Yealink

Yealink SIP-T2 Series/T3 Series/VP530 IP Phones Auto Provisioning Guide

Version 71.141

Oct. 2013

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Summary of Changes

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

Changes for Release 71, Guide Version 71.140

Major updates have occurred to the following sections:

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- Encrypting Configuration Files on page 12
- Customizing an LCD Logo on page 13
- Customizing a Local Contact File on page 16
- Description of Configuration Parameters in CFG Files on page 61

Changes for Release 71, Guide Version 71.125

Major updates have occurred to the following sections:

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Changes for Release 71, Guide Version 71.120

Major updates have occurred to the following sections:

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The following sections are new for this version:

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The following sections are new for this version:

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Introduction

Yealink IP phones are full-featured telephones that can be plugged directly into an IP network and can be used easily without manual configuration.

This guide provides instructions on how to provision Yealink IP phones with the minimum settings required. Yealink IP phones support FTP, TFTP, HTTP, and HTTPS protocols for auto provisioning and are configured by default to use the TFTP protocol.

The purpose of this guide is to serve as a basic guidance for provisioning Yealink IP phones, including:

- Yealink VP530
- Yealink SIP-T38G
- Yealink SIP-T32G
- Yealink SIP-T28(P)
- Yealink SIP-T26(P)
- Yealink SIP-T22(P)
- Yealink SIP-T20(P)

The auto provisioning process outlined in this guide applies to Yealink IP phones running firmware V71 or later. We recommend that Yealink IP phones running firmware V71 or later CANNOT be downgraded to the earlier firmware version. If your phones are running a firmware version earlier than 71, please contact your system administrator for help.

Getting Started

This section provides instructions on how to get ready for auto provisioning. The auto provisioning process discussed in this guide uses the TFTP server as the provisioning server.

To begin the auto provisioning process, the following steps are required:

- Obtaining Configuration Information
- Managing Configuration Files

Obtaining Configuration Information

Obtaining Configuration Files

Before beginning provisioning, you need to obtain configuration files. There are 2 configuration files both of which are CFG-formatted. We call these two files Common CFG file and MAC-Oriented CFG file. The phone tries to download these CFG files from the server during provisioning.

The MAC-Oriented CFG file is only effectual for the specific phone. It uses the 12-digit MAC address of the phone as the file name. For example, if the MAC address of the phone is 0015651130F9, the MAC-Oriented CFG file name must be 0015651130F9.cfg. However, the Common CFG file is effectual for all the phones with the same model. It uses a fixed name "y0000000000XX.cfg" as the file name, where "XX" equals to the hardware version of the phone model, except 00 for T28(P).

The names of the Common CFG file for each phone model are:

Phone Model	Common CFG File
VP530	y000000000023.cfg
SIP-T38G	y000000000038.cfg
SIP-T32G	y000000000032.cfg
SIP-T28(P)	y000000000000.cfg
SIP-T26(P)	y000000000004.cfg
SIP-T22(P)	y000000000005.cfg
SIP-T20(P)	y000000000007.cfg

You can ask the distributor or Yealink FAE for configuration files. The IP phones running firmware version 71 can only recognize configuration files using UTF-8 or ANSI encoding.

Obtaining Phone Information

Before beginning provisioning, you also need the phone information. For example, MAC address and the SIP account information of the phone.

MAC Address: The unique 12-digit serial number of the phone. You can obtain it from the bar code on the back of the phone.

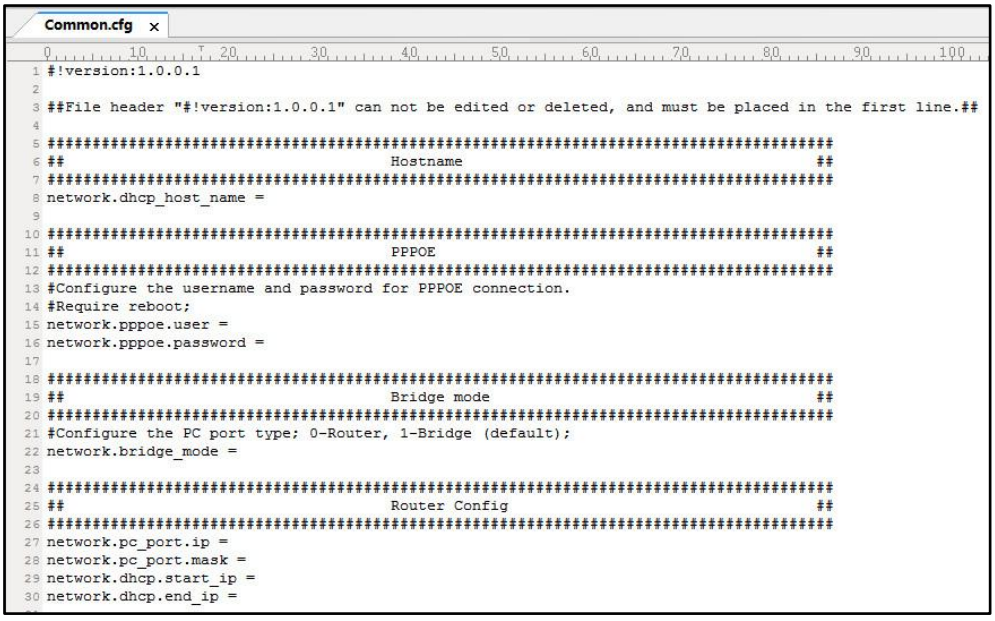
SIP Account Information: This may include SIP credentials such as user name, password and IP address of the SIP server. Ask your system administrator for SIP account information.

Managing Configuration Files

Auto provisioning enables Yealink IP phones to update themselves automatically via downloading Common CFG and MAC-Oriented CFG files. Before beginning provisioning, you may need to edit and customize your configuration files. For more information on configuration parameters in configuration files, refer to Description of Configuration Parameters in CFG Files on page 61.

Editing Common CFG File

Common CFG file contains configuration parameters which apply to phones with the same model, such as language, time and date.



The line beginning with "#" is considered to be a comment.

The file header "#!version:1.0.0.1" is not a comment and must be placed in the first line. It cannot be edited or deleted.

The parameters commonly edited in the Common CFG file are described as follows (Take T2xP IP phones as an example):

```
##############################################################
##                        Common CFG File                   ##
##############################################################
#!version:1.0.0.1
##The file header "#!version:1.0.0.1" is not a comment and must be placed in the first line. It cannot be edited or deleted. ##

#Configure the transmission mode and the speed of the WAN port.
#0-Auto negotiate (default), 1-Full duplex 10Mbps, 2-Full duplex 100Mbps, 3-Half duplex 10Mbps, 4-Half duplex 100Mbps;

network.internet_port.speed_duplex =

#Configure the user name and password for PPPoE connection.
#Require reboot

network.pppoe.user =

network.pppoe.password =

#Enable or disable the PC port; 0-Disabled, 1-Auto Negotiation (default);
#Require reboot

network.PC_port.enable =

#Configure the PC port type; 0-Router, 1-Bridge (default)
#Require reboot

network.bridge_mode =

#Configure the IP address and mask when the PC port is configured as Router.
#Require reboot

network.pc_port.ip =

network.pc_port.mask =

network.pc_port.speed_duplex =

network.pc_port.dhcp_server =

network.dchp.start_ip =

network.dchp.end_ip =

#Enable or disable Plug and Play feature; 0-Disabled, 1-Enabled (default)

auto_provision.pnp_enable = 1

#Configure the domain name of the PnP server.

auto_provision.pnp_domain_name =

#Configure the value (manufacturer of the device) of the PnP SUBSCRIBE message.
```

auto_provision.pnp_event_vendor =

#Configure the auto provision mode;
#0-Disabled, 1-Power on (default), 4-Repeatedly, 5-Weekly, 6-Power on + Repeatedly, 7-Power on + Weekly;

auto_provision.mode =

#Configure the interval (in minutes) for the phone to check new configuration files. It ranges from 1 to 43200, the default value is 1440.
#It is only applicable to "Repeatedly" and "Power on + Repeatedly" modes.

auto_provision.schedule.periodic_minute =

#Configure the start time of the day for the phone to check new configuration files. The default value is 00:00.
#It is only applicable to "Weekly" and "Power on + Weekly" modes.
#If the desired start time of the day is seven forty-five a.m., the value format is 07:45.

auto_provision.schedule.time_from =

#Configure the end time of the day for the phone to check new configuration files. The default time is 00:00.
#It is only applicable to "Weekly" and "Power on + Weekly" modes.
#If the desired end time of the day is seven forty-five p.m., the value format is 19:45.

auto_provision.schedule.time_to =

#Configure the day of week for the phone to check new configuration files. The default value is 0123456.
#0-Sunday,1-Monday,2-Tuesday,3-Wednesday,4-Thursday,5-Friday,6-Saturday;
#It is only applicable to "Weekly" and "Power on + Weekly" modes.
#If the desired day of the week is Monday, Tuesday and Wednesday, the value format #is 012.

auto_provision.schedule.dayofweek =

#Configure the URL of the auto provisioning server.

auto_provision.server.url =

#Configure the user name and password for authentication.

auto_provision.server.username =

auto_provision.server.password =

#Enable or disable DHCP option mode; 0-Disabled, 1-Enabled (default);

auto_provision.dhcp_enable =

#Configure the value (manufacturer of the device) of DHCP option 60.

auto_provision.dhcp_option.option60_value =

#Configure the custom DHCP option value. It ranges from 128 to 254.

auto_provision.dhcp_option.list_user_options =

#Set the AES key used for decrypting the Common CFG file

auto_provision.aes_key_16.com =

#Set the AES key used for decrypting MAC-Oriented CFG file

auto_provision.aes_key_16.mac =

#Set the language used on the web page

#The available values are: English, Turkish, Portuguese, Spanish, Italian, French and German

lang.wui =

#Set the language used on the LCD screen

#The available values are: English (default), German, French, Turkish, Italian, Polish, Spanish and Portuguese

lang.gui = English

#Enable or disable the IP phone to access its web user interface using the HTTP protocol;
#0-Disabled, 1-Enabled (default);
#Require reboot

wui.http_enable =

#Set the HTTP port (80 by default)
#Require reboot

network.port.http =

Enable or disable the IP phone to access its web user interface using the HTTPS protocol;
#0-Disabled, 1-Enabled (default);
#Require reboot

wui.https_enable =

#Set the HTTPS port (443 by default)
#Require reboot

network.port.https =

#Set a new password for the user, var and administrator;
#The value format is user name:new password.

security.user_password =

Editing MAC-Oriented CFG File

MAC-Oriented CFG file contains configuration parameters which are expected to be updated per phone, such as the registration information.

MAC-Oriented.cfg

```
#!version:1.0.0.1

##File header "#!version:1.0.0.1" can not be edited or deleted, and must be placed in the first line.##

###############################################################################
##                          Account Settings                                 ##
###############################################################################

#Enable or disable the account, 0-Disabled (default), 1-Enabled;
account.1.enable =

#Configure the label displayed on the LCD screen for account.
account.1.label =

#Enable or disable to use the distinctive ring tone; 0-Disable (default), 1-Enable;
account.1.alert_info_url_enable =

#Configure the display name of account.
account.1.display_name =

#Configure the username and password for register authentication.
account.1.auth_name =
account.1.password =

#Configure the register user name.
account.1.user_name =

#Enable or disable to use the outbound proxy server; 0-Disabled (default), 1-Enabled;
account.1.outbound_proxy_enable =

#Specify the IP address or domain name of the outbound proxy server.
account.1.outbound_host =

#Specify the server port, the default value is 5060.
account.1.outbound_port =

#Configure the transport type; 0-UDP (default), 1-TCP, 2-TLS, 3-DNS NAPTR;
account.1.transport =

#Configure the IP address or domain name of server Y for account. Y ranges from 1 to 2.
#account.1.sip_server.Y.address =
account.1.sip_server.1.address =
account.1.sip_server.2.address =

#Configure the port of server Y for account. The default value is 5060. Y ranges from 1 to 2.
#account.1.sip_server.Y.port =
```

The parameters commonly edited in the MAC-Oriented CFG file (Take T2xP IP phones as an example) are described as follows:

```
#########################################################
##                  MAC-Oriented CFG File                ##
#########################################################
```

#!version:1.0.0.1

##The file header "#!version:1.0.0.1" is not a comment and must be placed in the first line. It cannot be edited or deleted. ##

#Account1 settings

#Enable or disable the account1, 0-Disabled (Default), 1-Enabled

account.1.enable =

#Configure the label displayed on the LCD screen for account1

account.1.label =

#Configure the display name of account1

account.1.display_name =

#Configure the user name and password for register authentication

account.1.auth_name =

account.1.password =

#Configure the register user name

account.1.user_name =

#Configure the SIP server address and port (5060 by default)

account.1.sip_server.1.address =

account.1.sip_server.1.port =

account.1.sip_server.2.address =

account.1.sip_server.2.port =

Account2 settings

#Enable or disable the account2, 0-Disabled (Default), 1-Enabled

account.2.enable =

#Configure the label displayed on the LCD screen for account2

account.2.label =

#Configure the display name of account2

account.2.display_name =

#Configure the user name and password for register authentication

account.2.auth_name =

account.2.password =

#Configure the register user name

account.2.user_name =

#Configure the SIP server address and port (5060 by default)

account.2.sip_server.1.address =

account.2.sip_server.1.port =

account.2.sip_server.2.address =

account.2.sip_server.2.port =

Account3 settings (Except for the SIP-T20P IP phone)

#Enable or disable the account3, 0-Disabled (Default), 1-Enabled

account.3.enable =

#Configure the label displayed on the LCD screen for account3

account.3.label =

#Configure the display name of account3

account.3.display_name =

#Configure the user name and password for register authentication

account.3.auth_name =

account.3.password =

#Configure the register user name

account.3.user_name =

#Configure the SIP server address and port (5060 by default)

account.3.sip_server.1.address =

account.3.sip_server.1.port =

account.3.sip_server.2.address =

account.3.sip_server.2.port =

Account4 settings (For the SIP-T28P IP phone only)

#Enable or disable the account4, 0-Disabled (Default), 1-Enabled

account.4.enable =

#Configure the label displayed on the LCD screen for account4

account.4.label =

#Configure the display name of account4

account.4.display_name =

#Configure the user name and password for register authentication

account.4.auth_name =

account.4.password =

#Configure the register user name

account.4.user_name =

#Configure the SIP server address and port (5060 by default)

account.4.sip_server.1.address =

account.4.sip_server.1.port =

account.4.sip_server.2.address =

account.4.sip_server.2.port =

Account5 settings (For the SIP-T28P IP phone only)

#Enable or disable the account5, 0-Disabled (Default) 1-Enabled

account.5.enable =

Configure the label displayed on the LCD screen for account5

account.5.label =

#Configure the display name of account5

account.5.display_name =

#Configure the user name and password for register authentication

account.5.auth_name =

account.5.password =

#Configure the register user name

account.5.user_name =

#Configure the SIP server address and port (5060 by default)

account.5.sip_server.1.address =

account.5.sip_server.1.port =

account.5.sip_server.2.address =

account.5.sip_server.2.port =

Account6 settings (For the SIP-T28P IP phone only)

#Enable or disable the account6, 0-Disabled (Default), 1-Enabled

account.6.enable =

#Configure the label displayed on the LCD screen for account6

account.6.label =

#Configure the display name of account6

account.6.display_name =

#Configure the user name and password for register authentication

account.6.auth_name =

account.6.password =

#Configure the register user name

account.6.user_name =

#Configure the SIP server address and port (5060 by default)

account.6.sip_server.1.address =

account.6.sip_server.1.port =

account.6.sip_server.2.address =

account.6.sip_server.2.port =

#Configure the WAN port type; 0-DHCP (default), 1-PPPoE, 2-Static IP Address
#Require reboot

network.internet_port.type =

#Configure the static IP address, submask, gateway address and DNS server address for the phone
#Require reboot

network.internet_port.ip =

network.internet_port.mask =

network.internet_port.gateway =

network.primary_ dns=

network.secondary_dns =

Encrypting Configuration Files

To protect against unauthorized access and tampering of sensitive information (e.g., login password, registration information), you can encrypt configuration files using Yealink Configuration Encryption Tool. AES keys must be 16 characters and the supported characters contain: 0 ~ 9, A ~ Z, a ~ z. For more information on how to encrypt configuration files, refer to *Yealink Configuration Encryption Tool User Guide*.

Customizing Resource Files

When configuring some particular features, you may need to upload resource files to IP phones, such as personalized ringtone file, language package, logo file. Yealink provides some resource file templates for the particular features. Ask the distributor or Yealink FAE for resource file templates. The following provides information on how to customize resource files and specify the access URL for the resource files.

Customizing a Ringtone

Yealink IP phones have built-in system ringtones. You can change the ring type, or customize a ringtone and upload it to the phone via auto provisioning.

The ringtone file must be PCMU audio format, mono channel, 8K sample rate and 16 bit resolution.

The ringtone file format must be *.wav.

The ringtone file uploaded must be within 100KB.

```
##################################################
##              Configure the access URL of the customized ringtone              ##
##################################################
```

ringtone.url =

For example, enter “tftp://192.168.1.100/Ring9.wav” in the “ringtone.url =” field. During the auto provisioning process, the phone connects to the provisioning server “192.168.1.100”, and downloads the ringtone file “Ring9.wav”.

```
#ringtone.delete =http://localhost/all
#Delete all the custom ringtones
```

ringtone.delete =

For more information on customizing a ringtone file, refer to Customizing a Ringtone Using Cool Edit Pro on page 59.

Customizing an LCD Language

You can modify the language translation for the phone user interface, but you cannot add new language to the phone. To modify the existing language translation, you need to edit the language translation file, upload it to the provisioning server, and then specify the access URL in the configuration file.

The following figure shows a portion of the English language translation file:

```
Files
lang+English.txt    y000000000038-m7.cfg
[ lang ]
"  Account" = ""
"  Account:" = ""
"  Add to Blacklist"="  Add to Blacklist"
"  Add to Contacts"="  Add to Contacts"
"  Delete All Group" = ""
"  Delete All"="  Delete All"
"  Delete This"="  Delete This"
"  Delete"="  Delete"
"  Detail"="  Detail"
"  Group" = ""
"  Group:" = ""
"  Line:"="  Account:"
"  Mobile:"="  Mobile:"
"  Move to Blacklist"="  Move to Blacklist"
"  Move to Contacts"="  Move to Contacts"
"  Name" = "  Name"
"  Name:"="  Name:"
"  Number%d:"="  Number%d:"
"  Number:"="  Number:"
"  Office:"="  Office:"
"  Other:"="  Other:"
"  Ring" = "  Ring Tones"
"  Ring:"="  Ring Tones:"
"  Time:"="  Time:"
```

###

\##   Configure the access URL of the LCD language file   ##

###

gui_lang.url =

For example, enter "tftp://192.168.1.100/lang+English.txt" in the "gui_lang.url = " field. During the auto provisioning process, the phone connects to the provisioning server "192.168.1.100", and downloads the language file "lang+English.txt".

#gui_lang.delete = http://localhost/all

#Delete all custom languages

gui_lang.delete =

Available languages may vary between different firmware versions.

Do not rename the language file.

Customizing an LCD Logo

Yealink SIP-T2xP IP phones allow you to customize the logo displayed on the LCD screen. The SIP-T20P IP phone only supports to display text logo.

The following table lists the logo file format and resolution for each phone model:

Phone Model	Logo File Format	Resolution
SIP-T28P	.dob	<=236*82 2 gray scale
SIP-T26P	.dob	<=132*64 2 gray scale
SIP-T22P	.dob	<=132*64 2 gray scale

Ask the distributor or Yealink FAE for the logo file, or you can customize a *.dob logo file. Upload the logo file to the provisioning server and then specify the access URL in the configuration file:

```
##################################################
##              Configure the access URL of the Logo File              ##
##################################################
#(For T2xP IP phones except T20P IP phone)
lcd_logo.url =
```

For example, enter "tftp://192.168.1.100/logo.dob" in the "lcd_logo.url =" field. During the auto provisioning process, the phone connects to the provisioning server "192.168.1.100", and downloads the logo file "logo.dob".

To use the custom logo for T2xP (except for T20P) IP phones, you also need to configure the following parameter:

```
#Configure the logo mode (For T2xP IP phones except T20P IP phone).
#0-Disabled (Except for T28P IP phone), 1-System logo, 2-Custom logo
phone_setting.lcd_logo.mode = 2
```

To configure a text logo for T20P IP phone, you need to configure the following parameter:

```
#Enable or disable text logo. 0-Disabled, 1-Enabled
phone_setting.lcd_logo.mode = 1
#Configure a text logo
phone_setting.lcd_logo.text =Yealink
```

After auto provisioning, you will find that the custom logo or text logo appears on the LCD screen.

```
#lcd_logo.delete = =http://localhost/all
#Delete all custom logo files(not applicable to the T20P IP phone)
lcd_logo.delete =
```

For more information on customizing a logo file, refer to Customizing a Logo File Using PictureExDemo on page 60.

Customizing a Wallpaper

Yealink SIP-T3xG and VP530 IP phones allow you to customize the wallpaper displayed on the LCD screen.

The following table lists the wallpaper image format and resolution for each phone model:

Phone Model	Wallpaper Image Format	Resolution
VP530	.jpg/.png/.bmp	<=1920*1200
SIP-T38G	.jpg/.png/.bmp	<=480*272
SIP-T32G	.jpg/.png/.bmp	<=480*272

Upload the wallpaper image to the provisioning server and then specify the access URL in the configuration file:

```
#######################################################
##              Configure the access URL of the wallpaper              ##
#######################################################
#(For T3xG and VP530 IP phones only)
wallpaper_upload.url =
```

For example, enter "tftp://192.168.1.100/wallpaper.jpg" in the "wallpaper_upload.url =" field. During the auto provisioning process, the phone connects to the provisioning server "192.168.1.100", and downloads the wallpaper image "wallpaper.jpg".

To use the custom wallpaper, you also need to configure the following parameter:

```
#Configure the custom image (e.g., wallpaper.jpg) as phone wallpaper (For T3xG and VP530 IP phones only).
phone_setting.backgrounds = Config:wallpaper.jpg
```

Customizing a Screensaver

Yealink SIP-T3xG IP phones allow you to customize the screensaver displayed on the LCD screen. The screensaver will automatically work each time your phone is idle after a period of time. You can stop the screensaver at any time by pressing any key.

The following table lists the screensaver image format and resolution for each phone model:

Phone Model	Screensaver Image Format	Resolution
SIP-T38G	.jpg/.png/.bmp	<=480*272
SIP-T32G	.jpg/.png/.bmp	<=480*272

Upload the screensaver image to the provisioning server and then specify the access URL in the configuration file:

```
#######################################################
##              Configure the access URL of the screensaver              ##
#######################################################
#(For T3xG IP phones only)
screen_saver.pic.url =
```

For example, enter "tftp://192.168.1.100/screensaver.jpg" in the "screen_saver.pic.url =" field. During the auto provisioning process, the phone connects to the provisioning server "192.168.1.100", and downloads the screensaver image "screensaver.jpg".

Customizing a Local Contact File

Yealink IP phones allow you to upload contact data in batch via auto provisioning. You can create multiple contacts using the supplied local contact template file. The existing local contacts on the phones will be overwritten by the downloaded local contacts.

When editing the local contact template file, learn the following:

- Add groups between <root_group> and </root_group>.
- At most 5 groups can be added to the IP phone.
- Add local contacts between <root_contact> and </root_contact>.
- At most 1000 local contacts can be added to the IP phone.
- When specifying the desired line for the contact, valid values are 0 and line ID, 0 stands for Auto.
- When specifying a ringtone for the contact, valid values are Auto, Resource:RingN.wav (system ringtone, integer N ranges from 1 to 5) and Custom:Name.wav (customized ringtone).
- When specifying the group for the contact, valid values are the group names (existing or added groups).

To customize a local contact file:

1. Open the template file using an ASCII editor.
2. For each group that you wish to add, add the following string to the file. Each starts on a separate line:

   <group display_name="" ring=""/>

   Where:

   display_name="" specifies the name of the group.

   ring="" specifies the ringtone for this group.
3. For each contact that you wish to add, add the following string to the file. Each starts on a separate line:

<contact display_name="" office_number="" mobile_number="" other_number="" line="" ring="" group_id_name="" default_photo=""/>

Where:

display_name="" specifies the name of the contact (This value cannot be blank or duplicated).

office_number="" specifies the office number of the contact.

mobile_number="" specifies the mobile number of the contact.

other_number="" specifies the other number of the contact.

line="" specifies the line for the contact.

ring="" specifies the ringtone for the contact.

group_id_name="" specifies the group you want to add the contact to.

default_photo="" specifies the photo for the contact (For T3xG and VP530 IP phones).

4. Specify the values within double quotes.
5. Save the change.

After editing the local contact template file, upload the file to the provisioning server and then specify the access URL in the configuration file.

The following shows an example of a local contact file used for SIP-T2xP IP phones:

```
<root_group>
   <group display_name="All Contacts" ring=""/>
   <group display_name="Family" ring="Resource:Ring1.wav"/>
   <group display_name="Friend" ring="Auto"/>
</root_group>

<root_contact>
   <contact display_name="Mary" office_number="123" mobile_number="456"
   other_number="2201" line="0" ring="Auto" group_id_name="Family"/>
   <contact display_name="Damy" office_number="124" mobile_number="789"
   other_number="2202" line="1" ring="Resource:Ring2.wav"
   group_id_name=""/>
   <contact display_name="Jack" office_number="125" mobile_number="234"
   other_number="2203" line="2" ring="Custom:lin.wav"
   group_id_name="Family"/>
   <contact display_name="Ada" office_number="8800"
  mobile_number="1234" other_number="0000" line="0"/>
</root_contact>
```

```
#####################################################
##              Configure the access URL of the local contact file              ##
#####################################################
local_contact.data.url =
```

For example, enter “tftp://192.168.1.100/contact_list.xml” in the “local_contact.data.url =” field. During the auto provisioning process, the phone connects to the provisioning server “192.168.1.100”, and downloads the contact file “contact_list.xml”.

Yealink IP phones support both *.xml and *.csv formats.

Customizing a Replace Rule File

You can create replace rules directly in the configuration files, or create multiple replace rules using the supplied replace rule template file. The existing replace rules on the phones will be overwritten by the downloaded replace rules.

When editing the replace rule template file, learn the following:

- <DialRule> indicates the start of the template file and </DialRule> indicates the end of the template file.
- Create replace rules between <DialRule> and </DialRule>.
- When specifying the desired line(s) to apply the replace rule, valid values are 0 and line ID. The digit 0 stands for all lines. Multiple line IDs are separated by comma.
- At most 100 replace rules can be added to the IP phone.
- For the basic expression syntax of the replace rule, refer to Yealink phone-specific user guide.

To customize a replace rule file:

1. Open the template file using an ASCII editor.
2. For each replace rule you wish to add, add the following string to the file. Each starts on a separate line:

   <Data Prefix=”” Replace=”” LineID=””/>

   Where:

   Prefix=”” specifies the numbers to be replaced.

   Replace=”” specifies the alternate string.

   LineID=”” specifies the desired line(s) for this rule. When you leave it blank or enter 0, this replace rule will apply to all lines.
3. Specify the values within double quotes.
4. Save the change.

The following shows an example of a replace rule file used for SIP-T2xP IP phones:

```
<DialRule>
   <Data Prefix="1" Replace="05928665234" LineID=""/>
   <Data Prefix="2(xx)" Replace="002$1" LineID="0"/>
</DialRule>
```

```
##########################################################
##                    Upload replace rule file                    ##
##########################################################
```

dialplan_replace_rule.url =

For example, enter "tftp://192.168.1.100/DialPlan.xml" in the "dialplan_replace_rule.url =" field. During the auto provisioning process, the phone connects to the provisioning server "192.168.1.100", and downloads the replace rule file "DialPlan.xml".

Customizing a Dial-now File

You can create dial-now rules directly in the configuration files, or create multiple dial-now rules using the supplied dial-now rule template file. The existing dial-now rules on the phones will be overwritten by the downloaded dial-now rules.

When editing a dial-now file, learn the following:

- <DialNow> indicates the start of the template file and </DialNow> indicates the end of the template file.
- Create dial-now rules between <DialNow> and </DialNow>.
- When specifying the desired line(s) for the dial-now rule, valid values are 0 and line ID. The digit 0 stands for all lines. Multiple line IDs are separated by comma.
- At most 100 dial-now rules can be added to the IP phone.
- For the basic expression syntax of the dial-now rule, refer to Yealink phone-specific user guide.

To customize a dial-now file:

1. Open the template file using an ASCII editor.
2. For each dial-now rule you wish to add, add the following string to the file. Each starts on a separate line:

   <Data DialNowRule="" LineID=""/>

   Where:

   DialNowRule=""/ rule="" specifies the dial-now rule.

   LineID=""/ lines="" specifies the desired line(s) for this rule. When you leave it blank or enter 0, this dial-now rule will apply to all lines.
3. Specify the values within double quotes.

4. Save the change.

The following shows an example of a dial-now file used for SIP-T2xP IP phones:

```
<DialNow>
  <Data DialNowRule="1234" LineID="1"/>
  <Data DialNowRule="52[0-6]" LineID="1"/>
  <Data DialNowRule="xxxxxx" LineID=""/>
</DialNow>
```

```
#########################################################
##                    Upload dial-now file             ##
#########################################################
```

dialplan_dialnow.url =

For example, enter "tftp://192.168.1.100/DialNow.xml" in the "dialplan_dialnow.url =" field. During the auto provisioning process, the phone connects to the provisioning server "192.168.1.100", and downloads the dial-now file "DialNow.xml".

Updating Firmware

Yealink IP Phones allow you to update firmware manually via web user interface, or update firmware in batch via auto provisioning.

The following table lists the firmware name for each phone model (X is replaced by the actual firmware version):

Phone Model	Firmware Name
VP530	23.x.x.x.rom
SIP-T38G	38.x.x.x.rom
SIP-T32G	32.x.x.x.rom
SIP-T28(P)	2.x.x.x.rom
SIP-T26(P)	6.x.x.x.rom
SIP-T22(P)	7.x.x.x.rom
SIP-T20(P)	9.x.x.x.rom

To update the phones' firmware in batch via auto provisioning, ask the distributor for the firmware file, upload it to the provisioning server, and then specify the access URL in the configuration files.

```
#######################################################
##          Configure the access URL of the firmware file          ##
#######################################################
```

firmware.url =

For example, enter "tftp://admin:password@192.168.1.100/2.71.0.140.rom" in the "firmware.url =" field. During the auto provisioning process, the phone connects to the provisioning server "192.168.1.100" ("admin" is replaced by the authentication user name and "password" is replaced by the authentication password), and downloads the firmware file "2.71.0.140.rom".

Configuring a TFTP Server

Yealink IP Phones support to use FTP, TFTP, HTTP and HTTPS protocols to download configuration files. You can use one of these protocols for provisioning. The TFTP protocol is used by default. The following section provides instructions on how to configure a TFTP server.

We recommend that you use 3CDaemon or TFTPD32 as a TFTP server. 3CDaemo and TFTPD32 are free applications for Windows. You can download 3CDaemon online: http://www.oldversion.com/3Com-Daemon.html and TFTPD32 online: http://tftpd32.jounin.net/.

For more information on how to configure FTP and HTTP servers, refer to Configuring an FTP server on page 45 and Configuring an HTTP Server on page 48.

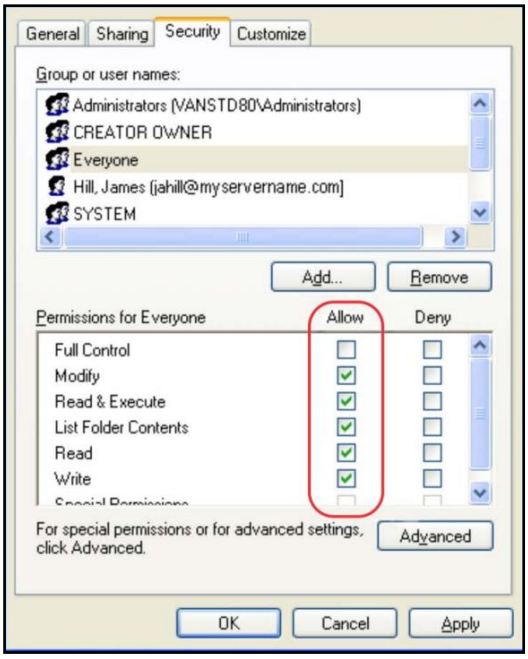
Preparing a Root Directory

To prepare a root directory:

1. Create a TFTP root directory on the local system.
2. Place configuration files to this root directory.
3. Set security permissions for the TFTP directory folder.

   You need to define a user or a group name, and set the permissions: read, write or modify. Security permissions vary by organizations.

   An example of configuration on the Windows platform is shown as below:

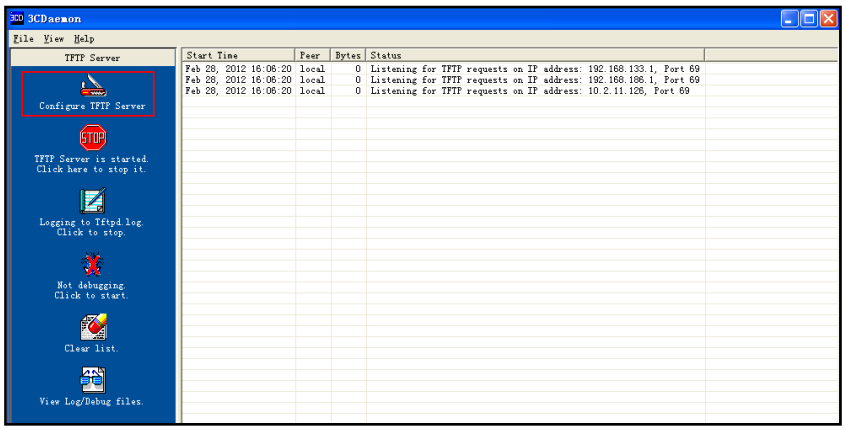


Configuring a TFTP Server

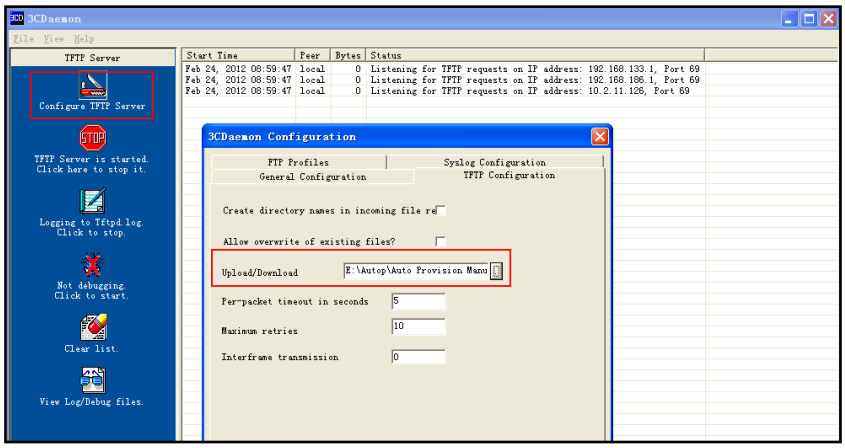
If you have a 3CDaemon application installed on your local system, use it directly. Otherwise, download and install it.

To configure a TFTP server:

1. Double click 3CDaemon.exe to start the application. A configuration page is shown as below:



2. Select **Configure TFTP Server**. Click the  button to locate the TFTP root directory from your local system:



3. Click the **Confirm** button to finish configuring the TFTP server.

   The server URL "tftp://IP/" (Here "IP" means the IP address of the provisioning server, for example, "tftp://192.168.1.100/") is where the phone downloads configuration files from.

Obtaining the Address of Provisioning Server

Yealink IP phones support to obtain the provisioning server address in the following ways:

- Zero Touch
- Plug and Play (PnP) Server
- DHCP Options
- Phone Flash

The priority of obtaining the provisioning server address is as follows: Zero Touch-->PnP Server-->DHCP Options (Custom option-->option 66-->option 43) -->Phone Flash.

The following sections detail the process of each way.

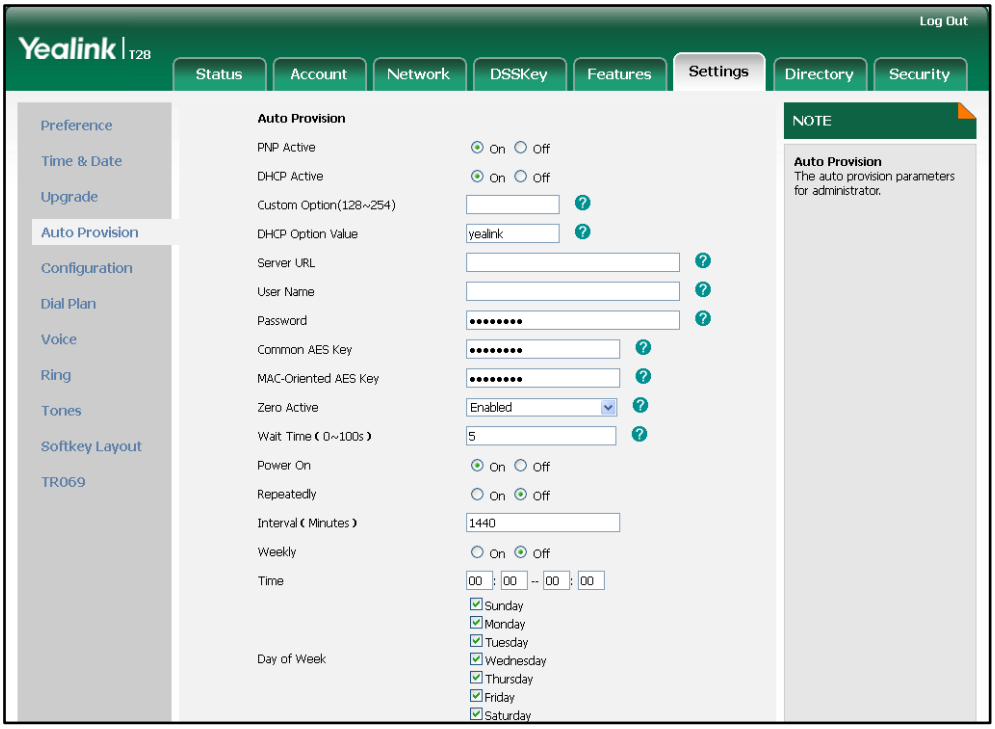
Zero Touch

Zero Touch allows you to configure the network parameters and provisioning server address via phone user interface during startup. This feature is helpful when there is a system failure on the phone. To use Zero Touch, make sure this feature is enabled.

To configure the Zero Touch via web user interface:

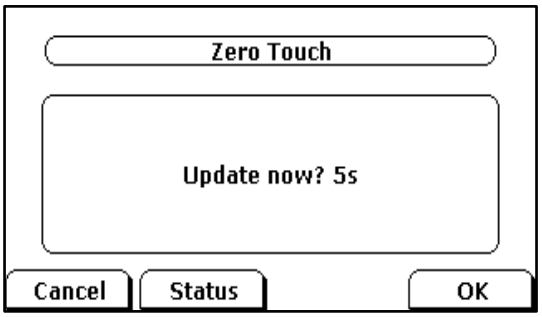
1. Click on **Settings**->**Auto Provision**.
2. Select **Enabled** from the pull-down list of **Zero Active**.

3. Configure the wait time in the **Wait Time (0~100s)** field.



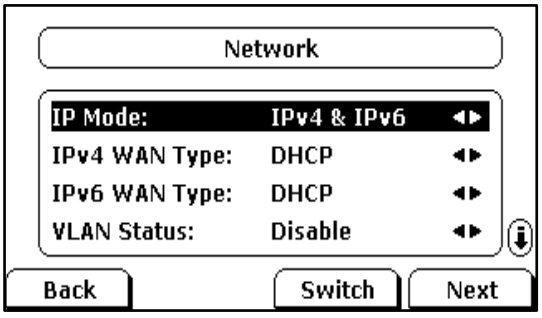
4. Click **Confirm** to accept the change.

When Zero Touch is enabled, there will be a configuration wizard during startup (Take T28P IP phone as an example):



Press the **OK** soft key.

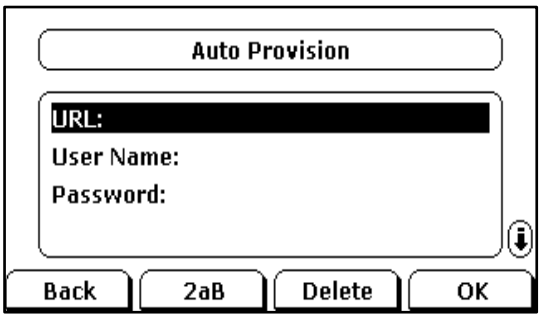
The network parameters are configurable via phone user interface:



Press the **Next** soft key after finishing the network parameters.

Configure the provisioning server address, authentication user name (optional) and password (optional) in the **Auto Provision** screen.

An example of screenshot is shown as below:

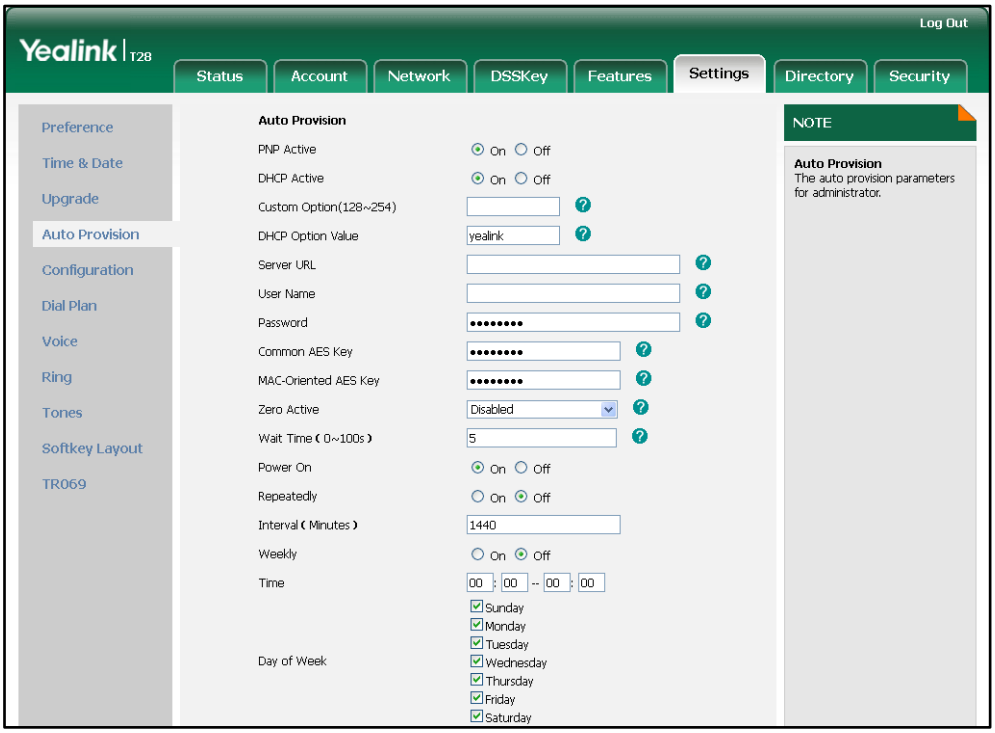


Plug and Play (PnP) Server

Yealink IP phones support to obtain the provisioning server address from the PnP server. The phone broadcasts the PnP SUBCRIBE message to obtain the provisioning server address during startup. To use Plug and Play, make sure this feature is enabled.

To configure PnP via web user interface:

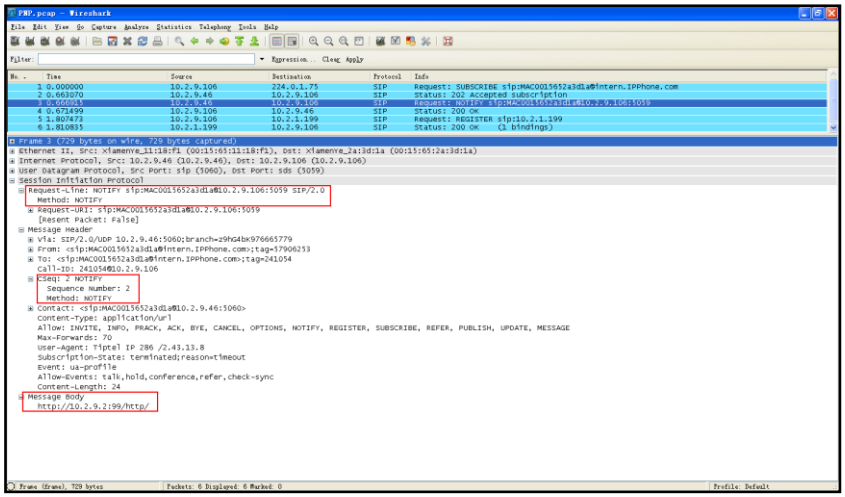
1. Click on **Settings**->**Auto Provision**.
2. Mark the **On** radio box in the **PNP Active** field.



3. Click **Confirm** to accept the change.

Any PnP server activated in the network responses with a **SIP NOTIFY** message, and an address of the provisioning server is contained in the message body. Then the phone

can connect to the provisioning server and perform the auto provisioning process.



DHCP Options

Yealink IP phones support to obtain the provisioning server address from DHCP options. You can configure the phone to obtain the provisioning server address from a custom DHCP option, or the phone will automatically detect the Option 66 and Option 43. The Option 66 is used to identify the TFTP server. To obtain the provisioning server by a custom DHCP option, make sure the DHCP option is set properly.

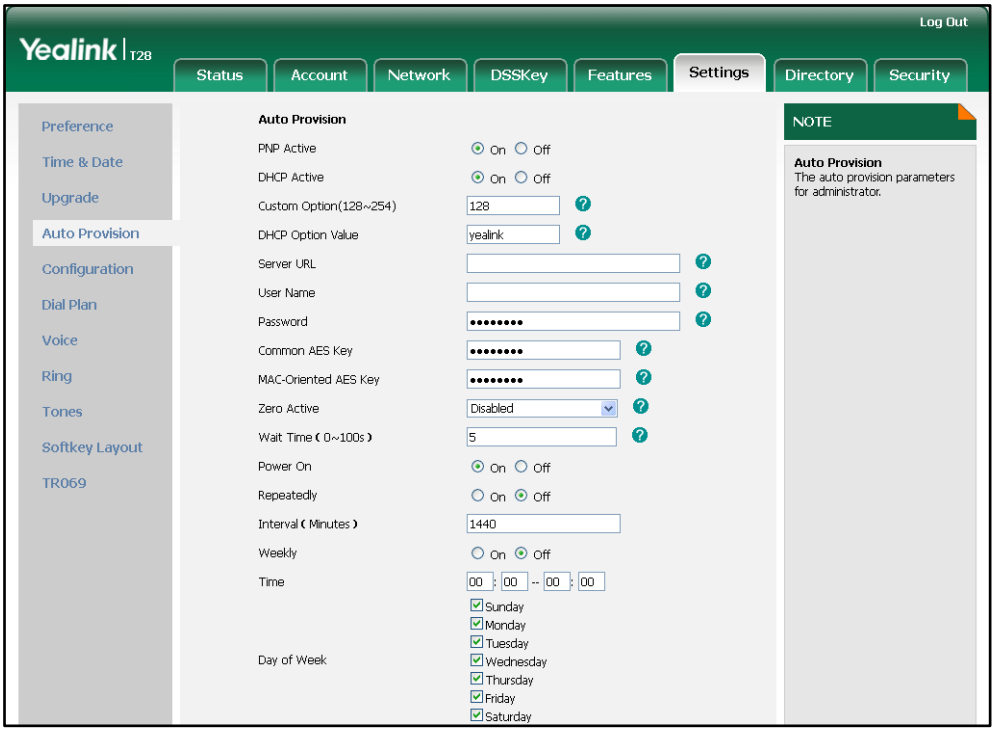
The custom DHCP option must be in accordance with the one defined in the DHCP server. For more information on configuring a DHCP server, refer to Configuring a DHCP server on page 51.

To configure the DHCP option via web user interface:

1. Click on **Settings->Auto Provision**.
2. Mark the **On** radio box in the **DHCP Active** field.
3. Enter the desired value in the **Custom Option (128~254)** field.

4. Enter the desired value in the **DHCP Option Value** field.

   The default value is yealink.



5. Click **Confirm** to accept the change.

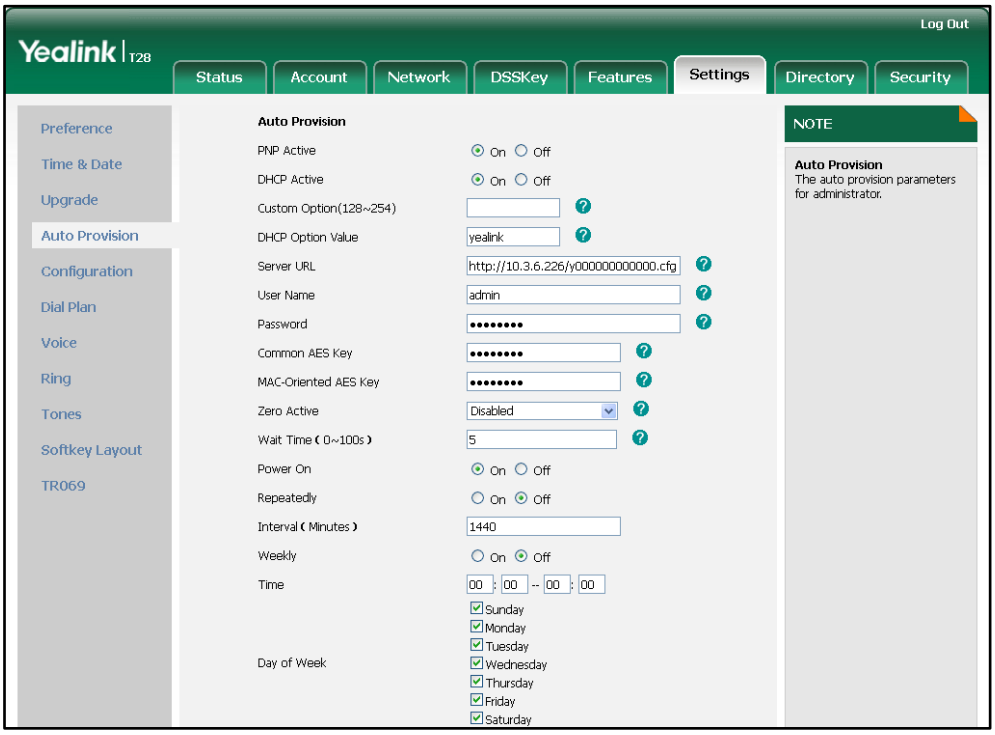
Phone Flash

Yealink IP phones support to obtain the provisioning server address from the phone flash. To obtain the provisioning server address by reading the phone flash, make sure the configuration is set properly.

To configure the Phone Flash via web user interface:

1. Click on **Settings**->**Auto Provision**.

2. Enter the URL, user name and password of the provisioning server in the **Server URL**, **User Name** and **Password** fields (the user name and password are optional).



3. Click **Confirm** to accept the change.

Update Mode

The update mode is used to set the desired time for the phone to perform the auto provisioning process. This chapter introduces the following update modes in detail:

- Power On
- Repeatedly
- Weekly
- Auto Provision Now
- Multi-mode Mixed
- SIP NOTIFY Message

When there is an active call on the phone during provisioning, the auto provisioning process will detect the call status every 30 seconds. If the call is released within 2 hours, the auto provisioning process will be performed normally. Otherwise, the process will be completed, due to timeout.

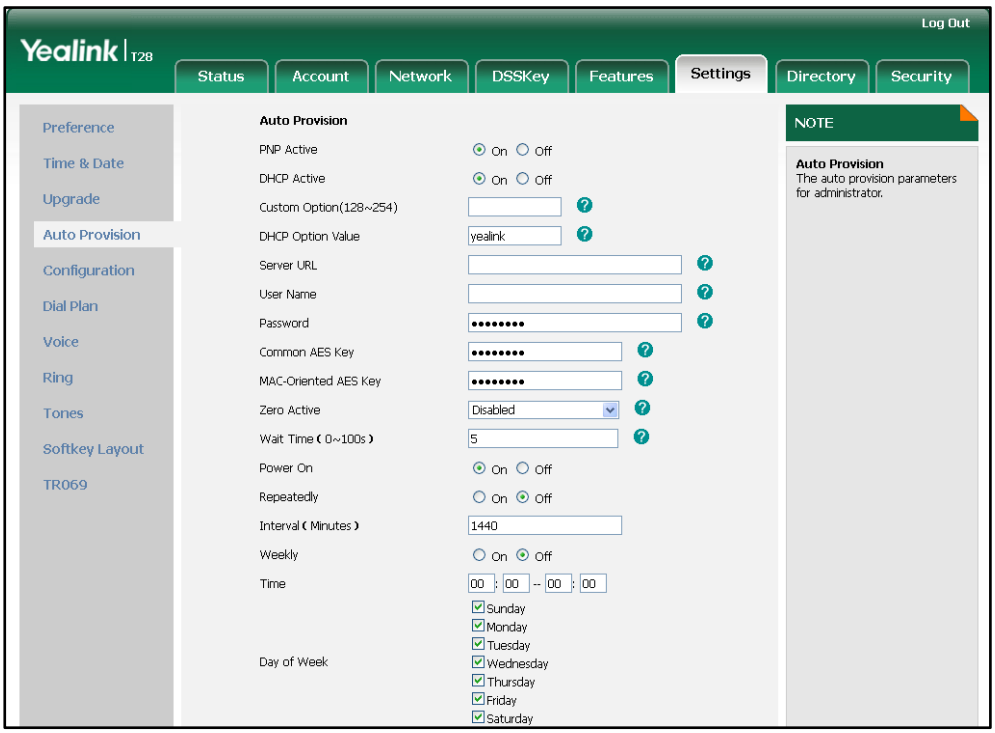
Power On

The phone performs the auto provisioning process when the phone is powered on.

To activate the Power On mode via a web user interface:

1. Click on **Settings**->**Auto Provision**.

2. Mark the **On** radio box in the **Power On** field.



3. Click **Confirm** to accept the change.

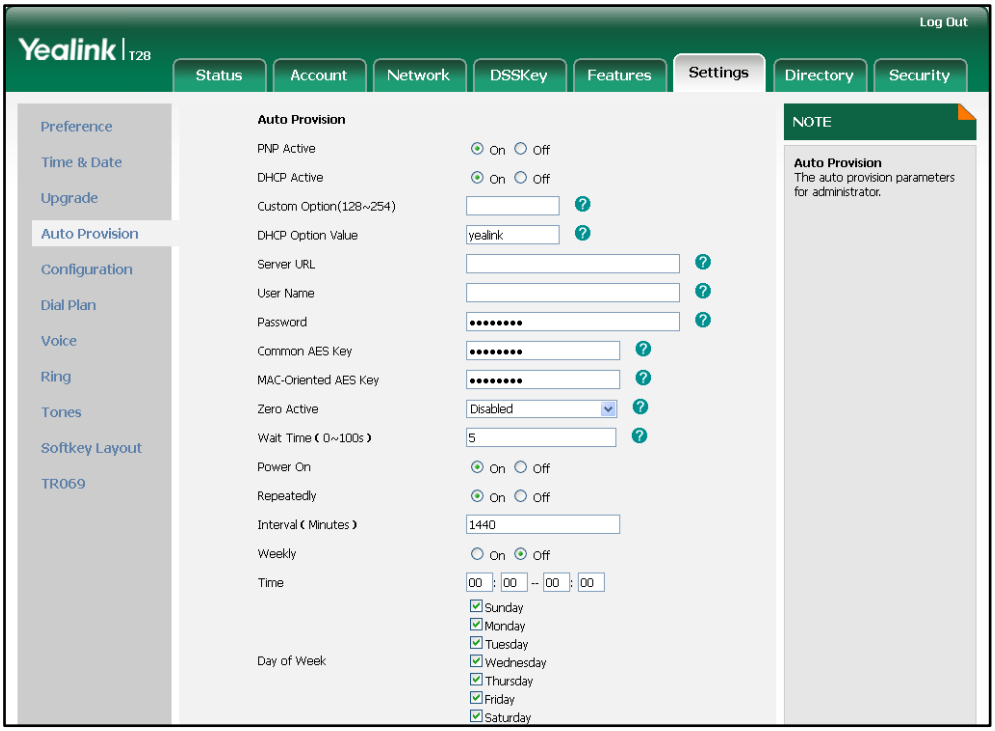
Repeatedly

The phone performs the auto provisioning process at regular intervals. You can configure the interval for the Repeatedly mode. The default interval is 1440 minutes.

To activate the Repeatedly mode via web user interface:

1. Click on **Settings->Auto Provision**.
2. Mark the **On** radio box in the **Repeatedly** field.

3. Enter the interval time (in minutes) in the **Interval (Minutes)** field.



4. Click **Confirm** to accept the change.

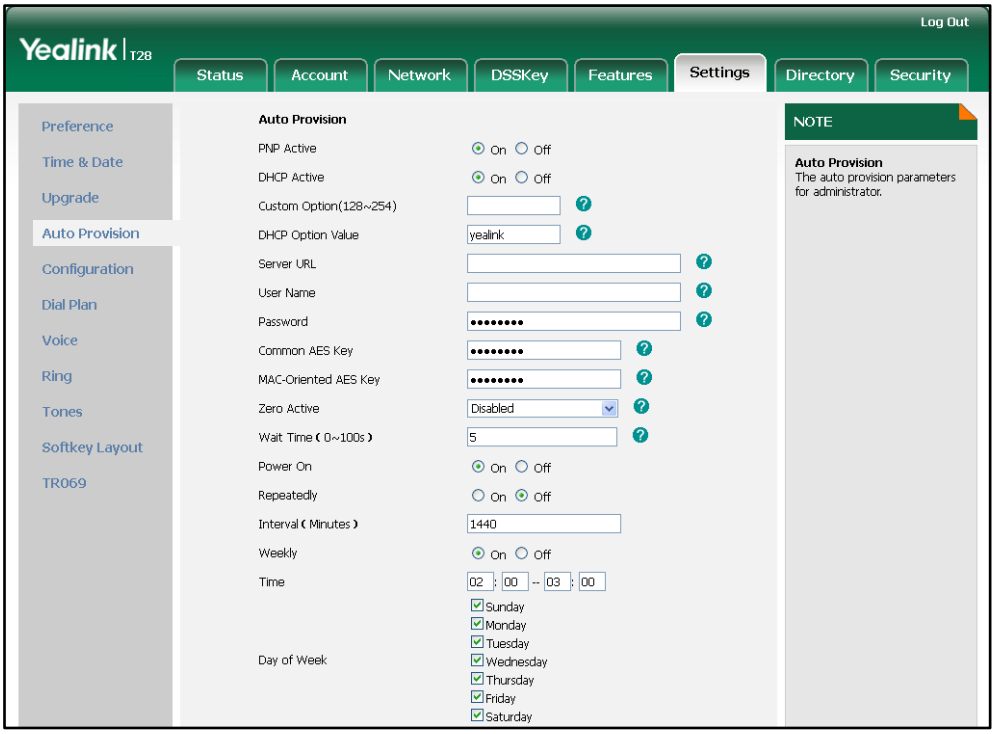
Weekly

The phone performs the auto provisioning process at the fixed time every week. You can configure what time of the day and which day of the week to trigger the phone to perform the auto provisioning process. For example, you can configure the phone to check and update new configuration between 2 to 3 o'clock every Friday and Sunday.

To activate the Weekly mode via web user interface:

1. Click on **Settings**->**Auto Provision**.
2. Mark the **On** radio box in the **Weekly** field.
3. Enter the desired time in the **Time** field.

4. Mark one or more radio boxes in the **Day of Week** field.



5. Click **Confirm** to accept the change.

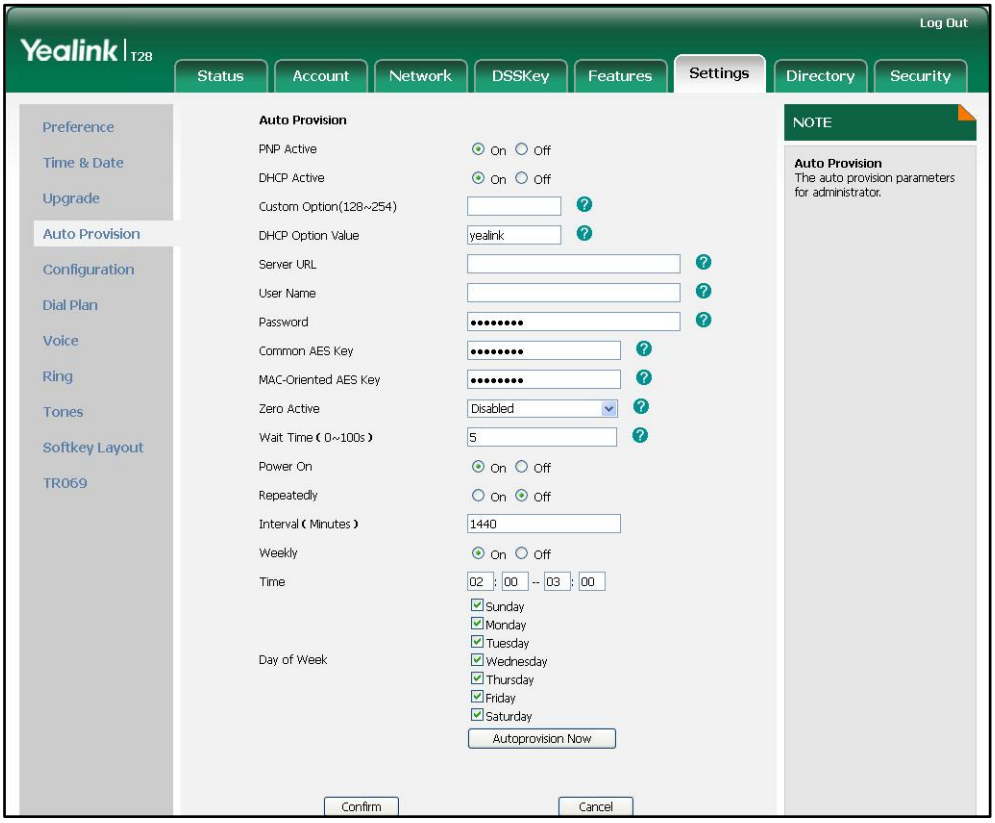
Auto Provision Now

You can use Auto Provision Now mode to manually trigger the phone to perform the auto provisioning process immediately.

To use the Auto Provision Now mode via web user interface:

1. Click on **Settings->Auto Provision**.

2. Click **Autoprovision Now**.



The phone will perform the auto provisioning process immediately.

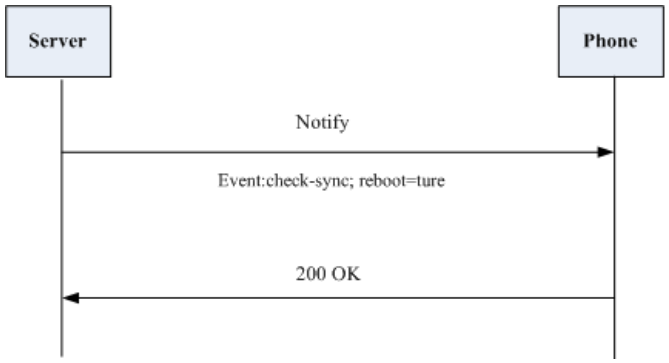
Multi-mode Mixed

You can activate more than one update mode for auto provisioning. For example, you can activate the "Power On" and "Repeatedly" modes simultaneously. The phone will perform the auto provisioning process when it is powered on and at a specified interval.

SIP NOTIFY Message

The phone will perform the auto provisioning process when receiving a SIP NOTIFY message which contains the header "Event: check-sync". If the header of the SIP NOTIFY message contains an additional string "reboot=true", the phone will reboot immediately and then perform the auto provisioning process. This update mode requires server support.

The following figure shows the message flow:



Downloading and Verifying Configurations

Downloading Configuration Files

Once obtaining a provisioning server address in one of the ways introduced above, the phone will connect to the provisioning server and download the configuration files. During the auto provisioning process, the phone will try to download the Common CFG file firstly, and then try to download the MAC-Oriented CFG file from the provisioning server. If resource files need to be updated and the access URLs have been specified in the configuration files, the phone will then try to download and update the resource files.

Resolving and Updating the Configurations

After downloading, the phone resolves the configuration files, downloads the resource files requested in the configuration files, and then updates the configurations and resource files to the phone flash. Generally, updated configurations will automatically take effect after the auto provisioning process is completed. For update of some specific configurations which require reboot before taking effect, for example, network configurations, the phone will reboot to make the configurations effective after the auto provisioning process is completed.

The phone calculates the MD5 values of the downloaded files. If the MD5 values of the Common and MAC-Oriented configuration files are the same as those of the last downloaded configuration files, this means these two configuration files on the provisioning server are not changed. The phone will complete the auto provisioning without repeated update. This is used to avoid unnecessary restart and impact of phone use.

If the configuration files have been AES-encrypted, the phone will decrypt the CFG files after downloading the configuration files. For more information on how to decrypt configuration files, refer to *Yealink Configuration Encryption Tool User Guide*.

The phone only reboots when there is at least a specific configuration requiring reboot during auto provisioning.

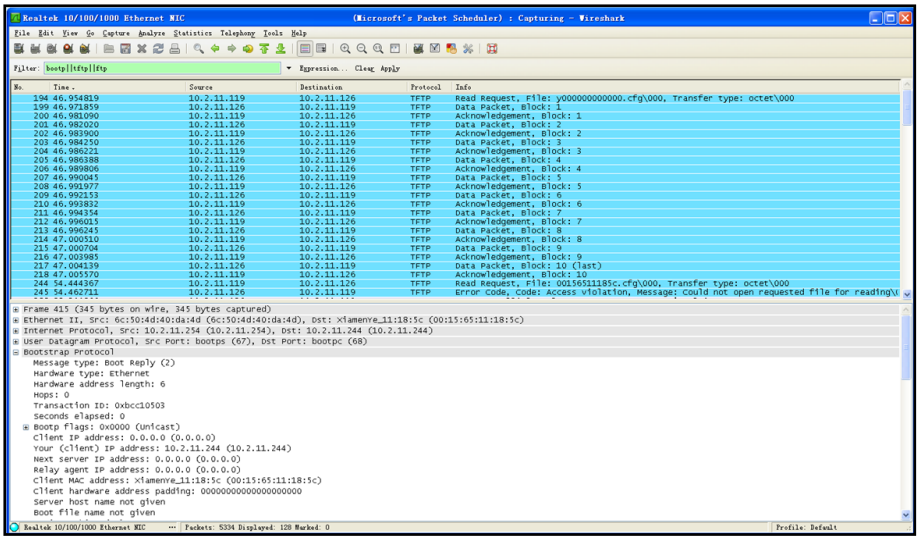
For more information on the specific configurations which require reboot during auto provisioning, refer to Description of Configuration Parameters in CFG Files on page 61.

Verifying Configurations

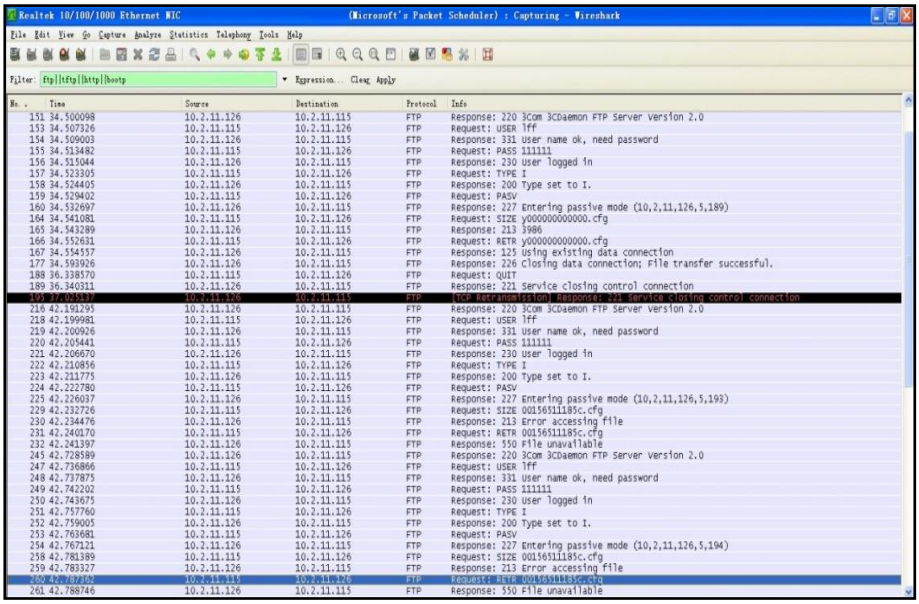
After auto provisioning, you can then verify the update via phone user interface, or you can verify it via web user interface of the phone. For more information, refer to Yealink phone-specific user guide.

During the auto provisioning process, you can monitor the downloading requests and response messages by a WinPcap tool. The following shows some examples.

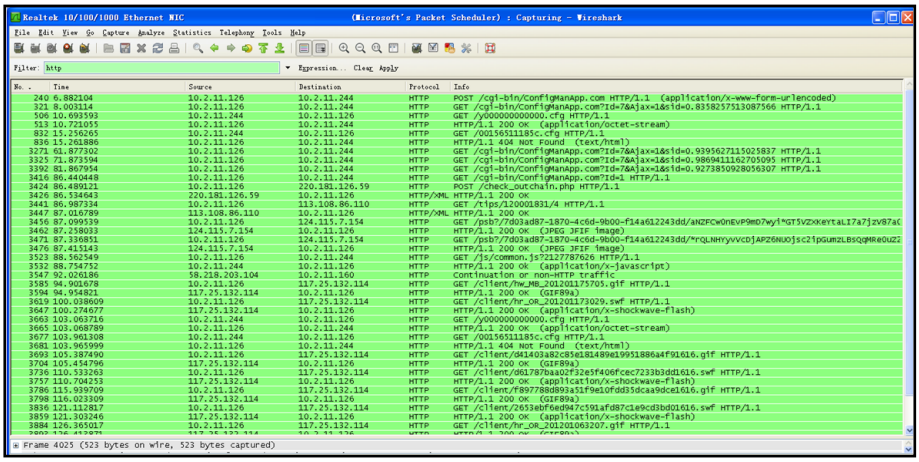
Example1: Yealink SIP-T28P IP phone downloads configuration files from the TFTP server.



Example 2: Yealink SIP-T28P IP phone downloads configuration files from the FTP server.



Example 3: Yealink SIP-T28P IP phone downloads configuration files from the HTTP server.



Troubleshooting

This chapter provides general troubleshooting information to help you solve problems you might encounter when deploying phones.

If you require additional information or assistance with the deployment, contact your system administrator.

Why does the phone fail to download configuration files?

- Ensure that auto provisioning feature is enabled.
- Ensure that the provisioning server and network are reachable.
- Ensure that authentication credentials configured on the phone are correct.
- Ensure that configuration files exist on the provisioning server.

Why does the provisioning server return HTTP 404?

- Ensure that the provisioning server is properly set up.
- Ensure that the access URL is correct.
- Ensure that the requested files exist on the provisioning server.

Why does the phone display "Network Unavailable"?

- Ensure that the Ethernet cable is plugged into the Internet port on the phone and the Ethernet cable is not loose.
- Ensure that the switch or hub in your network is operational.
- Ensure that the configurations of network are properly set in the configuration files.

Why is the permission denied when uploading files to an FTP server?

- Ensure that the complete path to the root directory of the FTP server is authorized.
- On the provisioning server, check the file permissions, if necessary, change the file permissions.

Why doesn't the phone obtain the IP address from the DHCP server?

- Ensure that settings are correct on the DHCP server.
- Ensure that the phone is configured to obtain the IP address from the DHCP server.

Why doesn't the phone download the ringtone?

- Ensure that the file format of the ringtone is *.wav.

- Ensure that the size of the ringtone file is no larger than that the phone supports.
- Ensure that the properties of the ringtone for the phone are correct.
- Ensure that the network is available and the root directory is right for downloading.
- Ensure that the ringtone file exists on the provisioning server.

Why doesn't the phone update configurations?

- Ensure that the configuration files are different from the last ones.
- Ensure that the phone has downloaded the configuration files.
- Ensure that the parameters are correctly set in the configuration files.

Glossary

MAC Address: A Media Access Control address (MAC address) is a unique identifier assigned to network interfaces for communications on the physical network segment.

MD5: The MD5 Message-Digest Algorithm is a widely used cryptographic hash function that produces a 128-bit (16-byte) hash value.

DHCP: Dynamic Host Configuration Protocol (DHCP) is a network configuration protocol for hosts on Internet Protocol (IP) networks. Computers that are connected to IP networks must be configured before they can communicate with other hosts.

FTP: File Transfer Protocol (FTP) is a standard network protocol used to transfer files from one host to another host over a TCP-based network, such as the Internet. It is often used to upload web pages and other documents from a private development machine to a public web-hosting server.

HTTP: The Hypertext Transfer Protocol (HTTP) is an application protocol for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web.

HTTPS: Hypertext Transfer Protocol Secure (HTTPS) is a combination of Hypertext Transfer Protocol (HTTP) with SSL/TLS protocol. It provides encrypted communication and secure identification of a network web server.

TFTP: Trivial File Transfer Protocol (TFTP) is a simple protocol to transfer files. It has been implemented on top of the User Datagram Protocol (UDP) using port number 69.

AES: Advanced Encryption Standard (AES) is a specification for the encryption of electronic data.

URL: A uniform resource locator or universal resource locator (URL) is a specific character string that constitutes a reference to an Internet resource.

XML: Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

Appendix

Configuring an FTP Server

This section provides instructions on how to configure an FTP server using 3CDaemon. You can download the 3CDaemon software online: http://www.oldversion.com/3Com-Daemon.html.

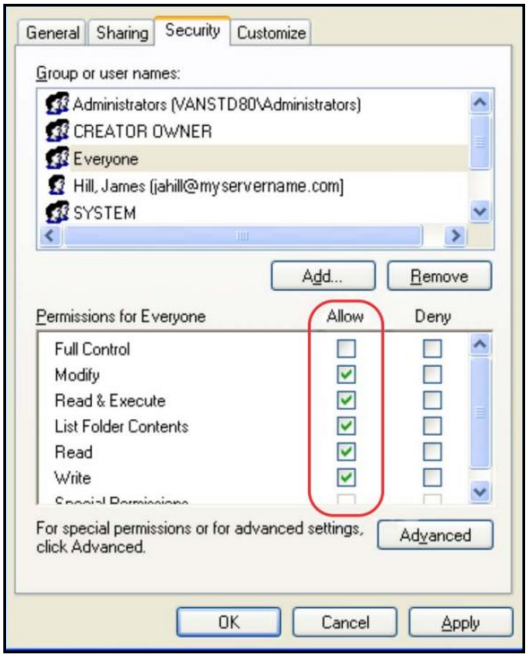
Preparing a Root Directory

To prepare a root directory:

1. Create an FTP root directory on the local system.
2. Place the configuration files to this root directory.
3. Set the security permissions for the FTP directory folder.

   You need to define a user or group name, and set the permissions: read, write, and modify. Security permissions vary by organizations.

   An example of configuration on the Windows platform is shown as below:



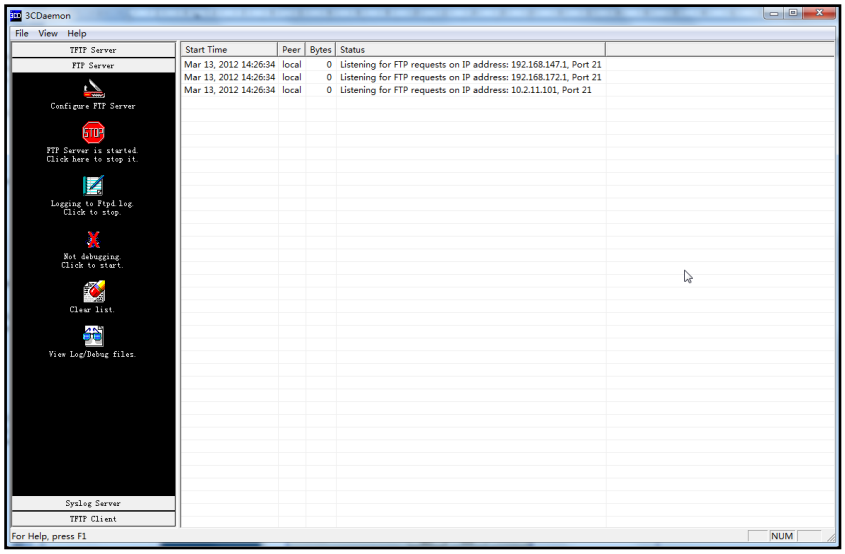
Configuring an FTP server

If you have a 3CDaemon application installed on your local system, use it directly. Otherwise, download and install it.

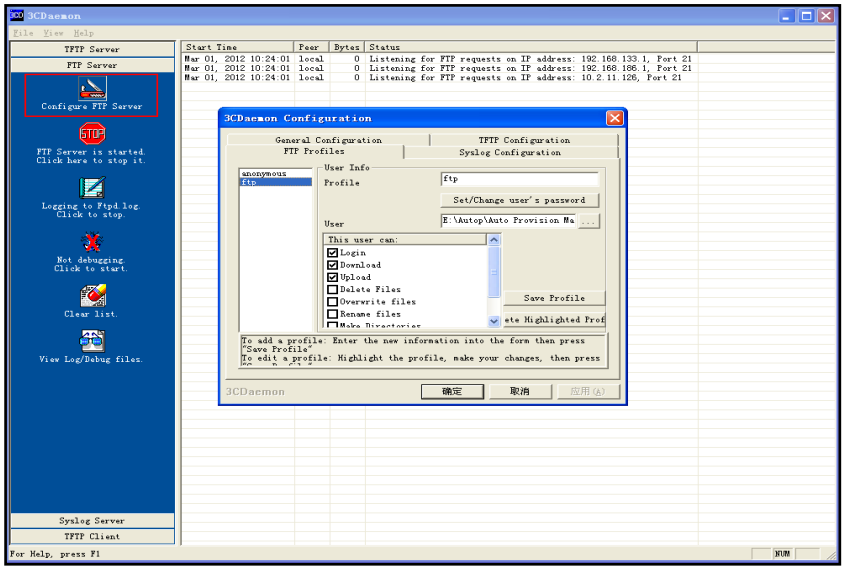
To configure an FTP server:

1. Double click the 3CDaemon.exe to start the application.
2. Click the **FTP Server** button on the left of the main page.

   A configuration page is shown as below:



3. Select **Configure FTP Server**.
4. Click the ... button to locate the FTP root directory from your local system:

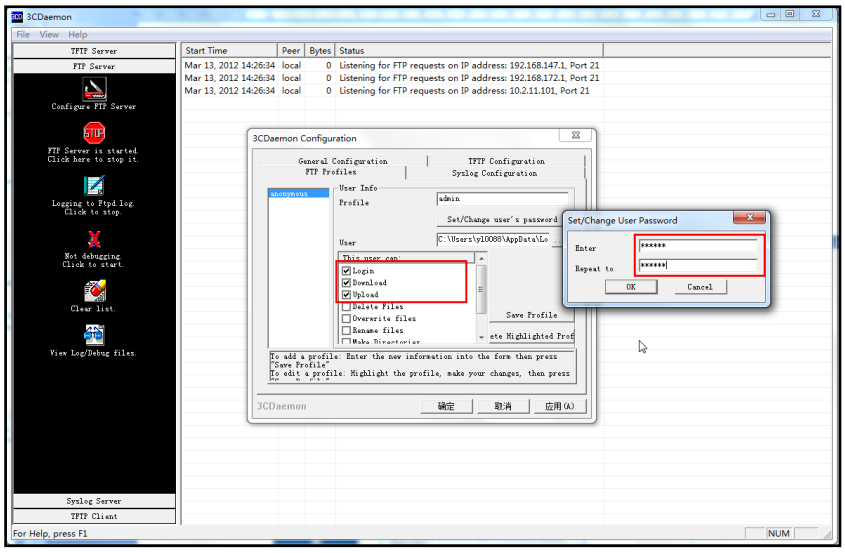


5. Enter the new authentication user name in the **Profile** field.
6. Click the **Set/Change user's password** button to set the password in the pop-up

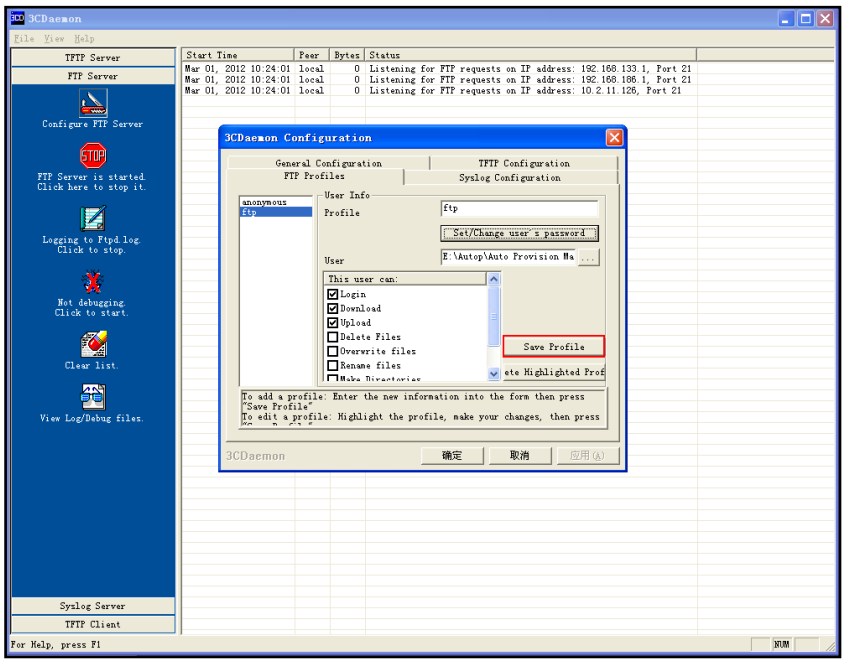
dialogue box.

7. Click the **OK** button to save.

8. Mark the check boxes of **Login**, **Download** and **Upload** to make sure the FTP user has the login, download and upload permission.



9. Click the **Save Profile** button to save the settings and finish the configurations.



10. Click the **Confirm** button to finish configuring the FTP server.

    The server URL "ftp://username:password@IP/" (Here "IP" means the IP address of the provisioning server, "username" and "password" are the authentication for FTP download. For example, "ftp://admin:123456@192.168.1.100/") is where the phone downloads configuration files from.

Configuring an HTTP Server

This section provides instructions on how to configure an HTTP server using HFS tool. You can download the HFS software online: http://www.snapfiles.com/get/hfs.html.

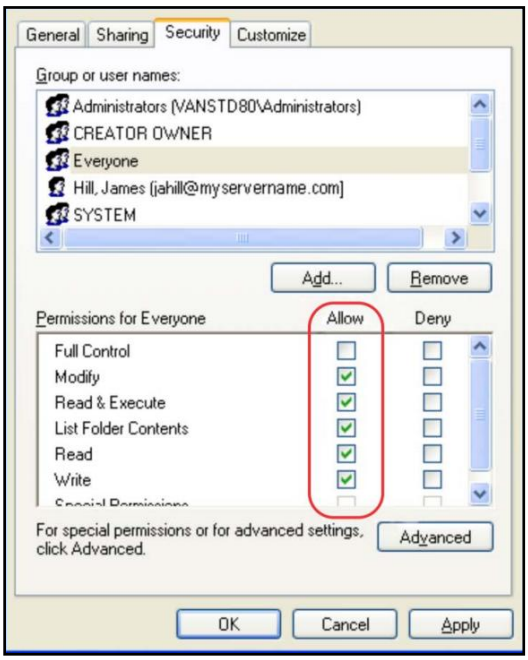
Preparing a Root Directory

To prepare a root directory:

1. Create an HTTP root directory on the local system.
2. Place the configuration files to this root directory.
3. Set the security permissions for the HTTP directory folder.

   You need to define a user or group name and set the permissions: read, write, and modify. Security permissions vary by organizations.

   An example of configuration on the Windows platform is shown as below:



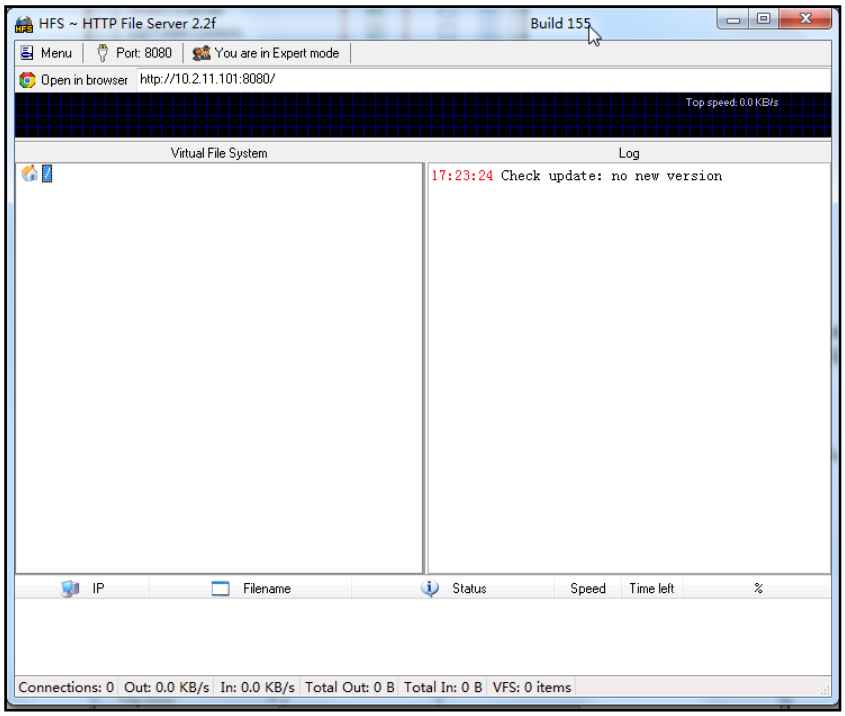
Configuring an HTTP Server

HFS tool is an executable application, so you don't need to install it.

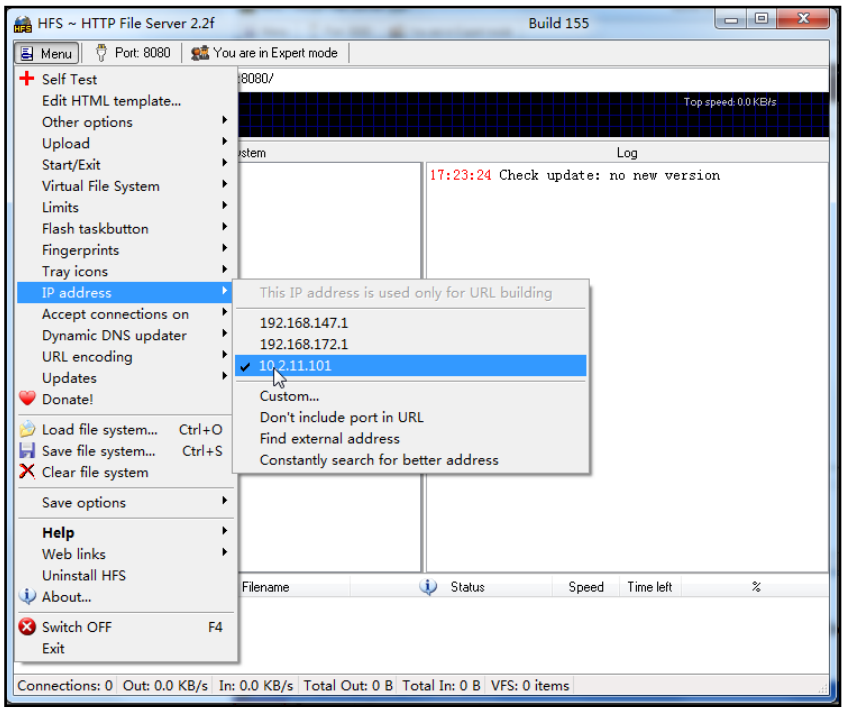
To configure an HTTP server:

1. Download the application file to your local directory, double click the hfs.exe.

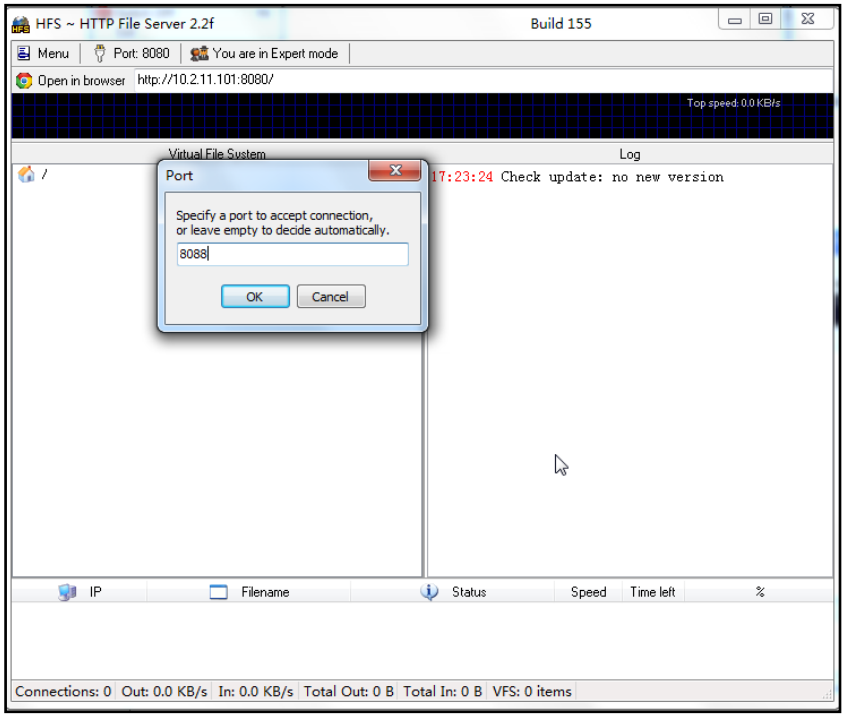
The main configuration page is shown as below:



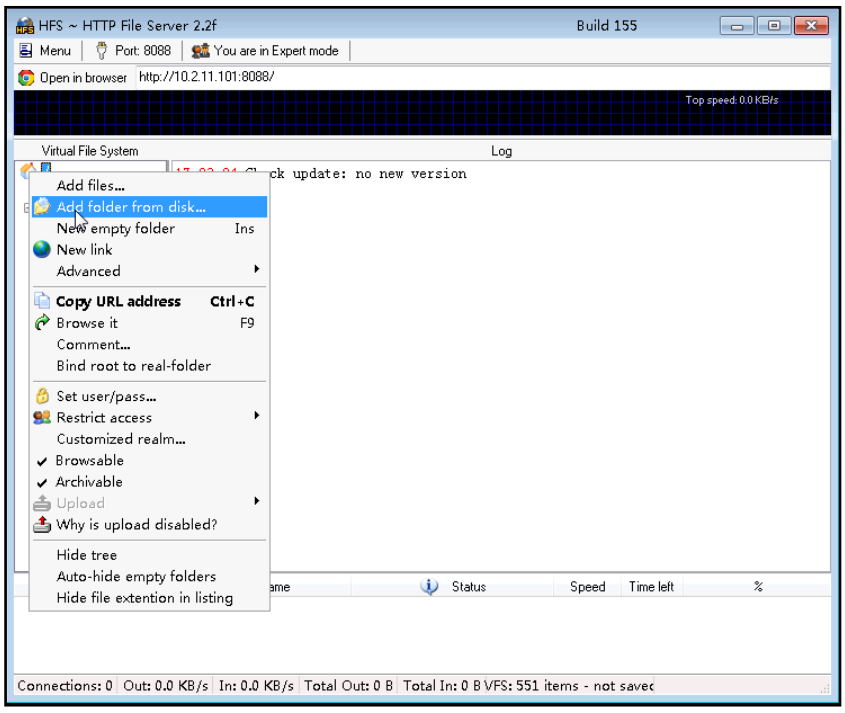
2. Click **Menu** in the main page and select the IP address of the PC from **IP address**.



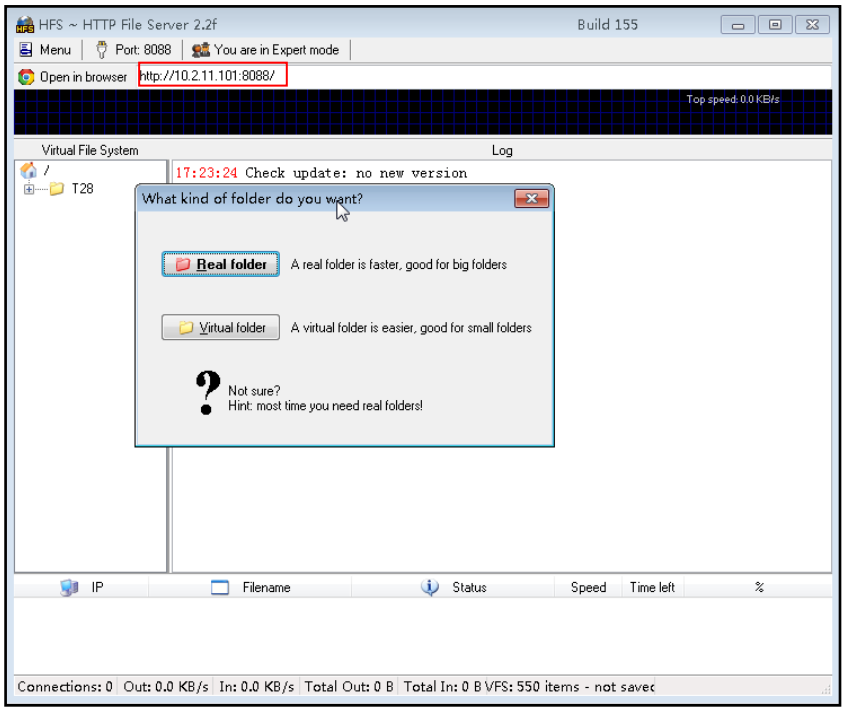
The default HTTP port is 8080. You can also reset the HTTP port (make sure there is no port conflict).



3. Right click the icon on the left of the main page, select **Add folder from disk** to add the HTTP Server root directory.



4. Locate the root directory from your local system. Select the kind of folder which you want.



5. Check the server URL "http:// IP:Port/" in the "**Open in browser**" address bar (For example, the server URL "http:// 10.2.11.101:8088/" is shown on the screenshot) . We recommend that you can fill the server URL in the address bar of the web browser and then press <Enter> key to check the HTTP server before provisioning.

Yealink IP phones also support the Hypertext Transfer Protocol with SSL/TLS (HTTPS) protocol for auto provisioning. HTTPS protocol provides the encrypted communication and secure identification. For more information on installing and configuring an Apache HTTPS Server, refer to the network resource.

Configuring a DHCP server

This section provides instructions on how to configure a DHCP server for windows using DHCP Turbo. You can download this software online: http://www.tucows.com/preview/265297 and install it following the setup wizard.

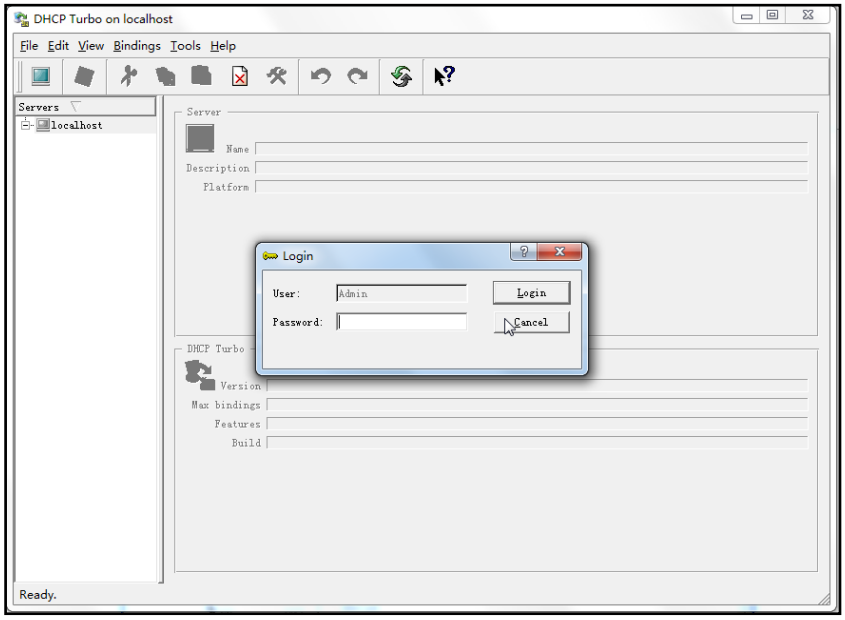
Before configuring the DHCP Turbo, make sure:

- The firewall on the PC is disabled.
- There is no DHCP server in your local system.

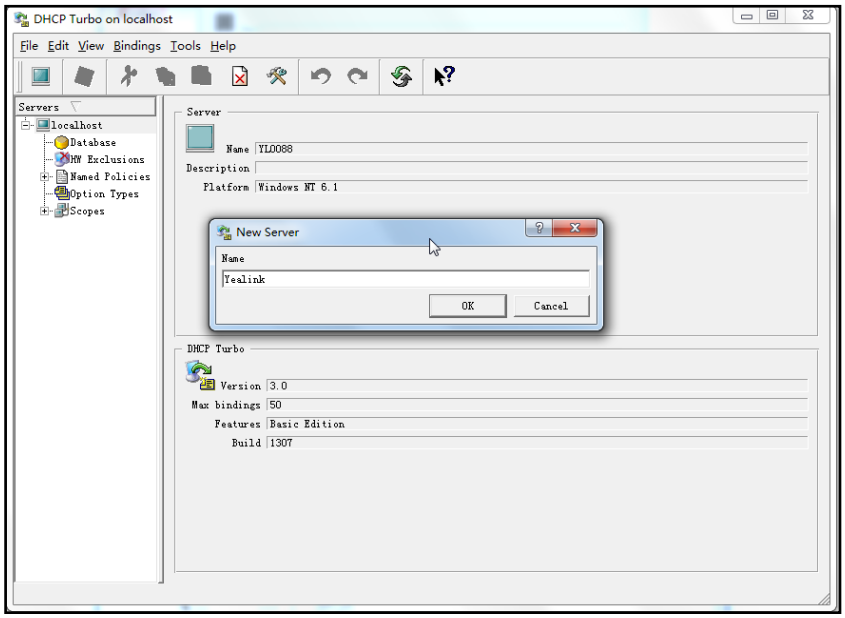
To configure the DHCP Turbo:

1. To start the DHCP Turbo application, double click **localhost**.

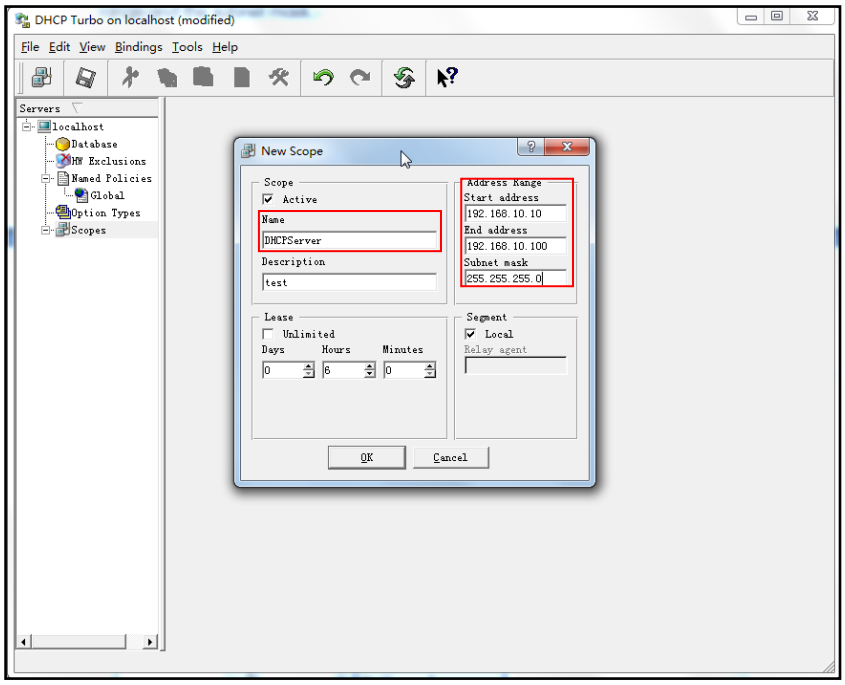
2. Click the **Login** button (the login password is blank) to log in.



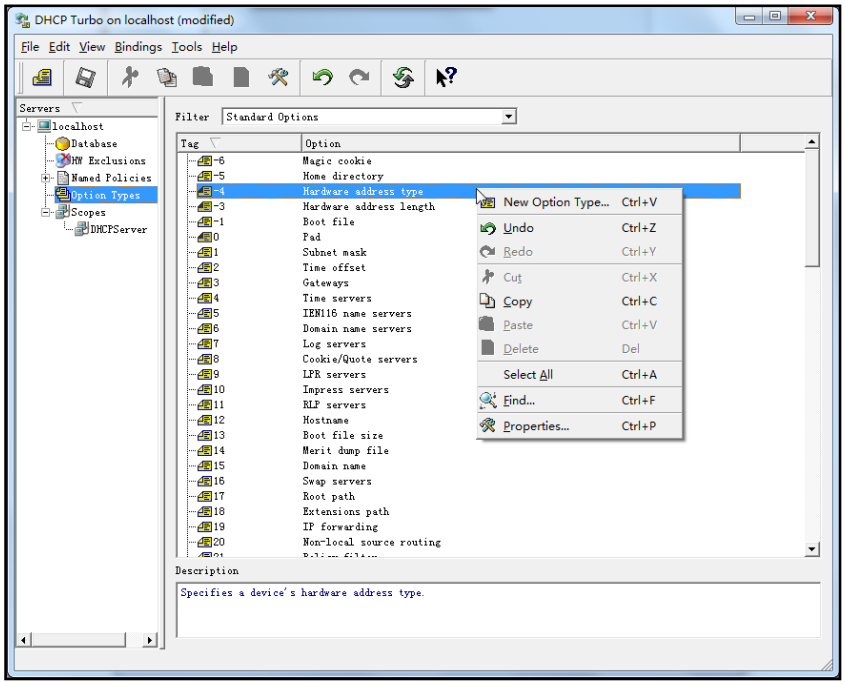
3. You can then edit the existing DHCP server, or you can right click **localhost** and select **New Server** to add a new DHCP server.



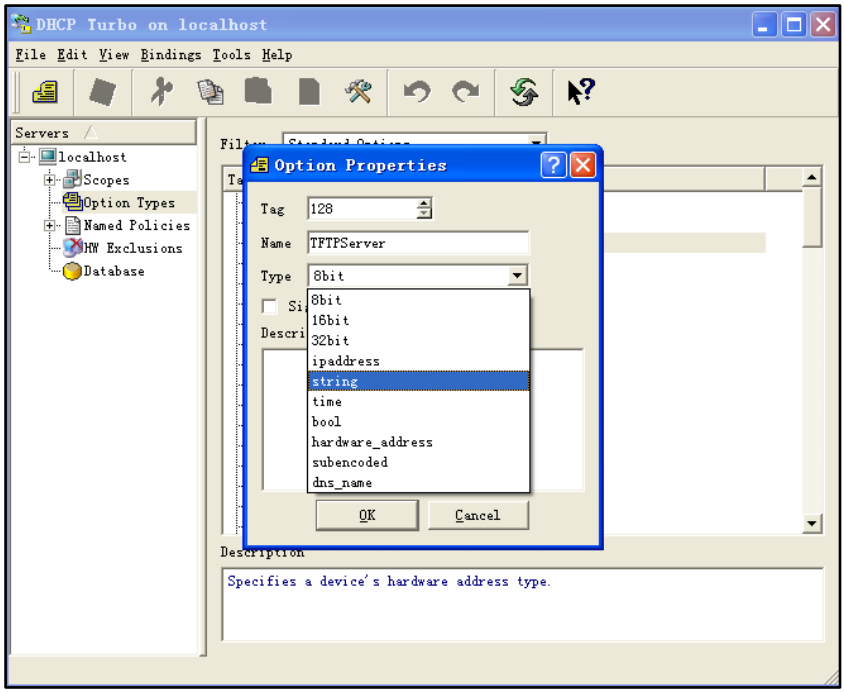
4. Right click **Scopes** and select **New Scope**.
5. Configure the DHCP server name, the DHCP IP range and the subnet mask.
6. Click **OK** to accept the change.



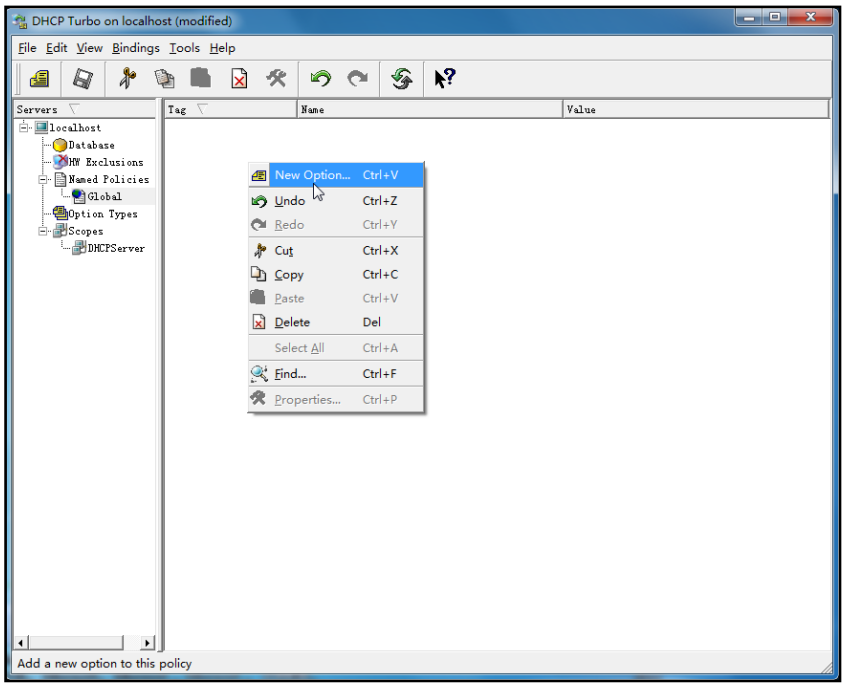
7. You can add a custom option via DHCP Turbo. Select **Option Types**, right click one of the options on the right of the main page, and then select **New Option Type**.



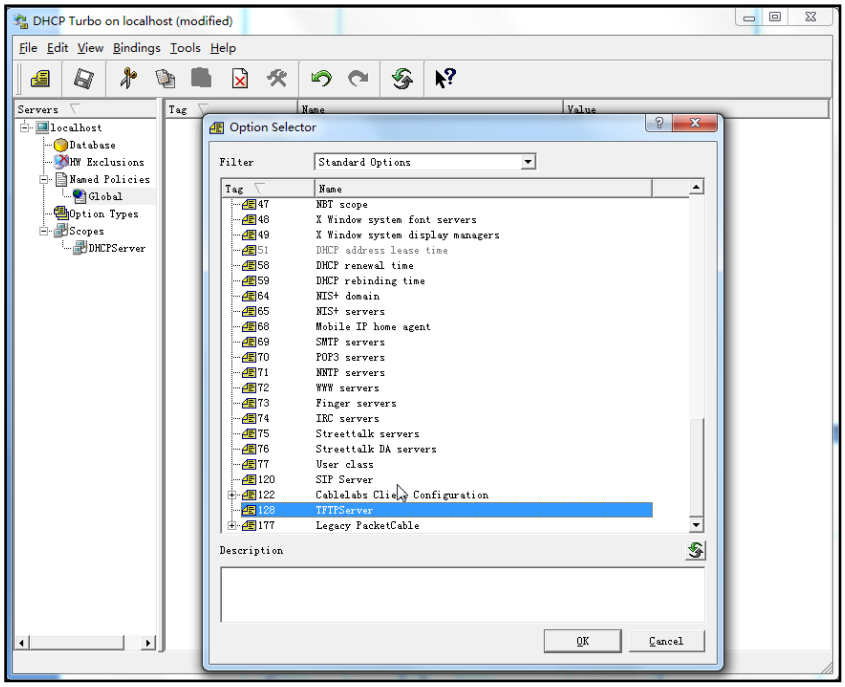
8. Set the custom DHCP option (custom DHCP option tag number ranges from 128 to 254) and select the option type (Yealink supports **String** and **IP Address** option types only). Click the **OK** button to finish setting the option properties. Click  to save the change.



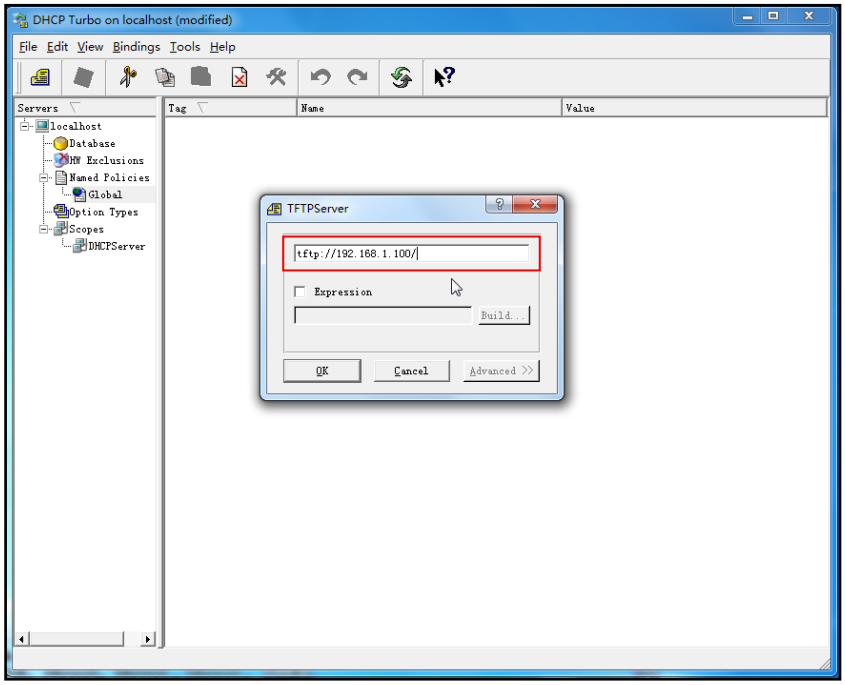
9. Click **Named Policies**-->**Global**, right click the blank area on the right of the main page and then select **New Option**.



10. Scroll down and double click the custom option 128.

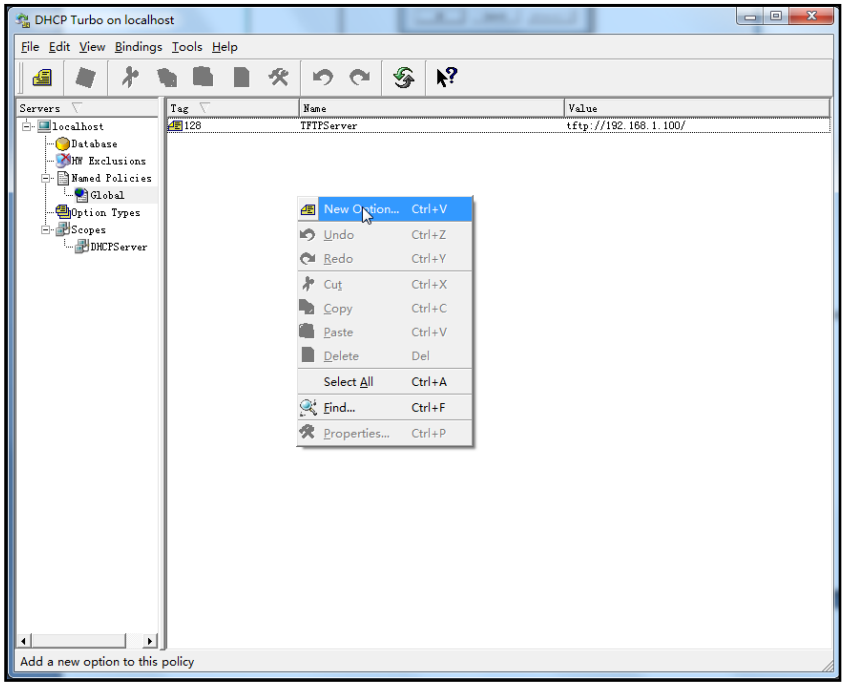


11. Fill the provisioning server address in the input field.
12. Click the **OK** button to finish setting a custom option.
13. Click  to save the change.

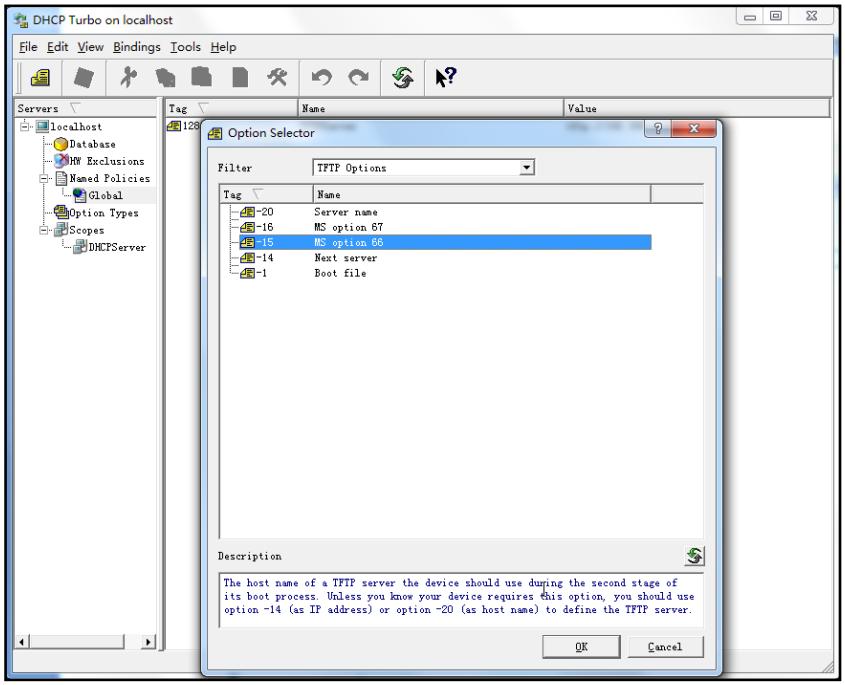


You can add the option 66 via DHCP Turbo. The following shows the detailed processes.

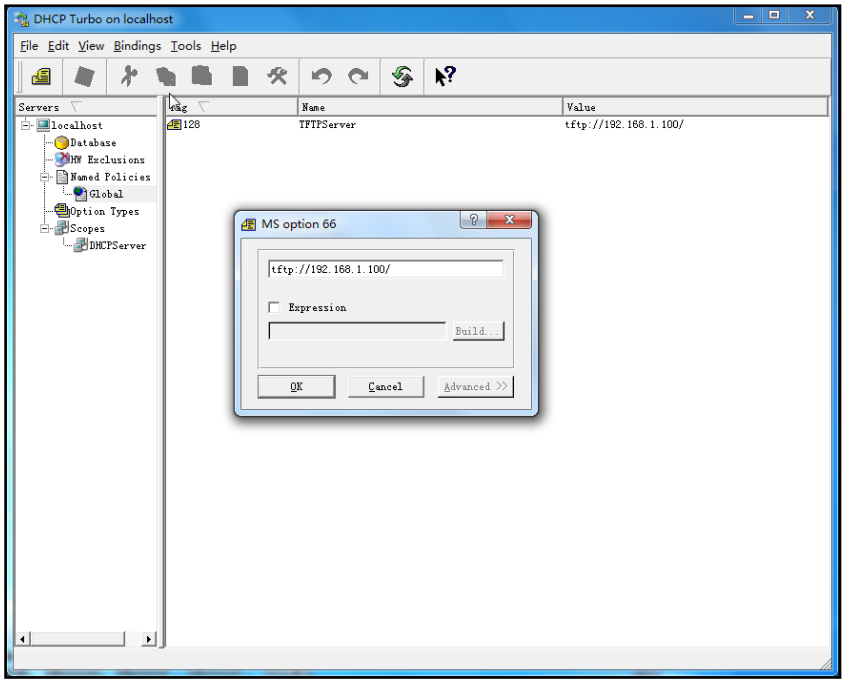
1. Click **Named Policies**-->**Global**, right click the blank area on the right of the main page and then select **New Option**.



2. Select **TFTP Options** from the pull-down list of **Filter**.
3. Scroll down and double click **MS option 66**.



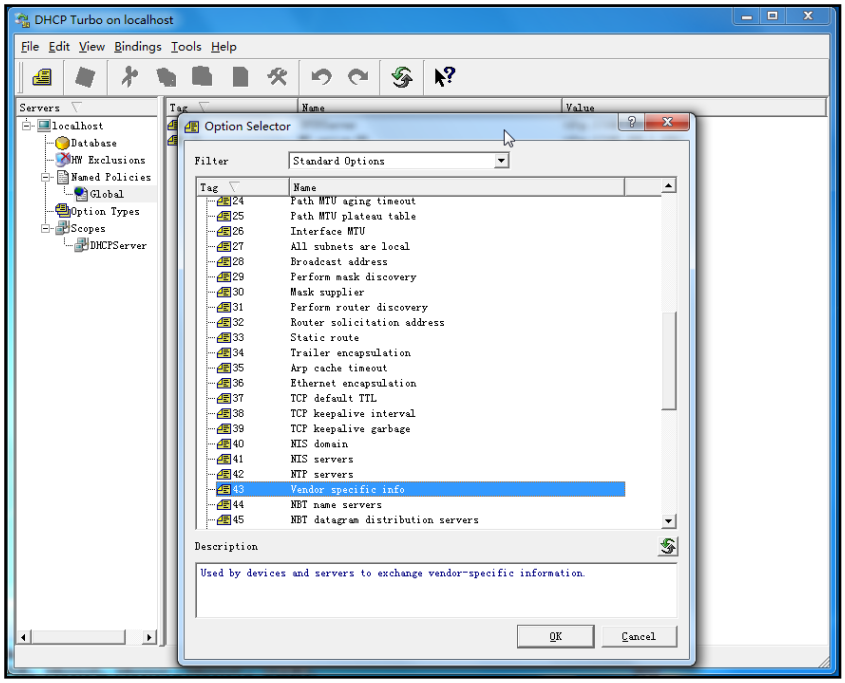
4. Fill the provisioning server address in the input field.



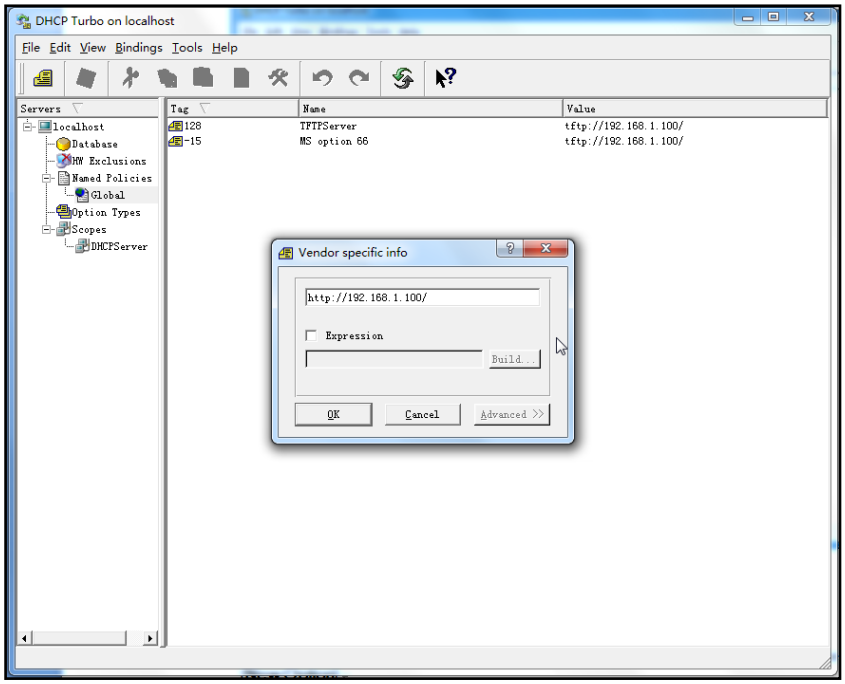
5. Click the **OK** button to finish setting a custom option.
6. Click to save the change.

You also can add the option 43. The following shows the detailed processes.

1. Click **Named Policies**-->**Global**, right click the blank area on the right of the main page and then select **New Option**.
2. Select the **Standard Options** from the pull-down list of **Filter**.
3. Scroll down and double click **43**.



4. Fill the provisioning server address in the input field.



5. Click the **OK** button to finish setting a custom option.
6. Click  to save the change.

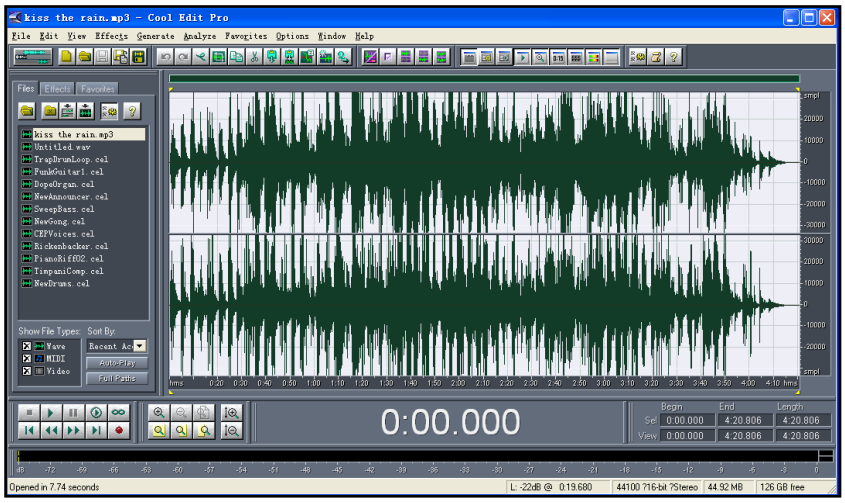
Customizing a Ringtone Using Cool Edit Pro

If you have installed the Cool Edit application, double click to open it. Otherwise, you can download the installation package online: http://www.toggle.com/lv/group/view/kl36218/Cool_Edit_Pro.htm and install it.

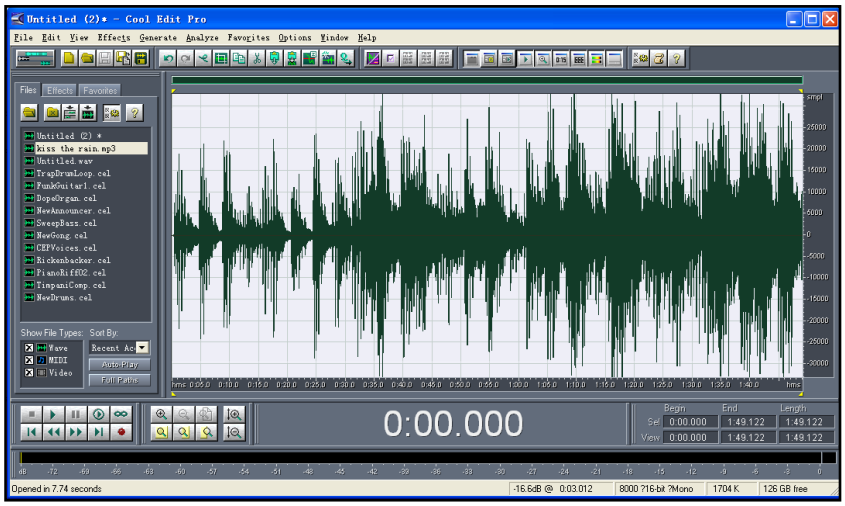
To customize a ringtone using Cool Edit Pro:

1. Open the **Cool Edit Pro** application.
2. Click **File** to open an audio file.
3. Locate the ringtone file, click **Open**, the file is uploaded as follows.

   A sample audio file loaded is shown as below:



4. Select and copy the audio waveform.
5. Select **File**->**New** to create a new file, set the channels as **Mono**, the sample rate as **8000** and the resolution as **16-bit**.
6. Paste the audio waveform to the new file.



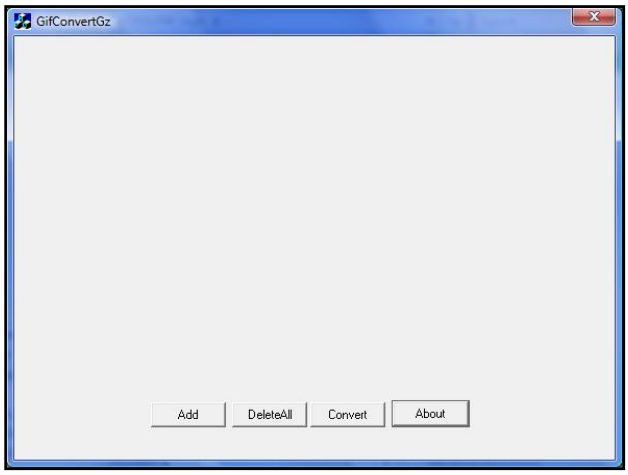
7. Select **File**->**Save as** to save the new audio file. On the Save waveform page,

select the file format as **A/mu-law wave**.

Customizing a Logo File Using PictureExDemo

The original picture format must be *.bmp or *.gif. We recommend placing all files and the PictureExDemo application to the root directory of the PC.

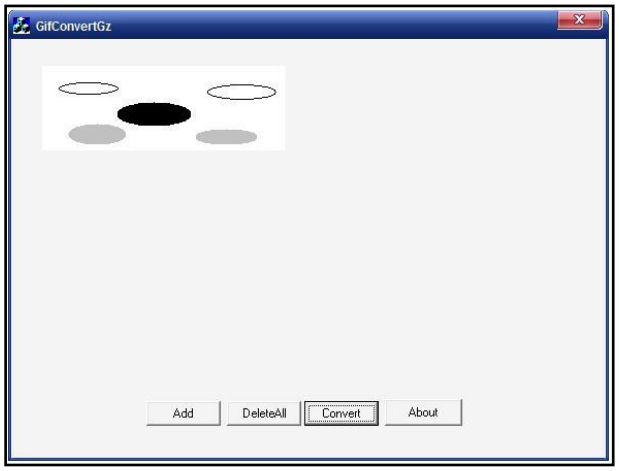
1. Double click the PictureExDemo.exe.



2. Click **Add** button to open a *.bmp or *.gif file.

   You can repeat the second step to add multiple original picture files.

3. Click the **Convert** button.



Then you can find the **DOB** logo files in the **adv** directory.

Description of Configuration Parameters in CFG Files

If you want to reset the configuration of a parameter, set the value of the parameter to be !NULL! or %NULL%. For example, local_time.ntp_server1 = %NULL%. After the auto provisioning process is completed, the NTP server 1 will be reset to "cn.pool.ntp.org".

Parameter	Permitted Values	Descriptions	Web Setting Path
network.ip_address_mode =	0, 1 or 2	It configures the IP address mode. **0**-IPv4 **1**-IPv6 **2**-IPv4&IPv6 The default value is 0. It takes effect after reboot.	Network->Basic->Internet Port->Mode (IPv4/IPv6)
network.internet_port.type =	0, 1 or 2	It configures the Internet (WAN) port type for IPv4 when the IP address mode is configured as IPv4 or IPv4&IPv6. **0**-DHCP **1**-PPPoE **2**-Static IP Address The default value is 0. It takes effect after reboot	Network->Basic->IPv4 Config
network.internet_port.ip =	IP address	It configures the IPv4 address when the IP address mode is configured as IPv4 or IPv4&IPv6, and the Internet (WAN) port type for IPv4 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	Network->Basic->IPv4 Config->Static IP Address->IP Address
network.internet_port.mask =	IP address	It configures the IPv4 subnet mask when the IP address mode is configured as IPv4 or IPv4&IPv6, and the Internet (WAN) port type for IPv4 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	Network->Basic->IPv4 Config->Static IP Address->Subnet Mask
network.internet_port.gatew	IP address	It configures the IPv4 default gateway when the IP address mode is	Network->Basic->IPv4 Config->Static

Parameter	Permitted Values	Descriptions	Web Setting Path
ay =		configured as IPv4 or IPv4&IPv6, and the Internet (WAN) port type for IPv4 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	IP Address-> Gateway
network.primary_dns =	IP address	It configures the primary IPv4 DNS server when the IP address mode is configured as IPv4 or IPv4&IPv6, and the Internet (WAN) port type for IPv4 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	Network->Basic-> IPv4 Config->Static IP Address-> Primary DNS
network.secondary_dns =	IP address	It configures the secondary IPv4 DNS server when the IP address mode is configured as IPv4 or IPv4&IPv6, and the Internet (WAN) port type for IPv4 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	Network->Basic-> IPv4 Config->Static IP Address-> Secondary DNS
network.pppoe.user =	String	It configures the user name for PPPoE connection. The default value is blank. It takes effect after reboot.	Network->Basic-> IPv4 Config-> PPPoE->User Name
network.pppoe.password =	String	It configures the password for PPPoE connection. The default value is blank. It takes effect after reboot.	Network->Basic-> IPv4 Config-> PPPoE->Password
network.ipv6_icmp_v6.enable =	0 or 1	It enables or disables the phone to obtain the IPv6 network settings from the ICMPv6. **0**-Disabled **1**-Enabled The default value is 1.	
network.ipv6_internet_port.type =	0 or 1	It configures the Internet (WAN) port type for IPv6 when the IP address mode is configured as IPv6 or	Network->Basic-> IPv6 Config

Parameter	Permitted Values	Descriptions	Web Setting Path
		IPv4&IPv6. **0**-DHCP **1**-Static IP Address The default value is 0. It takes effect after reboot.	
network.ipv6_prefix =	Integer from 0 to 128	It configures the IPv6 prefix when the IP address mode is configured as IPv6 or IPv4&IPv6, and the Internet (WAN) port type for IPv6 is configured as Static IP Address. The default value is 64. It takes effect after reboot.	Network->Basic->IPv6 Config->Static IP Address->IPv6 Prefix (0~128)
network.ipv6_internet_port.ip =	IP address	It configures the IPv6 address when the IP address mode is configured as IPv6 or IPv4&IPv6, and the Internet (WAN) port type for IPv6 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	Network->Basic->IPv6 Config->Static IP Address->IP Address
network.ipv6_internet_port.gateway =	IP address	It configures the IPv6 default gateway when the IP address mode is configured as IPv6 or IPv4&IPv6, and the Internet (WAN) port type for IPv6 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	Network->Basic->IPv6 Config->Static IP Address-> Gateway
network.ipv6_primary_dns =	IP address	It configures the primary IPv6 DNS server when the IP address mode is configured as IPv6 or IPv4&IPv6, and the Internet (WAN) port type for IPv6 is configured as Static IP Address. The default value is blank. It takes effect after reboot.	Network->Basic->IPv6 Config->Static IP Address-> Primary DNS
network.ipv6_secondary_dns =	IP address	It configures the secondary IPv6 DNS server when the IP address mode is configured as IPv6 or IPv4&IPv6, and the Internet (WAN) port type for IPv6 is	Network-> Basic->IPv6 Config->Static IP Address-> Secondary DNS

Parameter	Permitted Values	Descriptions	Web Setting Path
		configured as Static IP Address. The default value is blank. It takes effect after reboot.	
network.bridge_mode =	0 or 1	It defines the PC (LAN) port type. **0**-Router **1**-Bridge The default value is 1. It takes effect after reboot.	Network->PC Port ->PC Port Config
network.pc_port.enable =	0 or 1	It enables or disables the PC port. **0**-Disabled **1**-Auto Negotiation The default value is 1. It takes effect after reboot.	Network->PC Port ->PC Port Active
network.pc_port.ip =	IP address	It configures the IP address of the PC (LAN) port when the PC (LAN) port is configured as Router. The default value is blank. It takes effect after reboot.	Network->PC Port ->PC Port Config ->As Router->IP Address
network.pc_port.mask =	IP address	It configures the mask of the PC (LAN) port when the PC (LAN) port is configured as Router. The default value is blank. It takes effect after reboot.	Network->PC Port ->PC Port Config ->As Router ->Subnet Mask
network.pc_port.dhcp_server =	0 or 1	It enables or disables the phone to act as a DHCP server when the PC (LAN) port is configured as Router. **0**-Disabled **1**-Enabled The default value is 1. It takes effect after reboot.	Network->PC Port ->PC Port Config ->As Router ->Enable DHCP Server
network.dhcp.start_ip =	IP address	It configures the start IP address of the DHCP IP segment. The default value is 10.0.0.10.	Network->PC Port ->PC Port Config ->As Router->Start IP Address

Parameter	Permitted Values	Descriptions	Web Setting Path
network.dhcp.end_ip =	IP address	It configures the end IP address of the DHCP IP segment. The default value is 10.0.0.100.	Network->PC Port ->PC Port Config ->As Router->End IP Address
network.internet_port.speed_duplex =	0, 1, 2, 3 or 4	It configures the transmission mode and speed of the Internet (WAN) port. **0**-Auto negotiate **1**-Full duplex 10Mbps **2**-Full duplex 100Mbps **3**-Half duplex 10Mbps **4**-Half duplex 100Mbps The default value is 0.	Network-> Advanced->Port Link-> WAN Port Link
network.pc_port.speed_duplex =	0, 1, 2, 3 or 4	It configures the transmission mode and speed of the PC (LAN) port when configured as Router. **0**-Auto negotiate **1**-Full duplex 10Mbps **2**-Full duplex 100Mbps **3**-Half duplex 10Mbps **4**-Half duplex 100Mbps The default value is 0.	Network-> Advanced->Port Link->PC Port Link
network.vlan.internet_port_enable =	0 or 1	It enables or disables VLAN of the Internet (WAN) port. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	Network-> Advanced->VLAN ->WAN Port-> Active
network.vlan.internet_port_vid =	Integer from 1 to 4094	It configures VLAN ID of the Internet (WAN) port. The default value is 1. It takes effect after reboot.	Network-> Advanced->VLAN ->WAN Port->VID (1-4094)
network.vlan.internet_port_priority =	Integer from 0 to 7	It configures VLAN priority of the Internet (WAN) port. The default value is 0. It takes effect after reboot.	Network-> Advanced->VLAN ->WAN Port-> Priority

Parameter	Permitted Values	Descriptions	Web Setting Path
network.vlan.pc_port_enable =	0 or 1	It enables or disables VLAN of the PC (LAN) port. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	Network->Advanced->VLAN >PC Port->Active
network.vlan.pc_port_vid =	Integer from 1 to 4094	It configures VLAN ID of the PC (LAN) port. The default value is 1. It takes effect after reboot.	Network->Advanced->VLAN >PC Port->VID (1-4094)
network.vlan.pc_port_priority =	Integer from 0 to 7	It configures VLAN priority of the PC (LAN) port. The default value is 0. It takes effect after reboot.	Network->Advanced->VLAN >PC Port->Priority
network.vlan.dhcp_enable =	0 or 1	It enables or disables the phone to obtain VLAN from DHCP. **0**-Disabled **1**-Enabled The default value is 1. It takes effect after reboot.	Network->Advanced->VLAN >DHCP VLAN->Active
network.vlan.dhcp_option =	Integer from 128 to 254	It configures the DHCP option from which the phone will obtain the VLAN settings. You can configure at most five DHCP options and separate options by comma. The default value is 132. It takes effect after reboot.	Network->Advanced->VLAN >DHCP VLAN->Option
network.dhcp_host_name =	String	It configures the host name of the phone. The default value is SIP-T2xP (X=0,2,6,8)	Features->General Information->DHCP Hostname
network.static_dns_enable =	0 or 1	It enables or disables the phone to use the static DNS. **0**-Disabled **1**-Enabled	

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 0. It takes effect after reboot.	
wui.http_enable =	0 or 1	It enables or disables the HTTP protocol for web server access. **0**-Disabled **1**-Enabled The default value is 1. It takes effect after reboot.	Network->Advanced->Web Server->HTTP
wui.https_enable =	0 or 1	It enables or disables the HTTPS protocol for web server access. **0**-Disabled **1**-Enabled The default value is 1. It takes effect after reboot.	Network->Advanced->Web Server->HTTPS
network.port.http =	Integer from 1 to 65535	It configures the HTTP port for web server access. The default value is 80. It takes effect after reboot.	Network->Advanced->Web Server->HTTP Port (1~65535)
network.port.https =	Integer from 1 to 65535	It configures the HTTPS port for web server access. The default value is 443. It takes effect after reboot.	Network->Advanced->Web Server->HTTPS Port (1~65535)
network.port.max_rtpport =	Integer from 1 to 65535	It configures the maximum local RTP port. The default value is 11800. It takes effect after reboot.	Network->Advanced->Local RTP Port-> Max RTP Port (1~65535)
network.port.min_rtpport =	Integer from 1 to 65535	It configures the minimum local RTP port. The default value is 11780. It takes effect after reboot.	Network->Advanced->Local RTP Port->Min RTP Port (1~65535)
network.qos.rtptos =	Integer from 0 to 63	It configures the voice QoS. The default value is 46. It takes effect after reboot.	Network->Advanced->Voice QoS (0~63)
network.qos.si	Integer from	It configures the SIP QoS.	Network->Advanced->SIP

Parameter	Permitted Values	Descriptions	Web Setting Path
gnaltos =	0 to 63	The default value is 26. It takes effect after reboot.	QoS (0~63)
network.802_1x.mode =	0, 1, 2, 3 or 4	It configures the 802.1x mode. **0**-Disabled **1**-EAP-MD5 **2**-EAP-TLS **3**-PEAP-MSCHAPV2 **4**-EAP-TTLS/EAP-MSCHAPv2 The default value is 0. It takes effect after reboot.	Network->Advanced->802.1x->802.1x Mode
network.802_1x.identity =	String	It configures the user name for 802.1x authentication. The default value is blank. It takes effect after reboot.	Network->Advanced->802.1x->Identity
network.802_1x.md5_password =	String	It configures the password for 802.1x authentication. The default value is blank. It takes effect after reboot.	Network->Advanced->802.1x->MD5 Password
network.802_1x.root_cert_url =	URL	It configures the access URL of the root certificate when the 802.1x mode is configured as EAP-TLS, PEAP-MSCHAPV2 or EAP-TTLS/EAP-MSCHAPV2.	Network->Advanced->802.1x->CA Certificates
network.802_1x.client_cert_url =	URL	It configures the access URL of the client certificate when the 802.1x mode is configured as EAP-TLS.	Network->Advanced->802.1x->Device Certificates
network.vpn_enable =	0 or 1	It enables or disables VPN feature. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	Network->Advanced->VPN->Active
network.lldp.enable =	0 or 1	It enables or disables LLDP feature. **0**-Disabled **1**-Enabled	Network->Advanced->LLDP->Active

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 1. It takes effect after reboot.	
network.lldp.packet_interval =	Integer from 1 to 3600	It configures the interval (in seconds) for the phone to broadcast the LLDP request. The default value is 60. It takes effect after reboot.	Network->Advanced->LLDP->Packet Interval (1~3600s)
network.snmp.enable =	0 or 1	It enables or disables SNMP feature. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	Network->Advanced->SNMP->Active
network.snmp.port =	Integer from 1 to 65535	It configures the SNMP port. The default value is blank. It takes effect after reboot.	Network->Advanced->SNMP->Port (1~655535)
network.snmp.trust_ip =	IP address	It configures the IP address(es) of the trusted SNMP server. Multiple IP addresses should be separated by space. If the value of this parameter is configured to "0.0.0.0", the phone will receive SNMP requests from any server. The default value is blank. It takes effect after reboot.	Network->Advanced->SNMP->Trusted Address
network.span_to_pc_port =	0 or 1	It enables or disables the phone to span data packets received in the WAN port to the PC port. If it is enabled, all packets from WAN port can be received by PC port. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	Network->Advanced->Span to PC->Span to PC Port
sip.reg_surge_prevention =	Integer from 0 to 60	It configures the maximum duration (in seconds) for account register after	Network->Advanced->

Parameter	Permitted Values	Descriptions	Web Setting Path
		startup. The default value is 0. It takes effect after reboot.	Registration Random-> Registration Random (0~60s)
syslog.server =	IP address	It configures the IP address of the syslog server when exporting log to the syslog server. The default value is blank. It takes effect after reboot.	Settings-> Configuration-> Server Name
syslog.log_level =	Integer from 0 to 6	It configures the syslog level that how much the syslog information will be exported. 0 means nothing and 6 means all. The default value is 3. It takes effect after reboot.	Settings-> Configuration-> System Log Level
auto_provision.mode =	0, 1, 4, 5, 6 or 7	It configures the mode for triggering the auto provisioning process. **0**-Disabled **1**-Power on **4**-Repeatedly **5**-Weekly **6**-Power on + Repeatedly **7**-Power on + Weekly The default value is 1.	Settings->Auto Provision
auto_provision.pnp_enable =	0 or 1	It enables or disables Plug and Play feature. If it is enabled, the phone will broadcast PnP SUBSCRIBE messages to obtain a provisioning server address after startup. **0**-Disabled **1**-Enabled The default value is 1.	Settings->Auto Provision->PNP Active
auto_provision.schedule.periodic_minute =	Integer from 1 to 43200	It configures the interval (in minutes) for the phone to check the new configuration repeatedly when the auto provisioning mode is configured as Repeatedly or Power on +	Settings->Auto Provision->Interval (Minutes)

Parameter	Permitted Values	Descriptions	Web Setting Path
		Repeatedly. The default value is 1440.	
auto_provision.schedule.time_from =	Time Format	It configures the begin time of day for the phone to check the new configuration weekly when the auto provisioning mode is configured as Weekly or Power on + Weekly. The default value is 00:00.	Settings->Auto Provision->Time
auto_provision.schedule.time_to =	Time Format	It configures the end time of day for the phone to check the new configuration weekly when the auto provisioning mode is configured as Weekly or Power on + Weekly. The default value is 00:00.	Settings->Auto Provision->Time
auto_provision.schedule.dayofweek =	0,1,2,3,4,5,6 or a combination of these digits	It configures the days of week for the phone to check the new configuration weekly when the auto provisioning mode is configured as Weekly or Power on + Weekly. The default value is 0123456. Example: auto_provision.schedule.dayofweek = 01 means the phone will check the new configuration every Sunday and Monday.	Settings->Auto Provision->Day of Week
auto_provision.server.url =	URL	It configures the URL of the auto provisioning server. The default value is blank.	Settings->Auto Provision->Server URL
auto_provision.server.username =	String	It configures the user name for authentication during auto provisioning. The default value is blank.	Settings->Auto Provision->User Name
auto_provision.server.password =	String	It configures the password for authentication during auto provisioning. The default value is blank.	Settings->Auto Provision-> Password

Parameter	Permitted Values	Descriptions	Web Setting Path
auto_provision.dhcp_option.enable =	0 or 1	It enables or disables the phone to obtain the provisioning server address by detecting DHCP options. **0**-Disabled **1**-Enabled The default value is 1.	Settings->Auto Provision->DHCP Active
auto_provision.dhcp_option.option60_value =	String	It configures the value (vendor name of the device) of DHCP option 60. The default value is yealink.	Settings->Auto Provision->DHCP Option Value
auto_provision.dhcp_option.list_user_options =	Integer from 128 to 254	It configures the custom DHCP option for provisioning server address. The default value is blank.	Settings->Auto Provision->Custom Option (128~254)
auto_provision.aes_key_16.com =	String	It configures the AES key (16 characters) for decrypting the Common CFG file. The valid characters contain: 0 ~ 9, A ~ Z, a ~ z. The default value is blank.	Settings->Auto Provision-> Common AES Key
auto_provision.aes_key_16.mac =	String	It configures the AES key (16 characters) for decrypting the MAC-Oriented CFG file. The valid characters contain: 0 ~ 9, A ~ Z, a ~ z. The default value is blank.	Settings->Auto Provision-> MAC-Oriented AES Key
auto_provision.aes_key_in_file =	0 or 1	It enables or disables the phone to request to download <y0000000000xx_Security>.enc and <MAC_Security>.enc files during auto provisioning. **0**-Disabled **1**-Enabled The default value is 0.	
autoprovision.x.name = (X ranges	String	It configures the name of the code for triggering auto provisioning. The maximum length of the name is	

Parameter	Permitted Values	Descriptions	Web Setting Path
from 1 to 50.)		100 characters. The default value is blank. It takes effect after reboot.	
autoprovision.x.code = (X ranges from 1 to 50.)	String	It configures the code for triggering auto provisioning. The maximum length of the code is 100 characters. Valid characters are digits, # and *. Example: autoprovision.1.code = *99 The default value is blank. It takes effect after reboot.	
autoprovision.x.url = (X ranges from 1 to 50.)	URL	It configures the URL of auto provisioning server. The default value is blank. It takes effect after reboot.	
autoprovision.x.user = (X ranges from 1 to 50.)	String	It configures the user name for authentication during auto provisioning. The default value is blank. It takes effect after reboot.	
autoprovision.x.password = (X ranges from 1 to 50.)	String	It configures the password for authentication during auto provisioning. The default value is blank. It takes effect after reboot.	
autoprovision.x.com_aes = (X ranges from 1 to 50.)	String	It configures the AES key (16 characters) for decrypting the Common CFG file. The default value is blank. It takes effect after reboot.	
autoprovision.x.mac_aes = (X ranges from 1 to 50.)	String	It configures the AES key (16 characters) for decrypting the MAC-Oriented CFG file. The default value is blank. It takes effect after reboot.	

Parameter	Permitted Values	Descriptions	Web Setting Path
features.group_listen_in_talking_enable =	0 or 1	It enables or disables the phone to enter into the group listening mode by pressing the spearkerphone key when it is in talking using the handset. **0**-Disabled **1**-Enabled The default value is 1.	
features.blf_filter_value =	0 or 1	It enables or disables the phone to filter the value configured for the BLF key. **0**-Disabled **1**-Enabled The default value is 0.	
features.blf_list_version =	0 or 1	It enables or disables the phone to deal with the Version header in the BLF NOTIFY message sent by the server. **0**-Disabled **1**-Enabled The default value is 0.	
sip.use_23_as_pound =	0 or 1	It enables or disables the phone to reserve the pound sign when dialing out. **0**-Disabled (convert the pound sign into "%23") **1**-Enabled The default value is 1.	Features->General Information-> Reserve # in User Name
sip.rfc2543_hold =	0 or 1	It enables or disables the phone to support RFC 2543 hold (c=0.0.0.0). **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->RFC 2543 Hold
sip.use_out_bound_in_dialog =	0 or 1	It enables or disables the phone to keep sending the SIP messages to the outbound server in a dialog. **0**-Disabled **1**-Enabled	Features->General Information->Use Outbound Proxy In Dialog

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 1.	
watch_dog.enable =	0 or 1	It enables or disables Watch Dog feature. If it is enabled, the phone will reboot automatically when the system is broken down. **0**-Disabled **1**-Enabled The default value is 1.	Settings-> Preference-> Watch Dog
redirect.enable =	0 or 1	It enables or disables redirection feature. If it is enabled, the phone will be redirected to the pre-assigned server for provisioning during initial startup. **0**-Disabled **1**-Enabled The default value is 0.	
managementserver.enable =	0 or 1	It enables or disables TR069 feature. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	Settings->TR069-> Enable TR069
managementserver.username =	String	It configures the user name for the phone to authenticate with the ACS. It takes effect after reboot.	Settings->TR069-> ACS Username
managementserver.password =	String	It configures the password for the phone to authenticate with the ACS. It takes effect after reboot.	Settings->TR069-> ACS Password
managementserver.url =	URL	It configures the access URL of the ACS. It takes effect after reboot.	Settings->TR069-> ACS URL
managementserver.periodic_inform_enable =	0 or 1	It enables or disables the phone to report its configuration to the ACS. **0**-Disabled **1**-Enabled The default value is 1.	Settings->TR069-> Enable Periodic Inform

Parameter	Permitted Values	Descriptions	Web Setting Path
		It takes effect after reboot.	
managementserver.periodic_inform_interval =	Integer	It configures the interval (in seconds) for the phone to report its configuration to the ACS. The default value is 60. It takes effect after reboot.	Settings->TR069->Periodic Inform Interval (seconds)
managementserver.connection_request_username =	String	It configures the user name for the phone to authenticate the connection requests. It takes effect after reboot.	Settings->TR069->Connection Request Username
managementserver.connection_request_password =	String	It configures the password for the phone to authenticate the connection requests.	Settings->TR069->Connection Request Password
transfer.semi_attend_tran_enable =	0 or 1	It enables or disables the transferee party's phone to prompt a missed call on the LCD screen before displaying the caller ID. **0**-Enabled **1**-Disabled The default value is 1.	Features->Transfer->Semi-Attend Transfer
transfer.blind_tran_on_hook_enable =	0 or 1	It enables or disables the phone to complete the blind transfer through on-hook. **0**-Disabled **1**-Enabled The default value is 1.	Features->Transfer->Blind Transfer On Hook
transfer.on_hook_trans_enable =	0 or 1	It enables or disables the phone to complete the attended transfer through on-hook. **0**-Disabled **1**-Enabled The default value is 1.	Features->Transfer->Semi Attend Transfer On Hook
transfer.dsskey_deal_type =	0,1 or 2	It configures the DSS key behavior during an active call when user	Features->Transfer->Transfer Mode

Parameter	Permitted Values	Descriptions	Web Setting Path
		presses the DSS key and the DSS key is configured as a transfer or BLF key. **0**-New Call **1**-Attended Transfer **2**-Blind Transfer The default value is 2.	Via Dsskey
transfer.multi_call_trans_enable = (not applicable to the T20 IP phone)	0 or 1	It enables or disables the phone to select the desired transfer call in the Transfer to screen during two calls when pressing the transfer soft key or TRAN key. **0**-Disabled **1**-Enabled The default value is 1.	Features->General Information-> Allow Trans Exist Call
transfer.tran_others_after_conf_enable =	0 or 1	It enables or disables the phone to transfer call to the two parties after a local conference call hangup. **0**-Disabled **1**-Enabled The default value is 0.	Features->Transfer ->Transfer on Conference Hang up
voice.vad =	0 or 1	It enables or disables the voice activity detection. **0**-Disbaled **1**-Enabled The default value is 0.	Settings->Voice-> Echo Cancellation ->VAD
voice.cng =	0 or 1	It enables or disables the comfortable noise generator. **0**-Disabled **1**-Enabled The default value is 1.	Settings->Voice-> Echo Cancellation ->CNG
voice.echo_cancellation =	0 or 1	It enables or disables the echo canceller. **0**-Disabled **1**-Enabled The default value is 1.	Settings->Voice-> Echo Cancellation ->ECHO

Parameter	Permitted Values	Descriptions	Web Setting Path
voice.side_tone =	Integer from -48 to 0	It configures the volume of the side tone. The default value is -3.	
voice.jib.adaptive =	0 or 1	It configures the type of jitter buffer. **0**-Fixed **1**-Adaptive The default value is 1.	Settings->Voice->JITTER BUFFER->Type
voice.jib.min =	Integer from 60 to 300	It configures the minimum delay (in milliseconds) of jitter buffer. The default value is 60.	Settings->Voice->JITTER BUFFER->Min Delay
voice.jib.max =	Integer from 60 to 300	It configures the maximum delay (in milliseconds) of jitter buffer. The default value is 300.	Settings->Voice->JITTER BUFFER->Max Delay
voice.jib.normal =	Integer from 60 to 300	It configures the normal delay (in milliseconds) of jitter buffer. The default value is 120.	Settings->Voice->JITTER BUFFER->Nominal
voice.tone.country =	Custom, Australia, Austria, Brazil, Belgium, China, Czech, Denmark, Finland, France, Germany, Great Britain, Greece, Hungary, Lithuania, India, Italy, Japan, Mexico, New Zealand, Netherlands,	It configures the country tone for the phone. The default value is Custom.	Settings->Tones->Select Country

Parameter	Permitted Values	Descriptions	Web Setting Path
	Norway, Portugal, Spain, Switzerland, Sweden, Russia, United States, Chile, Czech ETSI		
voice.tone.dial =	String	It customizes the dial tone when the "voice.tone.country" is configured as Custom. tonelist = element[,element] [,element]... Where **element** = !F1+F2+F3+F4/Duration **F**: the frequency of the tone (ranges from 200 to 7000 Hz). If set to 0Hz, it means silence. A tone can be composited at most four different frequencies (value format: F1+F2+F3+F4). **D**: the duration (in milliseconds) of the ring tone, ranges from 0 to 30000ms. You can configure at most eight different tones for one condition, and separate tones by comma. (e.g., 250/200, 0/1000, 200+300/500, 600+700+800+1000/2000). If you want the phone to play tones once, add an exclamation mark "!" before tones (e.g., !250/200, 0/1000, 200+300/500, 600+700+800+1000/2000). The default value is blank.	Settings->Tones->Dial
voice.tone.ring =	String	It customizes the ring-back tone when the "voice.tone.country" is configured as Custom.	Settings->Tones->Ring Back

Parameter	Permitted Values	Descriptions	Web Setting Path
		The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	
voice.tone.busy =	String	It customizes the busy tone when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Busy
voice.tone.congestion =	String	It customizes the tone for network congestion when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Congestion
voice.tone.callwaiting =	String	It customizes the call waiting tone when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Call Waiting
voice.tone.dialrecall =	String	It customizes the call back tone when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Dial Recall

Parameter	Permitted Values	Descriptions	Web Setting Path
voice.tone.info =	String	It customizes the info tone when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Info
voice.tone.stutter =	String	It customizes the stutter tone when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Stutter
voice.tone.message =	String	It customizes the message tone when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Message
voice.tone.autoanswer =	String	It customizes the auto answer tone when the "voice.tone.country" is configured as Custom. The value format is F/D or !F/D. For more information on the value format, refer to the parameter "voice.tone.dial". The default value is blank.	Settings->Tones->Auto Answer
voice.group_spk_vol =	Integer from 0 to 15	It configures the receiving volume of the group listening mode. The default value is 8.	
voice.ring_vol =	Integer from 0 to 15	It configures the receiving volume of ringer.	

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 8.	
voice.handfree.spk_vol =	Integer from 0 to 15	It configures the receiving volume of speaker. The default value is 8.	
voice.handset.spk_vol =	Integer from 0 to 15	It configures the receiving volume of handset. The default value is 8.	
voice.headset.spk_vol =	Integer from 0 to 15	It configures the receiving volume of headset. The default value is 8.	
voice.handfree.tone_vol =	Integer from 0 to 15	It configures the dial tone volume of speaker. The default value is 8.	
voice.handset.tone_vol =	Integer from 0 to 15	It configures the dial tone volume of handset. The default value is 8.	
voice.headset.tone_vol =	Integer from 0 to 15	It configures the dial tone volume of headset. The default value is 8.	
voice.call_preview_mode =	1, 2 or 3	It configures the strategy for ring-back tone. **1**-Ignore: the phone plays the mix of defined tone and received RTP for ring-back tone. **2**-Force: the phone discards the received RTP and plays the defined tone for ring-back tone. **3**-Skip: the phone skips the defined tone and plays received RTP for ring-back tone. The default value is 1.	
security.trust_certificates =	0 or 1	It enables or disables the phone to only accept the certificates in the Trusted Certificates list. **0**-Disabled	Security->Trusted Certificates->Only Accept Trusted Certificates

Parameter	Permitted Values	Descriptions	Web Setting Path
		1-Enabled The default value is 1.	
security.ca_cert =	0, 1 or 2	It configures the source certificates for the phone to authenticate for TLS connection. **0**-Default certificates **1**-Custom certificates **2**-All certificates The default value is 0. It takes effect after reboot.	Security->Trusted Certificates->CA Certificates
security.cn_validation =	0 or 1	It enables or disables the phone to mandatorily validate the CommonName or SubjectAltName of the certificate received from the connecting server. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	Security->Trusted Certificates->Common Name Validation
security.dev_cert =	0 or 1	It configures the device certificates for the phone to send for TLS authentication. **0**-Default certificates **1**-Custom certificates The default value is 0. It takes effect after reboot.	Security->Server Certificates->Device Certificates
security.user_name.user =	String	It configures the user name for web server access.	
security.user_name.admin =	String	It configures the administrator name for web server access.	
security.user_name.var =	String	It configures the var name for web server access.	
security.user_password =	String	It configures the password of the user, var and administrator. The valid value format is username:password.	Security->Password

Parameter	Permitted Values	Descriptions	Web Setting Path
security.var_enable =	0 or 1	It enables or disables the 3-level permissions (admin, user, var). **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	
custom_softkey_call_failed.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of the file for custom soft key layout on the LCD screen when Call failed.	Settings->Softkey Layout
custom_softkey_call_in.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of the file for custom soft key layout on the LCD screen when Call in.	Settings->Softkey Layout
custom_softkey_connecting.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of the file for custom soft key layout on the LCD screen when Connecting.	Settings->Softkey Layout
custom_softkey_dialing.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of the file for custom soft key layout on the LCD screen when Dialing.	Settings->Softkey Layout
custom_softkey_ring_back.url = (not applicable to the T20P IP	URL	It configures the access URL of the file for custom soft key layout on the LCD screen when Ringback.	Settings->Softkey Layout

Parameter	Permitted Values	Descriptions	Web Setting Path
phone)			
custom_softkey_talking.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of the file for custom soft key layout on the LCD screen when Talking.	Settings->Softkey Layout
memorykey.x.line = (X ranges from 1 to 10.) (not applicable to T20P and T22P IP phones)	Integer from 0 to 6	It configures the desired line to apply the key feature. **0**-Line 1 **1**-Line 1 **2**-Line 2 … **6**-Line 6	DSSKey->Memory Key->Memory KeyX->Line
memorykey.x.value = (X ranges from 1 to 10.) (not applicable to T20P and T22P IP phones)	String	It configures the value of the memory key feature. For example, when configuring the key feature to be BLF, it configures the number of the monitored user.	DSSKey->Memory Key->Memory KeyX->Value
memorykey.x.pickup_value = (X ranges from 1 to 10.) (not applicable to T20P and T22P IP phones)	String	It configures the pickup code for BLF feature. The default value is blank.	DSSKey->Memory Key->Memory KeyX->Extension
memorykey.x.type = (X ranges from 1 to 10.) (not	Integer	It configures the desired feature for memory key X. **Valid values are:** **0**-N/A(default for memory key) **1**-Conference	DSSKey->Memory Key->Memory KeyX->Type

Parameter	Permitted Values	Descriptions	Web Setting Path
applicable to T20P and T22P IP phones)		**2**-Forward **3**-Transfer **4**-Hold **5**-DND **7**-Call Return **8**-SMS **9**-Directed Pickup **10**-Call Park **11**-DTMF **12**-Voice Mail **13**-Speed Dial **14**-Intercom **15**-Line(default for line key) **16**-BLF **17**-URL **18**-Group Listening **22**-XML Group **23**-Group Pickup **24**-Multicast Paging **25**-Record **27**-XML Browser **34**-Hot Desking **35**-URL Record **38**-LDAP **40**-Prefix **41**-Zero Touch **42**-ACD **45**-Local Group **48**-Custom Button **50**-Keypad Lock **61**-Directory	
memorykey.x.xml_phonebook = (not	String	It specifies the desired remote phonebook/local group for the memory key X. It only applies to the XML Group/Local	DSSKey->Memory Key->Memory KeyX->Line

Parameter	Permitted Values	Descriptions	Web Setting Path
applicable to T20P and T22P IP phones)		Group features.	
linekey.x.line = (X ranges from 1 to 6.)	Integer from 0 to 6	It configures the desired line to apply the key feature. **0**-Line 1 **1**-Line 1 … **6**-Line 6	DSSKey->Line Key->Line KeyX->Line
linekey.x.value = (X ranges from 1 to 6.)	String	It configures the value of the line key feature. The default value is blank.	DSSKey->Line Key->Line KeyX->Value
linekey.x.pickup_value = (X ranges from 1 to 6.)	String	It configures the pickup code for BLF feature. The default value is blank.	DSSKey->Line Key->Line KeyX->Extension
linekey.x.type = (X ranges from 1 to 6.)	Integer	It configures the key feature for the line key X. **Valid values are**: **0**-N/A **1**-Conference **2**-Forward **3**-Transfer **4**-Hold **5**-DND **7**-Call Return **8**-SMS **9**-Directed Pickup **10**-Call Park **11**-DTMF **12**-Voice Mail **13**-Speed Dial **14**-Intercom **15**-Line(default for line key1-6)	DSSKey->Line Key->Line KeyX->Type

Parameter	Permitted Values	Descriptions	Web Setting Path
		16-BLF **17**-URL **18**-Group Listening **22**-XML Group **23**-Group Pickup **24**-Paging **25**-Record **27**-XML Browser **34**-Hot Desking **35**-URL Record **38**-LDAP **40**-Prefix **41**-Zero Touch **42**-ACD **45**-Local Group **48**-Custom Button **50**-Keypad Lock **61**-Directory	
linekey.x.xml_phonebook = (X ranges from 1 to 6.)	String	It specifies the desired remote phonebook/local group for the line key X. It only applies to the XML Group/Local Group features. The default value is blank.	DSSKey->Line Key->Line KeyX->Line
linekey.x.label = (X ranges from 1 to 6.)	String	It configures the label displayed on the LCD screen for each line key. The default value is blank.	DSSKey->Line Key->Line KeyX->Label
programablekey.x.type = (X ranges from 1 to 14.)	Integer	It configures the key feature for the programmable key X. **Valid values are:** **0**-N/A **2**-Forward **5**-DND **7**-Call Return	DSSKey-> Programmable Key->Type

Parameter	Permitted Values	Descriptions	Web Setting Path
		8-SMS **9**-Directed Pickup **13**-Spead Dial **22**-XML Group **23**-Group Pickup **27**-XML Browser **28**-History **30**-Menu **31**-Switch Account **32**-New SMS **33**-Status **38**-LDAP **40**-Prefix **41**-Zero Touch **43**-Local Directory **45**-Local Group **47**-XML Directory **50**-Keypad Lock **61**-Directory	
programablekey.x.line = (X ranges from 1 to 14.)	Integer from 0 to 6	It configures the desired line to apply the programmable key feature. **0**-Line 1 **1**-Line 1 … **6**-Line 6	DSSKey->Programmable Key->Line
programablekey.x.value = (X ranges from 1 to 14)	String	It configures the value of the programmable key feature.	DSSKey->Programmable Key->Value
programablekey.x.xml_phonebook = (X ranges from 1 to 14.)	String	It specifies the desired remote phonebook/local group for the programmable key.	DSSKey->Programmable Key->Line

Parameter	Permitted Values	Descriptions	Web Setting Path
programablekey.x.history_type = (X ranges from 1 to 14.)	Integer	It configures the history type of programmable key.	DSSKey->Programmable Key->Line
programablekey.x.label = (X ranges from 1 to 14.)	String	It configures the label displayed on the LCD screen for each programmable key.	DSSKey->Programmable Key->Label
expansion_module.x.key.y.type = (X ranges from 1 to 6. Y ranges from 1 to 39.) (only applicable to T26P and T28P IP phones)	Integer	It configures the key feature of the expansion module x key y.	DSSKey->Ext Key->Type
expansion_module.x.key.y.line = (X ranges from 1 to 6. Y ranges from 1 to 39.) (only applicable to T26P and T28P IP phones)	Integer	It configures the desired line to apply the expansion module key feature. The valid values are the same as those of "linekey.x.line".	DSSKey->Ext Key->Line
expansion_module.x.key.y.value = (X ranges from 1 to 6. Y ranges from 1 to 39.)	String	It configures the value of the expansion module key feature.	DSSKey->Ext Key->Value

Parameter	Permitted Values	Descriptions	Web Setting Path
(only applicable to T26P and T28P IP phones)			
expansion_module.x.key.y.pickup_value = (X ranges from 1 to 6. Y ranges from 1 to 39.) (only applicable to T26P and T28P IP phones)	String	It configures the directed call pickup code. The default value is blank.	DSSKey->Ext Key->Extension
expansion_module.x.key.y.label = (X ranges from 1 to 6. Y ranges from 1 to 39.) (only applicable to T26P and T28P IP phones)	String	It configures the label displaying on the LCD screen of the expansion module for each key.	DSSKey->Ext Key->Label
expansion_module.x.key.y.xml_phonebook = (X ranges from 1 to 6. Y ranges from 1 to 39.) (only applicable to T26P and T28P IP phones)	String	It specifies the desired remote phonebook/local group for the DSS key. It applies to XML Group/Local Group features.	DSSKey->Ext Key->Ext KeyX->Line

Parameter	Permitted Values	Descriptions	Web Setting Path
forward.always.enable =	0 or 1	It enables or disables always forward feature. **0**-Disabled **1**-Enabled The default value is 0.	Features->Forward &DND->Always Forward->On/Off
forward.always.target =	String	It configures the target number the phone forwards all incoming calls to.	Features->Forward &DND->Always Forward->Target
forward.always.on_code =	String	It configures the always forward on code.	Features->Forward &DND->Always Forward->On Code
forward.always.off_code =	String	It configures the always forward off code.	Features->Forward &DND->Always Forward->Off Code
forward.busy.enable =	0 or 1	It enables or disables busy forward feature. **0**-Disabled **1**-Enabled The default value is 0.	Features->Forward &DND->Busy Forward->On/Off
forward.busy.target =	String	It configures the target number the phone forwards incoming calls to when busy.	Features->Forward &DND->Busy Forward->Target
forward.busy.on_code =	String	It configures the busy forward on code.	Features->Forward &DND->Busy Forward->On Code
forward.busy.off_code =	String	It configures the busy forward off code.	Features->Forward &DND->Busy Forward->Off Code
forward.no_answer.enable =	0 or 1	It enables or disables no answer forward feature. **0**-Disabled **1**-Enabled	Features->Forward &DND->No Answer Forward->On/Off

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 0.	
forward.no_answer.target =	String	It configures the target number the phone forwards incoming calls to after a period of ring time.	Features->Forward &DND->No Answer Forward->Target
forward.no_answer.timeout =	Integer from 0 to 20	It configures the waiting ring time (n*6) before forwarding. The default value is 2.	Features->Forward &DND->No Answer Forward->After Ring Time
forward.no_answer.on_code =	String	It configures the no answer forward on code.	Features->Forward &DND->No Answer Forward->On Code
forward.no_answer.off_code =	String	It configures the no answer forward off code.	Features->Forward &DND->No Answer Forward->Off Code
forward.international.enable =	0 or 1	It enables or disables the phone to forward incoming calls to the international number. **0**-Disabled **1**-Enabled The default value is 1.	Features->General Information->Fwd International
acd.auto_available =	0 or 1	It enables or disables the phone to automatically change the status of the ACD agent to available. **0**-Disabled **1**-Enabled The default value is 0.	Features->ACD->ACD Auto Available
acd.auto_available_timer =	Integer from 0 to 120	It configures the interval (in seconds) to automatically change the status of the ACD agent to available. The default value is 60.	Features->ACD->ACD Auto Available Timer (0~120s)

Parameter	Permitted Values	Descriptions	Web Setting Path
action_url.setup_completed =	URL	It configures the action URL the phone sends after startup. The value format is: http(s)://IP address of server/help.xml? variable name=variable value. **Valid variable values are:** • $mac • $ip • $model • $firmware • $active_url • $active_user • $active_host • $local • $remote • $display_local • $display_remote • $call_id Example: action_url. setup_completed = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Setup Completed
action_url.log_on =	URL	It configures the action URL the phone sends after account register. Example: action_url.log_on = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Registered
action_url.log_off =	URL	It configures the action URL the phone sends after account unregister. Example: action_url.log_off = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Unregistered
action_url.register_failed =	URL	It configures the action URL the phone sends after register failed. Example: action_url.register_failed = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Register Failed

Parameter	Permitted Values	Descriptions	Web Setting Path
action_url.off_hook =	URL	It configures the action URL the phone sends when off hook. Example: action_url.off_hook = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Off Hook
action_url.on_hook =	URL	It configures the action URL the phone sends when on hook. Example: action_url.on_hook = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->On Hook
action_url.incoming_call =	URL	It configures the action URL the phone sends when receiving an incoming call. Example: action_url.incoming_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Incoming Call
action_url.outgoing_call =	URL	It configures the action URL the phone sends when placing a call. Example: action_url.outgoing_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Outgoing Call
action_url.call_established =	URL	It configures the action URL the phone sends when establishing a call. Example: action_url.call_established = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Established
action_url.call_terminated =	URL	It configures the action URL the phone sends when terminating a call. Example: action_url.call_terminated = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Terminated
action_url.dnd_on =	URL	It configures the action URL the phone sends when DND feature is enabled. Example: action_url.dnd_on = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Open DND

Parameter	Permitted Values	Descriptions	Web Setting Path
action_url.dnd_off =	URL	It configures the action URL the phone sends when DND feature is disabled. Example: action_url.dnd_off = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Close DND
action_url.always_fwd_on =	URL	It configures the action URL the phone sends when always forward feature is enabled. Example: action_url.always_fwd_on = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Open Always Forward
action_url.always_fwd_off =	URL	It configures the action URL the phone sends when always forward feature is disabled. Example: action_url.always_fwd_off = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Close Always Forward
action_url.busy_fwd_on =	URL	It configures the action URL the phone sends when busy forward feature is enabled. Example: action_url.busy_fwd_on = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Open Busy Forward
action_url.busy_fwd_off =	URL	It configures the action URL the phone sends when busy forward feature is disabled. Example: action_url.busy_fwd_off = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Close Busy Forward
action_url.no_answer_fwd_on =	URL	It configures the action URL the phone sends when no answer forward feature is enabled. Example: action_url.no_answer_fwd_on = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Open No Answer Forward
action_url.no_answer_fwd_o	URL	It configures the action URL the phone sends when no answer forward	Features->Action URL->Close No

Parameter	Permitted Values	Descriptions	Web Setting Path
ff =		feature is disabled. Example: action_url.no_answer_fwd_off = http://192.168.0.20/help.xml?IP=$ip	Answer Forward
action_url.transfer_call =	URL	It configures the action URL the phone sends when performing a transfer. Example: action_url.transfer_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Transfer Call
action_url.blind_transfer_call =	URL	It configures the action URL the phone sends when performing a blind transfer. Example: action_url.blind_transfer_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Blind Transfer
action_url.attended_transfer_call =	URL	It configures the action URL the phone sends when performing an attended or a semi-attended transfer. Example: action_url.attended_transfer_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Attended Transfer
action_url.hold =	URL	It configures the action URL the phone sends when placing a call on hold. Example: action_url.hold = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Hold
action_url.unhold =	URL	It configures the action URL the phone sends when resuming a held call. Example: action_url.unhold = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->UnHold
action_url.mute =	URL	It configures the action URL the phone sends when muting a call. Example: action_url.mute = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Mute

Parameter	Permitted Values	Descriptions	Web Setting Path
action_url.unmute =	URL	It configures the action URL the phone sends when un-muting a call. Example: action_url.unmute = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->UnMute
action_url.missed_call =	URL	It configures the action URL the phone sends when missing a call. Example: action_url.missed_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Missed Call
action_url.busy_to_idle =	URL	It configures the action URL the phone sends when changing the state of the phone from busy to idle. Example: action_url.busy_to_idle = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Busy To Idle
action_url.idle_to_busy =	URL	It configures the action URL the phone sends when changing the state of the phone from idle to busy. Example: action_url.idle_to_busy = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Idle To Busy
action_url.ip_change =	URL	It configures the action URL the phone sends when changing the IP address of the phone. Example: action_url.ip_change = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->IP Changed
action_url.forward_incoming_call =	URL	It configures the action URL the phone sends when forwarding an incoming call. Example: action_url.forward_incoming_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Forward Incoming Call
action_url.reject_incoming_c	URL	It configures the action URL the phone sends when rejecting an incoming call.	Features->Action URL->Reject

Parameter	Permitted Values	Descriptions	Web Setting Path
all =		Example: action_url.reject_incoming_call = http://192.168.0.20/help.xml?IP=$ip	Incoming Call
action_url.answer_new_incoming_call =	URL	It configures the action URL the phone sends when answering a new incoming call. Example: action_url.answer_new_incoming_call = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Answer New-In Call
action_url.transfer_finished =	URL	It configures the action URL the phone sends when completing to transfer a call. Example: action_url.transfer_finished = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Transfer Finished
action_url.transfer_failed =	URL	It configures the action URL the phone sends when failing to transfer a call. Example: action_url. transfer_failed = http://192.168.0.20/help.xml?IP=$ip	Features->Action URL->Transfer Failed
lang.wui =	English, German, French, Italian, Spanish, Turkish or Portuguese	It configures the language of the web user interface.	Settings->Preference->Language
lang.gui =	English, German, French, Turkish, Italian, Polish, Spanish or Portuguese	It configures the language displaying on the phone user interface. The default value is English.	
local_time.time_zone =	String	It configures the time zone. The default value is +8.	Settings->Time & Date->Time Zone

Parameter	Permitted Values	Descriptions	Web Setting Path
local_time.time_zone_name =	String	It configures the time zone name. The default time zone name is China(Beijing).	Settings->Time & Date->Time Zone
local_time.ntp_server1 =	IP address or domain name	It configures the IP address or domain name of the NTP server 1. The default value is cn.pool.ntp.org.	Settings->Time & Date->Primary Server
local_time.ntp_server2 =	IP address or domain name	It configures the IP address or domain name of the NTP server 2. The default value is cn.pool.ntp.org.	Settings->Time & Date->Secondary Server
local_time.interval =	Integer from 15 to 86400	It configures the update interval (in seconds) when using the NTP server. The default value is 1000.	Settings->Time & Date->Synchronism (1~86400s)
local_time.summer_time =	0, 1 or 2	It enables or disables daylight saving time (DST) feature. **0**-Disabled **1**-Enabled **2**-Automatic The default value is 2.	Settings->Time & Date-> Daylight Saving Time
local_time.dst_time_type =	0 or 1	It configures the way DST works when DST feature is enabled. **0**-DST By Date **1**-DST By Week The default value is 0.	Settings->Time & Date->Fixed Type
local_time.start_time =	Time	It configures the start time of the DST. **Value formats are:** • Month/Day/Hour (for By Date) • Month/ Day of Week/ Day of Week Last in Month/ Hour of Day (for By Week) **For DST By Date:** The default value is blank. **For DST By Week:** The default value is 1/1/0.	**For DST By Date:** Settings->Time & Date->Start Date **For DST By Week:** Settings->Time & Date->DST Start Month/DST Start Day of Week/DST Start Day of Week Last in Month/ Start Hour of Day
local_time.end_time =	Time	It configures the end time of the DST.	**For DST By Date:** Settings->Time &

Parameter	Permitted Values	Descriptions	Web Setting Path
		Value formats are: • Month/Day/Hour (for By Date) • Month/ Day of Week/ Day of Week Last in Month/ Hour of Day (for By Week) **For DST By Date:** The default value is blank. **For DST By Week:** The default value is 12/31/23.	Date-> End Date **For DST By Week:** Settings ->Time & Date->DST Stop Month/DST Stop Day of Week/DST Stop Day of Week Last in Month/Stop Hour of Day
local_time.offset_time =	Integer from -300 to 300	It configures the offset time (in minutes). The default value is blank.	Settings->Time & Date->Offset (minutes)
local_time.time_format =	0 or 1	It configures the time format. **0**-12 Hour **1**-24 Hour The default value is 1.	Settings->Time & Date->Time Format
local_time.date_format =	0, 1, 2, 3, 4, 5 or 6	It configures the date format. **Valid values are:** For SIP-T28P/T26P/T22P IP phone: **0**-WWW MMM DD **1**-DD-MMM-YY **2**-YYYY-MM-DD **3**-DD/MM/YYYY **4**-MM/DD/YY **5**-DD MMM YYYY **6**-WWW DD MMM For SIP-T20P IP phone: **7**-MM DD YY **8**-DD MM YY **9**-YY MM DD The default value is 0.	Settings->Time & Date->Date Format
local_time.dhcp_time =	0 or 1	It enables or disables the phone to update time with the offset time obtained from the DHCP server. It is only available to the time zone 0.	Settings->Time & Date->DHCP Time

Parameter	Permitted Values	Descriptions	Web Setting Path
		0-Disabled **1**-Enabled The default value is 0.	
hotdesking.startup_register_name_enable =	0 or 1	It enables or disables the phone to provide input field of register name on the hot desking login wizard during startup. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.startup_username_enable =	0 or 1	It enables or disables the phone to provide input field of user name on the hot desking login wizard during startup. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.startup_password_enable =	0 or 1	It enables or disables the phone to provide input field of password on the hot desking login wizard during startup. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.startup_sip_server_enable =	0 or 1	It enables or disables the phone to provide input field of SIP server on the hot desking login wizard during startup. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.startup_outbound_enable =	0 or 1	It enables or disables the phone to provide input field of outbound server on the hot desking login wizard during startup. **0**-Disabled	

Parameter	Permitted Values	Descriptions	Web Setting Path
		1-Enabled The default value is 0.	
hotdesking.dsskey_register_name_enable =	0 or 1	It enables or disables the phone to provide input field of register name on the hot desking login wizard when pressing the Hot Desking key. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.dsskey_username_enable =	0 or 1	It enables or disables the phone to provide input field of user name on the hot desking login wizard when pressing the Hot Desking key. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.dsskey_password_enable =	0 or 1	It enables or disables the phone to provide input field of password on the hot desking login wizard when pressing the Hot Desking key. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.dsskey_sip_server_enable =	0 or 1	It enables or disables the phone to provide input field of SIP server on the hot desking login wizard when pressing the Hot Desking key. **0**-Disabled **1**-Enabled The default value is 1.	
hotdesking.dsskey_outbound_enable =	0 or 1	It enables or disables the phone to provide input field of outbound server on the hot desking login wizard when pressing the Hot Desking key. **0**-Disabled **1**-Enabled	

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 0.	
distinctive_ring_tones.alert_info.x.text = (X ranges from 1 to 10.)	String	It configures the internal ringer text for distinctive ringtone. Example: distinctive_ring_tones.alert_info.1.text = Family The default value is blank.	Settings->Ring->Internal Ringer Text
distinctive_ring_tones.alert_info.x.ringer = (X ranges from 1 to 10.)	Integer from 1 to 8	It configures the desired ring tones for each text. The value ranges from 1 to 8, the digit stands for the appropriate ringtone.	Settings->Ring->Internal Ringer File
auto_redial.enable =	0 or 1	It enables or disables the phone to automatically redial the called number when the called party is temporarily unavailable. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->Auto Redial
auto_redial.interval =	Integer from 1 to 300	It configures the interval (in seconds) for the phone to wait before redial. The default value is 10.	Features->General Information->Auto Redial Interval (1~300s)
auto_redial.times =	Integer from 1 to 300	It configures the auto redial times when the called party is temporarily unavailable. The default value is 10.	Features->General Information->Auto Redial Times (1~300)
zero_touch.enable =	0 or 1	It enables or disables zero touch for the phone to perform provisioning during startup. **0**-Disabled **1**-Enabled The default value is 0.	Settings->Auto Provision->Zero Active
zero_touch.wait_time =	Integer from 0 to 100	It configures the duration time (in seconds) of the phone displaying the zero-sp-touch configuration interface	Settings->Auto Provision->Wait Time (0~100s)

Parameter	Permitted Values	Descriptions	Web Setting Path
		when powered on. The default value is 5.	
push_xml.server =	URL	It configures the URL of the push XML server. The default value is blank.	Features->Remote Control->Push XML Server IP Address
push_xml.block_in_calling =	0 or 1	It enables or disables the phone to block displaying the push XML interface when in calling status. **0**-Disabled **1**-Enabled The default value is 0.	Features->Remote Control->Block XML In Calling
push_xml.sip_notify =	0 or 1	It enables or disables the phone to use the push XML via SIP NOTIFY message. **0**-Disabled **1**-Enabled The default value is 0.	Features->Remote Control->SIP Notify
features.action_uri_limit_ip =	IP address or any	It configures the IP address of server from which the phone receives the action URI requests. Multiple IP addresses are separated by comma. If the value of this parameter is configured to "any", the phone will receive action URI requests from any server. If the value of this parameter is left blank, the phone will not receive action URI requests. The default value is blank.	Features->Remote Control->Action URI allow IP List
dialplan.area_code.code =	Number	It configures the area code. The default value is blank.	Settings->Dial Plan->Area Code->Code
dialplan.area_code.min_len =	Integer from 1 to 15	It configures the minimum length of the number prefixed with the area code. The default value is 1.	Settings->Dial Plan->Area Code->Min Length (1-15)

Parameter	Permitted Values	Descriptions	Web Setting Path
dialplan.area_code.max_len =	Integer from 1 to 15	It configures the maximum length of the number prefixed with the area code. The value must be larger than the minimum length. The default value is 15.	Settings->Dial Plan->Area Code->Max Length (1-15)
dialplan.area_code.line_id = (X ranges from 1 to 6.)	Integer	It configures lines applying the area code. Multiple line IDs are separated by comma. The default value is blank.	Settings->Dial Plan->Area Code->Account
dialplan.block_out.number.X = (X ranges from 1 to 10.)	String	It configures the block out string. The default value is blank.	Settings->Dial Plan->Block Out->BlockOut NumberX
dialplan.block_out.line_id.X = (X ranges from 1 to 10.)	Integer	It configures lines applying the block out rule. Multiple line IDs are separated by comma. The default value is blank.	Settings->Dial Plan->Block Out->Account
dialnow.item.X = (X ranges from 1 to 100.)	String	It configures the dial-now rule. **Valid format is**: dialnow.item.X = Dial-now rule, Line ID The default value is blank.	Settings->Dial Plan->Dial-now
dialplan.item.X = (X ranges from 1 to 100.)	String	It configures the replace rule. **Valid format is**: dialplan.item.X = Enabled,Prefix,Replaced,LineID The default value is blank.	Settings->Dial Plan->Replace Rule
remote_phonebook.data.x.url = (X ranges from 1 to 5.) (not	URL	It configures the access URL of the remote phone book. The maximum length of the value is 511 characters. The default value is blank.	Directory->Remote Phone Book->Remote URL

Parameter	Permitted Values	Descriptions	Web Setting Path
applicable to the T20P IP phone)			
remote_phonebook.data.x.name = (X ranges from 1 to 5.) (not applicable to the T20P IP phone)	String	It configures the display name of the remote phone book item. The maximum length of the value is 99 characters. The default value is blank.	Directory->Remote Phone Book-> Display Name
ldap.name_filter = (not applicable to the T20P IP phone)	String	It configures the criteria for searching the contact name attributes. Example: ldap.name_filter = (|(cn=%)(sn=%)) The default value is blank.	Directory->LDAP-> LDAP Name Filter
ldap.number_filter = (not applicable to the T20P IP phone)	String	It configures the criteria for searching the contact number attributes. Example: ldap.number_filter = (|(telephoneNumber=%)(mobile=%)(ipPhone=%)) The default value is blank.	Directory->LDAP-> LDAP Number Filter
ldap.host = (not applicable to the T20P IP phone)	IP address or domain name	It configures the IP address or domain name of the LDAP server. The default value is blank.	Directory->LDAP-> Server Address
ldap.port = (not applicable to the T20P IP phone)	Integer from 1 to 65535	It configures the port of the LDAP server. The default value is 389.	Directory->LDAP-> Port
ldap.base = (not	String	It configures the LDAP search base which corresponds to the location of	Directory->LDAP-> Base

Parameter	Permitted Values	Descriptions	Web Setting Path
applicable to the T20P IP phone)		the LDAP phonebook. Example: ldap.base = dc=yealink,dc=cn The default value is blank.	
ldap.user = (not applicable to the T20P IP phone)	String	It configures the user name for accessing the LDAP server. The default value is blank.	Directory->LDAP->Username
ldap.password = (not applicable to the T20P IP phone)	String	It configures the password for accessing the LDAP server. The default value is blank.	Directory->LDAP->Password
ldap.max_hits = (not applicable to the T20P IP phone)	Integer from 1 to 32000	It configures the maximum of the search results returned by the LDAP server to be displayed. The default value is 50.	Directory->LDAP->Max. Hits (1~32000)
ldap.name_attr = (not applicable to the T20P IP phone)	String	It configures the name attributes of each record to be returned by the LDAP server. Multiple attributes are separated by space. Example: ldap.name_attr =sn cn The default value is blank.	Directory->LDAP->LDAP Name Attributes
ldap.numb_attr = (not applicable to the T20P IP phone)	String	It configures the number attributes of each record to be returned by the LDAP server. Each attribute is separated by space. Example: ldap.numb_attr = Mobile ipPhone The default value is blank.	Directory->LDAP->LDAP Number Attributes

Parameter	Permitted Values	Descriptions	Web Setting Path
ldap.display_name = (not applicable to the T20P IP phone)	String	It configures the display name of the contact record displayed on the LCD screen. The value of this parameter must start with "%" symbol. Example: ldap.display_name =%cn The default value is blank.	Directory->LDAP->LDAP Display Name
ldap.version = (not applicable to the T20P IP phone)	2 or 3	It configures the LDAP version. The default value is 3.	Directory->LDAP->Protocol
ldap.call_in_lookup = (not applicable to the T20P IP phone)	0 or 1	It enables or disables the phone to perform an LDAP search when receiving an incoming call. **0**-Disabled **1**-Enabled The default value is 0.	Directory->LDAP->LDAP Lookup For Incoming Call
ldap.ldap_sort = (not applicable to the T20P IP phone)	0 or 1	It enables or disables the phone to sort the search results in alphabetical order or numerical order. **0**-Disabled **1**-Enabled The default value is 0.	Directory->LDAP->LDAP Sorting Results
features.dnd_refuse_code =	404, 480 or 486	It configures the return code when DND mode is activated. **404**-No Found **480**-Temporarily not available **486**-Busy here The default value is 480.	Features->General Information->Return Code When DND
features.normal_refuse_code =	404, 480 or 486	It configures the return code when refusing a call. **404**-No Found **480**-Temporarily not available **486**-Busy here	Features->General Information->Return Code When Refuse

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 486.	
features.call_completion_enable =	0 or 1	It enables or disables call completion feature. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->Call Completion
features.fwd_mode =	0 or 1	It configures the call forward mode. **0**-Phone **1**-Custom The default value is 0.	Features->Forward&DND->Forward->Mode
features.dnd_mode =	0 or 1	It configures the DND mode. **0**-Phone **1**-Custom The default value is 0.	Features->Forward&DND->DND->Mode
features.dnd.on_code =	String	It configures the DND on code when the DND mode is configured as Phone.	Features->Forward&DND->DND->DND On Code
features.dnd.off_code =	String	It configures the DND off code when the DND mode is configured as Phone.	Features->Forward&DND->DND->DND Off Code
features.dnd.emergency_enable =	0 or 1	It enables or disables the phone to recevice incoming calls from authorized numbers when DND feature is enabled. **0**-Disabled **1**-Enabled The default value is 0.	Features->Forward&DND->DND Emergency
features.dnd.emergency_authorized_number =	Number	It configures the numbers the phone will receive incoming calls from when DND feature is enabled. Multiple numbers are separated by comma. The default value is blank.	Features->Forward&DND->DND Authorized Numbers
features.fwd_diversion_ena	0 or 1	It enables or disables forward	Features->General Information->Diver

Parameter	Permitted Values	Descriptions	Web Setting Path
ble =		diversion feature. **0**- Disabled **1**-Enabled The default value is 1.	sion/History-Info
call_waiting.enable =	0 or 1	It enables or disables call waiting feature. **0**-Disabled **1**-Enabled The default value is 1.	Features->General Information->Call Waiting
call_waiting.tone =	0 or 1	It enables or disables the phone to play the call waiting tone. **0**-Disabled **1**-Enabled The default value is 1.	Features->Audio-> Call Waiting Tone
call_waiting.on_code =	String	It configures the call waiting on code. The default value is blank.	Features->General Information->Call Waiting On Code
call_waiting.off_code =	String	It configures the call waiting off code. The default value is blank.	Features->General Information->Call Waiting Off Code
features.intercom.allow =	0 or 1	It enables or disables the phone to automatically answer an incoming intercom call. **0**-Disabled **1**-Enabled The default value is 1.	Features->Intercom ->Accept Intercom
features.intercom.mute =	0 or 1	It enables or disables the phone to mute the speaker when answering an intercom call. **0**-Disabled **1**-Enabled The default value is 0.	Features->Intercom ->Intercom Mute
features.intercom.tone =	0 or 1	It enables or disables the phone to play a warning tone when answering an intercom call.	Features->Intercom ->Intercom Tone

Parameter	Permitted Values	Descriptions	Web Setting Path
		0-Disabled **1**-Enabled The default value is 1.	
features.intercom.barge =	0 or 1	It enables or disables the phone to barge in an intercom call. **0**-Disabled **1**-Enabled The default value is 1.	Features->Intercom ->Intercom Barge
features.remote_phonebook.enable = (not applicable to the T20P IP phone)	0 or 1	It enables or disables the phone to perform a remote phone book search when receiving an incoming call. **0**-Disabled **1**-Enabled The default value is 0.	Directory->Remote Phone Book-> Search Remote Phonebook Name
features.remote_phonebook.flash_time = (not applicable to the T20P IP phone)	Integer from 120 to 2592000	It configures the interval (in seconds) for the phone to update the data of the remote phone book from the remote phone book server. The default value is 21600.	Directory->Remote Phone Book-> Search Flash Time (Seconds)
features.hotline_number =	Number	It configures the hotline number. The default value is blank.	Features->General Information-> Hotline Number
features.hotline_delay =	Integer from 0 to 10	It configures the delay time (in seconds) for the phone to dial out the hotline number automatically. The default value of delay time is 4.	Features->General Information-> Hotline Delay (0~10s)
features.dtmf.hide =	0 or 1	It enables or disables the phone to suppress the display of DTMF digits. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->Suppress DTMF Display
features.dtmf.hide_delay =	0 or 1	It enables or disables the IP phone to display the DTMF digits for a short period before displaying as asterisks.	Features->General Information->Suppress DTMF Display

Parameter	Permitted Values	Descriptions	Web Setting Path
(not applicable to the T20 IP phone)		when the "features.dtmf.hide" is set to 1 (Enabled). **0**-Disabled **1**-Enabled The default value is 0.	Delay
features.dtmf.repetition =	1, 2 or 3	It configures the repetition times for sending the DTMF packets. The default value is 3.	Features->General Information->DTMF Repetition
features.dtmf.replace_tran =	0 or 1	It enables or disables the phone to send DTMF sequences for transfer function when pressing the transfer soft key or the TRAN key. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->DTMF Replace Tran
features.dtmf.transfer =	String	It configures DTMF sequences for transfer key function to be sent. It can be consisted of 0-9, A-D, * and #. The default value is blank.	Features->General Information->Tran Send DTMF
features.hold_trans_delay =	Integer from 0 to 60	It configures the delay time (in milliseconds) before transferring a call. The default value is 0.	
features.headset_prior =	0 or 1	It enables or disables headset prior feature. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information-> Headset Prior
features.headset_training =	0 or 1	It enables or disables dual headset feature. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->Dual-Headset
features.play_local_dtmf_tone_enable=	0 or 1	It enables or disables the phone to play a local DTMF tone. **0**-Disabled	Features->General Information->Play Local DTMF Tone

Parameter	Permitted Values	Descriptions	Web Setting Path
		1-Enabled The default value is 1.	
features.auto_release_bla_line =	0 or 1	It enables or disables the server to release the BLA line automatically. **0**-Disabled **1**-Enabled The default value is 0.	
features.busy_tone_delay =	0, 3 or 5	It configures the duration time (in seconds) for the busy tone. The default value is 0.	Features->General Information->Busy Tone Delay (Seconds)
features.send_pound_key =	0 or 1	It enables or disables the phone to send double pound keys by pressing the pound key twice when the pound key is confiured as a send key. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->Send Pound Key
features.pound_key.mode =	0, 1 or 2	It configures the "#" or "*" key as a send key. **0**-Disabled **1**-# key **2**-* key The default value is 1.	Features->General Information->Key As Send
features.send_key_tone =	0 or 1	It enables or disables the phone to play key tone when pressing the send key. **0**-Disabled **1**-Enabled The default value is 1.	Features->Audio-> Send Sound
features.key_tone =	0 or 1	It enables or disables the phone to play key tone when pressing any key. **0**-Disabled **1**-Enabled The default value is 1.	Features->Audio-> Key Tone

Parameter	Permitted Values	Descriptions	Web Setting Path
features.play_hold_tone.enable =	0 or 1	It enables or disables the phone to play a warning tone when there is a call on hold. **0**-Disabled **1**-Enabled The default value is 1.	Features->General Information->Play Hold Tone
features.play_hold_tone.delay =	Integer from 1 to 60	It configures the interval (in seconds) for playing a hold warning tone. The default value is 30.	Features->General Information->Play Hold Tone Delay
features.action_uri_reboot_now =	0 or 1	It enables or disables the phone to perform reboot during a call when receiving an action URI request about reboot. **0**-Disabled **1**-Enbaled The default value is 0. It takes effect after reboot.	Features->General Information-> Reboot In Talking
features.redial_tone =	Integer	It configures the phone to continue to play the dial tone after inputting the preset numbers in the dialing interface. Example: features.redial_tone = 125 The phone will continue to play the dial tone after inputting "125" in the dialing interface. If you leave it blank, the phone will not play the dial tone after inputting numbers in the dialing interface.	Features->Audio->Redial Tone
features.partition_tone =	0 or 1	It enables or disables the phone with active accounts to play tones in the dialing interface differently from the phone with no active accounts. **0**-Disabled **1**-Enbaled The default value is 0.	

Parameter	Permitted Values	Descriptions	Web Setting Path
features.password_dial.enable =	0 or 1	It enables or disables password dial feature for the phone. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->PswDial
features.password_dial.prefix =	String	It configures the prefix numbers displayed before the encrypted digits.	Features->General Information->PswPrefix
features.password_dial.length =	Integer	It configures the length of digits to be hidden. Thehidden digits are displayed as asterisks on the LCD screen.	Features->General Information->PswLength
features.save_call_history =	0 or 1	It enables or disables the phone to save the call history. **0**-Disabled **1**-Enabled The default value is 1.	Features->General Information->Save Call Log
features.power_led_on =	0 or 1	It enables or disables the phone to turn off the power indicator LED when it is idle. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->Close Power Light
features.dsskey_blind_tran =	0 or 1	It enables or disables the phone to perform a blind transfer by pressing the predefined transfer DSS key. **0**-Disabled **1**-Enabled The default value is 1.	
features.relog_offtime =	Integer from 1 to 1000	It configures the web access timeout (in minutes). The default value is 5.	
features.direct_ip_call_enable =	0 or 1	It enables or disables the phone to make an IP call directly. **0**-Disabled	Features->General Information->Allow IP Call

Parameter	Permitted Values	Descriptions	Web Setting Path
		1-Enabled The default value is 1.	
features.allow_mute =	0 or 1	It enables or disables the phone to during an active call. **0**-Disabled **1**-Enabled The default value is 1.	Features->General Information->Allow Mute
features.ringer_device.is_use_headset =	0, 1 or 2	It configures the ringer device for the phone in the headset mode. **0**-Use Speaker **1**-Use Headset **2**-Use Headset & Speaker The default value is 0.	Features->Audio-> Ringer Device for Headset
features.factory_pwd_enable =	0 or 1	It enables or disables the phone to prompt for the administrator password when you long press the OK key to perform factory reset. **0**-Disabled **1**-Enabled The default value is 0.	
features.pickup.group_pickup_enable = (not applicable to the T20 IP phone)	0 or 1	It enables or disables the phone to display the GPickup soft key when the phone is in the pre-dialing screen. **0**-Disabled **1**-Enabled The default value is 0.	Features->Call Pickup->Group Call Pickup
features.pickup.group_pickup_code =	String	It configures the group call pickup code.	Features->Call Pickup->Group Call Pickup Code
features.pickup.direct_pickup_enable = (not applicable to the T20 IP	0 or 1	It enables or disables the phone to display the DPickup soft key when the phone is in the pre-dialing screen. **0**-Disabled **1**-Enabled The default value is 0.	Features->Call Pickup->Directed Call Pickup

Parameter	Permitted Values	Descriptions	Web Setting Path
phone)			
features.pickup.direct_pickup_code =	String	It configures the directed call pickup code.	Features->Call Pickup->Directed Call Pickup Code
features.pickup.blf_visual_enable = (not applicable to the T20 IP phone)	0 or 1	It enables or disables the phone to display a visual alert when the monitored user receives an incoming call. **0**-Disabled **1**-Enabled The default value is 0.	Features->Call Pickup->Visual Alert for BLF Pickup
features.pickup.blf_audio_enable =	0 or 1	It enables or disables the phone to play an audio alert when the monitored user receives an incoming call. **0**-Disabled **1**-Enabled The default value is 0.	Features->Call Pickup->Audio Alert for BLF Pickup
features.blf_and_callpark_idle_led_enable =	0 or 1	It enables or disables the phone to turn off the BLF key LED when the monitored user is idle. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->LED Off in Idle
features.voice_mail_tone_enable =	0 or 1	It enables or disables the phone to play the warning tone when receiving a voice mail. **0**-Disabled **1**-Enabled The default value is 1.	
multicast.codec =	String	It configures the codec of multicast paging.	Features->General Information-> Multicast Codec
multicast.receive_priority.en	0 or 1	It enables or disables the phone to handle the incoming multicast paging	Directory-> Multicast

Parameter	Permitted Values	Descriptions	Web Setting Path
able =		calls when there is a multicast paging call on the phone. **0**-Disabled **1**-Enabled The default value is 1.	IP->Paging Priority Active
multicast.receive_priority.priority =	Integer from 0 to 10	It configures the priority of multicast paging calls.	Directory-> Multicast IP->Paging Barge
multicast.listen_address.x.ip_address = (X ranges from 1 to 10.)	String	It configures the listening multicast IP address and port number for the phone. Example: multicast.listen_address.1.ip_address = 224.5.6.20:10008	Directory-> Multicast IP-> Listening Address
multicast.listen_address.x.label = (X ranges from 1 to 10)	String	It configures the label displayed on the LCD screen when receiving the multicast paging.	Directory-> Multicast IP->Label
phone_setting.search_when_dialing_enable =	0 or 1	It enables or disables T9 predictive text in the dialing screen. **0**-Disabled **1**-Enabled The default value is 0.	
phone_setting.predial_autodial =	0 or 1	It enables or disables the phone to automatically dial out the entered digits in the pre-dialing interface. **0**-Disabled **1**-Enabled The default value is 0.	Settings->Preference->Live Dialpad
phone_setting.inter_digit_time =	Integer from 1 to 14	It configures the time (in seconds) for the phone to automatically dial out the entered digits without pressing send key. The default value is 4.	Settings-> Preference->Inter Digit Time (1~14s)

Parameter	Permitted Values	Descriptions	Web Setting Path
phone_setting .lock =	0, 1, 2 or 3	It configures the keypad lock type. **0**-Disabled **1**-Menu Key **2**-Function Key **3**-All Keys The default value is 0.	Features->Phone Lock->Keypad Lock Type
phone_setting .phone_lock.unlock_pin =	Integer	It configures the password for unlocking the keypad. The default value is 123.	Features->Phone Lock->Phone Unlock PIN (0~15 Digit)
phone_setting .phone_lock.lock_time_out =	Integer from 0 to 3600	It configures the interval (in seconds) to automatically lock the keypad. The default value is 0 (the keypad is locked only by long pressing the pound key or pressing the keypad lock key)	Features->Phone Lock->Phone Lock Time Out (0~3600s)
phone_setting .ring_type =	Ring1.wav, Ring2.wav, ... Ring5.wav	It configures the ringtone for the phone. Example: phone_setting.ring_type = Ring1.wav The default value is Ring1.wav.	Settings->Preference->Ring Type
phone_setting .contrast = (applicable to the T28P IP phone only)	Integer from 1 to 10	It configures the contrast of the LCD screen. The default value is 6.	Settings->Preference->Contrast
phone_setting .lcd_logo.mode =	0, 1 or 2	It configures the logo mode of the LCD screen. For the T22P/T26 IP phone: **0**-Disabled **1**-System logo **2**-Custom logo The default value is 0. For the T20P IP phone: **0**-Disabled **1**-Enabled	Features->General Information->Use Logo

Parameter	Permitted Values	Descriptions	Web Setting Path
		The default value is 0. For the T28P IP phone: **1**-System logo **2**-Custom logo The default value is 1.	
phone_setting.lcd_logo.text = (only applicable to T20P IP phone)	String	It configures a text logo. The maximum length of the value is 15 characters. The default value is Yealink.	Features->General Information->Text Logo
phone_setting.active_backlight_level = (only applicable to T28P IP phone)	Integer from 1 to 3	It configures the level of the active backlight intensity. The default value is 2.	Settings->Preference->Backlight Idle Intensity
phone_setting.backlight_time = (not applicable to the T20P IP phone)	0, 1, 15, 30, 60 or 120	It configures the backlight time (in seconds). **0**-Always off **1**-Always on **15**-15s **30**-30s **60**-60s **120**-120s The default value is 30.	Settings->Preference->Backlight Time (seconds)
phone_setting.ring_for_tranfailed =	Ring1.wav Ring5.wav	It configures the ringtone when the phone fails to transfer a call.	
phone_setting.logon_wizard =	0 or 1	It enables or disables the phone to provide the logon wizard during startup. **0**-Disabled **1**-Enabled The default value is 0.	Features->General Information->Logon Wizard

Parameter	Permitted Values	Descriptions	Web Setting Path
phone_setting .is_deal180 =	0 or 1	It enables or disables the phone to deal with the 180 SIP message received after the 183 SIP message. **0**-Disabled **1**-Enabled The default value is 1.	Features->General Information->180 Ring Workaround
phone_setting .dialnow_delay =	Integer from 1 to 14	It configures the delay time (in seconds) for the dial-now rule. The default value is 1.	Features->General Information->Time-Out For Dial-Now Rule
phone_setting .custom_softkey_enable = (not applicable to the T20P IP phone)	0 or 1	It enables or disables customizing the softkey layout. **0**-Disabled **1**-Enabled The default value is 0.	Settings->Softkey Layout->Custom Softkey
phone_setting .headsetkey_mode =	0 or 1	It configures headset mode precedence during a call. **0**-Always use (pressing the Speakerphone key and picking up the handset are not effective when the headset mode is activated.) **1**-Use as normal The default value is 1.	
phone_setting .emergency.number =	Phone number	It configures emergency numbers. Multiple emergency numbers are separated by comma. The default value is 112,911,110.	Features->Phone Lock->Emergency
phone_setting .end_call_net_disconnect.enable =	0 or 1	It configures the phone whether to end the call when the network is unavailable. **0**-End the call **1**-Do not end the call	
phone_setting .show_code403 =	String	It configures the display message on the LCD screen when receiving a 403 message.	

Parameter	Permitted Values	Descriptions	Web Setting Path
		If leaving the field blank, the phone will display the value sent from the server when receiving the 403 message. The default value is blank.	
custom_mac_cfg.url =	URL	It configures the access URL of the customized MAC-Oriented CFG file.	
super_search.recent_call = (not applicable to the T20P IP phone)	0 or 1	It enables or disables recent call in dialing feature. If it is enabled, you can view the placed calls list when the phone is in the pre-dialing screen. 0-Disabled 1-Enabled The default value is 0.	Directory->Setting->Recent Call In Dialing
directory_setting.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of the customized directory list file.	Directory->Setting->Directory
super_search.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of the customized search source list in dialing file.	Directory->Setting->Search Source List In Dialing
firmware.url =	URL	It configures the access URL of firmware file.	
ringtone.url =	URL	It configures the access URL of the customized ringtone file.	
ringtone.delete =	URL	It deletes all customized ringtone files. The valid value is: http://localhost/all	
gui_lang.url =	URL	It configures the access URL of the language file.	
gui_lang.delete =	URL	It deletes all customized language files.	

Parameter	Permitted Values	Descriptions	Web Setting Path
		The valid value is: http://localhost/all	
lcd_logo.url = (not applicable to the T20P IP phone)	URL	It configures the access URL of logo file.	
lcd_logo.delete = (not applicable to the T20P IP phone)	URL	It deletes all customized logo files. The valid value is: http://localhost/all	
trusted_certificates.url =	URL	It configures the access URL of the trusted certificate file.	
trusted_certificates.delete =	URL	It deletes all uploaded trusted certificate files. The valid value is: http://localhost/all	
server_certificates.url =	URL	It configures the access URL of the server certificate file.	
server_certificates.delete =	URL	It deletes the uploaded server certificate file. The valid value is: http://localhost/all	
local_contact.data.url =	URL	It configures the access URL of the local contact file.	
auto_dst.url =	URL	It configures the access URL of the DST Time file.	
dialplan_dialnow.url =	URL	It configures the access URL of the dial-now rule file.	
dialplan_replace_rule.url =	URL	It configures the access URL of the replace rule file.	
custom_factory_configuration.url =	URL	It configures the access URL of the customized factory configuration file.	
configuration.url =	URL	It configures the access URL for downloading the customized factory	

Parameter	Permitted Values	Descriptions	Web Setting Path
		configuration file.	
call_list.url =	URL	It configures the access URL of the call history list file. It takes effect after reboot.	
openvpn.url =	URL	It configures the access URL of the openVPN *.tar file.	
custom_mac_cfg.url =	URL	It configures the access URL of the custom MAC-Oriented CFG file.	
web_item_level.url =	URL	It configures the access URL of the file, which defines 3-level access permissions for web user interface. It takes effect after reboot.	
account.x.init_register_auth_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to carry the authentication header in the first REGISTER message when registering an account. **0**-Disabled **1**-Enabled The default value is 0.	
account.x.out_dialog_blf_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to handle NOTIFY messages out of the BLF session. **0**-Disabled **1**-Enabled The default value is 0.	
account.x.enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables the account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Register ->Line Active
account.x.label = (X ranges from 1 to 6.)	String	It configures the label displayed on the LCD screen for account x. The default value is blank.	Account->Register ->Label

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.display_name = (X ranges from 1 to 6.)	String	It configures the display name for account x. The default value is blank.	Account->Register ->Display Name
account.x.auth_name = (X ranges from 1 to 6.)	String	It configures the user name for register authentication for account x. The default value is blank.	Account->Register ->Register Name
account.x.user_name = (X ranges from 1 to 6.)	String	It configures the register user name for account x. The default value is blank.	Account->Register ->User Name
account.x.password = (X ranges from 1 to 6.)	String	It configures the password for register authentication for account x. The default value is blank.	Account->Register ->Password
account.x.transport = (X ranges from 1 to 6.)	Integer	It configures the transport type for account x. **0**-UDP **1**-TCP **2**-TLS **3**-DNS-NAPTR The default value is 0.	Account->Register ->Transport
account.x.failback_mode = (X ranges from 1 to 6.)	0, 1, 2 or 3	It specifies the method used by the phone to reconnect the primary server when encountering a failover, if the SIP server is configured with a domain name for account x. **0**-newRequests **1**-DNSTTL **2**-Registration **3**-duration The default value is 0.	
account.x.reregister_enable =	0 or 1	It specifies whether the phone needs to re-register the account when encountering an INVITE failover, if the SIP server is configured with a domain	

Parameter	Permitted Values	Descriptions	Web Setting Path
(X ranges from 1 to 6.)		name for account x. **0**- Not need to re-register **1**-Need to re-register The default value is 0.	
account.x.naptr_build = (X ranges from 1 to 6.)	0 or 1	It configures the way of SRV query when there is no result from the NAPTR query. **0**-SRV query using UDP only **1**-SRV query using TCP or TLS. The default value is 0.	
account.x.fallback.redundancy_type = (X ranges from 1 to 6.)	0 or 1	It configures the registration mode for the phone. **0**-Concurrent registration **1**-Successive registration The default value is 0.	
account.x.fallback.timeout = (X ranges from 1 to 6.)	10～2147483647	It configures the time interval (in seconds) for the phone to detect whether the working server is available by sending the registration request. It is only applicable to successive registration mode. The default value is 120.	
account.x.sip_server.y.address = (X ranges from 1 to 6. Y ranges from 1 to 2.)	IP address or domain name	It configures the IP address or domain name of server y for account x. Example: account.1.sip_server.1.address = 10.2.1.128	Account->Register ->SIP Server Y-> Server Host
account.x.sip_server.y.port = (X ranges from 1 to 6. Y ranges from 1 to 2.)	Integer from 0 to 65535	It configures the port of server y for account x. The default value is 5060.	Account->Register ->SIP Server Y-> Port

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.sip_server.y.expires = (X ranges from 1 to 6. Y ranges from 1 to 2.)	Integer from 30 to 2147483647	It configures the registration expiration time (in seconds) to SIP server y for account x. The default value is 3600.	Account->Register ->SIP Server Y-> Server Expires
account.x.sip_server.y.retry_counts = (X ranges from 1 to 6. Y ranges from 1 to 2.)	Integer from 0 to 20	It configures the times for the phone to retransmit the request when the SIP server y is unavailable or there is no respond from the SIP server y for account x. The default value is 3.	Account->Register ->SIP Server Y ->Server Retry Counts
account.x.sip_server.y.failback_mode = (X ranges from 1 to 6. Y ranges from 1 to 2.)	0, 1, 2 or 3	It specifies the method used by the phone to reconnect the primary server when encountering a failure, if the SIP server y is configured with a domain name for account x. **0**-newRequests **1**-DNSTTL **2**-Registration **3**-duration The default value is 0.	
account.x.sip_server.y.failback_timeout = (X ranges from 1 to 6. Y ranges from 1 to 2.)	Integer 0, from 60 to 65535	It configures the time (in seconds) for the phone to retry to use the primary server after failing over to the current working server when the "account.x.sip_server.y.failback_mode " is set to 3 (duration). If you set the parameter between 1 and 59, the timeout will be 60 seconds. The default value is 3600.	
account.x.sip_server.y.register_on_enable = (X ranges	0 or 1	It enables or disables the phone to send registration request to a secondary server when encountering a failover. **0**-Disabled	

Parameter	Permitted Values	Descriptions	Web Setting Path
from 1 to 6. Y ranges from 1 to 2.)		**1**-Enabled The default value is 0.	
account.x.static_cache_pri = (X ranges from 1 to 6.)	0 or 1	It configures whether preferentially to use the DNS cache for domain name resolution of the SIP server. **0**-Use Domain name server preferentially **1**-Use DNS cache preferentially The default value is 1.	
account.x.dns_cache_type = (X ranges from 1 to 6.)	0, 1 or 2	It specifies the content that the DNS cache record. **0**-Do not use DNS cache. **1**-Use DNS cache, but do not record the additional record. **2**-Use DNS cache and record the additional record. The default value is 1.	
account.x.dns_cache_a.y.name = (X ranges from 1 to 6.)	String	It configures the domain name of A record y in the DNS cache for account x.	
account.x.dns_cache_a.y.ip = (X ranges from 1 to 6.)	IP address	It configures the IP address that the domain name of A record y maps to in the DNS cache for account x.	
account.x.dns_cache_a.y.ttl = (X ranges from 1 to 6.)	Integer from 300 to 2147483647	It specifies the time interval that A record y may be cached before the record should be consulted again for account x. The default value is 300.	
account.x.dns_cache_srv.y.name = (X ranges	Domain name	It configures the domain name of SRV record y in the DNS cache for account x.	

Parameter	Permitted Values	Descriptions	Web Setting Path
from 1 to 6.)			
account.x.dns_cache_srv.y.port = (X ranges from 1 to 6.)	Integer from 0 to 65535	It identifies the port to be used in SRV record y for account x.	
account.x.dns_cache_srv.y.priority = (X ranges from 1 to 6.)	Integer from 0 to 65535	It specifies the priority for the specific host entry in SRV record y for account x. Lower priority is more preferred. The default value is 0.	
account.x.dns_cache_srv.y.target = (X ranges from 1 to 6.)	Domain name	It specifies the actual host for an A query for account x.	
account.x.dns_cache_srv.y.weight = (X ranges from 1 to 6.)	Integer from 0 to 65535	It specifies the weight of SRV record y for account x. When priorities are equal, weight is used to differentiate the preference. Higher weight is more preferred. The default value is 0.	
account.x.dns_cache_srv.y.ttl = (X ranges from 1 to 6.)	Integer from 300 to 2147483647	It specifies the time interval that SRV record y may be cached before the record should be consulted again for account x. The default value is 300.	
account.x.dns_cache_naptr.y.name = (X ranges from 1 to 6.)	Domain name	It specifies the domain name to which NAPTR record y refers in the DNS cache for account x.	
account.x.dns_cache_naptr.y.flags = (X ranges	S, A, U or P	It specifies the flag of NAPTR record y in the DNS cache for account x. (Only supports "S") **S**-Do an SRV lookup next.	

Parameter	Permitted Values	Descriptions	Web Setting Path
from 1 to 6.)		**A**-Do an A lookup next. **U**-No need to do a DNS query next. **P**-Service customized by the user	
account.x.dns_cache_naptr.y.order = (X ranges from 1 to 6.)	Integer from 0 to 65535	It specifies the preferential treatment for NAPTR record y for account x. Lower order is more preferred. The default value is 0.	
account.x.dns_cache_naptr.y.preference = (X ranges from 1 to 6.)	Integer from 0 to 65535	It specifies the preference of NAPTR record y with equal order value for account x. Lower preference is more preferred. The default value is 0.	
account.x.dns_cache_naptr.y.replace = (X ranges from 1 to 6.)	Domain name	It specifies a DNS name to be used for the next SRV query in NAPTR record y for account x.	
account.x.dns_cache_naptr.y.service = (X ranges from 1 to 6.)	String	It specifies the service available for SIP in NAPTR record y for account x.	
account.x.dns_cache_naptr.y.ttl = (X ranges from 1 to 6.)	Integer from 300 to 2147483647	It specifies the time interval that NAPTR record y may be cached before the record should be consulted again for account x. The default value is 300.	
account.x.srv_ttl_timer_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to refresh the DNS-SRV query record at the regular time. **0**-Disabled **1**-Enabled The default value is 1. It takes effect after reboot.	

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.dns_srv_type = (X ranges from 1 to 6.)	0, 1, 2 or 3	It specifies the way of the DNS-SRV query. **0**-DNS-SRV query using UDP, TCP or TLS **1**-DNS-SRV query using UDP only **2**-DNS-SRV query using TCP only **3**-DNS-SRV query using TLS only The default value is 0. It takes effect after reboot.	
account.x.outbound_proxy_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to use the outbound proxy server for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Register ->Enable Outbound Proxy Server
account.x.outbound_host = (X ranges from 1 to 6.)	IP address or domain name	It configures the IP address or domain name of the outbound proxy server for account x. The default value is blank.	Account->Register ->Outbound Proxy Server
account.x.outbound_port = (X ranges from 1 to 6.)	Integer from 1 to 65535	It configures the port of the outbound proxy server for account x. The default value is 5060.	Account->Register ->Outbound Proxy Server->Port
voice_mail.number.x = (X ranges from 1 to 6.)	String	It configures the voice mail number for account x. The default value is blank.	Account-> Advanced->Voice Mail
account.x.proxy_require = (X ranges from 1 to 6.)	String	It configures the proxy server for account x. The default value is blank.	Account->Basic-> Proxy Require
account.x.sip_trust_ctrl = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to only accept the message from the trusted server for account x. **0**-Disabled **1**-Enabled The default value is 0.	

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.anonymous_call = (X ranges from 1 to 6.)	0 or 1	It enables or disables anonymous call feature for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Basic->Send Anonymous
account.x.send_anonymous_code = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to send anonymous code to activate/deactivate the server-side anonymous call feature for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Basic->Anonymous Code
account.x.anonymous_call_oncode = (X ranges from 1 to 6.)	String	It configures the code for activating the server-side anonymous call feature for account x when the "account.x.anonymous_call_oncode" is set to 1 (Enabled). The default value is blank.	Account->Basic->Anonymous Call->On Code
account.x.anonymous_call_offcode = (X ranges from 1 to 6.)	String	It configures the code for deactivating the server-side anonymous call feature for account x when the "account.x.anonymous_call_oncode" is set to 1 (Enabled). The default value is blank.	Account->Basic->Anonymous Call->Off Code
account.x.reject_anonymous_call = (X ranges from 1 to 6.)	0 or 1	It enables or disables anonymous call rejection feature for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Basic->Anonymous Call Rejection
account.x.anonymous_reject_oncode = (X ranges from 1 to 6.)	String	It configures the code for activating anonymous call rejection feature for account x. The default value is blank.	Account->Basic->Anonymous Call Rejection->On Code
account.x.anonymous_reject	String	It configures the code for deactivating anonymous call rejection feature for	Account->Basic->Anonymous Call Rejection->Off

Parameter	Permitted Values	Descriptions	Web Setting Path
_offcode = (X ranges from 1 to 6.)		account x. The default value is blank.	Code
account.x.dnd.enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables DND feature for account x when the DND mode is configured as Custom. **0**-Disabled **1**-Enabled The default value is 0.	Features->Forward& DND->DND ->DND Status
account.x.dnd.on_code = (X ranges from 1 to 6.)	String	It configures the DND on code for account x when the DND mode is configured as Custom.	Features->Forward& DND->DND On Code
account.x.dnd.off_code = (X ranges from 1 to 6.)	String	It configures the DND off code for account x when the DND mode is configured as Custom.	Features->Forward& DND->DND Off Code
account.x.always_fwd.enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables always forward feature for account x when the DND mode is configured as Custom. **0**-Disabled **1**-Enabled The default value is 0.	Features->Forward& DND->Always Forward->On/Off
account.x.always_fwd.target = (X ranges from 1 to 6.)	String	It configures the target number the phone forwards all incoming calls to for account x when the DND mode is configured as Custom.	Features->Forward& DND->Always Forward->Target
account.x.busy_fwd.enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables busy forward feature for account x when the DND mode is configured as Custom. **0**-Disabled **1**-Enabled The default value is 0.	Features->Forward& DND->Busy Forward->On/Off
account.x.busy_fwd.target	String	It configures the target number the phone forwards incoming calls to	Features->Forward& DND->Busy

Parameter	Permitted Values	Descriptions	Web Setting Path
= (X ranges from 1 to 6.)		when busy for account x when the DND mode is configured as Custom.	Forward->Target
account.x.timeout_fwd.enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables no answer forward feature for account x when the DND mode is configured as Custom. **0**-Disabled **1**-Enabled The default value is 0.	Features->Forward& DND->No Answer Forward->On/Off
account.x.timeout_fwd.target = (X ranges from 1 to 6.)	String	It configures the target number the phone forwards incoming calls to after a period of ring time for account x when the DND mode is configured as Custom.	Features->Forward& DND->No Answer Forward->Target
account.x.timeout_fwd.timeout = (X ranges from 1 to 6.)	Integer from 0 to 20	It configures the waiting ring time before forwarding for account x when the DND mode is configured as Custom. The default value is 2.	Features->Forward& DND->No Answer Forward->After Ring Time
account.x.always_fwd.off_code = (X ranges from 1 to 6.)	String	It configures the always forward off code for account x when the DND mode is configured as Custom.	Features->Forward& DND->Always Forward ->Off Code
account.x.always_fwd.on_code = (X ranges from 1 to 6.)	String	It configures the always forward on code for account x when the DND mode is configured as Custom.	Features->Forward& DND->Always Forward->On Code
account.x.busy_fwd.off_code = (X ranges from 1 to 6.)	String	It configures the busy forward off code for account x when the DND mode is configured as Custom.	Features->Forward& DND->Busy Forward ->Off Code
account.x.busy_fwd.on_code =	String	It configures the busy forward on code for account x when the DND mode is configured as Custom.	Features->Forward& DND->Busy Forward->On

Parameter	Permitted Values	Descriptions	Web Setting Path
(X ranges from 1 to 6.)			Code
account.x.timeout_fwd.off_code = (X ranges from 1 to 6.)	String	It configures the no answer forward off code for account x when the DND mode is configured as Custom.	Features->Forward& DND->No Answer Forward ->Off Code
account.x.timeout_fwd.on_code = (X ranges from 1 to 6.)	String	It configures the no answer forward on code for account x when the DND mode is configured as Custom.	Features->Forward& DND->No Answer Forward ->On Code
account.x.sip_listen_port = (X ranges from 1 to 6.)	Integer	It configures the local SIP port for account x. The default value is 5060.	Account-> Advanced->Local SIP Port
account.x.100rel_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables 100 reliable retransmission feature for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account-> Advanced-> Retransmission
account.x.subscribe_mwi = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to subscribe the message waiting indicator for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account-> Advanced-> Subscribe for MWI
account.x.subscribe_mwi_expires = (X ranges from 1 to 6.)	Integer from 0 to 84600	It configures the interval (in seconds) of MWI subscription for account x. The default value is 3600.	Account-> Advanced->MWI Subscription Period (Seconds)
account.x.cid_source = (X ranges from 1 to 6.)	0, 1, 2, 3, 4 or 5	It configures the source caller identity for presentation when receiving an incoming call for account x. **0**-FROM	Account-> Advanced->Caller ID Source

Parameter	Permitted Values	Descriptions	Web Setting Path
		1-PAI **2**-PAI-FROM **3**-PRID-PAI-FROM **4**-PAI-RPID-FROM, **5**-RPID-FROM The default value is 0.	
account.x.cid_source_privacy = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to deal with PRIVACY header field in the 180 or 200 OK message for account x. **0**-Disabled **1**-Enabled The default value is 0.	
account.x.cid_source_ppi = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to deal with the PPI header field when receiving an incoming call for account x. **0**-Disabled **1**-Enabled The default value is 0.	
account.x.cp_source = (X ranges from 1 to 6.)	0, 1 or 2	It configures the source callee identity for presentation for account x. **0**-PAI-RPID **1**-Dialed Digits **2**-RFC4916 The default value is 1.	
account.x.session_timer.enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables the session timer for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Advanced->Session Timer
account.x.session_timer.expires = (X ranges from 1 to 6.)	Integer from 30 to 7200	It configures the interval (in seconds) for refreshing the SIP session for account x. The default value is 1800.	Account->Advanced->Session Expires (30~7200s)

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.session_timer.refresher = (X ranges from 1 to 6.)	0 or 1	It configures the refresher of the session timer for account x. **0**-Uac **1**-Uas The default value is 0.	Account->Advanced->Session Refresher
account.x.enable_user_equal_phone = (X ranges from 1 to 6.)	0 or 1	It enables or disables the "user=phone" carried in the INVITE message for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Advanced->Send user=phone
account.x.srtp_encryption = (X ranges from 1 to 6.)	0, 1 or 2	It configures whether to use voice encryption service for account x. **0**-Disabled **1**-Optional **2**-Compulsory The default value is 0.	Account->Advanced->RTP Encryption (SRTP)
account.x.ptime = (X ranges from 1 to 6.)	0 (Disabled), 10, 20, 30, 40, 50 or 60.	It configures the RTP packet time for account x. The default value is 20.	Account->Advanced->PTime (ms)
account.x.bla_number = (X ranges from 1 to 6.)	Number	It configures the BLA number for account x. The default value is blank.	Account->Advanced->BLA Number
account.x.bla_subscribe_period = (X ranges from 1 to 6.)	Integer from 60 to 7200	It configures the period (in seconds) of BLA subscription for account x. The default value is 300.	Account->Advanced->BLA Subscription Period
account.x.dialoginfo_callpickup = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to pick up a call according to the SIP header of dialog-info for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Advanced->Dialog Info Call Pickup

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.group_pickup_code = (X ranges from 1 to 6.)	String	It configures the group pickup code for account x.	Account-> Advanced->Group Call Pickup Code
account.x.direct_pickup_code = (X ranges from 1 to 6.)	String	It configures the directed pickup code for account x.	Account-> Advanced-> Directed Call Pickup Code
account.x.auto_answer = (X ranges from 1 to 6.)	0 or 1	It enables or disables auto answer feature for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Basic-> Auto Answer
features.auto_answer_delay =	Integer from 1 to 4	It configures the delay time (in seconds) before the phone automatically answers an incoming call. The default value is 1.	
account.x.missed_calllog = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to record the missed call of account x. **0**-Disabled **1**-Enabled The default value is 1.	Account->Basic-> Missed Call Log
account.x.subscribe_mwi_to_vm = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to subscribe to the voice mail for the message waiting indicator for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account-> Advanced-> Subscribe MWI To Voice Mail
account.x.register_mac = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to carry the MAC address in the REGISTER message for account x. **0**-Disabled	Account-> Advanced->SIP Send MAC

Parameter	Permitted Values	Descriptions	Web Setting Path
		1-Enabled The default value is 0.	
account.x.register_line = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to carry the line number in the REGISTER message for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account->Advanced->SIP Send Line
account.x.reg_fail_retry_interval = (X ranges from 1 to 6.)	Integer from 0 to 1800	It configures the interval (in seconds) for the phone to retry to register account x when registration fails. The default value is 30.	Account->Advanced->SIP Registration Retry Timer (0~1800s)
account.x.conf_type = (X ranges from 1 to 6.)	0 or 2	It configures the conference type for account x. **0**-Local Conference **2**-Network Conference The default value is 0.	Account->Advanced->Conference Type
account.x.conf_uri = (X ranges from 1 to 6.)	String	It configures the network conference URI for account x. The default value is blank.	Account->Advanced->Conference URI
account.x.blf.subscribe_period = (X ranges from 1 to 6.)	Integer	It configures the period (in seconds) of the BLF subscription for account x. The default value is 1800.	
account.x.blf.subscribe_event = (X ranges from 1 to 6.)	0 or 1	It configures the type of the BLF subscription for account x. **0**-Dialog **1**-Presence The default value is 0.	
account.x.subscribe_acd_expires = (X ranges	Integer from 120 to 3600	It configures the period (in seconds) of ACD subscription for account x. The default value is 3600.	Account->Advanced->ACD Subscrip Period (120~3600s)

Parameter	Permitted Values	Descriptions	Web Setting Path
from 1 to 6.)			
account.x.sip_server_type = (X ranges from 1 to 6.)	0, 2, 4 or 6	It configures the SIP server type for account x. **0**-Default **2**-BroadSoft **4**-Cosmocom **6**-UCAP The default value is 0.	Account->Advanced->SIP Server Type
account.x.music_server_uri =	String	It configures the URI of the Music On Hold server for account x.	Account->Advanced->Music Server URI
account.x.dtmf.type = (X ranges from 1 to 6.)	0, 1, 2 or 3	It configures the DTMF type for account x. **0**-INBAND **1**-RFC2833 **2**-SIP INFO **3**-AUTO or SIP INFO The default value is 1.	Account->Advanced->DTMF Type
account.x.dtmf.dtmf_payload = (X ranges from 1 to 6.)	Integer from 96 to 127	It configures the RFC2833 payload for account x. The default value is 101.	Account->Advanced->DTMF Payload Type (96~127)
account.x.dns_query_timeout=	Integer from 1 to 9	It configures the timeout (in seconds) of DNS query for account x. The default value is 8.	
account.x.dtmf.info_type = (X ranges from 1 to 6.)	1, 2 or 3	It configures the DTMF info type when the DTMF type is configured as "SIP INFO" or "AUTO+SIP INFO" for account x. **1**-DTMF-Relay **2**-DTMF **3**-Telephone-Event The default value is 1.	Account->Advanced->DTMF Info Type

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.nat.nat_traversal = (X ranges from 1 to 6.)	0 or 1	It enables or disables the NAT traversal for account x. **0**-Disabled **1**-STUN The default value is 0.	Account->Register ->NAT
account.x.nat.stun_server = (X ranges from 1 to 6.)	IP address or domain name	It configures the IP address or domain name of the STUN server for account x. The default value is blank.	Account->Register ->STUN Server
account.x.nat.stun_port = (X ranges from 1 to 6.)	Integer	It configures the port of the STUN server for account x. The default value is 3478.	Account->Register ->STUN Server ->Port
account.x.nat.udp_update_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables NAT keep-alive for account x. **0**-Disabled **1**-Enabled The default value is 1.	Account-> Advanced->Keep Alive Type
account.x.nat.udp_update_time = (X ranges from 1 to 6.)	Integer	It configures the keep-alive interval (in seconds) for account x. The default value is 30.	Account-> Advanced->Keep Alive Interval (Seconds)
account.x.nat.rport = (X ranges from 1 to 6.)	0 or 1	It enables or disables NAT Rport feature for account x. **0**-Disabled **1**-Enabled The default value is 0.	Account-> Advanced->RPort
account.x.advanced.timer_t1 = (X ranges from 1 to 6.)	Float	It configures the session timer T1 (in seconds) for account x. The default value is 0.5.	Account-> Advanced->SIP Session Timer T1 (0.5~10s)
account.x.advanced.timer_t2 =	Float	It configures the session timer T2 (in seconds) for account x. The default value is 4.	Account-> Advanced->SIP Session Timer T2

Parameter	Permitted Values	Descriptions	Web Setting Path
(X ranges from 1 to 6.)			(2~40s)
account.x.advanced.timer_t4 = (X ranges from 1 to 6.)	Float	It configures the session timer T4 (in seconds) for account x. The default value is 5.	Account-> Advanced->SIP Session Timer T4 (2.5~60s)
account.x.alert_info_url_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables thedistinctive ringtones by the Alert-Info SIP header for account x. **0**-Disabled **1**-Enabled The default value is 1.	Account-> Advanced-> Distinctive Ring Tones
features.alert_info_tone =	0 or 1	It enables and disables the phone to map the keywords in the Alert-info header to the specified Bellcore ring tones. **0**-Disabled **1**-Enabled The default value is 0.	
account.x.ringtone.ring_type = (X ranges from 1 to 6.)	Common, Ring1.wav, Ring2.wav, ... Ring5.wav	It configures a ringtone for account x. Example: account.1.ringtone.ring_type = Ring3.wav means configuring Ring3.wav for account1. account.1.ringtone.ring_type = Common means account1 will use the ring tone selected for the phone. The default value is Common.	Account->Basic-> Ring Type
account.x.codec.y.enable = (X ranges from 1 to 6. Y ranges from 1 to 11.)	0 or 1	It enables or disables the specified codec for account x. **0**-Disabled **1**-Enabled Example: account.1.codec.1.enable =1	Account->Codec

Parameter	Permitted Values	Descriptions	Web Setting Path
account.x.codec.y.payload_type = (X ranges from 1 to 6. Y ranges from 1 to 11.)	PCMU PCMA G729 G722 G723_53 G723_63 G726_16 G726_24 G726_32 G726_40 iLBC	It configures the codec for account x. Example: account.1.codec.1.payload_type = PCMU	Account->Codec
account.x.codec.y.priority = (X ranges from 1 to 6. Y ranges from 1 to 11.)	Integer from 0 to 12	It configures the priority of the enabled codec for account x. Example: account.1.codec.1.priority =1	Account->Codec
account.x.codec.y.rtpmap = (X ranges from 1 to 6. Y ranges from 1 to 11.)	Integer from 0 to 127	It configures rtpmap of the audio codec for account x. Example: account.1.codec.1.rtpmap = 0	
account.x.unregister_on_reboot = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to un-register account x before reboot. **0**-Disabled **1**-Enabled The default value is 0.	Account->Advanced->Unregister When Reboot
account.x.compact_header_enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to support compact SIP header for account x. The default value is 0.	
account.x.music_on_hold_type =	0 or 1	It configures the way on how the phone processes Music On Hold when placing an active call on hold for	

Parameter	Permitted Values	Descriptions	Web Setting Path
(X ranges from 1 to 6.)		account x. **0**-Calling the music server before holding **1**-Calling the music server after holding The default value is 1.	
account.x.acd .enable = (X ranges from 1 to 6.)	0 or 1	It enables or disables ACD feature for Account X. **0**-Disabled **1**-Enabled The default value is 0. It takes effect after reboot.	
account.x.acd .available = (X ranges from 1 to 6.)	0 or 1	It enables or disables the phone to display the available and unavailable soft keys after the phone logs in the ACD system. **0**-Disabled **1**-Enabled The default value is 0.	
account.x.acd .user_id = (X ranges from 1 to 6.)	String	It configures the user ID used to log into the ACD system. The default value is blank.	
account.x.acd .password = (X ranges from 1 to 6.)	String	It configures the password used to log into the ACD system. The default value is blank.	

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