiate presentation?

- Check whether the PC is sending a signal.

- Check the call statistics to see whether the Yealink VC Desktop is sharing content.

- Ensure that dual-stream protocol is configured correctly. For more information, refer to Dual-Stream Protocol on page 45.

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