

Enterprise IP Phone SIP-T28P



User Manual

About This Guide

Thank you for choosing this Enterprise IP Phone which is especially designed for power users in the office environment. It features fashionable and sleek design, abundant telephony applications, broad interoperability with the popular 3rd party VoIP products, fulfilling the VoIP deployment needs from enterprise and ITSP.

In this User Guide, you will find everything you need to quickly use your new phone. Be sure to verify with your system administrator that your network is prepared for configuring your IP phone. As well, be sure to read the Packing List section in this guide before you set up and use the phone.

Declaration of Conformity



Hereby, it's declared that this phone is in conformity with the essential requirements and other relevant provisions of the CE, FCC.

CE Mark Warning

This is a class B device, in a domestic environment; this product may cause radio interference, in which case the user may be required to take adequate measures.

WEEE Warning



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

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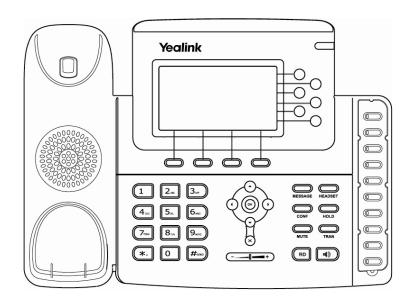
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Redial	
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Getting Started

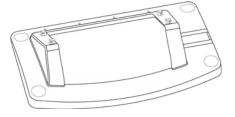
Packing List

The following components are included in your package:

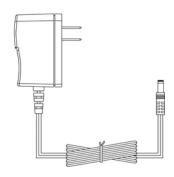
• Enterprise IP Phone



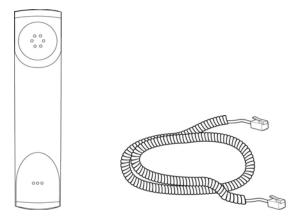
Phone Stand



Power Adapter



• Handset & Handset Core



• Ethernet Cable



• Quick Installation Guide & Quick Reference



CD Content



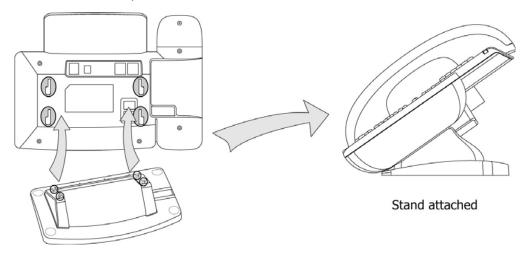
Check this list before installation to ensure that you have received each item. If you are missing any items, contact your IP phone reseller.

Assembling the Phone

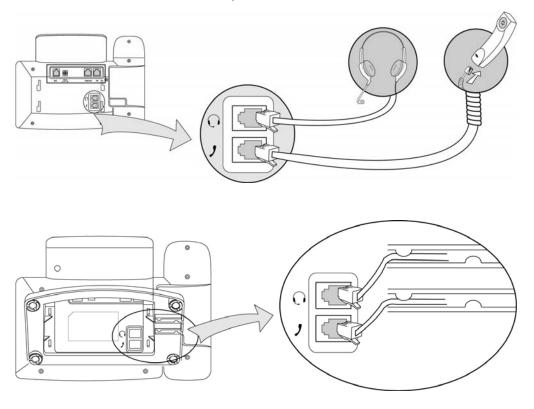
This section introduce how to assemble the phone with the components in the packing list:

- Attach the stand;
- Connect Handset and Headset;
- Connect Network and Power.

1) Attach the Stand, as shown below:



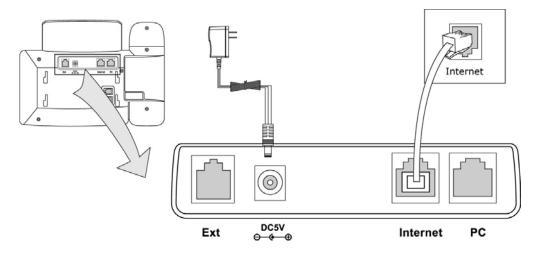
2) Connect Handset and Headset, as shown below:



Headset is not provided in the packing list. Please contact your distributor for more information.

3) Connect Network and Power

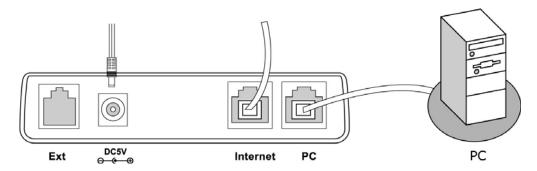
There are two ways for network and power source connections. You can either connect the phone to the AC Power directly using the power adapter or to a PoE compliant switch or hub. Your system administrator will advise you on which one to use.



Note:

- 1. If inline power is provided, do not install AC adapter. Make sure the Ethernet cable and switch/hub is PoE compliant.
- 2. The Internet Port can be also connected to Hub/Switch/IP PBX or other internet devices.

The phone can also share the network connection with other network devices such as PC. Connect the phone's PC port and computer's Network Port together using an Ethernet cable, shown as below:



Configuration and Registration

If you are administrator, you need to do some simple configuration to make the phone work. If not, please contact your internet administrator or service provider for more details.

Configuring via Web Page

Press OK button on the keypad of the phone to enter the status page and find out the IP address of IP phone. Enter it (for example http://192.168.3.35) into the address bar of web browser. The default login name and password are **admin/admin**.

Note:

Please locate your PC in the same network segment of IP phone (192.168.3.X) to access the web configuration page. Please consult your system administrator for help.

Network Settings

Choose Network->WAN Port.

DHCP: By default the phone attempts to contact a DHCP Server in your network in order to obtain its valid network settings, e.g. IP address, sub mask, gateway, DNS server, etc.

Static IP Address: If your phone cannot contact a DHCP Server for any reason, you need to enter the network settings manually via Static IP Address. Please contact your internet administrator for more details.

PPPoE: If you are using the xDSL Modem, you can connect your phone to the internet via PPPoE mode. Please contact your ISP for the User **Name** and **Password** for internet access.

Note:

Using the wrong network parameters may result in inaccessibility of your phone and may also have an impact on your network performance. Please contact your network administrator.

Account Settings

The phone attempts to register to the SIP server using the account/registrar data provided by the automatic or manual initialization.

Choose Account, you will find the following parameters:

Field	Description	
Register Status	It shows the register status of the phone.	
Account Active	You can choose on/off to enable/disable the account respectively.	
Label	It is shown on the LCD for users to identify the account.	
Display Name	It is shown as Caller ID when making a phone call.	
Register Name	It is authenticated ID for authentication, provided by ISP.	
User Name	User account information, provided by VoIP service provider.	

Enterprise IP Phone

Password	It is provided by ISP for registration.
SIP Server	Server for registration, provided by ISP.

When you have finished the Network and Account Setting configuration, the Register Status Icons will show in the idle screen:

Registered successfully

Register failed

Registering

Note:

Should the IP PBX (SIP registrar) require an authentication, you will be prompted to enter the correct password. Make sure you are using the appropriate input method or enter the password via the web user interface.

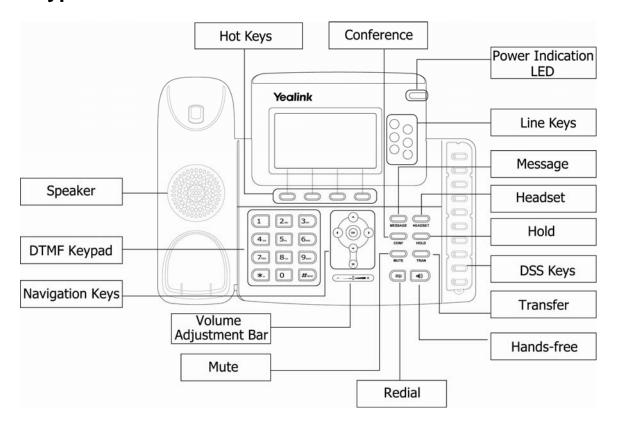
Configuring via keypad

Network Settings: Press Menu->Settings->Advanced Settings->Network->WAN Port Option/PC Port Option/VLAN Option to enter the internet relating configuration page. **Account Settings:** Press Menu->Settings->Advanced Settings->Accounts->Enter to configure the account settings.

You can refer to the above "Configuring via Web Page" for the parameter details.

Overview

Keypad Instruction



You can check the following list which introduces the IP phone's keypad in details:

Power Indication LED

It will show the power status, it will be on if the phone is powered, off if the phone is not powered, and blink when someone calls in.

Hot Keys

The screen will display labels for these keys, to identify their context-sensitive functions.

Line Keys

These buttons are used to active up to the six user accounts.

DSS Keys

These keys are used for various functionalities such as call /Line appearance Button, Speed dial, Intercom, Pickup, Hold, Transfer, etc. If not stated the adjacent LED will light when the assigned functionality is turned on.

Dial Pad

Use the DTMF hard keys to enter numbers, letters and special characters. Depending on the selected input mode, you can enter digits, lower / upper case or special characters.

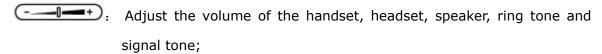
Navigation Keys

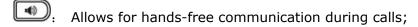
Use the navigation keys to navigate in the display menus and confirm or cancel actions.

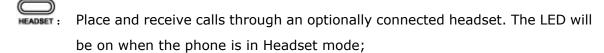
Cancel	Up	Down	Left	Right	Confirm
×	(1) (OK) (D)	4 (g) (p)	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	4 (g) (s)	OK

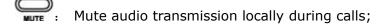
Audio Device Control Keys

Use the audio device control keys to perform the following actions depending on your phone type:

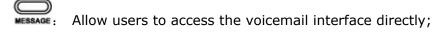


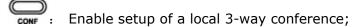


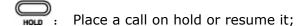


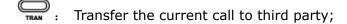


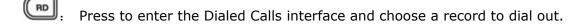
Hard Feature Keys











LED Instruction

Table 1 Call /Line Appearance Button LEDs for BLF

LED Status	Description
Steady green	Call/line appearance is in idle status
Slow blinking red	Call/line appearance is ringing
Steady red	Call/line appearance is active
Fast blinking red	Call/line appearance is not available
Off	It is not active as call/line appearance

Table 2 Call /Line Appearance Button LEDs for BLA (Bridged Line Appearances)

LED Status	Description
Steady green	All of the members are in idle status
Steady red	Some part (s) is seizing the line
Blinking green 300ms	Some part(s) is ring-back
Blinking red 300ms	Some part(s) is ringing
Steady orange	Some part(s) is on the phone
Blinking Orange 500ms	Some part(s) is under the public hold status, and all of the members can retrieve the call
Blinking green 500ms	Some part(s) is under the private hold status, and only the initiator can retrieve the call
Blinking red 500ms	Three way conference, all of the parts press hold
Off	It is not active as BLA

Table 3 Line Keys

LED Status	Description		
Steady green	The account is active		
Blinking green	There is an incoming call to the account		
Off	The phone is in idle status whatever registered		
	/unregistered		

Table 4 Power Indication LED

LED Status	Description	
Steady green	Power on	
Blinking green	There is incoming call to the device	
Off	Power off	

Icon Instruction

The IP Phone displays different kinds of icons on its LCD, you can refer to the following table for their meanings:

Icon	Description
•	Flashes when the internet is disconnected
=	Account register failed
8	Account registering
*	Account register successful
✓	Missed calls
`	Call in
•	Call out
2aB	Input Method: all letters and numbers
123	Input Method: numbers
abo	Input Method: letters in lower case
ABC	Input Method: letters in upper case
Þ	Call mute
Φ	Call hold
00	Voicemail
\boxtimes	SMS
, C	Call forward
DND	DND(Do not Disturb)
AA	Auto answer
•	In handset mode
0	In headset mode
■(())	In speaker mode

User Interface

There are two ways to customize specific options on your phones:

- 1. Using keypad and display on the phone;
- 2. Using Web user interface in an Internet browser from your PC; please refer to "Configuration and Registration" to get into the Web interface.

In many instances, it is possible to use both the user interfaces to operate the phone and change settings; some, however, are only possible via a phone or web user interface. Please refer to the following table for differences:

Phone Options	Phone UI	Web UI
Status		
IP		
MAC		
Firmware	\checkmark	\checkmark
Network		
Phone		
Accounts		
Features		
Call Forward	\checkmark	
Call Waiting	\checkmark	
DSS Keys	\checkmark	
Key as Send	\checkmark	
Hot Line	\checkmark	
Anonymous Call	\checkmark	,
Auto Redial Settings	\checkmark	\checkmark
DND Code	\checkmark	
ReDialTone		
Emergency		
BusyToneDelay		
Return code when refuse		
Return code when DND		
Basic Phone Functions		
Language	√	\checkmark
Time & Date	√	\checkmark
Ring Tone	√	\checkmark
Phone Volume	V	
Logo Customization		\checkmark
Advanced Phone Functions		
Accounts	\checkmark	
Network	\checkmark	
Voice		
Codecs		
Echo Cancellation etc		,
Phone Setting	\checkmark	\checkmark
Backlight	\checkmark	
Contrast	\checkmark	
Lock	\checkmark	
Reset to factory	\checkmark	
Set admin password	\checkmark	

SIP Account		
User Option	\checkmark	
Account Active	\checkmark	
Label	\checkmark	
Display Name	\checkmark	
Register Name	\checkmark	
User Name	\checkmark	
Account		
Password	\checkmark	
SIP Server	\checkmark	
Register Status	\checkmark	- /
Server Option	\checkmark	V
Registrar Server	\checkmark	
Registrar Port		
Outbound Proxy Server	\checkmark	
Backup Outbound Proxy Server		
OutBound Status	\checkmark	
NAT Traversal		
STUN Server	\checkmark	
STUN Status	\checkmark	
Missed call log		
Auto Answer	\checkmark	
Other Features		
Messages	\checkmark	
History	\checkmark	-/
Directory	\checkmark	V
Contacts	\checkmark	
Blacklist	\checkmark	

The above table only indicates most of phone functions rather than all of them. Please refer to the relating parts for more details.

User and Administrator Mode

Your phone can be used in user or administrator mode. Administrator mode is the default setting with full configuration rights. The default administrator password is **admin**.

Customizing Your Phone

General Settings

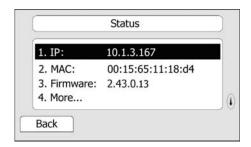
Phone Status

You can view the status of your phone using the Phone interface or the Web interface. This option allows you to review:

- Network status: IP, Mac, WAN/LAN, Gateway and DNS;
- Phone status: Model, Hardware, Firmware, Product ID and MAC;
- Accounts: The 6 SIP accounts status;
- Firmware version;

To check the Phone Status via Phone interface:

- 1) Press OK button directly or Menu hot key, choose the Status option.
- 2) Use the navigation keys to scroll through the list and check the specific one.



To view the Phone Status via Web interface:

Open the web browsers and input the IP Address http://WAN-ip-address; Enter the account and password (default account and password are both "admin"); choose Status directly to check the status.

Language

The default Phone interface language is **English**. The Web interface language will depend on your computer Operation System. It will automatically match the language with your computer.

It also supports Simplified Chinese, Traditional Chinese, French, German, Italian, Polish, Turkish, Portuguese, Spanish, etc. You can change the language for the phone user interface and the web user interface independently from each other.

Note:

All languages may not be available for selection. The available languages depend on the language packs currently loaded to the IP phone. Please contact with your system administrator for more information about loading language packs. To change the language via Phone interface:

- 1) Press Menu->Settings->Basic Settings->Language.
- 2) Scroll through the list of available languages.
- 3) Press the Save hot key when the desired language is highlighted. The language appears on the graphic display will be changed to the one you chose.



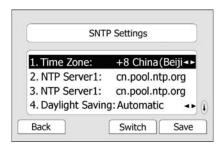
4) Press Back hot key to return to the previous screen.

Time and Date

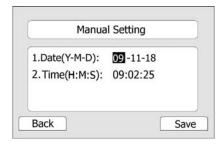
The time and date appears on the idle screen of the IP phone. If the phone can not obtain a time and date from the call server, please contact your system administrator if the time or date is incorrect. You can set the time manually or via the SNTP server which is used to synchronize the time.

To change the Time and Date via the Phone interface:

- 1) Press Menu->Settings->Basic Settings->Time & Date.
- 2) If SNTP Settings is chosen, the phone will automatically get the time from the specific NTP Server. Use the navigation keys to highlight the specific option and the relating changes. You can set the Time Zone, NTP Server1/Server2, Daylight Saving respectively.



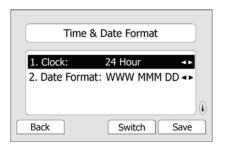
3) If Manual Setting is chosen, the time can be set manually. Use the navigation keys to highlight the option and enter the specific date and time.



4) Press Save hot key, the time appears on the idle screen will be changed. Press Back hot key to return to the previous screen.

To set the time format via phone interface:

1) Press Menu->Settings->Basic Settings->Time & Date->Time & Date Format.



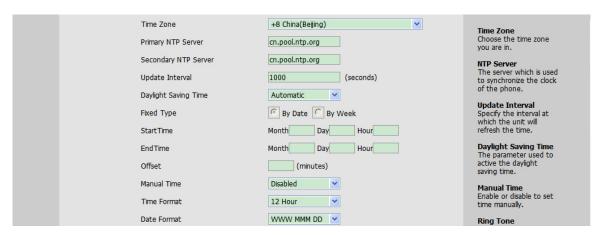
- 2) Use the Switch hot key to choose a preferred time format: 12 hour or 24 hour.
- 3) Use the Switch hot key to choose a preferred date format, the IP phone can support 7 kind of date display format.
- 4) Press the Save hot key to save the changes and return to the previous screen.

To change the Time and Date via the Web interface:

Choose Phone->Preference to do the relating changes. You can also change the Update Interval which specifies the time frequency that the phone refreshes the time automatically. Please refer to the instruction above for the parameters' detail.

To change the Daylight Saving Time Settings via the Web interface:

- 1) Choose Phone->Preference->Daylight Saving Time to do the relating changes.
- 2) Choose Enable option, then you can set the Daylight Saving Time automatically.
- 3) Choose Automatic. There is a table named as AutoDST.xml has been saved in the configuration file, if the table includes daylight saving time of your time zone, it will show the Fixed Type: By Date or By Week. And the daylight saving time is unchangeable, unless to update the AutoDST.xml via auto provision.



Note:

By default the time zone is +8 China (Beijing), Daylight Saving Time is Automatic.

Keypad Lock

You can lock the keypad of your phone when you are temporarily not using it. This function helps you to protect your phone from unauthorized use. You can lock the following specific keys:

Menu Key: The Menu hot key can not be used until unlocked. You can not access

the menu of the phone.

Function Keys: The hard function keys can not be used until unlocked. You can not

access the MESSAGE, CONF, HOLD, MUTE, TRAN, RD, History,

Directory, DND, OK, X, navigation Keys, etc.

All Keys: All of the keys can not be used until unlocked. You can only use the

phone to answer the incoming calls.

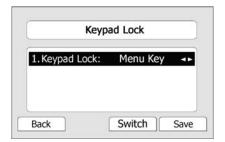
Lock&Answer: All the incoming calls will be put through automatically (Auto Answer),

but can not be hung up by your party.

To enable keypad lock via Phone interface:

1) Press Menu->Settings->Advanced Settings, enter the password, and then press Confirm hot key.

- 2) Press Phone Setting->Lock.
- 3) Use the navigation key (or press the Switch hot key) to highlight the one you want to lock.



- 4) Press Save hot key to active the change, or Back hot key to return to the previous screen.
- 5) The icon \blacksquare will be displayed on the top right corner of the idle screen.
- 6) If you choose LOCK&ANSWER, it will show the icon 🖶 and 🕮 on the user interface.

To unlock the phone via Phone interface:

- 1) Press Menu hot key, you are prompted for the password.
- 2) Enter the password, then press Enter hot key, the phone will be unlocked.
- 3) The icon will be disappearing from the idle screen.
- 4) If you choose Lock&Answer, you have to enter Menu->Settings->Advanced Settings->Phone Setting->Lock to disable this option.

To enable keypad lock via Web interface:

Choose Phone->Preference to do the relating changes. Please refer to the instruction above for the parameters' detail.

- 1. The default password for unlock is admin.
- 2. Users can make emergency calls when the phone is locked.

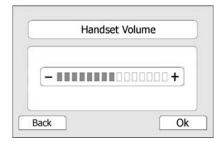
Audio Settings

Volume

You can adjust the volume of handset/speaker/headset/Ring.

To adjust the volume when you are not in an active call:

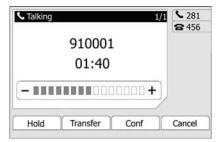
- 1) Press Menu->Settings->Basic Settings.
- 2) Scroll to Phone Volume, and press Enter hot key, highlight the one you want to adjust the volume, use the Volume Adjustment Bar or navigation keys to adjust the volume.



3) Press OK hot key to save the contrast change or Back hot key to cancel.

To adjust the volume when you are in an active call:

When Handset/Headset/Hands-free mode is activated, press the Volume Adjustment Bar to a comfortable level.



Note:

The volume can only be adjusted via Phone interface.

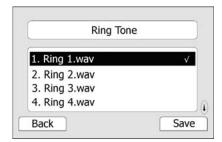
Ring Tones

You can adjust the type and volume of the ring tone.

To adjust the Ring Tone Type via Phone interface:

- 1) Press Menu->Settings->Basic Settings.
- 2) Scroll to Ring Tone, and press Enter hot key.

3) Use the navigation keys to highlight the specific one.

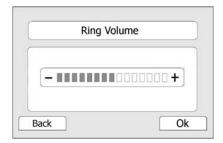


4) Press OK button/Save hot key to save the contrast change or Back hot key to cancel.

When you adjust the ring volume to 0, or press the Silence hot key when there is incoming call, the icon \mathbb{Q}^{\times} will be shown on the LCD. Press the Volume Adjustment Bar to adjust the volume, and the icon will disappear.

To adjust the Ring Volume via phone interface:

- 1) Press Menu->Settings->Basic Settings->Enter.
- 2) Scroll to Phone Volume->Ring Volume, use the Volume Adjustment Bar or navigation keys to adjust the volume.



3) Press OK hot key to save the contrast change or Back hot key to cancel.

You can also adjust the ring tone volume by the following way:

When the phone is in idle status, press the Volume Adjustment Bar to a comfortable level.



To change the Ring Tone Type via Web interface:

Choose Phone->Preference->Ring Type, highlight the specific one in the scroll-down menu, click confirm button to update the change. You can also delete the specific one by clicking the Del button.

Note:

The ring tone file of system can not be deleted.

To update the new Ring Tone via Web interface:

- 1) Click Browse button to choose the specific ring tone file.
- 2) Click Upload button to upload the file, and then Confirm button to save the change.

Note:

The ring tone file format must be in 16bits WAV format (via Ulaw Compression), 8K sample rate (monophony). Blank or other special characters can not be included in the file name.

Codec Selection

The IP phone supports the following voice codecs:

G723_63, G722, G726-16, G726-24, G726-32, G726-40, PCMA, G729, PCMU and G723_53.

You can enable/disable the desired codecs via Web interface. Please contact your System Administrator for more details about the codecs.

To enable/disable the codecs:

1) Choose Account->Codecs.



- 2) Use the navigation keys to highlight the desired one in the Enabled/Disable Codecs list, and press the >> / << to move to the other list.
- 3) Click Confirm to save the change.

Note:

Codec selection can only be set via Web interface.

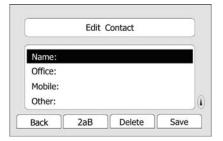
Contact Management

Edit/Add/Delete Contact

You can store a large number of contacts in your phone's directory. You can add, edit, delete, dial, or search for a contact in this directory.

To add a contact via Phone interface:

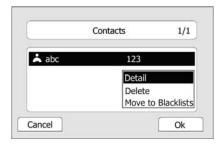
- 1) Press Directory->Contacts->Enter.
- 2) Press Add hot key, enter Name, Office, Mobile, Other and Account options of the contact by the keypad. Use the 2aB hot key to select between numeric and upper/lower case alphanumeric modes.



- 3) Use the navigation keys to select the desired account as Line if you want to assign the contact to a specific account.
- 4) Press Save hot key to add the record to contacts or Back hot key to cancel.

To edit/delete a contact via Phone interface:

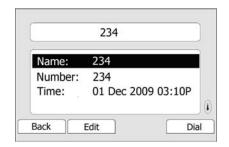
- 1) Press Directory->Contacts->Enter.
- 2) Use the navigation key to highlight the one you want to delete, press Option hot key, and scroll to Detail/Delete, press OK hot key.



3) Make the desired changes, press OK hot key. Or Cancel hot key to return to the directory.

To edit a contact record in History via Phone interface:

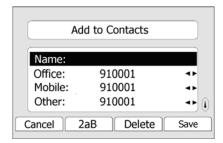
- 1) Press History hot key to enter the call history list.
- 2) Choose a record, press the Option hot key, and choose Detail option.



3) Press the Edit hot key to edit the number and call out.

To move a contact in History to Contacts via Phone interface:

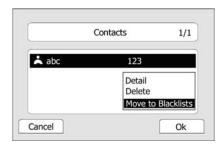
- 1) Press History hot key to enter the call history list.
- 2) Use the navigation keys to highlight a record, and then press the Option hot key to pop up the frame, highlight Add to Contacts option, then press the OK hot key to enter the edit interface.



- 3) Press the 2aB hot key to switch the input mode.
- 4) After the edition, press the Save hot key to save the change. Then you can go to Contacts interface to check the record.

To move a contact to the blacklist via Phone interface:

- 1) Press Directory->Contacts->Enter.
- 2) Use the navigation key to highlight the one you want to move, press Option hot key, scroll to move to Blacklists, press OK hot key twice to confirm the change, or press Cancel hot key to return to the Directory interface.



3) You can check the blacklist by pressing Directory->Blacklist->Enter to enter the configuration interface to do the desired changes.

Note:

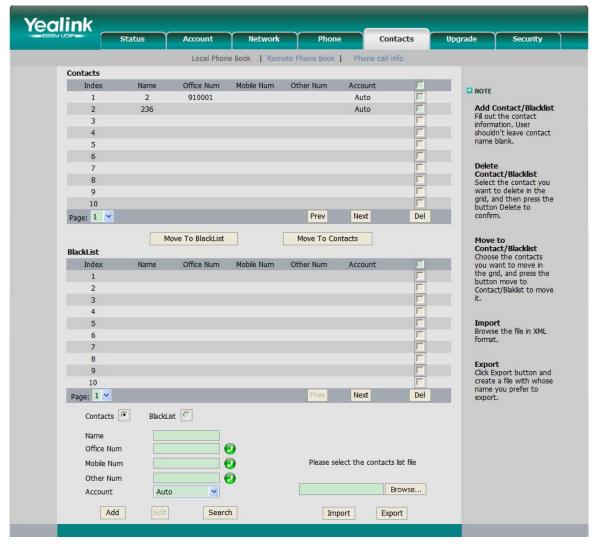
If the contact is moved to the blacklist, then the call from this contact can not get through. To add/delete/edit the contacts & blacklist via the Web interface:

Enter the Contacts interface to do the relating changes. Please refer to the instruction above for the parameters' detail.

Import/Export Contact list

Import/Export Contact List via Web interface:

1) Choose Contacts->Local Phone Book.



- 2) Browse the specific contact list file in .XML format, and then click Import button. The imported contact lists will be shown in the directory.
- 3) You can also press the button behind the special number to dial out via web interface.
- 4) Click the Export button to export the contact list.

Note:

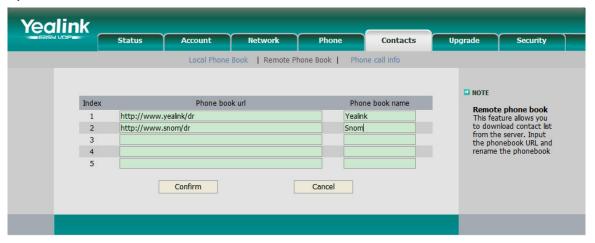
Import/Export Contact List can only be set via Web interface.

Remote Phone Book

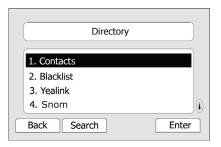
The IP phone has directory itself, but in the enterprise applications where there are a need for a common phone book. For the maintenance and the update of it, the common phone book is usually carried out on the server or IPPBX to maintain up-to-date public phone book, terminal users need to have remote phone book function. When the users browse the remote phone book, the terminal will check and download the latest information released on the server in time, and display on the terminal for the user.

To set the Remote Phone Book via Web interface:

1) Choose Contacts->Remote Phone Book.



- 2) Input the Phone book URL and the phone book name, then click the Confirm button to save the change.
- 3) After the setting, press the Directory hot key to enter the first remote phone book you just added (You can also set DSS key to enter the remote phone book quickly):



4) Choose a special one, and press the Enter hot key, it will go to the corresponding URL address to download the contact information for you.

Note:

- 1. This IP phone can support 5 remote phone books at most.
- 2. Every contact in the remote phone book can set several phone numbers.

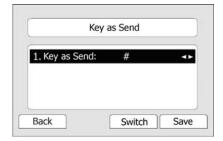
Other Settings

Key as Send

Users can set a specific button ("#" or "*") to active as the send button.

To set the send key via the IP phone interface:

1) Press Menu->Features->Key as Send->Enter to enter the configuration page.



- 2) Press the Switch hot key to choose a button that you want to use as the send key: "#", "*", or disable this option.
- 3) Press the Save hot key to save the changes.

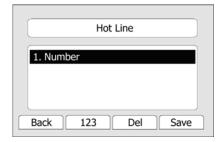
To set the send key via the Web interface:

- 1) Choose Phone->Features->Key As Send.
- 2) Highlight the specific one in the pull-down menu, then click confirm button to save the change.

Hot Line

To set the hot line number via the IP phone interface:

1) Press Menu->Features->Hot Line->Enter to enter the configuration page.



- 2) Enter the hot line number and press the Save hot key to save the changes.
- 3) When you pick up the handset or press the speaker button, or press the registered Line Key, it will dial out the number automatically.

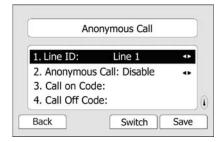
To set the Hot Line via the Web interface:

- 1) Choose Phone-> Features.
- 2) Input the Hotline Number, then click the Confirm button to save the change.

Anonymous call

To set the anonymous call via the IP phone interface:

1) Press Menu -> Features-> Anonymous Call -> Enter to enter the configuration page.



- 2) By the Switch hot key, you can choose the Line ID.
- 3) Press the navigation keys to enter and choose whether to enable the anonymous call function. This feature allows the subscriber to make a call with the display of their calling identification information blocked.
- 4) If you want to realize this function by server, please choose and enter the Call On Code and Call Off Code. When you choose to enable the anonymous call function on your IP phone, it will send information to the server, and the server will enable/ disable the anonymous call function for your IP phone automatically.
- 5) Press the navigation keys to enter and choose whether to enable the anonymous rejection function. The feature allows the subscriber to reject all calls from callers who have blocked the display of their calling identification information (calling number and calling name).
- 6) If you want to realize this function by server, please choose and enter the Reject On Code and Reject Off Code. When you choose to enable the Rejection option on your IP phone, it will send information to the server, and the server will enable/ disable the rejection anonymous call function for your IP phone automatically.

Note:

This configuration is only available for the current default account.

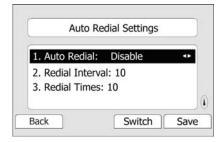
7) Press the Save hot key to save the changes.

Auto Redial

Auto redial is a telephone feature that redials a busy number a fixed number of times before giving up.

To set auto redial via the IP phone interface:

1) Press Menu->Features->Auto Redial Settings->Enter to enter the configuration page.



2) By the Switch hot key, you can choose whether to enable the auto redial function.

- 3) Press the navigation keys to choose and set the redial interval. It is measured by seconds.
- 4) Press the navigation keys to choose and set the redial times.
- 5) Press Save hot key to save the changes.

If you enable the auto redial function, then without operations for 5 seconds in the auto redial interface, it will turn to the idle interface automatically.

To set auto redial via the Web interface:

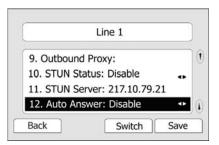
- 1) Choose Phone-> Features-> Auto Redial.
- 2) Choose Enabled or Disabled in the pull-down menu, then click Confirm button to save the change.

Auto Answer

Auto-answer allows an incoming call to be answered without requiring any action by the user. This is a useful feature for people who have difficulty in using their hands or fingers, who have a visual impairment, or who have a cognitive impairment. You can set this function to a special account.

To set Auto Answer via the IP phone interface:

1) Press Menu-> Settings-> Advanced Settings-> Accounts-> Line X, use the navigation keys to choose Auto Answer option.



- 2) Press the Switch hot key to enable or disable the auto answer function. The default is Disable.
- 3) Press the Save hot key to save the changes.

To set Auto Answer via Web interface:

- 1) Choose Account-> Basic-> Auto Answer.
- 2) Choose Enabled or Disabled in the pull-down menu, click Confirm button to save the change.

Missed call log

Defines whether to save the missed calls to the call history record. This function can only be set via the Web interface:

- 1) Choose Account-> Basic->Missed call log.
- 2) Choose Enabled or Disabled in the pull-down menu, click Confirm button to save the change.

Logo Customization

You can upload your own logo which shown in the idle screen.

- 1) Prepare the desired the logo file which is
 - --in BMP format,
 - --max pixels: 236*82,
 - --can only be monochrome with 2 gray scales at most.
- 2) Run PictureEXDemo.exe, choose Add button->choose the specific logo file->click Convert, and then close the software.
- 3) A new-built folder named adv with a .dob file will be created.
- 4) Choose Phone-> Features-> Use Logo via the Web interface, press Browse button, and choose the .dob file just created by the software.
- 5) Press Upload button to complete the Logo Customization. You will find the desired logo shown on the idle screen.

Note:

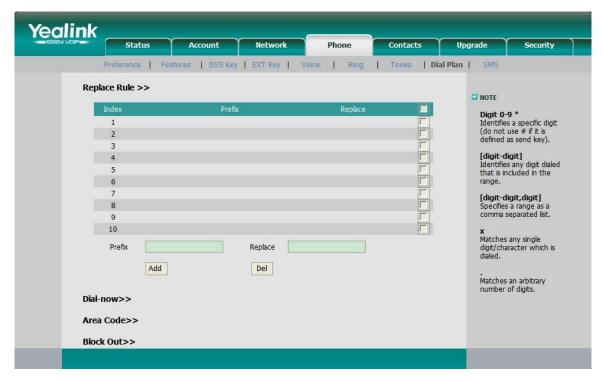
- 1. Please contact with your system administrator or service provider for the software with PictureEXDemo.exe.
- 2. You can also upload the Logo by AUTO PROVISION.

Dial Plan

A dial plan establishes the expected number and pattern of digits for a telephone number. This includes country codes, access codes, area codes and all combinations of digits dialed. For example if you set the *Prefix* as 0 and *Replace* as 0086 (Chinese country code), when you dial 05702000 out, the number will be replaced by 00865702000 automatically.

To set a Dial Plan via the Web interface:

1) Choose Phone->Dial Plan->Replace Rule.



- 2) Enter the desired Prefix and Replace.
- 3) Press Add button to save the changes.
- 4) You can also delete a specific one from the dial plan list.

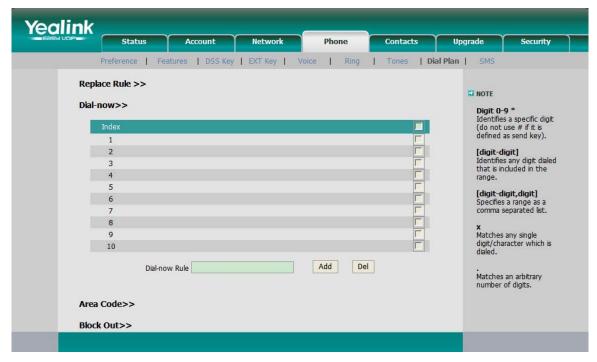
Please contact with your system administrator for the country/area code if you want to set the dial plan.

Dial Now

Dial-now enables you to define the specific length of any number/letter in advance(for example xxx), next time when users dial out the 123 whose length matches the Dial-now rule, the phone will dial out 123 in one second without pressing Send button.

To set a Dial Plan via the Web interface:

1) Choose Phone->Dial Plan->Dial now.



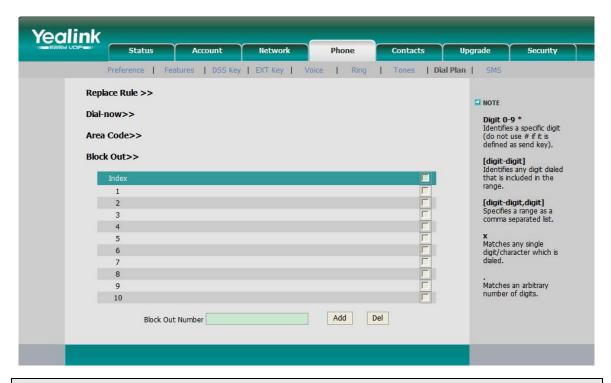
- 2) Enter the desired "x/."
- 3) Press Add button to save the changes.
- 4) You can also delete a specific one from the dial plan list by pressing Del button.

x represents any numbers; . represents any letters.

Block Out

The specific phone numbers can be forbidden to be call out from your IP phone.

- 1) Choose Phone->Dial Plan->Block Out.
- 2) Enter the phone number and click Add button to save the changes, or choose the specific one in the list, click Delete button to delete the record.
- 3) You can not dial out the number from your IP phone unless it is removed from the Forbidden List.



The numbers set in Emergency can not use the dial plan rule.

Using the Basic Call Functions

Making a call

Call Devices

You can make a phone call via the following devices:

- 1) Pick up the handset, icon \ will be shown in the idle screen.
- 2) Press the Speaker button, icon will be shown in the idle screen.
- 3) Press the Headset button if the headset is connected to the Headset port in advance. The icon Ω will be shown in the idle screen.

You can also dial the number first, and then choose the method you will use to speak to the other party.

Call Methods

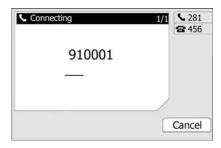
If you have registered more than one account, you can choose a certain account to make your call:

- 1) Press the Right navigation key to choose a default account when your phone is idle.
- 2) In the dial-up interface, press the Line hot key to choose an account. Then press the Select hot key to confirm.
- 3) Press the six line keys on the keypad to active the chosen account.

Then

- 1) Dial the number you want to call, or
- 2) Press the Directory hot key, use the navigation button to highlight your choice, or
- 3) Press History hot key, use the navigation button to highlight your choice (press Left/Right button to chose All Calls, Missed Calls, Dialed Calls, Received Calls and Forwarded Calls) or
- 4) Press the RD button to enter the Dialed Calls interface, then use the Up/Down navigation keys to choose a record.
- 5) Press the DSS keys which have been set as speed dial button.

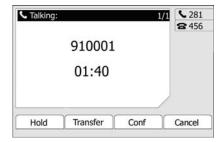
 Then press the Send button or Send hot key to make the call out if necessary.



Answering a call

Answering an incoming call

- 1) If you are not on an active call, lift the handset to answer it using the handset, or press the Speaker button to answer it using the speakerphone, or press the headset button to answer it using the headset.
- 2) If you are on an active call, the LCD will prompt to display: *Incoming Call: xxx*. Press Answer hot key to answer the call, or Reject hot key to refuse it.



During the conversation, you can alternate between Headset, Handset and Speaker mode by pressing the corresponding buttons or picking up the handset.

Denying an incoming call

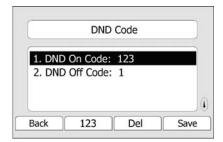
Press Reject hot key or X button to deny the incoming call directly.

DND

Press DND hot key to active DND Mode. Further incoming calls will be rejected and the display shows: DND hot key again /pick up the handset /press the Speaker button/press the registered line key to deactivate DND mode. You can find the incoming call record in the Call History.

You can also set DND function by the DND Code:

1) Go to Menu->Features->DND Code to enter the configuration interface.



- 2) Set the DND On Code and the DND Off Code, then press the Save hot key to save the changes.
- 3) When you press the DND hot key, the phone will send a message to the server, and the server will turn on the DND function. Then any calls to the extension will be rejected by the server automatically. And the incoming call record will not be displayed in the Call History.

Call Forward

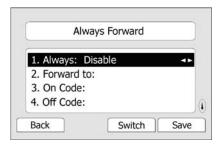
This feature allows you to forward an incoming call to another phone number e.g. a cell phone or voice mailbox.

The following call forwarding events can be configured:

- Always: Incoming calls are immediately forwarded.
- Busy: Incoming calls are immediately forwarded when the phone is busy.
- No Answer: Incoming calls are forwarded when the phone is not answered after a specific period.

To configure Forward option via phone interface:

- 1) Press the following hot keys: Menu->Features->Enter->Call Forward->Enter.
- 2) There are 3 options: Always Forward, Busy Forward and No Answer Forward.
- 3) If you choose one of them, enter the phone number you want to forward.
- 4) If you want to realize this function by server, please enter the On Code and Off Code option, then when you choose to enable the call forward function via your IP phone, it will send message to the server, and the server will turn on the function immediately. When there is call to the extension, the server will forward it to the set number automatically based on the forward type. And the IP phone will not show the record in the call history anymore.



5) Press Save hot key to save the changes.

To configure Call Forward via Web interface:

Choose Phone->Features->Forward to do the relating changes. Please refer the above configuration information.

During an Active Call

Mute

This function allows you to mute the microphone of the active audio device during a call; you can not be heard by the other party. You can still hear all other parties while mute is enabled.

To mute/resume a conversation:

Press MUTE button during a conversation, the icon will be shown in the LCD and the corresponding line key will blink. Press it again to get the microphone return to normal conversation.

Call Hold

This call function allows you to place an active call on hold. In this case your IP PBX might play a melody or message to the other party while waiting. Other calls can be received and made while having a call on hold.

To hold/retrieve a call:

- 1) Press the HOLD button or Hold hot key to put your active call on hold.
- 2) During the call, there will be a "dodo.." sound for each 30 second, suggesting that there is a current call in Hold state.
- 3) If there is only one call on hold, press the Resume hot key or Hold button to retrieve the call.



4) If there are more than one call on hold, press the line button and the Up/Down button to highlight the call, then press the Resume hot key or HOLD button to retrieve the call.

Note:

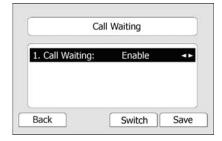
When you are under the call hold status, putting down the handset, the conversation will go on over the speaker instead of hanging up the call.

Call Waiting

This call feature allows your phone to accept other incoming calls to the extension no matter under which circumstances.

To enable/disable Call Waiting via Phone interface:

- 1) Press Menu->Features->Call Waiting->Enter hot keys.
- 2) Use the navigation keys or Switch hot key to enable/disable this option.



3) Press Save hot key to save the changes, or Back to return to the previous menu.

To enable/disable Call Waiting via Web interface:

Choose Phone->Features->Call Waiting option to do the relating changes.

Call Transfer

You can customize your phone so that incoming calls are transferred directly to the third party such as another extension, mobile phone number, etc. There are three ways to transfer the call: Blind Transfer, Attended Transfer and Semi-Attend Transfer.

To Blind Transfer via phone interface:

- 1) A and B is on an conversation, A press TRAN Button or Transfer hot key to put B on hold, then A can dial the third telephone number C and press the Transfer hot key to call out. A will turn to hold status, and the LCD will display as Transferred.
- 2) After C answered it, or A press the Cancel hot key to complete the transfer.
- 3) A will be disconnected from the call. B can talk to C.

To Attended Transfer via phone interface:

- A and B is on an conversation, A press TRAN Button or Transfer hot key to put B on hold, then A can dial the third telephone number C and press the OK or SEND button to call out.
- 2) After C answered it, A and C can have a private conversation without B hearing it, then A press the TRAN button to complete the transfer.
- 3) A will be disconnected from the call. B can talk to C.

To Semi-Attend Transfer via phone interface:

- 1) A and B is on an conversation, A press the TRAN button or Transfer hot key to put B on hold, then A can dial a new number C and press the OK or SEND button to call out.
- 2) While C is ringing, A hang up or press the Transfer hot key. Then A will turn to hold status, and the LCD will display as Transferred.
- 3) You will be disconnected from the call, when C pick up, B can talk to C.

Note:

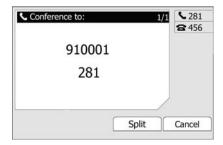
Make sure that the SIP server you have registered supports this function.

3-way Conference

You can establish a three-party conference, during the conversation three phone parties can communicate with each other.

To establish a conference:

- 1) Press the Conf hot key during an active call.
- 2) The first call is placed on hold. You will hear a dial tone. Dial the number to conference in, then press the Send hot key.



- 3) When the call is answered, the conference call will include you and the other two parties.
- 4) During the conference, press the Split hot key to split the conference into two hold lines, and press the Resume hot key to resume the chosen call respectively.
- 5) Hang up to disconnect all parties.

Message

The phone supports SMS (Short Messaging Service) and Voicemail, if you want to use them, please make sure that your VoIP telephony system supports this functionalities and your accounts' message has been enabled.

Voicemail

Your voice mailbox messages, which are usually stored on a media server of your local or hosted VoIP telephony system, can be accessed from your phone.

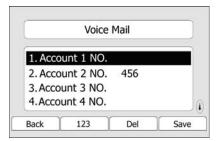
New voice messages can be indicated both acoustically and visually as described below:

- The idle screen will indicate the new voice messages coming.
- The MESSAGE button will be lighted.



To configure the Voicemail code via Phone interface:

- 1) Press Menu->Messages->Voice Mail.
- 2) Use the navigation keys to highlight the line for which you want to set, enter the code which the phone uses to connect to your system. Press 123 hot key to choose the proper input method.



3) Press Save hot key to save the change, or Back to return to the previous menu.

Note:

Please contact your system administrator for the connecting code. Different systems have different codes.

To retrieve the new voicemail via the Phone interface:

- 1) Press the Voicemail hot key directly.
- 2) You may be prompted to enter the password which is needed to connect to your VoIP telephony system. It depends on your system.
- 3) Your voice mailbox is called and you are able to listen to your new and old messages.

Note:

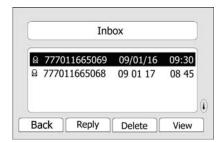
Before retrieving the new voicemail, please make sure that the connecting code has been set on the phone.

SMS

You can retrieve the SMS in the same way as Voicemail.

To retrieve the SMS via Phone interface:

- 1) Press Menu->Messages->Text Message, press Enter hot key.
- 2) Use the navigation hot key to highlight the options. You can read the message in the Inbox/ Sentbox/ Outbox/ Draftbox.



3) Press View hot key to open and read the specific message.

To reply the SMS via Phone interface:

1) After retrieving the specific message, press Reply hot key, use the 2aB hot key to change the Input Method.



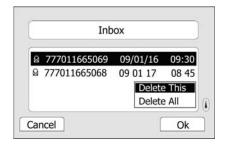
- 2) (Optional) If multiple lines are configured on your phone, select from which line messages are to be retrieved from the list using the navigation keys and Messages appear first to last in sent order.
- 3) Press Send hot key, you are required to choose an account which is used to send out the message and the number you want to send to.
- 4) Press Send hot key to send out the message, or Back hot key to return to the previous menu.

To edit a new message via the Phone interface:

- 1) Press Menu->Messages->Text Message->New Message to enter. Or you can also press the Left navigation key directly to enter the New Message interfaces.
- 2) Edit the new message, use the 2aB hot key to change the input method.
- 3) (Optional) If multiple lines are configured on your phone, select from which line messages are to be retrieved from the list using the navigation keys and Messages appear first to last in sent order.
- 4) Press Send hot key to send out the message, or Back hot key to return to the previous menu.

To delete the message via the phone interface:

- 1) After retrieving the specific message, press Delete hot key.
- 2) You are prompted to confirm the delete operation, press Ok hot key to delete the message, or Cancel hot key to return to previous menu.



To edit the message via Web interface:

- 1) Choose Phone->SMS.
- 2) Enter the account information, Number, message content.
- 3) Press Send button to send out the message, or Cancel button to cancel the operation.

Note:

You can not perform the messaging via Web interface except edit Message.

Using the Advanced Phone Functions

Account Settings

Please refer to the previous part "Configuration and Registration" for the basic Account setting information. The following table lists the instruction of the field about the advanced Account Setting.

Field Name	Description
UDP Keep-alive Message	Defines whether to active the phone UDP Keep-alive mechanism. The default is Enabled.
UDP Keep-alive Interval	This parameter specifies how often the phone will send a packet to the SIP server. Default is 30 seconds.
Login Expire	This parameter specifies the time frequency that phone refreshes its registration. The default interval is 3600 seconds.
Local SIP Port	Local SIP port. The default value is 5060.
RPort	The parameter allows you configuring the proxy to send responses back to a particular address and port. The default is disabled.
SIP Session Timer	This document defines an extension to the Session Initiation Protocol (SIP). This extension allows for a periodic refresh of SIP sessions through a re-INVITE or UPDATE request. The refresh allows both user agents and proxies to determine if the SIP session is still active.
Subscribe Period	This parameter could set the period of the subscription. The default value is 1800.
DTMF Type	Select the DTMF type.

You can only configure these settings via Web interface.

- 1) Choose Account.
- 2) Select the desired account.
- 3) Choose Advanced to do the relating settings.

You can consult your system administrator for more information.

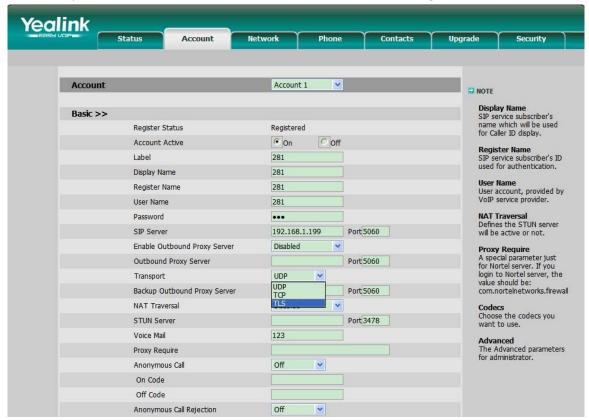
TLS

TLS(Transport Layer Security), an IETF standards track protocol (RFC 5246), was based on the earlier SSL specifications developed by Netscape Corporation.

If you make a call based on TLS and SRTP (Set the transport as TLS and the SRTP as

On), the IP phone UI will display the connecting and ring back interface. If the reception also set the transport as TLS, then IP Phone UI will display the icon $\widehat{\mathbf{n}}$ on both side.

Go to Account->Basic, choose Transport option, in the pull-down menu, you can choose the TLS option, then click the Confirm button to save the change.



Network Setting

PC Port Setting

Please refer to the previous part "Configuration and Registration" for the basic Network WAN setting information. The following table lists the instructions of the field about the Network PC Port Setting.

Field Name	Description
As Bridge	If you select the Bridge mode, then the two Fast Ethernet ports will be transparent.
As Router	If you select the Router mode, the SIP phone will work as a router.
IP address	User could configure the PC port IP address.
DHCP Server	If you set the DHCP server on, the device connected to the PC port will get the IP address automatically between the start IP address and the end IP address. But if you select the bridge mode, the DHCP server can not work.

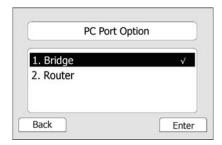
Enterprise IP Phone

Using the Advanced Phone Functions

Start IP	Indicate the range of the IP address.
End IP	Indicate the range of the IP address.

To configure PC Port settings via Phone interface:

- 1) Press Menu->Settings->Advanced Settings.
- 2) Enter the password required, scroll to Network option, press Enter hot key, select PC port option, then press Enter hot key.



- 3) If you choose Bridge, it will return to the previous menu.
- 4) If you choose Router, you will be prompted to enter the IP Address, Subnet Mask, DHCP Server Disable/Enable.
- 5) Press Save hot key to save the changes, or Cancel hot key to return to the previous menu.

To configure PC Port settings via Web interface:

Choose Network-> PC Port to do the relating configuration, You can consult your system administrator for more information.

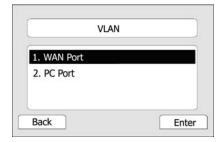
VLAN Setting

VLAN is a group of hosts with a common set of requirements that communicate as if they were attached to the Broadcast domain, regardless of their physical location. The following table lists the instruction of the field about the VLAN Setting.

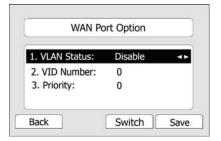
Field Name	Description
QoS	When the network capacity is insufficient, QoS could provide priority to users by setting the value.
Local RTP Port	Define the port for voice transmission.
WebServer	Users can choose the WebServer type: Disable, HTTP, HTTPS, or HTTPS & HTTP.

To configure VLAN settings via Phone interface:

- 1) Press Menu->Settings->Advanced Settings.
- 2) Enter the password required, scroll to Network option, press Enter hot key, select VLAN option, then press Enter hot key again.



3) Choose WAN Port, press Enter hot key.



- 4) Set the VLAN Status, and input the VID Number, Priority.
- 5) Press Save hot key to save the settings, or Back hot key to return to VLAN menu.
- 6) Follow the same way to set the PC Port option.

To configure VLAN settings via Web interface:

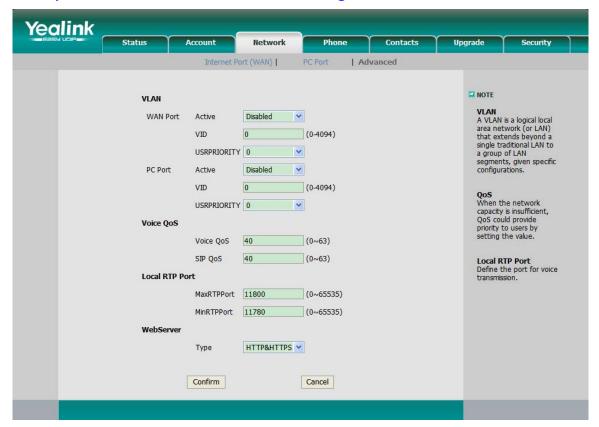
Choose Network->Advanced to do the relating configuration. You can consult your system administrator for more information.

HTTPS

This IP phone can support HTTPS (Hypertext Transfer Protocol over Secure Socket Layer). Adding SSL layer under HTTP, in short, it is a security version of HTTP. Users can set this transmission mode via web page.

To configure HTTPS settings via Web interface:

Go to Network->Advanced, choose WebServer option, in the pull-down menu of Type field, choose the transmission mode, then click the Confirm button to save the changes.



To configure HTTPS settings via Phone interface:

- 1) Press Menu->Settings->Advanced Settings.
- 2) Enter the password required, scroll to Network option, press Enter hot key, select Webserver Type option, then press Enter hot key again.



- 3) Press the navigation keys or Switch hot key to choose the transmission mode.
- 4) Press Save hot key to save the settings, or Back hot key to return to Webserver Type menu.

Note:

For more details of the HTTPS, you can consult with your system administrator.

Maintenance Tasks

Administrator Mode

The phone allows two modes to configure the phone:

- User Mode
- Administrator Mode

Administrator mode grants unlimited access to the phone configuration on both Web and Phone interface. User Mode can not set the following options: Accounts, Network, Reset to Factory, other phone settings.

Administrator/User Password

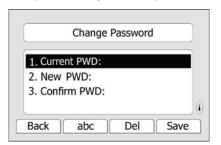
Administrator mode grants unlimited access to the phone configuration on both web and phone user interface. The administrator/user password is used to access:

- Web interface along with user name.
- the advance settings of the phone such as Network, Account, Reset to Factory Settings via the Phone interface.

The default administrator password is **admin**. Meanwhile the user name for Web interface access is **admin**.

To change the administrator password via Phone interface:

- 1) Press the hot keys Menu, scroll to Settings, press Enter hot key, use the navigation keys to highlight Advance Settings.
- 2) You are prompted to enter the required password, the default one is admin.
- 3) Scroll to Set admin password, press Enter hot key.
- 4) You are prompted to enter the current password, new password and the confirm password, press abc hot key to change the input method.



5) Press OK hot key to confirm the change, press Cancel hot key to return to previous menu.

To change the administrator password via Web interface:

Choose Password->admin, enter the old and new password, click Confirm button to save the changes, or Cancel button to cancel the changes.

Reboot

You should reboot the phone when you are challenged, e.g. after applying changes to the phone configuration.

To reboot via Web interface:

- 1) Choose Upgrade->Basic.
- 2) Click Reboot button.

To reboot under the idle status:

When the phone is idle, press the X button on the keypad for 5 second to enter the reboot interface, you are prompted to confirm the change, press OK hot key to reboot, or Cancel hot key to cancel the operation and return to previous menu.

Note:

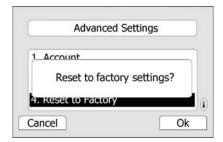
Please do not power off during reboot, or it will cause the flash memory error.

Reset to Factory

You should reset the phone only in this case: the phone configuration was changed and the phone is not functioning anymore. To maintain the configuration of the phone, you need your system administrator or service provider's advice.

To reset to factory via phone interface:

- 1) Press the hot keys Menu, scroll to Settings, press Enter hot key, use the navigation keys to highlight Advance Settings.
- 2) You are prompted to enter the required password, the default one is admin.
- 3) Scroll to Reset to factory, press Enter hot key.
- 4) You are prompted to confirm the change, press OK hot key to reset to factory settings, press Cancel hot key to return to previous menu.



5) It will take a few minutes to reset, please do not power off during resetting, or it will cause flash memory error.

To reset to factory under the idle status:

Press the OK button for 5 seconds when the phone is idle, the phone will enter the reset interface automatically. Press the Ok hot key to save the changes, or press the Cancel hot key to cancel the operation.

To reset to factory via Web interface:

- 1) Choose Upgrade->Basic.
- 2) Click Reset button.

Note:

If you confirm all current setting changes including contact list, call history, account settings, etc will be lost, you need to export the configuration first if you still want to import the old configurations after reset. Or your phone must be configured manually unless mass provisioning is used!

To Export/Import the old configuration file via Web interface:

- 1) Choose Upgrade->Advanced, select Export/Import Config, click Export button to export the file to your local computer.
- 2) Choose Upgrade->Advanced, select Export /Import Config, click Browse button, select the specific configuration file in your local computer, click Import button.
- 3) It will take a few minutes to reset, please do not power off during resetting, or it will cause flash memory error.

Firmware Update

The phone is delivered with pre-installed firmware which allows operating your phone flawlessly. If you require updating the phone's firmware please contact your system administrator. You can only update the firmware via Web interface.

To update the firmware manually via Web interface:

- 1) Choose Upgrade->Basic->Browse, select the firmware file in your local computer.
- 2) Click Upgrade button to update the new firmware.
- 3) Please do not power off during the updating.

To update the firmware automatically via Web interface:

- 1) Choose Upgrade->Advanced, configure the relating settings: Protocol, TFTP Server Address/Port, Check New Firmware, Period, ASE Key.
- 2) Click Confirm button, the phone will check the server for a new firmware in a specific time, and it updates automatically if there is new firmware.
- 3) You can also update the firmware immediately by pressing Auto-provision button.

The parameters of the Auto-provision:

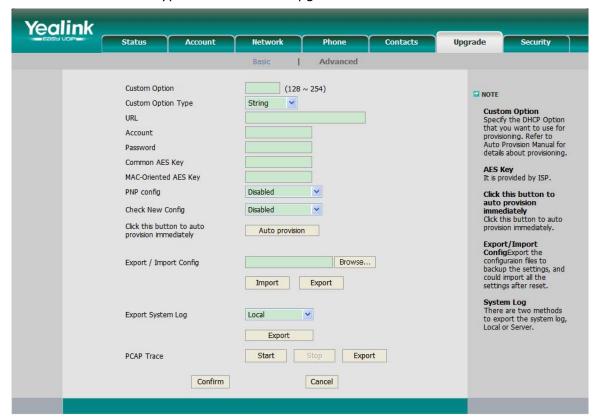
Parameter	Description
Update Protocol	The phone can be updated via TFTP, FTP or HTTP.
TFTP Server	If you choose TFTP as protocol TFTP, you need to enter the TFTP
	server IP address and port.
Check new config	You can specific the period that your phone checks the new
	firmware from the server: Power on, Repeatedly, Weekly, Power
	on + Repeatedly, Power on + Weekly and Disabled.
Scheduling	You can specific the period in days which the phone checks and
	updates the new firmware, the range is 1-30 days.

Note:

- 1. Any power interruption during the following process will most likely lead to a flash memory error. As a result the system cannot boot up anymore. The procedure can only be conducted in Administrator Mode.
- 2. If the updating is failed, you can re-plug the power adaptor, and press the Speaker key for 3 seconds, the IP phone will enter the account configuration interface. Users can reconfigure the IP phone account information here, then press the OK button to save the changes.

Decryption

This IP phone can support y00000000000.cfg and mac.cfg files encryption and decryption for user authentication to realize security usage. If there are any encrypted y00000000000.cfg or mac.cfg files on the server, uses can open the webpage of your IP phone. Go to Upgrade->Advanced, choose and fill in the Specified AES Key (for y00000000000.cfg and Per-phone AES Key (for mac.cfg) option, then click the Confirm button to decryption the files and upgrade to the new version. Shown as below:

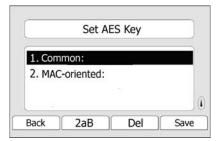


Note:

You can ask your system administrator for the decrypt password.

Set AES Key via phone interface:

1) Go to Menu->Settings->Advanced Settings->Set AES Key.



- 2) Enter the Common AES and the MAC-oriented option.
- 3) Press the Save hot key to save the changes.

System Log Export

If there are any errors happened in your phone, you can export the system log and send to your system administrator for diagnosis.

To export the System Log:

Choose Upgrade->Advanced, select Export System Log, click Export button to export the file to your local computer.

PCAP Trace Export

The PCAP Trace used to record the date transport of your IP phone. If there are any errors happened in your phone, you can export the PCAP trace and send to your system administrator for diagnosis.

To export the PCAP Trace:

Choose Upgrade->Advanced to enter, select PCAP Trace option, click Start button began to Wireshark, and click Stop to stop Wireshark, and then click Export to export the file to your local computer.

DSS key Configuration

The phone has 10 DSS keys which are able to set up to 22 functions per key. The following list shows the functions you can set on the DSS keys and provides a description for each function. The default configuration for each key is N/A which means the key hasn't been set for any functions.

- N/A
- BLF
- Line
- Speed Dial
- Intercom
- URL
- Shared Line
- Conference
- Forward
- Transfer
- Hold
- DND
- Redial
- Call Return
- Pick Up
- Call Park
- Group Listening
- SMS

Enterprise IP Phone

- Voice Mail
- DTMF
- Public Hold
- Private Hold
- XML PhoneBook

Note:

- Quick access features like Intercom and Voicemail must first be configured on your PBX in order to work on your phone. See your system administrator for more information.
- 2. Users can also connect EXP38 to extend the DSS keys to 38 or more.

BLF

You can configure the key for Busy Lamp Field (BLF) which allows you to monitor the status (idle, ringing, or busy) of other SIP accounts. User can dial out on a BLF configured key.

To assign the key as BLF:

- Choose Phone-> DSS Key -> Memory Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, and choose BLF from the list.
- 2) In the "Line" field, select a line for which to apply this key, and enter the extension number you want to monitor.
- 3) Press Confirm button to save the changes.

Please refer to "LED Instruction" for more details about the LED status in different situation.

Note:

In the Web interface, you can also set the pickup number to active the pickup function. For example, if you set the BLF number as 212, and the pickup number is *83, then when there is an incoming call to 212, press the BLF key, it will call out the *83 automatically to pickup the incoming call on 212.

Line

You can set these keys as line keys to active up to the six user accounts.

To assign the key as Line:

Choose Phone-> DSS Key -> Memory Key or Line Key, choose one of the link key you want to make the assignment, there is a pull-down menu in the Type field, choose Line from the list, press Confirm button to save the changes.

Speed Dial

You can configure the key as a simplified speed dial key. This key function allows you to easily access the most frequently dialed numbers.

To assign the key as Speed Dial:

- 1) Choose Phone-> DSS Key -> Memory Key or Line Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose Speed Dial from the list.
- 2) In the "Line" field, select a line for which to apply this key, in the "Number" filed enter the extension number you want to perform Speed Dial.
- 3) Press Confirm button to save the changes.

Intercom

You can configure the key for Intercom mode and is useful in an office environment as a quick access to connect to the operator or the secretary.

To assign the key as Intercom:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 Intercom from the list.
- 2) In the "Line" field, select a line for which to apply this key, the default one is Auto which means it will match the account automatically. And enter the extension number you want to intercom.
- 3) Press Confirm button to save the changes.

Note:

Your VoIP PBX must support this feature. And make sure the intercom extension enables the Auto-answer function.

URL

If the key is configured as URL, then pressing this key, you can send HTTP requests to a web server.

To assign the key as URL:

- 1) Choose Phone->DSS Key ->Memory Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, and choose URL from the list.
- 2) Enter the extension number you want to set as URL in the Extension field.
- 3) Press Confirm button to save the changes.

Shared Line

The Shared Line Appearances (SLA, which is also named as BLA) feature allows subscribers to share SIP lines and also provides status monitoring of the shared line. When a user places an outgoing call using such an appearance, all members belonging to that particular SLA group are notified of this usage and are blocked from using this line appearance until the line goes back to idle state or when the call is placed on hold. Similarly all members of the SLA group are notified of an incoming call and the call can be picked up on a line appearance associated with the SLA extension.

To assign the key as Shared Line:

- 1) Choose Phone->DSS Key ->Memory Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose Shared Line from the list.
- 2) In the "Line" field, select a line for which to apply this key, the default one is Auto which means it will match the account automatically. And enter the extension number you want to intercom.
- 3) Press Confirm button to save the changes.

Conference

You are allowed to configure the DSS key to be used as a conference key while remaining in the current call. This key allows a user on a call to conference another party while remaining in the conference.

To assign the key as Conference:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 KeyEvent from the list, then in the Mode field, click the pull-down menu and choose
 Conference.
- 2) Press Confirm button to save the changes.

Forward

If the key is configured as Forward key, press this key under the idle status, the IP phone will turn to the forward page, and you can set the Forward to number, then when there is any call to the extension number will be forwarded to the set number automatically.

To assign the key as Forward:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 KeyEvent from the list, then in the Mode field, open the pull-down menu and
 choose Forward from the list.
- 2) Enter the extension number you want to forward to in the Extension field.
- 3) Press Confirm button to save the changes.

Transfer

You are able to configure the key as a transfer key to perform the Blind/Attended Transfer.

To assign the key as Transfer:

1) Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and

choose Transfer from the list.

2) Press Confirm button to save the changes.

Hold

The key can be configured as a hold key. You can use this key to hold and retrieve a call during the conversation.

To assign the key as Hold:

- 1) Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose Hold from the list.
- 2) Press Confirm button to save the changes.

DND

If the key is configured as DND key, you are allowed to active the DND function immediately when you press it. Press it again to deactivate DND mode.

To assign the key as DND:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 KeyEvent from the list, then in the Mode field, open the pull-down menu and
 choose DND from the list.
- 2) Press Confirm button to save the changes.

Redial

If the key is configured as Redial key, press this key under the idle status, it will enter the Dialed Calls interface, then you can choose a special line to call out by pressing the line keys.

To assign the key as Redial:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 KeyEvent from the list, then in the Mode field, open the pull-down menu and
 choose Redial from the list.
- 2) Press Confirm button to save the changes.

Call Return

When the key is configured as Call Return key you are allowed to dial out the last phone call you received.

To assign the key as Call Return:

1) Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you

want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose Call Return from the list.

2) Press Confirm button to save the changes.

Pick Up

When you configure a Pick Up key, you specify the extension that you want to monitor. Then, when the monitored extension receives a call, you can press this key to pick up the incoming call.

To assign the key as Pick Up:

- 1) Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose Pick Up from the list.
- 2) In the "Line" field, select a line for which to apply this key, and enter the extension number you want to pickup.
- 3) Press Confirm button to save the changes.

Call Park

Call Park is a feature that allows a person to put a call on hold at one telephone set and continue the conversation from any other telephone set.

The "call park" feature is activated by pressing a preprogrammed button or a special sequence of buttons. This transfers the current conversation to an unused extension number and immediately puts the conversation on hold. The telephone system will then display the extension number of the parked call so that the call can later be retrieved.

To assign the key as Call Park:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 KeyEvent from the list, then in the Mode field, open the pull-down menu and
 choose Call Park from the list.
- 2) In the "Line" field, select a line for which to apply this key, and enter the extension number you want to park.
- 3) Press Confirm button to save the changes.

Group Listening

When the key is configured as Group Listening key, you are allowed to enable the Speakerphone and Handset/Headset mode at the same time. It is suitable for the group conversation which has more than one person at one side. You are able to speak and listen using handset/headset; meanwhile the others near by can speak and listen using speakerphone. You can get back to the previous mode by pressing the key again.

To assign the key as Group Listening:

- 1) Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose Group Listening from the list.
- 2) Press Confirm button to save the changes.

SMS

When the key is configured as SMS key you are allowed to access SMS quickly by pressing this key.

To assign the key as SMS:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 KeyEvent from the list, then in the Mode field, open the pull-down menu and
 choose SMS from the list.
- 2) Press Confirm button to save the changes.

Voice Mail

When the key is configured as Voicemail key you are allowed to access voicemail quickly by pressing this key.

To assign the key as Voice Mail:

- 1) Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose Voice Mail from the list.
- 2) In the "Line" field, select a line for which to apply this key, and enter the extension number you want to set as the voice mail box.
- 3) Press Confirm button to save the changes.

DTMF

You are allowed to send out the desired DTMF number during the conversation. The number needs to be set in advance.

To assign the key as DTMF:

- Choose Phone->DSS Key ->Memory Key or Line Key, choose one of the key you
 want to make the assignment, there is a pull-down menu in the Type field, choose
 KeyEvent from the list, then in the Mode field, open the pull-down menu and
 choose DTMF from the list.
- 2) In the "Extension" filed, enter the specific number.
- 3) Press Confirm button to save the changes.

Public Hold

The key can be configured as a public hold key. During a conversation, all members belonging to that particular BLA group can use this key to hold or retrieve a call.

To assign the key as Public Hold:

- 1) Choose Phone->DSS Key ->Memory Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose Public Hold from the list.
- 2) Press Confirm button to save the changes.

Private Hold

The key can be configured as a private hold key. During a conversation, all members belonging to that particular BLA group can use this key to hold the call, but only the initiator can retrieve the call.

To assign the key as Private Hold:

- 1) Choose Phone->DSS Key ->Memory Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose Private Hold from the list.
- 2) Press Confirm button to save the changes.

XML PhoneBook

The keys can be configured as XML PhoneBook key. Then pressing this key under the idle status, you can dial the number in the special remote phonebook out quickly.

To assign the key as XML PhoneBook:

- 1) Choose Phone->DSS Key->Memory Key or Line Key, choose one of the key you want to make the assignment, there is a pull-down menu in the Type field, choose KeyEvent from the list, then in the Mode field, open the pull-down menu and choose XML PhoneBook from the list.
- 2) In the Line field, choose a remote phone book to specify the record.
- 3) Press Confirm button to save the changes.

Tone Settings

You can define the frequency and time period of all the following tones:

- Dial
- Ring Back
- Busy

Enterprise IP Phone

- Congestion
- Call Waiting
- Dial Recall
- Record
- Info
- Stutter
- Message
- Auto Answer

To edit the tone filed via Web interface:

- 1) Choose Phone->Tones.
- 2) Enter the frequency and time period(in ms) as the following format: Frequency /Time Period (for example 400/200).
- 3) Press Confirm button to save the changes, Cancel to cancel the change.

Note:

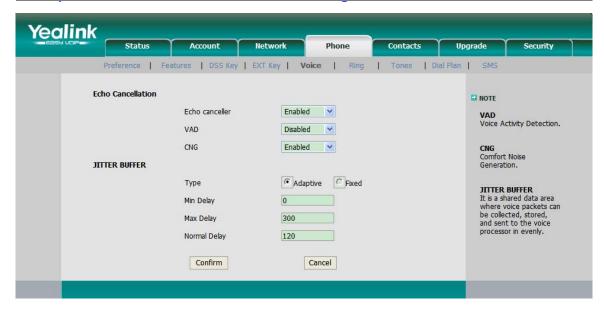
- 1. Please contact your system administrator for more information about the frequency and time period parameters. You can enter up to 8 groups for each tone.
- 2. If the frequency is set as 0, it means silence.

Voice

To edit the Voice filed via Web interface:

- 1) Choose Phone->Voice.
- 2) Set the following parameters shown in the table.

Parameter	Description
Echo canceller	Defines whether to enable the echo canceller.
VAD	Voice activity detection (VAD), also known as speech activity detection or speech detection, is a technique used in speech processing in which the presence or absence of human speech is detected.
CNG	A comfort noise generator (CNG) is a program used to generate background noise for voice communications during periods of silence that occur during the course of conversation.
JITTER BUFFER	It is a shared data area where voice packets can be collected, stored, and sent to the voice processor in evenly.
Туре	To choose the type of JITTER BUFFER, adaptive or Fixed.
Delay	To set the Min Delay, Max Delay and Normal Delay parameter.

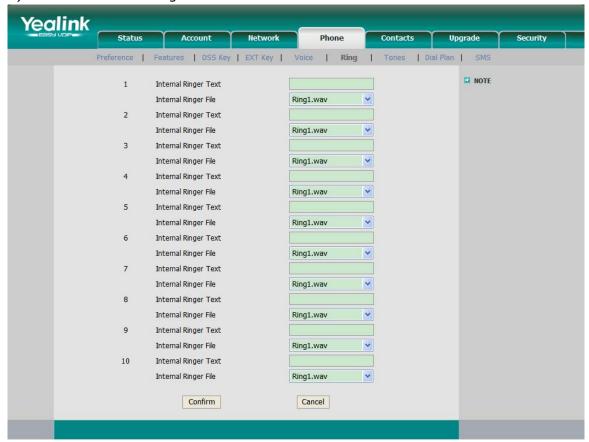


3) Press Confirm button to save the changes, Cancel to cancel the changes.

Ring

Users can group your contacts, and then set the ringing tone for each group. To edit the Ring option via Web interface:

1) Choose Phone->Ring.



Enterprise IP Phone

Using the Advanced Phone Functions

- 2) Internal Ringer Text: To set group name. For example, family.
- 3) Internal Ringer File: To choose a special ring tone for the group.
- 4) Click the Confirm button to save the changes.

Trouble Shooting

I can not register to the server?

- 1) Check the IP address. If you set your WAN port in DHCP mode, please make sure that your DHCP server is on.
- 2) Check your gateway.
- 3) Check your DNS server.
- 4) Make sure your account information is the same as you have got from your ISP.
- 5) Check whether the SIP server is on.
- 6) Check the SIP register port, the default value is 5060.

I can't get the IP address?

- 1) Make sure you have plugged the Ethernet cable into the WAN port.
- 2) Make sure that the DHCP server is on, and there are available IP addresses in the server.
- 3) Try to set your WAN port to static IP client mode.

During a call, I can not hear any voice?

- 1) Make sure your handset is tightly connected with the phone.
- 2) Check whether you have muted the conversation or not.
- 3) Consult the outbound server details with your ISP.

Have DTMF problem?

- 1) Check which kind of DTMF you are using, and whether it is compatible with the server.
- 2) Consult the payload value with your ISP.

How to change the time?

Select the time zone or enter the time information manually on the webpage or the phone.

How to answer the incoming calls during a call?

If a call comes in when you are in a conversation, press the navigation keys to switch to the incoming call interface, then press the Answer key or Speaker button to answer it.

How to refuse incoming calls during a call?

You can turn off the function of call waiting, and then our phone will refuse all the incoming calls when you are in a conversation.

How to send SMS?

You could edit the SMS in the Menu-> Messages->Text Messages.

Note:

Make sure that the SIP server you have registered supports SMS function.

How to update the firmware?

- 1) Enter the webpage of your phone, go to Upgrade, then you can find the option"Select and Upgrade Firmware" at the bottom of the page.
- 2) Select the file to update, and then click the Upgrade button.

Note:

Make sure the firmware you choose is provided by your service provider, or the device will probably crash after the update.

How to auto provision?

Consult the auto provision server address with your ISP.

The manual is only for reference; please take the object as the standard. We reserve the right to improve or change the product and the user guide without notice.