Yealink | 亿联网络

VP59/SIP-T58/CP96X IP Phones Administrator Guide

Version: 86.11 | Date: Jul. 2021

Before You Begin

Yealink administrator guide provides general guidance on setting up phone network, provisioning and managing devices.

This guide is not intended for end-users, but for a technical audience. You can do the following with this guide:

- Set up a VoIP network and provisioning server.
- Provision the device with features and settings.
- Troubleshoot, update and maintain devices.

The information in this guide is applicable to the following Yealink devices except where noted:

- VP59 flagship smart video phones.
- T58A/T58W smart business phones.
- CP960/CP965 IP conference phones.
- Expansion modules: EXP50.

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

Related Documentations

The following related documents are available:

- Quick Start Guides, describe how to assemble phones.
- User Guides, describe how to configure and use the basic and advanced features available on the phones via the phone user interface.
- Auto Provisioning Guide, describes how to provision the devices using the boot file and configuration files.

  The Auto Provisioning Guide is to serve as basic guidance for provisioning Yealink devices with a provisioning server. If you are a novice, this guide is helpful for you.
- Using features integrated with Broadsoft UC-One, refer to the following two guides to have a better knowledge of BroadSoft features.

  IP Phones Deployment Guide for BroadSoft UC-One Environments, describes how to configure BroadSoft features on the BroadWorks web portal and phones.
  IP Phone Features Integrated with BroadSoft UC-One User Guide, describes how to configure and use IP phone features integrated with BroadSoft UC-One on Yealink phones.

For support or service, please contact your Yealink reseller or go to Yealink Technical Support online: http://support.yealink.com/.

Recommended References

For more information on configuring and administering other Yealink products not included in this guide, refer to the product support page at Yealink Technical Support.

To access the latest Release Notes or other guides for Yealink devices, refer to the Document Download page for your phone at Yealink Technical Support.

If you want to find Request for Comments (RFC) documents, type http://www.ietf.org/rfc/rfcNNNN.txt (NNNN is the RFC number) into the location field of your browser.

For other references, look for the hyperlink or web info throughout this administrator guide.

Summary of Changes

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

Changes for Release V86, Guide Version V86.11

Documentations of the newly released T58W phones have also been added.

The following sections are new for this version:

- Lower Your Voice Alarm

Major updates have occurred to the following section:

- Video Settings Configuration
  Added the parameter "account.X.video.mode".

Changes for Release V86, Guide Version V86.10

The following sections are new for this version:

- Font Size Customization
- Local Contacts Order Configuration
- Short Message Service (SMS)

Major updates have occurred to the following section:

- Call Information Display Configuration
  Added the feature that the phone can display the call information by long pressing the Call Park key.
- Softkey Layout
  Added support for CP960 model.
- Call Recording Configuration
  Changed the default value of "features.usb_call_recording.enable" to 0.
- Static DNS Cache Configuration
  Deleted the parameters "dns_cache_naptr.X.ttl", "dns_cache_srv.X.ttl", and "dns_cache_a.X.ttl".
  Add the parameters "static.network.dns_list.mode" and "static.network.wifi.dns_list.mode".
- Emergency Dialplan and Enhanced 911 Configuration
  Added the parameter "sip.emergency_call.mode".
- Call Transfer Configuration
  Added the parameter "features.transfer.mode".
- Voice Quality Reports Configuration
  Added the parameter "phone_setting.vq_rtcpxr.min_callduration".
- Call Display Configuration
  Added the parameter "features.caller_name_type_on_call".
- Call Settings Parameters
  Added the parameter "features.missed_call_icon_event".
- DND Settings Configuration
- Call Forward Settings Configuration
  Added the parameter "phone_setting.fwd_and_dnd.suspension_prompt".
- Incoming Intercom Configuration
  Added the parameter "voice.intercom.tone_vol".
- MWI for Voice Mail Configuration
  Added the parameter "phone_setting.old_mail_display.enable".
- Call Recording Configuration
  Added the parameter "phone_setting.recorder_tone.enable".
- Phone Lock Configuration
  Added the parameter "phone_setting.phone_lock.emergency.number_rule".
- Using DECT Handsets with VP59/T58A/T58W Phones
  Newly supported handset models: W59R, DDPhone (Color Screen).
- Wi-Fi Configuration
  Added the parameter "phone_setting.wifi_security_check.enable".
- SRTP Configuration

Added the parameter "account.X.srtp_optional_mode".

- User and Administrator Identification Configuration
  Added the parameter "static.security.password_use_default.mode".
- Audio Codecs
  Unified the format of codec naming: CodecName (xx kbps).
  Supported the codec G729AB.
- User Access Level Configuration
  Added the parameter "static.security.web_limited_access_level".

Changes for Release V85, Guide Version V85.2

Major updates have occurred to the following section:

- Google Contacts

Changes for Release V85, Guide Version V85.1

The following sections are new for this version:

- Dsskey Hide
- Out of Service
- PC Mode
- PIN Code Provisioning Settings Configuration
- PSTN Account Configuration
- Recording Upload
- Smart Noise Filtering
- Unify Parameters
- Wireless Access Point (Wireless AP)
- Idle Clock Display
- Registering Android ID on VP59 Phones
- Example: Using VPN based on L2TP Protocol
- Exporting the OpenVPN Configuration File from the Phone
- Importing the OpenVPN Configuration File to Phone
- Label Length for Line Key Display

Major updates have occurred to the following sections:

- Bluetooth
- Language
- MWI for Voice Mail Configuration
- Call Park and Retrieve Configuration
- Call Transfer Configuration
- LDAP Configuration
- SCA Configuration
- Incoming Intercom Configuration
- VPN Configuration
- Internet Port and PC Port Configuration
- Warnings Display
- BroadSoft Settings
- Wi-Fi Configuration
- Ethernet Interface MTU Parameters
- Call Display Configuration
- Network Conference Configuration
- Handset/Headset/Speakerphone Mode Configuration

- Power/Mute LED Indicator Configuration
- Macro Action Strings
- Web Server Type Configuration
- Return Code for Refused Call Configuration
- Return Code for Unanswered Call Configuration
- DND Settings Configuration
- Line Keys Configuration
- Multicast Paging Settings Configuration
- Ringer Volume Configuration
- Encryption and Decryption Configuration
- Supported Trusted Certificates

Table of Contents

Before You Begin i
Related Documentations i
Recommended References i
Summary of Changes i
Changes for Release V86, Guide Version V86.11 i
Changes for Release V86, Guide Version V86.10 ii
Changes for Release V85, Guide Version V85.2 iii
Changes for Release V85, Guide Version V85.1 iii

Table of Contents 1

Getting Started 19
Requirements 19
Yealink IP Phones in a Network 19
Initialization Process Overview 20
Loading the ROM File 20
Configuring the VLAN 21
Querying the DHCP (Dynamic Host Configuration Protocol) Server 21
Contacting the Provisioning Server 21
Updating Firmware 21
Downloading the Resource Files 21
Verifying Startup 21

Network Configurations 22
IPv4 and IPv6 Wired Network Settings 22
Wired Network IP Addressing Mode Configuration 22
IPv4 Wired Network Configuration 23
IPv6 Wired Network Configuration 26
DHCP Option for IPv4 28
Supported DHCP Option for IPv4 29
DHCP Option 66, Option 43 and Custom Option 29
DHCP Option 42 and Option 2 29
DHCP Option 12 30
DHCP Option 12 Hostname Configuration 30
DHCP Option 120 30
DHCP Option 120 Configuration 30
DHCP Option 60 31
DHCP Option 60 Configuration 31
DHCP Option for IPv6 31
Supported DHCP Option for IPv6 31
DHCP Option 59 and Custom Option 32
VLAN 32
LLDP Configuration 32
CDP Configuration 33

Manual VLAN Configuration 34
DHCP VLAN Configuration 35
VLAN Change Configuration 36
Wi-Fi 36
Wi-Fi Configuration 37
Wireless Network IP Addressing Mode Configuration 40
IPv4 Wireless Network Configuration 40
IPv6 Wireless Network Configuration 43
Wireless Access Point (Wireless AP) 46
Wireless Access Point Configuration 46
Real-Time Transport Protocol (RTP) Ports 48
RTP Ports Configuration 48
Network Address Translation (NAT) 49
NAT Traversal Configuration 49
Keep Alive Configuration 52
Rport Configuration 52
SIP Port and TLS Port Configuration 53
Reserved Ports 53
Guidelines for Determining the Range of Port Numbers 53
Reserved Ports Configuration 54
Internet Port and PC Port 55
Supported Transmission Methods 55
Internet Port and PC Port Configuration 55
VPN 56
OpenVPN Related Files 57
VPN Configuration 57
Example: Using VPN based on L2TP Protocol 58
Exporting the OpenVPN Configuration File from the Phone 59
Importing the OpenVPN Configuration File to Phone 59
Quality of Service (QoS) 59
Voice, Video and SIP QoS Configuration 60
802.1x Authentication 60
802.1x Authentication Configuration 61
TR-069 Device Management 63
Supported RPC Methods 63
TR-069 Configuration 64

Phone Provisioning 66

Boot Files, Configuration Files, and Resource Files 66
Boot Files 66
Common Boot File 66
MAC-Oriented Boot File 67
Boot File Attributes 67
Customizing a Boot File 68
Configuration Files 68

Common CFG File 68
MAC-Oriented CFG File 69
MAC-local CFG File 69
Configuration File Customization 69
Customizing a Configuration File 69
Configuration File Attributes 70
Resource Files 70
Supported Resource Files 70
Files Download Process 71
Provisioning Methods 72
Provisioning Methods Priority 72
Web User Interface 73
Accessing the Web User Interface 73
Quick Login Configuration 74
Web Server Type Configuration 74
Navigating the Web User Interface 76
Phone User Interface 76
Central Provisioning 76
Auto Provisioning Settings Configuration 77
User-Triggered Provisioning Settings Configuration 83
PIN Code Provisioning Settings Configuration 83
Viewing Configurations Configured via Different Provisioning Methods 84
Setting Up a Provisioning Server 84
Supported Provisioning Protocols 85
Provisioning Protocols Configuration 85
Supported Provisioning Server Discovery Methods 85
Zero Touch Provision Configuration 86
PnP Provision Configuration 87
DHCP Provision Configuration 87
Static Provision Configuration 88
Configuring a Provisioning Server 89
Keeping User’s Personalized Settings after Auto Provisioning 89
Keeping User’s Personalized Settings Configuration 90
Auto Provisioning Flowchart for Keep User’s Personalized Configuration Settings 90
Example: Keeping User’s Personalized Settings 91
Clearing User's Personalized Configuration Settings 92
Example: Deploying Phones from the Provisioning Server 92

Security Features 94

User and Administrator Identification 94
User and Administrator Identification Configuration 94
User Access Level Configuration 95
Auto Logout Time 96
Auto Logout Time Configuration 96
Phone Lock 97

Operation Behaviors on Lock Phone 97
Phone Lock Configuration 97
Transport Layer Security (TLS) 99
Supported Cipher Suites 99
Supported Trusted and Server Certificates 100
Supported Trusted Certificates 100
TLS Configuration 105
Secure Real-Time Transport Protocol (SRTP) 110
SRTP Configuration 111
Encrypting and Decrypting Files 112
Configuration Files Encryption Tools 112
Configuration Files Encryption and Decryption 112
Contact Files Encryption and Decryption 113
Encryption and Decryption Configuration 113
Incoming Network Signaling Validation 116
Incoming Network Signaling Validation Configuration 116
USB Port Lock 117
USB Port Lock Configuration 117

Firmware Upgrade 119
Firmware for Each Phone Model 119
Firmware Upgrade Configuration 119

Using DECT Handsets with VP59/T58A/T58W Phones 120
Handset Backlight 120
Handset Backlight Configuration 120
Handset Keypad Light 121
Handset Keypad Light Configuration 121
Handset Wallpaper 122
Handset Wallpaper Configuration 122
Handset Screen Saver 122
Handset Screen Saver Configuration 122
Handset Name 123
Handset Name Configuration 123
Number Assignment 123
Number Assignment Configuration 124
End Call on Hook 125
End Call on Hook Configuration 125
Advisory Tones 125
Advisory Tones Configuration 126
Base PIN 127
Base PIN Configuration 127
DECT Intercom 128
DECT Intercom Configuration 128
Shared Directory 129
Shared Directory Configuration 129

Shared Contact File Customization 129
Shared Contact File Elements and Attributes 129
Customizing Shared Contact File 130
Satellite Mode 130
Satellite Mode Configuration 131
Example: Configuring the Satellite Mode Feature 132
Repeater Settings Parameters 133
Handset Settings Parameters 133
Custom Handset Related Configurations 137
Handset Firmware Upgrade Configuration 138
Emergency Alarm 140
Emergency Alarm Configuration 141
Line Keys 144
Line Keys Configuration 144
Visual and Audio Alert for Monitor Lines 145
Visual and Audio Alert for BLF Lines Configuration 145

Using CP960/CP965 Star Connection Feature 148
Guidelines for Configuring Star Connection Feature 148
CP960/CP965 Star Connection Feature Configuration 149
Example: Configuring CP960/CP965 Star Connection Feature 150

Audio Features 151
Alert Tone 151
Alert Tone Configuration 151
Touch Tone 153
Touch Tone Configuration 153
Ring Tones 153
Custom Ringtone Limit 153
Ringtone Configuration 153
Distinctive Ring Tones 155
Supported Alert-Info Headers Format 155
Alert-Info: Bellcore-drN 155
Alert-Info: ringtone-N/Alert-Info: ringtone-RingN.wav (or Alert-Info: MyMelodyN/Alert-Info: MyMelodyRingN.wav) 157
Alert-Info: <URL> 158
Alert-Info: info=info text;x-line-id=0 158
Distinctive Ring Tones Configuration 159
Ringer Device 160
Ringer Device Configuration 160
Audio Volume 161
Ringer Volume Configuration 161
Sending Volume Configuration 161
Tones 164
Supported Tones 164
Tones Configuration 165
Audio Codecs 168

Supported Audio Codecs 169
Audio Codecs Configuration 170
Packetization Time (PTime) 173
Supported PTime of Audio Codec 173
PTime Configuration 174
Early Media 175
Early Media Configuration 175
Headset Prior 175
Headset Prior Configuration 176
Dual Headset 176
Dual Headset Configuration 176
Acoustic Clarity Technology 177
Acoustic Echo Cancellation (AEC) 177
AEC Configuration 177
Noise Suppression 177
Noise Suppression Configuration 178
Automatic Gain Control (AGC) 178
Voice Activity Detection (VAD) 178
VAD Configuration 178
Comfort Noise Generation (CNG) 178
CNG Configuration 178
Jitter Buffer 179
Jitter Buffer Configuration 179
Smart Noise Block 180
Smart Noise Block Configuration 181
Acoustic Shield 181
Acoustic Shield Configuration 181
Smart Noise Filtering 182
Smart Noise Filtering Configuration 182
DTMF 182
DTMF Keypad 182
Transmitting DTMF Digit 183
Transmitting DTMF Digit Configuration 183
Suppress DTMF Display 185
Suppress DTMF Display Configuration 185
Transfer via DTMF 185
Transfer via DTMF Configuration 185
Local DTMF Tone 186
Local DTMF Tone Configuration 186
Voice Quality Monitoring (VQM) 186
RTCP-XR 186
RTCP-XR Configuration 186
VQ-RTCPXR 187
Voice Quality Reports 187
Voice Quality Reports Configuration 187

VQ-RTCPXR Display 189
VQ-RTCPXR Display Configuration 190
Central Report Collector 193
Central Report Collector Configuration 193
Silent Mode 193
Silent Mode Configuration 194
Lower Your Voice Alarm 194
Lower Your Voice Alarm Configuration 194
Phone Customization 195
Language 195
Supported Languages 195
Language Display Configuration 196
Language for Phone Display Customization 197
Customizing a Language Pack for Phone Display 197
Custom Language for Phone Display Configuration 198
Example: Setting a Custom Language for Phone Display 198
Language for Web Display Customization 198
Customizing a Language Pack for Web Display 198
Customizing a Language Pack for Note Display 199
Custom Language for Web and Note Display Configuration 200
Wallpaper 201
Wallpaper Configuration 201
Wallpaper Customization 202
Custom Wallpaper Picture Limit 202
Custom Wallpaper Configuration 202
Deleting a Custom Picture 202
Example: Setting a Custom Picture as Wallpaper 202
Screen Saver 202
Screensaver Configuration 203
Backlight 205
Supported Backlight Options 205
Backlight and Time Configuration 205
Label Length for Line Key Display 206
Label Length Display Configuration 206
Page Tips 207
Phone Page Tips 207
Phone Page Tips Indicator 207
Phone Page Tips Configuration 208
Expansion Module Page Tips 209
Expansion Module Page Tips Indicator 209
Expansion Module Page Tips Configuration 209
Time and Date 210
Time Zone 210
NTP Settings 213

NTP Configuration 213
DST Settings 215
Auto DST File Attributes 215
Customizing Auto DST File 216
DST Configuration 217
Time and Date Manually Configuration 219
Time and Date Format Configuration 219
Date Customization Rule 221
Idle Clock Display 221
Idle Clock Display Configuration 221
Call Display 222
Call Display Configuration 222
Display Method on Dialing 225
Display Method on Dialing Configuration 225
Key As Send 225
Key As Send Configuration 226
Softkey Layout 226
Softkey Layout File Customization 227
Softkey Layout File Elements and Attributes 227
Customizing Softkey Layout File 227
Softkey Layout Configuration 228
Example: Setting the Soft Keys Layout in Talking State 230
Input Method 230
Input Method Configuration 230
Notification Popups 231
Notification Popups Configuration 232
Power/Mute LED Indicator 232
Power/Mute LED Indicator Configuration 233
Bluetooth 235
Bluetooth Configuration 235
Handset/Headset/Speakerphone Mode 236
Handset/Headset/Speakerphone Mode Configuration 237
DSS Keys 238
Supported DSS Keys 238
Supported Dsskey Types 238
Shortcut Key/Programmable Key Icons Limit 239
Line Keys 240
Line Keys Configuration 240
Example: Set a Park/Retrieve Key for FAC Call Park Mode 243
Example: Set a Park/Retrieve Key for Transfer Call Park Mode 244
Example: Setting a Line Key as Directed Pickup Key 245
Example: Setting a Line Key as Group Pickup Key 245
Example: Setting a Line Key as BLF List Key 245
Example: Setting a Line Key as Private Hold Key 246
Example: Setting a Line Key as Multicast Paging Key 246

Example: Setting a Line Key as Open Door Key 246
Example: Setting a Line Key as Video Monitoring Key 246
Programmable Keys 247
Supported Programmable Keys 248
Programmable Keys Configuration 248
Shortcut Keys 251
Shortcut Keys Configuration 252
Ext Keys 253
Ext Keys Configuration 253
Dsskey Lock Configuration 256
Shortcut Key/Programmable Key Icons Customization 256
Shortcut Key/Programmable Key Icons Customization Configuration 257
Example: Customizing an Icon for a Specific Shortcut Key 258
Example: Customizing an Icon for a Specific Programmable Key 258
Dsskey Hide 260
Dsskey Hide Configuration 260
Enhanced DSS Keys 260
Guidelines for Configuring Enhanced DSS Keys 261
Macro Action Strings 261
EDK Configuration 264
EDK List Configuration 265
EDK User Input Prompt Configuration 266
EDK Soft Keys Configuration 267
Example: Configuring EDK List for a Line Key 272
Example: Using EDK Macro Strings as the Contact Number 272
Power Saving 273
Power Saving Configuration 273
Search Source List in Dialing 275
Search Source File Customization 276
Search Source File Attributes 276
Customizing Search Source File 277
Search Source List Configuration 277
Recent Call Display in Dialing 279
Recent Call in Dialing Configuration 279
Icon Customization 279
Custom Icons Configuration 279
Door Phone 280
Door Phone Parameters 280
Android Keys Display 284
Android Keys Display Configuration 284
Status Bar and Control/Notification Center Display 285
Status Bar and Control/Notification Center Display Configuration 285
Warnings Display 285
Warnings Display Configuration 286
Browser Home Page 286

Browser Home Page Configuration 286
Out of Service 286
Out of Service Configuration 286
PC Mode 287
PC Mode Configuration 287
Font Size Customization 288
Font Size Customization Configuration 288
Analog Headset Mode 288
Analog Headset Mode Configuration 288

Account Settings 289

Account Registration 289
Supported Accounts 289
SIP Accounts Registration Configuration 289
PSTN Account Configuration 292
Registration Settings Configuration 294
Outbound Proxy in Dialog 296
Outbound Proxy in Dialog Configuration 296
Server Redundancy 297
Behaviors When Working Server Connection Fails 298
Registration Method of the Failover/Fallback Mode 298
Fallback Server Redundancy Configuration 298
Failover Server Redundancy Configuration 299
SIP Server Name Resolution 302
SIP Server Name Resolution Configuration 303
Static DNS Cache 304
Behave with a Configured DNS Server 304
Static DNS Cache Configuration 304
Logon Wizard 307
Logon Wizard Configuration 307
Multiple Line Keys per Account 309
Multiple Line Keys per Account Configuration 309
Auto Line Labels Rule Configuration 311
Default Account 311

Directory 313

Local Directory 313
Preparing the Tar Formatted File 313
Local Contact File Customization 314
XML Conversion Table 315
Local Contact File Elements and Attributes 315
Customizing Local Contact File 316
Local Contact Files and Resource Upload 317
Example: Adding Contacts Using a Contact File 318
Local Contacts Backup 319
Local Contacts Order Configuration 320

Favorite Contacts 320
Favorites Configuration 320
Google Contacts 321
Registering Android ID on VP59 Phones 321
Google Contacts Configuration 321
GMS Services List 323
Example: Configuring the Google Contacts Feature 323
Lightweight Directory Access Protocol (LDAP) 324
LDAP Attributes 324
Securely Storing the LDAP Credentials 324
LDAP Configuration 325
Remote Phone Book 331
Remote Phone Book File Customization 331
Remote Phone Book File Elements 331
Customizing Remote Phone Book File 332
Remote Phone Book Configuration 333
Example: Configuring a Remote Phone Book 334
Directory List for Directory Icon 334
Directory List File Customization 335
Directory List File Attributes 335
Customizing Directory List File 336
Directory List Configuration 336
Example: Configuring a Directory List 337
Directory Search Settings 337
Directory Search Settings Configuration 337
Number Matching Settings 338
Number Matching Settings Configuration 338
Example: Matching Contacts / Blocklist with the Caller's Phone Number Using the Regular Expression 339

Call Log 341
Call Log Display 341
Call Log Configuration 341
Call Logs Backup 343

Call Features 345
Dial Plan Defined by Four Patterns (Old Dial Plan Mechanism) 345
Basic Regular Expression Syntax for Four Patterns 346
Replace Rule File Customization 346
Replace Rule File Attributes 346
Customizing the Replace Rule File 347
Dial Now File Customization 347
Dial Now File Attributes 347
Customizing the Dial Now File 348
Replace Rule Configuration 348
Dial Now Configuration 349
Area Code Configuration 350

Block Out Configuration 351
Example: Adding Replace Rules Using a Replace Rule File 352
Dial Plan Defined by Digit Map (New Dial Plan Mechanism) 352
Basic Regular Expression Syntax for Digit Map 352
Digit Map for All Lines Configuration 353
Digit Map for a Specific Line Configuration 357
Emergency Dialplan and Enhanced 911 360
Emergency Dialplan and Enhanced 911 Configuration 360
Hotline 364
Hotline Configuration 364
Off Hook Hot Line Dialing 365
Off Hook Hot Line Dialing Configuration 366
Live Dialpad 366
Live Dialpad Configuration 366
Auto Redial 367
Auto Redial Configuration 367
Recall Configuration 368
Speed Dial 368
Speed Dial Key Configuration 368
Password Dial 369
Password Dial Configuration 369
Call Timeout 370
Call Timeout Configuration 370
Anonymous Call 370
Anonymous Call Configuration 370
Call Number Filter 372
Call Number Filter Configuration 372
IP Address Call 372
IP Address Call Configuration 372
Ignoring Incoming Calls 373
Ignoring Incoming Calls Configuration 373
Off Hook Answering 373
Off Hook Answering Configuration 373
Auto Answer 374
Auto Answer Configuration 374
Anonymous Call Rejection 376
Anonymous Call Rejection Configuration 376
Call Waiting 378
Call Waiting Configuration 378
Do Not Disturb (DND) 379
DND Settings Configuration 379
DND Feature Configuration 381
DND in Phone Mode Configuration 382
DND in Custom Mode Configuration 383
DND Synchronization for Server-side Configuration 384

Multiple Call Appearances 385
Multiple Call Appearances Configuration 385
Call Hold 386
Call Hold Configuration 386
Music on Hold (MoH) Configuration 388
Call Mute 389
Microphone Mute Configuration 389
Keep Mute 390
Keep Mute Configuration 390
Mute Alert Tone 390
Mute Alert Tone Configuration 391
Call Forward 391
Call Forward Settings Configuration 391
Call Forward Feature Configuration 393
Call Forward in Phone Mode Configuration 393
Call Forward in Custom Mode Configuration 398
Call Forward Synchronization for Server-side Configuration 402
Call Transfer 403
Call Transfer Configuration 404
Transfer Mode for Dsskey Configuration 405
Conference 406
Conference Type Configuration 406
Local Conference Configuration 406
Network Conference Configuration 407
Call Recording 408
Call Recording Configuration 408
Recording Upload 409
Recording Upload Configuration 409
Multicast Paging 410
Multicast Paging Group Configuration 410
Multicast Listening Group Configuration 411
Multicast Paging Settings 412
Multicast Paging Settings Configuration 413

Video Features 416
Video Settings 416
Video Settings Configuration 416
Video Codecs 418
Video Codecs Configuration 419

Advanced Features 421
Call Pickup 421
Directed Call Pickup 421
Directed Call Pickup Configuration 421
Group Call Pickup 422
Group Call Pickup Configuration 423

Dialog Info Call Pickup 423
Dialog Info Call Pickup Configuration 425
Call Completion 425
Call Completion Configuration 427
Example: Using Call Completion 427
Call Park and Retrieve 428
Call Park and Retrieve Configuration 428
Example: Setting Call Park and Retrieve in FAC Mode 429
Example: Setting Call Park and Retrieve in Transfer Mode 430
Automatic Call Distribution (ACD) 430
ACD Key Configuration 430
ACD Configuration 431
Example: Setting ACD 432
Busy Lamp Field 432
BLF Key Configuration 433
BLF List Configuration 433
State Indicator of Remote Line 435
BLF/BLF List Subscription 436
BLF/BLF List Subscription Configuration 437
Visual and Audio Alert for Monitor Lines 438
Visual and Audio Alert for BLF Lines Configuration 438
Example: Configuring Visual and Audio Alert for Monitor Lines 440
LED Mode for BLF/BLF List Key 440
Supported BLF LED Modes 441
BLF LED Mode Configuration 442
BLF/BLF List Key LED Status and Behavior Configuration 442
Supported BLF/BLF List Key Behaviors 443
BLF Key LED/Icon and Behavior for Idle State Configuration 443
BLF Key LED/Icon and Behavior for Call-in State Configuration 444
BLF Key LED/Icon and Behavior for Call-out State Configuration 445
BLF Key LED/Icon and Behavior for Talking State Configuration 446
BLF Key LED/Icon and Behavior for Parked-Against State Configuration 447
BLF Key LED/Icon and Behavior for Hold State Configuration 448
BLF Key LED/Icon and Behavior for DND State Configuration 449
BLF Key for Intercom Configuration 449
Call Information Display Configuration 450
Shared Line 450
State Indicator of Shared Line 450
Shared Call Appearance (SCA) Configuration 451
SCA Configuration 451
Bridge Lines Appearance (BLA) 452
BLA Configuration 452
Intercom 453
Intercom Key Configuration 453
State Monitor for Intercom Contact 454

State Indicator of Intercom Contact 454
State Monitor for Intercom Contact Configuration 454
Outgoing Intercom Configuration 455
Incoming Intercom Configuration 455
CSTA Control 458
CSTA Control Configuration 458
Action URL 458
Predefined Events List 458
Variable Values List 461
Action URL Configuration 462
Action URI 472
Supported HTTP/HTTPS GET Request 472
Supported SIP Notify Message 472
Variable Values List 473
Action URI Configuration 476
Example: Capturing the Current Screen of the Phone 477
Example: Placing a Call via Web User Interface 478
Voice Mail 478
MWI for Voice Mail Configuration 478
Short Message Service (SMS) 481
SMS Configuration 481
XML Browser 481
XML Browser Configuration 482
Hot Desking 484
Hot Desking Key Configuration 484
Hot Desking Configuration 484

General Features 486

Line Identification Presentation 486
CLIP and COLP Configuration 486
Return Code for Refused Call 488
Return Code for Refused Call Configuration 488
Return Code for Unanswered Call 488
Return Code for Unanswered Call Configuration 489
Hide Feature Access Codes 489
Hide Feature Access Codes Configuration 489
Accept SIP Trust Server Only 490
Accept SIP Trust Server Only Configuration 490
100 Reliable Retransmission 490
100 Reliable Retransmission Configuration 491
SIP Session Timer 491
SIP Session Timer Configuration 492
Session Timer 492
Session Timer Configuration 493
Reboot in Talking 493

Reboot in Talking Configuration 494
Reserve # in User Name 494
Reserve # in User Name Configuration 494
Busy Tone Delay 495
Busy Tone Delay Configuration 495
CFG File Version Information 495
CFG File Version Information Configuration 495
Media Loopback 496
Media Loopback Configuration 496

Configuration Parameters 498

BroadSoft Parameters 498
BroadSoft Settings 498
Broadsoft UC 499
Broadsoft XSI 501
Broadsoft ACD 503
Broadsoft Centralized Call Recording 506
Broadsoft Security Classification 506
Broadsoft Hoteling 506
Broadsoft Flexible Seating 507
Broadsoft Call Decline 509
Broadsoft Network Directory 509
Broadsoft Visual Voice Mail 513
Broadsoft SCA 514
Broadsoft Call Park 515
Broadsoft Emergency Call 516
BroadSoft Call Waiting Sync 517
Start2Start ACD Parameters 517
Alcatel-Lucent Barge in Parameters 518
Ethernet Interface MTU Parameters 519
SIP Settings Parameters 520
Call Settings Parameters 523
APP Settings Configuration 524
Unify Parameters 525

Troubleshooting Methods 526

Exporting All the Diagnostic Files 526
Log Files 526
Local Logging 526
Local Logging Configuration 527
Exporting the Log Files to a Local PC 529
Uploading Log to the USB Flash Drive 529
Viewing the Log Files 530
Syslog Logging 531
Syslog Logging Configuration 531
Viewing the Syslog Messages on Your Syslog Server 533

Resetting Phone and Configuration 533
Reset to Factory Configuration 534
Resetting the IP phone to Default Factory Settings 535
Resetting the IP phone to Custom Factory Settings 535
Custom Factory Configuration 535
Deleting the Custom Factory Settings Files 535
Packets Capture 536
Capturing the Packets via Web User Interface 536
Capturing the Packets in Enhanced Way 536
Capturing the Packets in Normal Way 537
Ethernet Software Capturing Configuration 537
Span to PC Port Configuration 537
Watch Dog 537
Watch Dog Configuration 537
Network Diagnostics 538
Ping and Traceroute Diagnostics 538
Network Reachability Detection Configuration 538
Analyzing Configuration Files 539
Exporting CFG Configuration Files from Phone 539
Importing CFG Configuration Files to Phone 540
Configuration Files Import URL Configuration 540
Exporting BIN Files from the Phone 540
Importing BIN Files from the Phone 540
BIN Files Import URL Configuration 541
Device Status 541
Viewing Device Status 541
Phone Reboot 542
Rebooting the IP Phone Remotely 542
Notify Reboot Configuration 542
Rebooting the Device via the Phone User Interface 542
Rebooting the Device via Web User Interface 542
Troubleshooting Solutions 544
IP Address Issues 544
The device does not get an IP address 544
Solving the IP conflict problem 544
The Specific format in configuring IPv6 on Yealink phones 544
Time and Date Issues 545
Display time and date incorrectly 545
Display Issues 545
The phone screen is blank 545
The phone displays “No Service” 545
Phone Book Issues 545
Difference between a remote phone book and a local phone book 545
Audio Issues 545

Increasing or decreasing the volume 545
Get poor sound quality during a call 545
There is no sound when the other party picks up the call 546
Play the local ringback tone instead of media when placing a long-distance number without plus 0 546
Camera and Video Issues 546
The video quality is bad 546
You cannot preview local video when the phone is idle 546
There is some dazzle light on the images when previewing the local video 546
Wi-Fi and Bluetooth Issues 546
The wireless signal strength is low 546
The phone cannot connect to Bluetooth devices all the time 546
The Bluetooth headset affects IP phone's voice quality 547
You cannot connect the IP phone to the 2.4G/5G wireless network 547
Firmware and Upgrading Issues 547
Fail to upgrade the phone firmware 547
Verifying the firmware version 547
The IP phone does not update the configurations 548
System Log Issues 548
Fail to export the system log to a provisioning server (FTP/TFTP server) 548
Fail to export the system log to a syslog server 548
Protocols and Ports Issues 548
What communication protocols and ports do Yealink IP phones support? 548
Password Issues 549
Restore the administrator password 549
The web screen displays "Default password is in use. Please change!" 550
Power and Startup Issues 550
Both PoE cable and power adapter is connected to the phone 550
The power LED indicator has no lights 550
The Phone screen is black 550
Other Issues 550
The difference among user name, register name, and display name 550
On code and off code 550
The difference between RFC 2543 Hold enabled and disabled 551

Appendix 552

RFC and Internet Draft Support 552
Reading Icons 554

Getting Started

This chapter describes where Yealink devices fit in your network and provides basic initialization instructions of devices.

Topics

Requirements
Yealink IP Phones in a Network
Initialization Process Overview
Verifying Startup

Requirements

In order to perform as SIP endpoints in your network successfully, you need the following in deployments:

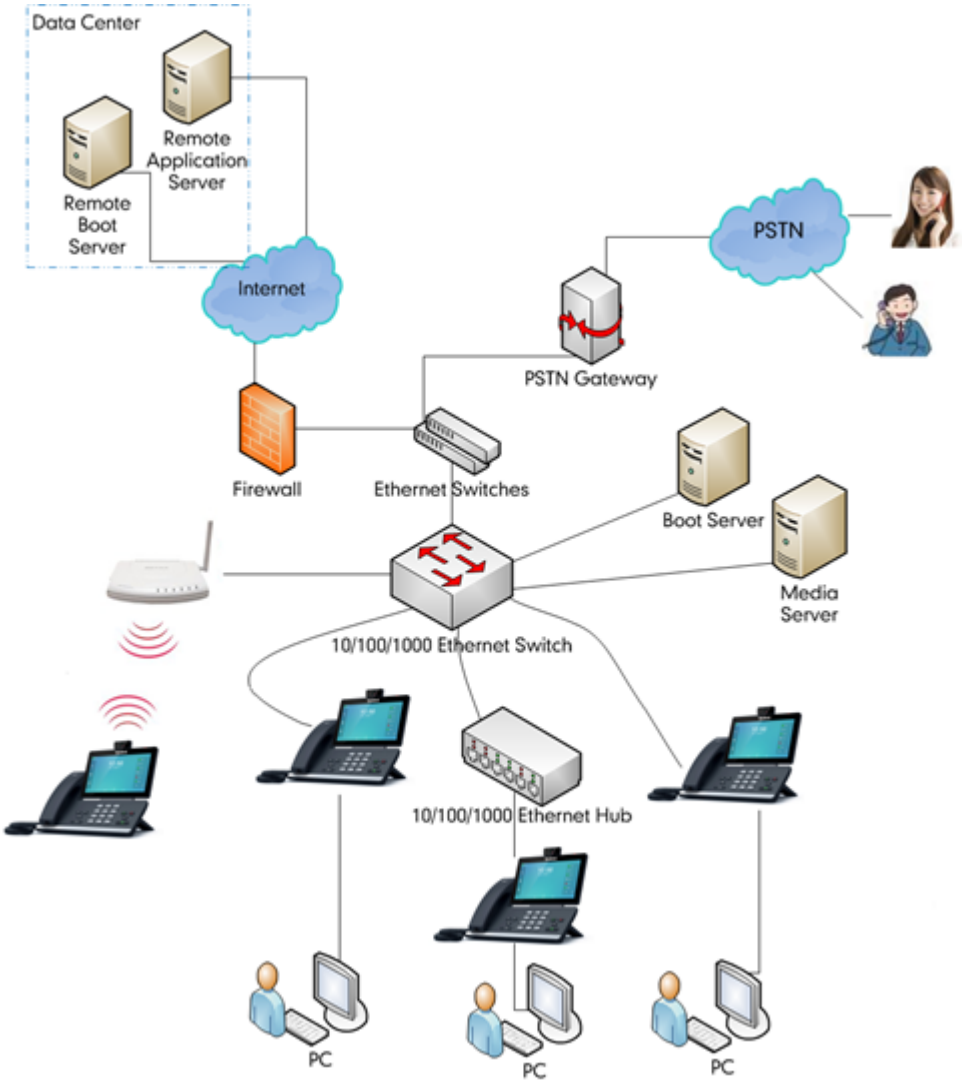
- A working IP network is established.
- VoIP gateways configured for SIP.
- The latest (or compatible) firmware of the device is available.
- A call server is active and configured to receive and send SIP messages.
- A text editor, such as Notepad++, to create and edit boot files, configuration files, and resource files.

Yealink IP Phones in a Network

Most Yealink phones are connected physically through a Category 5E (CAT5E) cable to a 10/100/1000Mbps Ethernet LAN, and send and receive all data using the same packet-based technology. Some phones support the wireless network.

Since the IP phone is a data terminal, digitized audio being just another type of data from its perspective, the phone is capable of vastly more than traditional business phones. Moreover, Yealink phones run the same protocols as your office personal computer, which means that you can develop many innovative applications without resorting to specialized technology.

There are many ways to set up a phone network using Yealink phones. The following shows an example of a network setup:



Initialization Process Overview

The initialization process of the device is responsible for network connectivity and operation of the device in your local network. Once you connect your device to the network and to an electrical supply, the device begins its initialization process.

Topics

Loading the ROM File
Configuring the VLAN
Querying the DHCP (Dynamic Host Configuration Protocol) Server
Contacting the Provisioning Server
Updating Firmware
Downloading the Resource Files

Loading the ROM File

The ROM file resides in the flash memory of the device. The device comes from the factory with a ROM file preloaded. During initialization, the device runs a bootstrap loader that loads and executes the ROM file.

Configuring the VLAN

If you connect the device to a switch, the switch notifies the device of the VLAN information defined on the switch (if using LLDP or CDP). The device can then proceed with the DHCP request for its network settings (if using DHCP).

Querying the DHCP (Dynamic Host Configuration Protocol) Server

The device is capable of querying a DHCP server.

After establishing network connectivity, the device can obtain the following network parameters from the DHCP server during initialization:

- IP Address
- Subnet Mask
- Default Gateway
- Primary DNS (Domain Name Server)
- Secondary DNS

By default, the devices obtain these parameters from a DHCPv4. You can configure network parameters of the device manually if any of them are not supplied by the DHCP server.

Contacting the Provisioning Server

If you configure the device to obtain configurations from the provisioning server, it will be connected to the provisioning server, and then download the boot file and configuration file(s) during startup. The device will be able to resolve and update configurations written in the configuration file(s). If the device does not obtain configurations from the provisioning server, it will use the configurations stored in the flash memory.

Updating Firmware

If you define the access URL of firmware in the configuration file, the device will download the firmware from the provisioning server. If the MD5 value of the downloaded firmware file differs from that stored in the flash memory, the device will perform a firmware update.

You can manually upgrade the firmware if the device does not download the firmware from the provisioning server.

Downloading the Resource Files

In addition to the configuration file(s), the device may require resource files before it provides service. These resource files are optional, but if you deploy some particular features, these files are required.

Verifying Startup

When the IP phone begins the initialization process, it cycles through the following steps:

1. The power LED indicator/mute LED indicator glows red.
2. The message “Welcome Initializing… please wait” appears on the phone screen when the phone starts up.
3. The main phone screen displays the following:
   - Time and date
   - Android keys (for VP59/T58A)
   - Pre-installed applications (for CP960/CP965)
4. Tap **Settings** > **Status** to check the phone status, for example, firmware version.

   If the phone has successfully passed through these steps, it starts up properly and is ready for use.

Network Configurations

You can make custom network configurations.

Topics

IPv4 and IPv6 Wired Network Settings
DHCP Option for IPv4
DHCP Option for IPv6
VLAN
Wi-Fi
Wireless Access Point (Wireless AP)
Real-Time Transport Protocol (RTP) Ports
Network Address Translation (NAT)
Reserved Ports
Internet Port and PC Port
VPN
Quality of Service (QoS)
802.1x Authentication
TR-069 Device Management

IPv4 and IPv6 Wired Network Settings

You can configure the devices to operate in IPv4, IPv6, or dual-stack (IPv4/IPv6) mode.

After establishing wired network connectivity, the devices obtain the IPv4 or IPv6 network settings from a Dynamic Host Configuration Protocol (DHCPv4 or DHCPv6) server. We recommend using DHCP where possible to eliminate repetitive manual data entry.

You can also configure IPv4 or IPv6 network settings manually.

Note: Yealink devices comply with the DHCPv4 specifications documented in RFC 2131, and DHCPv6 specifications documented in RFC 3315.

Topics

Wired Network IP Addressing Mode Configuration
IPv4 Wired Network Configuration
IPv6 Wired Network Configuration

Wired Network IP Addressing Mode Configuration

The following table lists the parameters you can use to configure IP addressing mode for the wired network.

Parameter	static.network.ip_address_mode	<y0000000000xx>.cfg
Description	It configures the IP addressing mode for the wired network.	
Permitted Values	**0**-IPv4 **1**-IPv6 **2**-IPv4 & IPv6	
Default	0	
Web UI	Network > Basic > Internet Port > Mode (IPv4/IPv6)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IP Mode CP965:	

	More > Settings > Advanced (default password: admin) > Network > WAN Port > IP Mode	
Parameter	static.network.preference	<y0000000000xx>.cfg
Description	It specifies IPv4 or IPv6 as the preferred wired network in a Dual-Stack mode. **Note:** It works only if "static.network.ip_address_mode" is set to 2 (IPv4 & IPv6).	
Permitted Values	**0**-IPv6 **1**-IPv4	
Default	0	
Web UI	Network > Basic > Internet Port > Preference(IPv4/IPv6)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IP Mode Preference CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IP Mode Preference	
Parameter	account.X.sip_server_mode[2]	<MAC>.cfg
Description	It specifies the preferred network in a Dual-Stack mode when a domain name is configured for a SIP server. **Note:** It works only if "static.network.ip_address_mode" is set to 2 (IPv4 & IPv6).	
Permitted Values	**0**-Specify IPv4 as the preferred network and A query will be performed preferentially. **1**-Specify IPv6 as the preferred network and AAAA query will be performed preferentially. **2**-The preferred network is configured by "static.network.preference".	
Default	0	

[2]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

IPv4 Wired Network Configuration

The following table lists the parameters you can use to configure IPv4 wired network.

Parameter	static.network.internet_port.type	<y0000000000xx>.cfg
Description	It configures the Internet port type for IPv4 wired network. **Note**: It works only if "static.network.ip_address_mode" is set to 0 (IPv4) or 2 (IPv4 & IPv6).	
Permitted Values	**0**-DHCP **2**-Static IP	
Default	0	
Web UI	Network > Basic > IPv4 Config > Configuration Type	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Type CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Type	
Parameter	static.network.internet_port.ip	<y0000000000xx>.cfg
Description	It configures the IPv4 address for the wired network. **Note**: It works only if "static.network.internet_port.type" is set to 2 (Static IP).	
Permitted Values	IPv4 Address	

Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP) > IP Address	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > IP Address CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > IP Address	
Parameter	static.network.internet_port.mask	<y0000000000xx>.cfg
Description	It configures the IPv4 subnet mask for the wired network. **Note**: It works only if "static.network.internet_port.type" is set to 2 (Static IP).	
Permitted Values	Subnet Mask	
Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP) > Subnet Mask	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Subnet Mask CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Subnet Mask	
Parameter	static.network.internet_port.gateway	<y0000000000xx>.cfg
Description	It configures the IPv4 default gateway for the wired network. **Note**: It works only if "static.network.internet_port.type" is set to 2 (Static IP).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP) > Default Gateway	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Gateway CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Gateway	
Parameter	static.network.static_dns_enable	<y0000000000xx>.cfg
Description	It triggers the static DNS feature to on or off for the wired network. **Note**: It works only if “static.network.internet_port.type” is set to 0 (DHCP).	
Permitted Values	**0**-Off, the phone will use the IPv4 DNS obtained from DHCP. **1**-On, the phone will use manually configured static IPv4 DNS.	
Default	0	
Web UI	Network > Basic > IPv4 Config > Static DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Type (DHCP) > Static DNS	

	CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Type (DHCP) > Static DNS	
Parameter	static.network.primary_dns	<y0000000000xx>.cfg
Description	It configures the primary IPv4 DNS server for the wired network. **Note**: It works only if "static.network.ip_address_mode" is set to 0 (IPv4) or 2 (IPv4 & IPv6). In the DHCP environment, you need to make sure "static.network.static_dns_enable" is set to 1 (On).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP)/Configuration Type (DHCP) > Primary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Pri.DNS CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Pri.DNS In the DHCP environment: Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Static DNS (Enabled) > Pri.DNS CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Static DNS (Enabled) > Pri.DNS	
Parameter	static.network.secondary_dns	<y0000000000xx>.cfg
Description	It configures the secondary IPv4 DNS server for the wired network. **Note**: It works only if "static.network.ip_address_mode" is set to 0 (IPv4) or 2 (IPv4 & IPv6). In the DHCP environment, you need to make sure "static.network.static_dns_enable" is set to 1 (On).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP)/Configuration Type (DHCP) > Secondary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Type (Static IP) > Sec.DNS In the DHCP environment: Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv4 > Static DNS (Enabled) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv4 > Static DNS (Enabled) > Sec.DNS	

IPv6 Wired Network Configuration

If you configure the network settings on the phone for an IPv6 wired network, you can set up an IP address for the phone by using SLAAC (ICMPv6), DHCPv6 or by manually entering an IP address. Ensure that your network environment supports IPv6. Contact your ISP for more information.

When you enable both SLAAC and DHCPv6 on the phone, the server can specify the IP phone to obtain the IPv6 address and other network settings either from SLAAC or from DHCPv6, if the SLAAC server is not working, the phone will try to obtain the IPv6 address and other network settings via DHCPv6.

The following table lists the parameters you can use to configure IPv6 wired network.

Parameter	static.network.ipv6_internet_port.type	<y0000000000xx>.cfg
Description	It configures the Internet port type for IPv6 wired network. **Note**: It works only if “static.network.ip_address_mode” is set to 1 (IPv6) or 2 (IPv4 & IPv6).	
Permitted Values	**0**-DHCP **1**-Static IP	
Default	0	
Web UI	Network > Basic > IPv6 Config > Configuration Type	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type	
Parameter	static.network.ipv6_internet_port.ip	<y0000000000xx>.cfg
Description	It configures the IPv6 address for the wired network. **Note**: It works only if "static.network.ipv6_internet_port.type" is set to 1 (Static IP).	
Permitted Values	IPv6 Address	
Default	Blank	
Web UI	Network > Basic > IPv6 Config > Configuration Type (Static IP) > IP Address	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > IP Address CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > IP Address	
Parameter	static.network.ipv6_prefix	<y0000000000xx>.cfg
Description	It configures the IPv6 prefix for the wired network. **Note**: It works only if "static.network.ipv6_internet_port.type" is set to 1 (Static IP).	
Permitted Values	Integer from 0 to 128	
Default	64	
Web UI	Network > Basic > IPv6 Config > Configuration Type (Static IP) > IPv6 Prefix(0~128)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > IPv6 IP Prefix CP965:	

	More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > IPv6 IP Prefix	
Parameter	static.network.ipv6_internet_port.gateway	<y0000000000xx>.cfg
Description	It configures the IPv6 default gateway for the wired network. **Note**: It works only if "static.network.ipv6_internet_port.type" is set to 1 (Static IP).	
Permitted Values	IPv6 Address	
Default	Blank	
Web UI	Network > Basic > IPv6 Config > Configuration Type (Static IP) > Default Gateway	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > Gateway CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > Gateway	
Parameter	static.network.ipv6_static_dns_enable	<y0000000000xx>.cfg
Description	It triggers the static IPv6 DNS feature to on or off for the wired network. **Note**: It works only if "static.network.ipv6_internet_port.type" is set to 0 (DHCP).	
Permitted Values	**0**-Off, the phone will use the IPv6 DNS obtained from DHCP. **1**-On, the phone will use manually configured static IPv6 DNS.	
Default	0	
Web UI	Network > Basic > IPv6 Config > Static IPv6 DNS	
Phone UI	Settings > Advanced Settings (default: admin) > Network > WAN Port > IPv6 > Type (DHCP) > Static DNS CP965: More > Settings > Advanced (default: admin) > Network > WAN Port > IPv6 > Type (DHCP) > Static DNS	
Parameter	static.network.ipv6_primary_dns	<y0000000000xx>.cfg
Description	It configures the primary IPv6 DNS server for the wired network. **Note**: It works only if "static.network.ip_address_mode" is set to 1 (IPv6) or 2 (IPv4 & IPv6). In DHCP environment, you also need to make sure "static.network.ipv6_static_dns_enable" is set to 1 (On).	
Permitted Values	IPv6 Address	
Default	Blank	
Web UI	Network > Basic > IPv6 Config > Static IPv6 DNS > Primary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > Pri.DNS CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > Pri.DNS In DHCP environment: Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Pri.DNS	

	CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Pri.DNS	
Parameter	static.network.ipv6_secondary_dns	<y0000000000xx>.cfg
Description	It configures the secondary IPv6 DNS server for the wired network. **Note**: It works only if “static.network.ip_address_mode" is set to 1 (IPv6) or 2 (IPv4 & IPv6). In DHCP environment, you also need to make sure “static.network.ipv6_static_dns_enable" is set to 1 (On).	
Permitted Values	IPv6 Address	
Default	Blank	
Web UI	Network > Basic > IPv6 Config > Static IPv6 DNS > Secondary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type (Static IP) > Sec.DNS In DHCP environment: Settings > Advanced Settings (default password: admin) > Network > WAN Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > WAN Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Sec.DNS	
Parameter	static.network.ipv6_icmp_v6.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to obtain IPv6 wired network settings via SLAAC (Stateless Address Autoconfiguration). **Note**: It works only if “static.network.ipv6_internet_port.type” is set to 0 (DHCP).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Network > Advanced > ICMPv6 Status > Active	

DHCP Option for IPv4

The phone can obtain IPv4-related parameters in an IPv4 network via the DHCP option.

Note: For more information on DHCP options, refer to RFC 2131 or RFC 2132.

Topics

Supported DHCP Option for IPv4
DHCP Option 66, Option 43 and Custom Option
DHCP Option 42 and Option 2
DHCP Option 12
DHCP Option 120
DHCP Option 60

Supported DHCP Option for IPv4

The following table lists common DHCP options for IPv4 supported by Yealink phones.

Parameters	DHCP Option	Description
Subnet Mask	1	Specify the client's subnet mask.
Time Offset	2	Specify the offset of the client's subnet in seconds from Coordinated Universal Time (UTC).
Router	3	Specify a list of IP addresses for routers on the client's subnet.
Time Server	4	Specify a list of time servers available to the client.
Domain Name Server	6	Specify a list of domain name servers available to the client.
Host Name	12	Specify the name of the client.
Domain Server	15	Specify the domain name that the client should use when resolving host-names via DNS.
Network Time Protocol Servers	42	Specify a list of NTP servers available to the client by IP address.
Vendor-Specific Inform-ation	43	Identify the vendor-specific information.
Vendor Class Identifier	60	Identify the vendor type.
TFTP Server Name	66	Identify a TFTP server when the 'sname' field in the DHCP header has been used for DHCP options.

DHCP Option 66, Option 43 and Custom Option

During the startup, the phone automatically detects the DHCP option for obtaining the provisioning server address. The priority is as follows: custom option > option 66 (identify the TFTP server) > option 43.

The phone can obtain the Auto Configuration Server (ACS) address by detecting option 43 during startup.

Note: If you fail to configure the DHCP options for discovering the provisioning server on the DHCP server, enable the phone to automatically discover the provisioning server address. One possibility is that connecting to the secondary DHCP server that responds to DHCP INFORM queries with a requested provisioning server address. For more information, refer to RFC 3925.

Related Topic

DHCP Provision Configuration

DHCP Option 42 and Option 2

Yealink phones support using the NTP server address offered by DHCP.

DHCP option 42 is used to specify a list of NTP servers available to the client by IP address. NTP servers should be listed in order of preference.

DHCP option 2 is used to specify the offset of the client's subnet in seconds from Coordinated Universal Time (UTC).

Related Topic

NTP Settings

DHCP Option 12

You can specify a hostname for the phone when using DHCP. The DHCP client uses option 12 to send a pre-defined hostname to the DHCP registration server.

See RFC 1035 for character set restrictions.

Topic

DHCP Option 12 Hostname Configuration

DHCP Option 12 Hostname Configuration

The following table lists the parameter you can use to configure DHCP option 12 hostname.

Parameter	static.network.dhcp_host_name	<y0000000000xx>.cfg
Description	It specifies a hostname for the phone when using DHCP.	
Permitted Values	String within 99 characters	
Default	For VP59: VP59 For T58A: SIP-T58 For T58W: SIP-T58W For CP960: SIP-CP960 For CP965: SIP-CP965	
Web UI	Features > General Information > DHCP Hostname	

DHCP Option 120

DHCP option 120 is used by the SIP client to locate a SIP server or outbound proxy server.

Topic

DHCP Option 120 Configuration

DHCP Option 120 Configuration

The following table lists the parameter you can use to configure DHCP option 120.

Parameter	sip.dhcp.option120.mode	<y0000000000xx>.cfg
Description	It configures whether to use DHCP option 120 for obtaining the outbound proxy server IP address.	
Permitted Values	**0**-Do not check with the DHCP server for the outbound proxy server IP address. **1**-The value obtained from DHCP option 120 is used as outbound proxy server IP address (can resolve up to two domain names or IPv4 addresses). If “account.X.outbound_proxy_enable = 1”, and the primary outbound proxy server is configured, the address from DHCP option 120 is used as secondary one; if the primary outbound proxy server is not configured, the address from DHCP option 120 is used as the primary one. **2**-The value obtained from DHCP option 120 is used as SIP server IP address (can resolve up to only one IPv4 address). If the primary SIP server is configured, the address from DHCP option 120 is used as secondary one; if the primary SIP server is not configured, the address from DHCP option 120 is used as the primary one.	
Default	0	

DHCP Option 60

DHCP option 60 is used to indicate the vendor type. Servers can use option 43 to return the vendor-specific information to the client.

You can set the DHCP option 60 type.

Topic

DHCP Option 60 Configuration

DHCP Option 60 Configuration

The following table lists the parameters you can use to configure DHCP option 60.

Parameter	static.network.dhcp.option60type	<y0000000000xx>.cfg
Description	It configures the DHCP option 60 type.	
Permitted Values	**0**-ASCII, vendor-identifying information is in ASCII format. **1**-Binary, vendor-identifying information is in the format defined in RFC 3925.	
Default	0	
Parameter	static.auto_provision.dhcp_option.option60_value	<y0000000000xx>.cfg
Description	It configures the vendor class identifier string to use in the DHCP interaction.	
Permitted Values	String within 99 characters	
Default	yealink	
Web UI	Settings > Auto Provision > IPv4 DHCP Option Value	
Phone UI	Settings > Advanced Settings (default password: admin) > Auto Provision > IPv4 DHCP Option Value CP965: More > Settings > Advanced (default password: admin) > Auto Provision > IPv4 DHCP Option Value	

DHCP Option for IPv6

The phone can obtain IPv6-related parameters in an IPv6 network via DHCP option.

Topics

Supported DHCP Option for IPv6
DHCP Option 59 and Custom Option

Supported DHCP Option for IPv6

The following table lists common DHCP options for IPv6 supported by Yealink phones.

Parameters	DHCPv6 Option	Description
DNS Server	23	Specify a list of DNS servers available to the client.
DNS Domain Search List	24	Specify a domain search list to a client.
SNTP Server	31	Specify a list of Simple Network Time Protocol (SNTP) servers available to the client.
Information Refresh Time	32	Specify an upper bound for how long a client should wait before refreshing information retrieved from DHCPv6.

Parameters	DHCPv6 Option	Description
Boot File URL	59	Specify a URL for the boot file to be downloaded by the client.

DHCP Option 59 and Custom Option

During the startup, the phone automatically detects the DHCP option for obtaining the provisioning server address. The priority is as follows: custom option > option 59.

Related Topic

DHCP Provision Configuration

VLAN

The purpose of VLAN configurations on the phone is to insert a tag with VLAN information to the packets generated by the phone. When VLAN is properly configured for the ports (Internet port and PC port) on the phone, the phone will tag all packets from these ports with the VLAN ID. The switch receives and forwards the tagged packets to the corresponding VLAN according to the VLAN ID in the tag as described in IEEE Std 802.3.

In addition to manual configuration, the phone also supports the automatic discovery of VLAN via LLDP, CDP or DHCP. The assignment takes effect in this order: assignment via LLDP/CDP, manual configuration, then assignment via DHCP.

For more information on VLAN, refer to VLAN Feature on Yealink IP Phones.

Topics

LLDP Configuration
CDP Configuration
Manual VLAN Configuration
DHCP VLAN Configuration
VLAN Change Configuration

LLDP Configuration

LLDP (Linker Layer Discovery Protocol) is a vendor-neutral Link Layer protocol, which allows the phones to advertise its identity and capabilities on the local network.

When LLDP feature is enabled on the phones, the phones periodically advertise their own information to the directly connected LLDP-enabled switch. The phones can also receive LLDP packets from the connected switch and obtain their VLAN IDs.

The following table lists the parameters you can use to configure LLDP.

Parameter	static.network.lldp.enable	<y0000000000xx>.cfg
Description	It enables or disables the LLDP feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone attempts to determine its VLAN ID through LLDP.	
Default	1	
Web UI	Network > Advanced > LLDP > Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > LLDP > LLDP Status CP965: More > Settings > Advanced (default password: admin) > Network > LLDP > LLDP Status	

Parameter	static.network.lldp.packet_interval	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) that how often the phone sends the LLDP request. **Note**: It works only if "static.network.lldp.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 3600	
Default	60	
Web UI	Network > Advanced > LLDP > Packet Interval (1~3600s)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > LLDP > Packet Interval CP965: More > Settings > Advanced (default password: admin) > Network > LLDP > Packet Interval	

CDP Configuration

CDP (Cisco Discovery Protocol) allows the phones to receive and/or transmit device-related information from/to directly connected devices on the local network.

When CDP feature is enabled on the phones, the phones periodically advertise their own information to the directly connected CDP-enabled switch. The phones can also receive CDP packets from the connected switch and obtain their VLAN IDs.

The following table lists the parameters you can use to configure CDP.

Parameter	static.network.cdp.enable	<y0000000000xx>.cfg
Description	It enables or disables the CDP feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone attempts to determine its VLAN ID through CDP.	
Default	1	
Web UI	Network > Advanced > CDP > Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > CDP > CDP Status CP965: More > Settings > Advanced (default password: admin) > Network > CDP > CDP Status	
Parameter	static.network.cdp.packet_interval	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) that how often the phone sends the CDP request. **Note**: It works only if "static.network.cdp.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 3600	
Default	60	
Web UI	Network > Advanced > CDP > Packet Interval (1~3600s)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > CDP > CDP Interval CP965: More > Settings > Advanced (default password: admin) > Network > CDP > CDP Interval	

Manual VLAN Configuration

You can configure VLAN for the Internet port and PC port manually. Before configuring VLAN on the phones, you need to obtain the VLAN ID from your network administrator.

For CP960/CP965 phones, you can only configure VLAN for the Internet port manually, because they only have an Internet port.

The following table lists the parameters you can use to configure VLAN manually.

Parameter	static.network.vlan.internet_port_enable	<y0000000000xx>.cfg
Description	It enables or disables the VLAN for the Internet port.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Network > Advanced > VLAN > WAN Port > Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > WAN Port > VLAN Status CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > WAN Port > VLAN Status	
Parameter	static.network.vlan.internet_port_vid	<y0000000000xx>.cfg
Description	It configures the VLAN ID for the Internet port. **Note**: It works only if “static.network.vlan.internet_port_enable” is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 4094	
Default	1	
Web UI	Network > Advanced > VLAN > WAN Port > VID (1-4094)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > WAN Port > VID Number CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > WAN Port > VID Number	
Parameter	static.network.vlan.internet_port_priority	<y0000000000xx>.cfg
Description	It configures the VLAN priority for the Internet port. 7 is the highest priority, 0 is the lowest priority. **Note**: It works only if “static.network.vlan.internet_port_enable” is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 7	
Default	0	
Web UI	Network > Advanced > VLAN > WAN Port > Priority	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > WAN Port > Priority CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > WAN Port > Priority	
Parameter	static.network.vlan.pc_port_enable	<y0000000000xx>.cfg

Description	It enables or disables the VLAN for the PC port. **Note**: It works only if "static.network.pc_port.enable" is set to 1 (Auto Negotiation).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > VLAN > PC Port > Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > PC Port > VLAN Status CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > PC Port > VLAN Status	
Parameter	static.network.vlan.pc_port_vid	<y0000000000xx>.cfg
Description	It configures the VLAN ID for the PC port. **Note**: It works only if "static.network.pc_port.enable" is set to 1 (Auto Negotiation) and "static.network.vlan.pc_port_enable" is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 4094	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > VLAN > PC Port > VID (1-4094)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > PC Port > VID Number CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > PC Port > VID Number	
Parameter	static.network.vlan.pc_port_priority	<y0000000000xx>.cfg
Description	It configures the VLAN priority for the PC port. 7 is the highest priority, 0 is the lowest priority. **Note**: It works only if "static.network.pc_port.enable" is set to 1 (Auto Negotiation) and "static.network.vlan.pc_port_enable" is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 7	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > VLAN > PC Port > Priority	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > PC Port > Priority CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > PC Port > Priority	

DHCP VLAN Configuration

When the VLAN discovery method is set to DHCP, the phone examines the DHCP option for a valid VLAN ID. You can customize the DHCP option used to request the VLAN ID.

The following table lists the parameters you can use to configure DHCP VLAN discovery.

Parameter	static.network.vlan.dhcp_enable	<y0000000000xx>.cfg
Description	It enables or disables the DHCP VLAN discovery feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Network > Advanced > VLAN > DHCP VLAN > Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > DHCP VLAN > DHCP VLAN CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > DHCP VLAN > DHCP VLAN	
Parameter	static.network.vlan.dhcp_option	<y0000000000xx>.cfg
Description	It configures the DHCP option from which the phone will obtain the VLAN settings. Multiple DHCP options (at most five) are separated by commas.	
Permitted Values	Integer from 1 to 255	
Default	132	
Web UI	Network > Advanced > VLAN > DHCP VLAN > Option (1-255)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VLAN > DHCP VLAN > Option CP965: More > Settings > Advanced (default password: admin) > Network > VLAN > DHCP VLAN > Option	

VLAN Change Configuration

The following table lists the parameter you can use to configure the VLAN change.

Parameter	static.network.vlan.vlan_change.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to obtain VLAN ID using lower preference of VLAN assignment method, or to close the VLAN feature when the phone cannot obtain VLAN ID. The priority of each method is LLDP/CDP > Manual > DHCP VLAN.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone attempts to use the lower priority method when failing to obtain the VLAN ID using higher priority method. If all the methods are attempted, the phone will disable VLAN feature.	
Default	0	

Wi-Fi

Wi-Fi feature enables you to connect the phones to the organization's wireless network.

You can configure the phones to operate in IPv4, IPv6, or dual-stack (IPv4/IPv6) mode, and configure IPv4 or IPv6 wireless network settings manually.

Topics

Wi-Fi Configuration
Wireless Network IP Addressing Mode Configuration

IPv4 Wireless Network Configuration
IPv6 Wireless Network Configuration

Wi-Fi Configuration

The following table lists the parameters you can use to configure Wi-Fi.

Parameter	static.wifi.function.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the Wi-Fi feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	static.network.redundancy.mode	<y0000000000xx>.cfg
Description	It configures the network connection mode to be used preferentially.	
Permitted Values	**0**-If Wi-Fi mode is activated, the wired network is unavailable; Wi-Fi mode must be deactivated if you want to use the wired network. **1**-Use wireless network preferentially. **2**-Use wired network preferentially.	
Default	2	
Parameter	static.network.redundancy.failback.timeout	<y0000000000xx>.cfg
Description	It configures the time to wait (minutes) for the phone to switch to the preferentially used network. **Note**: It works only if "static.network.redundancy.mode" is not set to 0 and there are multiple networks on the phone at the same time.	
Permitted Values	Integer from 0 to 1440 **0**-The phone will not switch as long as the current network is available. **1 to 1440**–The phone will keep using the current network for the specified time after the preferentially used network becomes available. If the preferentially used network is still available after the specified time, the phone performs a network switch while the phone is not in use.	
Default	55	
Parameter	static.wifi.enable	<y0000000000xx>.cfg
Description	It activates or deactivates the Wi-Fi mode. **Note**: It works only if "static.wifi.function.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Network > Wi-Fi > Wi-Fi Active	
Phone UI	Settings > Basic Settings > Wi-Fi > Wi-Fi CP965: More > Settings > Basic > Wi-Fi > Wi-Fi	
Parameter	static.wifi.X.ssid[2]	<y0000000000xx>.cfg
Description	It configures the SSID of a specific wireless network.	

	SSID is a unique identifier for accessing wireless access points. **Note**: It works only if “static.wifi.enable” is set to 1 (Enabled).	
Permitted Values	ASCII code from 1 to 31 in length	
Default	Blank	
Web UI	Network > Wi-Fi > Add > SSID	
Parameter	static.wifi.X.priority[2]	<y0000000000xx>.cfg
Description	It configures the priority for a specific wireless network. 5 is the highest priority, 1 is the lowest priority. **Note**: It works only if “static.wifi.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 5	
Default	1	
Web UI	Network > Wi-Fi > Change Priority	
Parameter	static.wifi.X.security_mode[2]	<y0000000000xx>.cfg
Description	It configures the security mode of a specific wireless network. **Note**: It works only if “static.wifi.enable” is set to 1 (Enabled). If it is set to 802.1x EAP, the CA certificate can be uploaded by the parameter "static.network.802_1x.root_cert_url", the user certificate can be uploaded by the parameter "static.network.802_1x.client_cert_url".	
Permitted Values	NONE, WEP, WPA/WPA2 PSK, 802.1x EAP	
Default	NONE	
Web UI	Network > Wi-Fi > Add > Secure Mode	
Parameter	static.wifi.X.password[2]	<y0000000000xx>.cfg
Description	It configures the password of a specific wireless network. **Note**: It works only if “static.wifi.enable” is set to 1 (Enabled).	
Permitted Values	String within 64 characters	
Default	Blank	
Web UI	Network > Wi-Fi > Add > Password	
Parameter	static.wifi.X.eap_type[2]	<y0000000000xx>.cfg
Description	It configures the EAP authentication mode of a specific wireless network. **Note**: It works only if “static.wifi.enable” is set to 1 (Enabled) and “static.wifi.X.security_mode” is set to **802.1x EAP**.	
Permitted Values	Auto, PEAP, TLS, TTLS or PWD	
Default	Auto	
Web UI	Network > Wi-Fi > Add > EAP Method	
Parameter	static.wifi.X.eap_user_name[2]	<y0000000000xx>.cfg

Description	It configures the EAP authentication username of a specific wireless network. **Note**: It works only if "static.wifi.enable" is set to 1 (Enabled) and "static.wifi.X.security_mode" is set to **802.1x EAP**.	
Permitted Values	ASCII code from 1 to 32 in length	
Default	Blank	
Web UI	Network > Wi-Fi > Add > Identity	
Parameter	static.wifi.X.802_1x.anonymous_identity[2]	<y0000000000xx>.cfg
Description	It configures the anonymous identity (user name) for Wi-Fi 802.1X authentication. **Note**: It works only if "static.wifi.enable" is set to 1 (Enabled) and "static.wifi.X.security_mode" is set to **802.1x EAP**.	
Permitted Values	String within 255 characters	
Default	Blank	
Web UI	Network > Wi-Fi > Add > Anonymous Identity	
Parameter	static.wifi.X.eap_password[2]	<y0000000000xx>.cfg
Description	It configures the EAP authentication password of a specific wireless network. **Note**: It works only if "static.wifi.enable" is set to 1 (Enabled) and "static.wifi.X.security_mode" is set to **802.1x EAP**.	
Permitted Values	String within 64 characters	
Default	Blank	
Web UI	Network > Wi-Fi > Add > Password	
Parameter	static.network.ethernet_as_wifi.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the network type value returned from interface "ConnectivityManager.getActiveNetworkInfo()" to be changed from Ethernet to WIFI. **Note**: Some applications may have restrictions on network type, causing some functions to be unavailable. Then you can enable this feature to help solve the problem.	
Permitted Values	**0**-Disabled, the returned network type value is the current actual network type. **1**-Enabled	
Default	0	
Supported Devices	T58W, T58A, VP59	
Parameter	phone_setting.wifi_security_check.enable	<y0000000000xx>.cfg
Description	It enables or disables a pop-up prompt to confirm the unencrypted Wi-Fi connection.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]If you change this parameter, the phone will reboot to make the change take effect.

[2]X is Wi-Fi ID. X=1-5.

Wireless Network IP Addressing Mode Configuration

The following table lists the parameters you can use to configure IP addressing mode for the wireless network.

Parameter	static.network.wifi.ip_address_mode	<y0000000000xx>.cfg
Description	It configures the IP addressing mode for the wireless network.	
Permitted Values	**0**-IPv4 **1**-IPv6 **2**-IPv4 & IPv6	
Default	0	
Web UI	Network > Wi-Fi > Internet Port > Mode (IPv4/IPv6)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IP Mode CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IP Mode	
Parameter	static.network.wifi.preference	<y0000000000xx>.cfg
Description	It specifies IPv4 or IPv6 as the preferred wireless network in a Dual-Stack mode. **Note:** It works only if “static.network.wifi.ip_address_mode” is set to 2 (IPv4 & IPv6).	
Permitted Values	**0**-IPv6 **1**-IPv4	
Default	0	
Web UI	Network > Wi-Fi > Internet Port > Preference(IPv4/IPv6)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IP Mode Preference CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IP Mode Preference	

IPv4 Wireless Network Configuration

The following table lists the parameters you can use to configure IPv4 wireless network.

Parameter	static.network.wifi.internet_port.type	<y0000000000xx>.cfg
Description	It configures the Internet port type for IPv4 wireless network. **Note**: It works only if “static.network.wifi.ip_address_mode” is set to 0 (IPv4) or 2 (IPv4 & IPv6).	
Permitted Values	**0**-DHCP **2**-Static IP	
Default	0	
Web UI	Network > Wi-Fi > IPv4 Config > Configuration Type	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Type CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Type	

Parameter	static.network.wifi.internet_port.ip	<y0000000000xx>.cfg
Description	It configures the IPv4 address for the wireless network. **Note**: It works only if "static.network.wifi.internet_port.type" is set to 2 (Static IP).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP) > IP Address	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > IP Address CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > IP Address	
Parameter	static.network.wifi.internet_port.mask	<y0000000000xx>.cfg
Description	It configures the IPv4 subnet mask for the wireless network. **Note**: It works only if "static.network.wifi.internet_port.type" is set to 2 (Static IP).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP) > Subnet Mask	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Subnet Mask CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Subnet Mask	
Parameter	static.network.wifi.internet_port.gateway	<y0000000000xx>.cfg
Description	It configures the IPv4 default gateway for the wireless network. **Note**: It works only if "static.network.wifi.internet_port.type" is set to 2 (Static IP).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Basic > IPv4 Config > Configuration Type (Static IP) > Default Gateway	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Gateway CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Gateway	
Parameter	static.network.wifi.static_dns_enable	<y0000000000xx>.cfg
Description	It triggers the static DNS feature to on or off for the wireless network. **Note**: It works only if "static.network.wifi.internet_port.type" is set to 0 (DHCP).	
Permitted	**0**-Off, the phone will use the IPv4 DNS obtained from DHCP.	

Values	**1**-On, the phone will use manually configured static IPv4 DNS.	
Default	0	
Web UI	Network > Wi-Fi > IPv4 Config > Static DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (DHCP) > Static DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (DHCP) > Static DNS	
Parameter	static.network.wifi.primary_dns	<y0000000000xx>.cfg
Description	It configures the primary IPv4 DNS server for the wireless network. **Note**: It works only if “static.network.wifi.ip_address_mode” is set to 0 (IPv4) or 2 (IPv4 & IPv6). In DHCP environment, you also need to make sure “static.network.wifi.static_dns_enable" is set to 1 (On).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Wi-Fi > IPv4 Config > Configuration Type (Static IP)/Configuration Type (DHCP) > Primary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Pri.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Pri.DNS In DHCP environment: Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Static DNS (Enabled) > Pri.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Static DNS (Enabled) > Pri.DNS	
Parameter	static.network.wifi.secondary_dns	<y0000000000xx>.cfg
Description	It configures the secondary IPv4 DNS server for the wireless network. **Note**: It works only if “static.network.wifi.ip_address_mode” is set to 0 (IPv4) or 2 (IPv4 & IPv6). In DHCP environment, you also need to make sure “static.network.wifi.static_dns_enable" is set to 1 (On).	
Permitted Values	IPv4 Address	
Default	Blank	
Web UI	Network > Wi-Fi > IPv4 Config > Configuration Type (Static IP)/Configuration Type (DHCP) > Secondary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Type (Static IP) > Sec.DNS	

	In DHCP environment: Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv4 > Static DNS (Enabled) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv4 > Static DNS (Enabled) > Sec.DNS

IPv6 Wireless Network Configuration

If you configure the network settings on the phone for an IPv6 network, you can set up an IP address for the phone by using SLAAC (ICMPv6), DHCPv6 or by manually entering an IP address. Ensure that your network environment supports IPv6. Contact your ISP for more information.

When you enable both SLAAC and DHCPv6 on the phone, the server can specify the IP phone to obtain the IPv6 address and other network settings either from SLAAC or from DHCPv6, if the SLAAC server is not working, the phone will try to obtain the IPv6 address and other network settings via DHCPv6.

The following table lists the parameters you can use to configure IPv6 wireless network.

Parameter	static.network.wifi.ipv6_internet_port.type	<y0000000000xx>.cfg
Description	It configures the Internet port type for IPv6 wireless network. **Note**: It works only if "static.network.wifi.ip_address_mode" is set to 1 (IPv6) or 2 (IPv4 & IPv6).	
Permitted Values	**0**-DHCP **1**-Static IP	
Default	0	
Web UI	Network > Wi-Fi > IPv6 Config > Configuration Type	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type	
Parameter	static.network.wifi.ipv6_internet_port.ip	<y0000000000xx>.cfg
Description	It configures the IPv6 address for the wireless network. **Note**: It works only if "static.network.wifi.ipv6_internet_port.type" is set to 1 (Static IP).	
Permitted Values	IPv6 Address	
Default	Blank	
Web UI	Network > Wi-Fi > IPv6 Config > Configuration Type (Static IP) > IP Address	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > IP Address CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > IP Address	
Parameter	static.network.wifi.ipv6_prefix	<y0000000000xx>.cfg
Description	It configures the IPv6 prefix for the wireless network. **Note**: It works only if "static.network.wifi.ipv6_internet_port.type" is set to 1 (Static IP).	

Permitted Values	Integer from 1 to 128	
Default	64	
Web UI	Network > Wi-Fi > IPv6 Config > Configuration Type (Static IP) > IPv6 Prefix(0~128)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > IPv6 IP Prefix CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > IPv6 IP Prefix	
Parameter	static.network.wifi.ipv6_internet_port.gateway	<y0000000000xx>.cfg
Description	It configures the IPv6 default gateway for the wireless network. **Note**: It works only if "static.network.wifi.ipv6_internet_port.type" is set to 1 (Static IP).	
Permitted Values	IPv6 Address	
Default	Blank	
Web UI	Network > Wi-Fi > IPv6 Config > Configuration Type (Static IP) > Default Gateway	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > Gateway CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > Gateway	
Parameter	static.network.wifi.ipv6_static_dns_enable	<y0000000000xx>.cfg
Description	It triggers the static IPv6 DNS feature to on or off for the wireless network. **Note**: It works only if “static.network.wifi.ipv6_internet_port.type” is set to 0 (DHCP).	
Permitted Values	**0**-Off, the phone will use the IPv6 DNS obtained from DHCP. **1**-On, the phone will use manually configured static IPv6 DNS.	
Default	0	
Web UI	Network > Wi-Fi > IPv6 Config > Static IPv6 DNS	
Phone UI	Settings > Advanced Settings (default: admin) > Network > Wi-Fi Port > IPv6 > Type (DHCP) > Static DNS CP965: More > Settings > Advanced (default: admin) > Network > Wi-Fi Port > IPv6 > Type (DHCP) > Static DNS	
Parameter	static.network.wifi.ipv6_primary_dns	<y0000000000xx>.cfg
Description	It configures the primary IPv6 DNS server for the wireless network. **Note**: It works only if “static.network.wifi.ip_address_mode" is set to 1 (IPv6) or 2 (IPv4 & IPv6). In DHCP environment, you also need to make sure “static.network.wifi.ipv6_static_dns_enable" is set to 1 (On).	
Permitted Values	IPv6 Address	

Default	Blank	
Web UI	Network > Wi-Fi > IPv6 Config > Static IPv6 DNS > Primary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > Pri.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > Pri.DNS In DHCP environment: Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Pri.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Pri.DNS	
Parameter	static.network.wifi.ipv6_secondary_dns	<y0000000000xx>.cfg
Description	It configures the secondary IPv6 DNS server for the wireless network. **Note**: It works only if "static.network.wifi.ip_address_mode" is set to 1 (IPv6) or 2 (IPv4 & IPv6). In DHCP environment, you also need to make sure "static.network.wifi.ipv6_static_dns_enable" is set to 1 (On).	
Permitted Values	IPv6 Address	
Default	Blank	
Web UI	Network > Wi-Fi > IPv6 Config > Static IPv6 DNS > Secondary DNS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (Static IP) > Sec.DNS In DHCP environment: Settings > Advanced Settings (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Sec.DNS CP965: More > Settings > Advanced (default password: admin) > Network > Wi-Fi Port > IPv6 > Type (DHCP) > Static DNS (Enabled) > Sec.DNS	
Parameter	static.network.wifi.ipv6_icmp_v6.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to obtain IPv6 wireless network settings via SLAAC (Stateless Address Autoconfiguration). **Note**: It works only if "static.network.wifi.ipv6_internet_port.type" is set to 0 (DHCP).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Network > Advanced > Wi-Fi ICMPv6 Status > Active	

Wireless Access Point (Wireless AP)

The IP phone can be used to create AP hotspots and share its wired network with other devices.

Topic

Wireless Access Point Configuration

Wireless Access Point Configuration

The following table lists the parameter you can use to configure wireless access point.

Parameter	static.wifiap.enable	<y0000000000xx>.cfg
Description	It enables or disables the wireless access point.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Wireless AP > AP	
Phone UI	Settings > Basic Settings > Wi-Fi AP	
Parameter	static.wifiap.ssid	<y0000000000xx>.cfg
Description	It configures the name of wireless AP.	
Permitted Values	String within 512 characters	
Default	Yealink-XXXXXX (XXXXXX refers to the last six digits of the MAC address, uppercase)	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Wireless AP > AP Name	
Phone UI	Settings > Basic Settings > AP Configure > AP Name	
Parameter	static.wifiap.security_mode	<y0000000000xx>.cfg
Description	It configures the security mode of the wireless AP.	
Permitted Values	None, WPA2-PSK	
Default	WPA2-PSK	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Wireless AP > Security Mode	
Phone UI	Settings > Basic Settings > AP Configure > AP Security Mode	
Parameter	static.wifiap.password	<y0000000000xx>.cfg
Description	It configures the password of the wireless AP. **Note**: Only when "static.wifiap.security_mode" is set to **WPA2-PSK**, do you need to configure this parameter.	

Permitted Values	String with 8 to 64 characters	
Default	A random string with 8 characters	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Wireless AP > Password	
Phone UI	Settings > Basic Settings > AP Configure > AP Password	
Parameter	static.wifiap.generation	<y0000000000xx>.cfg
Description	It configures the frequency of the wireless AP.	
Permitted Values	**2.4**-2.4G **5**-5G	
Default	5	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Wireless AP > Frequency	
Phone UI	Settings > Basic Settings > AP Configure > AP Frequency	
Parameter	static.wifiap.channel	<y0000000000xx>.cfg
Description	It configures the channel of the wireless AP.	
Permitted Values	2.4G: [0-11] 5G: [0, 36, 40, 44, 48, 149, 153, 157, 161, 165] (depending on the channel opened by the country code)	
Default	0 (Auto)	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Wireless AP > Channel	
Phone UI	Settings > Basic Settings > AP Configure > AP Channel	
Parameter	static.wifiap.dhcpd.mode	<y0000000000xx>.cfg
Description	It configures the generation type of wireless AP address.	
Permitted Values	**0**-Auto, the phone generates the wireless AP address automatically. **1**-Manual, if automatically generated network segment conflicts with the one you use, you can change the network segment manually.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Wireless AP > AP IP Address	
Parameter	static.wifiap.dhcpd.segment	<y0000000000xx>.cfg
Description	It configures the IP address of the wireless AP. **Note**: Only when "static.wifiap.dhcpd.mode" is set to 1 (Manual), do you need to configure this para-	

	meter.
Permitted Values	IPv4 address
Default	192.168.144.0
Supported Devices	All phones except CP960/CP965
Web UI	Network > Wireless AP > IP Address

Real-Time Transport Protocol (RTP) Ports

Since the phone supports conferencing and multiple RTP streams, it can use several ports concurrently. You can specify the phone's RTP port range.

The UDP port used for RTP streams is traditionally an even-numbered port. If the port 11780 is used to send and receive RTP for the first voice session, additional calls would then use ports 11782, 11784, 11786, and so on. The phone is compatible with RFC 1889 - RTP: A Transport Protocol for Real-Time Applications - and the updated RFC 3550.

Topic

RTP Ports Configuration

RTP Ports Configuration

The following table lists the parameters you can use to configure RTP ports.

Parameter	static.network.port.min_rtpport	<y0000000000xx>.cfg
Description	It configures the minimum local RTP port.	
Permitted Values	Integer from 1024 to 65535	
Default	11780	
Supported Devices	CP960, CP965	
Web UI	Network > Advanced > Local RTP Port > Min RTP Port (1024~65535)	
Parameter	static.network.port.max_rtpport	<y0000000000xx>.cfg
Description	It configures the maximum local RTP port.	
Permitted Values	Integer from 1024 to 65535	
Default	12780	
Supported Devices	CP960, CP965	
Web UI	Network > Advanced > Local RTP Port > Max RTP Port (1024~65535)	
Parameter	features.rtp_symmetric.enable	<y0000000000xx>.cfg
Description	It configures the symmetrical RTP feature.	
Permitted Values	**0**-Disabled **1**-reject RTP packets arriving from a non-negotiated IP address	

	2-reject RTP packets arriving from a non-negotiated port **3**-reject RTP packets arriving from a non-negotiated IP address or a non-negotiated port
Default	0

Network Address Translation (NAT)

NAT enables phones with private unregistered addresses to communicate with devices with globally unique registered addresses.

Topics

NAT Traversal Configuration
Keep Alive Configuration
Rport Configuration
SIP Port and TLS Port Configuration

NAT Traversal Configuration

The phones can traverse NAT gateways to establish and maintain connections with external devices.

Yealink phones support three NAT traversal techniques: manual NAT, STUN and ICE. If you enable manual NAT and STUN, the phone will use the manually-configured external IP address for NAT traversal. The TURN protocol is used as part of the ICE approach to NAT traversal.

The following table lists the parameters you can use to configure NAT traversal.

Parameter	account.X.nat.nat_traversal[1]	<MAC>.cfg
Description	It enables or disables the NAT traversal for a specific account. **Note**: If it is set to 1 (STUN), it works only if "static.sip.nat_stun.enable" is set to 1 (Enabled); if it is set to 2 (Manual NAT), it works only if "static.network.static_nat.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-STUN **2**-Manual NAT	
Default	0	
Web UI	Account > Register > NAT	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > AccountX > NAT Status CP965: More > Settings > Advanced (default password: admin) > Accounts > AccountX > NAT Status **Note**: Manual NAT cannot be configured via the phone user interface.	
Parameter	static.network.static_nat.enable	<y0000000000xx>.cfg
Description	It enables or disables the manual NAT feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Network > NAT > Manual NAT > Active	
Parameter	static.network.static_nat.addr	<y0000000000xx>.cfg
Description	It configures the IP address to be advertised in SIP signaling.	

	It should match the external IP address used by the NAT device. **Note**: It works only if “static.network.static_nat.enable” is set to 1 (Enabled).	
Permitted Values	IP Address	
Default	Blank	
Web UI	Network > NAT > Manual NAT > IP Address	
Parameter	static.sip.nat_stun.enable	<y0000000000xx>.cfg
Description	It enables or disables the STUN (Simple Traversal of UDP over NATs) feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Network > NAT > STUN > Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > NAT > NAT Status CP965: More > Settings > Advanced (default password: admin) > Network > NAT > NAT Status	
Parameter	static.sip.nat_stun.server	<y0000000000xx>.cfg
Description	It configures the IP address or domain name of the STUN server. **Note**: It works only if “static.sip.nat_stun.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Web UI	Network > NAT > STUN > STUN Server	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > NAT > STUN Server CP965: More > Settings > Advanced (default password: admin) > Network > NAT > STUN Server	
Parameter	static.sip.nat_stun.port	<y0000000000xx>.cfg
Description	It configures the port of the STUN server. **Note**: It works only if “static.sip.nat_stun.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 1024 to 65535	
Default	3478	
Web UI	Network > NAT > STUN > STUN Port (1024~65535)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > NAT > STUN Port CP965: More > Settings > Advanced (default password: admin) > Network > NAT > STUN Port	
Parameter	static.ice.enable	<y0000000000xx>.cfg
Description	It enables or disables the ICE (Interactive Connectivity Establishment) feature.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Web UI	Network > NAT > ICE > Active	
Parameter	static.sip.nat_turn.enable	<y0000000000xx>.cfg
Description	It enables or disables the TURN (Traversal Using Relays around NAT) feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Network > NAT > TURN > Active	
Parameter	static.sip.nat_turn.server	<y0000000000xx>.cfg
Description	It configures the IP address or the domain name of the TURN server. **Note**: It works only if "static.sip.nat_turn.enable" is set to 1 (Enabled).	
Permitted Values	IP Address or Domain Name	
Default	Blank	
Web UI	Network > NAT > TURN > TURN Server	
Parameter	static.sip.nat_turn.port	<y0000000000xx>.cfg
Description	It configures the port of the TURN server. **Note**: It works only if "static.sip.nat_turn.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 1024 to 65535	
Default	3478	
Web UI	Network > NAT > TURN > TURN Port (1024~65535)	
Parameter	static.sip.nat_turn.username	<y0000000000xx>.cfg
Description	It configures the user name to authenticate to the TURN server. **Note**: It works only if "static.sip.nat_turn.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Web UI	Network > NAT > TURN > User Name (Username)	
Parameter	static.sip.nat_turn.password	<y0000000000xx>.cfg
Description	It configures the password to authenticate to the TURN server. **Note**: It works only if "static.sip.nat_turn.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Web UI	Network > NAT > TURN > Password	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Keep Alive Configuration

Yealink phones can send keep-alive packets to the NAT device for keeping the communication port open.

The following table lists the parameters you can use to configure keep alive.

Parameter	account.X.nat.udp_update_enable[1]	<MAC>.cfg
Description	It sets the type of keep-alive packets sent by phone.	
Permitted Values	**0**-Disabled **1**-Default (the phone sends the corresponding packets according to the transport protocol) **2**-Options (the phone sends SIP OPTIONS packets to the server) **3**-Notify (the phone sends SIP NOTIFY packets to the server)	
Default	1	
Web UI	Account > Advanced > Keep Alive Type	
Parameter	account.X.nat.udp_update_time[1]	<MAC>.cfg
Description	It configures the interval (in seconds) at which the phone sends a keep-alive package. **Note**: It works only if “account.X.nat.udp_update_enable” is set to 1, 2 or 3.	
Permitted Values	Integer from 0 to 3600	
Default	30	
Web UI	Account > Advanced > Keep Alive Interval(Seconds)	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Rport Configuration

Rport allows a client to request that the server sends the response back to the source IP address and port from which the request originated. It helps the phone traverse symmetric NATs.

Rport feature depends on support from a SIP server. For more information, refer to RFC 3581.

The following table lists the parameter you can use to configure rport.

Parameter	account.X.nat.rport[1]	<MAC>.cfg
Description	It enables or disables the phone to add the "rport" parameter in the Via header.	
Permitted Values	**0**-Disabled **1**-Enabled, the INVITE Contact header uses the port in the "rport" parameter but does not use the source IP address in the "received" parameter in the Via header of server's response. **2**-Enable Direct Process, the INVITE Contact header uses the port in the "rport" parameter and uses the source IP address in the "received" parameter in the Via header of server's response.	
Default	0	
Web UI	Account > Advanced > RPort	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

SIP Port and TLS Port Configuration

You can configure the SIP and TLS source ports on the phone. Otherwise, the phone uses default values (5060 for UDP/TCP and 5061 for TLS).

If NAT is disabled, the port number shows in the Via and Contact SIP headers of SIP messages. If NAT is enabled, the phone uses the NAT port number (and NAT IP address) in the Via and Contact SIP headers of SIP messages, but still using the configured source port.

The following table lists the parameters you can use to configure SIP port and TLS port.

Parameter	sip.listen_port	<y0000000000xx>.cfg
Description	It specifies the local SIP port. If it is set to 0, the phone will automatically listen to the local SIP port.	
Permitted Values	0, Integer from 1024 to 65535	
Default	5060	
Web UI	Settings > SIP > Local SIP Port	
Parameter	sip.tls_listen_port	<y0000000000xx>.cfg
Description	It specifies the local TLS listen port. If it is set to 0, the phone will not listen to the TLS service.	
Permitted Values	0, Integer from 1024 to 65535	
Default	5061	
Web UI	Settings > SIP > TLS SIP Port	

Reserved Ports

By default, the phone communicates through UDP ports in the 50000 - 50249 range for video and voice control. The phone uses only a small number of these ports during a call. The exact number depends on the number of participants in the call, the protocol used, and the number of ports required for the type of call: video or voice.

It is not applicable to CP960/CP965 phones.

Topics

Guidelines for Determining the Range of Port Numbers
Reserved Ports Configuration

Guidelines for Determining the Range of Port Numbers

To minimize the number of UDP and TCP ports that are available for communication, you can restrict the ports range.

The following tables identify the number of ports required per connection by protocol and the type of call.

Call Type	Number of Required Ports for T58	Number of Required Ports for VP59
Video	4 UDP ports	8 UDP ports (4 UDP ports when not using content sharing)
Voice	2 UDP ports	2 UDP ports
Each additional video participant requires 4 UDP ports.		

Each additional audio participant requires 2 UDP ports.

Use the following information as a guide when determining the range of port numbers.

Phone	Maximum Connections	Required Ports for a SIP Call	
VP59/T58A /T58W	Three-way video call and seven audio-only calls	26 UDP	50000-50025

Related Topic

Reserved Ports Configuration

Reserved Ports Configuration

The following table lists the parameters you can use to configure reserved ports.

Parameter	sip.min_udp_port	<y0000000000xx>.cfg
Description	It configures the minimum UDP port.	
Permitted Values	Integer from 1024 to 65535	
Default	50000	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > Reserve Port > UDP Port Scope (1024~65535)	
Parameter	sip.max_udp_port	<y0000000000xx>.cfg
Description	It configures the maximum UDP port.	
Permitted Values	Integer from 1024 to 65535	
Default	50249	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > Reserve Port > UDP Port Scope (1024~65535)	
Parameter	sip.min_tcp_port	<y0000000000xx>.cfg
Description	It configures the minimum TCP port.	
Permitted Values	Integer from 1024 to 65535	
Default	50000	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > Reserve Port > TCP Port Scope (1024~65535)	
Parameter	sip.max_tcp_port	<y0000000000xx>.cfg
Description	It configures the maximum TCP port.	
Permitted Values	Integer from 1024 to 65535	

Default	50249
Supported Devices	All phones except CP960/CP965
Web UI	Network > Advanced > Reserve Port > TCP Port Scope (1024~65535)

Internet Port and PC Port

Yealink phones support two Ethernet ports: Internet port and PC port. You can enable or disable the PC port on the phones. The CP960/CP965 phones have Internet port only.

Topics

Supported Transmission Methods
Internet Port and PC Port Configuration

Supported Transmission Methods

Three optional methods of transmission configuration for the IP phone Internet port and PC port:

- Auto-negotiate
- Half-duplex (transmit in 10Mbps or 100Mbps)
- Full-duplex (transmit in 10Mbps, 100Mbps or 1000Mbps)

Auto-negotiate is configured for both Internet and PC ports on the IP phone by default.

Internet Port and PC Port Configuration

The following table lists the parameters you can use to configure the Internet port and PC port.

Parameter	static.network.pc_port.enable	<y0000000000xx>.cfg
Description	It enables or disables the PC port.	
Permitted Values	**0**-Disabled **1**-Auto Negotiation	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > PC Port > PC Port Active	
Parameter	static.network.internet_port.speed_duplex	<y0000000000xx>.cfg
Description	It configures the network speed over Ethernet of the Internet port. **Note**: For VP59/T58A/T58W phones, you can set the transmission speed to 1000Mbps/Auto Negotiation to transmit in 1000Mbps if the phone is connected to the switch supports Gigabit Ethernet. We recommend that you do not change this parameter.	
Permitted Values	**0**-Auto Negotiation **1**-Full Duplex 10Mbps **2**-Full Duplex 100Mbps **3**-Half Duplex 10Mbps **4**-Half Duplex 100Mbps **5**-Full Duplex 1000Mbps (only applicable to VP59/T58A/T58W phones)	

Default	0	
Web UI	Network > Advanced > Port Link > WAN Port Link	
Parameter	static.network.pc_port.speed_duplex	<y0000000000xx>.cfg
Description	It configures the network speed over Ethernet of the PC port. **Note**: It works only if “static.network.pc_port.enable” is set to 1 (Auto Negotiation). For VP59/T58A/T58W phones, you can set the transmission speed to 1000Mbps/ Auto Negotiation to transmit in 1000Mbps if the phone is connected to the switch supports Gigabit Ethernet. We recommend that you do not change this parameter.	
Permitted Values	**0**-Auto Negotiation **1**-Full Duplex 10Mbps **2**-Full Duplex 100Mbps **3**-Half Duplex 10Mbps **4**-Half Duplex 100Mbps **5**-Full Duplex 1000Mbps	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > Port Link > PC Port Link	
Parameter	static.network.vlan.pc_port_mode	<y0000000000xx>.cfg
Description	It configures how the phone processes packets for the PC port when VLAN is enabled on the PC port.	
Permitted Values	**0**-The phone forwards the packets sent from the PC port to the Internet port directly. **1**-If there are no VLAN tags in the packets sent from the PC port to the Internet port, the phone tags the packets and then forward them; else, the phone forwards the packets directly.	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	static.network.pc_port.mode	<y0000000000xx>.cfg
Description	It configures the PC port mode.	
Permitted Values	**0**-The phone can only share the wired network with the connected PC, not the wireless network. **1**-The phone can share both the wired network and wireless network with the connected PC.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Case Scenario	When the phone is connected to the wireless network, the office's PC can obtain the network through the phone's PC port.	

VPN

Yealink phones use OpenVPN or L2TP to achieve VPN feature.

For more information on OpenVPN, refer to OpenVPN Feature on Yealink phones.

Topics

OpenVPN Related Files
VPN Configuration
Example: Using VPN based on L2TP Protocol
Exporting the OpenVPN Configuration File from the Phone
Importing the OpenVPN Configuration File to Phone

OpenVPN Related Files

To use OpenVPN, you should collect the VPN-related files into one archive file in .tar format and then upload this tar file. The VPN-related files include certificates (ca.crt and client.crt), key (client.key) and the configuration file (vpn.cnf) of the VPN client.

The following table lists the name of the OpenVPN certificates and key in the configuration file (vpn.cnf) for Yealink phones:

VPN Files	Description
ca.crt	CA certificate
client.crt	Client certificate
client.key	Private key of the client

VPN Configuration

The following table lists the parameters you can use to configure the VPN.

Parameter	static.network.vpn_enable	<y0000000000xx>.cfg
Description	It enables or disables the VPN feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Network > Advanced > VPN > Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > VPN > VPN Active CP965: More > Settings > Advanced (default password: admin) > Network > VPN > VPN Active	
Parameter	static.openvpn.url	<y0000000000xx>.cfg
Description	It configures the access URL of the *.tar file for OpenVPN. **Note**: It works only if "static.network.vpn.mode" is set to 1 (OpenVPN).	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Network > Advanced > VPN > OpenVPN > Upload VPN Config	
Parameter	static.network.openvpn_file.url	<y0000000000xx>.cfg
Description	It configures the URL for uploading the OpenVPN configuration file (vpn.cnf). **Note**: It works only if "static.network.vpn.mode" is set to 1 (OpenVPN).	
Permitted Values	String within 512 characters	

Default	Blank	
Web UI	Network > Advanced > VPN > OpenVPN > Import VPN Configuration File	
Parameter	static.network.vpn.mode	<y0000000000xx>.cfg
Description	It configures the VPN type.	
Permitted Values	**0**-L2TP **1**-OpenVPN	
Default	1	
Web UI	Network > Advanced > VPN > Mode	
Parameter	static.network.l2tp_server.address	<y0000000000xx>.cfg
Description	It configures the L2TP server address. **Note**: It works only if "static.network.vpn.mode" is set to 0 (L2TP).	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Network > Advanced > VPN > Layer 2 Tunneling Protocol(L2TP) > L2TP Server Address	
Parameter	static.network.l2tp_server.username	<y0000000000xx>.cfg
Description	It configures the user name of the L2TP server. **Note**: It works only if "static.network.vpn.mode" is set to 0 (L2TP).	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Network > Advanced > VPN > Layer 2 Tunneling Protocol(L2TP) > Authentication Name	
Parameter	static.network.l2tp_server.password	<y0000000000xx>.cfg
Description	It configures the password of the L2TP server. **Note**: It works only if "static.network.vpn.mode" is set to 0 (L2TP).	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Network > Advanced > VPN > Layer 2 Tunneling Protocol(L2TP) > Authentication Password	

Example: Using VPN based on L2TP Protocol

Before you begin

You have set up the L2TP VPN server.

Procedure

1. Set the following parameters in the configuration file and perform an auto provisioning.
   #Set the VPN type to L2TP.
   static.network.vpn.mode = 0
   #Configure the address, user name, and password of the L2TP server.

static.network.l2tp_server.address = 192.168.10.25
static.network.l2tp_server.username = vpnuser
static.network.l2tp_server.password = 0123456

2. After provisioning, connect the phone to the VPN environment.

Exporting the OpenVPN Configuration File from the Phone

You can export the OpenVPN configuration file via web user interface.

Procedure

1. From the web user interface, click **Network** > **Advanced** > **VPN**.
2. Turn on VPN feature.
3. In the **Export VPN Configuration File** field, click **Export** to open the file download window, and then save the file to your local system.

Importing the OpenVPN Configuration File to Phone

You can import the OpenVPN configuration file from local to the phones via the web user interface. The changes in the configuration file will take effect after the file is imported.

Procedure

1. From the web user interface, click **Network** > **Advanced** > **VPN**.
2. Turn on VPN feature.
3. In the **Import VPN Configuration File** field, click **Browse** to locate a OpenVPN configuration file in your local system.
4. Click **Upload** to import the configuration file.

Quality of Service (QoS)

VoIP is extremely bandwidth and delay-sensitive. QoS is a major issue in VoIP implementations, regarding how to guarantee that packet traffic is not delayed or dropped due to interference from other lower priority traffic. VoIP can guarantee high-quality QoS only if the voice and the SIP packets are given priority over other kinds of network traffic. The phones support the DiffServ model of QoS.

Voice QoS

In order to make VoIP transmissions intelligible to receivers, voice packets should not be dropped, excessively delayed, or made to suffer varying delay. DiffServ model can guarantee high-quality voice transmission when the voice packets are configured to a higher DSCP value.

Video QoS

To ensure acceptable visual quality for video, video packets emanated from the phones should be configured with a high transmission priority. It is not applicable to CP960/CP965 phones.

SIP QoS

The SIP protocol is used for creating, modifying, and terminating two-party or multi-party sessions. To ensure good voice quality, SIP packets emanated from the phones should be configured with a high transmission priority.

DSCPs for voice and SIP packets can be specified respectively.

Wi-Fi QoS

Wi-Fi Multimedia (WMM) is based on the IEEE 802.11e standard and provides basic Quality of service (QoS) features to wireless networks. QoS enables Wi-Fi access points to prioritize traffic and optimizes the way shared network resources are allocated among different applications.

Note: For voice and SIP packets, the phone obtains DSCP info from the network policy if LLDP feature is enabled, which

takes precedence over manual settings. For more information on LLDP, refer to LLDP Configuration.

Topic

Voice, Video and SIP QoS Configuration

Voice, Video and SIP QoS Configuration

The following table lists the parameters you can use to configure voice QoS, video QoS and SIP QoS.

Parameter	static.network.qos.audiotos	<y0000000000xx>.cfg
Description	It configures the DSCP (Differentiated Services Code Point) for voice packets. The default DSCP value for RTP packets is 46 (Expedited Forwarding).	
Permitted Values	Integer from 0 to 63	
Default	46	
Web UI	Network > Advanced > QoS > Voice QoS (0~63)	
Parameter	static.network.qos.videotos	<y0000000000xx>.cfg
Description	It configures the DSCP (Differentiated Services Code Point) for video packets. The default DSCP value for H264 packets is 34 (Assured Forwarding).	
Permitted Values	Integer from 0 to 63	
Default	34	
Supported Devices	T58W, T58A, VP59	
Web UI	Network > Advanced > QoS > Video QoS (0~63)	
Parameter	static.network.qos.signaltos	<y0000000000xx>.cfg
Description	It configures the DSCP (Differentiated Services Code Point) for SIP packets. The default DSCP value for SIP packets is 26 (Assured Forwarding).	
Permitted Values	Integer from 0 to 63	
Default	26	
Web UI	Network > Advanced > QoS > SIP QoS (0~63)	
Parameter	static.wifi.802_11e.enable	<y0000000000xx>.cfg
Description	It enables or disables the WMM (Wi-Fi MultiMedia) feature. **Note**: WMM is an 802.11 quality of service (QoS) implementation based on a subset of the draft 802.11e standard supplement.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

802.1x Authentication

Yealink phones support the following protocols for 802.1x authentication:

- EAP-MD5
- EAP-TLS (requires Device and CA certificates, requires no password)
- EAP-PEAP/MSCHAPv2 (requires CA certificates)
- EAP-TTLS/EAP-MSCHAPv2 (requires CA certificates)
- EAP-PEAP/GTC (requires CA certificates)
- EAP-TTLS/EAP-GTC (requires CA certificates)
- EAP-FAST (supports EAP In-Band provisioning, requires CA certificates if the provisioning method is Authenticated Provisioning)

For more information on 802.1x authentication, refer to Yealink 802.1X Authentication.

Topic

802.1x Authentication Configuration

802.1x Authentication Configuration

The following table lists the parameters you can use to configure 802.1x authentication.

Parameter	static.network.802_1x.mode	<y0000000000xx>.cfg
Description	It configures the 802.1x authentication method.	
Permitted Values	**0**-EAP-None, no authentication **1**-EAP-MD5 **2**-EAP-TLS **3**-EAP-MSCHAPv2 **4**-EAP-TTLS/EAP-MSCHAPv2 **5**-EAP-PEAP/GTC **6**-EAP-TTLS/EAP-GTC **7**-EAP-FAST	
Default	0	
Web UI	Network > Advanced > 802.1x > 802.1x Mode	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > 802.1x > 802.1x Mode CP965: More > Settings > Advanced (default password: admin) > Network > 802.1x > 802.1x Mode	
Parameter	static.network.802_1x.eap_fast_provision_mode	<y0000000000xx>.cfg
Description	It configures the EAP In-Band provisioning method for EAP-FAST. **Note**: It works only if "static.network.802_1x.mode" is set to 7 (EAP-FAST).	
Permitted Values	**0**-Unauthenticated Provisioning, EAP In-Band provisioning is enabled by server unauthenticated PAC (Protected Access Credential) provisioning using the anonymous Diffie-Hellman key exchange. **1**-Authenticated Provisioning, EAP In-Band provisioning is enabled by server authenticated PAC provisioning using certificate-based server authentication.	
Default	0	
Web UI	Network > Advanced > 802.1x > Provisioning Mode	
Parameter	static.network.802_1x.anonymous_identity	<y0000000000xx>.cfg
Description	It configures the anonymous identity (user name) for 802.1X authentication.	

	It is used for constructing a secure tunnel for 802.1X authentication. **Note**: It works only if “static.network.802_1x.mode” is set to 2, 3, 4, 5, 6 or 7.	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Network > Advanced > 802.1x > Anonymous Identity	
Parameter	static.network.802_1x.identity	<y0000000000xx>.cfg
Description	It configures the identity (user name) for 802.1x authentication.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Network > Advanced > 802.1x > Identity	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > 802.1x > Identity CP965: More > Settings > Advanced (default password: admin) > Network > 802.1x > Identity	
Parameter	static.network.802_1x.md5_password	<y0000000000xx>.cfg
Description	It configures the password for 802.1x authentication. **Note**: It is required for all methods except EAP-TLS.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Network > Advanced > 802.1x > MD5 Password	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > 802.1x > MD5 Password CP965: More > Settings > Advanced (default password: admin) > Network > 802.1x > MD5 Password	
Parameter	static.network.802_1x.root_cert_url	<y0000000000xx>.cfg
Description	It configures the URL for uploading the 802.1x CA certificate. The format of the certificate must be *.pem, *.crt, *.cer or *.der. **Note**: It works only if “static.network.802_1x.mode” is set to 2, 3, 4, 5, 6 or 7. If the authentication method is EAP-FAST, you also need to set “static.network.802_1x.eap_fast_provision_mode” to 1 (Authenticated Provisioning).	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Network > Advanced > 802.1x > CA Certificates	
Parameter	static.network.802_1x.client_cert_url	<y0000000000xx>.cfg
Description	It configures the URL for uploading the 802.1x client certificate. The format of the certificate must be *.pem. **Note**: It works only if “static.network.802_1x.mode” is set to 2 (EAP-TLS).	

Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Network > Advanced > 802.1x > Device Certificates	
Parameter	static.network.802_1x.proxy_eap_logoff.enable	<y0000000000xx>.cfg
Description	It enables or disables the 802.1x-logoff feature for the PC port.	
Permitted Values	**0**-Disabled **1**-Enabled, the 802.1x logoff message is sent to the authenticator when the PC is disconnected.	
Default	0	
Supported Devices	All phones except CP960/CP965	

TR-069 Device Management

TR-069 is a technical specification defined by the Broadband Forum, which defines a mechanism that encompasses secure auto-configuration of a CPE (Customer-Premises Equipment), and incorporates other CPE management functions into a common framework. TR-069 uses common transport mechanisms (HTTP and HTTPS) for communication between CPE and ACS (Auto Configuration Servers). The HTTP(S) messages contain XML-RPC methods defined in the standard for configuration and management of the CPE.

Topics

Supported RPC Methods
TR-069 Configuration

Supported RPC Methods

The following table provides a description of RPC methods supported by the phones.

RPC Method	Description
GetRPCMethods	This method is used to discover the set of methods supported by the CPE.
SetParameterValues	This method is used to modify the value of one or more CPE parameters.
GetParameterValues	This method is used to obtain the value of one or more CPE parameters.
GetParameterNames	This method is used to discover the parameters accessible on a particular CPE.
GetParameterAttributes	This method is used to read the attributes associated with one or more CPE parameters.
SetParameterAttributes	This method is used to modify attributes associated with one or more CPE parameters.
Reboot	This method causes the CPE to reboot.
Download	This method is used to cause the CPE to download a specified file from the designated location. File types supported by the phones are: • Firmware Image • Configuration File
Upload	This method is used to cause the CPE to upload a specified file to the designated location. File types supported by the phones are: • Configuration File

RPC Method	Description
	• Log File
ScheduleInform	This method is used to request the CPE to schedule a one-time Inform method call (separate from its periodic Inform method calls) sometime in the future.
FactoryReset	This method resets the CPE to its factory default state.
TransferComplete	This method informs the ACS of the completion (either successful or unsuccessful) of a file transfer initiated by an earlier Download or Upload method call.
AddObject	This method is used to add a new instance of an object defined on the CPE.
DeleteObject	This method is used to remove a particular instance of an object.

TR-069 Configuration

The following table lists the parameters you can use to configure TR-069.

Parameter	static.managementserver.enable	<y0000000000xx>.cfg
Description	It enables or disables the TR-069 feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > TR069 > Enable TR069	
Parameter	static.managementserver.username	<y0000000000xx>.cfg
Description	It configures the TR-069 ACS server user name used to authenticate the phone. Leave it blank if no authentication is required.	
Permitted Values	String within 128 characters	
Default	Blank	
Web UI	Settings > TR069 > ACS Username	
Parameter	static.managementserver.password	<y0000000000xx>.cfg
Description	It configures the TR-069 ACS server password used to authenticate the phone. Leave it blank if no authentication is required.	
Permitted Values	String within 64 characters	
Default	Blank	
Web UI	Settings > TR069 > ACS Password	
Parameter	static.managementserver.url	<y0000000000xx>.cfg
Description	It configures the access URL of the TR-069 ACS server. **Note**: The phones also support obtaining the URL of the ACS by detecting DHCP option 43.	
Permitted Values	URL within 511 characters	
Default	Blank	

Web UI	Settings > TR069 > ACS URL	
Parameter	static.managementserver.connection_request_username	<y0000000000xx>.cfg
Description	It configures the user name used to authenticate the connection requests from the ACS server.	
Permitted Values	String within 128 characters	
Default	Blank	
Web UI	Settings > TR069 > Connection Request Username	
Parameter	static.managementserver.connection_request_password	<y0000000000xx>.cfg
Description	It configures the password used to authenticate the connection requests from the ACS server.	
Permitted Values	String within 64 characters	
Default	Blank	
Web UI	Settings > TR069 > Connection Request Password	
Parameter	static.managementserver.periodic_inform_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to periodically report its configuration information to the ACS server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > TR069 > Enable Periodic Inform	
Parameter	static.managementserver.periodic_inform_interval	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) at which the phone reports its configuration to the ACS server. **Note**: It works only if "static.managementserver.periodic_inform_enable" is set to 1 (Enabled).	
Permitted Values	Integer from 5 to 4294967295	
Default	60	
Web UI	Settings > TR069 > Periodic Inform Interval (seconds)	

Phone Provisioning

You can provision multiple phones with the same settings for large-scale deployments.

For more information, refer to Yealink SIP IP Phones Auto Provisioning Guide.

Topics

Boot Files, Configuration Files, and Resource Files
Provisioning Methods
Setting Up a Provisioning Server
Keeping User's Personalized Settings after Auto Provisioning
Example: Deploying Phones from the Provisioning Server

Boot Files, Configuration Files, and Resource Files

You can use boot files, configuration files, and resource files to configure phone features and apply feature settings to phones. You can create or edit these files using a text editor such as Notepad++.

You can ask the distributor or Yealink FAE for template files. You can also obtain the template files online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Boot Files
Configuration Files
Resource Files
Files Download Process

Boot Files

Yealink phones support boot files. The boot files maximize the flexibility to allow you to customize features and settings for multiple phones.

With the boot file, you can specify which configuration files should be downloaded. It is effective for you to provision the phones in different deployment scenarios:

- For all phones
- For a group of phones
- For specific phone models
- For a single phone

Yealink phones support two types of boot files: common boot file and MAC-Oriented boot file. You can use the default boot template file "y000000000000.boot" to create MAC-Oriented boot file by making a copy and renaming it.

Note: You can select whether to use the boot file or not according to your deployment scenario. If you do not want to use the boot file, please go to Configuration Files.

Topics

Common Boot File
MAC-Oriented Boot File
Boot File Attributes
Customizing a Boot File

Common Boot File

Common boot file, named y000000000000.boot, is effective for all phones. You can use a common boot file to apply common feature settings to all of the phones rather than a single phone.

MAC-Oriented Boot File

MAC-Oriented boot file, named <MAC>.boot. It will only be effective for a specific IP phone. In this way, you have high permission to control each phone by making changes on a per-phone basis.

You can create a MAC-Oriented boot file for each phone by making a copy and renaming the boot template file (y000000000000.boot). For example, if your phone MAC address is 00156574B150, rename the template file as 00156574b150.boot (lowercase).

Tip: MAC address, a unique 12-digit serial number is assigned to each phone. You can obtain it from the bar code on the back of the phone.

Boot File Attributes

The following table lists the attributes you need to know in the boot template file.

Attributes	Description
#!version:1.0.0.1	It must be placed in the first line. Do not edit and delete.
include:config <xxx.cfg> include:config "xxx.cfg"	Each "include" statement can specify a location of a configuration file. The configuration file format must be *.cfg. The locations in the angle brackets or double quotation marks support two forms: • Relative path (relative to the boot file): For example, sip.cfg, HTTP Directory/sip.cfg • Absolute path (or URL): For example, http://10.2.5.258/HTTP Directory/sip.cfg The location must point to a specific CFG file.
[$MODEL]	The [$MODEL] can be added to specify settings for specific phone models. $MODEL represents the phone model name. The valid phone model names are VP59, T58, T58W, CP960, CP965. Multiple phone models are separated by commas. For example, [T58, CP960].
overwrite_mode	Enable or disable the overwrite mode. **1**-(Enabled) - If the value of a parameter in configuration files is left blank, or if a non-static parameter in configuration files is deleted or commented out, the factory default value takes effect. **0**-(Disabled) - If the value of a parameter in configuration files is left blank, deleted or commented out, the pre-configured value is kept. **Note**: Overwrite mode can only be used in boot files. If a boot file is used but "overwrite_mode" is not configured, the overwrite mode is enabled by default.
static.specific_model.excluded_mode	Enable or disable the exclude mode. The exclude mode applies to the configuration files specified in the boot file. **0**-Disabled (Append Mode), the phone downloads its own model-specific configuration files and downloads other model-unspecified configuration files. **1**-Enabled (Exclude Mode), the phone attempts to download its own model-specific configuration files; if there are no own model-specific configuration files found on the server, it downloads model-unspecified configuration files. **Note**: Exclude mode can only be used in boot files. If a boot file is used but "static.specific_model.excluded_mode" is not configured, the exclude mode is disabled by default.

Tip: The line beginning with “#” is considered to be a comment. You can use “#” to make any comment on the boot file.

Customizing a Boot File

Procedure

1. Open a boot template file.
2. To add a configuration file, add include:config < > or include:config “” to the file. Each starts on a separate line.
3. Specify a configuration file for downloading.
   For example:
   include:config <configure/sip.cfg >
   include:config “http://10.2.5.206/configure/account.cfg”
   include:config “http://10.2.5.206/configure/dialplan.cfg”
4. To specify configuration files for specific phone models, add specific phone models in front of include:config < > or include:config “”. Multiple phone model names are separated by commas.
   For example:
   [T58,VP59]include:config <configure/sip.cfg>
   [CP960]include:config “http://10.2.5.206/configure/account.cfg”
   ## file sip.cfg only applies to VP59 and T58A phones, file account.cfg only applies to CP960 phones
5. Specify the overwrite mode and exclude mode.
   For example:
   overwrite_mode = 1
   static.specific_model.excluded_mode = 1
6. Save the boot file and place it on the provisioning server.

Related Topic

Boot File Attributes

Configuration Files

Yealink supports two configuration template files: Common CFG file and MAC-Oriented CFG file.

These configuration files contain two kinds of parameters:

- Static: The parameters start with a prefix “static.”, for example, static.auto_provision.custom.protect.
- Non-static: The parameters do not start with a prefix “static.”, for example, local_time.date_format.

You can deploy and maintain a mass of Yealink phones automatically through configuration files stored in a provisioning server.

Note: For protecting against unauthorized access, you can encrypt configuration files. For more information on encrypting configuration files, refer to Encrypting and Decrypting Files.

Topics

Common CFG File
MAC-Oriented CFG File
MAC-local CFG File
Configuration File Customization
Configuration File Attributes

Common CFG File

Common CFG file, named <y0000000000xx>.cfg, contains parameters that affect the basic operation of the IP phone, such as language and volume. It will be effective for all phones in the same model. The common CFG file has a fixed name for each phone model.

The following table lists the name of the common CFG file for each phone model:

Phone Model	Common CFG file
VP59	y000000000091.cfg
T58A	y000000000058.cfg
T58W	y000000000150.cfg
CP960	y000000000073.cfg
CP965	y000000000143.cfg

MAC-Oriented CFG File

MAC-Oriented CFG file, which is named after the MAC address of the IP phone. For example, if the MAC address of an IP phone is 00156574B150, the name of MAC-Oriented CFG file is 00156574b150.cfg (lowercase). It contains parameters unique to a particular phone, such as account registration. It will only be effective for a MAC-specific IP phone.

MAC-local CFG File

MAC-local CFG file, which is named after the MAC address of the IP phone. For example, if the MAC address of an IP phone is 00156574B150, the name of the MAC-local CFG file is 00156574b150-local.cfg (lowercase). It contains changes associated with a non-static parameter that you make via the web user interface or phone user interface (for example, changes for time and date formats, ring tones, and DSS keys).

This file generates only if you enable the provisioning priority mechanism. It is stored locally on the IP phone and you can upload it to the provisioning server each time the file updates. This file enables the users to keep their personalized configuration settings, even though the IP phone performs auto provisioning.

This file supports the overwrite mode. That is, you can clear the user's personalized configurations settings by deleting a parameter or leaving the value of a parameter blank in the MAC-local CFG file on the server. Note that if there is no MAC-local CFG file found on the server, the MAC-local CFG file on the phone will not be cleared.

Note: The non-static changes that you made before enabling the provisioning priority mechanism are not saved in the generated MAC-local file, but the previous settings still take effect on the phone. The static changes are never be saved to the <MAC>-local.cfg file.

The provisioning priority mechanism is enabled by the parameter "static.auto_provision.custom.protect".

Configuration File Customization

You can create some new CFG files by making a copy and renaming the configuration template file (for example, sip.cfg, account.cfg). You can rearrange the parameters in the configuration template file and create your own configuration files with parameters you want. This flexibility is especially useful when you want to apply specific settings to a group of phones.

Topic

Customizing a Configuration File

Customizing a Configuration File

1. Copy and rename a configuration template file. For example, sip.cfg.
2. Rearrange the parameters in the sip.cfg, and set the valid values for them.

   For example:

   local_time.time_format = 1

   account.1.anonymous_call = 1

   account.2.dnd.enable = 1

   features.dnd.enable = 0
3. To specify parameters for specific phone models, add specific phone models in the front of the corresponding parameters. Multiple phone model names are separated by commas.

For example:
[CP960]features.dnd.enable = 1
[T58]features.dnd.enable = 0
These parameters only apply to their own specific phone models.

4. Save the configuration file and place it on the provisioning server.

Related Topic

Configuration File Attributes

Configuration File Attributes

The following table lists the attributes you need to know in the configuration template file.

Attributes	Description
#!version:1.0.0.1	It must be placed in the first line. Do not edit and delete.
Configuration Parameter=Valid Value (for example, account.1.dnd.enable = 1)	Specify the parameters and values to apply specific settings to the phones. • Separate each configuration parameter and value with an equal sign • Set only one configuration parameter per line • Put the configuration parameter and value on the same line and do not break the line
[$MODEL]	The [$MODEL] can be added in front of the configuration parameter to specify the value for specific phone models. $MODEL represents the phone model. The valid phone model names are VP59, T58, T58W, CP960, CP965. Multiple phone models are separated by commas. For example, [T58, CP960]. **Note**: The phone updates model-specific configurations and those model-unspecified configurations.

Tip: The line beginning with “#” is considered to be a comment. You can use “#” to make any comment on the configuration file.

Resource Files

Resource files are optional, but if the particular feature is being employed, these files are required. You need to place resource files on the provisioning server. The phones request the resource files in addition to the configuration files during auto provisioning.

Tip: If you want to specify the desired phone to use the resource file, the access URL of the resource file should be specified in the MAC-Oriented CFG file. During auto provisioning, the phones will request the resource files in addition to the configuration files.

Topic

Supported Resource Files

Supported Resource Files

Yealink supplies some template of resource files for you, so you can directly edit the files as required.

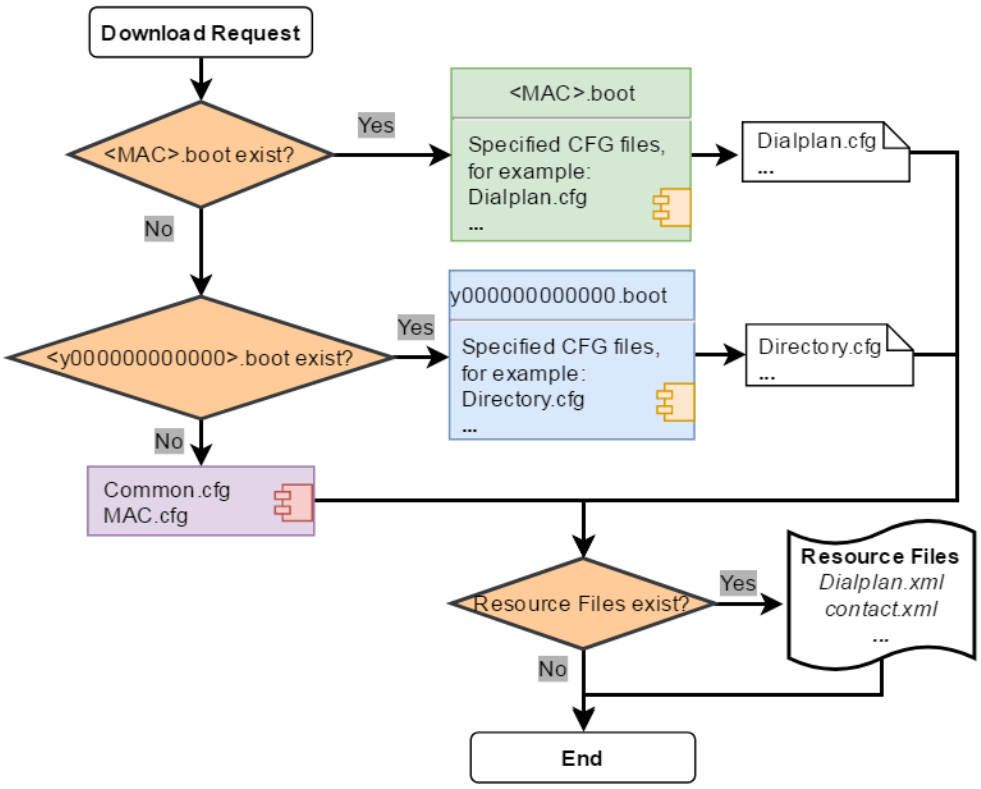
The following table lists the resource files Yealink supplies:

Template File	File Name	Description	Reference in Section
AutoDST Template	AutoDST.xml	Add or modify time zone and DST settings.	DST Settings
Language Packs	For example,	Customize the translation of the existing language on the phone/web user interface.	Language for Phone Display Customization

Template File	File Name	Description	Reference in Section
	000.GUI.English.lang 1.English_note.xml 1.English.js		Language for Web Display Customization
Replace Rule Template	DialPlan.xml	Customize replace rules for the dial plan.	Replace Rule File Customization
Dial Now Template	DialNow.xml	Customize dial now rules for the dial plan.	Dial Now File Customization
Softkey Layout Template	CallFailed.xml CallIn.xml Connecting.xml Dialing.xml RingBack.xml Talking.xml	Customize soft key layout for different call states.	Softkey Layout File Customization
Directory Template	favorite_setting.xml	Customize the directory list.	Directory List File Customization
Super Search Template	super_search.xml	Customize the search source list.	Search Source File Customization
Local Contact File	contact.xml	Add or modify multiple local contacts.	Local Contact File Customization
Remote Phone Book Template	Department.xml Menu.xml	Add or modify multiple remote contacts.	Remote Phone Book File Customization

Files Download Process

When you provision the phones, the phones will request to download the boot files, configuration files and resource files from the provisioning server according to the following flowchart:



The parameters in the newly downloaded configuration files will override the same parameters in files downloaded earlier.

Provisioning Methods

Yealink provides two ways to provision your phones:

- Manual Provisioning: provisioning via the local phone user interface or web user interface.
- Central Provisioning: provisioning through configuration files stored in a central provisioning server.

The method you use depends on how many phones need to be deployed and what features and settings to be configured. Manual provisioning on the web or phone user interface does not contain all of the phone settings available with the centralized method. You can use the web user interface method in conjunction with a central provisioning method and phone user interface method. We recommend using centralized provisioning as your primary provisioning method when provisioning multiple phones.

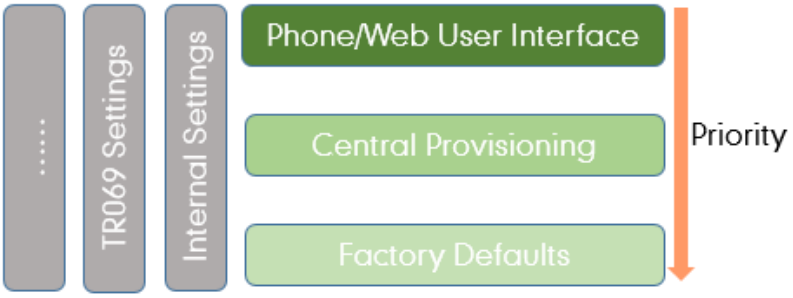
Topics

Provisioning Methods Priority
Web User Interface
Phone User Interface
Central Provisioning
Viewing Configurations Configured via Different Provisioning Methods

Provisioning Methods Priority

There is a priority for configuration among the provisioning methods - settings you make using a higher priority provisioning method override settings made using a lower priority provisioning method.

The precedence order for configuration parameter changes is as follows (highest to lowest):



Note: The provisioning priority mechanism takes effect only if "static.auto_provision.custom.protect" is set to 1. For more information on this parameter, refer to Keeping User's Personalized Settings Configuration.

Static parameters have no priority. They take effect no matter what method (web user interface or phone user interface or configuration files) you are using for provisioning.

Static parameters are the parameters that start with a prefix "static.", for example, the parameters associated with auto provisioning/network/syslog, TR069 settings and internal settings (the temporary configurations to be used for program running).

Web User Interface

You can configure the phones via the web user interface, a web-based interface that is especially useful for remote configuration.

Because features and configurations vary by phone models and firmware versions, options available on each page of the web user interface can vary as well. Note that the features configured via the web user interface are limited. Therefore, you can use the web user interface in conjunction with a central provisioning method and phone user interface.

When configuring the phones via the web user interface, you require a user name and password for access. For a user, the default user name and password are "user" (case-sensitive). For an administrator, the default user name and password are "admin" (case-sensitive).

Note: When you manually configure a phone via the web user interface or phone user interface, the changes associated with non-static parameters you make will be stored in the MAC-local CFG file. For more information on the MAC-local CFG file, refer to MAC-local CFG File.

Topics

Accessing the Web User Interface
Quick Login Configuration
Web Server Type Configuration
Navigating the Web User Interface

Accessing the Web User Interface

Procedure

1. Find the device IP address. Go to **Settings** > **Status** > **General**.
2. Enter the IP address in the address bar of a web browser on your PC.

   For example, for IPv4: http://192.168.0.10 or 192.168.0.10; for IPv6: http://[2005:1:1:1:215:65ff:fe64:6e0a] or [2005:1:1:1:215:65ff:fe64:6e0a].
3. Enter the user name and password.
4. Click **Login**.

Related Topics

Web Server Type Configuration
User and Administrator Identification

Quick Login Configuration

You can access the web user interface quickly using the request URI. It will locate you in the **Status** web page after accessing the web user interface. It is helpful to quickly log into the web user interface without entering the user-name and password on the login page.

The request URI:

https://phoneIPAddress/api/auth/login?@username:password

Example: https://192.168.0.10/api/auth/login?@admin:admin

Note: Accessing the web user interface by request URI may be restricted by the web explorer (for example, Internet Explorer).

For security purposes, we recommend that you use this feature in a secure network environment.

The following table lists the parameters you can use to configure quick login.

Parameter	wui.quick_login	<y0000000000xx>.cfg
Description	It enables or disables the quick login feature. **Note**: It works only if “static.wui.https_enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, you can quickly log into the web user interface using a request URI (for example, https://IP/api/auth/login?@admin:admin).	
Default	0	
Parameter	wui.secure_domain_list	<y0000000000xx>.cfg
Description	It configures the valid domain name to access the web user interface of the phone. Multiple domain names are separated by semicolons. **Example**: wui.secure_domain_list = test.abc.com You are only allowed to use test.abc.com or IP address to access the web user interface of the phone. **Note**: To use a domain name to access the web user interface of the phone, make sure your DNS server can resolve the domain name to the IP address of the phone.	
Permitted Values	String If it is left blank, you are only allowed to use the IP address to access the web user interface of the phone. If it is set to “any”, you can use IP address or any domain name to access the web user interface of the phone.	
Default	any	

Web Server Type Configuration

Yealink phones support both HTTP and HTTPS protocols for accessing the web user interface. You can configure the web server type. Web server type determines the access protocol of the web user interface. If you disable to access the web user interface using the HTTP/HTTPS protocol, both you and the user cannot access the web user interface.

The following table lists the parameters you can use to configure the web server type.

Parameter	static.wui.http_enable	<y0000000000xx>.cfg

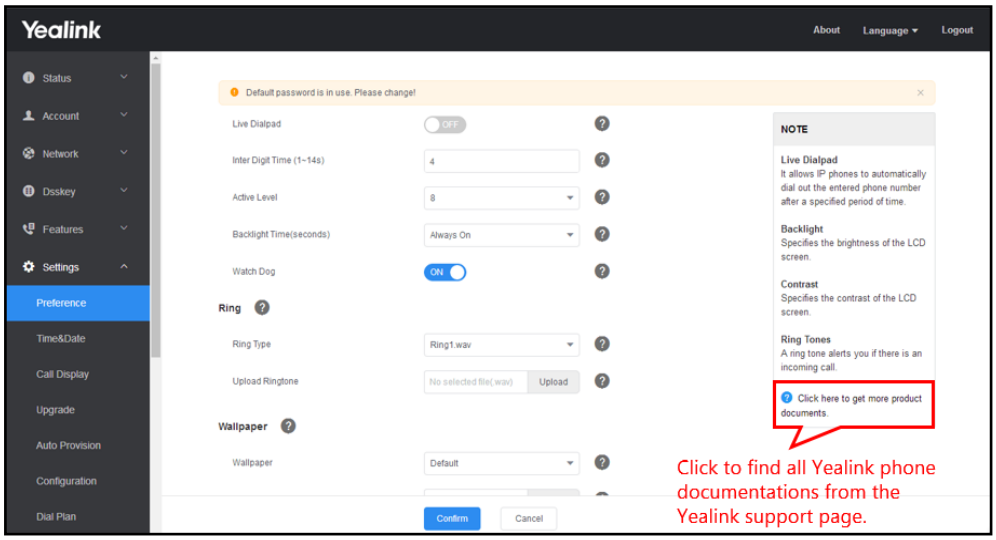
Description	It enables or disables to access the web user interface of the phone over a non-secure tunnel (HTTP).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Network > Advanced > Web Server > HTTP	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Web Server > HTTP Status CP965: More > Settings > Advanced (default password: admin) > Network > Web Server > HTTP Status	
Parameter	static.network.port.http	<y0000000000xx>.cfg
Description	It configures the port used to access the web user interface of the phone over a non-secure tunnel (HTTP).	
Permitted Values	Integer from 1 to 65535	
Default	80	
Web UI	Network > Advanced > Web Server > HTTP Port (1~65535)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Web Server > HTTP Port CP965: More > Settings > Advanced (default password: admin) > Network > Web Server > HTTP Port	
Parameter	static.wui.https_enable	<y0000000000xx>.cfg
Description	It enables or disables to access the web user interface of the phone over a secure tunnel (HTTPS).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Network > Advanced > Web Server > HTTPS	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Web Server > HTTPS Status CP965: More > Settings > Advanced (default password: admin) > Network > Web Server > HTTPS Status	
Parameter	static.network.port.https	<y0000000000xx>.cfg
Description	It configures the port used to access the web user interface of the phone over a secure tunnel (HTTPS).	
Permitted Values	Integer from 1 to 65535	
Default	443	
Web UI	Network > Advanced > Web Server > HTTPS Port (1~65535)	
Phone UI	Settings > Advanced Settings (default password: admin) > Network > Web Server > HTTPS Port CP965: More > Settings > Advanced (default password: admin) > Network > Web Server > HTTPS Port	
Parameter	static.wui.default_https_enable	<y0000000000xx>.cfg
Description	It enables or disables to access the web user interface of the phone over a secure tunnel (HTTPS) by default.	

	Note: It works only if "static.wui.https_enable" is set to 1 (Enabled).
Permitted Values	**0**-Disabled **1**-Enabled
Default	1

Navigating the Web User Interface

When you log into the web user interface successfully, the device status is displayed on the first page of the web user interface. You can click the navigation bar to customize or click **Logout** to log out of the web user interface.

The following figure is an example when you go to **Settings** > **Preference**:



Phone User Interface

The phone user interface makes configurations available to users and administrators; but the **Advanced Settings** option is only available to administrators and requires an administrator password (default: admin).

You can configure the phones via the phone user interface on a per-phone basis.

Note: When you manually configure a phone via the phone user interface, the changes associated with non-static parameters you make will be stored in the MAC-local CFG file. For more information on MAC-local CFG file, refer to MAC-local CFG File.

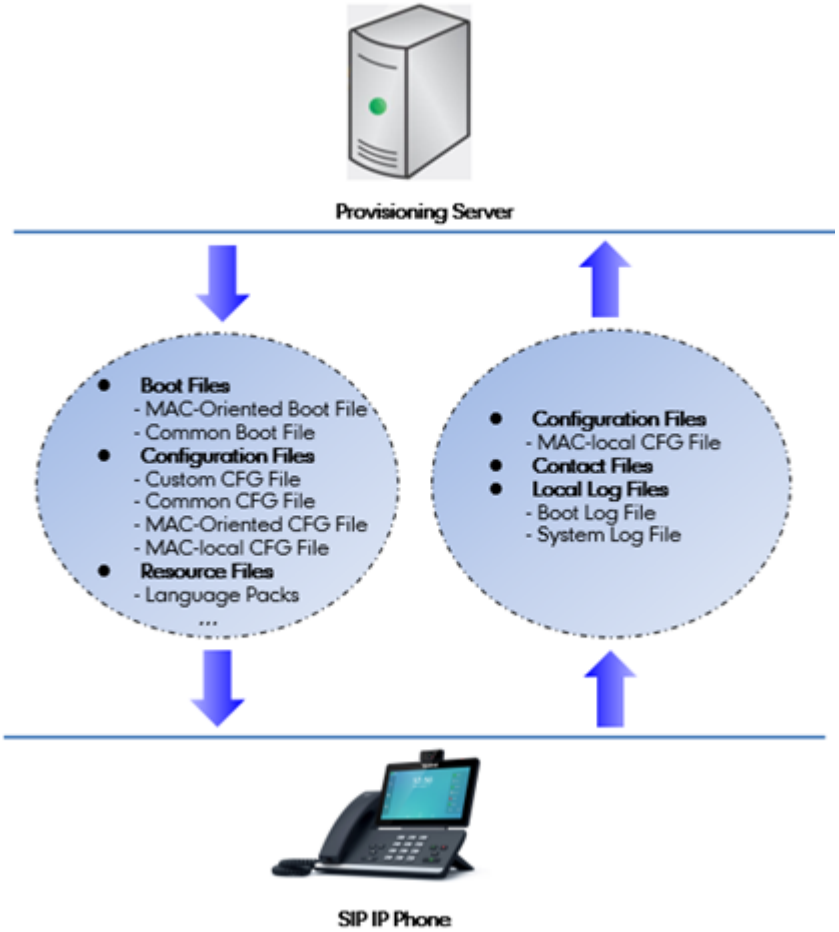
Related Topic

User and Administrator Identification

Central Provisioning

Central provisioning enables you to provision multiple phones from a provisioning server that you set up, and maintain a set of boot files, configuration files and resource files for all phones in the central provisioning server.

The following figure shows how the phone interoperates with provisioning server when you use the centralized provisioning method:



Yealink phones can obtain the provisioning server address during startup. Then the phones first download boot files and configuration files from the provisioning server and then resolve and update the configurations written in configuration files. This entire process is called auto provisioning. For more information on auto provisioning, refer to Yealink SIP IP Phones Auto Provisioning Guide.

The phones can be configured to upload log files (log files provide a history of phone events), call log files and contact files to the provisioning server. You can also configure a directory for each of these three files respectively.

Topics

Auto Provisioning Settings Configuration
User-Triggered Provisioning Settings Configuration
PIN Code Provisioning Settings Configuration

Auto Provisioning Settings Configuration

The following table lists the parameters you can use to configure settings for auto provisioning.

Parameter	static.auto_provision.attempt_expired_time	<y0000000000xx>.cfg
Description	It configures the timeout (in seconds) to transfer a file via auto provisioning. **Note**: It has a higher priority than the value defined by the parameter "static.network.attempt_expired_time".	
Permitted Values	Integer from 1 to 300	
Default	20	

Web UI	Settings > Auto Provision > Attempt Expired Time(s)	
Parameter	static.network.attempt_expired_time[1]	<y0000000000xx>.cfg
Description	It configures the timeout (in seconds) to transfer a file for HTTP/HTTPS connection. **Note**: It has a lower priority than the value defined by the parameter “static.auto_provision.attempt_expired_time”.	
Permitted Values	Integer from 1 to 20	
Default	10	
Parameter	static.auto_provision.attempt_before_failed	<y0000000000xx>.cfg
Description	It configures the maximum number of attempts to transfer a file before the transfer fails during auto provisioning.	
Permitted Values	Integer from 1 to 10	
Default	3	
Parameter	static.auto_provision.retry_delay_after_file_transfer_failed	<y0000000000xx>.cfg
Description	It configures the time (in seconds) to wait after a file transfer fails before retrying the transfer via auto provisioning.	
Permitted Values	Integer from 0 to 300	
Default	5	
Parameter	static.auto_provision.reboot_force.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to reboot after auto provisioning, even if there is no specific configuration requiring a reboot. **Note**: It works only for the current auto provisioning process. If you want the phone to reboot after every auto provisioning process, the parameter must be always contained in the configuration file and set to 1. If the phone reboots repeatedly after it is set to 1, you can try to set “static.auto_provision.power_on" to 0 (Off).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Parameter	features.action_uri_force_autop	<y0000000000xx>.cfg
Description	It enables or disables the phone to end the call for triggering auto provisioning immediately when receiving an HTTP or HTTPS GET request with the variable value set to AutoP during a call. **Note**: It works only if “features.action_uri.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, the phone triggers auto provisioning after the call. **1**-Enabled	
Default	0	
Parameter	static.auto_provision.power_on	<y0000000000xx>.cfg
Description	It triggers the power on feature to on or off.	
Permitted Values	**0**-Off **1**-On, the phone performs auto provisioning when powered on.	

Default	1	
Web UI	Settings > Auto Provision > Power On	
Parameter	static.auto_provision.repeat.enable	<y0000000000xx>.cfg
Description	It triggers the repeatedly feature to on or off.	
Permitted Values	**0**-Off **1**-On	
Default	0	
Web UI	Settings > Auto Provision > Repeatedly	
Parameter	static.auto_provision.repeat.minutes	<y0000000000xx>.cfg
Description	It configures the interval (in minutes) for the phone to perform auto provisioning repeatedly. **Note**: It works only if "static.auto_provision.repeat.enable" is set to 1 (On).	
Permitted Values	Integer from 1 to 43200	
Default	1440	
Web UI	Settings > Auto Provision > Interval(Minutes)	
Parameter	static.auto_provision.weekly.enable	<y0000000000xx>.cfg
Description	It triggers the weekly feature to on or off.	
Permitted Values	**0**-Off **1**-On, the phone performs an auto provisioning process weekly.	
Default	0	
Web UI	Settings > Auto Provision > Weekly	
Parameter	static.auto_provision.weekly_upgrade_interval	<y0000000000xx>.cfg
Description	It configures the time interval (in weeks) for the phone to perform auto provisioning. If it is set to 0, the phone performs auto provisioning at the specific day(s) configured by the parameter "static.auto_provision.weekly.dayofweek" every week. If it is set to other values (for example, 3), the phone performs auto provisioning at a random day between the specific day(s) configured by the parameter "static.auto_provision.weekly.dayofweek" every three weeks. **Note**: It works only if "static.auto_provision.weekly.enable" is set to 1 (On).	
Permitted Values	Integer from 0 to 12	
Default	0	
Web UI	Settings > Auto Provision > Weekly Upgrade Interval(0~12week)	
Parameter	static.auto_provision.inactivity_time_expire	<y0000000000xx>.cfg
Description	It configures the delay time (in minutes) to perform auto provisioning when the phone is inactive at regular week. If it is set to 0, the phone performs auto provisioning at random between a starting time configured by the parameter "static.auto_provision.weekly.begin_time" and an ending time configured by the parameter "static.auto_provision.weekly.end_time".	

	If it is set to other values (for example, 60), the phone performs auto provisioning only when it has been inactivated for 60 minutes (1 hour) between the starting time and ending time. **Note**: The phone may perform auto provisioning when you are using the phone during office hour. It works only if “static.auto_provision.weekly.enable” is set to 1 (On).	
Permitted Values	Integer from 0 to 120	
Default	0	
Web UI	Settings > Auto Provision > Inactivity Time Expire(0~120min)	
Parameter	static.auto_provision.weekly.dayofweek	<y0000000000xx>.cfg
Description	It configures the days of the week for the phone to perform auto provisioning weekly. **Example**: static.auto_provision.weekly.dayofweek = 01 If “static.auto_provision.weekly_upgrade_interval” is set to 0, it means the phone performs auto provisioning every Sunday and Monday. If “static.auto_provision.weekly_upgrade_interval” is set to other value (for example, 3), it means the phone performs auto provisioning by randomly selecting a day from Sunday and Monday every three weeks. **Note**: It works only if “static.auto_provision.weekly.enable” is set to 1 (On).	
Permitted Values	0,1,2,3,4,5,6 or a combination of these digits **0**-Sunday **1**-Monday **2**-Tuesday **3**-Wednesday **4**-Thursday **5**-Friday **6**-Saturday	
Default	0123456	
Web UI	Settings > Auto Provision > Day of Week	
Parameter	static.auto_provision.weekly.begin_time static.auto_provision.weekly.end_time	<y0000000000xx>.cfg
Description	It configures the starting/ending time of the day for the phone to perform auto provisioning weekly. **Note**: It works only if “static.auto_provision.weekly.enable” is set to 1 (On).	
Permitted Values	Time from 00:00 to 23:59	
Default	00:00	
Web UI	Settings > Auto Provision > Time	
Parameter	static.auto_provision.flexible.enable	<y0000000000xx>.cfg
Description	It triggers the flexible feature to on or off. **Note**: The day within the period is based upon the phone's MAC address and does not change with a reboot, whereas the time within the start and end is calculated again with every reboot.	

Permitted Values	**0**-Off **1**-On, the phone performs auto provisioning at random between a starting time configured by the parameter "static.auto_provision.flexible.begin_time" and an ending time configured by the parameter "static.auto_provision.flexible.end_time" on a random day within the period configured by the parameter "static.auto_provision.flexible.interval".	
Default	0	
Web UI	Settings > Auto Provision > Flexible Auto Provision	
Parameter	static.auto_provision.flexible.interval	<y0000000000xx>.cfg
Description	It configures the interval (in days) for the phone to perform auto provisioning. The auto provisioning occurs on a random day within this period based on the phone's MAC address. The phone performs auto provisioning on a random day (for example, 18) based on the phone's MAC address. **Note**: It works only if "static.auto_provision.flexible.enable" is set to 1 (On).	
Permitted Values	Integer from 1 to 1000	
Default	30	
Web UI	Settings > Auto Provision > Flexible Interval Days	
Parameter	static.auto_provision.flexible.begin_time	<y0000000000xx>.cfg
Description	It configures the starting time of the day for the phone to perform auto provisioning at random. **Note**: It works only if "static.auto_provision.flexible.enable" is set to 1 (On).	
Permitted Values	Time from 00:00 to 23:59	
Default	02:00	
Web UI	Settings > Auto Provision > Flexible Time	
Parameter	static.auto_provision.flexible.end_time	<y0000000000xx>.cfg
Description	It configures the ending time of the day for the phone to perform auto provisioning at random. If it is left blank or set to a specific value equal to starting time configured by the parameter "static.auto_provision.weekly.begin_time", the phone performs auto provisioning at the starting time. If it is set to a specific value greater than starting time configured by the parameter "static.auto_provision.weekly.begin_time", the phone performs auto provisioning at random between the starting time and ending time. If it is set to a specific value less than starting time configured by the parameter "static.auto_provision.weekly.begin_time", the phone performs auto provisioning at random between the starting time on that day and ending time in the next day. **Note**: It works only if "static.auto_provision.flexible.enable" is set to 1 (On).	
Permitted Values	Time from 00:00 to 23:59	
Default	Blank	
Web UI	Settings > Auto Provision > Flexible Time	
Parameter	static.auto_provision.prompt.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to prompt you for the configuration update and the result (if any con-	

	figuration changes) during auto provisioning. **Note**: If the phone performs auto provisioning when receiving a SIP NOTIFY message which contains the header “Event: check-sync”, the phone will display the prompt message no matter whether the configuration is updated.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	static.auto_provision.connect.keep_alive	<y0000000000xx>.cfg
Description	It enables or disables the long connection for downloading files via auto provisioning.	
Permitted Values	**0**-Disabled, the phone uses the short connection for downloading files via auto provisioning **1**-Enabled	
Default	0	
Parameter	custom.auto_provision.save_rps_info.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to save the entered user name and password when performing RPS (Redirection and provisioning server) update for auto provisioning.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	static.auto_provision.authentication.expired_time	<y0000000000xx>.cfg
Description	It configures the timeout (in seconds) after which the authentication pop-up box for auto provisioning disappears.	
Permitted Values	**0**-The authentication pop-up box does not disappear from the phone screen automatically. **Integer from 10 to 86400** -The authentication pop-up box automatically disappears from the phone screen after the designated time.	
Default	7200	
Parameter	static.auto_provision.dns_resolv_nretry	<y0000000000xx>.cfg
Description	It configures the retry times when the phone fails to resolve the access URL of the provisioning server. **Note**: For each different DNS server, it works only if “static.auto_provision.dns_resolv_nosys" is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 10	
Default	2	
Parameter	static.auto_provision.dns_resolv_timeout	<y0000000000xx>.cfg
Description	It configures the timeout (in seconds) for the phone to retry to resolve the access URL of the provisioning server. **Note**: For each different DNS server, it works only if “static.auto_provision.dns_resolv_nosys" is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 60	
Default	5	

[1]If you change this parameter, the phone will reboot to make the change take effect.

User-Triggered Provisioning Settings Configuration

You can enable the users to trigger phones to perform provisioning by dialing an activation code. This method works only if there is no registered account on the phone.

The following table lists the parameters you can use to configure settings for user-triggered provisioning.

Parameter	static.autoprovision.X.name[1][2]	<y0000000000xx>.cfg
Description	It configures the code name to trigger auto provisioning.	
Permitted Values	String within 64 characters	
Default	Blank	
Parameter	static.autoprovision.X.code[1][2]	<y0000000000xx>.cfg
Description	It configures the activation code to trigger auto provisioning. **Example**: static.autoprovision.1.code = 123 static.autoprovision.2.code = ** static.autoprovision.3.code = *123	
Permitted Values	Numbers, #/*, or a combination of numbers and */#	
Default	Blank	
Parameter	static.autoprovision.X.url[1][2]	<y0000000000xx>.cfg
Description	It configures the access URL of the provisioning server for the phone to perform auto provisioning which is triggered by an activation code.	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	static.autoprovision.X.user[1][2]	<y0000000000xx>.cfg
Description	It configures the user name for authentication during auto provisioning which is triggered by an activation code.	
Permitted Values	String within 64 characters	
Default	Blank	
Parameter	static.autoprovision.X.password[1][2]	<y0000000000xx>.cfg
Description	It configures the password for authentication during auto provisioning which is triggered by an activation code.	
Permitted Values	String within 32 characters	
Default	Blank	

[1]X is an activation code ID. X=1-50.

[2]If you change this parameter, the phone will reboot to make the change take effect.

PIN Code Provisioning Settings Configuration

You can enable the users to trigger phones to perform provisioning by dialing a PIN code.

For more information on PIN code provisioning, refer to Yealink SIP IP Phones Auto Provisioning Guide.

The following table lists the parameters you can use to configure settings for PIN code provisioning.

Parameter	phone_setting.retain_pin.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to save the entered PIN code.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone saves the entered PIN code and users do not need to enter again.	
Default	1	

Viewing Configurations Configured via Different Provisioning Methods

On the web user interface, you can click the question mark "?" after each configuration to see its detailed information.

From the detailed information, you can do the following:

- Check whether settings you make using a higher priority provisioning method override settings made using a lower priority provisioning method.
- Reset a configuration to factory setting.
- See the default value of the desired configuration.

The table lists each parameter in the detailed information.

Parameter	Description	
Description	Description of this configuration item	
CFG Configuration	The parameter in the configuration file	
Valid Value	The permitted values	
Configuration Source Values (This appears only when the parameter “static.auto_provision.custom.protect” is set to 1.)	Web/Local: (It appears only for a non-static parameter.)	Not Applicable: the value is not changed via phone or web user interface.
		Specific value: the value is changed via phone or web user interface. Click **Reset** to reset the value.
	Config: (It appears only for a non-static parameter.)	Not Applicable: the parameter is not changed in the configuration files.
		Specific value: the parameter is changed in the configuration files. Click **Reset** to reset the value.
	Static: (It appears only for a static parameter)	Not Applicable: the parameter is not configured in any provisioning method.
		Specific value: the value is configured in any provisioning method. Click **Reset** to reset the value.
	Default:	Default value

Setting Up a Provisioning Server

You can use a provisioning server to configure your phones. A provisioning server allows for flexibility in upgrading, maintaining and configuring the phone. Boot files, configuration files, and resource files are normally located on this

server.

Topics

Supported Provisioning Protocols
Supported Provisioning Server Discovery Methods
Configuring a Provisioning Server

Supported Provisioning Protocols

Yealink phones support several transport protocols for provisioning:

- Trivial File Transfer Protocol (TFTP)
- File Transfer Protocol (FTP)
- Hyper Text Transfer Protocol – Secure (HTTPS)
- File Transfer Protocol – Secure (FTPS)

Note: There are two types of FTP methods—active and passive. The phones are not compatible with active FTP.

You can specify the transport protocol in the provisioning server address, for example, http://xxxxxxx. If not specified, the TFTP protocol is used.

Topic

Provisioning Protocols Configuration

Provisioning Protocols Configuration

The following table lists the parameter you can use to configure provisioning protocols.

Parameter	static.auto_provision.server.type	<y0000000000xx>.cfg
Description	It configures the protocol the phone uses to connect to the provisioning server. **Note**: It works only if the protocol type is not defined in the access URL of the provisioning server configured by the parameter "static.auto_provision.server.url".	
Permitted Values	**1**-http **2**-https **3**-ftp **Other values**-tftp	
Default	tftp	
Parameter	static.auto_provision.user_agent_mac.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone's MAC address to be included in the User-Agent header of HTTP/HTTPS request via auto provisioning.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Supported Provisioning Server Discovery Methods

After the phone has established network settings, it must discover a provisioning server to obtain software updates and configuration settings.

The IP phone supports the following methods to discover the provisioning server address:

- **Zero Touch**: Zero Touch feature guides you to configure network settings and the provisioning server address via the phone user interface after startup.

- **PnP**: PnP feature allows the phones to discover the provisioning server address by broadcasting the PnP SUBSCRIBE message during startup.
- **DHCP**: DHCP option can be used to provide the address or URL of the provisioning server to phones. When the IP phone requests an IP address using the DHCP protocol, the resulting response may contain option 66 (for IPv4) or the custom option (if configured) that contains the provisioning server address.
- **Static**: You can manually configure the server address via the phone user interface or web user interface.

Topics

Zero Touch Provision Configuration
PnP Provision Configuration
DHCP Provision Configuration
Static Provision Configuration

Zero Touch Provision Configuration

The following table lists the parameters you can use to configure the Zero Touch provision.

Parameter	static.zero_touch.enable	<y0000000000xx>.cfg
Description	It enables or disables the zero touch for the phone to configure the network parameters and provisioning server address via the phone user interface during startup.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Auto Provision > Zero Active	
Parameter	static.zero_touch.wait_time	<y0000000000xx>.cfg
Description	It configures the duration time (in seconds) for the phone to display Zero Touch screen during startup.	
Permitted Values	Integer from 1 to 100	
Default	5	
Web UI	Settings > Auto Provision > Wait Time(1~100s)	
Parameter	static.zero_touch.network_fail_wait_times	<y0000000000xx>.cfg
Description	It configures the reconnection times when zero touch module fails to obtain network parameters.	
Permitted Values	Integer from 1 to 2147483646	
Default	8	
Parameter	static.zero_touch.network_fail_delay_times	<y0000000000xx>.cfg
Description	It configures the duration time (in milliseconds) of every reconnection when zero touch module fails to obtain network parameters.	
Permitted Values	Integer from 1000 to 2147483646	
Default	1000	
Parameter	static.features.hide_zero_touch_url.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to hide the provisioning URL item on the Zero Touch screen.	
Permitted	**0**-Disabled	

Values	**1**-Enabled
Default	0

PnP Provision Configuration

The following table lists the parameter you can use to configure PnP provision.

Parameter	static.auto_provision.pnp_enable	<y0000000000xx>.cfg
Description	It triggers the Plug and Play (PnP) feature to on or off.	
Permitted Values	**0**-Off **1**-On, the phone broadcasts SIP SUBSCRIBE messages to obtain a provisioning server URL where the phone can request the configuration from during startup.	
Default	1	
Web UI	Settings > Auto Provision > PNP Active	
Parameter	static.auto_provision.pnp_check_url.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to match the received provisioning URL with the last one from where the phone successfully requests the configuration via a PnP provision.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone performs a PnP provision again only when the provisioning URLs are matched.	
Default	0	
Supported Devices	All phones except VP59	

DHCP Provision Configuration

You can select to use IPv4 or IPv6 custom DHCP option according to your network environment. The IPv4 or IPv6 custom DHCP option must be in accordance with the one defined in the DHCP server.

The following table lists the parameters you can use to configure the DHCP provision.

Parameter	static.auto_provision.dhcp_option.enable	<y0000000000xx>.cfg
Description	It triggers the DHCP Active feature to on or off.	
Permitted Values	**0**-Off **1**-On, the phone obtains the provisioning server address by detecting DHCP options.	
Default	1	
Web UI	Settings > Auto Provision > DHCP Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Auto Provision > DHCP Active CP965: More > Settings > Advanced (default password: admin) > Auto Provision > DHCP Active	
Parameter	static.auto_provision.dhcp_option.list_user_options	<y0000000000xx>.cfg
Description	It configures the IPv4 custom DHCP option for requesting provisioning server address. Multiple options are separated by commas. **Note**: It works only if "static.auto_provision.dhcp_option.enable" is set to 1 (On).	
Permitted	Integer from 128 to 254	

Values		
Default	Blank	
Web UI	Settings > Auto Provision > IPv4 Custom Option	
Phone UI	Settings > Advanced Settings (default password: admin) > Auto Provision > IPv4 Custom Option CP965: More > Settings > Advanced (default password: admin) > Auto Provision > IPv4 Custom Option	
Parameter	static.auto_provision.dhcp_option.list_user6_options	<y0000000000xx>.cfg
Description	It configures the IPv6 custom DHCP option for requesting provisioning server address. Multiple options are separated by commas. **Note**: It works only if “static.auto_provision.dhcp_option.enable” is set to 1 (On).	
Permitted Values	Integer from 135 to 65535, except 143	
Default	Blank	
Web UI	Settings > Auto Provision > IPv6 Custom Option	
Phone UI	Settings > Advanced Settings (default password: admin) > Auto Provision > IPv6 Custom Option CP965: More > Settings > Advanced (default password: admin) > Auto Provision > IPv6 Custom Option	
Parameter	static.auto_provision.url_wildcard.pn	<y0000000000xx>.cfg
Description	It configures the characters to replace the wildcard $PN in the received URL of the provisioning server. **Note**: The configured characters must be in accordance with the actual directory name of the provisioning server.	
Permitted Values	String within 32 characters	
Default	For VP59 phones: VP59 For T58A phones: T58 For T58W phones: T58W For CP960 phones: CP960 For CP960 phones: CP965	

Static Provision Configuration

To use the static provision method, you need to obtain the provisioning server address first when configuring a provisioning server.

The provisioning server address can be IP address, domain name or URL. If a user name and password are specified as part of the provisioning server address, for example, http://user:pwd@server/dir, they will be used only if the server supports them.

Note: A URL should contain forward slashes instead of backslashes and should not contain spaces. Escape characters are not supported.

If a user name and password are not specified as part of the provisioning server address, the User Name and Password of the provisioning server configured on the phone will be used.

The following table lists the parameters you can use to configure static provision.

Parameter	static.auto_provision.server.url	<y0000000000xx>.cfg
Description	It configures the access URL of the provisioning server.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Auto Provision > Server URL	
Parameter	static.auto_provision.server.username	<y0000000000xx>.cfg
Description	It configures the user name for provisioning server access.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Settings > Auto Provision > Username	
Parameter	static.auto_provision.server.password	<y0000000000xx>.cfg
Description	It configures the password for provisioning server access.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Settings > Auto Provision > Password	

Configuring a Provisioning Server

The provisioning server can be set up on the local LAN or anywhere on the Internet. Use the following procedure as a recommendation if this is your first provisioning server setup.

To set up the provisioning server:

1. Install a provisioning server application or locate a suitable existing server, such as 3CDaemon.
2. Create an account and home directory.
3. Set security permissions for the account.
4. Create boot files and configuration files, and then edit them as desired.
5. Copy the boot files, configuration files and resource files to the provisioning server.
6. If performing static provisioning, obtain the provisioning server address.

Tip: Typically, all phones are configured with the same server account, but the server account provides a means of conveniently partitioning the configuration. Give each account a unique home directory on the server and change the configuration on a per-line basis.

Keeping User's Personalized Settings after Auto Provisioning

Generally, you deploy phones in batch and timely maintain company phones via auto provisioning, yet some users would like to keep the personalized settings (for example, ring tones, wallpaper or DSS keys) after auto provisioning.

Topics

Keeping User's Personalized Settings Configuration
Auto Provisioning Flowchart for Keep User's Personalized Configuration Settings
Example: Keeping User's Personalized Settings

Clearing User's Personalized Configuration Settings

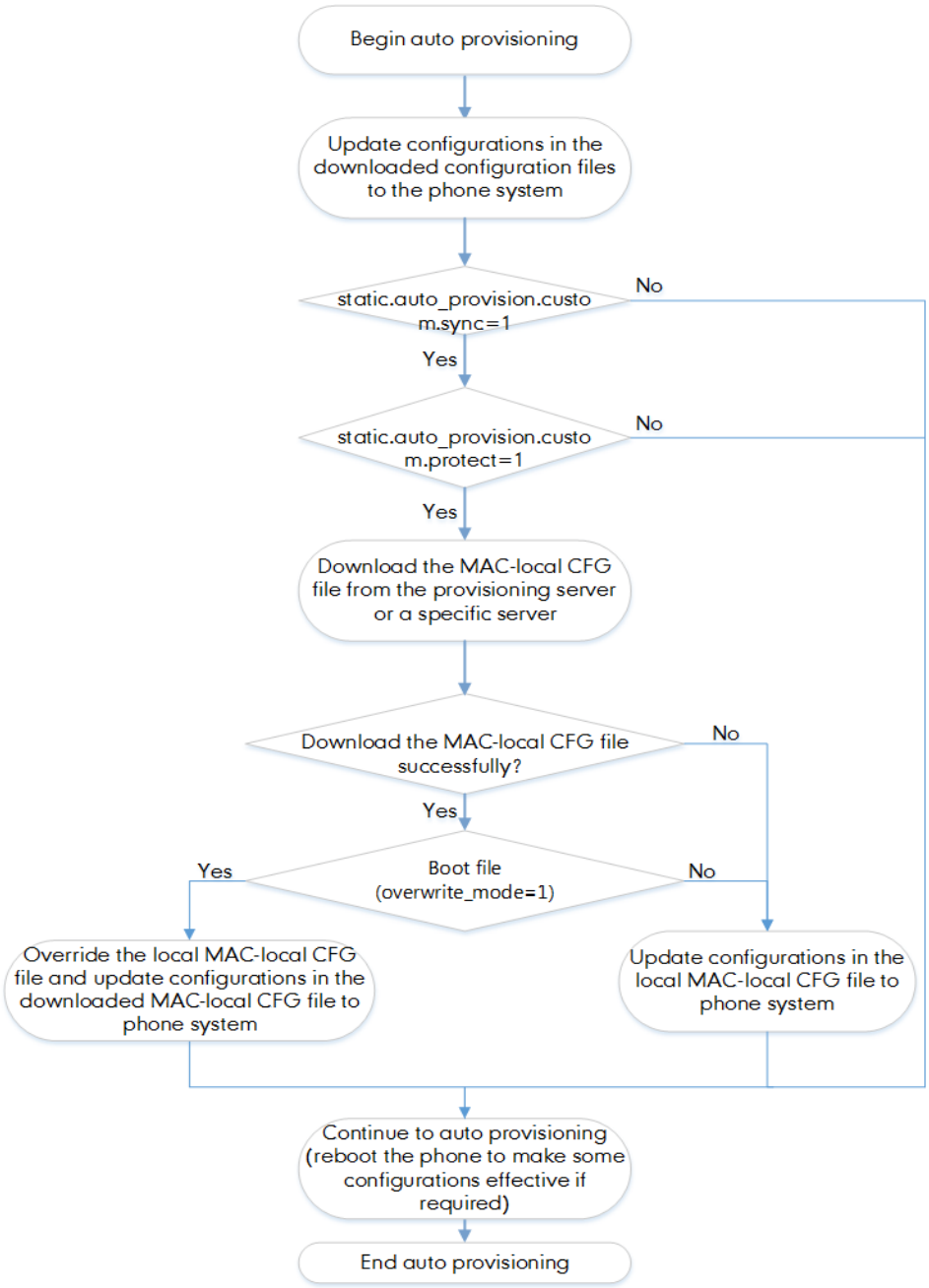
Keeping User's Personalized Settings Configuration

The following table lists the parameters you can use to keep the user's personalized settings.

Parameter	static.auto_provision.custom.protect	<y0000000000xx>.cfg
Description	It enables or disables the phone to keep the user's personalized settings after auto provisioning. **Note**: The provisioning priority mechanism (phone/web user interface > central provisioning > factory defaults) takes effect only if the value of this parameter is set to 1 (Enabled). If "overwrite_mode" is set to 1 in the boot file, the value of this parameter will be set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, <MAC>-local.cfg file generates and personalized non-static settings configured via the web or phone user interface will be kept after auto provisioning.	
Default	0	
Parameter	static.auto_provision.custom.sync	<y0000000000xx>.cfg
Description	It enables or disables the phone to upload the <MAC>-local.cfg file to the server each time the file updates, and to download the <MAC>-local.cfg file from the server during auto provisioning. **Note**: It works only if "static.auto_provision.custom.protect" is set to 1 (Enabled). The upload/download path is configured by the parameter "static.auto_provision.custom.sync.path".	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	static.auto_provision.custom.sync.path	<y0000000000xx>.cfg
Description	It configures the URL for uploading/downloading the <MAC>-local.cfg file. If it is left blank, the phone will try to upload/download the <MAC>-local.cfg file to/from the provisioning server. **Note**: It works only if "static.auto_provision.custom.sync" is set to 1 (Enabled).	
Permitted Values	URL	
Default	Blank	
Parameter	static.auto_provision.custom.upload_method	<y0000000000xx>.cfg
Description	It configures the way the phone uploads the <MAC>-local.cfg file, <MAC>-calllog.xml file or <MAC>-contact.xml file to the provisioning server (for HTTP/HTTPS server only).	
Permitted Values	**0**-PUT **1**-POST	
Default	0	

Auto Provisioning Flowchart for Keep User's Personalized Configuration Settings

The following shows an auto provisioning flowchart for Yealink phones when a user wishes to keep the user's personalized configuration settings.



Example: Keeping User's Personalized Settings

This section shows you how to keep the personalized settings.

Parameters Settings:

static.auto_provision.custom.protect =1

After provisioning, if the users make changes via the phone user interface or web user interface, the MAC-local.cfg file with non-static personal settings generates locally.

Scenario: Keeping user's personalized settings when upgrading the firmware

If you set "*static.auto_provision.custom.sync =1*", then the phones attempt to upload the MAC-local.cfg file to the provisioning server each time the file updates. When performing auto provisioning, they download their own MAC-

local.cfg file from the provisioning server, and then update settings in MAC-local.cfg file to the IP phone system. The personalized settings locally are overridden by the MAC-local.cfg file from the provisioning server.

If you set "*static.auto_provision.custom.sync =0*", the MAC-local.cfg file will be kept locally. The personalized settings will not be overridden after auto provisioning.

Scenario: Keeping user personalized settings after factory reset

The IP phone requires a factory reset when it has a breakdown, but the user wishes to keep personalized settings of the phone after a factory reset. Before factory reset, make sure that you have set "*static.auto_provision.custom.sync =1*", and the MAC-local.cfg file has kept on the provisioning server.

After resetting all configurations to factory defaults, both the parameters settings "*static.auto_provision.custom.protect*" and "*static.auto_provision.custom.sync*" are reset to 0. Although the MAC-local.cfg files locally are cleared, they are still kept on the provisioning server.

You can set "*static.auto_provision.custom.protect =1*" and "*static.auto_provision.custom.sync =1*", and then trigger the phone to perform auto provisioning. The phones download their own MAC-local.cfg file from the provisioning server, and then update settings in MAC-local.cfg file to the IP phone system.

As a result, the personalized configuration settings of the phone are retrieved after the factory reset.

Clearing User's Personalized Configuration Settings

When the IP phone is given to a new user but many personalized configurations settings of the last user are saved on the phone; or when the end-user encounters some problems because of the wrong configurations, you can clear the user's personalized configuration settings.

- Via phone user interface at the path: **Settings** > **Basic Settings** > **Reset Local Config** > **Reset local settings** or **Settings** > **Advanced Settings** (default password: admin) > **Reset Config** > **Reset local settings**.
- Via web user interface at the path: **Settings** > **Upgrade** > **Reset Local Settings**.
- Via auto provisioning: set "overwrite_mode = 1", delete the value of a parameter or comment out a parameter in <MAC>-local.cfg on the server, and then perform an auto provisioning.

Note: The **Reset local settings** option on the web/phone user interface appears only if you set "static.auto_provision.custom.protect = 1".
If you set "static.auto_provision.custom.sync = 1", the MAC-local.cfg file on the provisioning server will be cleared too. If not, the MAC-local.cfg file is kept on the provisioning server, and the phone could download it and update the configurations to the phone after the next auto provisioning.

Example: Deploying Phones from the Provisioning Server

After setting up your provisioning server(s), you can deploy your phone devices. The following example shows you how to use the boot and configuration files to deploy phones from the provisioning server.

Procedure

1. Create a per-phone boot file and common boot file.
   For example, 001565b09d886.boot and y000000000000.boot.
2. Create per-phone configuration files or common configuration files, and edit the feature parameters in the file you want to apply to the phones. For example,

Custom configuration file: CustomSettings.cfg	local_time.time_format = 1 lang.gui = Chinese_S [CP960]features.dnd.enable = 1 [T58]features.dnd.enable = 0
Custom configuration file: Linekey.cfg	linekey.2.type=13 linekey.2.line=1 linekey.2.value = 4603

	linekey.2.label=Bill
MAC-Oriented configuration files: 001565b09d886.cfg	account.1.enable = 1 account.1.label = Bill account.1.display_name = 1023 account.1.auth_name = 1023 account.1.user_name = 1023 account.1.password = 1023 account.1.sip_server.1.address = 10.2.1.199 account.1.sip_server.1.port = 5060

3. Place the configuration files to the home directory of the provisioning server. For example, D:\TFTP Provision.

4. Specify the configuration files paths in the boot file as desired. For example,

y000000000000.boot	include:config<tftp:/10.2.5.193/CustomSettings.cfg> [T58,VP59]include:config "tftp:/10.2.5.193/Linekey.cfg"
001565b09d886.boot	include:config<tftp:/10.2.5.193/Linekey.cfg> include:config<tftp:/10.2.5.193/001565b09d886.cfg>

5. Place the boot files to the home directory of the provisioning server. For example, D:\TFTP Provision.

6. Reboot the phones to trigger auto provisioning.

For the phone with MAC 001565b09d886, it will download the 001565b09d886.boot file, and then download Linekey.cfg and 001565b09d886.cfg files referenced in the 001565b09d886.boot file in sequence from the provisioning server.

For the phones except for MAC-specific phone, they will request to download the y000000000000.boot file, and then request to download the referenced files. The phone-specific configuration file Linekey.cfg only applies to T58A and VP59 phones. The only difference is that T58A and VP59 phones will download both the two files since the exclude mode is disabled by default. The other phones will only download the CustomSettings.cfg file.

For the parameter settings in the CustomSettings.cfg file, the phone-specific parameters will only take effect on the specific phone models.

Security Features

This chapter provides information about configuring the security features for the phone.

Topics

User and Administrator Identification
Auto Logout Time
Phone Lock
Transport Layer Security (TLS)
Secure Real-Time Transport Protocol (SRTP)
Encrypting and Decrypting Files
Incoming Network Signaling Validation
USB Port Lock

User and Administrator Identification

By default, some menu options are protected by privilege levels: user and administrator, each with its own password. You can also customize the access permission for the configurations on the web user interface and phone user interface. Yealink phones support the access levels of admin, var, and user.

When logging into the web user interface or access advanced settings on the phone, as an administrator, you need an administrator password to access various menu options. The default username and password for administrator is “admin”. Both you and the user can log into the web user interface, and you will see all of the user options. The default username and password for the user is “user”.

For security reasons, you should change the default user or administrator password as soon as possible. Since advanced menu options are strictly used by the administrator, users can configure them only if they have administrator privileges.

Topics

User and Administrator Identification Configuration
User Access Level Configuration

User and Administrator Identification Configuration

The following table lists the parameters you can use to configure the user and administrator identification.

Parameter	static.security.user_name.user	<y0000000000xx>.cfg
Description	It configures the user name for the user to access the phone's web user interface.	
Permitted Values	String within 32 characters	
Default	user	
Parameter	static.security.user_name.admin	<y0000000000xx>.cfg
Description	It configures the user name for the administrator to access the phone's web user interface.	
Permitted Values	String within 32 characters	
Default	admin	
Parameter	static.security.user_name.var	<y0000000000xx>.cfg
Description	It configures the user name for the var to access the phone's web user interface. **Note**: It works only if “static.security.var_enable” is set to 1 (Enabled).	

Permitted Values	String within 32 characters	
Default	var	
Parameter	static.security.user_password	<y0000000000xx>.cfg
Description	It configures the password. The phone uses "user" as the default user password, "var" as the default var password and "admin" as the default administrator password. The valid value format is <username>:<new password>. **Example**: static.security.user_password = user:123 means setting the password of user to 123. static.security.user_password = admin:456 means setting the password of administrator to 456. static.security.user_password = var:789 means setting the password of var to 789. **Note**: The phones support ASCII characters 32-126(0x20-0x7E) in passwords. If you want to set space and colon characters in the password, you need to configure it via the web user interface. And you can set the password to be empty via the web user interface only.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Security > Password	
Phone UI	Settings > Advanced Settings (default password: admin) > Set Password CP965: More > Settings > Advanced (default password: admin) > Set Password **Note**: You cannot change the user password via the phone user interface.	
Parameter	static.security.password_use_default.mode[1]	<y0000000000xx>.cfg
Description	It configures whether to allow users to use the default password, including admin and user permissions.	
Permitted Values	**0**-Default mode, allowing users to use the default password. **1**-Mandatory mode, forcing users to change the default password. To use the phone normally, users must change the default password. And it is not allowed to change the password to the default password.	
Default	0	

[1]If you change this parameter, the phone will reboot to make the change take effect.

User Access Level Configuration

For more information, refer to Yealink SIP IP Phones Configuration Guide for User Access Level.

The following table lists the parameters you can use to configure the user access level.

Parameter	static.security.var_enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the 3-level access permissions (admin, user, var).	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Parameter	static.web_item_level.url[1]	<y0000000000xx>.cfg
Description	It configures the access URL of the file, which defines 3-level access permissions.	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	static.security.default_access_level[1]	<y0000000000xx>.cfg
Description	It configures the default access level to access the phone user interface. **Note**: It works only if “static.security.var_enable” is set to 1 (Enabled).	
Permitted Values	**0**-user **1**-var **2**-admin	
Default	0	
Parameter	static.security.web_limited_access_level	<y0000000000xx>.cfg
Description	It configures the access level that cannot access the web user interface. Multiple access levels are separated by commas. **Example**: static.security.web_limited_access_level = var,user **Note**: It has a higher priority than “static.security.var_enable”.	
Permitted Values	any one or combination of admin, var, and user	
Default	Blank	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Auto Logout Time

Auto logout time defines how long the phone will log out of the web user interface automatically when you do not perform any actions on the web user interface. Once logging out, you must re-enter username and password for web access authentication.

Topic

Auto Logout Time Configuration

Auto Logout Time Configuration

The following table lists the parameter you can use to configure the auto logout time.

Parameter	features.relog_offtime	<y0000000000xx>.cfg
Description	It configures the timeout interval (in minutes) for web access authentication.	
Permitted Values	Integer from 1 to 1000	
Default	5	

Web UI	Features > General Information > Auto Logout Time(1~1000min)

Phone Lock

You can lock the IP phone to prevent it from unauthorized use. Once the IP phone is locked, anyone must enter the password to unlock it.

Yealink phones offer two types for phone lock:

- **Lock all keys:** it only allows unauthorized users to use the keypad for dialing an emergency number or authorized numbers that set up by your administrator, answer or reject an incoming call and ending a call.
- **Lock file keys**: it prevents unauthorized users from using recording feature (**File Manager** and **Recorder** Apps are locked).

You can set a waiting time after which the phone is locked automatically. If the waiting time is set to 0, the phone will not be automatically locked. You need to lock the phone manually.

Note: The Volume key, HEADSET key and Speakerphone key are always available even when you lock the phone.

Topics

Operation Behaviors on Lock Phone
Phone Lock Configuration

Operation Behaviors on Lock Phone

For VP59/T58A/T58W, all keys and screen are locked except the HEADSET key, Volume key, digit keys, # key, * key, and Speakerphone key.

For CP960/CP965, when the phone is locked, mute touch keys and touch screen (except) are locked. You are only allowed to dial emergency numbers, reject incoming calls, answer incoming calls and end the call.

Phone Lock Configuration

The following table lists the parameters you can use to configure the phone lock.

Parameter	phone_setting.phone_lock.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone lock feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Phone Lock > Phone Lock Enable	
Phone UI	Settings > Advanced Settings (default password: admin) > Phone Lock > Lock Enable CP965: More > Settings > Advanced (default password: admin) > Phone Lock > Lock Enable	
Parameter	phone_setting.phone_lock.lock_key_type	<y0000000000xx>.cfg
Description	It configures the type of phone lock. **Note**: It works only if "phone_setting.phone_lock.enable" is set to 1 (Enabled).	
Permitted Values	**0**-All Keys **3**-File Keys	
Default	0	

Web UI	Features > Phone Lock > Phone Lock Type	
Phone UI	Settings > Advanced Settings (default password: admin) > Phone Lock > Lock Type	
Parameter	phone_setting.phone_lock.unlock_pin	<y0000000000xx>.cfg
Description	It configures the password for unlocking the phone.	
Permitted Values	Characters within 15 digits	
Default	123	
Web UI	Features > Phone Lock > Phone Unlock PIN (0~15 Digit)	
Phone UI	Settings > Basic Settings > Change PIN CP965: More > Settings > Basic > Change PIN	
Parameter	phone_setting.phone_lock.lock_time_out	<y0000000000xx>.cfg
Description	It configures the idle time (in seconds) before the phone is automatically locked. The default value is 0 (the phone is locked only by long pressing the pound key or pressing the phone lock DSS key). **Note**: It works only if “phone_setting.phone_lock.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 3600	
Default	0	
Web UI	Features > Phone Lock > Auto Lock (0~3600s)	
Phone UI	Settings > Advanced Settings (default password: admin) > Phone Lock > Auto Lock CP965: More > Settings > Advanced (default password: admin) > Phone Lock > Auto Lock	
Parameter	phone_setting.emergency.number	<y0000000000xx>.cfg
Description	It configures emergency numbers. Multiple emergency numbers are separated by commas. If “phone_setting.phone_lock.enable” is set to 1 (Enabled), you are only allowed to dial the configured emergency numbers.	
Permitted Values	String within 99 characters	
Default	112,911,110	
Web UI	Features > Phone Lock > Emergency	
Parameter	phone_setting.phone_lock.emergency.number_rule	<y0000000000xx>.cfg
Description	It configures the digit map pattern used for emergency numbers. Multiple emergency numbers are separated by "|". **Example**: phone_setting.phone_lock.emergency.number_rule = xxxxxx|86xx5|886x.|003 **Note**: The value configured by the parameter “phone_setting.emergency.number” takes precedence over that configured by this parameter.	

Permitted Values	String within 2048 characters
Default	Blank

Related Topics

Basic Regular Expression Syntax for Digit Map

Transport Layer Security (TLS)

TLS is a commonly-used protocol for providing communications privacy and managing the security of message transmission, allowing the phones to communicate with other remote parties and connect to the HTTPS URL for provisioning in a way that is designed to prevent the data from being eavesdropped and tampered.

Yealink phones support TLS version 1.0, 1.1, 1.2, and 1.3. When TLS is enabled for an account, the SIP message of this account will be encrypted, and a lock icon appears on the LCD screen after the successful TLS negotiation.

Note: To improve the security of the phone web service, you cannot access the web user interface of the phone running firmware version V84 by default when the web browser only supports TLS 1.0 protocol. But you are allowed to configure the supported TLS version to use for handshake negotiation between the phone and web browser.
The compatible browsers are Google Chrome V22 or higher, Mozilla Firefox V27 or higher, Internet Explorer 8-10 (if TLS 1.1 or TLS 1.2 is enabled), Internet Explorer 11 and higher (TLS 1.1 and TLS 1.2 is enabled by default), Apple Safari V7 or higher, and Microsoft Edge.
Try to enable TLS 1.1 and/or TLS 1.2 protocols on web browsers when you cannot access the phone's web user interface using the lower version browser. If you still cannot access the phone's web user interface when using Internet Explorer, try to enable TLS 1.1 and disable TLS 1.2, or use other web browsers. Refer to the web resources for more information.

Topics

Supported Cipher Suites
Supported Trusted and Server Certificates
TLS Configuration

Supported Cipher Suites

A cipher suite is a named combination of authentication, encryption, and message authentication code (MAC) algorithms used to negotiate the security settings for a network connection using the TLS/SSL network protocol.

Yealink phones support the following cipher suites:

- DHE-RSA-AES256-SHA
- DHE-DSS-AES256-SHA
- AES256-SHA
- EDH-RSA-DES-CBC3-SHA
- EDH-DSS-DES-CBC3-SHA
- DES-CBC3-SHA
- DES-CBC3-MD5
- DHE-RSA-AES128-SHA
- DHE-DSS-AES128-SHA
- AES128-SHA
- RC2-CBC-MD5
- IDEA-CBC-SHA
- DHE-DSS-RC4-SHA
- RC4-SHA
- RC4-MD5
- RC4-64-MD5

- EXP1024-DHE-DSS-DES-CBC-SHA
- EXP1024-DES-CBC-SHA
- EDH-RSA-DES-CBC-SHA
- EDH-DSS-DES-CBC-SHA
- DES-CBC-SHA
- DES-CBC-MD5
- EXP1024-DHE-DSS-RC4-SHA
- EXP1024-RC4-SHA
- EXP1024-RC4-MD5
- EXP-EDH-RSA-DES-CBC-SHA
- EXP-EDH-DSS-DES-CBC-SHA
- EXP-DES-CBC-SHA
- EXP-RC2-CBC-MD5
- EXP-RC4-MD5
- ECDHE

Supported Trusted and Server Certificates

The IP phone can serve as a TLS client or a TLS server. In the TLS feature, we use the terms trusted and server certificate. These are also known as CA and device certificates.

The TLS requires the following security certificates to perform the TLS handshake:

- **Trusted Certificate**: When the IP phone requests a TLS connection with a server, the phone should verify the certificate sent by the server to decide whether it is trusted based on the trusted certificates list. You can upload 10 custom certificates at most. The format of the trusted certificate files must be *.pem, *.cer, *.crt and *.der and the maximum file size is 5MB.
- **Server Certificate**: When clients request a TLS connection with the IP phone, the phone sends the server certificate to the clients for authentication. The IP phone has two types of built-in server certificates: a unique server certificate and a generic server certificate. You can only upload one server certificate to the IP phone. The old server certificate will be overridden by the new one. The format of the server certificate files must be *.pem and *.cer and the maximum file size is 5MB.

  A unique server certificate: It is unique to an IP phone (based on the MAC address) and issued by the Yealink Certificate Authority (CA).
  A generic server certificate: It is issued by the Yealink Certificate Authority (CA). Only if no unique certificate exists, the phone may send a generic certificate for authentication.

The IP phone can authenticate the server certificate based on the trusted certificates list. The trusted certificates list and the server certificates list contain the default and custom certificates. You can specify the type of certificates the IP phone accepts: default certificates, custom certificates or all certificates.

Common Name Validation feature enables the IP phone to mandatorily validate the common name of the certificate sent by the connecting server. The security verification rules are compliant with RFC 2818.

Note: Resetting the IP phone to factory defaults will delete custom certificates by default. However, this feature is configurable by the parameter “static.phone_setting.reserve_certs_enable” using the configuration file.

Resetting the IP phone to factory defaults will delete trusted and server certificates settings by default. However, this feature is configurable by the parameter “static.phone_setting.reserve_certs_config.enable” using the configuration file.

Topic

Supported Trusted Certificates

Supported Trusted Certificates

Yealink phones trust the following CAs by default:

- DigiCert High Assurance EV Root CA
- Deutsche Telekom Root CA 2
- Equifax Secure Certificate Authority
- Equifax Secure eBusiness CA-1
- Equifax Secure Global eBusiness CA-1
- GeoTrust Global CA
- GeoTrust Global CA2
- GeoTrust Primary Certification Authority
- GeoTrust Primary Certification Authority G2
- GeoTrust Universal CA
- GeoTrust Universal CA2
- Thawte Personal Freemail CA
- Thawte Premium Server CA
- Thawte Primary Root CA
- Thawte Primary Root CA - G2
- Thawte Primary Root CA - G3
- Thawte Server CA
- VeriSign Class 1 Public Primary Certification Authority
- VeriSign Class 1 Public Primary Certification Authority - G2
- VeriSign Class 1 Public Primary Certification Authority - G3
- VeriSign Class 2 Public Primary Certification Authority - G2
- VeriSign Class 2 Public Primary Certification Authority - G3
- VeriSign Class 3 Public Primary Certification Authority
- VeriSign Class 3 Public Primary Certification Authority - G2
- VeriSign Class 3 Public Primary Certification Authority - G3
- VeriSign Class 3 Public Primary Certification Authority - G4
- VeriSign Class 3 Public Primary Certification Authority - G5
- VeriSign Class 4 Public Primary Certification Authority - G2
- VeriSign Class 4 Public Primary Certification Authority - G3
- VeriSign Universal Root Certification Authority
- ISRG Root X1 (Let's Encrypt Authority X1, Let's Encrypt Authority X2, Let's Encrypt Authority X3 and Let's Encrypt Authority X4 certificates are signed by the root certificate ISRG Root X1.)
- Baltimore CyberTrust Root
- DST Root CA X3
- Verizon Public SureServer CA G14-SHA2
- AddTrust External CA Root
- Go Daddy Class 2 Certification Authority
- Class 2 Primary CA
- Cybertrust Public SureServer SV CA
- DigiCert Assured ID Root G2
- DigiCert Assured ID Root G3
- DigiCert Assured ID Root CA
- DigiCert Global Root G2
- DigiCert Global Root G3
- DigiCert Global Root CA
- DigiCert Trusted Root G4
- Entrust Root Certification Authority
- Entrust Root Certification Authority - G2

- Entrust.net Certification Authority (2048)
- GeoTrust Primary Certification Authority - G3
- GlobalSign Root CA
- GlobalSign
- Starfield Root Certificate Authority - G2
- TC TrustCenter Class 2 CA II
- TC TrustCenter Class 3 CA II
- TC TrustCenter Class 4 CA II
- TC TrustCenter Universal CA I
- TC TrustCenter Universal CA III
- Thawte Universal CA Root
- VeriSign Class 3 Secure Server CA - G2
- VeriSign Class 3 Secure Server CA – G3
- Thawte SSL CA
- StartCom Certification Authority
- StartCom Certification Authority G2
- Starfield Services Root Certificate Authority - G2
- RapidSSL CA
- Go Daddy Root Certificate Authority - G2
- Cybertrust Global Root
- SectigoSSLCA
- Sectigo RSA Domain Validation Secure Server CA
- Sectigo RSA Certification Authority
- AmazonRootCA4
- AmazonRootCA3
- AmazonRootCA2
- AmazonRootCA1
- Yealink Root CA
- Yealink Equipment Issuing CA
- (c) 2005 TÜRKTRUST Bilgi İletişim ve Bilişim Güvenliği Hizmetleri A.Ş.
- AAA Certificate Services
- AC Raíz Certicámara S.A.
- ACCVRAIZ1
- ACEDICOM Root
- Actalis Authentication Root CA
- AddTrust Class 1 CA Root
- AddTrust Public CA Root
- AddTrust Qualified CA Root
- AffirmTrust Commercial
- AffirmTrust Networking
- AffirmTrust Premium
- AffirmTrust Premium ECC
- America Online Root Certification Authority 1
- America Online Root Certification Authority 2
- ApplicationCA
- Atos TrustedRoot 2011
- A-Trust-nQual-03
- Autoridad de Certificacion Firmaprofesional CIF A62634068

- Buypass Class 2 CA 1
- Buypass Class 2 Root CA
- Buypass Class 3 CA 1
- Buypass Class 3 Root CA
- CA Disig
- CA Disig Root R1
- CA Disig Root R2
- Certigna
- Certinomis - Autorité Racine
- certSIGN ROOT CA
- Certum CA
- Certum Trusted Network CA
- Chambers of Commerce Root
- Chambers of Commerce Root - 2008
- China Internet Network Information Center EV Certificates Root
- CNNIC ROOT
- Sectigo Certification Authority
- Sectigo ECC Certification Authority
- ComSign Secured CA
- DST ACES CA X6
- D-TRUST Root Class 3 CA 2 2009
- D-TRUST Root Class 3 CA 2 EV 2009
- EBG Elektronik Sertifika Hizmet Sağlayıcısı
- EC-ACC
- EE Certification Centre Root CA
- e-Guven Kok Elektronik Sertifika Hizmet Saglayicisi
- Entrust Root Certification Authority - EC1
- Entrust.net Secure Server Certification Authority
- ePKI Root Certification Authority
- E-Tugra Certification Authority
- FNMT Clase 2 CA
- Global Chambersign Root
- Global Chambersign Root – 2008
- GlobalSign Root CA - R3
- Government Root Certification Authority
- GTE CyberTrust Global Root
- Hellenic Academic and Research Institutions RootCA 2011
- Hongkong Post Root CA 1
- IGC/A
- Izenpe.com
- Juur-SK
- KISA RootCA 1
- KISA RootCA 3
- Microsec e-Szigno Root CA
- Microsec e-Szigno Root CA 2009
- NetLock Arany (Class Gold) Főtanúsítvány
- NetLock Expressz (Class C) Tanusitvanykiado
- NetLock Kozjegyzoi (Class A) Tanusitvanykiado

- NetLock Uzleti (Class B) Tanusitvanykiado
- Network Solutions Certificate Authority
- OISTE WISeKey Global Root GA CA
- QuoVadis Root CA 2
- QuoVadis Root CA 3
- QuoVadis Root Certification Authority
- Root CA Generalitat Valenciana
- RSA Security 2048 V3
- Secure Certificate Services
- Secure Global CA
- SecureSign RootCA11
- SecureTrust CA
- Security Communication EV RootCA1
- Security Communication RootCA1
- Security Communication RootCA2
- Sonera Class2 CA
- Staat der Nederlanden Root CA
- Staat der Nederlanden Root CA - G2
- Starfield Class 2 Certification Authority
- Swisscom Root CA 1
- Swisscom Root CA 2
- Swisscom Root EV CA 2
- SwissSign Gold CA - G2
- SwissSign Silver CA - G2
- TDC Internet Root CA
- TeliaSonera Root CA v1
- Trusted Certificate Services
- Trustis FPS Root CA
- T-TeleSec GlobalRoot Class 3
- TÜBİTAK UEKAE Kök Sertifika Hizmet Sağlayıcısı - Sürüm 3
- TÜRKTRUST Bilgi İletişim ve Bilişim Güvenliği Hizmetleri A.Ş. (c) Aralık 2007
- TÜRKTRUST Bilgi İletişim ve Bilişim Güvenliği Hizmetleri A.Ş. (c) Kasım 2005
- TWCA Global Root CA
- TWCA Root Certification Authority
- UTN - DATACorp SGC
- UTN-USERFirst-Hardware
- ValiCert Class 1 Policy Validation Authority
- ValiCert Class 2 Policy Validation Authority
- ValiCert Class 3 Policy Validation Authority
- Visa eCommerce Root
- Wells Fargo Root Certificate Authority
- WellsSecure Public Root Certificate Authority
- XRamp Global Certification Authority
- USERTrust RSA Certification Authority
- Starfield Secure Certificate Authority - G2
- HydrantID SSL ICA G2

Note: Yealink endeavors to maintain a built-in list of most common used CA Certificates. Due to memory constraints, we cannot ensure a complete set of certificates. If you are using a certificate from a commercial Certificate Authority not in the list

above, you can send a request to your local distributor. At this point, you can upload your particular CA certificate into your phone.

TLS Configuration

The following table lists the parameters you can use to configure TLS.

Parameter	account.X.sip_server.Y.transport_type[1][2]	<MAC>.cfg
Description	It configures the type of transport protocol.	
Permitted Values	**0**-UDP **1**-TCP **2**-TLS **3**-DNS NAPTR, if no server port is given, the phone performs the DNS NAPTR and SRV queries for the service type and port.	
Default	0	
Web UI	Account > Register > SIP Server Y > Transport	
Parameter	static.security.default_ssl_method	<y0000000000xx>.cfg
Description	It configures the TLS version to use for handshake negotiation between the phone and server (for example, SIP registration server, provisioning server).	
Permitted Values	**0**-TLS 1.0 **3**-SSL V23 (automatic negotiation with the server. The phone starts with TLS 1.2 for negotiation.) **4**-TLS 1.1 **5**-TLS 1.2 **6**-TLS 1.3	
Default	3	
Parameter	static.security.server_ssl_method	<y0000000000xx>.cfg
Description	It configures the supported TLS version to use for handshake negotiation between the phone and web browser.	
Permitted Values	**0**-TLS 1.0, TLS 1.1 and TLS 1.2 **1**-TLS 1.1 and TLS 1.2 **2**-TLS 1.2 **3**-TLS1.1, TLS1.2 and TLS1.3	
Default	1	
Supported Devices	All phones except VP59	
Parameter	security.web_server.ssl_method static.security.xmpp_xsi.ssl_method static.security.xml_browser.ssl_method static.security.remote_phonebook.ssl_method static.security.dm.ssl_method	<y0000000000xx>.cfg

	static.security.auto_provision.ssl_method static.security.tr069.ssl_method static.security.802_1x.ssl_method static.security.sip.ssl_method static.security.sopi.ssl_method	
Description	It configures the TLS version to use for handshake negotiation between the phone and the desired module. **Note**: If it is left blank: for "security.web_server.ssl_method", the value configured by "static.security.server_ssl_method" takes effect; for other modules, the value configured by "static.security.default_ssl_method" takes effect.	
Permitted Values	**0**-TLS 1.0 **3**-SSL V23 (automatic negotiation with the server. The phone starts with TLS 1.2 for negotiation.) **4**-TLS 1.1 **5**-TLS 1.2 **6**-TLS 1.3	
Default	Blank	
Parameter	security.web_server.tls_cipher_list security.xmpp_xsi.tls_cipher_list static.security.xml_browser.tls_cipher_list static.security.remote_phonebook.tls_cipher_list static.security.dm.tls_cipher_list static.security.auto_provision.tls_cipher_list static.security.tr069.tls_cipher_list static.security.802_1x.tls_cipher_list static.security.sip.tls_cipher_list static.security.sopi.tls_cipher_list	<y0000000000xx>.cfg
Description	It specifies the cipher list for the specific module.	
Permitted Values	String	
Default	Blank	
Parameter	static.security.trust_certificates	<y0000000000xx>.cfg
Description	It enables or disables the phone to only trust the server certificates in the Trusted Certificates list.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will authenticate the server certificate based on the trusted certificates list. Only when the authentication succeeds, will the phone trust the server.	
Default	1	
Web UI	Security > Trusted Certificates > Module(Default) > Only Accept Trusted Certificates	
Parameter	static.security.xmpp_xsi.trust_certificates	<y0000000000xx>.cfg

	static.security.xml_browser.trust_certificates static.security.remote_phonebook.trust_certificates static.security.dm.trust_certificates static.security.auto_provision.trust_certificates static.security.tr069.trust_certificates static.security.802_1x.trust_certificates static.security.sip.trust_certificates static.security.sopi.trust_certificates	
Description	It enables or disables the desired module to only trust the server certificates in the Trusted Certificates list.	
Permitted Values	**0**-Disabled **1**-Enabled, the desired module will authenticate the server certificate based on the trusted certificates list. Only when the authentication succeeds, will the desired module trust the server.	
Default	Blank	
Web UI	Security > Trusted Certificates > Module(auto_provision/xml_browser/remote_phone-book/sip/sopi/802_1x/dm/tr069) > Only Accept Trusted Certificates	
Parameter	static.security.ca_cert	<y0000000000xx>.cfg
Description	It configures the type of certificates in the Trusted Certificates list for the phone to authenticate for TLS connection.	
Permitted Values	**0**-Default Certificates **1**-Custom Certificates **2**-All Certificates	
Default	2	
Web UI	Security > Trusted Certificates > Module(Default) > CA Certificates	
Parameter	static.security.xmpp_xsi.ca_cert static.security.xml_browser.ca_cert static.security.remote_phonebook.ca_cert static.security.dm.ca_cert static.security.auto_provision.ca_cert static.security.tr069.ca_cert static.security.802_1x.ca_cert static.security.sip.ca_cert static.security.sopi.ca_cert	<y0000000000xx>.cfg
Description	It configures the type of certificates in the Trusted Certificates list for the desired module to authen-ticate for TLS connection.	
Permitted Values	**0**-Default Certificates **1**-Custom Certificates **2**-All Certificates	
Default	Blank	

Web UI	Security > Trusted Certificates > Module(web_server/auto_provision/xml_browser/remote_phonebook/sip/sopi/802_1x/dm/tr069) > CA Certificates	
Parameter	static.security.cn_validation	<y0000000000xx>.cfg
Description	It enables or disables the phone to mandatorily validate the CommonName or SubjectAltName of the certificate sent by the server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Security > Trusted Certificates > Module(Default) > Common Name Validation	
Parameter	static.security.xmpp_xsi.cn_validation static.security.xml_browser.cn_validation static.security.remote_phonebook.cn_validation static.security.dm.cn_validation static.security.auto_provision.cn_validation static.security.tr069.cn_validation static.security.802_1x.cn_validation static.security.sip.cn_validation static.security.sopi.cn_validation	<y0000000000xx>.cfg
Description	It enables or disables the desired module to mandatorily validate the CommonName or SubjectAltName of the certificate sent by the server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Web UI	Security > Trusted Certificates > Module(web_server/auto_provision/xml_browser/remote_phonebook/sip/sopi/802_1x/dm/tr069) > Common Name Validation	
Parameter	static.security.dev_cert	<y0000000000xx>.cfg
Description	It configures the type of device certificates for the phone to send for TLS authentication.	
Permitted Values	**0**-Default Certificates **1**-Custom Certificates	
Default	0	
Web UI	Security > Server Certificates > Module(Default) > Device Certificates	
Parameter	static.security.xmpp_xsi.dev_cert static.security.xml_browser.dev_cert static.security.remote_phonebook.dev_cert static.security.dm.dev_cert static.security.auto_provision.dev_cert static.security.tr069.dev_cert static.security.802_1x.dev_cert static.security.sip.dev_cert static.security.sopi.dev_cert	<y0000000000xx>.cfg

Description	It configures the type of device certificates for the desired module to send for TLS authentication.	
Permitted Values	**0**-Default Certificates **1**-Custom Certificates	
Default	0	
Web UI	Security > Server Certificates > Module(auto_provision/xml_browser/remote_phone-book/sip/sopi/802_1x/dm/tr069) > Device Certificates	
Parameter	static.trusted_certificates.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom trusted certificate used to authenticate the connecting server. **Note**: The certificate you want to upload must be in *.pem, *.crt, *.cer or *.der format.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Security > Trusted Certificates > Upload Trusted Certificate File	
Parameter	static.trusted_certificates.delete	<y0000000000xx>.cfg
Description	It deletes all uploaded trusted certificates.	
Permitted Values	http://localhost/all	
Default	Blank	
Parameter	static.server_certificates.url	<y0000000000xx>.cfg
Description	It configures the access URL of the certificate the phone sends for authentication. **Note**: The certificate you want to upload must be in *.pem or *.cer format.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Security > Server Certificates > Upload Server Certificate File	
Parameter	static.server_certificates.delete	<y0000000000xx>.cfg
Description	It deletes all uploaded server certificates.	
Permitted Values	http://localhost/all	
Default	Blank	
Parameter	static.phone_setting.reserve_certs_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to reserve custom certificates after it is reset to factory defaults.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	static.phone_setting.reserve_certs_config.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to reserve the trusted and server certificates settings after the phone reset to factory defaults.	

Permitted Values	**0**-Disabled, “static.security.trust_certificates”, “static.security.ca_cert”, “static.security.cn_validation” and “static.security.dev_cert” will be reset. **1**-Enabled, “static.security.trust_certificates”, “static.security.ca_cert”, “static.security.cn_validation”, “static.security.dev_cert” and “static.phone_setting.reserve_certs_config.enable” will not be reset.
Default	0

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]Y is the server ID. Y=1-2.

Secure Real-Time Transport Protocol (SRTP)

Secure Real-Time Transport Protocol (SRTP) encrypts the audio streams during VoIP phone calls to avoid interception and eavesdropping. The parties participating in the call must enable SRTP feature simultaneously. When this feature is enabled on both phones, the type of encryption to use for the session is negotiated between the phones. This negotiation process is compliant with RFC 4568.

When you place a call on the enabled SRTP phone, the phone sends an INVITE message with the RTP/RTCP encryption algorithm to the destination phone. As described in RFC 3711, RTP/RTCP streams may be encrypted using an AES (Advanced Encryption Standard) algorithm.

Example of the RTP encryption algorithm carried in the SDP of the INVITE message:

```
m=audio 11780 RTP/SAVP 0 8 18 9 101
a=crypto:1 AES_CM_128_HMAC_SHA1_80 > inline:NzFlNTUwZDk2OGVlOTc3YzNkYTkwZWVkMTM1YWFj
a=crypto:2 AES_CM_128_HMAC_SHA1_32 > inline:NzkyM2FjNzQ2ZDgxYjg0MzQwMGVmMGUxMzdmNWFm
a=crypto:3 F8_128_HMAC_SHA1_80 inline:NDliMWIzZGE1ZTAwZjA5ZGFhNjQ5YmEANTMzYzA0
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:9 G722/8000
a=fmtp:101 0-15
a=rtpmap:101 telephone-event/8000
a=ptime:20
a=sendrecv
```

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

Example of the RTP encryption algorithm carried in the SDP of the 200 OK message:

```
m=audio 11780 RTP/SAVP 0 101
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=crypto:1 AES_CM_128_HMAC_SHA1_80 inline:NGY4OGViMDYzZjQzYTNiOTNkOWRiYzRlMjM0Yzcz
a=sendrecv
a=ptime:20
```

a=fmtp:101 0-15

When SRTP is enabled on both phones, RTP streams will be encrypted, and a lock icon appears on the LCD screen of each IP phone after a successful negotiation.

Note: If you enable SRTP, then you should also enable TLS. This ensures the security of SRTP encryption. For more information on TLS, refer to Transport Layer Security (TLS). You can configure the IP phone to include unencrypted RTP/RTCP streams in SDP offers by "account.X.srtp.unencrypted_rtp.enable"/"account.X.srtp.unencrypted_rtcp.enable".

Topic

SRTP Configuration

SRTP Configuration

The following table lists the parameters you can use to configure the SRTP.

Parameter	account.X.srtp_encryption[1]	<MAC>.cfg
Description	It configures whether to use audio/video encryption service.	
Permitted Values	**0**-Disabled **1**-Optional, the phone will negotiate with the other phone what type of encryption to use for the session. **2**-Compulsory, the phone must use SRTP during a call.	
Default	0	
Web UI	Account > Advanced > RTP Encryption (SRTP)	
Parameter	account.X.srtp.unencrypted_rtp.enable[1]	<MAC>.cfg
Description	It enables or disables the phone's capability to include unencrypted RTP streams in SDP offers when using SRTP. **Note:** It works only if "account.X.srtp_encryption" is set to 1 (Optional) or 2 (Compulsory).	
Permitted Values	**0**-Disabled **1**-Enabled, the phone offers both encrypted and unencrypted RTP streams (Unencrypted RTP streams carry UNENCRYPTED_SRTP session parameters) in SDP offers. After a successful negotiation, whether the RTP stream is encrypted or not depends on the SDP answer.	
Default	0	
Parameter	account.X.srtp.unencrypted_rtcp.enable[1]	<MAC>.cfg
Description	It enables or disables the phone's capability to include unencrypted RTCP streams in SDP offers when using SRTP. **Note:** It works only if "account.X.srtp_encryption" is set to 1 (Optional) or 2 (Compulsory).	
Permitted Values	**0**-Disabled **1**-Enabled, the phone offers both encrypted and unencrypted RTCP streams (Unencrypted RTCP streams carry UNENCRYPTED_SRTCP session parameters) in SDP offers. After a successful negotiation, whether the RTCP stream is encrypted or not depends on the SDP answer.	
Default	0	
Parameter	account.X.srtp_optional_mode[1]	<MAC>.cfg
Description	It controls what type of encryption to use for the session when the SRTP of the phone and the server are both in optional mode.	

	Note: It works only if "account.X.srtp_encryption" is set to 1 (Optional).
Permitted Values	**0**-The phone uses SRTP preferentially during a call. **1**-Controlled by the transmission method: The phone uses SRTP preferentially when TLS is used and uses RTP preferentially RTP when UDP/TCP is used.
Default	0

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Encrypting and Decrypting Files

Yealink phones support downloading encrypted files from the server and encrypting files before/when uploading them to the server.

You can encrypt the following files:

- **Configuration files**: MAC-Oriented CFG file (<MAC>.cfg), Common CFG file (y0000000000xx.cfg), MAC-local CFG file (<MAC>-local.cfg) or other custom CFG files (for example, sip.cfg, account.cfg)
- **Contact Files**: <MAC>-contact.xml

To encrypt/decrypt files, you may have to configure an AES key.

Note: AES keys must be 16 characters/32 characters. The supported characters contain: 0 ~ 9, A ~ Z, a ~ z and special characters: # $ % * + , - . : = ? @ [ ] ^ _ { } ~.

Topics

Configuration Files Encryption Tools
Configuration Files Encryption and Decryption
Contact Files Encryption and Decryption
Encryption and Decryption Configuration

Configuration Files Encryption Tools

Yealink provides three configuration files encryption tools:

- Config_Encrypt_Tool.exe (via graphical tool for Windows platform)
- YealinkEncrypt CMD.exe (via DOS command line for Windows platform)
- yealinkencrypt (for Linux platform)

The encryption tools support two encryption modes: RSA Mode and Compatibility Mode.

For more information on the encryption tools, refer to Yealink Configuration Encryption Tool User Guide.

Configuration Files Encryption and Decryption

Encrypted configuration files can be downloaded from the provisioning server to protect against unauthorized access and tampering of sensitive information (for example, login passwords, registration information).

You can encrypt the configuration files using encryption tools. You can also configure the <MAC>-local.cfg files to be automatically encrypted using 16-character/32-character symmetric keys when uploading to the server (by setting “static.auto_provision.encryption.config” to 1).

For security reasons, you should upload encrypted configuration files to the root directory of the provisioning server. During auto provisioning, the phone requests to download the boot file first and then download the referenced configuration files. For example, the phone downloads an encrypted account.cfg file. The phone will decrypt it into the plaintext key (for example, key2) using the built-in key (for example, key1). Then the IP phone decrypts account.cfg file using key2. After decryption, the phone resolves configuration files and updates configuration settings onto the IP phone system.

Contact Files Encryption and Decryption

Encrypted contact files can be used to protect against unauthorized access and tampering of private information (for example, contact number). It is helpful for protecting trade secrets.

You can configure the contact files to be automatically encrypted using 16-character/32 characters symmetric keys (configured by "static.auto_provision.aes_key.mac") when uploading to the server (by setting "static.auto_provision.encryption.directory=1"). The encrypted contact files have the same file names as before. The encrypted contact files can be downloaded from the server and decrypted using 16-character/32 characters symmetric keys during auto provisioning. If the parameter static.auto_provision.aes_key.mac" is left blank, "static.auto_provision.aes_key.com" will be used.

If the downloaded contact files are encrypted, the phone will try to decrypt <MAC>-contact.xml file using the plaintext AES key. After decryption, the phone resolves contact files and updates contact information onto the IP phone system.

Encryption and Decryption Configuration

The following table lists the parameters you can use to configure the encryption and decryption.

Parameter	static.auto_provision.update_file_mode	<y0000000000xx>.cfg
Description	It enables or disables the phone only to download the encrypted files.	
Permitted Values	**0**-Disabled, the phone will download the configuration files (for example, sip.cfg, account.cfg, <MAC>-local.cfg) and <MAC>-contact.xml file from the server during auto provisioning no matter whether the files are encrypted or not. And then resolve these files and update settings onto the phone system. **1**-Enabled, the phone will only download the encrypted configuration files (for example, sip.cfg, account.cfg, <MAC>-local.cfg) or <MAC>-contact.xml file from the server during auto provisioning, and then resolve these files and update settings onto the phone system.	
Default	0	
Parameter	static.auto_provision.aes_key_in_file	<y0000000000xx>.cfg
Description	It configures how the phone decrypts files.	
Permitted Values	**0**-The phone will decrypt the encrypted configuration files using plaintext AES keys configured on the phone. **1**-The phone determines whether the file is an encrypted file generated in RSA mode. If yes, the phone will decrypt the encrypted configuration file using the phone built-in RSA private key or self-define RSA private key. If no, the phone will request the <xx>.enc file first and decrypt the file using RSA private key, when there is no <xx>.enc file, the phone will request the <xx_Security>.enc file. Then the phone decrypt this file into the plaintext key (e.g., key2) using the phone built-in AES key (e.g., key1). The IP phone then decrypts the encrypted configuration file using the corresponding key (e.g., key2).	
Default	0	
Parameter	static.auto_provision.aes_key.com	<y0000000000xx>.cfg
Description	It configures the plaintext AES key for encrypting/decrypting the Common CFG/Custom CFG file. The valid characters contain: 0 ~ 9, A ~ Z, a ~ z and the following special characters are also supported: # $ % * + , - . : = ? @ [ ] ^ _ { } ~. **Example**: static.auto_provision.aes_key.com = 0123456789abcdef **Note**: For decrypting, it works only if "static.auto_provision.aes_key_in_file" is set to 0. If the downloaded MAC-Oriented file is encrypted and the parameter "static.auto_provision.aes_key.mac" is left blank, the phone will try to encrypt/decrypt the MAC-Oriented file using the AES key configured by the	

	parameter “static.auto_provision.aes_key.com”.	
Permitted Values	16/32 characters	
Default	Blank	
Web UI	Settings > Auto Provision > Common AES Key	
Phone UI	Settings > Advanced Settings (default password: admin) > Set AES Key > Common AES CP965: More > Settings > Advanced (default password: admin) > Set AES Key > Common AES	
Parameter	static.auto_provision.aes_key.mac	<y0000000000xx>.cfg
Description	It configures the plaintext AES key for encrypting/decrypting the MAC-Oriented files (<MAC>.cfg, <MAC>-local.cfg and <MAC>-contact.xml). The valid characters contain: 0 ~ 9, A ~ Z, a ~ z and the following special characters are also supported: # $ % * + , - . : = ? @ [ ] ^ _ { } ~. **Example**: static.auto_provision.aes_key.mac = 0123456789abmins **Note**: For decrypting, it works only if “static.auto_provision.aes_key_in_file” is set to 0. If the downloaded MAC-Oriented file is encrypted and the parameter “static.auto_provision.aes_key.mac” is left blank, the phone will try to encrypt/decrypt the MAC-Oriented file using the AES key configured by the parameter “static.auto_provision.aes_key.com”.	
Permitted Values	16/32 characters	
Default	Blank	
Web UI	Settings > Auto Provision > MAC-Oriented AES Key	
Phone UI	Settings > Advanced Settings (default password: admin) > Set AES Key > MAC-Oriented AES CP965: More > Settings > Advanced (default password: admin) > Set AES Key > MAC-Oriented AES	
Parameter	static.autoprovision.X.com_aes[1][2]	<y0000000000xx>.cfg
Description	It configures the plaintext AES key for decrypting the Common CFG file. If it is configured, it has a higher priority than the value configured by the parameter “static.auto_provision.aes_key.com”.	
Permitted Values	16/32 characters	
Default	Blank	
Parameter	static.autoprovision.X.mac_aes[1][2]	<y0000000000xx>.cfg
Description	It configures the plaintext AES key for decrypting the MAC-Oriented CFG file. If it is configured, it has a higher priority than the value configured by the parameter “static.auto_provision.aes_key.mac”.	
Permitted Values	16/32 characters	
Default	Blank	

Parameter	static.auto_provision.encryption.directory	<y0000000000xx>.cfg
Description	It enables or disables the phone to encrypt <MAC>-contact.xml file using the plaintext AES key.	
Permitted Values	**0**-Disabled, the contact file will be uploaded unencrypted and will replace the one (encrypted or unencrypted) stored on the server if you have configured to back up the contacts to the server by the parameter "static.auto_provision.local_contact.backup.enable". **1**-Enabled, the contact file will be uploaded encrypted and will replace the one (encrypted or unencrypted) stored on the server if you have configured to back up the contacts to the server by the parameter "static.auto_provision.local_contact.backup.enable". The plaintext AES key is configured by the parameter "static.auto_provision.aes_key.mac".	
Default	0	
Parameter	static.auto_provision.encryption.call_log	<y0000000000xx>.cfg
Description	It enables or disables the phone to encrypt <MAC>-calllog.xml file using the plaintext AES key.	
Permitted Values	**0**-Disabled, the call log file will be uploaded unencrypted and will replace the one (encrypted or unencrypted) stored on the server if you have configured to back up the call log to the server by the parameter "static.auto_provision.local_calllog.backup.enable". **1**-Enabled, the call log file will be encrypted uploaded and will replace the one (encrypted or unencrypted) stored on the server if you have configured to back up the call log to the server by the parameter "static.auto_provision.local_calllog.backup.enable". The plaintext AES key is configured by the parameter "static.auto_provision.aes_key.mac".	
Default	0	
Parameter	static.auto_provision.encryption.config	<y0000000000xx>.cfg
Description	It enables or disables the phone to encrypt <MAC>-local.cfg file using the plaintext AES key.	
Permitted Values	**0**-Disabled, the MAC-local CFG file will be uploaded unencrypted and will replace the one (encrypted or unencrypted) stored on the server if you have configured to back up the MAC-local CFG file to the server by the parameter "static.auto_provision.custom.sync". **1**-Enabled, the MAC-local CFG file will be uploaded encrypted and will replace the one (encrypted or unencrypted) stored on the server if you have configured to back up the MAC-local CFG file to the server by the parameter "static.auto_provision.custom.sync". The plaintext AES key is configured by the parameter "static.auto_provision.aes_key.mac".	
Default	0	
Parameter	static.auto_provision.rsa_pri_key.url	<y0000000000xx>.cfg
Description	It configures the URL to import the self-define RSA private key file. **Note**: The key file must be in *.key format. It works only if "static.auto_provision.rsa_pri_key.enable" is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Auto Provision > Import RSA Pri Key	
Parameter	static.auto_provision.rsa_pri_key.enable	<y0000000000xx>.cfg
Description	It enables or disables the self-define RSA private key.	
Permitted	**0**-Disabled, the phone decrypts the encrypted configuration files using phone built-in RSA keys.	

Values	**1**-Enabled, the phone decrypts the encrypted configuration files using self-define RSA private key.	
Default	0	
Web UI	Settings > Auto Provision > Self-Define RSA Pri Key	
Parameter	static.auto_provision.rsa_pri_key.delete	<y0000000000xx>.cfg
Description	It deletes the self-define RSA private key file.	
Permitted Values	http://localhost/all	
Default	Blank	

[1]X is an activation code ID. X=1-50.

[2]If you change this parameter, the phone will reboot to make the change take effect.

Incoming Network Signaling Validation

Yealink phones support the following three optional levels of security for validating incoming network signaling:

- **Source IP address validation**: ensure the request is received from an IP address of a server belonging to the set of target SIP servers.
- **Digest authentication**: challenge requests with digest authentication using the local credentials for the associated registered account.
- **Source IP address validation and digest authentication**: apply both of the above methods.

Topic

Incoming Network Signaling Validation Configuration

Incoming Network Signaling Validation Configuration

The following table lists the parameters you can use to configure the incoming network signaling validation.

Parameter	sip.request_validation.source.list	<y0000000000xx>.cfg
Description	It configures the name of the request method for which source IP address validation will be applied. **Example**: sip.request_validation.source.list = INVITE, NOTIFY	
Permitted Values	INVITE, ACK, BYE, REGISTER, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, REFER, PRACK, UPDATE	
Default	Blank	
Parameter	sip.request_validation.digest.list	<y0000000000xx>.cfg
Description	It configures the name of the request method for which digest authentication will be applied. **Example**: sip.request_validation.digest.list = INVITE, SUBSCRIBE	
Permitted Values	INVITE, ACK, BYE, REGISTER, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, REFER, PRACK, UPDATE	
Default	Blank	
Parameter	sip.request_validation.digest.realm	<y0000000000xx>.cfg

Description	It configures the string used for the authentication parameter Realm when performing the digest authentication.	
Permitted Values	A valid string	
Default	YealinkSPIP	
Parameter	sip.request_validation.event	<y0000000000xx>.cfg
Description	It configures which events specified within the Event header of SUBSCRIBE or NOTIFY request should be validated. If it is left blank, all events will be validated.	
Permitted Values	A valid string	
Default	Blank	

USB Port Lock

You can lock the USB port on Yealink phones.

The following features are not available when you disable the USB port:

- USB camera for video calls on VP59/T58A/T58W - no near-site video
- USB recording
- USB flash drive
- USB headset
- USB charging devices on CP960/CP965
- Using DECT Handsets with VP59/T58A/T58W Phones

Topic

USB Port Lock Configuration

USB Port Lock Configuration

The following table lists the parameters you can use to configure the USB port lock.

Parameter	static.usb.power.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the USB port. **Note**: For T58A/T58W phones, this parameter only applies to the rear USB port; for VP59 phones, this parameter only applies to the side USB port. So if you want to disable all USB ports for the VP59/T58A/T58W phones, you need to set "static.usb.power.enable" and "static.camera.function.enable" to 0 (Disabled).	
Permitted Values	**0**-Disabled, the phone does not provide power to the USB port and not detect USB devices attached to the USB port. **1**-Enabled	
Default	1	
Parameter	static.usbdisk.function.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the USB flash drive feature. **Note**: It works only if "static.usb.power.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, the phone cannot detect the USB flash drive attached to the USB port. Users cannot tap **USB** item in the control center to access the **File Manager**. **1**-Enabled	

Default	1

[1]If you change this parameter, the phone will reboot to make the change take effect.

Firmware Upgrade

There are two methods of firmware upgrade:

- Manually, from the local system for a single device via the web user interface.
- Automatically, from the provisioning server for a mass of devices.

Note: We recommend that the devices running the latest firmware should not be downgraded to an earlier firmware version. The new firmware is compatible with old configuration parameters, but not vice versa.

Topics

Firmware for Each Phone Model
Firmware Upgrade Configuration

Firmware for Each Phone Model

You can download the latest firmware online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

The following table lists the associated and latest firmware name for each device model (X is replaced by the actual firmware version).

IP Phone Model	Firmware Name	Example
VP59	91.x.x.x.rom	91.86.0.10.rom
T58A	58.x.x.x.rom	58.86.0.10.rom
T58W	150.x.x.x.rom	150.86.0.5.rom
CP960	73.x.x.x.rom	73.86.0.10.rom
CP965	143.x.x.x.rom	143.86.0.5.rom

Firmware Upgrade Configuration

Before upgrading firmware, you need to know the following:

- Do not close and refresh the browser when the device is upgrading firmware via the web user interface.
- Do not unplug the network cables and power cables when the device is upgrading firmware.

The following table lists the parameters you can use to upgrade firmware.

Parameter	static.firmware.url	<y0000000000xx>.cfg
Description	It configures the access URL of the firmware file.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Upgrade > Upgrade Firmware	

Using DECT Handsets with VP59/T58A/T58W Phones

You can turn Yealink VP59/T58A/T58W phone to the corded-cordless phone. The corded-cordless phone consists of a VP59/T58A/T58W phone, a DECT USB dongle DD10K and at least a handset. The supported handsets include W59R, W52H, W56H, W53H, CP930W and DD phone. The VP59/T58A/T58W phone acts as a base station and Handset 1. Users can register up to other four handsets to one phone. It allows users to manage calls when they are away from their desk.

To use this feature, you should insert a DD10K into the rear/side USB port on the phone in advance.

Note that you can still use the phone features as usual on the corded-cordless phone.

Note: To use this feature, you should set "static.usb.power.enable" to 1 (Enabled).
When satellite mode is disabled, Yealink recommends using forward and DND features in custom mode.
The T58W phones do not support W59R and DDPhone (Color Screen) handsets.

Topics

Handset Backlight
Handset Keypad Light
Handset Wallpaper
Handset Screen Saver
Handset Name
Number Assignment
End Call on Hook
Advisory Tones
Base PIN
DECT Intercom
Shared Directory
Satellite Mode
Repeater Settings Parameters
Handset Settings Parameters
Handset Firmware Upgrade Configuration
Emergency Alarm
Line Keys
Visual and Audio Alert for Monitor Lines

Handset Backlight

The handset supports different backlight status and you can configure it.

For W59R/W53H/W56H, the backlight in charger or out of charger can be configured independently. You can enable the backlight to be on for about 30 minutes when the handset is charged, and then you can check the charging state during this period. You can also enable the backlight to be on for about 30 minutes when the handset is not charged. The backlight will be turned off after the handset is idle for a period of time. When an incoming call arrives, a key is pressed or the status of handset changes, the backlight is automatically turned on.

Topic

Handset Backlight Configuration

Handset Backlight Configuration

The following table lists the parameters you can use to configure the handset backlight.

Parameter	custom.handset.backlight_in_charger.enable	<y0000000000xx>.cfg
Description	It enables or disables the handset backlight to be on for about 30 minutes when it is charged. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if “stat-	

	ic.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled, the backlight will be turned off after the handset is idle for about 10 seconds. **1**-Enabled, the backlight will be turned off after the handset is idle for about 30 minutes.	
Default	-1	
Supported Devices	W59R, W53H, W56H	
Handset UI	OK > Settings > Display > Display Backlight > In Charger	
Parameter	custom.handset.backlight_out_of_charger.enable	<y0000000000xx>.cfg
Description	It enables or disables the handset backlight to be on for about 30 minutes when it is not charged. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if "static.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled, the backlight will be turned off after the handset is idle for about 10 seconds. **1**-Enabled, the backlight will be turned off after the handset is idle for about 30 minutes.	
Default	-1	
Supported Devices	W59R, W53H, W56H	
Handset UI	OK > Settings > Display > Display Backlight > Out Of Charger	

Handset Keypad Light

You can enable the handset keypad light to light up the keypad when any key is pressed. This helps you distinguish keys from each other in a dark environment.

Topic

Handset Keypad Light Configuration

Handset Keypad Light Configuration

The following table lists the parameter you can use to configure the handset keypad light.

Parameter	custom.handset.keypad_light.enable	<y0000000000xx>.cfg
Description	It enables or disables the handset to turn on the keypad light (digital key, # key, * key, TRAN key, and Mute key) when any key is pressed. **Note:** It will take effect on all handsets that are registered to the same phone. It works only if "static.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**-1**-Do not modify the configuration. **0**-Disabled **1**-Enabled	
Default	-1	
Supported Devices	W59R, W53H, W56H	
Handset UI	OK > Settings > Display > Keypad LED	

Handset Wallpaper

Wallpaper is an image used as the background for the handset idle screen. Users can select an image from handset's built-in background.

Topic

Handset Wallpaper Configuration

Handset Wallpaper Configuration

The following table lists the parameter you can use to configure the handset wallpaper.

Parameter	custom.handset.wallpaper	<y0000000000xx>.cfg
Description	It configures the wallpaper displayed on the handset LCD screen. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if "static.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**1**-Wallpaper1 **2**-Wallpaper2 **3**-Wallpaper3 **4**-Wallpaper4 **5**-Wallpaper5	
Default	-1, do not change the wallpaper set on each handset.	
Supported Devices	W59R, W53H, W56H	
Handset UI	OK > Settings > Display > Wallpaper	

Handset Screen Saver

The screen saver of the handset is designed to protect your LCD screen. You can enable the screen saver to protect the LCD screen, an analog clock will be activated and appear on the LCD screen after the handset is idle for approximately 10 seconds.

It is only applicable to W59R/W56H/W53H handsets.

Topic

Handset Screen Saver Configuration

Handset Screen Saver Configuration

The following table lists the parameter you can use to configure the handset screen saver.

Parameter	custom.handset.screen_saver.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables screen saver feature. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if "static.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled **1**-Enabled, an analog clock will be activated and appear on the LCD screen if no user activity is sensed for approximately 10 seconds.	

Default	-1
Supported Devices	W59R, W53H, W56H
Handset UI	OK > Settings > Display > Screen Saver

Handset Name

The handset will be assigned a name by default if successfully registered to the phone. You can personalize the handset name.

Topic

Handset Name Configuration

Handset Name Configuration

The following table lists the parameter you can use to configure the handset name.

Parameter	handset.X.name[1]	<y0000000000xx>.cfg
Description	It configures the name of the handset. **Note:** If it is set to blank, it will display the corresponding default handset name.	
Permitted Values	String within 24 characters	
Default	The handset name for handset 1 is Corded phone. The handset name for handset 2 is Handset 2. The handset name for handset 3 is Handset 3. The handset name for handset 4 is Handset 4. The handset name for handset 5 is Handset 5.	
Web UI	Status > Handset > Handset Name > Handset X[1]	
Phone UI	DECT Settings > Handsets > Handset X[1]	
Handset UI	W59R/W53H/W56H: OK > Settings > Handset Name DD Phone (Black-and-white Screen)/CP930W: Menu > Settings > Basic Settings > Phone Name DD Phone(Color Screen): Menu > Basic Settings > Phone Name	

[1]X is the handset ID. X=2-5.

Number Assignment

After the handset is registered to the phone, you can assign one or more outgoing lines or incoming lines for the handset. The phone acts as the Handset 1 (Corded phone).

The handset can only use the assigned outgoing line(s) to place calls. When multiple outgoing lines are assigned to the handset, the handset uses the first line as the default outgoing line. You can change the default outgoing line of the handset.

The handset can only receive incoming calls via the assigned incoming line(s). You can assign incoming lines to all handsets that are registered to the same phone.

Note: You can only assign one outgoing line and one incoming line for the CP930W. And make sure that the outgoing line and the incoming line are the same line.

Topic

Number Assignment Configuration

Number Assignment Configuration

The following table lists the parameters you can use to assign lines.

Parameter	handset.X.incoming_lines[1]	<y0000000000xx>.cfg
Description	It configures the lines to receive incoming calls for a specific handset.	
Permitted Values	**1**-Line 1 **2**-Line 2 **3**-Line 3 **4**-Line 4 **5**-Line 5 Multiple line IDs are separated by commas.	
Default	The incoming line for VP59 Phone/T58 Phone is line 1-line5; The incoming line for handset 1 is line 1. The incoming line for handset 2 is line 2. The incoming line for handset 3 is line 3. The incoming line for handset 4 is line 4. The incoming line for handset 5 is line 5.	
Web UI	Account > Number Assignment > Incoming lines	
Parameter	handset.X.dial_out_lines[1]	<y0000000000xx>.cfg
Description	It configures the lines to place outgoing calls for a specific handset. Multiple line IDs are separated by commas.	
Permitted Values	**1**-Line 1 **2**-Line 2 **3**-Line 3 **4**-Line 4 **5**-Line 5	
Default	The outgoing line for VP59 Phone/T58 Phone is line 1-line5; The outgoing line for handset 2 is line 2. The outgoing line for handset 3 is line 3. The outgoing line for handset 4 is line 4. The outgoing line for handset 5 is line 5.	

Web UI	Account > Number Assignment > Outgoing lines	
Parameter	handset.X.dial_out_default_line[1]	<y0000000000xx>.cfg
Description	It configures the default line to place outgoing calls for a specific handset.	
Permitted Values	Integer from 1 to 5	
Default	X	
Supported Devices	All handsets except CP930W	
Web UI	Account > Number Assignment > Outgoing lines > Default	

[1]X is the handset ID. X=1-5.

End Call on Hook

You can configure whether to end a call when you place the handset into the charging cradle.

Topic

End Call on Hook Configuration

End Call on Hook Configuration

The following table lists the parameter you can use to configure the end call on hook.

Parameter	phone_setting.end_call_on_hook.enable	<y0000000000xx>.cfg
Description	It enables or disables to end a call when placing the handset into the charger cradle.	
Permitted Values	**0**-Never **1**-Always	
Default	1	
Supported Devices	W59R, W53H, W56H	
Web UI	Features > General Information > End Call On Hook	

Advisory Tones

Advisory tones are the acoustic signals of your handset, which inform you of different actions and states.

It is not applicable to DD phones.

You can configure the following advisory tones independently for each other:

- **Keypad Tone**: plays when you press any key of the keypad. For CP930W, you can only configure it by navigating to **Menu** > **Settings** > **Basic Settings** > **Sound** > **Advisory Tones** > **Keypad Tone**.
- **Touch Tone**: plays when you tap the keys (except the off-hook key and the touch keypad). You can only configure it by navigating to **Menu** > **Settings** > **Basic Settings** > **Sound** > **Advisory Tones** > **Touch Tone**. It is only applicable to CP930W.
- **Confirmation**: plays when you save settings or place the handset in the charger cradle. For CP930W, you can only configure it by navigating to **Menu** > **Settings** > **Basic Settings** > **Sound** > **Advisory Tones** > **Confirmation**.
- **Low Battery**: plays when battery capacity is low and the handset requires being charged. For CP930W, you can only configure it by navigating to **Menu** > **Settings** > **Basic Settings** > **Sound** > **Advisory Tones** > **Low Battery**.

Topic

Advisory Tones Configuration

Advisory Tones Configuration

The following table lists the parameters you can use to configure the advisory tones.

Parameter	custom.handset.keypad_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the handset to play a tone when any key is pressed. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if “static.auto_provision.handset_configured.enable” is set to 1 (Enabled) and the silent mode is off.	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled **1**-Enabled	
Default	-1	
Supported Devices	W59R, W53H, W56H, CP930W	
Handset UI	**W59R/W56H/W53H**: OK > Settings > Audio > Advisory Tones > Keypad Tone **CP930W**: Menu > Settings > Basic Settings > Sound > Advisory Tones	
Parameter	custom.handset.confirmation_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the handset to play a tone when a user saves settings or places the handset in the charger cradle. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if “static.auto_provision.handset_configured.enable” is set to 1 (Enabled) and the silent mode is off.	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled **1**-Enabled	
Default	-1	
Supported Devices	W59R, W53H, W56H, CP930W	
Handset UI	**W59R/W56H/W53H**: OK > Settings > Audio > Advisory Tones > Confirmation **CP930W**: Menu > Settings > Basic Settings > Sound > Confirmation	
Parameter	custom.handset.low_battery_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the handset to play a tone when battery capacity is low. **Note**: It will take effect on all handsets that are registered on the same phone. It works only if “static.auto_provision.handset_configured.enable” is set to 1 (Enabled) and the silent mode is off.	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled **1**-Enabled	

Default	-1
Supported Devices	W59R, W53H, W56H, CP930W
Handset UI	**W59R/W56H/W53H**: OK > Settings > Audio > Advisory Tones > Low Battery **CP930W**: Menu > Settings > Basic Settings > Sound > Low Battery

Base PIN

To avoid unauthorized registration or access to some features on the handset, you should keep the base PIN secret.

You can change the base PIN for security.

Topic

Base PIN Configuration

Base PIN Configuration

The following table lists the parameters you can use to configure the base PIN.

Parameter	base.pin_code	<y0000000000xx>.cfg
Description	It configures the base PIN.	
Permitted Values	Integer from 0000 to 9999	
Default	0000	
Web UI	Security > Base PIN > Base Unit PIN	
Handset UI	W59R/W53H/W56H: OK > Settings > System Settings > Change Base PIN DD Phone(Black-and-white Screen): Menu > Settings > Advanced Settings (default password: 0000) > Change Password DD Phone(Color Screen): Menu > Advanced Settings (default password: 0000) > Change Password CP930W: Menu > Settings > Advanced Settings (default PIN: 0000) > Change PIN	
Phone UI	DECT Settings > Change Base PIN	
Parameter	base.double_pin_code.enable	<y0000000000xx>.cfg
Description	It enables or disables double PIN feature.	
Permitted Values	**0**-Disabled, users use the PIN configured by "base.pin_code" to register the handset or access some features. **1**-Enabled, users use the PIN configured by "base.pin_code_for_register" to register the handset, and use the PIN configured by "base.pin_code" to access some features.	

Default	0	
Parameter	base.pin_code_for_register	<y0000000000xx>.cfg
Description	It configures the PIN for registering or de-registering a handset. **Note**: It works only if “base.double_pin_code.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 0000 to 9999	
Default	0000	

DECT Intercom

Intercom is a useful feature in an office environment to quickly connect with the operator or the secretary. Users can make internal intercom calls and external intercom calls on the handset. Internal intercom calls are made among handsets registered to the same phone.

The handset can automatically answer an incoming external intercom call and play warning tone.

Topic

DECT Intercom Configuration

DECT Intercom Configuration

The following table lists the parameters you can use to configure DECT intercom.

Parameter	custom.handset.auto_intercom	<y0000000000xx>.cfg
Description	It enables or disables the auto intercom feature on the handset.	
Permitted Values	**-1**-Do not modify the configuration. **0**-Off, auto intercom feature is disabled. Users need to answer incoming internal intercom calls manually. **1**-On(Beep Off), the phone/handset answers an incoming internal intercom call automatically without a warning tone. **2**-On(Beep On), the phone/handset answers an incoming internal intercom call automatically and plays a warning tone. It works when the silence mode is off.	
Default	-1	
Handset UI	OK > Settings > Telephony > Auto Intercom	
Phone UI	DECT Settings > Auto Intercom > Auto Intercom	
Parameter	features.intercom.headset_prior.enable	<y0000000000xx>.cfg
Description	It configures the channel mode when an incoming intercom call is automatically answered. **Note**: It works only if "custom.handset.auto_intercom" is set to 1 or 2. For the phone, the headset mode should be activated for use; for the handset registered to the phone, the headset should be connected in advance.	
Permitted Values	**0**-Speaker Mode **1**-Headset Mode	
Default	1	

Shared Directory

Users can manage and call the contacts in the Shared Directory on the phone and all the registered handsets.

The shared directory can store up to 1000 contacts.

It is not applicable to DD phones.

Topics

Shared Directory Configuration
Shared Contact File Customization

Shared Directory Configuration

The following table lists the parameters you can use to configure the shared directory.

Parameter	static.directory_setting.shared_contact.enable	<y0000000000xx>.cfg
Description	It enables or disables the Shared Directory feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All handsets except DD phones	
Parameter	shared_contact_list.url	<y0000000000xx>.cfg
Description	It configures the access URL of the shared contact file (*.xml) of the phone and registered handsets. **Example**: shared_contact_list.url = http://192.168.10.25/contact.xml **Note**: It works only if "static.directory_setting.shared_contact.enable" is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	
Supported Devices	All handsets except DD phones	
Web UI	Directory > DECT Directory > Import Contacts > Import to (Shared Directory) > Select .xml file form	

Shared Contact File Customization

You can customize the shared contacts using local contact template.

You can ask the distributor or Yealink FAE for local contact template. You can also obtain the template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Shared Contact File Elements and Attributes
Customizing Shared Contact File

Shared Contact File Elements and Attributes

The following table lists the elements and attributes you can use to add contacts in the shared contact file. We recommend that you do not edit these elements and attributes.

Elements	Attributes	Description
Contact	display_name	Specify the contact name. **Note**: The contact name cannot be blank or duplicated.
	office_number	Specify the office number.
	mobile_number	Specify the mobile number.
	other_number	Specify the other number.
	line	Do not modify this attribute and value.
	ring	Do not modify this attribute and value.
	default_photo	Do not modify this attribute and value.
	selected_photo	Do not modify this attribute and value.
	group_id_name	Do not modify this attribute and value.

Customizing Shared Contact File

1. Open the shared contact file.
2. To add a contact, add <contact display_name="" office_number="" mobile_number="" other_number="" line="-1" ring="Auto" default_photo="Default:default_contact_image.png" selected_photo="0" group_id_name="All Contacts"/ > to the file. Each starts on a new line.
3. Specify the values within double quotes.

   For example:

   <contact display_name="Lily"office_number="1020" mobile_number="1021" other_number="1112"/ >

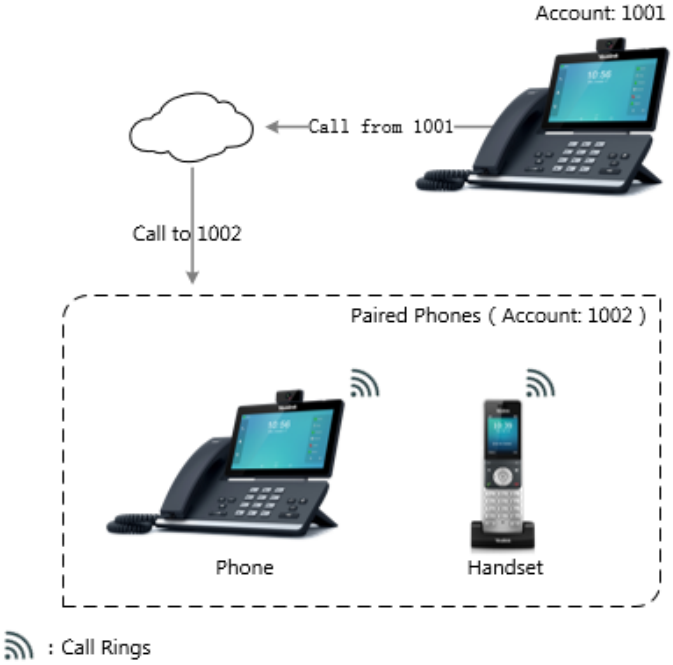
   <contact display_name="Tom" office_number="2020" mobile_number="2021" other_number="2112"/ >
4. Save the changes and place this file to the provisioning server.

Satellite Mode

Yealink desk phone can be bound with a handset. The handset can share the line and contacts with the phone. The call can be shifted between the phone and handset.

Important: Satellite mode is available only when one handset is registered to the phone.

The following is an example of receiving an incoming call:



When a call is made from 1001 to 1002, both the phone and the handset ring. Users can answer the call either on the phone or handset.

When using satellite mode, note the following:

- The incoming and outgoing lines originally assigned to the handset are disabled.
- Calls made from the handset are handled as calls made from the phone (in the above example, 1002). (The caller information for such calls will be that of extension 1002.)
- You can configure a mode for whether to continue the conversation on the handset when the phone goes off-hook, or to send a busy signal to one of the paired phones while the device is not in a call but tries to initiate a call (prohibited on that device).

Topics

Satellite Mode Configuration
Example: Configuring the Satellite Mode Feature

Satellite Mode Configuration

The following table lists the parameters you can use to configure satellite mode.

Parameter	features.ms.X.slave_handset_number[1]	<y0000000000xx>.cfg
Description	It specifies which handset to use the satellite mode with the phone.	
Permitted Values	**0**-None, the satellite mode is disabled. **2**-Handset 2 **3**-Handset 3 **4**-Handset 4 **5**-Handset 5	
Default	0	

Web UI	Status > Handset > Satellite Mode > Select Handset	
Phone UI	DECT Settings > Satellite Mode > Select handset	
Parameter	features.ms.X.mode[1]	<y0000000000xx>.cfg
Description	It configures the satellite mode for the phone. **Note**: It works only if “features.ms.X.slave_handset_number” is configured correctly.	
Permitted Values	**0**-Busy, users cannot switch the active call between the phone and handset. Regardless of the phone or the handset, the device which is during the call can initiate a new call. If users not in a call try to initiate a call on the phone/handset, the phone/handset will prompt "Path Busy". **1**-Take over call, when the handset is during the call, users can retrieve the call after off-hook on the phone. When the phone is during the call, users can push the call to the handset.	
Default	1	
Web UI	Status > Handset > Satellite Mode > Mode	
Phone UI	DECT Settings > Satellite Mode > Select mode	

[1]X is the handset ID. X is equal to 1.

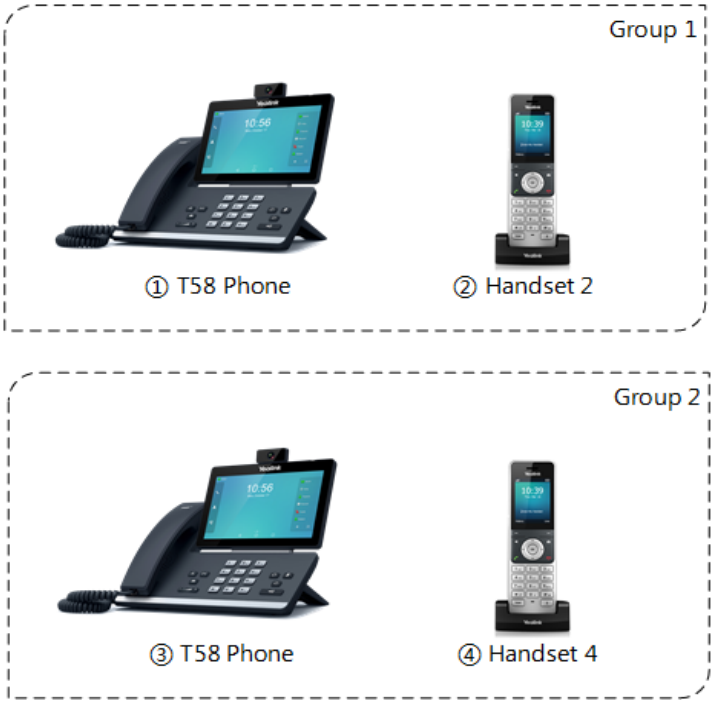
Example: Configuring the Satellite Mode Feature

You can configure the satellite mode only when one handset is registered to the phone.

The following table lists the supported phones and handsets:

Phone	Handset
T58W T58A VP59	W53H W56H W59R

As an example, two W56H handsets along with two T58 phones are in use.



Group 1:

features.ms.1.slave_handset_number = 2

features.ms.1.mode = 0

After provisioning, users cannot switch the active call between the phone and handset. Only the device which is during the call can initiate a new call. If users not in a call try to initiate a call on the phone/handset, the phone/handset screen will prompt "Path Busy".

Group 2:

features.ms.1.slave_handset_number = 4

features.ms.1.mode = 1

After provisioning, when the handset is during the call, users can retrieve the call after off-hook on the phone. When the phone is during the call, users can push the call to the handset.

Repeater Settings Parameters

Parameter	static.base.repeater_mode.enable[1]	<y0000000000xx>.cfg
Description	It configures the repeater mode to extend the radio coverage of the phone.	
Permitted Values	**0**-Off **1**-RT10/RT20 **2**-RT30	
Default	0	
Phone UI	DECT Settings > Repeater Mode > Repeater Mode	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Handset Settings Parameters

Parameter	custom.handset.eco_mode.enable	<y0000000000xx>.cfg
Description	It enables or disables the eco mode to greatly reduce the transmission power and signal output when the phone is in the talk mode.	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled **1**-Enabled	
Default	-1	
Supported Devices	All handsets except DD phones	
Handset UI	OK > Settings > System Settings (Basic Settings) > Eco Mode	
Parameter	custom.handset.missed_call_notify_light.enable	<y0000000000xx>.cfg
Description	It enables or disables the message key LED to flash red when the handset misses a call. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if "static.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled	

	1-Enabled	
Default	-1	
Supported Devices	W52H	
Handset UI	OK > Settings > Display > Notification Light > Missed Call	
Parameter	custom.handset.voice_mail_notify_light.enable	<y0000000000xx>.cfg
Description	It enables or disables the message key LED to flash when the handset receives a voice mail. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if “static.auto_provision.handset_configured.enable” is set to 1 (Enabled).	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled **1**-Enabled	
Default	-1	
Supported Devices	W52H	
Handset UI	OK > Settings > Display > Notification Light > Voice Mail	
Parameter	custom.handset.language	<y0000000000xx>.cfg
Description	It configures the language used on the DECT handset user interface. **Note:** It will take effect on all handsets that are registered on the same phone. It works only if “static.auto_provision.handset_configured.enable” is set to 1 (Enabled).	
Permitted Values	**For W59R/W56H/W53H/CP930W handset**: **0**-English **1**-French **2**-German **3**-Italian **4**-Polish **5**-Portuguese **6**-Spanish **7**-Turkish **8**-Swedish **9**-Russian **For W52H handset**: **0**-English **1**-French **2**-German **3**-Italian **4**-Polish	

	5-Portuguese **6**-Spanish **7**-Turkish **8**-Czech **9**-Swedish **10**-Hebrew **11**-Russian	
Default	0	
Supported Devices	W59R, W52H, W53H, W56H, CP930W	
Handset UI	W59R/W52H/W53H/W56H: OK > Settings > Language CP930W: Menu > Settings > Basic Settings > Language	
Parameter	custom.handset.auto_answer.enable	<y0000000000xx>.cfg
Description	It enables or disables a user to answer incoming calls by lifting the handset from the charger cradle without pressing the off-hook key. **Note**: It works if the handset is placed in the charger cradle and the parameter "static.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**-1**-Do not modify the handset configuration (Keep the original configuration of the handset). **0**-Disabled **1**-Enabled	
Default	-1	
Supported Devices	W59R, W53H, W56H	
Handset UI	OK > Settings > Telephony > Auto Answer	
Parameter	custom.handset.time_format	<y0000000000xx>.cfg
Description	It configures the time format for all registered handsets. **Note:** It works only if "static.auto_provision.handset_configured.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Hour 12, the time will be displayed in 12-hour format with AM or PM specified. **1**-Hour 24, the time will be displayed in 24-hour format (for example, 2:00 PM displays as 14:00).	
Default	1	
Web UI	Settings > Time&Date > Time Format	
Handset UI	W59R/W53H/W56H: OK > Settings > Display > Time Format DD Phone(Black-and-white Screen): Menu > Settings > Basic Settings > Time&Date > Time & Date Format > Time Format DD Phone(Color Screen):	

	Menu > Basic Settings > Display > Time Format CP930W: Menu > Settings > Basic Settings > Display > Time Format	
Parameter	custom.handset.date_format	<y0000000000xx>.cfg
Description	It configures the date format for all registered handsets.	
Permitted Values	**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 Use the following mapping: “WWW” represents the abbreviation of the week; “DD” represents a two-digit day; “MMM” represents the first three letters of the month; “YYYY” represents a four-digit year, and “YY” represents a two-digit year.	
Default	0	
Web UI	Settings > Time&Date > Date Format	
Handset UI	W59R/W53H/W56H: OK > Settings > Display > Date Format DD Phone(Black-and-white Screen): Menu > Settings > Basic Settings > Time&Date > Time & Date Format > Date Format DD Phone(Color Screen): Menu > Basic Settings > Time&Date > Time & Date Format > Date Format CP930W: Menu > Settings > Basic Settings > Display > Date Format	
Parameter	handset.X.hac.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the HAC (Hearing Aid Compatibility) handset settings.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All handsets except DD phones	
Parameter	static.auto_provision.handset_configured.enable	<y0000000000xx>.cfg
Description	It enables or disables the handsets to keep user personalized settings after auto provisioning. **Note**: It is only applicable to the custom handset related configurations.	

Permitted Values	**0**-Disabled, the phone will not deliver custom handset configurations via auto provisioning/handset reboot to the handset. The custom handset settings can be only changed via the handset user interface. **1**-Enabled, the phone will deliver the custom handset configurations via auto provisioning to the handset. Handset reboot or registration will also trigger the phone to deliver the stored handset settings to the handset. When the parameter "static.auto_provision.custom.handset.protect" is set to 0 (Disabled), the personalized handset settings will be overridden; if the parameter "static.auto_provision.custom.handset.protect" is set to 1 (Enabled), the personalized handset settings will not be overridden.	
Default	1	
Supported Devices	All handsets except DD phones	
Parameter	static.auto_provision.custom.handset.protect	<y0000000000xx>.cfg
Description	It enables or disables the handsets to keep user personalized settings after handset reboot or registration. **Note**: It works only if "static.auto_provision.handset_configured.enable" is set to 0 (Disabled). It is only applicable to the custom handset related configurations.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All handsets except DD phones	
Parameter	handset.X.contact_list.url[2]	<y0000000000xx>.cfg
Description	It configures the access URL of the contact file (*.xml) for a specific handset. **Example**: handset.2.contact_list.url= http://192.168.10.25/contact.xml	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Directory > Dect Directory > Import Contacts > Import to (Handset X) > Select .xml file form	

[1]X is the handset ID. X=1 to 5.

[2]X is the handset ID. X=2 to 5.

Custom Handset Related Configurations

This section shows you the custom handset related configurations.

Parameter	Related Topic
custom.handset.date_format	Handset Settings Parameters
custom.handset.time_format	
custom.handset.eco_mode.enable	Handset Settings Parameters
custom.handset.auto_answer.enable	Auto Answer Configuration

Parameter	Related Topic
custom.handset.missed_call_notify_light.enable	Handset Settings Parameters
custom.handset.voice_mail_notify_light.enable	
custom.handset.low_battery_tone.enable	Advisory Tones Configuration
custom.handset.confirmation_tone.enable	
custom.handset.keypad_tone.enable	
custom.handset.keypad_light.enable	Handset Keypad Light Configuration
custom.handset.backlight_in_charger.enable	Handset Backlight Configuration
custom.handset.backlight_out_of_charger.enable	
custom.handset.screen_saver.enable	Handset Screen Saver Configuration
custom.handset.auto_intercom	DECT Intercom Configuration
custom.handset.language	Handset Settings Parameters

Handset Firmware Upgrade Configuration

The following table lists the parameters you can use to upgrade handset firmware.

Parameter	over_the_air.url	<y0000000000xx>.cfg
Description	It configures the access URL of the handset firmware file.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Upgrade > Select and update handset firmware.	
Parameter	over_the_air.url.w56h	<y0000000000xx>.cfg
Description	It configures the access URL of the W56H handset firmware file. **Note:** The priority of parameter “over_the_air.url.w56h” is higher than “over_the_air.url”.	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	over_the_air.url.cp930w	<y0000000000xx>.cfg
Description	It configures the access URL of the CP930W phone firmware file. **Note:** The priority of parameter “over_the_air.url.cp930w” is higher than “over_the_air.url”.	
Permitted Values	URL within 512 characters	
Default	Blank	
Parameter	over_the_air.handset_tip	<y0000000000xx>.cfg
Description	It enables or disables to pop up a tip when upgrading the handset firmware from the provisioning server. **Note:** It works only if “over_the_air.base_trigger” and “over_the_air.handset_trigger” are set to 0 (Dis-	

	abled).	
Permitted Values	**0**-Disabled **1**-Enabled, the handset will pop up the message "Handset has a new firmware, update now?".	
Default	1	
Supported Devices	All handsets except DD phones	
Parameter	over_the_air.handset_trigger	<y0000000000xx>.cfg
Description	It enables or disables to upgrade the handset firmware compulsively when the handset is registered to a phone or turned on successfully. It is only applicable when the current handset firmware is different from the one on the provisioning server.	
Permitted Values	**0**-Disabled, if "over_the_air.handset_tip" is set to 1 (Enabled), it will pop up a tip on the handset to notify the user of firmware upgrade. If "over_the_air.handset_tip" is set to 0, you may go to **Settings** > **Upgrade Firmware** on the handset to trigger the upgrading manually. **1**-Enabled, it will upgrade the handset firmware compulsively without a pop-up tip on the handset.	
Default	1	
Supported Devices	All handsets except DD phones	
Parameter	over_the_air.base_trigger	<y0000000000xx>.cfg
Description	It enables or disables to upgrade the handset firmware compulsively when the phone detects a new handset firmware from the provisioning server.	
Permitted Values	**0**-Disabled, if "over_the_air.handset_tip" is set to 1 (Enabled), it will pop up a tip on the handset to notify the user to confirm upgrading the firmware or not. If "over_the_air.handset_tip" is set to 0, you may go to **Settings** > **Upgrade Firmware** on the handset to trigger the upgrading manually. **1**-Enabled, it will upgrade the handset firmware compulsively without a pop-up tip on the handset.	
Default	1	
Parameter	over_the_air.url.w52h	<y0000000000xx>.cfg
Description	It configures the access URL of the W52H handset firmware file. **Note:** The priority of parameter "over_the_air.url.w52h" is higher than "over_the_air.url".	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	over_the_air.url.w53h	<y0000000000xx>.cfg
Description	It configures the access URL of the W53H handset firmware file. **Note:** The priority of parameter "over_the_air.url.w53h" is higher than "over_the_air.url".	
Permitted Values	URL within 512 characters	
Default	Blank	
Parameter	over_the_air.url.w59r	<y0000000000xx>.cfg
Description	It configures the access URL of the W59R handset firmware file. **Note:** The priority of parameter "over_the_air.url.w59r" is higher than "over_the_air.url".	

Permitted Values	URL within 512 characters	
Default	Blank	
Parameter	over_the_air.url.t41s_dd10k	<y0000000000xx>.cfg
Description	It configures the access URL of the DD phone firmware file. **Note:** The priority of parameter “over_the_air.url.t41s_dd10k” is higher than “over_the_air.url”.	
Permitted Values	URL within 512 characters	
Default	Blank	
Parameter	over_the_air.url.t54w_dd10k	<y0000000000xx>.cfg
Description	It configures the access URL of the DD Phone firmware file. **Note:** The priority of parameter “over_the_air.url.t54w_dd10k” is higher than “over_the_air.url”.	
Permitted Values	URL within 512 characters	
Default	Blank	

Emergency Alarm

Emergency alarm can provide safety reliance for people who work in dangerous environment.

W59R handset supports the following four alarm types:

- **Button**: Long press the emergency alarm button for 2 seconds to manually set off the emergency alarm.
- **Man Down**: If the handset stays in a tilt angle less than 30 degrees with the ground for some time, an alarm will be triggered.
- **No-Movement**: If the handset stays in a fixed position without movement for a certain period of time, an alarm will be triggered.
- **Running**: The handset detects the running state, and maintains this state for a certain period of time, an alarm will be triggered.

In order to increase the accuracy of the alarm and prevent false alarms, you can also set the corresponding delayed alarm time. The delayed alarm time is actually the time during which the handset maintains the state, and the alarm will be triggered when the time is reached.

Topic

Emergency Alarm Configuration

Emergency Alarm Configuration

The following table lists the parameter you can use to configure the emergency alarm.

Parameter	alarm.X.name[1]	<y0000000000xx>.cfg
Description	It configures the alarm name.	
Permitted Values	String within 64 characters	
Default	Blank	
Web UI	Features > Alarm > Alarm Template (Alarm Template X) > Alarm Name	
Parameter	alarm.X.type[1]	<y0000000000xx>.cfg
Description	It configures the alarm type.	
Permitted Values	**0**-None, do not turn on the alarm. **1**-Button **2**-Man Down **3**-No Movement **4**-Running	
Default	0	
Web UI	Features > Alarm >Alarm Template (Alarm Template X) > Alarm Type	
Parameter	alarm.X.handset_stop.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables to terminate the alarm from the handset.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Alarm > Alarm Template (Alarm Template X) > Stop Alarm From Handset	
Parameter	alarm.X.trigger_delay[1]	<y0000000000xx>.cfg
Description	It configures the delay time (in seconds) to trigger the alarm from the handset.	
Permitted Values	Integer from 1 to 7200	
Default	3	
Web UI	Features > Alarm > Alarm Template (Alarm Template X) > Trigger Delay	
Parameter	alarm.X.pre_alarm.handset_stop.enable[1]	<y0000000000xx>.cfg

Description	It enables or disables to stop the pre-alarm (reminder before the alarm) from the handset.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Alarm > Alarm Template (Alarm Template X) > Stop Pre-Alarm From Handset	
Parameter	alarm.X.pre_alarm.delay[1]	<y0000000000xx>.cfg
Description	It configures the pre-alarm time (in seconds) of the handset.	
Permitted Values	Integer from 0 to 7200	
Default	0	
Web UI	Features > Alarm > Alarm Template (Alarm Template X) > Pre-Alarm Delay	
Parameter	alarm.X.ring.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables to play the ringtone when the handset initiates the pre-alarm.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Alarm > Alarm Template (Alarm Template X) > Ring	
Parameter	alarm.X.weekly.begin_time[1] alarm.X.weekly.end_time[1]	<y0000000000xx>.cfg
Description	It configures the starting / ending time of the day for the handset to perform an alarm detection. The alarm detection occurs on a random time between the starting time and the ending time. **Note**: If the configured starting time is greater than the ending time, such as 23:00-06:00, it means that the alarm detection is enabled on the day from 00:00-06:00 and 23:00-00:00.	
Permitted Values	Time from 00:00 to 23:59	
Default	00:00	
Web UI	Features > Alarm > Alarm Template (Alarm Template X) > Time	
Parameter	alarm.X.weekly.dayofweek[1]	<y0000000000xx>.cfg
Description	It configures the days of the week for the handset to perform an alarm detection weekly.	
Permitted Values	0123456 or a combination of these digits	
Default	0123456	
Web UI	Features > Alarm > Alarm Template > Day of Week	
Parameter	handset.X.alarm.template[2]	<y0000000000xx>.cfg
Description	It configures the alarm template for the specific account. Multiple alarm templates are seperated by commas.	
Permitted	Random combination of numbers 1 to 10	

Values		
Default	Blank	
Parameter	handset.X.alarm.number[2]	<y0000000000xx>.cfg
Description	It configures the handset X alarm number.	
Permitted Values	String within 128 characters	
Default	Blank	
Web UI	Account > Alarm Assignment > Config to(Handset X)> Alarm Number	
Parameter	alarm.server.address	<y0000000000xx>.cfg
Description	It configures the address of the alarm server.	
Permitted Values	String within 256 characters	
Default	Blank	
Web UI	Account > Alarm Assignment > Sever Host	
Parameter	alarm.server.port	<y0000000000xx>.cfg
Description	It configures the port of the alarm server.	
Permitted Values	Integer from 0 to 65535	
Default	5060	
Web UI	Account > Alarm Assignment > Port	
Parameter	alarm.server.transport_type	<y0000000000xx>.cfg
Description	It configures the type of alarm server transmission protocol.	
Permitted Values	**0**-UDP **1**-TCP **2**-TLS **3**-DNS-NAPTR	
Default	0	
Web UI	Account > Alarm Assignment > Transport	
Parameter	alarm.server.expires	<y0000000000xx>.cfg
Description	It configures the registration expiration time of the alarm server.	
Permitted Values	Integer from 30 to 2147483647	
Default	30	
Web UI	Account > Alarm Assignment > Sever Expires	
Parameter	alarm.server.retry_counts	<y0000000000xx>.cfg
Description	It configures the number of times to retry the request when the alarm server is unavailable or not	

	responding.
Permitted Values	Integer from 0-20
Default	3
Web UI	Account > Alarm Assignment > Sever Retry Counts

[1]X is the alarm ID. X=1-10.

[2]X is the account ID. X=1-8.

Line Keys

Line keys provide one-touch feature (for example, one-touch park). This allows you to quickly access features and to view the monitored status when the line keys are assigned with particular features (for example, BLF).

Topics

Line Keys Configuration

Line Keys Configuration

The following table lists the parameters you can use to configure line keys for DD phones.

Parameter	ddp.X.linekey.Y.type[1][2]		<y0000000000xx>.cfg
Description	It configures the key feature.		
Permitted Values	**0**-N/A **13**-SpeedDial(Speed Dial)	**15**-Line **16**-BLF	**39**-BLF List **56**-Retrieve Park
Default	0		
Supported Devices	DD Phone(Color Screen)		
Phone UI	Menu > Features > Dsskey > Line Key X > Type		
Parameter	ddp.X.linekey.Y.line[1][2]		<y0000000000xx>.cfg
Description	It configures the desired line to apply the line key feature.		
Permitted Values	0, 1-10		
Default	Blank		
Supported Devices	DD Phone(Color Screen)		
Phone UI	Menu > Features > Dsskey > Line Key X > Account ID		
Parameter	ddp.X.linekey.Y.value[1][2]		<y0000000000xx>.cfg
Description	It configures the value for some line key features. For example, when you assign the Speed Dial to the line key, this parameter is used to specify the contact number you want to dial out.		
Permitted Values	String within 99 characters		
Default	Blank		

Supported Devices	DD Phone(Color Screen)	
Phone UI	Menu > Features > Dsskey > Line Key X > Value	
Parameter	ddp.X.linekey.Y.label[1][2]	<y0000000000xx>.cfg
Description	It configures the label displayed on the phone screen. This is an optional configuration.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	DD Phone(Color Screen)	
Phone UI	Menu > Features > Dsskey > Line Key X > Label	
Parameter	ddp.X.linekey.Y.extension[1][2]	<y0000000000xx>.cfg
Description	For the BLF/BLF list feature: It configures the pickup code.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	DD Phone(Color Screen)	
Phone UI	Menu > Features > Dsskey > Line Key X > Extension	

[2]Y is the line key ID. Y=1-10.

Visual and Audio Alert for Monitor Lines

Visual and Audio Alert feature allows the phone to display the caller ID and play an audio alert when a BLF line receives an incoming call.

Topics

Visual and Audio Alert for BLF Lines Configuration

Visual and Audio Alert for BLF Lines Configuration

The following table lists the parameters you can use to configure a visual and audio alert for BLF lines.

Parameter	ddp.X.features.pickup.blf_visual_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display a visual alert when the monitored user receives an incoming call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	DD Phone(Color Screen)	
Web UI	Features > Pickup & Park > Visual Alert for BLF Pickup	
Parameter	ddp.X.features.pickup.blf_visual.list	<y0000000000xx>.cfg
Description	It configures the monitored users who want to enable the visual alert for BLF pickup feature.	

	Multiple monitored users are separated by commas. **Example:** ddp.X.features.pickup.blf_visual.list = any or leave it blank The phone displays a visual alert when any monitored user receives an incoming call. ddp.X.features.pickup.blf_visual.list = 4604,4605 The phone displays a visual alert when monitored user 4604 or 4605 receives an incoming call. ddp.X.features.pickup.blf_visual.list = List1 The phone displays a visual alert when any user in the List 1 receives an incoming call. ListX stands for the BLF list of account X configured by the parameter "account.X.blf.blf_list_uri". **Note:** It works only if "ddp.X.features.pickup.blf_visual_enable" is set to 1 (Enabled).	
Permitted Values	any Monitored phone number ListX[1]	
Default	any	
Supported Devices	DD Phone(Color Screen)	
Parameter	ddp.X.features.pickup.blf_audio_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play an audio alert when the monitored user receives an incoming call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	DD Phone(Color Screen)	
Web UI	Features > Pickup & Park > Audio Alert for BLF Pickup	
Parameter	ddp.X.features.pickup.blf_audio.list	<y0000000000xx>.cfg
Description	It configures the monitored users who want to enable the audio alert for BLF pickup feature. Multiple monitored users are separated by commas. **Example:** ddp.X.features.pickup.blf_audio.list = any or leave it blank The IP phone plays an audio alert when any monitored user receives an incoming call. ddp.X.features.pickup.blf_audio.list = 4604,4605 The IP phone plays an audio alert when monitored user 4604 or 4605 receives an incoming call. ddp.X.features.pickup.blf_audio.list = List1 The IP phone plays an audio alert when any user in the List 1 receives an incoming call. ListX stands for the BLF list of account X configured by the parameter "account.X.blf.blf_list_uri". **Note:** It works only if "ddp.X.features.pickup.blf_audio_enable" is set to 1 (Enabled).	
Permitted Values	any Monitored phone number	

	ListX[1]
Default	any
Supported Devices	DD Phone(Color Screen)

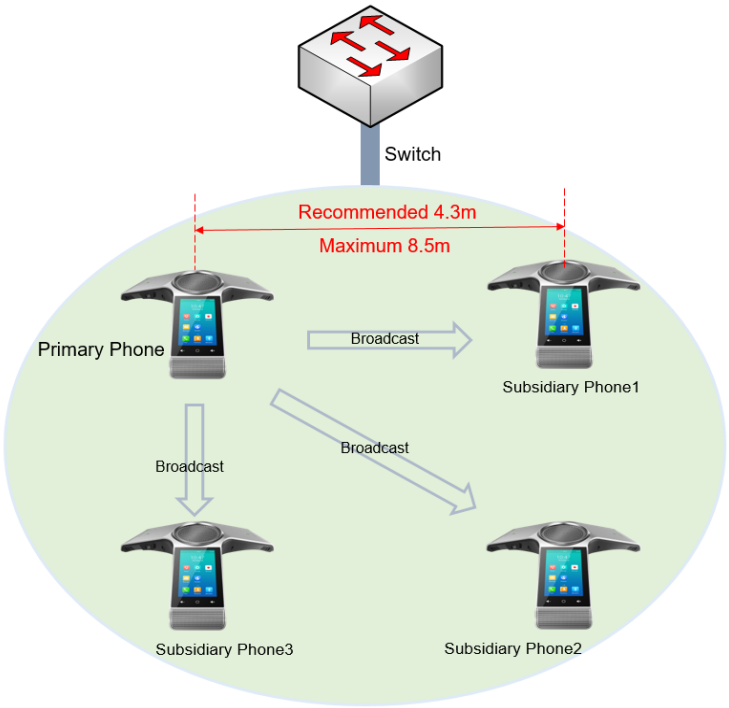
[1]X is the DDphone ID. X=1-8.

Using CP960/CP965 Star Connection Feature

You can deploy up to four CP960/CP965 conference phones in a star layout in a large meeting room, one as the primary phone and others as the subsidiary phones. The primary phone keeps all features, while the subsidiary phones only sync some key features of the primary phone, such as DND and call mute. After connecting, the subsidiary phones are mainly used to work as speakers or microphones.

This feature allows users to control the calls either on the master phone or on the subsidiary phones; it also helps all participants to hear each other clearly even though they are distance away in the meeting room.

The following shows an example for setting up a star connection group:



Topics

Guidelines for Configuring Star Connection Feature
CP960/CP965 Star Connection Feature Configuration
Example: Configuring CP960/CP965 Star Connection Feature

Guidelines for Configuring Star Connection Feature

The following instructions you need to know when configuring star connection feature for CP960/CP965:

- Ensure all the phones are deployed in the same subnet.
- Ensure all the phones are running the same firmware versions.
- You can only deploy the CP960/CP965 phones in a star layout in the wired network.
- If the primary phone is not in the broadcast status, the subsidiary phones will not reconnect automatically after reboot.
- The subsidiary phones are unable to sync some custom features of primary phone, for example, wallpaper or contact avatar.
- You cannot access the web user interface of the subsidiary phones.

- If you upgrade firmware via the web user interface for the primary phone, only the primary phone will be upgraded. After upgrading, the subsidiary phones are disconnected from the primary phone because of the different firmware version.
- If you upgrade firmware via auto provisioning, both the primary phone and subsidiary phones will be upgraded.

Related Topic

Example: Configuring CP960/CP965 Star Connection Feature

CP960/CP965 Star Connection Feature Configuration

The following table lists the parameters you can use to configure CP960/CP965 star connection feature.

Parameter	features.cp_star_connection.master.enable	<y0000000000xx>.cfg
Description	It specifies whether or not the phone to be a primary phone.	
Permitted Values	**0**-Not a primary phone **1**-primary phone, the phone automatically generates a four-digit PIN number and sends broadcast. Users do not need to manually create a star connection group on the phone.	
Default	0	
Phone UI	Settings > Advanced Settings (default password: admin) > CP Star Connection > Create Group CP965: More > Settings > Advanced (default password: admin) > CP Star Connection > Create Group	
Parameter	features.cp_star_connection.slave.X.mac[1]	<y0000000000xx>.cfg
Description	It specifies the MAC address of a subsidiary phone on the primary phone. After configured, the phone with this MAC address is authorized to connect with the primary phone. **Example**: features.cp_star_connection.slave.1.mac = 805EC0092F4B Note that the MAC address is case insensitive, and the following format of the MAC address is invalid: 80:5E:C0:09:2F:4B. **Note**: It works only if "features.cp_star_connection.master.enable" is set to 1 (Enabled).	
Permitted Values	MAC Address	
Default	Blank	
Parameter	features.cp_star_connection.master.mac[2]	<y0000000000xx>.cfg
Description	It specifies the MAC address of primary phone on the subsidiary phones. After configured, the phones can join the star connection group created by the primary phone with this MAC address. **Example**: features.cp_star_connection.master.mac=805EC0092F33 Note that the MAC address is case insensitive, and the following format of the MAC address is invalid: 80:5E:C0:09:2F:4B. **Note**: It works only if "features.cp_star_connection.master.enable" is set to 0 (Disabled), and the phone is authorized by the primary phone to connect with it.	

Permitted Values	MAC Address
Default	Blank

[1]X is the subsidiary phone ID. X = 1-3.

[2]If you change this parameter, the phone will reboot to make the change take effect.

Related Topic

Example: Configuring CP960/CP965 Star Connection Feature

Example: Configuring CP960/CP965 Star Connection Feature

Scenario Conditions

- The MAC address of phone A is 805EC0092F33.
- The MAC address of phone B is 805EC0092F4B.
- The MAC address of phone C is 805EC009223B.
- The MAC address of phone D is 805EC0033E2B.
- All the phones are in the same subnet, and are running the same firmware versions.

You want phone A to act as a primary phone, and phone B, phone C and phone D act as the subsidiary phones.

The following example shows configuration for the phones:

Example

```
######For Phone A (primary phone)######
features.cp_star_connection.master.enable=1
features.cp_star_connection.slave.1.mac=805EC0092F4B
features.cp_star_connection.slave.2.mac=805EC009223B
features.cp_star_connection.slave.3.mac=805EC0033E2B
######For Phones B、C、D (subsidiary phones)######
features.cp_star_connection.master.enable=0
features.cp_star_connection.master.mac=805EC0092F33
```

After reboot, phone A, B, C, D are in a star connection group.

Audio Features

This chapter describes the audio sound quality features and options you can configure for the IP phone.

Topics

Alert Tone
Touch Tone
Ring Tones
Distinctive Ring Tones
Ringer Device
Audio Volume
Tones
Audio Codecs
Packetization Time (PTime)
Early Media
Headset Prior
Dual Headset
Acoustic Clarity Technology
DTMF
Voice Quality Monitoring (VQM)
Silent Mode
Lower Your Voice Alarm

Alert Tone

You can configure the following audio alert for the phone:

- Redial tone: allow the phones to continue to play the dial tone after inputting the preset numbers on the dialing screen.
- Voice mail tone: allow the IP phone to play a warning tone when receiving a new voice mail. You can customize the warning tone or select specialized tone sets (vary from country to country) for your IP phone.
- Send tone: allow the IP phone to play a key tone when you tap the send key. It works only if the key tone is enabled.
- Dial tone: allow the IP phone to play a specific dial tone for a specified time.
- Key tone: allow the IP phone to play a key tone when you press or tap any key.

Topic

Alert Tone Configuration

Alert Tone Configuration

The following table lists the parameters you can use to configure the alert tone.

Parameter	features.redial_tone	<y0000000000xx>.cfg
Description	It configures that after you enter a specific number on the dialing screen, the phone will replay the dial tone. **Example**: features.redial_tone = 123 The phone will continue to play the dial tone after entering “123” on the dialing screen.	
Permitted Values	Integer within 6 digits	
Default	Blank	

Supported Devices	T58W, T58A, VP59	
Web UI	Features > Audio > Redial Tone	
Parameter	account.X.dial_tone[1]	<MAC>.cfg
Description	It configures the dial tone for the phone.	
Permitted Values	**0**-Default (depend on the country tone by "voice.tone.country") **1**-440/250,0/250 **2**-1000/250,0/250	
Default	0	
Supported Devices	T58W, T58A, VP59	
Parameter	features.call.dialtone_time_out	<y0000000000xx>.cfg
Description	It configures the duration time (in seconds) that a dial tone plays before a call is dropped. If it is set to 0, the call is not dropped.	
Permitted Values	Integer from 0 to 65535	
Default	15	
Parameter	features.voice_mail_tone_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play a warning tone when it receives a new voice mail. **Note**: It works only if "account.X.display_mwi.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > General Information > Voice Mail Tone	
Parameter	features.send_key_tone	<y0000000000xx>.cfg
Description	It enables or disables the phone to play a key tone when a user presses a send key. **Note**: It works only if "features.key_tone" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Audio > Send Tone	
Parameter	features.key_tone	<y0000000000xx>.cfg
Description	It enables or disables the phone to play a key tone when a user presses any key on your phone keypad.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Audio > Key Tone	
Phone UI	Settings > Basic Settings > Sound > Key Tone > Key Tone CP965:	

	More > Settings > Basic > Sound > Key Tone > Key Tone

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Touch Tone

If you enable touch tone, the phone will produce a sound when you tap an option on the phone screen.

Topic

Touch Tone Configuration

Touch Tone Configuration

The following table lists the parameter you can use to configure the touch tone.

Parameter	features.touch_tone	<y0000000000xx>.cfg
Description	It enables or disables the touch tone.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Phone UI	Settings > Basic Settings > Sound > Touch Tone CP965: More > Settings > Basic > Sound > Touch Tone	

Ring Tones

Ring tones are used to play for incoming calls. You can select a built-in ring tone or a custom ring tone for the phone system or specific line registration. To set the custom ring tones, you need to upload the custom ring tones to the IP phone in advance.

You can also specify a period of time after which the phone will stop ringing if the call is not answered.

Topics

Custom Ringtone Limit
Ringtone Configuration

Custom Ringtone Limit

The ring tone format must meet the following:

Phone Model	Format	Single File Size
VP59/T58A/T58W/CP960/CP965	.wav	<=8MB

Note: The ring tone file must be in PCMU/PCMA audio format, mono channel, 8K sample rate, and 16-bit resolution.

Ringtone Configuration

The following table lists the parameters you can use to configure ringtone.

Parameter	phone_setting.ring_type	<y0000000000xx>.cfg
Description	It configures a ring tone for the phone.	

Permitted Values	Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Ring9.wav, Ring10.wav, Ring11.wav, Ring12.wav, Ring13.wav, Silent.wav, Splash.wav or custom ring tone name (for example, Customring.wav)	
Default	Ring1.wav	
Web UI	Settings > Preference > Upload Ringtone > System Ring	
Phone UI	Settings > Basic Settings > Sound > Ring Tones > Common CP965: More > Settings > Basic > Sound > Ring Tones > Common	
Parameter	account.X.ringtone.ring_type[1]	<MAC>.cfg
Description	It configures a ring tone. **Example**: account.1.ringtone.ring_type = Ring3.wav It means configuring Ring3.wav for account1. account.1.ringtone.ring_type = Common It means account1 will use the ring tone selected for the phone configured by the parameter "phone_setting.ring_type".	
Permitted Values	Common, Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Ring9.wav, Ring10.wav, Ring11.wav, Ring12.wav, Ring13.wav, Silent.wav, Splash.wav or custom ring tone name (for example, Customring.wav)	
Default	Common	
Web UI	Account > Basic > Ring Type	
Phone UI	Settings > Basic Settings > Sound > Ring Tones > Account X CP965: More > Settings > Basic > Sound > Ring Tones > Account X	
Parameter	ringtone.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom ring tone file.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Preference > Upload Ringtone > Custom Ring > Upload Ringtone	
Parameter	ringtone.delete	<y0000000000xx>.cfg
Description	It deletes all custom ring tone files.	
Permitted Values	http://localhost/all	
Default	Blank	
Parameter	phone_setting.ringing_timeout	<y0000000000xx>.cfg
Description	It configures the duration time (in seconds) in the ringing state. If it is set to 180, the phone will stop ringing if the call is not answered within 180 seconds.	
Permitted	Integer from 1 to 3600	

Values		
Default	120	
Parameter	phone_setting.ring_for_tranfailed	<y0000000000xx>.cfg
Description	It configures the ring tone when the phone fails to transfer a call and display "Transfer failed" on the screen.	
Permitted Values	Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Ring9.wav, Ring10.wav, Ring11.wav, Ring12.wav, Ring13.wav, Silent.wav or Splash.wav	
Default	Ring1.wav	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Distinctive Ring Tones

The feature of distinctive ring tones allows certain incoming calls to trigger the phones to play distinctive ring tones. The IP phone inspects the INVITE request for an "Alert-Info" header when receiving an incoming call. If the INVITE request contains an "Alert-Info" header, the phone strips out the URL or keyword parameter and maps it to the appropriate ring tone.

Note: If the caller already exists in the local directory, the ring tone assigned to the caller should be preferentially played.

Topics

Supported Alert-Info Headers Format
Distinctive Ring Tones Configuration

Supported Alert-Info Headers Format

Yealink phones support Alert-Info headers in four formats: Bellcore-drN, ringtone-N (or MyMelodyN), <URL> and info=info text;x-line-id=0.

Note: If the Alert-Info header contains multiple types of keywords, the phone will process the keywords in the following order: AutoAnswer > URL > info text/Bellcore-drN/ringtone-N (ringtone-RingN) > MyMelodyN (MyMelodyRingN).

Topics

Alert-Info: Bellcore-drN
Alert-Info: ringtone-N/Alert-Info: ringtone-RingN.wav (or Alert-Info: MyMelodyN/Alert-Info: MyMelodyRingN.wav)
Alert-Info: <URL>
Alert-Info: info=info text;x-line-id=0

Alert-Info: Bellcore-drN

When the Alter-Info header contains the keyword “Bellcore-drN”, the phone will play the desired ring tone.

The following table identifies the corresponding ring tone:

Value of N	Ring Tone (features.alert_info_tone = 1)	Ring Tone (features.alert_info_tone = 0)
1	Bellcore-dr1	Ring1.wav
2	Bellcore-dr2	Ring2.wav
3	Bellcore-dr3	Ring3.wav

Value of N	Ring Tone (features.alert_info_tone = 1)	Ring Tone (features.alert_info_tone = 0)
4	Bellcore-dr4	Ring4.wav
5	Bellcore-dr5	Ring5.wav
6	Ring6.wav	
7	Ring7.wav	
8	Ring8.wav	
9	Ring9.wav	
10	Ring10.wav	
11	Ring11.wav	
12	Ring12.wav	
13	Ring13.wav	
14	Silent.wav	
15	Splash.wav	
N<1 or N>15	Ring1.wav	

Examples:

```
Alert-Info: http://127.0.0.1/Bellcore-dr1
Alert-Info: test/Bellcore-dr1
Alert-Info: Bellcore-dr1
Alert-Info: Bellcore-dr1;x-line-id=1
Alert-Info: <http://10.1.0.31>;info=Bellcore-dr1
```

The following table identifies the different Bellcore ring tone patterns and cadences (These ring tones are designed for the BroadWorks server).

Bellcore Tone	Pattern ID	Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Bellcore-dr1(standard)	1	Ringing	• 2s On	1800	2000	2200
		Silent	• 4s Off	3600	4000	4400
Bellcore-dr2	2	Ringing	Long	630	800	1025
		Silent		315	400	525
		Ringing	Long	630	800	1025
		Silent		3475	4000	4400

Bellcore Tone	Pattern ID	Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Bellcore-dr3	3	Ringing	Short	315	400	525
		Silent		145	200	525
		Ringing	Short	315	400	525
		Silent		145	200	525
		Ringing	Long	630	800	1025
		Silent		2975	4000	4400
Bellcore-dr4	4	Ringing	Short	200	300	525
		Silent		145	200	525
		Ringing	Long	800	1000	1100
		Silent		145	200	525
		Ringing	Short	200	300	525
		Silent		2975	4000	4400
Bellcore-dr5	5	Ringing		450	500	550

Note: If the user is waiting for a call, “Bellcore-dr5” is a ring splash tone that reminds the user that the DND or Always Call Forward feature is enabled on the server side.

Alert-Info: ringtone-N/Alert-Info: ringtone-RingN.wav (or Alert-Info: MyMelodyN/Alert-Info: MyMelodyRingN.wav)

When the Alter-Info header contains the keyword “ringtone-N/ringtone-RingN” or “MyMolodyN/MyMelodyRingN”, the phone will play the corresponding local ring tone (RingN.wav), or play the first local ring tone (Ring1.wav) in about 10 seconds if “N” is greater than 10 or less than 1.

Examples:

```
Alert-Info: ringtone-2
Alert-Info: ringtone-Ring2.wav
Alert-Info: ringtone-2;x-line-id=1
Alert-Info: <http://10.1.0.31>;info=ringtone-2
Alert-Info: <http://127.0.0.1/ringtone-2>
Alert-Info: MyMelody2
Alert-Info: MyMelodyRing2.wav
Alert-Info: MyMelody2;x-line-id=1
Alert-Info: <http://10.1.0.31>;x-line-id=0;info=MyMelody2
```

The following table identifies the corresponding local ring tone:

Value of N	Ring Tone
1 Ring1.wav	Ring1.wav

Value of N	Ring Tone
2 Ring2.wav	Ring2.wav
3 Ring3.wav	Ring3.wav
4 Ring4.wav	Ring4.wav
5 Ring5.wav	Ring5.wav
6 Ring6.wav	Ring6.wav
7 Ring7.wav	Ring7.wav
8 Ring8.wav	Ring8.wav
9 Ring9.wav	Ring9.wav
10 Ring10.wav	Ring10.wav
11 Ring11.wav	Ring11.wav
12 Ring12.wav	Ring12.wav
13 Ring13.wav	Ring13.wav
9 Silent.wav	Silent.wav
10 Splash.wav	Splash.wav
N<1 or N>15	Ring1.wav

Alert-Info: <URL>

When the Alert-Info header contains a remote URL, the phone will try to download the WAV ring tone file from the URL and then play the remote ring tone if "account.X.alert_info_url_enable" is set to 1 (or the item called "Distinctive Ring Tones" on the web user interface is Enabled), or play the preconfigured local ring tone in about 10 seconds if "account.X.alert_info_url_enable" is set to 0 or if the IP phone fails to download the remote ring tone.

Example:

Alert-Info: http://192.168.0.12:8080/Custom.wav

Alert-Info: info=info text;x-line-id=0

When the Alert-Info header contains an info text, the phone will map the text with the Internal Ringer Text preconfigured (or "distinctive_ring_tones.alert_info.X.text" is configured) on the IP phone, and then play the ring tone associated with the Internal Ringer Text (the ring tone can be configured by the parameter "distinctive_ring_

tones.alert_info.X.ringer”). If no internal ringer text maps, the phone will play the preconfigured local ring tone in about 10 seconds.

Example:

Alert-Info: info=family;x-line-id=0
Alert-Info: <http://10.1.0.31>;info=family
Alert-Info: <http://10.1.0.31>;info=family;x-line-id=0

Auto Answer

If the INVITE request contains the following type of strings, the phone will answer incoming calls automatically without playing the ring tone:

- Alert-Info: Auto Answer
- Alert-Info: info = alert-autoanswer
- Alert-Info: answer-after = 0 (or Alert-Info: Answer-After = 0)
- Alert-Info: Intercom

If the auto answer tone feature is enabled, the phone plays a warning tone to alert you before answering the incoming call.

Related Topic

Auto Answer

Distinctive Ring Tones Configuration

The following table lists the parameters you can use to configure distinctive ring tones.

Parameter	account.X.alert_info_url_enable[1]	<MAC>.cfg
Description	It enables or disables the phone to download the ring tone from the URL contained in the Alert-Info header.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Account > Advanced > Distinctive Ring Tones	
Parameter	features.alert_info_tone	<y0000000000xx>.cfg
Description	It enables and disables the phone to map the keywords in the Alert-Info header to the specified Bellcore ring tones.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	distinctive_ring_tones.alert_info.X.text[2]	<y0000000000xx>.cfg
Description	It configures the internal ringer text to map the keywords contained in the Alert-Info header.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Settings > Ring > Internal Ringer X[2] > Text	

Parameter	distinctive_ring_tones.alert_info.X.ringer[2]	<y0000000000xx>.cfg
Description	It configures the desired ring tone for each internal ringer text.	
Permitted Values	• Integer from 1 to 15 (the digit stands for the appropriate ring tone) or ring tone name: **1** or **Ring1.wav** **2** or **Ring2.wav** **3** or **Ring3.wav** **4** or **Ring4.wav** **5** or **Ring5.wav** **6** or **Ring6.wav** **7** or **Ring7.wav** **8** or **Ring8.wav** **9** or **Ring9.wav** **10** or **Ring10.wav** **11** or **Ring11.wav** **12** or **Ring12.wav** **13** or **Ring13.wav** **14** or **Silent.wav** **15** or **Splash.wav** • Custom ring tone name (for example, Customring.wav)	
Default	1	
Web UI	Settings > Ring > Internal Ringer X[2] > File	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]X is the ring tone ID. X=1-10.

Ringer Device

You can use either or both the speaker and the headset as the ringer devices. You can configure which ringer device to be used when receiving an incoming call. For example, if the ringer device is set to Headset, ring tone will be played through your headset.

If the ringer device is set to Headset or Headset&Speaker, the headset (either a wired headset, Bluetooth headset or USB headset) should be connected to the IP phone and the headset mode also should be activated in advance. You can press the HEADSET key to activate the headset mode.

You can press the HEADSET key to activate the headset mode. For more information, refer to the Yealink phone-specific user guide.

It is not applicable to CP960/CP965 phones.

Topic

Ringer Device Configuration

Ringer Device Configuration

The following table lists the parameters you can use to configure the ringer device.

Parameter	features.ringer_device.is_use_headset	<y0000000000xx>.cfg
Description	It configures the ringer device for the phone.	
Permitted Values	**0**-Use Speaker **1**-Use Headset	

	2-Use Headset & Speaker
Default	0
Supported Devices	All phones except CP960/CP965
Web UI	Features > Audio > Ringer Device for Headset

Audio Volume

You can configure the sending volume and ringer volume for the phone.

Topics

Ringer Volume Configuration
Sending Volume Configuration

Ringer Volume Configuration

You can configure the ringer volume as a fixed level, so the user cannot adjust the ringer volume on the phone. This feature is used to avoid missing calls when the user turns down the ringer volume.

The following table lists the parameters you can use to configure the ringer volume.

Parameter	force.voice.ring_vol	<y0000000000xx>.cfg
Description	It configures the ring tone as a fixed volume.	
Permitted Values	**Blank**-the user can adjust the ringer volume on the phone. **0 to 15**-the user cannot adjust the ringer volume on the phone, the ring tone is the configured volume.	
Default	Blank	
Parameter	phone_setting.voice.ring_vol_min	<y0000000000xx>.cfg
Description	It configures the adjustable minimum ringer volume on the phone. **Note**: It only takes effect on the ringer volume of the speaker on the phone. After the headset is connected, the ringer volume can only be controlled by the headset itself.	
Permitted Values	Integer from 0 to 15	
Default	0	

Sending Volume Configuration

You can configure the sending volume of currently engaged audio devices (handset, speakerphone or headset) when the phone is in use.

The following table lists the parameters you can use to configure the sending volume.

Parameter	voice.handfree_send[1]	<y0000000000xx>.cfg
Description	It configures the sending volume of the speaker. **Note**: We recommend that you modify this parameter cautiously. An unsuitable value may render the voice quality bad.	
Permitted Values	Integer from -50 to 50	
Default	0	

Web UI	Features > Audio > Handfree Send Volume (-50~50)	
Parameter	voice.handfree.autoreset_spk_vol	<y0000000000xx>.cfg
Description	It configures the speaker's volume level during a call.	
Permitted Values	**0**-The speakerphone volume at the end of a call persists between calls. **1 to 15**-The speakerphone volume does not persist between calls, and resets to this specified level each new call.	
Default	0	
Parameter	voice.handset_send[1]	<y0000000000xx>.cfg
Description	It configures the sending volume of the handset. **Note**: We recommend that you modify this parameter cautiously. An unsuitable value may render the voice quality bad.	
Permitted Values	Integer from -50 to 50	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Audio > Handset Send Volume (-50~50)	
Parameter	voice.handset.autoreset_spk_vol	<y0000000000xx>.cfg
Description	It configures the handset's volume level during a call.	
Permitted Values	**0**-The handset volume at the end of a call persists between calls. **1 to 15**-The handset volume does not persist between calls, and resets to this specified level each new call.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	voice.headset_send[1]	<y0000000000xx>.cfg
Description	It configures the sending volume of the headset. **Note**: We recommend that you modify this parameter cautiously. An unsuitable value may render the voice quality bad.	
Permitted Values	Integer from -50 to 50	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Audio > Headset Send Volume (-50~50)	
Parameter	voice.headset.autoreset_spk_vol	<y0000000000xx>.cfg
Description	It configures the headset's volume level during a call.	
Permitted Values	**0**-The headset volume at the end of a call persists between calls. **1 to 15**-The headset volume does not persist between calls, and resets to this specified level each new call.	

Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	voice.side_tone[1]	<y0000000000xx>.cfg
Description	It configures the volume of the sidetone.	
Permitted Values	Integer from -100 to 0	
Default	-25	
Parameter	voice.headset_side_tone	<y0000000000xx>.cfg
Description	It configures the sidetone volume of the headset.	
Permitted Values	Integer from -100 to 0	
Default	-25	
Parameter	voice.bluetooth_headset_send[1]	<y0000000000xx>.cfg
Description	It configures the sending volume of the Bluetooth headset. **Note**: We recommend that you modify this parameter cautiously. An unsuitable value may render the voice quality bad.	
Permitted Values	Integer from -50 to 50	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	voice.handset.tia4965.enable	<y0000000000xx>.cfg
Description	It enables or disables the handset's volume level to be reset to level 11 after the call if the volume level for the current call exceeds the standards. **Note**: The value configured by the parameter “voice.handset.autoreset_spk_vol” takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled, if the handset's volume level for the current call is adjusted to level 12/13/14/15, the volume level automatically resets to 11 after the call. That is, the initial volume level is 11 for the next call.	
Default	1	
Supported Devices	T58A, T58W	
Parameter	voice.headset.tia4965.enable	<y0000000000xx>.cfg
Description	It enables or disables the headset's volume level to be reset to level 11 after the call if the volume level for the current call exceeds the standards. **Note**: The value configured by the parameter “voice.headset.autoreset_spk_vol” takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled, if the headset's volume level for the current call is adjusted to level 12/13/14/15, the volume level automatically resets to 11 after the call. That is, the initial volume level is 11 for the next call.	

Default	1
Supported Devices	T58A, T58W

[1]If you change this parameter, the phone will reboot to make the change take effect.

Tones

When receiving a message, the phone will play a warning tone. You can customize tones or select specialized tone sets (vary from country to country) to indicate different conditions of the IP phone.

Topics

Supported Tones
Tones Configuration

Supported Tones

The default tones used on the phones are the US tone sets. Available tone sets for phones:

- Australia
- Austria
- Brazil
- Belgium
- China
- Czech
- Denmark
- Finland
- France
- Germany
- Great Britain
- Greece
- Hungary
- Lithuania
- India
- Italy
- Japan
- Mexico
- New Zealand
- Netherlands
- Norway
- Portugal
- Spain
- Switzerland
- Sweden
- Russia
- United States
- Chile
- Czech ETSI

Configured tones can be heard on the phones in the following conditions.

Condition	Description
Dial	When in the dialing interface (not applicable to CP960/CP965 phones)
Secondary Dial	When adding a comma "," to the digit map (For more information on digit map, refer to Dial Plan Defined by Digit Map (New Dial Plan Mechanism))
Ring Back	Ring-back tone
Busy	When the callee is busy
Congestion	When the network is congested or no available accounts (SIP account&IP call account) on the phone
Call Waiting	Call waiting tone (For more information on call waiting, refer to Call Waiting)
Dial Recall	When receiving a callback
Info	When receiving a special message
Stutter	When receiving a voice mail (For more information on voice mail tone, refer to Alert Tone)
Auto Answer	When automatically answering a call (For more information on the auto answer, refer to Auto Answer)

Tones Configuration

The following table lists the parameters you can use to configure tones.

Parameter	voice.tone.country	<y0000000000xx>.cfg
Description	It configures the country tone for the phones.	
Permitted Values	Custom, Australia, Austria, Brazil, Belgium, Chile, China, Czech, Czech ETSI, Denmark, Finland, France, Germany, Great Britain, Greece, Hungary, Lithuania, India, Italy, Japan, Mexico, New Zealand, Netherlands, Norway, Portugal, Spain, Switzerland, Sweden, Russia, United States	
Default	Custom	
Web UI	Settings > Tones > Select Country	
Parameter	voice.tone.dial	<y0000000000xx>.cfg
Description	It customizes the dial tone. tone list = element[,element] [,element]… Where **element** = [!]Freq1[+Freq2][+Freq3][+Freq4] /Duration **Freq**: the frequency of the tone (ranges from 200 to 4000 Hz). If it is set to 0 Hz, it means the tone is not played. **Duration**: the duration (in milliseconds) of the dial tone, ranges from 0 to 30000ms. You can configure at most eight different tones for one condition, and separate them by commas. (for example, 250/200,0/1000,200+300/500,200+500+800+1500/1000). If you want the IP phone to play tones once, add an exclamation mark "!" before tones (for example, !250/200,0/1000, 200+300/500,200+500+800+1500/1000). **Note**: It works only if "voice.tone.country" is set to Custom.	
Permitted Values	String	

Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Settings > Tones > Dial	
Parameter	features.partition_tone[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to play the different dial tones when there is no active account. **Note**: It works only if "voice.tone.dial" is configured.	
Permitted Values	**0**-Disabled **1**-Enabled. If there is an active account, the phone will play the default dial tone. If there is no active account, the phone will play the dial tone configured by "voice.tone.dial".	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	voice.tone.secondary_dial	<y0000000000xx>.cfg
Description	It customizes the secondary dial tone. The value format is Freq/Duration. For more information on the value format, refer to the parameter "voice.tone.dial". **Note**: It works only if "voice.tone.country" is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	
Default	350+440/3000	
Web UI	Settings > Tones > Secondary Dial	
Parameter	voice.tone.ring	<y0000000000xx>.cfg
Description	It customizes the ringback tone. The value format is Freq/Duration. For more information on the value format, refer to the parameter "voice.tone.dial". **Note**: It works only if "voice.tone.country" is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	
Default	Blank	
Web UI	Settings > Tones > Ring Back	
Parameter	voice.tone.busy	<y0000000000xx>.cfg
Description	It customizes the tone when the callee is busy. The value format is Freq/Duration. For more information on the value format, refer to the parameter "voice.tone.dial". **Note**: It works only if "voice.tone.country" is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	

Default	Blank	
Web UI	Settings > Tones > Busy	
Parameter	voice.tone.congestion	<y0000000000xx>.cfg
Description	It customizes the tone when the network is congested or no available accounts (SIP account&IP call account) on the phone. The value format is Freq/Duration. For more information on the value format, refer to the parameter “voice.tone.dial”. **Note**: It works only if “voice.tone.country” is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	
Default	Blank	
Web UI	Settings > Tones > Congestion	
Parameter	features.congestion_tone.codelist	<y0000000000xx>.cfg
Description	It configures the return code to play the congestion tone. Multiple codes are separated by commas. **Example**: features.congestion_tone.codelist = 403,503,603 **Note**: The congestion tone can be customized by "voice.tone.congestion".	
Permitted Values	any code that the server can return	
Default	Blank	
Parameter	voice.tone.callwaiting	<y0000000000xx>.cfg
Description	It customizes the call waiting tone. The value format is Freq/Duration. For more information on the value format, refer to the parameter “voice.tone.dial”. **Note**: It works only if “voice.tone.country” is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	
Default	Blank	
Web UI	Settings > Tones > Call Waiting	
Parameter	voice.tone.dialrecall	<y0000000000xx>.cfg
Description	It customizes the callback tone. The value format is Freq/Duration. For more information on the value format, refer to the parameter “voice.tone.dial”. **Note**: It works only if “voice.tone.country” is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	

Default	Blank	
Web UI	Settings > Tones > Dial Recall	
Parameter	voice.tone.info	<y0000000000xx>.cfg
Description	It customizes the info tone. The phone will play the info tone with the special information, for example, the number you are calling is not in service. The value format is Freq/Duration. For more information on the value format, refer to the parameter "voice.tone.dial". **Note**: It works only if "voice.tone.country" is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	
Default	Blank	
Web UI	Settings > Tones > Info	
Parameter	voice.tone.stutter	<y0000000000xx>.cfg
Description	It customizes the tone when the IP phone receives a voice mail. The value format is Freq/Duration. For more information on the value format, refer to the parameter "voice.tone.dial". **Note**: It works only if "voice.tone.country" is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	
Default	Blank	
Web UI	Settings > Tones > Stutter	
Parameter	voice.tone.autoanswer	<y0000000000xx>.cfg
Description	It customizes the warning tone for the auto answer. The value format is Freq/Duration. For more information on the value format, refer to the parameter "voice.tone.dial". **Note**: It works only if "voice.tone.country" is set to Custom. If you want to disable this warning tone, set it to 0.	
Permitted Values	String	
Default	Blank	
Web UI	Settings > Tones > Auto Answer	

Audio Codecs

CODEC is an abbreviation of COmpress-DECompress, capable of coding or decoding a digital data stream or signal by implementing an algorithm. The object of the algorithm is to represent the high-fidelity audio signal with a minimum number of bits while retaining the quality. This can effectively reduce the frame size and the bandwidth required for audio transmission.

The audio codec that the phone uses to establish a call should be supported by the SIP server. When placing a call, the phone will offer the enabled audio codec list to the server and then use the audio codec negotiated with the called party according to the priority.

Topics

Supported Audio Codecs
Audio Codecs Configuration

Supported Audio Codecs

The following table summarizes the supported audio codecs on the phones:

Codec	Algorithm	Reference	Bit Rate	Sample Rate	Packetization Time
G.722.1c	G.722.1c	RFC 5577	48 Kbps	32 Ksps	20ms
G.722.1c		RFC 5577	32 Kbps	32 Ksps	20ms
G.722.1c		RFC 5577	24 Kbps	32 Ksps	20ms
G.722.1	G.722.1	RFC 5577	24 Kbps	16 Ksps	20ms
G722	G.722	RFC 3551	64 Kbps	16 Ksps	20ms
PCMA	G.711 a-law	RFC 3551	64 Kbps	8 Ksps	20ms
PCMU	G.711 u-law	RFC 3551	64 Kbps	8 Ksps	20ms
G729	G.729	RFC 3551	8 Kbps	8 Ksps	20ms
G729AB	G729AB	RFC 3551	8 Kbps	8 Ksps	20ms
G726(16 kbps)	G.726	RFC 3551	16 Kbps	8 Ksps	20ms
G726(24 kbps)	G.726	RFC 3551	24 Kbps	8 Ksps	20ms
G726(32 kbps)	G.726	RFC 3551	32 Kbps	8 Ksps	20ms
G726(40 kbps)	G.726	RFC 3551	40 Kbps	8 Ksps	20ms
G723(53 kbps)/ G723(63 kbps)	G.723.1	RFC 3551	5.3 Kbps 6.3 Kbps	8 Ksps	30ms
iLBC(15.2kbps)	iLBC	RFC 3952	15.2 Kbps	8 Ksps	20ms
iLBC(13.33kbps)	iLBC	RFC 3952	13.33 Kbps	8 Ksps	30ms

Note: The network bandwidth necessary to send the encoded audio is typically 5~10% higher than the bit rate due to packetization overhead. For example, a two-way G.722 audio call at 64 Kbps consumes about 135 Kbps of network bandwidth.

The codec supports various audio bandwidths, defined as follows:

Abbreviation	Audio Bandwidth	Sample Rate (Effective)
NB (narrowband)	4 kHz	8 kHz
MB (medium-band)	6 kHz	12 kHz
WB (wideband)	8 kHz	16 kHz
SWB (super-wideband)	12 kHz	24 kHz
FB (fullband)	20 kHz	48 kHz

The following table lists the audio codecs supported by each phone model:

Phone Model	Supported Audio Codecs	Default Audio Codecs
VP59/T58A/T58W/CP960	G.722.1c (48kb/s), G.722.1c (32kb/s), G.722.1c (24kb/s), G.722.1 (24kb/s), G722, PCMU, PCMA, G729, G726(16 kbps), G726 (24 kbps), G726(32 kbps), G726(40 kbps), G723(53 kbps), G723(63 kbps), iLBC (15.2kbps), iLBC(13.33kbps), G729AB	G.722.1c(48kb/s), G.722.1c(32kb/s), G.722.1c(24kb/s), G.722.1(24kb/s), G722, PCMU, PCMA, G729
CP965	G.722.1c (48kb/s), G.722.1c (32kb/s), G.722.1c (24kb/s), G.722.1 (24kb/s), G722, PCMU, PCMA, G729, G726-16, G726-24, G726-32, G726-40, G723-53, G723-63, iLBC(15.2kbps), iLBC(13.33kbps)	G.722.1c(48kb/s), G.722.1c(32kb/s), G.722.1c(24kb/s), G.722.1(24kb/s), G722, PCMU, PCMA, G729

Audio Codecs Configuration

The following table lists the parameters you can use to configure the audio codecs.

Parameter	account.X.codec.<payload_type>.enable[1]	<MAC>.cfg
Description	It enables or disables the specified audio codec. The name (payload_type) of the audio codec: **g722_1c_48kpbs**-G.722.1c(48kb/s) **g722_1c_32kpbs**-G.722.1c(32kb/s) **g722_1c_24kpbs**-G.722.1c(24kb/s) **g722_1_24kpbs**-G.722.1(24kb/s) **g722**-G722 **pcmu**-PCMU **pcma**-PCMA **g729**-G729 **g726_16**-G726(16 kbps) **g726_24**-G726(24 kbps) **g726_32**-G726(32 kbps) **g726_40**-G726(40 kbps) **g723_53**-G723(53 kbps)	

	g723_63-G723(63 kbps) **ilbc_15_2kpbs**- iLBC(15.2kbps) **ilbc_13_33kpbs**-iLBC(13.33kbps) **g729ab**-G729AB **Example**: account.1.codec.g722.enable = 1 **Note**: The name of the audio codec in this parameter should be the correct one as listed in the above example, otherwise the corresponding configuration will not take effect.
Permitted Values	**0**-Disabled **1**-Enabled
Default	**Default**: When the audio codec is G.722.1c(48kb/s), the default value is 1; When the audio codec is G.722.1c(32kb/s), the default value is 1; When the audio codec is G.722.1c(24kb/s), the default value is 1; When the audio codec is G.722.1(24kb/s), the default value is 1; When the audio codec is G722, the default value is 1; When the audio codec is PCMU, the default value is 1; When the audio codec is PCMA, the default value is 1; When the audio codec is G729, the default value is 1; When the audio codec is G726(16 kbps), the default value is 0; When the audio codec is G726(24 kbps), the default value is 0; When the audio codec is G726(32 kbps), the default value is 0; When the audio codec is G726(40 kbps), the default value is 0; When the audio codec is G723(53 kbps), the default value is 0; When the audio codec is G723(63 kbps), the default value is 0; When the audio codec is iLBC(15.2kbps), the default value is 0; When the audio codec is iLBC(13.33kbps), the default value is 0; When the audio codec is G729AB, the default value is 0;
Web UI	Account > Codec > Audio Codec

Parameter	account.X.codec.<payload_type>.priority[1]	<MAC>.cfg
Description	It configures the priority of the enabled audio codec. The name of the audio codec: **g722_1c_48kpbs**-G.722.1c(48kb/s) **g722_1c_32kpbs**-G.722.1c(32kb/s)	

	g722_1c_24kpbs-G.722.1c(24kb/s) **g722_1_24kpbs**-G.722.1(24kb/s) **g722**-G722 **pcmu**-PCMU **pcma**-PCMA **g729**-G729 **g726_16**-G726(16 kbps) **g726_24**-G726(24 kbps) **g726_32**-G726(32 kbps) **g726_40**-G726(40 kbps) **g723_53**-G723(53 kbps) **g723_63**-G723(63 kbps) **ilbc_15_2kpbs**- iLBC(15.2kbps) **ilbc_13_33kpbs**-iLBC(13.33kbps) **g729ab**-G729AB **Example**: account.1.codec.g722.priority = 1 **Note:** The priority of the codec in the disable codec list is not specified, and numerical value 1 is defined as the highest priority in the enable codec list. The name of the audio codec in this parameter should be the correct one as listed in the above example, otherwise, the corresponding configuration will not take effect.
Permitted Values	Integer from 0 to 16
Default	When the audio codec is G722.1c(48kb/s), the default value is 1; When the audio codec is G722.1c(32kb/s), the default value is 2; When the audio codec is G722.1c(24kb/s), the default value is 3; When the audio codec is G722.1(24kb/s), the default value is 4; When the audio codec is G722, the default value is 5; When the audio codec is PCMU, the default value is 6; When the audio codec is PCMA, the default value is 7; When the audio codec is G729, the default value is 8; When the audio codec is G726(16 kbps), the default value is 0; When the audio codec is G726(24 kbps), the default value is 0; When the audio codec is G726(32 kbps), the default value is 0; When the audio codec is G726(40 kbps), the default value is 0; When the audio codec is G723(53 kbps), the default value is 0;

	When the audio codec is G723(63 kbps), the default value is 0; When the audio codec is iLBC(15.2kbps), the default value is 0; When the audio codec is iLBC(13.33kbps), the default value is 0; When the audio codec is G729AB, the default value is 0;	
Web UI	Account > Codec > Audio Codec	
Parameter		
Description		
Permitted Values		
Default		
Web UI		
Parameter	voice.g726.aal2.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to use the AAL2-G726-16, 24, 32 and 40 MIME type.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Packetization Time (PTime)

PTime is a measurement of the duration (in milliseconds) that how long the audio data in each RTP packet is sent to the destination, and defines how much the network bandwidth is used for the RTP stream transfer. Before establishing a conversation, codec and ptime are negotiated through SIP signaling. The valid values of ptime range from 10 to 60, in increments of 10 milliseconds. The default ptime is 20ms. You can also disable the ptime negotiation.

Topics

Supported PTime of Audio Codec
PTime Configuration

Supported PTime of Audio Codec

The following table summarizes the valid values of ptime for each audio codec:

Codec	Packetization Time (Minimum)	Packetization Time (Maximum)
G.722.1c(48kb/s)	20ms	60ms
G.722.1c(32kb/s)	20ms	60ms

Codec	Packetization Time (Minimum)	Packetization Time (Maximum)
G.722.1c(24kb/s)	20ms	60ms
G.722.1(24kb/s)	20ms	60ms
G722	10ms	40ms
PCMA	10ms	40ms
PCMU	10ms	40ms
G729	10ms	80ms
G726-16	10ms	30ms
G726-24	10ms	30ms
G726-32	10ms	30ms
G726-40	10ms	30ms
G723(53 kbps)/ G723(63 kbps)	30ms	60ms
iLBC	20ms	30ms

PTime Configuration

The following table lists the parameter you can use to configure the PTime.

Parameter	account.X.ptime[1]	<MAC>.cfg
Description	It configures the ptime (in milliseconds) for the codec.	
Permitted Values	**0**-Disabled **10**-10 **20**-20 **30**-30 **40**-40 **50**-50 **60**-60	
Default	20	
Web UI	Account > Advanced > PTime (ms)	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Early Media

The early media refers to the media (for example, audio and video) played to the caller before a SIP call is actually established.

Topic

Early Media Configuration

Early Media Configuration

The following table lists the parameters you can use to configure the early media.

Parameter	phone_setting.early_media.rtp_sniffer.timeout	<y0000000000xx>.cfg
Description	It configures the time to wait for the phone to play the local ringback tone when the early media cannot be played.	
Permitted Values	**-1**-Do not play the local ringback tone **0**-Play the local ringback tone immediately **1-100**-Wait for a specified time to play the local ringback tone	
Default	1	
Parameter	phone_setting.is_deal180	<y0000000000xx>.cfg
Description	It enables or disables the phone to deal with the 180 SIP message received after the 183 SIP message.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will resume and play the local ringback tone upon a subsequent 180 message received.	
Default	1	
Web UI	Features > General Information > 180 Ring Workaround	
Parameter	phone_setting.change_183_to_180	<y0000000000xx>.cfg
Description	It enables or disables the phone to handle the received second 183 message as the 180 message.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will play the early media first and play the local ringback tone when receiving the second 183 message.	
Default	0	

Headset Prior

Headset prior allows users to use headset preferentially if a headset is physically connected to the IP phone. This feature is especially useful for permanent or full-time headset users.

Note: It is not applicable to the Bluetooth headset and USB headset.

Topic

Headset Prior Configuration

Headset Prior Configuration

The following table lists the parameters you can use to configure the headset prior.

Parameter	features.headset_prior	<y0000000000xx>.cfg
Description	It enables or disables to preferentially use the headset mode for all incoming and outgoing calls. **Note**: It works only if "features.headset_mode.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, the headset mode will be deactivated after the call, if you switch the headset mode to speakerphone/handset mode. **1**-Enabled, the headset mode will not be deactivated after the call, even if you switch the headset mode to speakerphone/handset mode.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > General Information > Headset Prior	
Parameter	features.headset.ctrl_call.enable	<y0000000000xx>.cfg
Description	It enables or disables the user to initiate or end a call by pressing the HEADSET key. **Note**: It works only if "features.headset_mode.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	

Dual Headset

The dual headset allows you to use two headsets on one IP phone. To use this feature, you need to physically connect two headsets to the headset and handset jacks respectively. Once the IP phone connects to a call, the headset connected to the headset jack has the full-duplex capability, with the headset connected to the handset jack is only used for listening.

Note: The dual headset is not applicable to the Bluetooth headset and USB headset. It is not applicable to CP960/CP965 phones.

Topic

Dual Headset Configuration

Dual Headset Configuration

The following table lists the parameter you can use to configure dual headset.

Parameter	features.headset_training	<y0000000000xx>.cfg
Description	It enables or disables the dual headset feature. **Note**: It works only if "features.headset_mode.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, users can use two headsets on one phone. When the IP phone joins a call, the headset connected to the headset jack has the full-duplex capability, with the headset connected to the handset jack is only used for listening.	

Default	0
Supported Devices	All phones except CP960/CP965
Web UI	Features > General Information > Dual Headset

Acoustic Clarity Technology

To optimize the audio quality in your network, Yealink phones support the acoustic clarity technology: Acoustic Echo Cancellation (AEC), Background Noise Suppression (BNS), Automatic Gain Control (AGC), Voice Activity Detection (VAD), Comfort Noise Generation (CNG) and jitter buffer.

Topics

Acoustic Echo Cancellation (AEC)
Noise Suppression
Background Noise Suppression (BNS)
Automatic Gain Control (AGC)
Voice Activity Detection (VAD)
Comfort Noise Generation (CNG)
Jitter Buffer
Smart Noise Block
Acoustic Shield
Smart Noise Filtering

Acoustic Echo Cancellation (AEC)

Yealink phones employ advanced AEC for hands-free operation. You can configure the AEC feature to remove the echo of the local loudspeaker from the local microphone without removing the near-end speech.

AEC is not normally required for calls via the handset. In some cases, where echo is experienced by the remote party, AEC may be used to reduce/avoid echo when you use the handset.

Note: Utilizing acoustic echo cancellation will introduce a small increase of delay into an audio path which might cause a lower voice quality.

Topic

AEC Configuration

AEC Configuration

The following table lists the parameter you can use to configure AEC.

Parameter	voice.echo_cancellation	<y0000000000xx>.cfg
Description	It enables or disables the AEC (Acoustic Echo Canceller) feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice > Echo Cancellation > ECHO	

Noise Suppression

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

You can enable the Noise Suppression feature to suppress these noises.

Topic

Noise Suppression Configuration

Noise Suppression Configuration

The following table lists the parameter you can use to configure noise suppression.

Parameter	voice.tns.enable	<y0000000000xx>.cfg
Description	It enables or disables the Noise Suppression feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice > Noise Proof > Noise Suppression	

Automatic Gain Control (AGC)

Automatic Gain Control (AGC) is applicable to the hands-free operation and is used to keep audio output at nearly a constant level by adjusting the gain of signals in some circumstances. This increases the effective user-phone radius and helps with the intelligibility of soft-talkers.

Voice Activity Detection (VAD)

VAD can avoid unnecessary coding or transmission of silence packets in VoIP applications, saving on computation and network bandwidth.

Topic

VAD Configuration

VAD Configuration

The following table lists the parameter you can use to configure VAD.

Parameter	voice.vad	<y0000000000xx>.cfg
Description	It enables or disables the VAD (Voice Activity Detection) feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice > Echo Cancellation > VAD	

Comfort Noise Generation (CNG)

Comfort Noise Generation (CNG) is used to generate background noise for voice communications during periods of silence in a conversation.

Note: VAD is used to send CN packets when the phone detects a "silence" period; CNG is used to generate comfortable noise when the phone receives CN packets from the other side.

Topic

CNG Configuration

CNG Configuration

The following table lists the parameter you can use to configure CNG.

Parameter	voice.cng	<y0000000000xx>.cfg
Description	It enables or disables the CNG (Comfortable Noise Generation) feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice > Echo Cancellation > CNG	

Jitter Buffer

Yealink phones support two types of jitter buffers: fixed and adaptive. A fixed jitter buffer adds the fixed delay to voice packets. You can configure the delay time for the static jitter buffer on the phones. An adaptive jitter buffer is capable of adapting the changes in the network's delay. The range of the delay time for the dynamic jitter buffer added to packets can be also configured on the phones.

Topic

Jitter Buffer Configuration

Jitter Buffer Configuration

You can configure the mode of jitter buffer and the delay time for jitter buffer in the wired network or wireless network.

The following table lists the parameters you can use to configure the jitter buffer.

Parameter	voice.jib.adaptive	<y0000000000xx>.cfg
Description	It configures the type of jitter buffer in the wired network.	
Permitted Values	**0**-Fixed **1**-Adaptive	
Default	1	
Web UI	Settings > Voice > Jitter Buffer > Type	
Parameter	voice.jib.min	<y0000000000xx>.cfg
Description	It configures the minimum delay time (in milliseconds) of the jitter buffer in the wired network. **Note**: It works only if “voice.jib.adaptive” is set to 1 (Adaptive). The value of this parameter should be less than or equal to that of “voice.jib.normal”.	
Permitted Values	Integer from 0 to 400	
Default	60	
Web UI	Settings > Voice > Jitter Buffer > Min Delay	
Parameter	voice.jib.max	<y0000000000xx>.cfg
Description	It configures the maximum delay time (in milliseconds) of the jitter buffer in the wired network. **Note**: It works only if “voice.jib.adaptive” is set to 1 (Adaptive). The value of this parameter should be greater than or equal to that of “voice.jib.normal”.	
Permitted Values	Integer from 0 to 400	
Default	240	

Web UI	Settings > Voice > Jitter Buffer > Max Delay	
Parameter	voice.jib.normal	<y0000000000xx>.cfg
Description	It configures the normal delay time (in milliseconds) of the jitter buffer in the wired network. **Note**: It works only if "voice.jib.adaptive" is set to 0 (Fixed). The value of this parameter should be greater than or equal to that of "voice.jib.min" and less than or equal to that of "voice.jib.max".	
Permitted Values	Integer from 0 to 400	
Default	120	
Web UI	Settings > Voice > Jitter Buffer > Normal	
Parameter	voice.jib.wifi.adaptive	<y0000000000xx>.cfg
Description	It configures the type of jitter buffer in the wireless network.	
Permitted Values	**0**-Fixed **1**-Adaptive	
Default	1	
Parameter	voice.jib.wifi.min	<y0000000000xx>.cfg
Description	It configures the minimum delay time (in milliseconds) of the jitter buffer in the wireless network. **Note**: It works only if "voice.jib.wifi.adaptive" is set to 1 (Adaptive). The value of this parameter should be less than or equal to that of "voice.jib.wifi.normal".	
Permitted Values	Integer from 0 to 500	
Default	60	
Parameter	voice.jib.wifi.max	<y0000000000xx>.cfg
Description	It configures the maximum delay time (in milliseconds) of the jitter buffer in the wireless network. **Note**: It works only if "voice.jib.wifi.adaptive" is set to 1 (Adaptive). The value of this parameter should be greater than or equal to that of "voice.jib.wifi.normal".	
Permitted Values	Integer from 0 to 500	
Default	500	
Parameter	voice.jib.wifi.normal	<y0000000000xx>.cfg
Description	It configures the normal delay time (in milliseconds) of the jitter buffer in the wireless network. **Note**: It works only if "voice.jib.wifi.adaptive" is set to 0 (Fixed). The value of this parameter should be greater than or equal to that of "voice.jib.wifi.min" and less than or equal to that of "voice.jib.wifi.min".	
Permitted Values	Integer from 0 to 500	
Default	240	

Smart Noise Block

You can use the Smart Noise Block feature to block out the local noises when there is no speech in a call.

Topic

Smart Noise Block Configuration

Smart Noise Block Configuration

The following table lists the parameter you can use to configure smart noise block.

Parameter	voice.ans_nb.enable	<y0000000000xx>.cfg
Description	It enables or disables the Smart Noise Block feature. **Note**: It works only if “voice.tns.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice > Noise Proof > Smart Noise Block	

Acoustic Shield

The acoustic shield feature is designed for background noise suppression when you are using the phone handset or a connected headset.

It is particularly used in the open office environment, such as the call center, where background noise can impact far-end audio quality.

It is not applicable to CP960/CP965 phones.

Topic

Acoustic Shield Configuration

Acoustic Shield Configuration

The following table lists the parameter you can use to configure the acoustic shield.

Parameter	features.acoustic_shield.mode	<y0000000000xx>.cfg
Description	It enables or disables the acoustic shield feature during the call.	
Permitted Values	**0**-Disabled **1**-Enabled, you need to manually enable acoustic shield by tapping the **Acous.S On** soft key during the call. **2**-Auto, the acoustic shield is automatically enabled when the call is set up. You can tap the **Acous.S Off** soft key during the call to disable it.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Settings > Voice > Acoustic Shield > Acoustic Shield Mode	
Parameter	features.acoustic_shield.level	<y0000000000xx>.cfg
Description	It configures the noise suppression level for handsets and headsets. The higher value represents the better noise suppression effect. If it is set to 3, the phone automatically shields the noise out of 20 centimeters (7.9 inches) when you are using the phone handset or a headset.	
Permitted Values	Integer from 1 to 3	
Default	2	

Supported Devices	All phones except CP960/CP965
Web UI	Settings > Voice > Acoustic Shield > Acoustic Shield Level

Smart Noise Filtering

The phones can block out the slight noise from the far party when there is no speech in a call, and at the same time filter out the common transient noise (door closing, table knocking, and so on).

Topic

Smart Noise Filtering Configuration

Smart Noise Filtering Configuration

The following table lists the parameter you can use to configure smart noise filtering.

Parameter	features.noise_filtering_rev.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to block out the slight noise from the far end when there is no speech in a call. **Note**: After smart noise filtering is enabled, if the far end is playing music or calling a voice service, the background music will also be eliminated when there is no speech in a call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice > Smart Noise Filtering > Smart Noise Filtering	

DTMF

DTMF (Dual Tone Multi-frequency) tone, better known as touch tone. DTMF is the signal sent from the IP phone to the network, which is generated when pressing the IP phone's keypad during a call. Each key pressed on the IP phone generates one sinusoidal tone of two frequencies. One is generated from a high-frequency group and the other from a low-frequency group.

Topics

DTMF Keypad
Transmitting DTMF Digit
Suppress DTMF Display
Transfer via DTMF
Local DTMF Tone

DTMF Keypad

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

DTMF Keypad Frequencies:

	1209 Hz	**1336 Hz**	**1477 Hz**	**1633 Hz**
697 Hz	1	2	3	A

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

Note: The phones will not send the DTMF sequence when the call is placed on hold or is held.

Transmitting DTMF Digit

Three methods of transmitting DTMF digits on SIP calls:

- **RFC 2833** -- DTMF digits are transmitted by RTP Events compliant with RFC 2833. You can configure the payload type and sending times of the end RTP Event packet. The RTP Event packet contains 4 bytes. The 4 bytes are distributed over several fields denoted as Event, End bit, R-bit, Volume, and Duration. If the End bit is set to 1, the packet contains the end of the DTMF event. You can configure the sending times of the end RTP Event packet.
- **INBAND** -- DTMF digits are transmitted in the voice band. It uses the same codec as your voice and is audible to conversation partners.
- **SIP INFO** -- DTMF digits are transmitted by SIP INFO messages. DTMF digits are transmitted by the SIP INFO messages when the voice stream is established after a successful SIP 200 OK-ACK message sequence. The SIP INFO message can transmit DTMF digits in three ways: DTMF, DTMF-Relay, and Telephone-Event.

Topic

Transmitting DTMF Digit Configuration

Transmitting DTMF Digit Configuration

The following table lists the parameters you can use to configure the transmitting DTMF digit.

Parameter	account.X.dtmf.type[1]	<MAC>.cfg
Description	It configures the DTMF type.	
Permitted Values	**0**-INBAND, DTMF digits are transmitted in the voice band. **1**-RFC2833, DTMF digits are transmitted by RTP Events compliant to RFC 2833. **2**-SIP INFO, DTMF digits are transmitted by the SIP INFO messages. **3**-RFC2833 + SIP INFO, DTMF digits are transmitted by RTP Events compliant to RFC 2833 and the SIP INFO messages.	
Default	1	
Web UI	Account > Advanced > DTMF Type	
Parameter	account.X.dtmf.dtmf_payload[1]	<MAC>.cfg
Description	It configures the value of DTMF payload. **Note**: It works only if “account.X.dtmf.type” is set to 1 (RFC2833) or 3 (RFC2833 + SIP INFO).	
Permitted Values	Integer from 96 to 127	
Default	101	

Web UI	Account > Advanced > DTMF Payload Type(96~127)	
Parameter	account.X.dtmf.info_type[1]	<MAC>.cfg
Description	It configures the DTMF info type. **Note**: It works only if "account.X.dtmf.type" is set to 2 (SIP INFO) or 3 (RFC2833 + SIP INFO).	
Permitted Values	**1**-DTMF-Relay **2**-DTMF **3**-Telephone-Event	
Default	1	
Web UI	Account > Advanced > DTMF Info Type	
Parameter	features.dtmf.repetition	<y0000000000xx>.cfg
Description	It configures the repetition times for the phone to send the end RTP Event packet during an active call.	
Permitted Values	1, 2 or 3	
Default	3	
Web UI	Features > General Information > DTMF Repetition	
Parameter	features.dtmf.duration	<y0000000000xx>.cfg
Description	It configures the duration time (in milliseconds) for each digit when a sequence of DTMF tones is played out automatically. **Note**: If the time interval between two DTMF digits is less than this value, two or more same DTMF digits could be identified as one DTMF digit. This may cause the loss of one or more DTMF digits. For example, 2662 may be identified as 262. If so, you can modify the value of this parameter to a little lower than the default value.	
Permitted Values	Integer from 0 to 300	
Default	100	
Parameter	features.dtmf.volume	<y0000000000xx>.cfg
Description	It configures the volume of the DTMF tone (in dB).	
Permitted Values	Integer from -33 to 0	
Default	-10	
Parameter	features.dtmf.min_interval	<y0000000000xx>.cfg
Description	It configures the minimum inter-digit time (in milliseconds) between digits when a sequence of DTMF tones is played out automatically.	
Permitted Values	Integer from 0 to 300	
Default	50	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Suppress DTMF Display

Suppress DTMF display allows the phones to suppress the display of DTMF digits during an active call. DTMF digits are displayed as “*” on the phone screen. Suppress DTMF display delay defines whether to display the DTMF digits for a short period of time before displaying as “*”.

Topic

Suppress DTMF Display Configuration

Suppress DTMF Display Configuration

The following table lists the parameters you can use to configure the suppress DTMF display.

Parameter	features.dtmf.hide	<y0000000000xx>.cfg
Description	It enables or disables the phone to suppress the display of DTMF digits during an active call.	
Permitted Values	**0**-Disabled **1**-Enabled, the DTMF digits are displayed as asterisks.	
Default	0	
Web UI	Features > General Information > Suppress DTMF Display	
Parameter	features.dtmf.hide_delay	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the DTMF digits for a short period before displaying asterisks during an active call. **Note**: It works only if “features.dtmf.hide” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > Suppress DTMF Display Delay	

Transfer via DTMF

Call transfer is implemented via DTMF on some servers. The IP phone sends specified DTMF digits to the server for transferring calls to third parties.

Topic

Transfer via DTMF Configuration

Transfer via DTMF Configuration

The following table lists the parameters you can use to configure the transfer via DTMF.

Parameter	features.dtmf.replace_tran	<y0000000000xx>.cfg
Description	It enables or disables the phone to send designated DTMF sequences for transfer function when tapping the**Transfer** soft key or TRAN/TRANSFER key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > DTMF Replace Tran	
Parameter	features.dtmf.transfer	<y0000000000xx>.cfg
Description	It configures the DTMF sequences to be transmitted to perform call transfer.	

	Valid values are: 0-9, *, # and A-E. **Note**: It works only if "features.dtmf.replace_tran" is set to 1 (Enabled).
Permitted Values	String within 32 characters
Default	Blank
Web UI	Features > General Information > Tran Send DTMF

Local DTMF Tone

Local DTMF tone allows the phones to play a local DTMF tone during an active call. If this feature is enabled, you can hear the DTMF tone when pressing the IP phone's keypad during a call.

Topic

Local DTMF Tone Configuration

Local DTMF Tone Configuration

The following table lists the parameter you can use to configure the local DTMF tone.

Parameter	features.play_local_dtmf_tone_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play a local DTMF tone.	
Permitted Values	**0**-Disabled **1**-Enabled, you can hear the DTMF tone when pressing the phone's keypad during a call.	
Default	1	
Web UI	Features > General Information > Play Local DTMF Tone	

Voice Quality Monitoring (VQM)

Voice quality monitoring feature allows the phones to generate various quality metrics for listening quality and conversational quality. These metrics can be sent between the phones in RTCP-XR packets. These metrics can also be sent in SIP PUBLISH messages to a central voice quality report collector. Yealink phones support two mechanisms for voice quality monitoring: RTCP-XR and VQ-RTCPXR.

Topics

RTCP-XR
VQ-RTCPXR

RTCP-XR

The RTCP-XR mechanism, compliant with RFC 3611-RTP Control Extended Reports (RTCP XR), provides the metrics contained in RTCP-XR packets for monitoring the quality of calls. These metrics include network packet loss, delay metrics, analog metrics, and voice quality metrics.

Topic

RTCP-XR Configuration

RTCP-XR Configuration

The following table lists the parameters you can use to configure the RTCP-XR.

Parameter	voice.rtcp_xr.enable	<y0000000000xx>.cfg

Description	It enables or disables the phone to send RTCP-XR packets.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice Monitoring > Voice RTCP-XR Report	
Parameter	voice.rtcp.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to send RTCP packets.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	voice.rtcp_cname	<y0000000000xx>.cfg
Description	It configures the cname of the RTCP packets.	
Permitted Values	String	
Default	Blank	

VQ-RTCPXR

The VQ-RTCPXR mechanism, compliant with RFC 6035, sends the service quality metric reports contained in SIP PUBLISH messages to the central report collector.

A wide range of performance metrics are generated in the following three ways:

- Based on current values, such as jitter, jitter buffer max, and round trip delay.
- Covers the time period from the beginning of the call until the report is sent, such as network packet loss.
- Computed using other metrics as input, such as listening Mean Opinion Score (MOS-LQ) and conversational Mean Opinion Score (MOS-CQ).

Topics

Voice Quality Reports
VQ-RTCPXR Display
Central Report Collector

Voice Quality Reports

Three types of quality reports can be enabled:

- **Session**: Generated at the end of a call.
- **Interval**: Generated during a call at a configurable period.
- **Alert**: Generated when the call quality degrades below a configurable threshold.

Topic

Voice Quality Reports Configuration

Voice Quality Reports Configuration

The following table lists the parameters you can use to configure the service quality reports.

Parameter	phone_setting.vq_rtcpxr.session_report.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to send a session quality report to the central report collector at the end of each call.	

Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice Monitoring > VQ RTCP-XR Session Report	
Parameter	phone_setting.vq_rtcpxr.interval_report.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to send an interval quality report to the central report collector periodically throughout a call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice Monitoring > VQ RTCP-XR Interval Report	
Parameter	phone_setting.vq_rtcpxr_interval_period	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) for the phone to send an interval quality report to the central report collector periodically throughout a call. **Note**: It works only if "phone_setting.vq_rtcpxr.interval_report.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 5 to 20	
Default	20	
Web UI	Settings > Voice Monitoring > Period for Interval Report	
Parameter	phone_setting.vq_rtcpxr_moslq_threshold_warning	<y0000000000xx>.cfg
Description	It configures the threshold value of listening MOS score (MOS-LQ) multiplied by 10. The threshold value of MOS-LQ causes the phone to send a warning alert quality report to the central report collector. For example, a configured value of 35 corresponds to the MOS score 3.5. When the MOS-LQ value computed by the phone is less than or equal to 3.5, the phone will send a warning alert quality report to the central report collector. When the MOS-LQ value computed by the phone is greater than 3.5, the phone will not send a warning alert quality report to the central report collector. If it is set to blank, warning alerts are not generated due to MOS-LQ.	
Permitted Values	Integer from 15 to 40	
Default	Blank	
Web UI	Settings > Voice Monitoring > Warning Threshold for Moslq	
Parameter	phone_setting.vq_rtcpxr_moslq_threshold_critical	<y0000000000xx>.cfg
Description	It configures the threshold value of listening MOS score (MOS-LQ) multiplied by 10. The threshold value of MOS-LQ causes the phone to send a critical alert quality report to the central report collector. For example, a configured value of 28 corresponds to the MOS score 2.8. When the MOS-LQ value computed by the phone is less than or equal to 2.8, the phone will send a critical alert quality report to the central report collector. When the MOS-LQ value computed by the phone is greater than 2.8, the phone will not send a critical alert quality report to the central report collector. If it is set to blank, critical alerts are not generated due to MOS-LQ.	
Permitted Values	Integer from 15 to 40	

Default	Blank	
Web UI	Settings > Voice Monitoring > Critical Threshold for Moslq	
Parameter	phone_setting.vq_rtcpxr_delay_threshold_warning	<y0000000000xx>.cfg
Description	It configures the threshold value of one-way delay (in milliseconds) that causes the phone to send a warning alert quality report to the central report collector. For example, if it is set to 500, when the value of one way delay computed by the phone is greater than or equal to 500, the phone will send a warning alert quality report to the central report collector; when the value of one way delay computed by the phone is less than 500, the phone will not send a warning alert quality report to the central report collector. If it is set to blank, warning alerts are not generated due to one-way delay. The one-way delay includes both network delay and end system delay.	
Permitted Values	10 to 2000	
Default	Blank	
Web UI	Settings > Voice Monitoring > Warning Threshold for Delay	
Parameter	phone_setting.vq_rtcpxr_delay_threshold_critical	<y0000000000xx>.cfg
Description	It configures the threshold value of one-way delay (in milliseconds) that causes the phone to send a critical alert quality report to the central report collector. For example, if it is set to 500, when the value of one-way delay computed by the phone is greater than or equal to 500, the phone will send a critical alert quality report to the central report collector; when the value of one way delay computed by the phone is less than 500, the phone will not send a critical alert quality report to the central report collector. If it is set to blank, critical alerts are not generated due to one-way delay. The one-way delay includes both network delay and end system delay.	
Permitted Values	10 to 2000	
Default	Blank	
Web UI	Settings > Voice Monitoring > Critical Threshold for Delay	
Parameter	phone_setting.vq_rtcpxr.min_callduration	<y0000000000xx>.cfg
Description	It configures the minimum call duration time (in seconds) that causes the phone to send a session quality report to the central report collector. If it is set to 0, the phone will send a session quality report to the central report collector at the end of each call. **Note**: It works only if "phone_setting.vq_rtcpxr.session_report.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 60	
Default	0	

VQ-RTCPXR Display

You can check the voice quality data of the last call via the web user interface or phone user interface. You can also specify the options of the RTP status to be displayed on the phone user interface. Options of the RTP status displayed on the web user interface cannot be specified.

Note: You can configure the softkey layout feature to display the **RTP Status** soft key during the conference. Then you can press the **RTP Status** soft key to check the voice quality data with different parties. For more information, refer to Softkey

Layout.

Topic

VQ-RTCPXR Display Configuration

VQ-RTCPXR Display Configuration

The following table lists the parameters you can use to configure VQ-RTCPXR display.

Parameter	phone_setting.vq_rtcpxr.states_show_on_web.enable	<y0000000000xx>.cfg
Description	It enables or disables the voice quality data of the last call to be displayed on the web interface at the path **Status** > **RTP Status**.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice Monitoring > Display Report Options on Web	
Parameter	phone_setting.vq_rtcpxr.states_show_on_gui.enable	<y0000000000xx>.cfg
Description	It enables or disables the voice quality data of the last call or current call to be displayed on the phone screen. You can view the voice quality data of the last call on the phone at the path **Settings** > **Status** > **RTP Status**. You can view the voice quality data of the current call by tapping the **RTP Status** soft key during a call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice Monitoring > Display Report Options on Phone	
Parameter	phone_setting.vq_rtcpxr_display_start_time.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Start Time on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Start Time	
Parameter	phone_setting.vq_rtcpxr_display_stop_time.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Current Time or Stop Time on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Current Time	
Parameter	phone_setting.vq_rtcpxr_display_local_call_id.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Local User on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	

Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Local User	
Parameter	phone_setting.vq_rtcpxr_display_remote_call_id.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Remote User on the phone screen. **Note**: It works only if “phone_setting.vq_rtcpxr.states_show_on_gui.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Remote User	
Parameter	phone_setting.vq_rtcpxr_display_local_codec.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Local Codec on the phone screen. **Note**: It works only if “phone_setting.vq_rtcpxr.states_show_on_gui.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Local Codec	
Parameter	phone_setting.vq_rtcpxr_display_remote_codec.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Remote Codec on the phone screen. **Note**: It works only if “phone_setting.vq_rtcpxr.states_show_on_gui.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Remote Codec	
Parameter	phone_setting.vq_rtcpxr_display_jitter.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Jitter on the phone screen. **Note**: It works only if “phone_setting.vq_rtcpxr.states_show_on_gui.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Jitter	
Parameter	phone_setting.vq_rtcpxr_display_jitter_buffer_max.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Jitter Buffer Max on the phone screen. **Note**: It works only if “phone_setting.vq_rtcpxr.states_show_on_gui.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Web UI	Settings > Voice Monitoring > Report Options on Phone > Jitter Buffer Max	
Parameter	phone_setting.vq_rtcpxr_display_packets_lost.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display Packets lost on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > Packets Lost	
Parameter	phone_setting.vq_rtcpxr_display_symm_oneway_delay.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display SymmOneWayDelay on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice Monitoring > Report Options on Phone > SymmOneWayDelay	
Parameter	phone_setting.vq_rtcpxr_display_round_trip_delay.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display RoundTripDelay on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Voice Monitoring > Report Options on Phone > RoundTripDelay	
Parameter	phone_setting.vq_rtcpxr_display_moslq.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display MOS-LQ on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > MOS-LQ	
Parameter	phone_setting.vq_rtcpxr_display_moscq.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display MOS-CQ on the phone screen. **Note**: It works only if "phone_setting.vq_rtcpxr.states_show_on_gui.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Settings > Voice Monitoring > Report Options on Phone > MOS-CQ	

Central Report Collector

To operate with the central report collector, the phones must be configured to forward their voice quality reports to the specified report collector. You can specify the report collector on a per-line basis.

Topic

Central Report Collector Configuration

Central Report Collector Configuration

The following table lists the parameters you can use to configure the central report collector.

Parameter	account.X.vq_rtcpxr.collector_name[1]	<MAC>.cfg
Description	It configures the hostname of the central report collector that accepts voice quality reports contained in SIP PUBLISH messages.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Advanced > VQ RTCP-XR Collector Name	
Parameter	account.X.vq_rtcpxr.collector_server_host[1]	<MAC>.cfg
Description	It configures the IP address of the central report collector that accepts voice quality reports contained in SIP PUBLISH messages.	
Permitted Values	IPv4 Address/FQDN	
Default	Blank	
Web UI	Account > Advanced > VQ RTCP-XR Collector Address	
Parameter	account.X.vq_rtcpxr.collector_server_port[1]	<MAC>.cfg
Description	It configures the port of the central report collector that accepts voice quality reports contained in SIP PUBLISH messages.	
Permitted Values	Integer from 0 to 65535	
Default	5060	
Web UI	Account > Advanced > VQ RTCP-XR Collector Port	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Silent Mode

You can use silent mode feature to block the incoming call/message from producing ring tone/notification tone from phone's speaker. It is helpful for users not to be disturbed by the tone.

Yealink phones support the following three methods to enable the silent mode feature:

- Turn on the silent mode via the phone user interface at the path: **Settings** > **Basic Settings** > **Sound**.
- Swipe down from the top of the screen to enter the control center, tap **Silent**.
- Press the Volume key to adjust the ringer volume to the minimum.

By default, the users can enable or disable the silent mode. You can disable the users to configure it.

Topic

Silent Mode Configuration

Silent Mode Configuration

The following table lists the parameter you can use to configure silent mode.

Parameter	phone_setting.permit_silent_mode.enable	<y0000000000xx>.cfg
Description	It enables or disables the user to have the permission to use the silent mode feature.	
Permitted Values	**0**-Disabled, the Silent Mode item will disappear from the phone user interface at the path: **Settings** > **Basic Settings** > **Sound**. Users can neither enable the silent mode feature from the control center or via the phone user interface, nor adjust the ringer volume to minimum. **1**-Enabled	
Default	1	

Lower Your Voice Alarm

When users speak loudly during a call, a warning message will be displayed on the phone screen. They can lower the sound or choose to ignore it.

Topic

Lower Your Voice Alarm Configuration

Lower Your Voice Alarm Configuration

The following table lists the parameters you can use to configure lower your voice alarm feature.

Parameter	features.lower_your_voice_alarm.enable	<y0000000000xx>.cfg
Description	It enables or disables the lower your voice alarm feature.	
Permitted Values	**0**-Disabled, users won't see the message on their screen when they speak loudly. **1**-Enabled	
Default	1	
Supported Devices	T58W	
Phone UI	Settings > Basic Settings > Sound > Lower Your Voice Alarm	

Phone Customization

You can make the IP phone more personalized by customizing various settings.

Topics

Language
Wallpaper
Screen Saver
Backlight
Label Length for Line Key Display
Page Tips
Time and Date
Idle Clock Display
Call Display
Display Method on Dialing
Key As Send
Softkey Layout
Input Method
Notification Popups
Power/Mute LED Indicator
Bluetooth
Handset/Headset/Speakerphone Mode
DSS Keys
Enhanced DSS Keys
Power Saving
Search Source List in Dialing
Recent Call Display in Dialing
Icon Customization
Door Phone
Android Keys Display
Status Bar and Control/Notification Center Display
Warnings Display
Browser Home Page
Out of Service
PC Mode
Font Size Customization
Analog Headset Mode

Language

Yealink phones support multiple languages. Languages used on the phone user interface and web user interface can be specified respectively as required.

Topics

Supported Languages
Language Display Configuration
Language for Phone Display Customization
Language for Web Display Customization

Supported Languages

You can ask the distributor or Yealink FAE for language packs. You can also obtain the language packs online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

The following table lists available languages and associated language packs supported by the phone user interface and the web user interface.

Phone User Interface		Web User Interface		
Language	**Language Pack**	**Language**	**Language Pack**	**Note Language Pack**
English	000.GUI.English.lang	English	1.English.js	1.English_note.xml
Chinese Simplified	001.GUI.Chinese_S.lang	Chinese Simplified	2.Chinese_S.js	2.Chinese_S_note.xml
Chinese Traditional	002.GUI.Chinese_T.lang	Chinese Traditional	3.Chinese_T.js	3.Chinese_T_note.xml
French	003.GUI.French.lang	French	4.French.js	4.French_note.xml
German	004.GUI.German.lang	German	5.German.js	5.German_note.xml
Italian	005.GUI.Italian.lang	Italian	6.Italian.js	6.Italian_note.xml
Polish	006.GUI.Polish.lang	Polish	7.Polish.js	7.Polish_note.xml
Portuguese	007.GUI.Portuguese.lang	Portuguese	8.Portuguese.js	8.Portuguese_note.xml
Spanish	008.GUI.Spanish.lang	Spanish	9.Spanish.js	9.Spanish_note.xml
Turkish	009.GUI.Turkish.lang	Turkish	10.Turkish.js	10.Turkish_note.xml
Russian	010.GUI.Russian.lang	Russian	11.Russian.js	11.Russian_note.xml
Czech	014.GUI.Czechlang.lang	Czech	12.Czechlang.js	12.Czechlang_note.xml
Hebrew	015.GUI.Hebrew.lang	Arabic	13.Arabic.js	13.Arabic_note.xml
Arabic	016.GUI.Arabic.lang			

Language Display Configuration

The default language displayed on the phone user interface is English. If your web browser displays a language not supported by the IP phone, the web user interface will display English by default. You can specify the languages for the phone user interface and web user interface respectively.

The following table lists the parameters you can use to configure the language display.

Parameter	lang.gui	<y0000000000xx>.cfg
Description	It configures the language used on the phone user interface.	
Permitted Values	English, Chinese_S, Chinese_T, French, German, Italian, Polish, Portuguese, Spanish, Turkish, Russian, Czech, Arabic, Hebrew, or the custom language name.	
Default	English	
Phone UI	Settings > Basic Settings > Language & Input > Language CP965: More > Settings > Basic > Language & Input > Language	
Parameter	lang.wui	<y0000000000xx>.cfg
Description	It configures the language used on the web user interface.	
Permitted Values	English, Chinese_S, Chinese_T, French, German, Italian, Polish, Portuguese, Spanish, Turkish, Russian, Czech, Arabic, or the custom language name.	

Default	English
Web UI	On the top-right corner of the web user interface

Language for Phone Display Customization

You can customize the translation of the existing language on the phone user interface. Languages available for selection depend on language packs currently loaded to the IP phone. You can also add new languages (not included in the available language list) available for phone display by loading language packs to the IP phone.

Note: The newly added language must be supported by the font library on the IP phone. If the characters in the custom language file are not supported by the phone, the phone will display “?” instead.

Topics

Customizing a Language Pack for Phone Display
Custom Language for Phone Display Configuration
Example: Setting a Custom Language for Phone Display

Customizing a Language Pack for Phone Display

When you add a new language pack for the phone user interface, the language pack must be formatted as “X.GUI.-name.lang” (X starts from 017, “name” is replaced with the language name). If the language name is the same as the existing one, the existing language pack will be overridden by the newly uploaded one. We recommend that the filename of the new language pack should not be the same as the existing one.

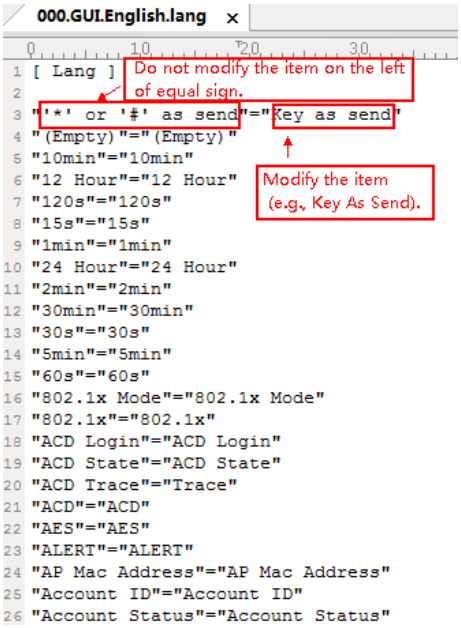
Note: To modify the translation of an existing language, do not rename the language pack.

Procedure

Open the desired language template file (for example, 000.GUI.English.lang).

Modify the characters within the double quotation marks on the right of the equal sign. Do not modify the item on the left of the equal sign.

The following shows a portion of the language pack “000.GUI.English.lang” for the phone user interface:




```
[ Lang ]

"'*' or '#' as send"="Key as send"
"(Empty)"="(Empty)"
"10min"="10min"
"12 Hour"="12 Hour"
"120s"="120s"
"15s"="15s"
"1min"="1min"
"24 Hour"="24 Hour"
"2min"="2min"
"30min"="30min"
"30s"="30s"
"5min"="5min"
"60s"="60s"
"802.1x Mode"="802.1x Mode"
"802.1x"="802.1x"
"ACD Login"="ACD Login"
"ACD State"="ACD State"
"ACD Trace"="Trace"
"ACD"="ACD"
"AES"="AES"
"ALERT"="ALERT"
"AP Mac Address"="AP Mac Address"
"Account ID"="Account ID"
"Account Status"="Account Status"
```

Save the language pack and place it to the provisioning server.

Custom Language for Phone Display Configuration

The following table lists the parameters you can use to configure a custom language for the phone display.

Parameter	gui_lang.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom LCD language pack for the phone user interface. **Note**: You can also download multiple language packs to the phone simultaneously.	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	gui_lang.delete	<y0000000000xx>.cfg
Description	It deletes the specified or all custom LCD language packs of the phone user interface.	
Permitted Values	For example http://localhost/all or http://localhost/X.GUI.name.lang X starts from 017, "name" is replaced with the language name.	
Default	Blank	

Example: Setting a Custom Language for Phone Display

The following example shows the configuration for uploading custom language files "017.GUI.English_17.lang" and "018.GUI.English_18.lang", and then specify "017.GUI.English_17.lang" to display on the phone user interface. These language files are customized and placed on the provisioning server "192.168.10.25".

Example

gui_lang.url= http://192.168.10.25/017.GUI.English_17.lang

gui_lang.url= http://192.168.10.25/018.GUI.English_18.lang

lang.gui=English_17

After provisioning, text displayed on the phone user interface will change to the custom language you defined in "017.GUI.English_17.lang". You can also find a new language selection"English_17" and "English_18" on the IP phone user interface: **Settings** > **Basic Settings** > **Language**.

Language for Web Display Customization

You can customize the translation of the existing language on the web user interface. You can modify translation of an existing language or add a new language for web display. You can also customize the translation of the note language pack. The note information is displayed in the question mark "?" of the web user interface.

You can ask the distributor or Yealink FAE for language packs. You can also obtain the language packs online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Customizing a Language Pack for Web Display
Customizing a Language Pack for Note Display
Custom Language for Web and Note Display Configuration

Customizing a Language Pack for Web Display

When you add a new language pack for the web user interface, the language pack must be formatted as "X.name.js" (X starts from 14, "name" is replaced with the language name). If the language name is the same as the existing one, the newly uploaded language file will override the existing one. We recommend that the file name of the new language pack should not be the same as the existing one.

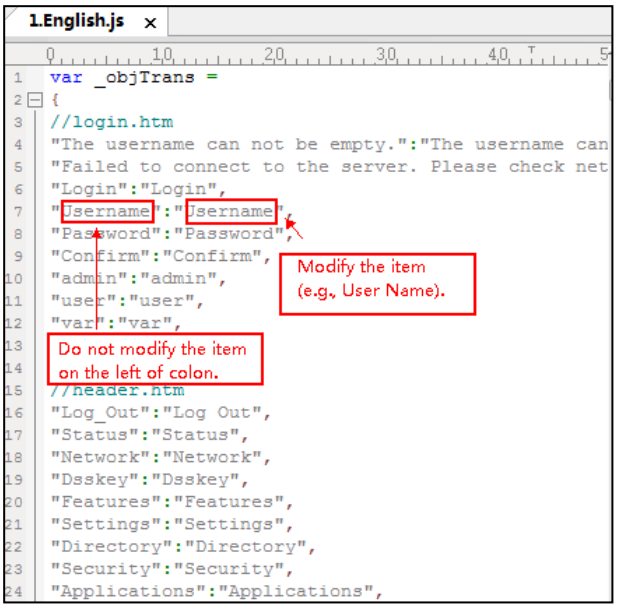
Note: To modify the translation of an existing language, do not rename the language pack.

Procedure

Open the desired language template pack (for example, 1.English.js) using an ASCII editor.

Modify the characters within the double quotation marks on the right of the colon. Do not modify the translation item on the left of the colon.

The following shows a portion of the language pack “1.English.js” for the web user interface:



Save the language pack and place it to the provisioning server.

Customizing a Language Pack for Note Display

When you add a new language pack for the note, the note language pack must be formatted as “X.name_note.xml” (X starts from 14, “name” is replaced with the language name). If the note language name is the same as the existing one, the new uploaded note language pack will override the existing one. We recommend that the filename of the new note language pack should not be the same as the existing one.

Procedure

Open the desired note language template pack (for example, 1.English_note.xml) using an XML editor.

Modify the text of the note field. Do not modify the note name.

The following shows a portion of the note language pack “1.English_note.xml” for the web user interface:

```
1.English_note.xml
<?xml version="1.0" encoding="utf-8"?>
<notedata>

<status>
  <note name = "version">
    <head>Description:</head>
    <text>It shows the current firmware version and hardware version of the device.</text>
  </note>
  <note name = "DeviceCertificate">
    <head>Description:</head>
    <text>It shows the Device Certificate of the device.</text>
  </note>
  <note name = "network">
    <head>Description:</head>
    <text>It shows the IP address mode of the device.</text>
  </note>
  <note name = "network-ipv4">
    <head>Description:</head>
    <text>It shows the basic IPv4 network configurations.</text>
  </note>
  <note name = "network-ipv6">
    <head>Description:</head>
    <text>It shows the basic IPv6 network configurations.</text>
  </note>
```

Do not modify the note name.

You can modify the translation of the note name.

Save the note language pack and place it to the provisioning server.

Custom Language for Web and Note Display Configuration

If you want to add a new language (for example, Wuilan) to phones, prepare the language file named as "14.Wuilan.js" and "14.Wuilan_note.xml" for downloading. After the update, you will find a new language selection "Wuilan" at the top-right corner of the web user interface, and new note information is displayed in the icon when the new language is selected.

The following table lists the parameters you can use to configure a custom language for web and note display.

Parameter	wui_lang.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom language pack for the web user interface.	
Permitted Values	URL within 511 characters For example http://localhost/X.GUI.name.lang X starts from 014, "name" is replaced with the language name	
Default	Blank	
Parameter	wui_lang_note.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom note language pack for the web user interface.	
Permitted Values	URL within 511 characters For example http://localhost/X.name_note.xml X starts from 14, "name" is replaced with the language name	
Default	Blank	
Parameter	wui_lang.delete	<y0000000000xx>.cfg
Description	It deletes the specified or all custom web language packs and note language packs of the web user interface.	
Permitted Values	http://localhost/all or http://localhost/Y.name.js Y starts from 014, "name" is replaced with the language name	
Default	Blank	

Wallpaper

Wallpaper is a picture used as the background of the phone. The phone comes with a default picture. You can change it to a built-in picture or custom wallpaper from personal pictures.

The wallpaper is applicable to the IP phones and expansion module EXP50 (connected to the T58A/T58W phones).

Topics

Wallpaper Configuration
Wallpaper Customization
Example: Setting a Custom Picture as Wallpaper

Wallpaper Configuration

You can change the wallpaper to any built-in picture or custom picture.

You can select an image from the phone's built-in background or customize wallpaper from personal pictures for the phone idle screen and EXP50 (if connected). To set the custom wallpaper as the phone/EXP50 background, you need to upload the custom wallpaper to the IP phone in advance.

For VP59/T58A/T58W phones, you can also set a custom picture stored in local or USB flash drive (if connected) as the wallpaper.

Note: The wallpaper will display on the entire screen. Note that the line key labels, time and date, icons, and Android keys will display over the wallpaper.

The following table lists the parameters you can use to change the wallpaper.

Parameter	phone_setting.backgrounds	<y0000000000xx>.cfg
Description	It configures the wallpaper displayed on the phone idle screen.	
Permitted Values	Default.jpg, 01.jpg, 02.jpg, 03.jpg, 04.jpg, 05.jpg, 06.jpg, 07.jpg, 08.jpg, 09.jpg or 10.jpg or uploaded custom wallpaper name (for example, wallpaper.jpg) CP965: Default.jpg, 1.png, 2.png, 3.png, 4.png or uploaded custom wallpaper name (for example, wallpaper.png)	
Default	Default.jpg	
Web UI	Settings > Preference > Upload Wallpaper > System Wallpaper	
Phone UI	Settings > Basic Settings > Display > Wallpaper CP965: More > Settings > Basic > Display > Wallpaper	
Parameter	expansion_module.backgrounds	<y0000000000xx>.cfg
Description	It configures the wallpaper displayed on the connected EXP50 expansion module of the phone.	
Permitted Values	Default-exp50.jpg, 01-exp50.jpg, 02-exp50.jpg, 03-exp50.jpg, 04-exp50.jpg, 05-exp50.jpg, 06-exp50.jpg, 07-exp50.jpg, 08-exp50.jpg, 09-exp50.jpg or 10-exp50.jpg or custom wallpaper name (for example, wallpaper.jpg)	
Default	Default-exp50.jpg	
Supported Devices	T58W, T58A	
Web UI	Settings > Preference > Upload Wallpaper > System Expansion Wallpaper	
Phone UI	Settings > Basic Settings > Display > EXP Background	

	CP965: More > Settings > Basic > Display > EXP Background

Wallpaper Customization

You can configure a custom picture, such as company logo, and then upload the custom picture to the IP phone that users can choose from when changing the wallpaper for the phone idle screen, expansion module.

Topics

Custom Wallpaper Picture Limit
Custom Wallpaper Configuration
Deleting a Custom Picture

Custom Wallpaper Picture Limit

Either the smaller or the larger picture will be scaled proportionally to fit the screen. The wallpaper picture format must meet the following:

Format	Resolution	Single File Size
.jpg/.png/*.bmp/*.jpeg	<=2.0 megapixels	<=5MB

Custom Wallpaper Configuration

The following table lists the parameter you can use to upload a custom picture.

Parameter	wallpaper_upload.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom wallpaper picture.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Preference > Upload Wallpaper > Custom Wallpaper > Upload Wallpaper	

Deleting a Custom Picture

You can delete the uploaded custom pictures for a specific IP phone via the web user interface at the path: **Settings** > **Preference** > **Wallpaper**, select the desired custom picture and click **Delete**. You can also delete the custom pictures via the phone user interface at the path: **Settings** > **BasicSettings** > **Display** > **Wallpaper**. You can only delete the custom pictures.

Example: Setting a Custom Picture as Wallpaper

The following example shows the configuration for uploading custom picture named "wallpaper.jpg" and set it as idle screen wallpaper. The custom picture is placed on the provisioning server "192.168.10.25".

Example

wallpaper_upload.url = http://192.168.10.25/wallpaper.jpg

phone_setting.backgrounds = wallpaper.jpg

After provisioning, the phone idle screen wallpaper changes to custom picture "wallpaper.jpg".

Screen Saver

The screen saver will automatically start when the IP phone is idle for the preset waiting time. You can stop the screen saver at any time by pressing any key or touching the screen. When your phone is idle again for a preset

waiting time, the screen saver starts again.

For T58A/T58W phones, if you connect a color-screen expansion module EXP50 to the phone, the screen saver will start or stop on the phone and EXP50 synchronously.

The IP phone supports four screen saver types: Clock, Colors, Photo Frame and Photo Table. You can only configure the screen saver via the phone user interface.

Topic

Screensaver Configuration

Screensaver Configuration

The following table lists the parameters you can use to configure screensaver.

Parameter	screensaver.wait_time	<y0000000000xx>.cfg
Description	It configures the time (in seconds) to wait in the idle state before the screen saver starts.	
Permitted Values	**15**-15s **30**-30s **60**-1min **120**-2min **300**-5min **600**-10min **1800**-30min **3600**-1h **7200**-2h **10800**-3h **14400**-4h **21600**-6h **28800**-8h **43200**-12h **Note**: The permitted values for web/phone UI are Off, 30min, 1h, 2h, 4h, 6h (default), 8h, 12h. **For VP59/CP960/CP965**: **15**-15s **30**-30s **60**-1min **120**-2min **300**-5min **600**-10min **900**-15min **1200**-20min	

	1800-30min **2700**-45min **3600**-1h **7200**-2h **Note**: The permitted values for web/phone UI are Off, 30min, 1h, 2h, 4h, 6h (default), 8h, 12h. (For VP59/CP960/CP965: 5min, 10min, 30min, 1h, 2h (default)).	
Default	21600 (7200 for VP59/CP960/CP965)	
Web UI	Settings > Preference > Screensaver Wait Time	
Phone UI	Settings > Basic Settings > Display > Screen Saver > Screensaver Waiting Time CP965: More > Settings > Basic > Display > Screen Saver > Screensaver Waiting Time	
Parameter	screensaver.type	<y0000000000xx>.cfg
Description	It configures the type of screen saver to display.	
Permitted Values	**0**-Clock **1**-Colours **2**-Photo Frame **3**-Photo Table **4**-Server XML, the LCD screen will display XML items (configured by the parameter "screensaver-.xml_browser.url") when the screen saver starts.	
Default	1	
Web UI	Settings > Preference > Screensaver Type	
Phone UI	Settings > Basic Settings > Display > Screen Saver > Clock/Colours/Phone Frame/Photo Table/Server XML CP965: More > Settings > Basic > Display > Screen Saver > Clock/Colours/Phone Frame/Photo Table/Server XML	
Parameter	screensaver.xml_browser.url	<y0000000000xx>.cfg
Description	It configures the access URL of the screen saver XML file. **Example**: screensaver.xml_browser.url = http://192.168.10.25/ScreenSaver.xml During the auto provisioning, the phone connects to the HTTP provisioning server "192.168.10.25", and downloads the screen saver XML file "ScreenSaver.xml". **Note**: It works only if "screensaver.type" is set to 4 (Server XML).	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Preference > Screensaver Type (Server XML) > XML Browser URL	

Parameter	features.blf_active_backlight.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to turn on the backlight or stop the screen saver when the BLF/BLF list status changes.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Backlight

You can change the backlight brightness of the phone screen during phone activity and inactivity. The backlight brightness automatically changes when the phone is idle for a specified time.

You can change the screen backlight brightness and time in the following settings:

Active Level: The brightness level of the LCD screen when the phone is active. Digits (1-10) represent different brightness levels. 10 is the brightest level.

Backlight Time: The delay time to change the brightness of the LCD screen when the phone is inactive. Backlight time includes the following settings you can choose from:

- **Always On**: Backlight is on permanently.
- **15s**, **30s**, **1min**, **2min**, **5min**, **10min**, **30min**, **1h**, **2h**, **4h**, **6h**, **8h**, **12h**, Backlight is changed when the phone is inactive after the designated time (in seconds).

Topics

Supported Backlight Options
Backlight and Time Configuration

Supported Backlight Options

The following table lists available configuration options to configure the backlight of phone models/expansion modules:

Phone Model (and the connected expansion module)	Configuration Options
T58A(EXP50) T58W(EXP50) VP59 CP960 CP965	Active Level (Backlight Active Level) Backlight Time

Backlight and Time Configuration

The following table lists the parameters you can use to configure screen backlight and time.

Parameter	phone_setting.active_backlight_level	<y0000000000xx>.cfg
Description	It configures the intensity of the LCD screen when the phone is active. **Note**: If the expansion module is connected, the backlight on the expansion module automatically changes to match this setting.	
Permitted Values	Integer from 1 to 10	

Default	8	
Web UI	Settings > Preference > Active Level	
Phone UI	Settings > Basic Settings > Display > Backlight > Active Level CP965: More > Settings > Basic > Display > Backlight > Active Level	
Parameter	phone_setting.backlight_time	<y0000000000xx>.cfg
Description	It configures the delay time (in seconds) to change the intensity of the LCD screen when the phone is inactive.	
Permitted Values	**0**-Always On **15**-15s **30**-30s **60**-1min **120**-2min **300**-5min **600**-10min **1800**-30min **3600**-1h **7200**-2h **14400**-4h **21600**-6h **28800**-8h **43200**-12h **Note**: The permitted values for web/phone UI are Always On (default), 30min, 1h, 2h, 4h, 6h, 8h, 12h.	
Default	0	
Web UI	Settings > Preference > Backlight Time(seconds)	
Phone UI	Settings > Basic Settings > Display > Backlight > Backlight Time CP965: More > Settings > Basic > Display > Backlight > Backlight Time	

Label Length for Line Key Display

By default, the line key label only displays the first few characters when the length of the label exceeds the maximum length. You can specify the line key label length as needed.

Topic

Label Length Display Configuration

Label Length Display Configuration

The following table lists the parameters you can use to configure the label length display.

Parameter	features.config_dsskey_length	<y0000000000xx>.cfg
Description	It configures the label length displayed on the idle LCD screen for the line key.	
Permitted Values	**0**-Default **1**-Extended, the characters can be displayed in two lines.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Dsskey > Line Key > Label Length	

Page Tips

Page tips feature allows the breathing light or page icon to indicate different key status on the non-current page. It is mainly used when multi-page line keys are configured.

Page tips feature is available on Yealink IP phones and the expansion module EXP50 only when connected to T58A/T58W phones.

Topics

Phone Page Tips
Expansion Module Page Tips

Phone Page Tips

Page tips feature allows users to enable the breathing light or page icon to indicate statuses. It is mainly used in the scenario of configuring multiple line keys (more than six).

For VP59/T58A/T58W phones, if page tips feature is enabled, the breathing light will appear at the top/bottom of the DSS key field when the status of a particular feature (for example, BLF) assigned to the line key on the non-current page changes.

For CP960/CP965 phones, if page tips feature is enabled, the corresponding page icon will turn red/green when the status of a particular feature (for example, BLF) assigned to the line key on the non-current page changes.

Topics

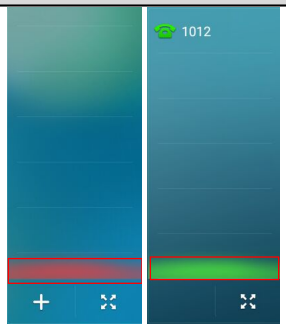
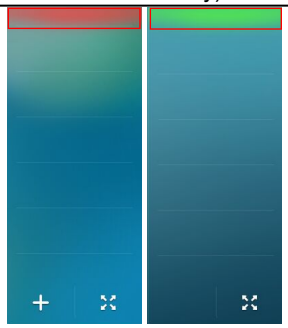
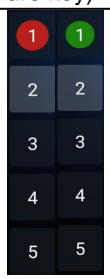
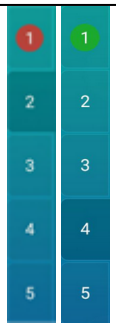
Phone Page Tips Indicator
Phone Page Tips Configuration

Phone Page Tips Indicator

The breathing light will flash red or green for different line key types:

Line Key Type	Color Type
Call Park	Red
Intercom	Red
Line	Green
BLF	Red

The following table shows how the breathing light and page icon to indicate statuses:

Phone Models	Breathing Light	Description
VP59/T58A /T58W	 (Drag up to view the desired feature key)	• There is a call parked to the line on the non-current page. • The intercom target extension receives an incoming intercom call on the non-current page. • The line receives an incoming call on the non-current page. • The call of the line is placed on hold on the non-current page. • The BLF monitored user receives an incoming call on the non-current page.
	 (Drag down to view the desired feature key)	
CP965	 (Tap corresponding page icon to view the desired feature key)	
CP960	 (Tap corresponding page icon to view the desired feature key)	

Phone Page Tips Configuration

The following table lists the parameter you can use to configure phone page tips.

Parameter	phone_setting.page_tip	<y0000000000xx>.cfg
Description	It enables or disables the breathing light and page icon to indicate the different status of line keys on the non-current page.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Dsskey > Line Key > Enable Page Tips	

Expansion Module Page Tips

On expansion module EXP50, the page tips feature allows the page switch key LED to indicate that BLF monitored user receives an incoming call on the non-current page.

It is not applicable to VP59/CP960/CP965 phones.

Topics

Expansion Module Page Tips Indicator
Expansion Module Page Tips Configuration

Expansion Module Page Tips Indicator

The following table lists the status of the page switch key LED displayed on the expansion module:

Models	LED Status	Icons	Description
EXP50	Flashing red	/	The BLF monitored user receives an incoming call on the non-current pages.

Expansion Module Page Tips Configuration

The following table lists the parameters you can use to configure expansion module page tips.

Parameter	expansion_module.page_tip.blf_call_in.enable	<y0000000000xx>.cfg
Description	It enables or disables the page switch key LED on the EXP50 expansion module to indicate when BLF monitored user receives an incoming call on the non-current pages.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	T58W, T58A	
Parameter	expansion_module.page_tip.blf_call_in.led	<y0000000000xx>.cfg
Description	It configures the page switch key LED status on the EXP50 expansion module when BLF monitored user receives an incoming call on the non-current pages. This value uses the same macro action string syntax as an Enhanced DSS key. If it is left blank, the default value takes effect. **Example**: expansion_module.page_tip.blf_call_in.led = $LEDr300o300$ It means an infinite loop for page switch key LED status: glow red for 300ms and then be in the off state for 300ms. **Note**: It works only if “expansion_module.page_tip.blf_call_in.enable” is set to 1 (Enabled).	

Permitted Values	String
Default	$LEDr300o300$
Supported Devices	T58W, T58A

Time and Date

Yealink phones maintain a local clock. You can choose to get the time and date from SNTP (Simple Network Time Protocol) time server to have the most accurate time and set DST (Daylight Saving Time) to make better use of daylight and to conserve energy, or you can set the time and date manually. The time and date can be displayed in several formats on the idle screen.

Topics

Time Zone
NTP Settings
DST Settings
Time and Date Manually Configuration
Time and Date Format Configuration
Date Customization Rule

Time Zone

The following table lists the values you can use to set the time zone location.

Time Zone	Time Zone Name	Time Zone	Time Zone Name
-12	Eniwetok,Kwajalein	+2	Estonia(Tallinn)
-11	Midway Island	+2	Finland(Helsinki)
-10	United States-Hawaii-Aleutian	+2	Gaza Strip(Gaza)
-10	United States-Alaska-Aleutian	+2	Greece(Athens)
-9:30	French Polynesia	+2	Harare
-9	United States-Alaska Time	+2	Israel(Tel Aviv)
-8	Canada(Vancouver,Whitehorse)	+2	Jordan(Amman)
-8	Mexico(Tijuana,Mexicali)	+2	Latvia(Riga)
-8	United States-Pacific Time	+2	Lebanon(Beirut)
-8	Baja California	+2	Moldova(Kishinev)
-7	Canada(Edmonton,Calgary)	+2	Pretoria
-7	Mexico(Mazatlan,Chihuahua)	+2	Jerusalem
-7	United States-Mountain Time	+2	Russia(Kaliningrad)
-7	United States-MST no DST	+2	Bulgaria(Sofia)
-7	Chihuahua,La Paz	+2	Lithuania(Vilnius)
-7	Arizona	+2	Cairo
-6	Guatemala	+2	Istanbul

Time Zone	Time Zone Name	Time Zone	Time Zone Name
-6	El Salvador	+2	E.Europe
-6	Honduras	+2	Tripoli
-6	Nicaragua	+2	Romania(Bucharest)
-6	Costa Rica	+2	Syria(Damascus)
-6	Belize	+2	Turkey(Ankara)
-6	Canada-Manitoba(Winnipeg)	+2	Ukraine(Kyiv, Odessa)
-6	Chile(Easter Islands)	+3	East Africa Time
-6	Guadalajara	+3	Iraq(Baghdad)
-6	Monterrey	+3	Russia(Moscow)
-6	Mexico(Mexico City,Acapulco)	+3	St.Petersburg
-6	Saskatchewan	+3	Kuwait,Riyadh
-6	United States-Central Time	+3	Nairobi
-5	Bahamas(Nassau)	+3	Minsk
-5	Bogota,Lima	+3	Volgograd (RTZ 2)
-5	Canada(Montreal,Ottawa,Quebec)	+3:30	Iran(Teheran)
-5	Cuba(Havana)	+4	Armenia(Yerevan)
-5	Indiana (East)	+4	Azerbaijan(Baku)
-5	Peru	+4	Georgia(Tbilisi)
-5	Quito	+4	Russia(Samara)
-5	United States-Eastern Time	+4	Abu Dhabi,Muscat
-4:30	Venezuela(Caracas)	+4	Izhevsk,Samara (RTZ 3)
-4	Canada(Halifax,Saint John)	+4	Port Louis
-4	Atlantic Time (Canada)	+4:30	Afghanistan(Kabul)
-4	San Juan	+5	Kazakhstan(Aktau)
-4	Manaus,Cuiaba	+5	Kazakhstan(Aqtobe)
-4	Georgetown	+5	Ekaterinburg (RTZ 4)
-4	Chile(Santiago)	+5	Karachi
-4	Paraguay(Asuncion)	+5	Tashkent
-4	United Kingdom-Bermuda(Bermuda)	+5	Pakistan(Islamabad)
-4	United Kingdom(Falkland Islands)	+5	Russia(Chelyabinsk)
-4	Trinidad&Tobago	+5:30	India(Calcutta)

Time Zone	Time Zone Name	Time Zone	Time Zone Name
-3:30	Canada-New Foundland(St.Johns)	+5:30	Mumbai,Chennai
-3	Greenland(Nuuk)	+5:30	Kolkata,New Delhi
-3	Argentina(Buenos Aires)	+5:30	Sri Jayawardenepura
-3	Brazil(no DST)	+5:45	Nepal(Katmandu)
-3	Brasilia	+6	Kyrgyzstan(Bishkek)
-3	Cayenne,Fortaleza	+6	Kazakhstan(Astana, Almaty)
-3	Montevideo	+6	Russia(Novosibirsk,Omsk)
-3	Salvador	+6	Bangladesh(Dhaka)
-3	Brazil(DST)	+6:30	Myanmar(Naypyitaw)
-2:30	Newfoundland and Labrador	+6:30	Yangon (Rangoon)
-2	Brazil(no DST)	+7	Russia(Krasnoyarsk)
-2	Mid-Atlantic	+7	Thailand(Bangkok)
-1	Portugal(Azores)	+7	Vietnam(Hanoi)
-1	Cape Verde Islands	+7	Jakarta
0	GMT	+8	China(Beijing)
0	Greenland	+8	Singapore(Singapore)
0	Western Europe Time	+8	Hong Kong,Urumqi
0	Monrovia	+8	Taipei
0	Reykjavik	+8	Kuala Lumpur
0	Casablanca	+8	Australia(Perth)
0	Denmark-Faroe Islands(Torshavn)	+8	Russia(Irkutsk, Ulan-Ude)
0	Ireland(Dublin)	+8	Ulaanbaatar
0	Edinburgh	+8:45	Eucla
0	Portugal(Lisboa,Porto,Funchal)	+9	Korea(Seoul)
0	Spain-Canary Islands(Las Palmas)	+9	Japan(Tokyo)
0	United Kingdom(London)	+9	Russia(Yakutsk,Chita)
0	Lisbon	+9:30	Australia(Adelaide)
0	Morocco	+9:30	Australia(Darwin)
+1	Albania(Tirane)	+10	Australia(Sydney,Melbourne,Canberra)
+1	Austria(Vienna)	+10	Australia(Brisbane)
+1	Belgium(Brussels)	+10	Australia(Hobart)

Time Zone	Time Zone Name	Time Zone	Time Zone Name
+1	Caicos	+10	Russia(Vladivostok)
+1	Belgrade	+10	Magadan (RTZ 9)
+1	Bratislava	+10	Guam,Port Moresby
+1	Ljubljana	+10	Solomon Islands
+1	Chad	+10:30	Australia(Lord Howe Islands)
+1	Copenhagen	+11	New Caledonia(Noumea)
+1	West Central Africa	+11	Chokurdakh (RTZ 10)
+1	Poland(Warsaw)	+11	Russia(Srednekolymsk Time)
+1	Spain(Madrid)	+11:30	Norfolk Island
+1	Croatia(Zagreb)	+12	New Zealand(Wellington,Auckland)
+1	Czech Republic(Prague)	+12	Fiji Islands
+1	Denmark(Kopenhagen)	+12	Russia(Kamchatka Time)
+1	France(Paris)	+12	Anadyr
+1	Germany(Berlin)	+12	Petropavlovsk-Kamchatsky (RTZ 11)
+1	Hungary(Budapest)	+12	Marshall Islands
+1	Italy(Rome)	+12:45	New Zealand(Chatham Islands)
+1	Switzerland(Bern)	+13	Nuku'alofa
+1	Sweden(Stockholm)	+13	Tonga(Nukualofa)
+1	Luxembourg(Luxembourg)	+13	Samoa
+1	Macedonia(Skopje)	+13:30	Chatham Islands
+1	Netherlands(Amsterdam)	+14	Kiribati
+1	Namibia(Windhoek)		

NTP Settings

You can set an NTP time server for the desired area as required. The NTP time server address can be offered by the DHCP server or configured manually.

Topic

NTP Configuration

NTP Configuration

The following table lists the parameters you can use to configure the NTP.

Parameter	local_time.manual_ntp_srv_prior	<y0000000000xx>.cfg
Description	It configures the priority for the phone to use the NTP server address offered by the DHCP server.	
Permitted Values	**0**- High (use the NTP server address offered by the DHCP server preferentially)	

	1- Low (use the NTP server address configured manually preferentially)	
Default Value	0	
Web UI	Settings > Time & Date > NTP by DHCP Priority	
Parameter	local_time.dhcp_time	<y0000000000xx>.cfg
Description	It enables or disables the phone to update time with the offset time offered by the DHCP server. **Note**: It is only available to offset from Greenwich Mean Time GMT 0.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Time & Date > DHCP Time	
Phone UI	Settings > Basic Settings > Time&Date > DHCP Time > DHCP Time CP965: More > Settings > Basic > Time&Date > DHCP Time > DHCP Time	
Parameter	local_time.ntp_server1	<y0000000000xx>.cfg
Description	It configures the IP address or the domain name of the primary NTP server.	
Permitted Values	String within 99 characters	
Default	cn.pool.ntp.org	
Web UI	Settings > Time & Date > Primary Server	
Phone UI	Settings > Basic Settings > Time&Date > General > Type (SNTP) > NTP Server1 CP965: More > Settings > Basic > Time&Date > General > Type (SNTP) > NTP Server1	
Parameter	local_time.ntp_server2	<y0000000000xx>.cfg
Description	It configures the IP address or the domain name of the secondary NTP server. If the primary NTP server is not configured by the parameter "local_time.ntp_server1", or cannot be accessed, the phone will request the time and date from the secondary NTP server.	
Permitted Values	String within 99 characters	
Default	pool.ntp.org	
Web UI	Settings > Time & Date > Secondary Server	
Phone UI	Settings > Basic Settings > Time&Date > General > Type (SNTP) > NTP Server2 CP965: More > Settings > Basic > Time&Date > General > Type (SNTP) > NTP Server2	
Parameter	local_time.interval	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) at which the phone updates time and date from the NTP server.	
Permitted Values	Integer from 15 to 86400	

Default	1000	
Web UI	Settings > Time & Date > Update Interval (15~86400s)	
Parameter	local_time.time_zone	<y0000000000xx>.cfg
Description	It configures the time zone.	
Permitted Values	-12 to +14 For available time zones, refer to Time Zone.	
Default	+8	
Web UI	Settings > Time & Date > Time Zone	
Phone UI	Settings > Basic Settings > Time&Date > General > Type (SNTP) > Time Zone CP965: More > Settings > Basic > Time&Date > General > Type (SNTP) > Time Zone	
Parameter	local_time.time_zone_name	<y0000000000xx>.cfg
Description	It configures the time zone name. **Note**: It works only if “local_time.summer_time” is set to 2 (Automatic) and the parameter “local_time.-time_zone” should be configured in advance.	
Permitted Values	String within 32 characters The available time zone names depend on the time zone configured by the parameter “local_time.-time_zone”. For available time zone names, refer to Time Zone.	
Default	China(Beijing)	
Web UI	Settings > Time & Date > Location	
Phone UI	Settings > Basic Settings > Time&Date > General > Type (SNTP) > Location CP965: More > Settings > Basic > Time&Date > General > Type (SNTP) > Location	

DST Settings

You can set DST for the desired area as required. By default, the DST is set to Automatic, so it can be adjusted automatically from the current time zone configuration.

The time zone and corresponding DST pre-configurations exist in the AutoDST file. If the DST is set to Automatic, the phone obtains the DST configuration from the AutoDST file.

You can customize the AutoDST file if required. The AutoDST file allows you to add or modify time zone and DST settings for your area each year.

Topics

Auto DST File Attributes
Customizing Auto DST File
DST Configuration

Auto DST File Attributes

The following table lists the description of each attribute in the template file:

Attributes	Type	Values	Description
szTime	required	[+/-][X]:[Y], X=0~14, Y=0~59	Time Zone

Attributes	Type	Values	Description
szZone	required	String (if the content is more than one city, it is the best to keep their daylight saving time the same)	Time Zone name
iType	optional	0/1 **0**: DST by Date **1**: DST by Week	DST time type (This item is needed if you want to configure DST.)
szStart	optional	Month/Day/Hour/Minute (for iType=0) Month: 1~12 Day: 1~31 Hour: 0 (midnight)~23 Minute: 0~59 ---------- Month/Week of Month/Day of Week/Hour of Day/Offset Days (for iType=1) Month: 1~12 Week of Month: 1~5 (the last week) Day of Week: 1~7 Hour of Day: 0:0 (midnight)~23:59 Offset Days: -1~-6	Starting time of the DST
szEnd	optional	Same as szStart	Ending time of the DST
szOffset	optional	Integer from -300 to 300	The offset time (in minutes) of DST

Customizing Auto DST File

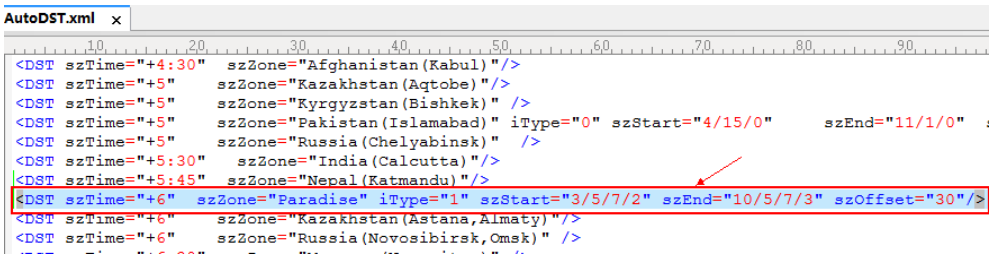
Before customizing, you need to obtain the AutoDST file. You can ask the distributor or Yealink FAE for DST template. You can also obtain the DST template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

1. Open the AutoDST file.
2. To add a new time zone, add <DST szTime="" szZone="" iType="" szStart="" szEnd="" szOffset=""/ > between <DSTData > and </DSTData > .
3. Specify the DST attribute values within double quotes.

   For example:

   Add a new time zone (+6 Paradise) with daylight saving time 30 minutes:

   <DST szTime="+6" szZone="Paradise" iType="1" szStart="3/5/7/2" szEnd="10/5/7/3" szOffset="30"/ >



Modify the DST settings for the existing time zone "+5 Pakistan(Islamabad)" and add DST settings for the existing time zone "+5:30 India(Calcutta)".

```
AutoDST.xml*
<DST szTime="+3:30"  szZone="Iran(Teheran)" iType="0" szStart="3/22/0"      szEnd="9/22/0"  szOffset="60"/>
<DST szTime="+4"    szZone="Armenia(Yerevan)" iType="1" szStart="3/5/7/2"    szEnd="10/5/7/3"  szOffset="60"/>
<DST szTime="+4"    szZone="Azerbaijan(Baku)" iType="1" szStart="3/5/7/4"    szEnd="10/5/7/5"  szOffset="60"/>
<DST szTime="+4"    szZone="Georgia(Tbilisi)" />
<DST szTime="+4"    szZone="Kazakhstan(Aktau)" />
<DST szTime="+4"    szZone="Russia(Samara)" />
<DST szTime="+4:30"  szZone="Afghanistan(Kabul)"/>
<DST szTime="+5"    szZone="Kazakhstan(Aqtobe)"/>
<DST szTime="+5"    szZone="Kyrgyzstan(Bishkek)" />
<DST szTime="+5"    szZone="Pakistan(Islamabad)" iType="0" szStart="4/15/0"    szEnd="11/1/0"  szOffset="60"/>
<DST szTime="+5"    szZone="Russia(Chelyabinsk)"  />
<DST szTime="+5:30"   szZone="India(Calcutta)" iType="1" szStart="9/5/7/3"    szEnd="4/1/7/2"   szOffset="60"/>
<DST szTime="+5:45"  szZone="Nepal(Katmandu)"/>
<DST szTime="+6"    szZone="Kazakhstan(Astana,Almaty)"/>
<DST szTime="+6"    szZone="Russia(Novosibirsk,Omsk)" />
<DST szTime="+6:30"  szZone="Myanmar(Naypyitaw)" />
<DST szTime="+7"    szZone="Russia(Krasnoyarsk)"  />
<DST szTime="+7"    szZone="Thailand(Bangkok)"/>
<DST szTime="+8"    szZone="China(Beijing)"/>
<DST szTime="+8"    szZone="Singapore(Singapore)" />

Modify it:
iType="1" szStart="10/1/7/2" szEnd="4/1/7/3" szOffset="60"

Add DST
```

4. Save this file and place it to the provisioning server.

Related Topic

Time Zone

DST Configuration

The following table lists the parameters you can use to configure DST.

Parameter	local_time.summer_time	<y0000000000xx>.cfg
Description	It configures the Daylight Saving Time (DST) feature.	
Permitted Values	**0**-Disabled **1**-Enabled **2**-Automatic	
Default	2	
Web UI	Settings > Time & Date > Daylight Saving Time	
Phone UI	Settings > Basic Settings > Time&Date > General > Type (SNTP) > Daylight Saving CP965: More > Settings > Basic > Time&Date > General > Type (SNTP) > Daylight Saving	
Parameter	local_time.dst_time_type	<y0000000000xx>.cfg
Description	It configures the Daylight Saving Time (DST) type. **Note**: It works only if “local_time.summer_time” is set to 1 (Enabled).	
Permitted Values	**0**-DST by Date **1**-DST by Week	
Default	0	
Web UI	Settings > Time & Date > Fixed Type	
Parameter	local_time.start_time	<y0000000000xx>.cfg
Description	It configures the start time of the Daylight Saving Time (DST). **Note**: It works only if “local_time.summer_time” is set to 1 (Enabled).	
Permitted Values	Month/Day/Hour:Minute-DST by Date, use the following mapping: **Month**: 1=January, 2=February,…, 12=December **Day**: 1=the first day in a month,…, 31= the last day in a month	

	Hour: 0:0=0:0am, 1:45=1:45am,…, 23:59=11:59pm ---------- Month/Week of Month/Day of Week/Hour of Day, Offset Days Forward-DST by Week, use the following mapping: **Month**: 1=January, 2=February,…, 12=December **Week of Month**: 1=the first week in a month,…, 5=the last week in a month **Day of Week**: 1=Monday, 2=Tuesday,…, 7=Sunday **Hour of Day**: 0:0=0:0am, 1:45=1:45am,…, 23:59=11:59pm **Offset Days** (Optional.): -1=one day offset forward, -2-two days offset forward,..., -6-six days offset forward	
Default	1/1/0	
Web UI	Settings > Time & Date > Start Date	
Parameter	local_time.end_time	<y0000000000xx>.cfg
Description	It configures the end time of the Daylight Saving Time (DST). **Note**: It works only if "local_time.summer_time" is set to 1 (Enabled).	
Permitted Values	Month/Day/Hour/Minute-DST by Date, use the following mapping: **Month**: 1=January, 2=February,…, 12=December **Day**: 1=the first day in a month,…, 31= the last day in a month **Hour**: 0=0am, 1=1am,…, 23=11pm **Minute**: 0=0, 1=1,…, 59=59 ---------- Month/Week of Month/Day of Week/Hour of Day, Offset Days Forward-DST by Week, use the following mapping: **Month**: 1=January, 2=February,…, 12=December **Week of Month**: 1=the first week in a month,…, 5=the last week in a month **Day of Week**: 1=Monday, 2=Tuesday,…, 7=Sunday **Hour of Day**: 0:0=0:0am, 1:45=1:45am,…, 23:59=11:59pm **Offset Days** (Optional.): -1=one day offset forward, -2-two days offset forward,..., -6-six days offset forward	
Default	12/31/23	
Web UI	Settings > Time & Date > End Date	
Parameter	local_time.offset_time	<y0000000000xx>.cfg
Description	It configures the offset time (in minutes) of Daylight Saving Time (DST). **Note**: It works only if "local_time.summer_time" is set to 1 (Enabled).	
Permitted Values	Integer from -300 to 300	
Default	60	
Web UI	Settings > Time & Date > Offset (minutes)	

Parameter	auto_dst.url	<y0000000000xx>.cfg
Description	It configures the access URL of the DST file (AutoDST.xml). **Note**: It works only if "local_time.summer_time" is set to 2 (Automatic).	
Permitted Values	URL within 511 characters	
Default	Blank	

Time and Date Manually Configuration

You can set the time and date manually when the phones cannot obtain the time and date from the NTP time server.

The following table lists the parameter you can use to configure time and date manually.

Parameter	local_time.manual_time_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to obtain time and date from manual settings.	
Permitted Values	**0**-Disabled, the phone obtains time and date from the NTP server. **1**-Enabled	
Default	0	
Web UI	Settings > Time & Date > Manual Time	
Phone UI	Settings > Time & Date > General > Type (Manual Settings) CP965: More > Settings > Time & Date > General > Type (Manual Settings)	

Note: After the device reboots, it will be forcibly switched to obtain the time and date from the NTP server.

Time and Date Format Configuration

You can customize the time and date by choosing between a variety of time and date formats, including options to date format with the day, month, or year, and time format in 12 hours or 24 hours, or you can also custom the date format as required.

The following table lists the parameters you can use to configure time and date format.

Parameter	local_time.time_format	<y0000000000xx>.cfg
Description	It configures the time format.	
Permitted Values	**0**-Hour 12, the time will be displayed in 12-hour format with AM or PM specified. **1**-Hour 24, the time will be displayed in 24-hour format (for example, 2:00 PM displays as 14:00).	
Default	1	
Web UI	Settings > Time & Date > Time Format	
Phone UI	Settings > Basic Settings > Time&Date > Time & Date Format > Time Format CP965: More > Settings > Basic > Time&Date > Time & Date Format > Time Format	
Parameter	local_time.date_format	<y0000000000xx>.cfg
Description	It configures the date format.	

	Note: The value configured by the parameter "lcl.datetime.date.format" takes precedence over that configured by this parameter.
Permitted Values	**0**-WWW MMM DD (for Chinese display: MM DD WWW) **1**-DD-MMM-YY (for Chinese display: YY-MMM-DD) **2**-YYYY-MM-DD **3**-DD/MM/YYYY (for Chinese display: YYYY/MM/DD) **4**-MM/DD/YY (for Chinese display: YY/MM/DD) **5**-DD MMM YYYY (for Chinese display: YYYY MMM DD) **6**-WWW DD MMM (for Chinese display: MM DD WWW) **20**-Custom format configured by "lcl.datetime.date.format", for example, **DD.MM.YYYY** Use the following mapping: "WWW" represents the abbreviation of the week; "DD" represents a two-digit day; "MMM" represents the first three letters of the month; "YYYY" represents a four-digit year, and "YY" represents a two-digit year.
Default	0
Web UI	Settings > Time & Date > Date Format
Phone UI	Settings > Basic Settings > Time&Date > Time & Date Format > Date Format CP965: More > Settings > Basic > Time&Date > Time & Date Format > Date Format
Parameter	lcl.datetime.date.format <y0000000000xx>.cfg
Description	It configures the display format of the date.
Permitted Values	Any combination of Y, M, D, W and the separator (for example, space, dash, slash). Use the following mapping: **Y** = year, **M** = month, **D** = day, **W** = day of week "Y"/"YY" represents a two-digit year, more than two "Y" letters (for example, YYYY) represent a four-digit year; "M"/"MM" represents a two-digit month, "MMM" represents the abbreviation of the month, three or more than three "M" letters (for example, MMM) represent the long format of the month; One or more than one "D" (for example, DDD) represents a two-digit day; "W"/"WW" represents the abbreviation of the day of the week, three or more three "W" letters (for example, WWW) represent the long format of the day of the week. For the more rules, refer to Date Customization Rule.
Default	Blank
Case Scenario	Set the following: lcl.datetime.date.format = DD.MM.YYYY Then a new date format is added on the phone. To make the newly added date format take effect, you also need to set the following:

	local_time.date_format = 20 You can also manually select this new date format via the web/phone user interface.

Date Customization Rule

You need to know the following rules when customizing date formats:

Format	Description
Y/YY	It represents a two-digit year. For example, 16, 17, 18…
Y is used more than twice (for example, YYY, YYYY)	It represents a four-digit year. For example, 2016, 2017, 2018…
M/MM	It represents a two-digit month. For example, 01, 02,…, 12
MMM	It represents the abbreviation of the month. For example, Jan, Feb,…, Dec
M is used more than three times (for example, MMMM)	It represents the long format of the month. For example, January, February,…, December
D is used once or more than once (for example, DD)	It represents a two-digit day. For example, 01, 02,…, 31
W/WW	It represents the abbreviation of the day of week. For example, Mon, Tue,…, Sun
W is used more than twice (for example, WWW, WWWW)	It represents the long format of the day of week. For example, Monday, Tuesday,…, Sunday

Idle Clock Display

Idle clock is displayed on the center of the idle screen by default. You can hide the idle clock, and then the time and date are displayed in the right of the status bar.

It is only applicable to CP960/CP965 phones.

Topic

Idle Clock Display Configuration

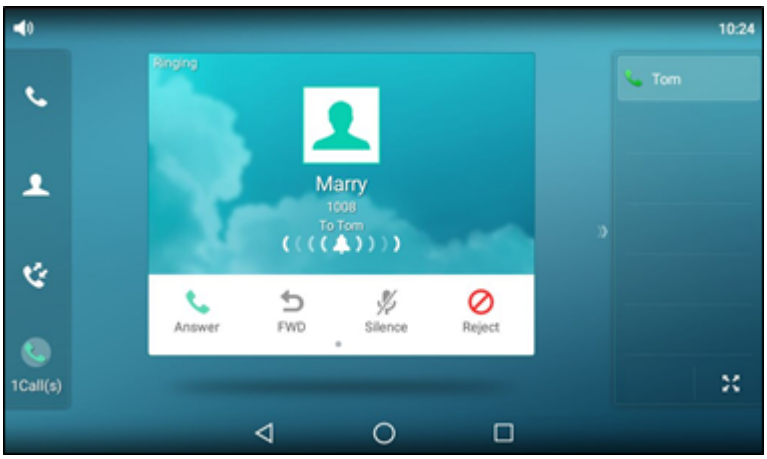
Idle Clock Display Configuration

The following table lists the parameter you can use to configure the idle clock display.

Parameter	phone_setting.idle_clock_display.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the idle clock.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	CP960, CP965	

Call Display

By default, the phones present the contact information (including avatar and identity) when receiving an incoming call, dialing an outgoing call or engaging in a call.



You can configure what contact information presents and how to display the contact information. If the contact exists in the phone directory, the phone displays the saved contact name and number. If not, it will use the Calling Line Identification Presentation (CLIP) or Connected Line Identification Presentation (COLP) to display the contact's identity.

Topic

Call Display Configuration

Call Display Configuration

The following table lists the parameters you can use to configure the call display.

Parameter	phone_setting.contact_photo_display.enable	<y0000000000xx>.cfg
Description	It configures whether to display contact avatar when it receives an incoming call, dials an outgoing call or engages in a call.	
Permitted Values	**0**-Never, do not display contact avatar no matter whether the contact avatar exists or not **1**-Always, display the customized contact avatar if it exists; display the built-in avatar if the customized contact avatar does not exist **2**-Adaptive, display the customized contact avatar if it exists; otherwise, do not display	
Default	1	
Web UI	Settings > Call Display > Contact Photo Display Mode	
Parameter	account.X.picture_info_enable[1]	<MAC>.cfg
Description	It enables or disables the phone to download the picture from the URL contained in the Call-Info header of the INVITE message. Format of call info: Call-Info: <Image URL>;purpose=wallpaper Call-Info: <Image URL>;purpose=icon **Note**: If the phone receives both the call info information of "purpose = wallpaper" (wallpaper) and "purpose = icon" (avatar) at the same time, only the wallpaper is displayed, the avatar is not displayed.	
Permitted	**0**-Disabled **1**-Enabled	

Values		
Default	0	
Supported Devices	All phones except CP960/CP965	
Case Scenario	**Get the picture from call-info and display it on the phone as the wallpaper while receiving/dialing a call, or during a call:** Configure the call-info: Call-Info: <http://192.168.0.1/wallpaper.jpg>;purpose=wallpaper Set the following: account.1.picture_info_enable = 1	
Parameter	phone_setting.called_party_info_display.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the local identity when it receives an incoming call. **Note**: The information display method is configured by the parameter “phone_setting.call_info_display_method”.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Call Display > Display Called Party Information	
Parameter	phone_setting.call_info_display_method	<y0000000000xx>.cfg
Description	It configures the remote information display method when the phone receives an incoming call, dials an outgoing call or is during a call.	
Permitted Values	**0**-Name+Number **1**-Number+Name **2**-Name **3**-Number **4**-Full Contact Info (display name<sip:xxx@domain.com>) **5**-Null **Note**: Name refers to the Label; Number refers to the User Name.	
Default	0	
Web UI	Settings > Call Display > Call Information Display Method	
Parameter	phone_setting.called_party_info_display_method	<y0000000000xx>.cfg
Description	It configures the local party information display method when the phone receives an incoming call or is during a call. **Note**: It works only if "phone_setting.called_party_info_display.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Name+Number **1**-Number+Name	

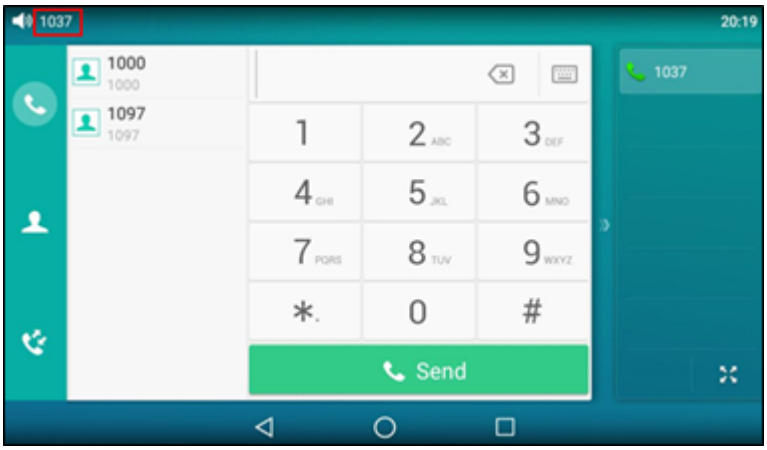
	2-Name **3**-Number **4**-Full Contact Info (display name<sip:xxx@domain.com>) **Note**: Name refers to the Label, Display Name (Label > Display Name > User Name); Number refers to the User Name.	
Default	0	
Parameter	features.caller_name_type_on_call	<y0000000000xx>.cfg
Description	It configures the local identity displayed when the phone receives an incoming call or is during a call.	
Permitted Values	**0**-Label, configured by the parameter "account.X.label". **1**-Display Name, configured by the parameter "account.X.display_name". **2**-User Name, configured by the parameter "account.X.user_name".	
Default	0	
Parameter	phone_setting.call_display_name.mode	<y0000000000xx>.cfg
Description	It specifies which display names to be used as the caller ID/callee ID for calls from/to contacts in the phone directory. **Note**: This parameter also affects the history records display.	
Permitted Values	**0**-Names matched to the entries in the following phone directories are displayed preferentially, the priority is as follows: Local Directory > Remote Phone Book > Broadsoft Network Directory > BroadCloud Buddies > LDAP Directory > Network signaling. **1**-Names provided through network signaling are displayed preferentially.	
Default	0	
Parameter	account.X.update_ack_while_dialing[1]	<MAC>.cfg
Description	It enables or disables the phone to update the display of call ID according to the ACK message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.refresh_remote_id.enable[1]	<MAC>.cfg
Description	It enables or disables the phone to update the identity of the caller according to the request message from the remote party.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	sip.disp_incall_to_info	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the identity contained in the To field of the INVITE message when it receives an incoming call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

Parameter	phone_setting.line_status_display.mode	<y0000000000xx>.cfg
Description	It configures that the handset only displays outgoing line in Line status.	
Permitted Values	**0**-Disabled, you can check the status of all registered Lines. **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Display Method on Dialing

When the phone is on the pre-dialing or dialing screen, the account information will be displayed on the phone screen.



Yealink phones support three display methods: Label, Display Name, and User Name. You can customize the account information to be displayed on the IP phone as required.

Topic

Display Method on Dialing Configuration

Display Method on Dialing Configuration

The following table lists the parameters you can use to configure the display method on dialing.

Parameter	features.caller_name_type_on_dialing	<y0000000000xx>.cfg
Description	It configures the selected account information displayed on the pre-dialing or dialing screen.	
Permitted Values	**1**-Label, configured by the parameter “account.X.label”. **2**-Display Name, configured by the parameter “account.X.display_name”. **3**-User Name, configured by the parameter “account.X.user_name”.	
Default	3	
Supported Devices	T58W, T58A, VP59	
Web UI	Features > General Information > Display Method on Dialing	

Key As Send

Key as send allows you to assign the pound key (“#”) or asterisk key (“*”) as the send key.

Topic

Key As Send Configuration

Key As Send Configuration

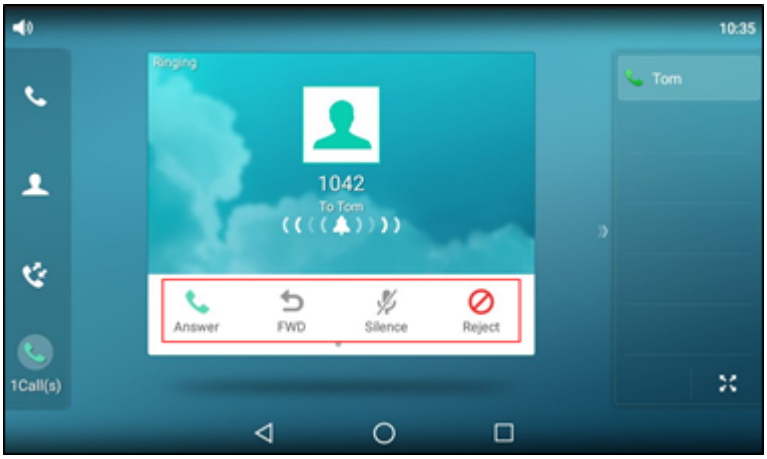
The following table lists the parameters you can use to configure the key as send.

Parameter	features.key_as_send	<y0000000000xx>.cfg
Description	It configures the "#" or "*" key as the send key.	
Permitted Values	**0**-Disabled, neither "#" nor "*" can be used as the send key. **1**-# key **2**-* key	
Default	1	
Supported Devices	T58W, T58A, VP59	
Web UI	Features > General Information > Key As Send	
Phone UI	Settings > Features > Key As Send > Key As Send	
Parameter	features.send_pound_key	<y0000000000xx>.cfg
Description	It configures the behavior when the user presses the # key twice on the dialing screen. **Note**: It works only if "features.key_as_send" is set to 1 (# key).	
Permitted Values	**0**-The phone will dial out "#". **1**-The phone will not dial out "#". After the user presses the # key again, the phone will dial out "##".	
Default	0	
Supported Devices	T58W, T58A, VP59	
Web UI	Features > General Information > Send Pound Key	

Softkey Layout

Softkey layout is used to customize the soft keys at the bottom of the phone screen for best meet users' requirements. In addition to specifying which soft keys to display, you can determine their display order. The configurations for softkey layout are based on call states.

The following shows the soft keys displaying on the phone in the CallIn state:



Note: You can configure the EDK soft keys in different call states. Configuring the EDK soft keys may affect the softkey layout in different call states. For more information on EDK soft keys, refer to EDK Soft Keys Configuration.

Topics

Softkey Layout File Customization
Softkey Layout Configuration
Example: Setting the Soft Keys Layout in Talking State

Softkey Layout File Customization

You can also configure the softkey layout using the softkey layout templates for different call states.

You can ask the distributor or Yealink FAE for softkey layout template. You can also obtain the softkey layout template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Softkey Layout File Elements and Attributes
Customizing Softkey Layout File

Softkey Layout File Elements and Attributes

The following table lists the elements and attributes you need to understand in the softkey layout file. We recommend that you do not edit these elements and attributes.

Elements & Attributes	Description
<Disable> </Disable>	Specify the disabled soft key list. The phone screen will not display the disabled soft keys.
<Enable> </Enable>	Specify the enabled soft key list. The phone screen will display the enabled soft keys.
<Default> </Default>	Specify the default soft key list. The phone screen displays these soft keys by default.
<Key Type=" "/>	Specify the soft key type.

Customizing Softkey Layout File

1. Open the template file.
2. For each soft key that you want to enable, move the string from the disabled soft key list to enabled soft key list in the file or replace the Empty in the enabled soft key list.
   The following shows a portion of the softkey layout file “CallFailed.xml”:

```
CallFailed.xml*
1  <?xml version="1.0"?>
2  <CallFailed>
3    <Disable>
4      <Key Type="Empty" />
5      <Key Type="End Call" />
6    </Disable>
7    <Enable>
8      <Key Type="NewCall" />
9      <Key Type="Empty" />
10     <Key Type="Empty" />
11     <Key Type="Cancel" />
12
13   </Enable>
14   <Default>
15     <Key Type="NewCall" />
16     <Key Type="Empty" />
17     <Key Type="Empty" />
18     <Key Type="Cancel" />
```

If you want to enable the **End Call** soft key in CallFailed state, just move this string.

3. For each soft key that you want to disable, just move the string from the enabled soft key list to disabled soft key list.

   The following shows a portion of the softkey layout file "CallFailed.xml":

```
CallFailed.xml*
1  <?xml version="1.0"?>
2  <CallFailed>
3    <Disable>
4      <Key Type="Empty" />
5      <Key Type="End Call" />
6
7    </Disable>
8    <Enable>
9      <Key Type="NewCall" />
10     <Key Type="Empty" />
11     <Key Type="Empty" />
12     <Key Type="Cancel" />
13       </Enable>
14   <Default>
15     <Key Type="NewCall" />
16     <Key Type="Empty" />
17     <Key Type="Empty" />
18     <Key Type="Cancel" />
```

If you want to disable the **NewCall** soft key in CallFailed state, just move this string.

4. Save the change and place this file to the provisioning server.

Softkey Layout Configuration

The following table lists the parameters you can use to configure the softkey layout.

Parameter	phone_setting.custom_softkey_enable	<y0000000000xx>.cfg
Description	It enables or disables the custom soft keys layout feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Softkey Layout > Custom SoftKey	
Parameter	phone_setting.custom_softkey.apply_to_states	<y0000000000xx>.cfg
Description	It configures the desired call state to apply the custom softkey layout. To configure the call states to apply the custom softkey layout: **Example**: phone_setting.custom_softkey.apply_to_states = DialingEmpty,DialTransEmpty It means that DialingEmpty and DialTransEmpty call states will use the custom softkey layout.	

	To configure the call states not to apply the custom softkey layout: **Example**: phone_setting.custom_softkey.apply_to_states = -DialingEmpty,DialTransEmpty It means that DialingEmpty and DialTransEmpty call states will not use the custom softkey layout. **Note**: Multiple call states are separated by commas. It works only if “phone_setting.custom_softkey_enable” is set to 1 (Enabled). DialingEmpty is not applicable to VP59 phones.	
Permitted Values	Blank (all call states will use the custom softkey layout) Dialing, DialingEmpty, DialTrans, DialTransEmpty, DialConference, DialConferenceEmpty, Talk, Hold, Held, CallIn, NewCallIn, BeTransferred, SemiAttendTrans, Conferenced, ConferencedHold, ConferencedNewCallIn, Connecting, CallFailed, Paging, ListeningPaging, RingBack, SemiAttendTransBack	
Default	Blank	
Parameter	features.custom_softkey_dynamic.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the soft keys relevant to the features (call center, centralized call recording, and executive-assistant). **Note**: It works only if “phone_setting.custom_softkey_enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the functional soft keys display on the phone screen if the corresponding feature is available.	
Default	1	
Supported Devices	T58W, T58A	
Parameter	custom_softkey_call_failed.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom softkey layout file in the CallFailed state. **Note**: It works only if “phone_setting.custom_softkey_enable” is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	custom_softkey_call_in.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom softkey layout file in the CallIn state. **Note**: It works only if “phone_setting.custom_softkey_enable” is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	custom_softkey_connecting.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom softkey layout file in the Connecting state.	

	Note: It works only if "phone_setting.custom_softkey_enable" is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	custom_softkey_ring_back.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom softkey layout file in the RingBack state. **Note**: It works only if "phone_setting.custom_softkey_enable" is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	custom_softkey_talking.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom softkey layout file in the Talking state. **Note**: It works only if "phone_setting.custom_softkey_enable" is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	

Example: Setting the Soft Keys Layout in Talking State

The following example shows the configuration for setting the soft key layout in the talking state.

Customize a softkey layout file "Talking.xml" and place this file to the provisioning server "http://192.168.10.25".

Example

phone_setting.custom_softkey_enable = 1

custom_softkey_talking.url = http://192.168.10.25/Talking.xml

After provisioning, you can use the enabled soft keys during a call.

Input Method

You can specify the default input method in the dialing screen.

Topic

Input Method Configuration

Input Method Configuration

The following table lists the parameters you can use to configure the input method.

Parameter	gui_input_method.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom keypad input method file for the phone user interface. **Example**: gui_input_method.url = http://192.168.10.25/custom_ime.txt During the auto provisioning process, the phone connects to the provisioning server "192.168.1.25", and downloads the custom keypad input method file "custom_ime.txt". gui_input_method.url = http://192.168.10.25/Russian_ime.txt During auto provisioning, the phone connects to the provisioning server "192.168.1.25", and down-	

	loads the custom keypad input method file “Russian_ime.txt“ for the Russian language. **Note**: If you want to upload a custom keypad input method file for the desired language, you can name the file “language name_ime.txt”. The valid language names are: English, Chinese_S, Chinese_T, French_CA, French, German, Italian, Polish, Portuguese, Portuguese_LA, Spanish, Spanish_LA, Turkish and Russian.	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	gui_input_method.delete	<y0000000000xx>.cfg
Description	It deletes the specified or all custom keypad input method files of the phone user interface. Delete all custom keypad input method files: gui_input_method.delete = http://localhost/all Delete a custom keypad input method file (for example, custom_ime.txt) for the phone: gui_input_method.delete = http://localhost/custom_ime.txt	
Permitted Values	http://localhost/all or http://localhost/Name.txt	
Default	Blank	
Parameter	default_input_method.dialing	<y0000000000xx>.cfg
Description	It configures the default input method in the dialing screen.	
Permitted Values	**0**-2aB **1**-123 **2**-abc **3**-ABC	
Default	1	
Parameter	directory.search_default_input_method	<y0000000000xx>.cfg
Description	It configures the default input method when the user searches for contacts in the Local Directory, LDAP, Remote Phone Book, Blocklist or Network Directory.	
Permitted Values	Abc, 2aB, 123, abc or ABC	
Default	Abc	
Parameter	default_input_method.xml_browser_input_screen	<y0000000000xx>.cfg
Description	It configures the default input method when the type for input box is set to “string” in the InputScreen object.	
Permitted Values	Abc, 2aB, 123, abc or ABC	
Default	2aB	

Notification Popups

Notification popups feature allows the IP phone to pop up the message when it misses a call, forwards an incoming call to another party, or receives a new voice mail.

The following shows an example of missing a call:

Topic

Notification Popups Configuration

Notification Popups Configuration

The following table lists the parameters you can use to configure notification popups.

Parameter	features.voice_mail_popup.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to pop up the message when it receives a new voice mail. If the message disappears, it will not pop up again unless the phone receives a new voice mail or the user re-registers the account that has unread voice mail(s). **Note**: It works only if "account.X.display_mwi.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Notification Popups > Display Voice Mail Popup	
Parameter	features.missed_call_popup.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to pop up the message when it misses a call. **Note**: It works only if "account.X.missed_calllog" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Notification Popups > Display Missed Call Popup	
Parameter	features.forward_call_popup.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to pop up the message when it forwards an incoming call to another party.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Notification Popups > Display Forward Call Popup	

Power/Mute LED Indicator

Power LED indicator indicates power status and phone status of VP59/T58A/T58W. The mute LED indicator indicates phone status for CP960/CP965.

You can configure the power LED indicator behavior for VP59/T58A/T58W in the following scenarios:

- The IP phone receives an incoming call
- The IP phone receives a voice mail
- A call is muted
- A call is placed on hold or is held
- The IP phone is busy
- The IP phone misses a call

When a call is placed on hold or held, you can configure the mute LED indicator behavior for CP960/CP965.

Topic

Power/Mute LED Indicator Configuration

Power/Mute LED Indicator Configuration

The following table lists the parameters you can use to configure the power/mute LED indicator.

Parameter	phone_setting.common_power_led_enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator to be turned on.	
Permitted Values	**0**-Disabled (power LED indicator is off) **1**-Enabled (power LED indicator glows red)	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Power LED > Common Power Light On	
Parameter	phone_setting.ring_power_led_flash_enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator to flash when the phone receives an incoming call.	
Permitted Values	**0**-Disabled (power LED indicator does not flash) **1**-Enabled (power LED indicator fast flashes (0.3s) red)	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Power LED > Ringing Power Light Flash	
Parameter	phone_setting.mail_power_led_flash_enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator to flash when the phone receives a voice mail. **Note**: It works only if “account.X.display_mwi.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled (power LED indicator does not flash) **1**-Enabled (power LED indicator slowly flashes (1s) red) **2**-Enabled (if there are unread voice mails, the power LED indicator slowly flashes (1s) red) even when the phone is busy, but value set by "phone_setting.talk_and_dial_power_led_enable" has a higher priority.)	
Default	1	
Supported Devices	All phones except CP960/CP965	

Web UI	Features > Power LED > Voice/Text Mail Power Light Flash	
Parameter	phone_setting.mute_power_led_flash_enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator to flash when a call is muted.	
Permitted Values	**0**-Disabled (power LED indicator does not flash) **1**-Enabled (power LED indicator fast flashes (0.3s) red)	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Power LED > Mute Power Light Flash	
Parameter	phone_setting.hold_and_held_power_led_flash_enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator (for VP59/T58A/T58W)/mute LED indicator (for CP960/CP965) to flash when a call is placed on hold or is held. **Note**: For CP960/CP965, it works only if the phone is not in the mute state.	
Permitted Values	**0**-Disabled (power LED indicator/mute LED indicator does not flash) **1**-Enabled (power LED indicator/mute LED indicator fast flashes (0.5s) red)	
Default	0	
Web UI	Features > Power LED > Hold/Held Power Light Flash (not for CP960/CP965)	
Parameter	phone_setting.talk_and_dial_power_led_enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator to be turned on when the phone is busy.	
Permitted Values	**0**-Disabled (power LED indicator is off) **1**-Enabled (power LED indicator glows red)	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Power LED > Talk/Dial Power Light On	
Parameter	phone_setting.missed_call_power_led_flash.enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator to flash when the phone misses a call.	
Permitted Values	**0**-Disabled (power LED indicator does not flash) **1**-Enabled (power LED indicator slowly flashes (1s) red)	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Power LED > MissCall Power Light Flash	
Parameter	phone_setting.autop_led_flash_enable	<y0000000000xx>.cfg
Description	It enables or disables the power LED indicator to flash when the phone performs an auto provisioning.	
Permitted Values	**0**-Disabled, auto provisioning does not change the LED status (that is, the original LED status will be kept).	

	1-Enabled, during auto provisioning, the power LED indicator flashes at a fixed frequency.
Default	1
Supported Devices	All phones except CP960/CP965

Bluetooth

You can pair and connect the Bluetooth-enable mobile phone with your phone, and make and receive mobile calls on the IP phone. After connecting the Bluetooth-enabled mobile phone, you can synchronize the mobile contacts to the IP phone.

For CP960/CP965 phones, you can also use your IP phone as a Bluetooth speaker for your mobile phone and set up a conference among the calls on your IP phone, the PC and connected mobile phone.

For VP59/T58A/T58W phones, you can also connect the other Bluetooth devices (for example, Bluetooth headset) with your phone. And you can transfer files via Bluetooth, sharing images/videos with other Bluetooth devices.

Topic

Bluetooth Configuration

Bluetooth Configuration

You can activate or deactivate the Bluetooth mode, and personalize the Bluetooth device name for the IP phone. The pre-configured Bluetooth device name will display in scanning list of other devices. It is helpful for the other Bluetooth devices to identify and pair with your IP phone.

The following table lists the parameters you can use to configure Bluetooth.

Parameter	static.bluetooth.function.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the Bluetooth feature.	
Permitted Values	**0**-Disabled, you are not allowed to trigger Bluetooth mode to on. **1**-Enabled	
Default	1	
Parameter	features.bluetooth_enable	<y0000000000xx>.cfg
Description	It triggers the Bluetooth mode to on or off. **Note**: It works only if “static.bluetooth.function.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Off **1**-On	
Default	0	
Web UI	Features > Bluetooth > Bluetooth Active	
Phone UI	Settings > Basic Settings > Bluetooth > Bluetooth CP965: More > Settings > Basic > Bluetooth > Bluetooth	
Parameter	features.bluetooth_adapter_name	<y0000000000xx>.cfg
Description	It configures the Bluetooth device name. **Note**: It works only if “features.bluetooth_enable” is set to 1 (On).	
Permitted	String within 64 characters	

Values		
Default	Yealink $DEV	
Phone UI	Settings > Basic Settings > Bluetooth > Bluetooth (On) > Edit My Device Information > Device Name CP965: More > Settings > Basic > Bluetooth > Bluetooth (On) > Edit My Device Information > Device Name	
Parameter	bluetooth.connect_confirm.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to prompt users to confirm the connection request from the Bluetooth device.	
Permitted Values	**0**-Disabled **1**-Enabled, the prompt will not appear during the call. After the call, users can tap the request notification message from the notification center, and then select to accept or reject the connection request.	
Default	0	
Supported Devices	CP960, CP965	
Parameter	bluetooth.a2dp_sink[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to act as the connected Bluetooth-enabled mobile phone player.	
Permitted Values	**0**-Disabled, the Media audio item is hidden on the connected Bluetooth-enabled mobile phone. **1**-Enabled, you need to enable the Media audio feature manually after the Bluetooth-enabled mobile phone is paired and connected. Enable the Media audio feature via the phone user interface at the path: **Bluetooth** > **Bluetooth (On)** > > **Media audio**. **2**-Enabled, the phone automatically acts as the Bluetooth-enabled mobile phone player after you pair and connect the Bluetooth-enabled mobile phone to the phone successfully.	
Default	1	
Supported Devices	CP960, CP965	
Parameter	bluetooth.high_encryption.enable	<y0000000000xx>.cfg
Description	It enables or disables the minimum password strength limit.	
Permitted Values	**0**-Disabled **1**-Enabled, when the Bluetooth device is paired with the phone, the minimum password strength cannot be lower than 56bits.	
Default	1	
Web UI	Features > Bluetooth > High Security Pairing	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Handset/Headset/Speakerphone Mode

The VP59/T58A/T58W phones support three ways to place/answer a call: using the handset, using the headset or using the speakerphone.

It is not applicable to CP960/CP965 phones.

Topic

Handset/Headset/Speakerphone Mode Configuration

Handset/Headset/Speakerphone Mode Configuration

The following table lists the parameters you can use to configure handset/headset/speakerphone mode.

Parameter	features.speaker_mode.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone's speakerphone mode.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	features.handset_mode.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone's handset mode.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	features.group_listen_in_talking_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to enter into the group listening mode by pressing the Speakerphone key when you first answer the call using the handset. **Note**: The audio is sent only through the handset. So you are able to speak and listen through the handset, but you can only listen through the speaker.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	features.headset_mode.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone's headset mode.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	features.headset.group_listen_in_talking_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to enter into the group listening mode by pressing the Speakerphone key when you first answer the call using the headset. **Note**: The audio is sent only through the headset. So you are able to speak and listen through the headset, but you can only listen through the speaker. It is not applicable to Bluetooth headset.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	phone_setting.headsetkey_mode	<y0000000000xx>.cfg
Description	It configures headset mode during a call.	
Permitted Values	**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	
Default	1	
Supported Devices	All phones except CP960/CP965	

DSS Keys

There are four kinds of DSS keys: Line Keys, Programmable Keys, Ext Keys, and Shortcut Keys. You can assign various functions to DSS keys. This section explains how to set these keys.

Ext key is only applicable to expansion modules connected to T58A/T58W phones. Shortcut Keys is only applicable to CP960 phones.

Topics

Supported DSS Keys
Supported Dsskey Types
Shortcut Key/Programmable Key Icons Limit
Line Keys
Programmable Keys
Shortcut Keys
Ext Keys
Dsskey Lock Configuration
Shortcut Key/Programmable Key Icons Customization
Dsskey Hide

Supported DSS Keys

The following table lists the number of DSS keys you can configure for each phone model:

Phone Model	Line Keys	Programmable Keys	Ext Keys	Shortcut Keys
CP960	30	3	/	6
CP965	30	4	/	/
T58A	27	9	60	/
T58W	27	9	60	/
VP59	27	9	/	/

Note: The programmable key takes effect only if the phone is idle.
The ext key takes effect only if the expansion module is connected to the phone.

Supported Dsskey Types

The supported Dsskey function types vary by line keys, programmable keys, ext keys and shortcut keys.

ID	DSS Key Types	ID	DSS Key Types	ID	DSS Key Types
0	N/A	20	Private Hold	50	Phone Lock (Line key/Ext key)
1	Conference (Line key/Ext key)	22	XML Group	51	Switch Account Up (Programmable key)
2	Forward	23	Group Pickup	52	Switch Account Down (Programmable key)
3	Transfer (Line key/Ext key)	24	Paging(Multicast Paging) (Line key/Ext key)	56	Retrieve Park (Line key/Ext key)
4	Hold (Line key/Ext key)	25	Record (Line key/Ext key)	61	Directory
5	DND	27	XML Browser	66	Paging List
7	ReCall	28	History (Programmable key)	73	Custom Key (only appear when “features.enhanced_dss_keys.enable = 1”)
8	SMS	29	Directory (Programmable key)	77	Mobile Line (only applicable when the Bluetooth-enabled mobile phone is connected)
9	Pickup(Pick up/ Direct Pickup)	30	Menu (Programmable key)	104	Google Contacts (only appear when “google_contact_server.enable = 1”)
10	Call Park (Line key/Ext key)	33	Status (Programmable key)	105	XML Park (Line key/Ext key)
11	DTMF (Line key/Ext key)	34	Hot Desking	304	Open Door
12	Voice Mail (Line key/Ext key)	35	URL Record (Line key/Ext key)	305	Video Monitoring
13	Speed Dial (SpeedDial)	38	LDAP(only appear when “ldap.enable=1”)	306	Custom
14	Intercom	39	BLF List	308	Dial (Programmable key/Shortcut key)
15	Line (Line key/Ext key)	40	Prefix	309	Bluetooth (Programmable key/Shortcut key)
16	BLF (Line key/Ext key)	41	Zero Touch	310	DECT Intercom
17	URL (Line key/Ext key)	42	ACD (Line key/Ext key)		
18	Group Listening (Line key/Ext key)	45	Local Group		

Shortcut Key/Programmable Key Icons Limit

The shortcut key/programmable key icon format must meet the following:

Phone Model	Format	Resolution
VP59/T58A/T58W/CP960	.png	<=130*130 pixels
CP965	.png	<=114*114 pixels

Note: We recommend that you use a mixture of letters and characters for the icon names.

Line Keys

Line keys provide one-touch feature (for example, one-touch park). This allows you to quickly access features and to view the monitored status when the line keys are assigned with particular features (for example, BLF).

Topics

Line Keys Configuration
Example: Set a Park/Retrieve Key for FAC Call Park Mode
Example: Set a Park/Retrieve Key for Transfer Call Park Mode
Example: Setting a Line Key as Directed Pickup Key
Example: Setting a Line Key as Group Pickup Key
Example: Setting a Line Key as BLF List Key
Example: Setting a Line Key as Private Hold Key
Example: Setting a Line Key as Multicast Paging Key
Example: Setting a Line Key as Open Door Key
Example: Setting a Line Key as Video Monitoring Key

Line Keys Configuration

The following table lists the parameters you can use to configure line keys.

Parameter	linekey.type_range.custom		<y0000000000xx>.cfg
Description	It configures the list of available line key types when configuring line keys. To assign function types, specify line key type IDs which start with or without a symbol "+". For example, "+2,15,16,7,4" or "2,15,16,7,4" means only "N/A", "Forward", "Line", "BLF", "Recall", "Hold" types are available when you configure line keys. To remove a function type, specify line key type IDs which start with the symbol "-". For example, "-14, 5, 2" means to remove "Intercom", "DND", "Forward" types from the line key types list. These line key types are not available when you configure line keys. **Note**: Multiple line key type IDs are separated by commas. "N/A" type is always kept.		
Permitted Values	Blank or 0 (all valid function types are available); line key type IDs. For supported line key types and IDs, refer to Supported Dsskey Types.		
Default	Blank		
Parameter	linekey.X.type[1]		<y0000000000xx>.cfg
Description	It configures the key feature.		
Permitted Values	**0**-N/A **1**-Conference (not applicable to CP960/CP965 phones) **2**-Forward **3**-Transfer (not applicable to CP960/CP965 phones) **4**-Hold **5**-DND	**15**-Line **16**-BLF **17**-URL **18**-Group Listening **20**-Private Hold **22**-XML Group **23**-Group Pickup **24**-Paging(Multicast Paging) **25**-Record **27**-XML Browser	**38**-LDAP (only appear when "ldap.enable=1") **39**-BLF List **40**-Prefix **41**-Zero Touch **42**-ACD (not applicable to CP960/CP965 phones) **45**-Local Group **50**-Phone Lock **56**-Retrieve Park **61**-Directory

	7-Recall **8**-SMS (not applicable to CP960/CP965 phones) **9**-Pickup(pick up/Direct Pickup) **10**-Call Park **11**-DTMF **12**-Voice Mail **13**-SpeedDial (Speed Dial) **14**-Intercom	**34**-Hot Desking **35**-URL Record	**66**-Paging List **73**-Custom Key (only available when “features.enhanced_dss_keys.enable=1”) (not applicable to CP960/CP965 phones) **77**-Mobile Account **104**-Google Contacts (only appear when “google_contact_server.enable = 1”) **105**-XML Park (not applicable to CP960/CP965 phones) **304**-Open Door (not applicable to CP960/CP965 phones) **305**-Video Monitoring (not applicable to CP960/CP965 phones) **306**-Custom **310**-DECT Intercom (not applicable to CP960/CP965 phones)
	Note: The permitted values are configurable by “linekey.type_range.custom”.		
Default	15	VP59/T58A/T58W: X= 1-16 CP960/CP965: 1	
	0	other line keys	
Web UI	Dsskey > Line Key > Line KeyX > Type		
Phone UI	Settings > Dsskey > Line Key X > Type CP965: More > Settings >Dsskey > Line Key X > Type		
Parameter	linekey.X.line[1]		<y0000000000xx>.cfg
Description	It configures the desired line to apply the line key feature.		
Permitted Values	VP59: 1-16 (if linekey.X.type = 310, 1-4 stand for Handset 2-Handset 5) T58A/T58W: 0, 1-16 (if linekey.X.type = 310, 1-4 stand for Handset 2-Handset 5) CP960/CP965: 1 **Note**: features.fwd_mode = 1 & linekey.X.type =2 & linekey.X.line =0: it means forward will apply to all lines on the phone; linekey.X.type = 13 & linekey.X.line =0: it means the phone can automatically switch accounts for speed dial; linekey.X.type = 14 & linekey.X.line =0: it means the phone can automatically switch accounts for intercom.		
Default	1		
Web UI	Dsskey > Line Key > Line KeyX > Line		
Phone UI	Settings > Features > Dsskey > Line Key X > Account ID CP965:		

	More > Settings > Features > Dsskey > Line Key X > Account ID	
Parameter	linekey.X.value[1]	<y0000000000xx>.cfg
Description	It configures the value for some line key features. For example, when you assign the Speed Dial to the line key, this parameter is used to specify the contact number you want to dial out. For open door feature: It configures the open door URL of 2N IP intercom. The valid URL format is: http(s) ://<IP address of the IP intercom>/api/switch/ctrl?switch=<switch identifier, typically 1 to 4>&action=trigger or http(s)://username:password@<IP address of the IP intercom>/api/switch/ctrl?switch=<switch identifier, typically 1 to 4>&action=trigger. For video monitoring feature: It configures the video access URL of IP intercom camera. The valid URL format is: http(s)://<IP address of the IP intercom>/mjpg/video.mjpg or http(s)://username:password@<IP address of the IP intercom>/mjpg/video.mjpg.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Dsskey > Line Key > Line KeyX > Value	
Phone UI	Settings > Features > Dsskey > Line Key X > Value CP965: More > Settings > Features > Dsskey > Line Key X > Value	
Parameter	linekey.X.label[1]	<y0000000000xx>.cfg
Description	It configures the label displayed on the phone screen. This is an optional configuration.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Dsskey > Line Key > Line KeyX > Label	
Phone UI	Settings > Features > Dsskey > Line Key X > Label CP965: More > Settings > Features > Dsskey > Line Key X > Label	
Parameter	linekey.X.extension[1]	<y0000000000xx>.cfg
Description	For multicast paging: It configures the channel of the multicast paging group. For the BLF/BLF list/intercom feature: It configures the pickup code. For speed dial feature: It configures the key sequence you want to send via DTMF.	

	For open door/video monitoring feature: It configures the number or IP address of the IP intercom that this key will apply to. **Note**: It is only applicable when “linekey.X.type” is set to 13, 14, 16, 24 or 39.	
Permitted Values	For multicast paging: 0 to 31 For the BLF/BLF list/intercom/open door/video monitoring feature: String within 256 characters For speed dial feature: String	
Default	Blank	
Web UI	Dsskey > Line Key > Line KeyX > Extension	
Phone UI	Settings > Features > Dsskey > Line Key X > Extension CP965: More > Settings > Features > Dsskey > Line Key X > Extension	
Parameter	linekey.X.xml_phonebook[1]	<y0000000000xx>.cfg
Description	It specifies a specific group/phone book when multiple groups/phone books are configured on the phone. For example, both Remote Phone Book 1 “Sell” and Remote Phone Book 2 “Market” are configured on the phone, you can configure “linekey.X.xml_phonebook = 0” to specify the Remote Phone Book 1 “Sell” for the specific line key. The user can press this line key to access the Remote Phone Book 1 “Sell”. **Note**: It is only applicable when “linekey.X.type” is set to 22 or 45.	
Permitted Values	Integer from 0 to 48	
Default	0	
Web UI	Dsskey > Line Key > Line KeyX > Line	
Parameter	features.flash_url_dsskey_led.enable	<y0000000000xx>.cfg
Description	It enables or disables the LED indicator of the URL DSS key. The LED indicator behavior depends on the response message from the server when you press the URL DSS key on the phone.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	

[1]X is the line key ID. For T58A/T58W/VP59, X=1-27; for CP960/CP965, X=1-30.

Example: Set a Park/Retrieve Key for FAC Call Park Mode

Scenario Conditions	Related Topic

features.call_park.park_code = *68	Call Park and Retrieve
features.call_park.park_retrieve_code = *88	
features.call_park.park_mode = 1	

Example

######Set a Park key######

linekey.1.type = 10

linekey.1.value =4603

linekey.1.label =Bill

######Set a Retrieve key####

linekey.3.type = 56

linekey.3.line =1

linekey.3.value =4603

linekey.3.label =Retrieve Bill

After provisioning, you can easily tap the Park key (line key 1) to park a call to a specific extension (4603) during a call, and tap the Retrieve key (line key 3) to retrieve the parked call from the specific extension (4603) when the phone is idle.

If the "linekey.1.value" is set to blank, the park key will perform as the **Park** soft key.

Note: In FAC call park mode, the Park/Retrieve key invokes the call park code/park retrieve code by default. Therefore, the phone dials out *684603 to park a call, and dials out *884603 to retrieve a call. If these codes are not set, you can assign code and extension to "linekey.X.value", for example, "*684603".

Example: Set a Park/Retrieve Key for Transfer Call Park Mode

Scenario Conditions	Related Topic
features.call_park.park_mode = 2	Call Park and Retrieve
features.call_park.line_restriction.enable = 1	

Example

######Set a Park key######

linekey.1.type = 10

linekey.1.value =*01

linekey.1.line = 1

linekey.1.label =Bill

######Set a Retrieve key####

linekey.3.type = 56

linekey.3.line = 1

linekey.3.value =*11

linekey.3.label =Retrieve Bill

After provisioning, you can easily tap the Park key (line key 1) to park a call to the specific shared parking lot (*01) during a call, and tap the Retrieve key (line key 3) to retrieve the parked call from the shared parking lot (*01) using the retrieve code (*11). You can only perform call park feature on the specific line (line 1).

If the “features.call_park.line_restriction.enable” is set to 0 (Disabled), the phone will park/retrieve the call to the server on the current line in use.

Note: In Transfer call park mode, if you press the Park key when the phone is idle, the Park key will invoke the call park code. Therefore, you can use a Park key to park and retrieve a call. In this case, you need to assign the park retrieve code (*11) to “features.call_park.park_code”. When you tap the Park key again on the idle screen, the phone will dial out “*11*01” to retrieve the parked call.

Example: Setting a Line Key as Directed Pickup Key

Scenario Conditions	Related Topic
account.1.direct_pickup_code = *97 or features.pickup.direct_pickup_code = *97	Directed Call Pickup

Example

linekey.1.type = 9

linekey.1.line =1

linekey.1.value= 4603

linekey.1.label=Bill

After provisioning, you can easily tap the DPickup key (line key 1) to pick up an incoming call to a specific phone (4603).

Note: The DPickup invokes the directed pickup code by default. Therefore, the phone dials out *974603 to pick up a call. If the directed code is not set, you can assign code and extension to “linekey.X.value”, for example, “*974603”.

Example: Setting a Line Key as Group Pickup Key

The following example shows the configuration for a group pickup key.

Example

linekey.1.type = 23

linekey.1.line =1

linekey.1.value =*98

linekey.1.label =Sell

After provisioning, you can easily tap the GPickup key (line key 1) to pick up an incoming call to any phone within a predefined group of phones.

Note: If the “linekey.X.value” is not assigned with a group pickup code, the Park key will invoke the group pickup code set by “features.pickup.group_pickup_code” or ”account.X.group_pickup_code”.

Example: Setting a Line Key as BLF List Key

The following example shows the configuration for a BLF List key.

Scenario Conditions	Related Topic
phone_setting.auto_blf_list_enable = 0	BLF List Configuration

Example

linekey.1.type = 39

linekey.1.line =1

After provisioning, a BLF List key displays on line key 1. You can easily use this key to monitor a remote line. The monitored line depends on a pre-configured SIP server.

Example: Setting a Line Key as Private Hold Key

The following example shows the configuration for a Private Hold key.

Example

linekey.1.type = 20

linekey.1.label =Private Hold

After provisioning, you can tap the line key 1 to hold calls without notifying other phones registered with the shared line, the shared line displays active to others shared line. It is only applicable to Shared Line Appearance.

Example: Setting a Line Key as Multicast Paging Key

The following example shows the configuration for a Multicast Paging key.

Example

linekey.1.type = 24

linekey.1.value = 224.5.6.20:10008

linekey.1.label = Sales

linekey.1.extension = 2

After provisioning, you can tap the line key 1 to send announcements quickly to the Sales group.

Example: Setting a Line Key as Open Door Key

The following example shows the configuration for an open door key.

Example

linekey.1.type = 304

linekey.1.value = http://192.168.1.1/api/switch/ctrl?switch=1&action=trigger

linekey.1.label = Door Phone1

linekey.1.extension = 1048

After provision, you can tap the line key 1 to open the door at any time.

Example: Setting a Line Key as Video Monitoring Key

The following example shows the configuration for an video monitoring key.

Example

linekey.1.type = 305

linekey.1.value = http://192.168.1.1/mjpg/video.mjpg

linekey.1.label = Door Phone2

linekey.1.extension = 1048

After provision, you can tap the line key 1 to check the camera video at any time.

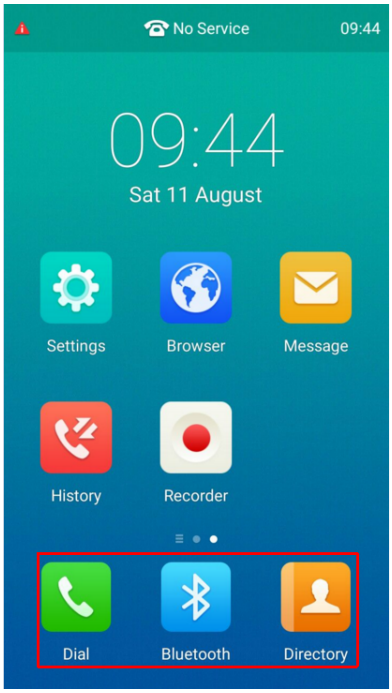
Programmable Keys

You can customize programmable keys on the phone to enable users to access frequently used functions, or, if your phone does not have a particular hard key, you can create a soft key. For example, if the phone does not have a Do Not Disturb hard key, you can create a Do Not Disturb soft key.

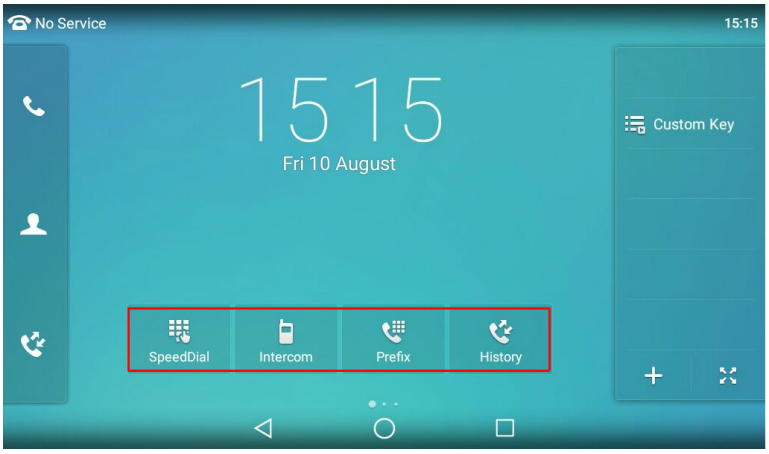
The programmable key takes effect only when the IP phone is idle.

The following shows the custom soft keys displayed on the phone:

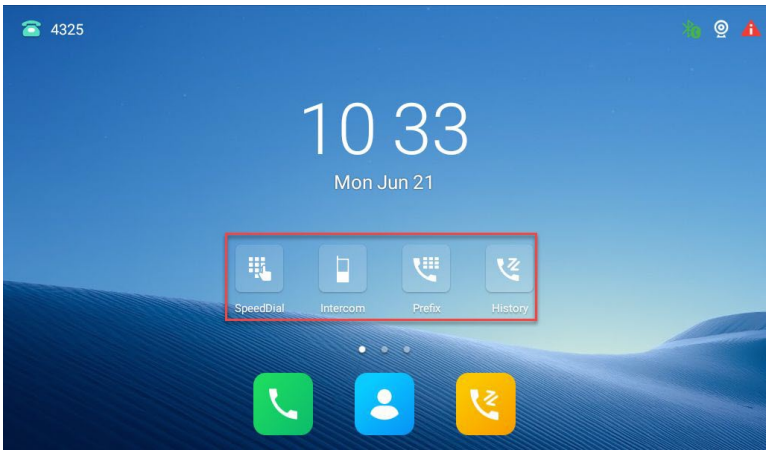
For CP960:



For VP59/T58A:



For T58W:



Topics

Supported Programmable Keys
Programmable Keys Configuration

Supported Programmable Keys

The following tables list programmable keys for each phone model.

Programmable Key IDs	VP59/T58A/T58W	CP960	CP965
1	SoftKey1	SoftKey1	SoftKey1
2	SoftKey2	SoftKey2	SoftKey2
3	SoftKey3	SoftKey3	SoftKey3
4	SoftKey4	/	SoftKey4
12	HOLD	/	/
13	MUTE	/	/
14	TRAN	/	/
17	Redial	/	/
18	Message	/	/

Programmable Keys Configuration

The following table lists the parameters you can use to configure programmable keys.

Parameter	programablekey.type_range.custom	<y0000000000xx>.cfg
Description	It configures the list for available programmable key types when configuring programmable keys. To assign function types, specify programmable key type IDs which start with or without a symbol "+". For example, "+2,15,16,7,4" or "2,15,16,7,4" means only "N/A", "Forward", "Line", "BLF", "Recall", "Hold" types are available when you configure programmable keys. To remove a function type, specify programmable key type IDs which start with the symbol "-". For example, "-14, 5, 2" means to remove "Intercom", "DND", "Forward" types from the Dsskey function types list. These programmable key types are not available when you configure programmable keys. **Note**: Multiple programmable key type IDs are separated by commas. "N/A" type is always kept.	

Permitted Values	Blank or 0 (all valid function types are available); Dsskey type IDs. For supported Dsskey types and IDs, refer to Supported Dsskey Types.		
Default	Blank		
Supported Devices	All phones except CP960/CP965		
Parameter	programablekey.X.type[1]		<y0000000000xx>.cfg
Description	It configures a key feature for a specific programmable key.		
Permitted Values	**0**-N/A **2**-Forward **5**-DND **7**-Recall **8**-SMS (not applicable to CP960/CP965 phones) **9**-Pickup **13**-Speed Dial **14**-Intercom **22**-XML Group **23**-Group PickUp **24**-Multicast Paging (Paging)	**27**-XML Browser **28**-History **29**-Directory **30**-Menu **33**-Status **34**-Hot Desking **38**-LDAP (only appear when “ldap.enable = 1”) **40**-Prefix **41**-Zero Touch	**43**-Local Directory (Local Phonebook) **45**-Local Group **50**-Phone Lock **51**-Switch Account Up **52**-Switch Account Down **61**-Directory **66**-Paging List **73**-Custom Key (only appear when “features.enhanced_dss_keys.enable = 1”) **104**-Google Contacts (only appear when “google_contact_server.enable = 1”) **308**-Dial **309**-Bluetooth **310**-DECT Intercom
	Note: The permitted values are configurable by “programablekey.type_range.custom”. The CP965 phones only support the following types: N/A (0), XML Browser (27), Dial (308), History (28), Directory (29) and Bluetooth (309). The CP960 phones only support the following types: N/A (0), XML Browser (27), Dial (308), Directory (29) and Bluetooth (309). The VP59/T58A/T58W phones do not support the following types: Dial (308) and Bluetooth (309).		
Default	**For CP965**: X=1, default: 308 - Dial X=2, default: 309 – Bluetooth X=3, default: 28 - History X=4, default: 29 - Directory **For CP960**: X=1, default: 308 - Dial X=2, default: 29 - Directory X=3, default: 309 – Bluetooth	**For VP59/T58A/T58W**: X=1, default: 0 - NA X=2, default: 0 - NA X=3, default: 0 – NA X=4, default: 0 - NA X=12, default: 0 - NA X=13, default: 0 – NA X=14, default: 2 - Forward X=17, default: 0 – NA X=18, default: 0 – NA	
Web UI	Dsskey > Programmable Key > Type		
Parameter	programablekey.X.history_type[1]		<y0000000000xx>.cfg

Description	It configures the history type of programmable key.	
Permitted Values	**0**-Local History **1**-Network CallLog (only appear when "bw.enable=1" and "bw.xsi.call_log.enable=1")	
Default	0	
Web UI	Dsskey > Programmable Key > Line	
Parameter	programablekey.X.line[1]	<y0000000000xx>.cfg
Description	It configures the desired line to apply the programmable key feature.	
Permitted Values	0-All (it is configurable only when "features.fwd_mode" is set to 1 (Custom) and "programablekey.X.type" is set to 2 (Forward)); Auto (it is configurable only when "linekey.X.type" is set to 13 (SpeedDial) or 14 (Intercom). 1-Line 1 2-Line 2 … 16-Line 16 **Note**: features.fwd_mode = 1 & programablekey.X.type =2 & programablekey.X.line =0: it means forward will apply to all lines on the phone; programablekey.X.type = 13 & programablekey.X.line =0: it means the phone can automatically switch accounts for speed dial; programablekey.X.type = 14 & programablekey.X.line =0: it means the phone can automatically switch accounts for intercom.	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Dsskey > Programmable Key > Line	
Parameter	programablekey.X.value[1]	<y0000000000xx>.cfg
Description	It configures the value for some programmable key features.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Dsskey > Programmable Key > Value	
Parameter	programablekey.X.label[1] (X=1-4)	<y0000000000xx>.cfg
Description	It configures the label displayed on the phone screen for a specific programmable key. This is an optional configuration.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Dsskey > Programmable Key > Label	
Parameter	programablekey.X.extension[1]	<y0000000000xx>.cfg
Description	For multicast paging: It configures the channel of the multicast paging group.	

	For intercom feature: It configures the pickup code. For speed dial feature: It configures the key sequence you want to send via DTMF. **Note**: It is only applicable when “programablekey.X.type” is set to 13, 14 or 24.	
Permitted Values	For multicast paging: 0 to 31 For intercom feature: String within 256 characters For speed dial feature: String	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Dsskey > Programmable Key > Extension	
Parameter	programablekey.X.xml_phonebook[1]	<y0000000000xx>.cfg
Description	It specifies a specific group/phone book when multiple groups/phone books are configured on the IP phone. For, example, both Remote Phone Book 1 “Sell” and Remote Phone Book 2 “Market” are configured on the phone, you can configure “programablekey.X.xml_phonebook = 0” to specify the Remote Phone Book 1 “Sell” for the specific programmable key. The user can tap this line key to access the Remote Phone Book 1 “Sell”. **Note**: It is only applicable when “programablekey.X.type” is set to 22 or 45.	
Permitted Values	Integer from 0 to 48	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Dsskey > Programmable Key > Line	

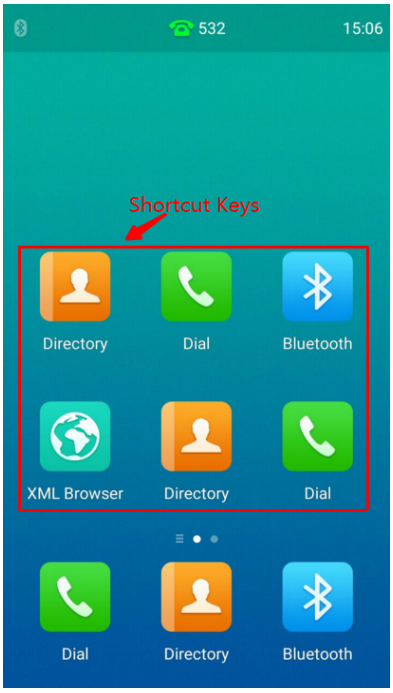
[1]X is the programmable key ID. For VP59/T58A/T58W: X = 1-4, 12-14, 17-18; for CP960: X = 1-3; for CP965: X = 1-4.

Related Topic

Shortcut Key/Programmable Key Icons Customization Configuration

Shortcut Keys

You can add up to six-specific shortcut keys on a new idle screen. Users can use these functions from the phone screen directly, for example, XML Browser.



It is only applicable to CP960 phones.

Topic

Shortcut Keys Configuration

Shortcut Keys Configuration

The following table lists the parameters you can use to configure the shortcut keys.

Parameter	shortcutkey.X.type[1]	<y0000000000xx>.cfg
Description	It configures key feature for a specific shortcut key.	
Permitted Values	**0**-N/A **27**-XML Browser **29**-Directory **308**-Dial **309**-Bluetooth	
Default	0	
Supported Devices	CP960	
Web UI	Dsskey > Shortcut Key > Type	
Parameter	shortcutkey.X.label[1]	<y0000000000xx>.cfg
Description	It configures the label displayed on the LCD screen for a specific shortcut key. This is an optional configuration.	
Permitted Values	String within 99 characters	
Default	Blank	

Supported Devices	CP960	
Web UI	Dsskey > Shortcut Key > Label	
Parameter	shortcutkey.X.value[1]	<y0000000000xx>.cfg
Description	It configures the value for some shortcut key features. **Note**: You need to configure this parameter when “shortcutkey.X.type” is set to 27 (XML Browser).	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	CP960	
Web UI	Dsskey > Shortcut Key > Value	

[1]X is the shortcut key ID. X = 1-6.

Related Topic

Shortcut Key/Programmable Key Icons Customization Configuration

Ext Keys

The ext keys take effect only if the expansion module is connected to the IP phone.

It is only applicable to T58A/T58W phones.

Topic

Ext Keys Configuration

Ext Keys Configuration

The following table lists the parameters you can use to configure ext keys.

Parameter	expkey.type_range.custom	<y0000000000xx>.cfg
Description	It configures the list for available ext key types list when configuring ext keys. To assign function types, specify ext key type IDs which start with or without a symbol ”+”. For example, “+2,15,16,7,4” or “2,15,16,7,4” means only “N/A”, “Forward”, “Line”, “BLF”, “Recall”, “Hold” types are available when you configure ext keys. To remove a function type, specify ext key type IDs which start with the symbol “-”. For example, “-14, 5, 2” means to remove “Intercom”, “DND”, “Forward” types from the ext key types list. These ext key types are not available when you configure ext keys. **Note**: Multiple ext key type IDs are separated by commas. N/A type is always kept.	
Permitted Values	Blank or 0 (all valid function types are available); Dsskey type IDs. For supported Dsskey types and IDs, refer to Supported Dsskey Types.	
Default	Blank	
Supported Devices	T58W, T58A	
Parameter	expansion_module.X.key.Y.type[1]	<y0000000000xx>.cfg
Description	It configures the feature for a specific ext key.	

Permitted Values	**0**-N/A **1**-Conference **2**-Forward **3**-Transfer **4**-Hold **5**-DND **7**-Recall **8**-SMS **9**-Direct Pickup **10**-Call Park **11**-DTMF **12**-Voice Mail **13**-Speed Dial **14**-Intercom	**15**-Line **16**-BLF **17**-URL **18**-Group Listening **20**-Private Hold **22**-XML Group **23**-Group Pickup **24**-Multicast Paging (Paging) **25**-Record **27**-XML Browser **34**-Hot Desking **35**-URL Record	**38**-LDAP (only appears when "ldap.enable=1") **39**-BLF List **40**-Prefix **41**-Zero Touch **42**-ACD **45**-Local Group **50**-Phone Lock **56**-Retrieve Park **61**-Directory **66**-Paging List **73**-Custom Key (only available when "features.enhanced_dss_keys.enable=1") **77**-Mobile Account **104**-Google Contacts (only appear when "google_contact_server.enable = 1") **105**-XML Park **304**-Open Door **305**-Video Monitoring **310**-DECT Intercom
	Note: The permitted values are configurable by "expkey.type_range.custom".		
Default	Y=1-60, default: 0 – NA		
Supported Devices	T58W, T58A		
Web UI	Dsskey > Ext Key > Type		
Parameter	expansion_module.X.key.Y.line[1]		<y0000000000xx>.cfg
Description	It configures the desired line to apply the ext key feature.		
Permitted Values	0, 1-16 **Note**: The permitted value 0 is configurable only when "features.fwd_mode" is set to 1 (Custom) and "expansion_module.X.key.Y.type" is set to 2 (Forward).		
Default	1		
Supported Devices	T58W, T58A		
Web UI	Dsskey > Ext Key > Line		
Parameter	expansion_module.X.key.Y.value[1]		<y0000000000xx>.cfg
Description	It configures the value for some ext key features. For open door feature: It configures the open door URL of 2N IP intercom.		

	The valid URL format is: http(s) ://<IP address of the IP intercom>/api/switch/ctrl?switch=<switch identifier, typically 1 to 4>&action=trigger or http(s)://username:password@<IP address of the IP intercom>/api/switch/ctrl?switch=<switch identifier, typically 1 to 4>&action=trigger. For video monitoring feature: It configures the video access URL of IP intercom camera. The valid URL format is: http(s)://<IP address of the IP intercom>/mjpg/video.mjpg or http(s)://username:password@<IP address of the IP intercom>/mjpg/video.mjpg.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	T58W, T58A	
Web UI	Dsskey > Ext Key > Value	
Parameter	expansion_module.X.key.Y.label[1]	<y0000000000xx>.cfg
Description	It configures the label displayed on the LCD screen for a specific programmable key. This is an optional configuration.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	T58W, T58A	
Web UI	Dsskey > Ext Key > Label	
Parameter	expansion_module.X.key.Y.extension[1]	<y0000000000xx>.cfg
Description	For multicast paging: It configures the channel of the multicast paging group. For the BLF/BLF list/intercom feature: It configures the pickup code. For speed dial feature: It configures the key sequence you want to send via DTMF. For open door/video monitoring feature: It configures the number or IP address of the IP intercom that this key will apply to. **Note**: It is only applicable when “expansion_module.X.key.Y.type” is set to 14, 16, 24 or 39.	
Permitted Values	For multicast paging: 0 to 31 For the BLF/BLF list/intercom/open door/video monitoring feature: String within 256 characters For speed dial feature: String	

Default	0	
Supported Devices	T58W, T58A	
Web UI	Dsskey > Ext Key > Extension	
Parameter	expansion_module.X.key.Y.xml_phonebook[1]	<y0000000000xx>.cfg
Description	It specifies a specific group/phone book when multiple groups/phone books are configured on the phone. For example, both Remote Phone Book 1 "Sell" and Remote Phone Book 2 "Market" are configured on the phone, you can configure "expansion_module.X.key.Y.xml_phonebook = 0" to specify the Remote Phone Book 1 "Sell" for the specific ext key. The user can press this line key to access the Remote Phone Book 1 "Sell". **Note**: It is only applicable when "expansion_module.X.key.Y.type" is set to 22 or 45.	
Permitted Values	Integer from 0 to 48	
Default	0	
Supported Devices	T58W, T58A	
Web UI	Dsskey > Ext Key > Ext KeyX > Line	

[1]X is the expansion module ID, Y is the EXT key ID. For T58A/T58W, X=1-3, Y=1-60.

Dsskey Lock Configuration

The following table lists the parameters you can use to configure dsskey lock.

Parameter	custom.features.dsskey_lock_type	<y0000000000xx>.cfg
Description	It configures which types of dsskeys to be locked on the phone. Multiple dsskey type IDs are separated by commas.	
Permitted Values	Blank (all valid function types are not locked); dsskey type IDs. For supported dsskey types and IDs, refer to Supported Dsskey Types.	
Default	Blank	
Parameter	custom.features.dsskey_unlock_password	<y0000000000xx>.cfg
Description	It configures the password for unlocking the phone's dsskeys. If it is set to a value, the phone prompts users to enter the password when using the corresponding dsskey configured by "custom.features.dsskey_lock_type".	
Permitted Values	String within 32 characters	
Default	Blank (no prompt for entering the unlock password)	

Shortcut Key/Programmable Key Icons Customization

You can customize the personalized icons for shortcut keys or programmable keys.

Shortcut keys are only applicable to CP960 phones.

Topics

Shortcut Key/Programmable Key Icons Customization Configuration
Example: Customizing an Icon for a Specific Shortcut Key
Example: Customizing an Icon for a Specific Programmable Key

Shortcut Key/Programmable Key Icons Customization Configuration

The following table lists the parameters you can use to configure the shortcut key/programmable key icons.

Parameter	dsskey.icon.url	<y0000000000xx>.cfg
Description	It configures the access URL of a TAR icon file for shortcut key/programmable key. The format of the icon must be *.png. The icon file should be compressed into a TAR file in advance and then place it to the provisioning server. **Example**: dsskey.icon.url = tftp://192.168.10.25/icon_directory.tar **Note**: We recommend that you use a mixture of letters and characters for the icon and TAR file names. Shortcuts key are only applicable to CP960 phones.	
Permitted Values	String	
Default	Blank	
Parameter	shortcutkey.X.icon[1]	<y0000000000xx>.cfg
Description	It configures the icon for a specific shortcut key. **Note**: After configuration, the icon will not change even if "shortcutkey.X.type" is set to another value.	
Permitted Values	0 (default icon) or uploaded custom icon name (for example, icon_directory.png)	
Default	Blank	
Supported Devices	CP960	
Parameter	programablekey.X.icon[2]	<y0000000000xx>.cfg
Description	It configures the icon for a specific programmable key. **Note**: It works only if "programablekey.X.type" is not set to 0 (N/A).	
Permitted Values	0 (default icon) or uploaded custom icon name (for example, icon_settings.png)	
Default	0	
Parameter	dsskey.icon.delete	<y0000000000xx>.cfg
Description	It deletes the specified or all custom shortcut key/programmable key icons. **Example**: Delete all custom shortcut/programmable key icons: dsskey.icon.delete = http://localhost/all Delete a specified shortcut/programmable key icon (for example, icon_directory.png): dsskey.icon.delete = http://localhost/icon_directory.png	
Permitted Values	http://localhost/all or http://localhost/name.png	

Default	Blank

[1]X is the shortcut key ID. X = 1-6.

[2]X is the programmable key ID. For VP59/T58A/T58W: X = 1-4, 12-14, 17-18; for CP960: X = 1-3; for CP965: X = 1-4.

Related Topics

Shortcut Key/Programmable Key Icons Limit
Preparing the Tar Formatted File

Example: Customizing an Icon for a Specific Shortcut Key

The following example shows the configuration for customizing an icon for the second shortcut key. The shortcut key is only applicable to CP960 phones.

Prepare the custom key icon "icon_directory.png", compress it into a tar file "icon_custom.tar", and then place the tar file to the provisioning server "http://192.168.10.25".

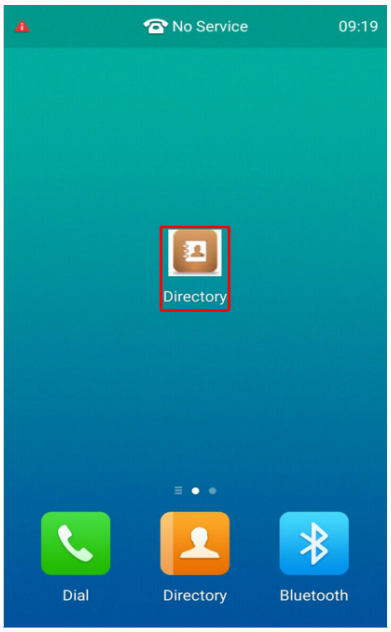
Example

dsskey.icon.url = http://192.168.10.25/icon_custom.tar

shortcutkey.2.type = 29

shortcutkey.2.icon = icon_directory.png

After auto provisioning, the Directory shortcut key is added to a new idle screen, the key icon is customized as well.



Related Topics

Shortcut Keys Configuration
Shortcut Key/Programmable Key Icons Customization Configuration
Preparing the Tar Formatted File

Example: Customizing an Icon for a Specific Programmable Key

The following example shows the configuration for customizing an icon for the second programmable key.

For CP960:

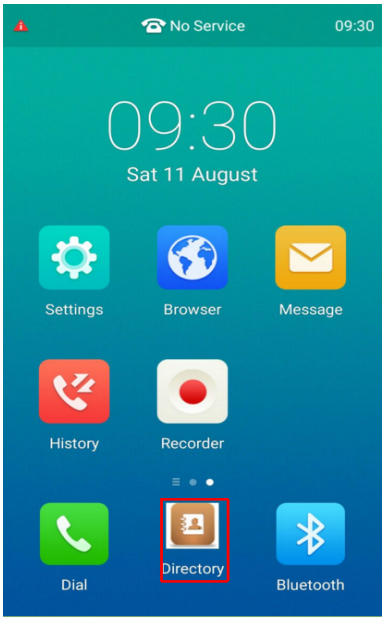
Prepare the custom key icon "icon_directory.png", compress it into a tar file "icon_custom.tar", and then place the tar file to the provisioning server "http://192.168.10.25".

Example:

dsskey.icon.url = http://192.168.10.25/icon_custom.tar

programablekey.2.icon = icon_directory.png

After auto provisioning, the second programmable key icon is customized.



For VP59/T58A:

Prepare the custom key icon "icon_settings.png", compress it into a tar file "icon_menu.tar", and then place the tar file to the provisioning server "http://192.168.10.25".

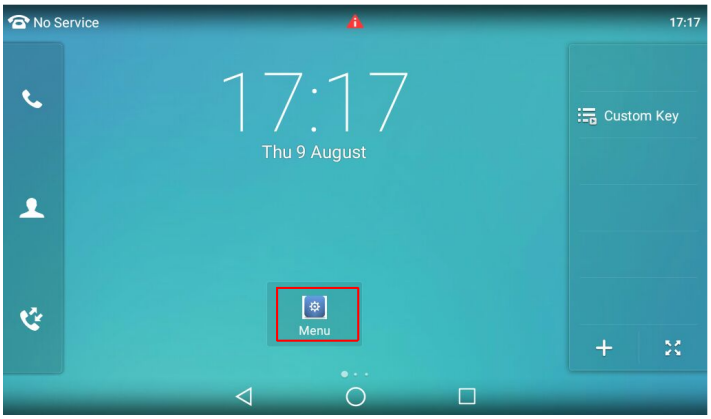
Example:

dsskey.icon.url = http://192.168.10.25/icon_menu.tar

programablekey.2.type = 30

programablekey.2.icon = icon_settings.png

After auto provisioning, the second programmable key is assigned the feature to access the menu, and the key icon is customized.



Related Topics

Programmable Keys Configuration
Shortcut Key/Programmable Key Icons Customization Configuration
Preparing the Tar Formatted File

Dsskey Hide

You can choose whether to hide the dsskey list.

Topic

Dsskey Hide Configuration

Dsskey Hide Configuration

The following table lists the parameter you can use to configure dsskey hide.

Parameter	phone_setting.hide_dsskey.mode	<y0000000000xx>.cfg
Description	It enables or disables users to hide the dsskey list on the dialing/talking/directory/history screen.	
Permitted Values	**0**-Disabled **1**-Enabled, users can choose whether to hide dsskey list on the phone	
Default	1	
Supported Devices	All phones except CP960/CP965	

Enhanced DSS Keys

Enhanced DSS Keys (EDK) enables users to customize the functions of the phone's DSS keys.

With EDK, You can do the following:

- Assign a frequently-used function to DSS keys.
- Create menu shortcuts for frequently-used phone settings as need.
- Use EDK macro strings as the contact number.

Application scenarios involve the following:

- Adding new DSS keys to simplify the operation of common telephony tasks that may need more than one keypress with the default configuration.
- Removing certain default DSS keys for the functions that may be redundant or never used.
- One-touch connecting to the contact's extension number without entering DTMF manually.

The rules for configuring EDK for DSS keys are different. Before using EDK, you are advised to become familiar with the macro language.

It is not applicable to CP960/CP965 phones.

For more information on Enhanced DSS Keys, refer to Using Enhanced DSS Keys on Yealink IP Phones.

Topics

Guidelines for Configuring Enhanced DSS Keys
Macro Action Strings
EDK Configuration
EDK List Configuration
EDK User Input Prompt Configuration
EDK Soft Keys Configuration
Example: Configuring EDK List for a Line Key
Example: Using EDK Macro Strings as the Contact Number

Guidelines for Configuring Enhanced DSS Keys

The following guidelines will help you to configure EDK efficiently:

- Activation of EDK functions requires valid macro construction.
- Character “$” delimits the parts of the macro string (except the digits only) and it must exist in pairs. For more information, refer to Macro Action Strings.
- Macros can be invoked in the format “!<macro name>”, where <macro name > is defined by the parameter “edk.edklist.X.mname”.
- If there are two or more same macros, the soft key or DSS key will invoke the macro with the smallest value of X defined by the parameter “edk.edklist.X.mname”.

Macro Action Strings

Before using EDK, you must be familiar with macro language shown in this section.

The following table shows the basic macro action string syntax when creating EDK macros:

Macro Action	Description
Digits	The characters to be sent. The following characters are supported: . @ * # + 0-9 and English letters. The appearance of this parameter depends on the action string. **Example:** *981135.
$C<command>$	This is the command. It can appear anywhere in the action string. Supported commands (or shortcuts) include: • hang up (hu) • hold (h) • waitconnect (wc) • pause <number of seconds> (p <num sec>) where the maximum value is 10 **Example**: 4411$Cwc$$Cp10$ defines dialing 4411 > > waitconnect > > connected and lasts 10 seconds.
$T<type>$	The embedded action type. Multiple actions can be defined. Supported action types include: • invite • dtmf • refer • intercom **Example**: *338$Tdtmf$ defines sending the *338 by the type of DTMF. **Note**: We recommend that you always define this field. If not, the supplied digits are dialed using INVITE.
$M<macro>$	The embedded macro. The <macro > string must begin with a letter. If the macro name is not defined, the execution of the action string will be ignored. **Example**: MAA means invoking the EDK macro AA.
$S<softkey ID>$	It has the same effect as pressing the desired soft key. Each soft key has a unique identifier on the IP phone, you can configure this parameter according to the system-defined softkey ID. If the softkey ID is not defined on the phone or there is no matched soft key on the current screen, the execution of the action string will be ignored. The softkey ID is case-insensitive. **Example**: $Sanswer$ means pressing the **Answer** soft key.

Macro Action	Description
	Yealink phones support customizing soft keys. When the phone invokes a custom soft key, the prefix "#" must be added. **Example**: If the custom softkey label is IVR1, the custom softkey ID is custom_macro, then $S#custom_macro$ means pressing the **IVR1** soft key. **Note**: To view the softkey ID, you can set "features.enhanced_dss_keys.enable" and "edk.id_mode.enable" to 1 (Enabled) and then long press the Volume Up key when the phone is idle.
$K<key name>$	The functionality of performing this action is the same as that of pressing the desired hard key. Supported key names include: • LineKeyX (for VP59/T58A/T58W, X=27). • SoftKeyX (X ranges from 1 to 4) • VolDown • VolUp • DialPadX (X ranges from 0 to 9) • DialPadPound • DialPadStar • Headset • Mute • Message • Hold • Redial • Transfer • Speaker • ExtX@Y (X stands for the serial number of expansion module key, Y stands for the serial number of expansion module; For T58A/T58W: X ranges from 1 to 60, Y ranges from 1 to 3; @Y can be omitted if there is only one expansion module connected to the phone.) • Menu (You can enter the menu by executing this command at any interface except the non-executable situations. For example, entering menu is blocked during an active call.) • Home (You can return to the Home screen by executing this command on any screen) **Example**: $KDialPadPound$ means pressing the pound key. **Note**: If a key (for example, Redial key) is not found but the function is available, the phone will perform the corresponding action. If a key is not found and the function is unavailable, the execution of the action string will be ignored.
$I<menu item ID>$	The action is to position and enter the desired menu item. Each menu item has a unique identifier on the IP phone, and you can configure this parameter according to the system-defined menu item ID. If the menu item ID is not defined on the phone or there is no matched menu item on the current screen, the execution of the action string will be ignored. The menu item ID is case-insensitive. **Example**: $Istatus_list& means entering the **Status** menu. **Note**: To view the menu item ID, you can set "edk.id_mode.enable" to 1 (Enabled) and then long press the Volume Up key when the phone is idle.

Macro Action	Description
$P<label>&T<title>&C<characters number allowed>&N&M$	The string of the user input prompt. “label” means the specified label for the user input prompt. "title" means the specified title for the user input prompt. “characters number allowed” defines the maximum number of input characters. If &N is included, the input mode is numeric&symbolic. If &N is not included, the onscreen keyboard is displayed, you can manually change the input mode. If &M is included, the inputs are masked by the dot characters "▪". **Example**: **$PPassword&C3&N&M$** means prompting a **Password** pop-up box, the maximum number of input characters is 3, the input type is Number, and the input is masked by the dot characters "▪".
$P<EDK user input prompt X>N<characters number allowed>$	The user input prompt string. “EDK user input prompt X” means which EDK user input prompt is invoked. It indicates the X defined by “edk.edkprompt.X.enable”. “characters number allowed” defines the maximum number of input characters. You need to press the **Enter** soft key to complete data entry. **Example**: $P2N5$ means invoking the EDK user input prompt 2 and inputting 5 characters at most. **Note**: For more information on EDK user input prompt, refer to EDK User Input Prompt Configuration.
$L<label>$	This is the label for the entire operation. The value can be any string including the null string (in this case, no label displays). This label is used if no label is configured for a custom DSS key or soft key, otherwise, this one is ignored. Make this the first entry in the action string. **Example**: $LEDK2$1234$Tinvite$ defines calling out the number 1234 and using the label “EDK2” for a Custom Key.
$LED<color and time>&L<label>$	The status of the BLF/BLF list DSS key LED. Specify the LED color for the BLF/BLF list DSS key and the duration time (in milliseconds) for the corresponding status of the BLF/BLF list DSS key. The valid value of the duration ranges from 100 to 60000ms. Can be composed of multiple combinations of “color” and “time”. The status will be stuck in an infinite loop until triggered by other macros. Supported colors include (must be lowercase): • r (red) • ri (red with an incoming mark) • ro (red with an outgoing mark) • rd (red with a DND mark) • g (green) • gi (green with an incoming mark) • go (green with an outgoing mark) • y (yellow) • yi (yellow with an incoming mark)

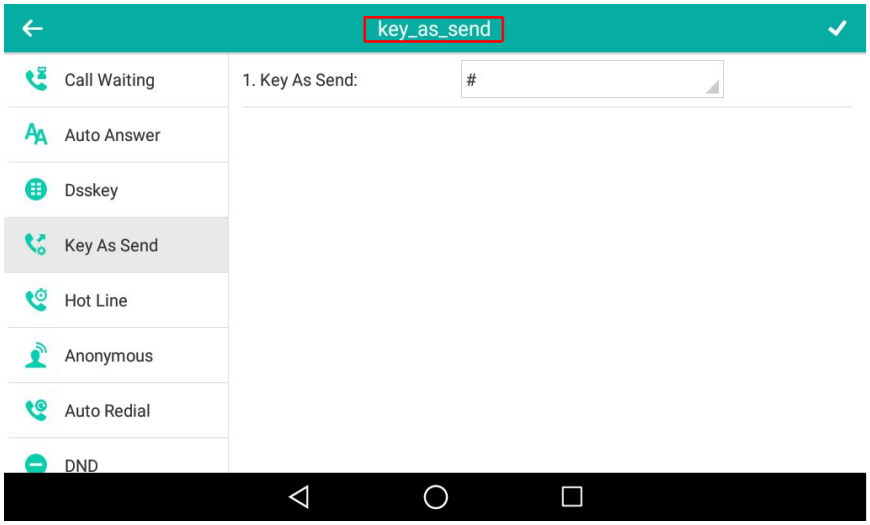
Macro Action	Description
	• yo (yellow with an outgoing mark) • yd (yellow with a DND mark) • o (off) &L<label> (Optional.): You have to put the "&L<label>" last in the command flow. **Example**: $LEDg1000o100r300&Lidle$ means an infinite loop for BLF/BLF list DSS key LED status: glow green for 1000ms, be in the off state for 100ms and then glow red for 300ms. At the same time, the label of the BLF/BLF list DSS key is changed to "idle". **Note**: The last "color" can be configured without "time", and it means permanently displaying the last color until triggered by other macros. This macro can be only used for BLF/BLF list feature. For more information, refer to BLF/BLF List Key LED Status and Behavior Configuration.
$XML<xml browser url>$	The action is to execute the XML browser URL. **Example**: $XMLhttp://10.83.3.12/XML/PhoneExecute.xml$ defines excute the XML browser URL *http://10.83.3.12/XML/PhoneExecute.xml*. For more information on XML browser, refer to XML Browser.

EDK Configuration

To configure the EDK list, EDK user input prompt, EDK soft keys, and custom DSS keys, you have to enable EDK feature. By default, the EDK feature is disabled.

Yealink phones can display the menu item ID by long pressing the Volume Up key. It is especially useful for those users who need to view the menu item ID when configuring EDK macros.

The following graphic shows an example for displaying the menu item ID after accessing a submenu of T58A phones:



The following table lists the parameters you can use to configure EDK.

Parameter	features.enhanced_dss_keys.enable	<y0000000000xx>.cfg
Description	It enables or disables the Enhanced DSS Keys (EDK) feature.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	edk.id_mode.enable	<y0000000000xx>.cfg
Description	It enables or disables to view the menu item ID by long pressing the Volume Up key for three seconds on any screen. **Note**: The menu item ID is displayed on the status bar of the phone. Long pressing the Volume Up key again for three seconds to exit. It works only if “features.enhanced_dss_keys.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	

EDK List Configuration

Using the Enhanced DSS Keys (EDK) List parameters to define a macro is useful when defining more than one soft key or DSS key.

The following table lists the parameters you can use to configure the EDK list.

Parameter	edk.edklist.X.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables Enhanced DSS Keys (EDK) macro X. **Note**: It works only if “features.enhanced_dss_keys.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	edk.edklist.X.mname[1]	<y0000000000xx>.cfg
Description	It configures the unique identifier used by the soft key or DSS key configuration to reference the enhanced DSS keys entry for macro X. It cannot start with a digit. This parameter must have a value, it cannot be left blank. **Example**: edk.edklist.2.mname = macro2 **Note**: If there are two or more same macros, the soft key or DSS key will invoke the macro with the smallest value of X. It works only if “features.enhanced_dss_keys.enable” is set to 1 (Enabled).	
Permitted Values	String	
Supported Devices	All phones except CP960/CP965	
Default	Blank	
Parameter	edk.edklist.X.action[1]	<y0000000000xx>.cfg
Description	It configures the action string that contains a macro definition of the action that the softkey or DSS key performs.	

	This parameter must have a value, it cannot be left blank. **Example**: edk.edklist.2.action = 1013$Tinvite$ **Note**: It works only if "features.enhanced_dss_keys.enable" is set to 1 (Enabled).
Permitted Values	String
Default	Blank
Supported Devices	All phones except CP960/CP965

[1]X is the macro ID. X=1-255.

EDK User Input Prompt Configuration

The EDK user input prompt parameters must be used if interactivity with the user is implemented as part of any macro.

The following table lists the parameters you can use to configure the EDK user input prompt.

Parameter	edk.edkprompt.X.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables user input prompt X. **Note**: If a macro attempts to use an EDK user input prompt that is disabled, the macro execution fails. It works only if "features.enhanced_dss_keys.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	edk.edkprompt.X.label[1]	<y0000000000xx>.cfg
Description	It configures the text string used as a label of the user input prompt X. If it is left blank, Default is displayed. **Example**: edk.edkprompt.1.label = Enter Password **Note**: It works only if "features.enhanced_dss_keys.enable" and "edk.edkprompt.X.enable" are set to 1 (Enabled).	
Permitted Values	String	
Default	Default	
Supported Devices	All phones except CP960/CP965	
Parameter	edk.edkprompt.X.type[1]	<y0000000000xx>.cfg
Description	It configures the type of characters entered by the user for user input prompt X. If it is set to numeric, the default input method is 123, and you can switch among abc/ABC/2aB input methods. If it is set to text, the default input method is abc, and you can switch among ABC/2aB/123 input meth-	

	ods. **Note**: It works only if “features.enhanced_dss_keys.enable” and “edk.edkprompt.X.enable” are set to 1 (Enabled).	
Permitted Values	text or numeric	
Default	text	
Supported Devices	All phones except CP960/CP965	
Parameter	edk.edkprompt.X.userfeedback[1]	<y0000000000xx>.cfg
Description	It configures the user input feedback method for user input prompt X. **Note**: It works only if “features.enhanced_dss_keys.enable” and “edk.edkprompt.X.enable” are set to 1 (Enabled).	
Permitted Values	**visible**-the entered text is visible. **masked**-the entered text is displayed as dot characters "▪". It can be used to mask password fields.	
Default	visible	
Supported Devices	All phones except CP960/CP965	
Parameter	edk.edkprompt.X.title[1]	<y0000000000xx>.cfg
Description	It configures the text string used as a title for the user input prompt X. The title appears at the top of the user input prompt screen. If it is left blank, the EDK Prompt is displayed. **Note**: It works only if “features.enhanced_dss_keys.enable” and “edk.edkprompt.X.enable” are set to 1 (Enabled).	
Permitted Values	String	
Default	EDK Prompt	
Supported Devices	All phones except CP960/CP965	

[1]X is the prompt ID. X=1-10.

EDK Soft Keys Configuration

You can customize the soft keys as need. This feature is typically used to access frequently-used functions or to create menu shortcuts to frequently-used phone settings.

Custom soft keys can be added in the following phone states:

- **Idle** - There are no active calls on the phone.
- **Alerting (or ringing)** – There is an incoming call on the phone.
- **Connecting** – There is an outgoing call on the phone. Moreover, the call is connecting.
- **Transfer connecting** – There is a call being transferred to another phone. Moreover, the call is connecting.
- **Talk** – There is an active call on the phone.
- **Call failed** – The outgoing call encounters a failure.
- **Ring back** - There is an outgoing call on the phone. Moreover, the phone is in the ringback state.
- **Transfer ring back** - There is a call being transferred to another phone. Moreover, the phone is in the ringback state.

- **Hold** – The call is placed on hold on the phone.
- **Held** – The call is held.
- **Conference** – The phone sets up a conference call.
- **Dial tone** –The phone is on the dialing screen without entering the number.
- **Dialing** – The phone is on the dialing screen with entering the number but not dialing.

Note: Configuring the custom soft keys may affect the softkey layout in different call states. For more information on softkey layout, refer to Softkey Layout.

The following table lists the parameters you can use to configure EDK soft keys.

Parameter	softkey.X.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X. **Note**: It works only if "features.enhanced_dss_keys.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.label[1]	<y0000000000xx>.cfg
Description	It configures the text displayed on the soft key label. **Note**: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.position[1]	<y0000000000xx>.cfg
Description	It configures the location on the phone screen for soft key X. **Note**: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).	
Permitted Values	Integer from 0 to 10 If it is set to 0, the soft key X is located in the first available position from the left.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.action[1]	<y0000000000xx>.cfg
Description	It configures the action or function for custom soft key X. This value uses the same macro action string syntax as an Enhanced DSS key. You can also invoke the EDK macro that was already defined. The macro name follows the character "!". **Example**: softkey.1.action = !macro1 In this example, macro1 stands for the macro name configured by the parameter "edk.edk-	

	list.X.mname”. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.softkey_id[1]	<y0000000000xx>.cfg
Description	It configures the softkey id for custom soft key X. **Example**: softkey.1.softkey_id = custom_macro1 **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.idle[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the idle state. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.incoming_call[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the alerting (ringing) state. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.connecting[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the connecting state. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.transfer_connecting[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the transfer connecting state. **Note**: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.on_talk[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the talking state. **Note**: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.call_failed[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the call failed state. **Note**: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.ring_back[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the ring back state. **Note**: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.transfer_ring_back[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the transfer ring back state. **Note**: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).	

Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.hold[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the hold state. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.held[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the held state. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.conferenced[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the conference state. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.dialtone[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the dial tone (no numbers entered) state. **Note**: It works only if “features.enhanced_dss_keys.enable” and “softkey.X.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	softkey.X.use.dialing[1]	<y0000000000xx>.cfg
Description	It enables or disables the custom soft key X to be displayed in the dialing state.	

	Note: It works only if "features.enhanced_dss_keys.enable" and "softkey.X.enable" are set to 1 (Enabled).
Permitted Values	**0**-Disabled **1**-Enabled
Default	0
Supported Devices	All phones except CP960/CP965

[1]X is the soft key ID. X=1-10.

Example: Configuring EDK List for a Line Key

The following takes an example to help you understand how to execute the macro action string.

Example

features.enhanced_dss_keys.enable = 1

edk.edklist.1.enable = 1

edk.edklist.1.mname = IVR1

edk.edklist.1.action = 1013$Tinvite$$Cwc$$Cp10$$Penter number&C4&N$$Tdtmf$$Cp3$$Chu$

linekey.1.type = 73

linekey.1.value = !IVR1

linekey.1.label = Custom

After provisioning, the line key 1 will invoke the macro "IVR1". You can press the line key 1 to execute the action "1013$Tinvite$$Cwc$$Cp10$$Penter number&C4&N$$Tdtmf$$Cp3$$Chu$".

You can also set "linekey.1.value = 1013$Tinvite$$Cwc$$Cp10$$Penter number&C4&N$$Tdtmf$$Cp3$$Chu$" without configuring an EDK list. You can also manually assign a line key using the macro "IVR1" or action string "1013$Tinvite$$Cwc$$Cp10$$Penter number&C4&N$$Tdtmf$$Cp3$$Chu$" manually on their phone.

Example: Using EDK Macro Strings as the Contact Number

When you add a contact number in the local directory, LDAP, Remote phone book or XML phone book, you can use the EDK macro strings.

Use one of the following formats when adding a contact number:

- Add an exclamation mark (!) prefix to the macro name, and then enclose them in parenthesis. For example, (!macro1).
- EDK macro strings enclosed in parenthesis. For example, (8001234567$Cwc$$Cp2$103$Tdtmf$).

Example: Assume that a contact whose company phone number is 8001234567, and extension number is 103. If you want to call this contact directly, you can configure the contact number according to the following steps:

1. Configure the following parameters:

   features.enhanced_dss_keys.enable = 1

   edk.edklist.1.enable = 1

   edk.edklist.1.mname = macro1

   edk.edklist.1.action = 8001234567$Cwc$$Cp2$103$Tdtmf$
2. Trigger the phone to perform auto provisioning.
3. On your phone, assign (!macro1) to be the contact number.

   When you call this contact, the phone will invoke the macro "macro1". So that the phone will execute the action "8001234567$Cwc$$Cp2$103$Tdtmf$".

You can also assign (8001234567$Cwc$$Cp2$103$Tdtmf$) to be the contact number directly.

Note: 8001234567$Cwc$$Cp2$103$Tdtmf$ defines that the phone dials 8001234567 first, and sends DTMF sequence 103 automatically after the call is connected and lasts for 2 seconds.

Power Saving

The power-saving feature turns off the backlight and screen (also applicable to EXP50 expansion module connected to the T58A/T58W phones) to conserve energy. The IP phone and EXP50 (if connected) enter power-saving mode after the phone has been idle for a certain period of time. And the IP phone and EXP50 (if connected) will exit power-saving mode if a phone/EXP50 event occurs - for example, the phone receives an incoming call or a new message, or you tap a key on the phone/EXP50.

Note: If the Screen Saver is enabled on your phone, the power-saving mode will still occur. For example, if a screen saver is configured to display after the phone has been idle for 5 minutes, and the power-saving mode is configured to turn off the backlight and screen after the phone has been idle for 15 minutes, the backlight and screen will be turned off after the screen saver displays for 10 minutes.

Topic

Power Saving Configuration

Power Saving Configuration

You can enable or disable power saving, and set the different idle timeout for office hours and off hours.

- **Office Hour**: specify the start time and end time of the day's office hour. You can change the office hours to avoid affecting your work.
- **Idle Timeout**: specify the period of time before the IP phone enters the power-saving mode.

You can specify the following three types of idle timeout:

- **Office Hours Idle TimeOut**: specify the idle timeout for office hours.
- **Off Hours Idle TimeOut**: specify the idle timeout for non-office hours.
- **User Input Extension Idle TimeOut**: specify the idle timeout that applies after you use the IP phone (for example, press a key on the phone or pick up/hang up the handset).

By default, the Office Hours Idle Timeout is much longer than the Off Hours Idle TimeOut. If you use the IP phone, the idle timeout that applies (User Input Extension Idle Timeout or Office Hours/Off Hours Idle TimeOut) is the timeout with the highest value.

If the phone has an incoming call or new message, the User Input Extension Idle TimeOut is ignored.

Note: For VP59/T58A/T58W phones, if you disable the power saving feature, the phone will automatically enter power-saving mode to protect the screen when the phone is inactive for 72 hours. Image persistence may be caused on LCD if power saving is disabled

Tip: You can choose to set a higher User Input Extension Idle TimeOut than the Office Hours Idle TimeOut and Off Hours Idle TimeOut so that the phone does not enter the power-saving mode too often after you use the phone.

The following table lists the parameters you can use to configure power saving.

Parameter	features.power_saving.intelligent_mode	<y0000000000xx>.cfg
Description	It enables or disables the power saving intelligent mode.	
Permitted Values	**0**-Disabled, the phone stays in power-saving mode even if the office hour arrives the next day. **1**-Enabled, the phone automatically identifies the office hour and exits power-saving mode once the office hour arrives the next day.	
Default	1	
Parameter	features.power_saving.enable	<y0000000000xx>.cfg

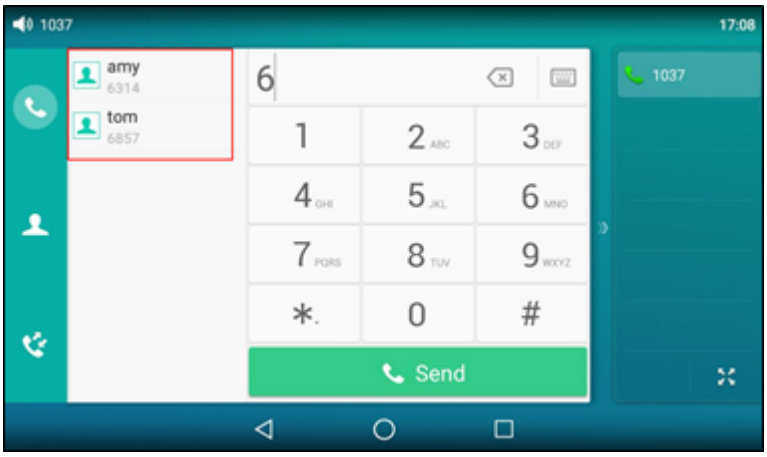
Description	It enables or disables the power saving feature.	
Permitted Values	**0**-Disabled, the phone automatically enters the power-saving mode to protect the screen when the phone is inactive for 72 hours. That is, the color screen phones will turn off the backlight and screen, and the black-and-white screen phones will only turn off the backlight. Image persistence may be caused by LCD. **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Settings > Power Saving > Power Saving	
Parameter	features.power_saving.office_hour.idle_timeout	<y0000000000xx>.cfg
Description	It configures the time (in minutes) to wait in the idle state before the phone enters power-saving mode during the office hours.	
Permitted Values	Integer from 1 to 240	
Default	120	
Web UI	Settings > Power Saving > Office Hour Idle TimeOut	
Parameter	features.power_saving.off_hour.idle_timeout	<y0000000000xx>.cfg
Description	It configures the time (in minutes) to wait in the idle state before phone enters power-saving mode during the non-office hours.	
Permitted Values	Integer from 1 to 10	
Default	10	
Web UI	Settings > Power Saving > Off Hour Idle TimeOut	
Parameter	features.power_saving.user_input_ext.idle_timeout	<y0000000000xx>.cfg
Description	It configures the minimum time (in minutes) to wait in the idle state - after using the phone - before the phone enters the power-saving mode.	
Permitted Values	Integer from 1 to 30	
Default	10	
Web UI	Settings > Power Saving > User Input Extension Idle TimeOut	
Parameter	features.power_saving.office_hour.monday features.power_saving.office_hour.tuesday features.power_saving.office_hour.wednesday features.power_saving.office_hour.thursday features.power_saving.office_hour.friday features.power_saving.office_hour.saturday features.power_saving.office_hour.sunday	<y0000000000xx>.cfg
Description	It configures the start time and end time of the day's office hour. Start time and end time are separated by a comma. **Example**:	

	features.power_saving.office_hour.monday = 7,19	
Permitted Values	Integer from 0 to 23, Integer from 0 to 23	
Default	7,19 - for Monday, Tuesday, Wednesday, Thursday, Friday. 7,7 - for Saturday, Sunday.	
Web UI	Settings > Power Saving > Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday	
Parameter	features.power_saving.power_led_flash.on_time	<y0000000000xx>.cfg
Description	It configures the period of time (in milliseconds) when the power LED indicator is on in the power-saving mode. If it is set to 0 and “features.power_saving.power_led_flash.off_time” is not set to 0, the power LED indicator will be off when the phone enters the power-saving mode.	
Permitted Values	0, Integer from 100 to 10000	
Default	500	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Power LED > Power Saving Light Time	
Parameter	features.power_saving.power_led_flash.off_time	<y0000000000xx>.cfg
Description	It configures the period of time (in milliseconds) when the power LED indicator is off in the power-saving mode. If it is set to 0, the power LED indicator will be on when the phone enters the power-saving mode.	
Permitted Values	0, Integer from 100 to 10000	
Default	3000	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Power LED > Power Saving Dark Time	

Search Source List in Dialing

The search source list in dialing allows you to search entries from the source list when the phone is on the pre-dialing/dialing screen. You can select the desired entry to dial out quickly.

The following shows search results displayed on T58A phones:



The search source list can be Local Directory, History, Remote Phone Book and LDAP. The search source list can be configured using a supplied super search template file (super_search.xml).

Topics

Search Source File Customization
Search Source List Configuration

Search Source File Customization

You can ask the distributor or Yealink FAE for super search template. You can also obtain the super search template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Search Source File Attributes
Customizing Search Source File

Search Source File Attributes

The following table lists the attributes you can use to add source lists to the super search file:

Attributes	Valid Values	Description
id_name	local_directory_search calllog_search remote_directory_search ldap_search BroadSoft_directory_search BroadSoft_UC_search google_directory_search (not applicable to CP960/CP965 phones)	The directory list (For example, "local_directory_search" for the local directory list). **Note**: Do not edit this field.
display_name	Local Contacts History Remote Phonebook LDAP Network Directories BroadSoft Buddies	The display name of the directory list. **Note**: We recommend that you do not edit this field.

Attributes	Valid Values	Description
	Google Contacts (not applicable to CP960/CP965 phones)	
priority	1 to 6 (for CP960/CP965 phones) 1 to 7 (for T58A/VP59/T58W phones) 1 is the highest priority.	The priority of the search results.
enable	0/1 **0**: Disabled **1**: Enabled.	Enable or disable the phone to search the desired directory list.

Customizing Search Source File

1. Open the search source file.
2. To configure each directory list, edit the values within double quotes in the corresponding field.
   For example, enable the local directory search, disable the call log search and specify a priority.
   <item id_name="local_directory_search" display_name="Local Contacts" priority="1" enable="1" / >
   <item id_name="calllog_search" display_name="History" priority="2" enable="0" / >
3. Save the change and place this file to the provisioning server.

Search Source List Configuration

The following table lists the parameters you can use to configure the search source list.

Parameter	super_search.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom super search file.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Directory > Settings > Search Source List In Dialing	
Parameter	search_in_dialing.local_directory.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically search entries from the local directory, and display results on the pre-dialing/dialing screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Directory > Settings > Search Source List In Dialing	
Parameter	search_in_dialing.local_directory.priority	<y0000000000xx>.cfg
Description	It configures the search priority of the local directory.	
Permitted Values	Integer greater than or equal to 0	
Default	1	
Web UI	Directory > Settings > Search Source List In Dialing	

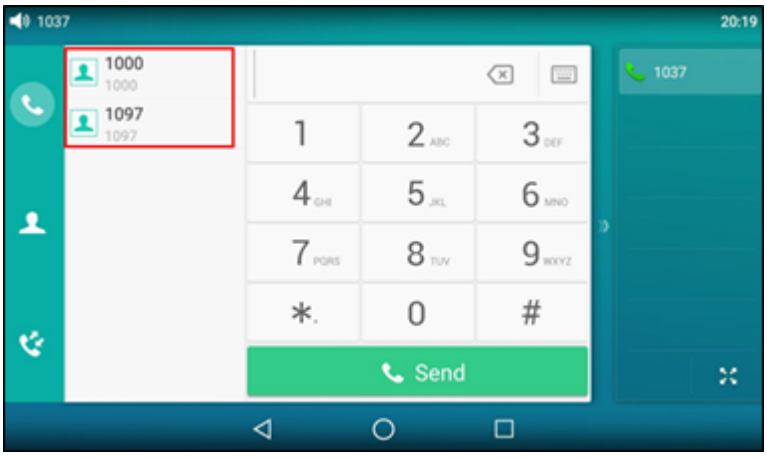
Parameter	search_in_dialing.history.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically search entries from the call history list, and display results on the pre-dialing/dialing screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Directory > Settings > Search Source List In Dialing	
Parameter	search_in_dialing.history.priority	<y0000000000xx>.cfg
Description	It configures the search priority of the call history list.	
Permitted Values	Integer greater than or equal to 0	
Default	2	
Web UI	Directory > Settings > Search Source List In Dialing	
Parameter	search_in_dialing.remote_phone_book.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically search entries from the remote phone book, and display results on the pre-dialing/dialing screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Directory > Settings > Search Source List In Dialing	
Parameter	search_in_dialing.remote_phone_book.priority	<y0000000000xx>.cfg
Description	It configures the search priority of the remote phone book.	
Permitted Values	Integer greater than or equal to 0	
Default	3	
Web UI	Directory > Settings > Search Source List In Dialing	
Parameter	search_in_dialing.ldap.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically search entries from the LDAP, and display results on the pre-dialing/dialing screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Directory > Settings > Search Source List In Dialing	
Parameter	search_in_dialing.ldap.priority	<y0000000000xx>.cfg
Description	It configures the search priority of the LDAP.	
Permitted Values	Integer greater than or equal to 0	

Default	4
Web UI	Directory > Settings > Search Source List In Dialing

Recent Call Display in Dialing

Recent call display allows you to view the placed calls list when the phone is on the dialing screen (lifts the handset, presses the Speakerphone key or taps the desired line key). You can select to place a call from the placed calls list.

The following shows the recent calls displayed on T58A phones:



Topic

Recent Call in Dialing Configuration

Recent Call in Dialing Configuration

The following table lists the parameter you can use to configure the recent call display in dialing.

Parameter	super_search.recent_call	<y0000000000xx>.cfg
Description	It enables or disables Recent Call in Dialing feature.	
Permitted Values	**0**-Disabled **1**-Enabled, users can view the placed calls list when the phone is on the dialing screen.	
Default	1	
Web UI	Directory > Settings > Recent Call In Dialing	

Icon Customization

You can upload custom DSS keys icons and menu icons to the phone. Contact Yealink FAE to obtain the Icon Templates Pack. Make sure that the name, size, and format of new icons are the same as the built-in ones.

Topic

Custom Icons Configuration

Custom Icons Configuration

The following table lists the parameters you can use to configure custom icons.

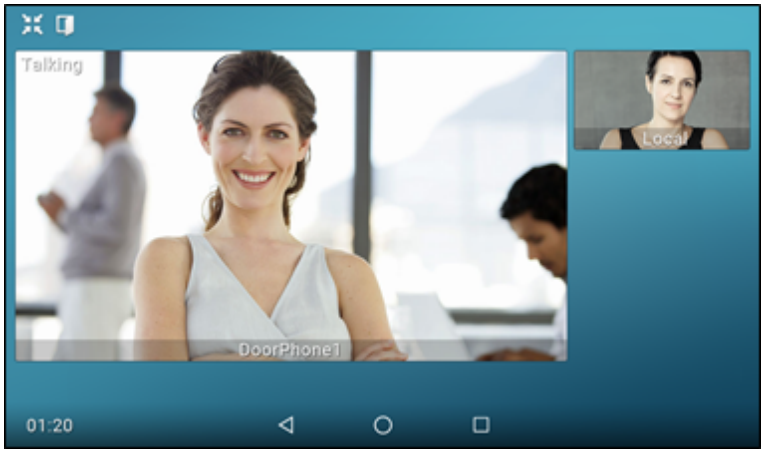
Parameter	phone_setting.icon.url[1]	<y0000000000xx>.cfg
Description	It configures the access URL of the *.tar file for custom application icons.	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	phone_setting.icon.delete[1]	<y0000000000xx>.cfg
Description	It deletes all custom application icons.	
Permitted Values	http://localhost/all	
Default	Blank	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Door Phone

The IP phone is compatible with the 2N and Baudisch IP intercoms. And you can pair up to 99 IP intercoms on the IP phone.

When a visitor rings your doorbell, the phone will ring also. You can answer the incoming call, and then tap to open the door.



The phones also support the following:

- Preview: get a preview of who's there when receiving a visitor's incoming call.
- One-button Open: open the door at any time.
- Monitoring: check the camera video at any time.

For more information, refer to Using Door Phone Feature on Yealink Smart Media Phones.

In addition to the IP phone, IP intercom should be configured. For more information on how to configure the IP intercom, refer to the documentation from the manufacturer.

Door phone feature is not applicable to CP960/CP965 phones.

Topic

Door Phone Parameters

Door Phone Parameters

The following table lists the parameters you can use to configure door phone feature.

Parameter	features.doorphone.amount	<y0000000000xx>.cfg
Description	It configures that how many IP intercoms are supported by the phone.	
Permitted Values	Integer from 0 to 99	
Default	99	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Door Phone List	
Parameter	features.doorphone.X.device_model[1]	<y0000000000xx>.cfg
Description	It configures the device type of the IP intercom.	
Permitted Values	**0**-Custom **1**-2N **3**-Baudisch	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Device Type	
Parameter	features.doorphone.X.display_name[1]	<y0000000000xx>.cfg
Description	It configures the display name of the IP intercom to be displayed on the phone's screen.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Display Name	
Parameter	features.doorphone.X.phone_number[1]	<y0000000000xx>.cfg
Description	It configures the phone number or IP address of the IP intercom.	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Phone Number	
Parameter	features.doorphone.X.unlock_pin[1]	<y0000000000xx>.cfg
Description	It configures the unlock PIN of the IP intercom. **Example**: features.doorphone.1.unlock_pin=8888* When tapping the **Open Door** soft key after answering the call, the phone will send the DTMF sequence "8888*" to the IP intercom. And if the DTMF sequence matches the code configured on IP intercom, the door will be opened.	

Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Unlock PIN	
Parameter	features.doorphone.X.full_screen[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to enter full-screen display automatically after answering the visitor's call. **Note**: It works only if "video.enable" is not set to 0 (Disabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Full Screen in Call	
Parameter	features.doorphone.X.send_audio[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to transmit your audio during a visitor's call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Send Audio in Call	
Parameter	features.doorphone.X.send_video[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to transmit your video during a visitor's call. **Note**: It works only if "video.enable" is not set to 0 (Disabled), "static.camera.function.enable" is set to 1 (Enabled), and "features.doorphone.X.device_model" is not set to 3 (Baudisch).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Send Video in Call	
Parameter	features.doorphone.X.video.stream.httpurl[1]	<y0000000000xx>.cfg
Description	It configures the video access URL of IP intercom camera. The valid URL format is: http(s)://<IP address of the IP intercom>/mjpg/video.mjpg or http(s)://user-name:password@<IP address of the IP intercom>/mjpg/video.mjpg. **Example**: features.doorphone.1.video.stream.httpurl= http://192.168.1.1/mjpg/video.mjpg	

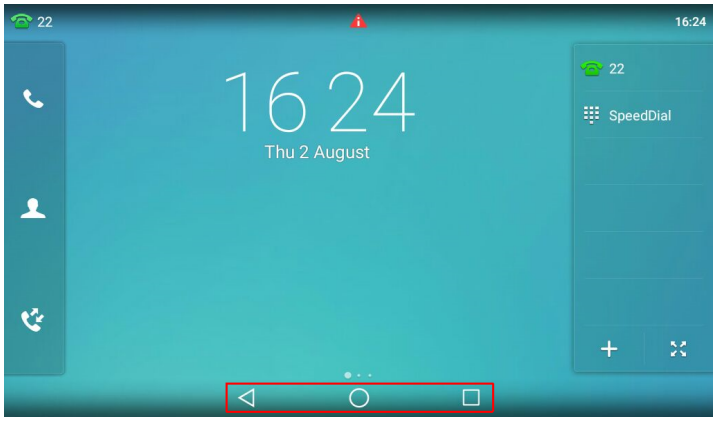
	Note: You need to configure this parameter if “features.doorphone.X.device_model” is set to 1 (2N) or 3 (Baudisch). If you use the first URL format and the IP intercom needs HTTP API authentication, you should configure the authentication account (configured by the parameters “features.doorphone.X.httpapi.username” and “features.doorphone.X.httpapi.password”).	
Permitted Values	URL within 511 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > IP Cam	
Parameter	features.doorphone.X.videopreview.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the video preview when receiving a visitor’s incoming call. **Note**: It works only if "account.X.auto_answer” is set to 0 (Disabled) and “video.enable” is not set to 0 (Disabled).	
Permitted Values	**0**-Disabled **1**-Enabled, when “features.doorphone.X.autopreview.enable” is set to 0 (Disabled), users can tap **Preview** to check the visitor’s video when receiving a visitor’s incoming call. And the phone will stop playing the ringtone.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Video Preview	
Parameter	features.doorphone.X.autopreview.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to preview the visitor’s video automatically when receiving a visitor’s incoming call. **Note**: It works only if “features.doorphone.X.videopreview.enable” is set to 1 (Enabled), “account.X.auto_answer” is set to 0 (Disabled) and “video.enable” is not set to 0 (Disabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the visitor’s video automatically when receiving a visitor’s incoming call. And the phone keeps playing the ringtone.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Auto Preview	
Parameter	features.doorphone.X.autopreview_record.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to record the preview video automatically when receiving a visitor’s incoming call. **Note**: It works only if “features.doorphone.X.autopreview.enable” is set to 1 (Enabled). It is only applicable to 2N IP intercom.	
Permitted Values	**0**-Disabled **1**-Enabled, you can check the recorded preview video in the history list or **File Manager**.	
Default	0	
Supported Devices	All phones except CP960/CP965	

Web UI	Features > Door Phone > Auto Preview Recorder	
Parameter	features.doorphone.X.httpapi.username[1]	<y0000000000xx>.cfg
Description	It configures the user name for HTTP API authentication. **Note**: It is required only when the IP intercom needs the HTTP API authentication.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > User Name	
Parameter	features.doorphone.X.httpapi.password[1]	<y0000000000xx>.cfg
Description	It configures the password of HTTP API authentication. **Note**: It is required only when the IP intercom needs the HTTP API authentication.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Door Phone > Password	

[1]X ranges from 1 to 99.

Android Keys Display

Android keys are displayed on the bottom of the touch screen. You can hide the Android keys.



It is only applicable to VP59/T58A phones.

Topic

Android Keys Display Configuration

Android Keys Display Configuration

The following table lists the parameter you can use to configure whether to display the Android keys or not.

Parameter	features.system_function_bar.hide[1]	<y0000000000xx>.cfg

Description	It enables or disables to hide the Android keys from the phone screen.
Permitted Values	**0**-Disabled **1**-Enabled
Default	0
Supported Devices	All phones except CP960/CP965

[1]If you change this parameter, the phone will reboot to make the change take effect.

Status Bar and Control/Notification Center Display

The status bar is used to display the phone's default account, some feature status icons and time. The control center or notification center allows users to access common features or view important notifications quickly.

You can disable the phone to display the status bar and control/notification center.

It is only applicable to VP59/T58A/T58W phones.

Topic

Status Bar and Control/Notification Center Display Configuration

Status Bar and Control/Notification Center Display Configuration

The following table lists the parameter you can use to configure the status bar and control/notification center display.

Parameter	features.status_bar.hide[1]	<y0000000000xx>.cfg
Description	It enables or disables to hide the status bar and the control/notification center for the phone.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	T58W, T58A, VP59	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Warnings Display

When one of the following situations occurs:

- The default password is being used
- Account registration failed
- Provisioning credentials are wrong
- Network is unavailable
- Line on redundancy registration

A warning icon appears in the status bar.

Topic

Warnings Display Configuration

Warnings Display Configuration

The following table lists the parameter you can use to configure the warnings display.

Parameter	phone_setting.warnings_display.mode	<y0000000000xx>.cfg
Description	It enables or disables the phone to display warnings.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Browser Home Page

When launching the **Browser** on the phone, the default home page is the Yealink website. You can set the web page that you visit the most frequently as the home page.

Topic

Browser Home Page Configuration

Browser Home Page Configuration

The following table lists the parameter you can use to configure the browser home page.

Parameter	phone_setting.browser.url	<y0000000000xx>.cfg
Description	It configures the URL of the browser home page.	
Permitted Values	String	
Default	https://www.yealink.com	

Out of Service

When the network of the phone is disconnected and the warning message appears on the screen, the phone will play an alert tone.

Topic

Out of Service Configuration

Out of Service Configuration

The following table lists the parameter you can use to configure out of service.

Parameter	features.out_of_service_alert.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play an alert tone when out of service caused by network abnormality. **Note**: You can customize the alert tone by the parameter "voice.tone.congestion".	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.out_of_service_alert_time	<y0000000000xx>.cfg
Description	It configures the time (in seconds) to wait before the phone plays an alert tone after the network is	

	abnormal. **Note**: It works only if "features.out_of_service_alert.enable" is set to 1 (Enabled).
Permitted Values	Integer from 0 to 3600
Default	60

PC Mode

When the CP960/CP965 is connected to a PC via USB, users can switch between the hybrid UC conference and the idle screen, and can synchronize the volume with the PC.

Topic

PC Mode Configuration

PC Mode Configuration

The following table lists the parameter you can use to configure PC mode.

Parameter	phone_setting.usb.pc_mode	<y0000000000xx>.cfg
Description	It specifies the display screen when the phone is connected to the PC via USB.	
Permitted Values	**0**-The phone enters the hybrid UC conference screen directly and you cannot return to the idle screen. **1**-USB mode is enabled. The phone stays in the screen before connected to the PC and you can return to the idle screen. **2**-When the phone is not in a call, the mute LEDs are off; during a call, the mute LEDs glow green. The screen experience is the same as when "phone_setting.usb.pc_mode=1".	
Default	1	
Supported Devices	CP960, CP965	
Parameter	phone_setting.usb.pc_mode.audio_union	<y0000000000xx>.cfg
Description	It configures whether the volume is adjusted synchronously on both PC and CP in PC mode. **Note**: It works only if "phone_setting.usb.pc_mode" is set to 1 (Enabled). It works only for the audio volume on CP, not media volume. The CP volume is kept synchronized with the PC volume (only available when "phone_setting.usb.pc_mode = 1 & phone_setting.usb.pc_mode.audio_union = 1" or "phone_setting.usb.pc_mode = 2 & phone_setting.usb.pc_mode.audio_union = 1").	
Permitted Values	**0**-Tap the Volume key on the hybrid UC conference screen (PC-mode screen) or dialing screen to adjust the hybrid UC conference volume; tap the Volume key on the idle screen or other settings screen is used to adjust the ringer volume. **1**-Tap the Volume key on any screen to adjust the call volume (media volume or hybrid UC conference volume) and the ringer volume.	
Default	0	
Supported Devices	CP960, CP965	
Parameter	phone_setting.usb.pc_mode.default_conference	<y0000000000xx>.cfg
Description	It configures whether to invite a new party to the hybrid UC conference after you tap **Dial** on the idle screen in PC mode. **Note**: It works only if "phone_setting.usb.pc_mode" is set to 1 (Enabled).	

Permitted Values	**0**-Tap **Dial** on the idle screen to create a new call. The original call will be held. **1**-Tap **Dial** on the idle screen to invite a new party to the hybrid UC conference directly. When the phone receives an incoming SIP call, tap **Answer**/**Join conf** to join the hybrid UC conference directly; tap **Reject** to return to the previous screen.
Default	0
Supported Devices	CP960, CP965

Font Size Customization

You can configure the phone to display the normal size or large size font.

Topic

Font Size Customization Configuration

Font Size Customization Configuration

The following table lists the parameters you can use to configure font size.

Parameter	features.font.size[1]	<y0000000000xx>.cfg
Description	It configures the phone font size.	
Permitted Values	**0**-Normal size **1**-Large size	
Default	0	
Supported Devices	T58W, T58A, VP59	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Analog Headset Mode

You can manually configure audio solutions for Yealink RJ headsets.

Topic

Analog Headset Mode Configuration

Analog Headset Mode Configuration

The following table lists the parameters you can use to configure analog headset mode.

Parameter	features.analog_headset.mode	<y0000000000xx>.cfg
Description	It sets the audio parameter mode of the analog headset.	
Permitted Values	Common, YHS36, YHS34, YHS33	
Default	Common	
Supported Devices	All phones except CP960/CP965	
Web UI	Settings > Voice > Analog Headset Mode	
Phone UI	Settings > Basic Settings > Analog Headset Mode	

Account Settings

This chapter shows you how to register accounts and configure account settings on Yealink devices.

Topics

Account Registration
Outbound Proxy in Dialog
Server Redundancy
SIP Server Name Resolution
Static DNS Cache
Logon Wizard
Multiple Line Keys per Account

Account Registration

Registering an account makes it easier for the phones to receive an incoming call or dial an outgoing call. Yealink phone supports registering multiple accounts on a phone (CP960 phones support one SIP account or two PSTN accounts); each account requires an extension or phone number.

Topics

Supported Accounts
SIP Accounts Registration Configuration
Registration Settings Configuration

Supported Accounts

The number of registered accounts must meet the following:

Phone Model	Accounts
VP59/T58A/T58W	<=16 <=2 (PSTN account)
CP960/CP965	1 <=2 (PSTN account)

SIP Accounts Registration Configuration

The following table lists the parameters you can use to register SIP accounts.

Parameter	account.X.enable[1]	<MAC>.cfg
Description	It defines the activation status of the account.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Account > Register > Line Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Activation CP965: More > Settings > Advanced (default password: admin) > Accounts > Activation	
Parameter	account.X.label[1]	<MAC>.cfg

Description	It configures the display label of the account.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Account > Register > Label	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Label CP965: More > Settings > Advanced (default password: admin) > Accounts > Label	
Parameter	account.X.display_name[1]	<MAC>.cfg
Description	It configures the display name of the account.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Account > Register > Display Name	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Display Name CP965: More > Settings > Advanced (default password: admin) > Accounts > Display Name	
Parameter	account.X.auth_name[1]	<MAC>.cfg
Description	It configures the user name for authentication registration.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Account > Register > Register Name	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Register Name CP965: More > Settings > Advanced (default password: admin) > Accounts > Register Name	
Parameter	account.X.user_name[1]	<MAC>.cfg
Description	It configures the user name of the account.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Account > Register > Username	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Username CP965: More > Settings > Advanced (default password: admin) > Accounts > Username	
Parameter	account.X.password[1]	<MAC>.cfg
Description	It configures password of the account.	
Permitted	String within 99 characters	

Values		
Default	Blank	
Web UI	Account > Register > Password	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Password CP965: More > Settings > Advanced (default password: admin) > Accounts > Password	
Parameter	account.X.sip_server.Y.address[1][2]	<MAC>.cfg
Description	It configures the IP address or domain name of the SIP server in which the account is registered.	
Permitted Values	String within 256 characters	
Default	Blank	
Web UI	Account > Register > SIP Server Y > Server Host	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > SIP ServerY CP965: More > Settings > Advanced (default password: admin) > Accounts > SIP ServerY	
Parameter	account.X.sip_server.Y.port[1][2]	<MAC>.cfg
Description	It configures the port of SIP server. If it is set to 0 when UDP is used ("account.X.sip_server.Y.transport_type" is set to 0), the phone uses a random port for responding to the messages from the server.	
Permitted Values	Integer from 0 to 65535	
Default	5060	
Web UI	Account > Register > SIP Server Y > Port	
Parameter	account.X.outbound_proxy_enable[1]	<MAC>.cfg
Description	It enables or disables the phone to send requests to the outbound proxy server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Account > Register > Enable Outbound Proxy Server	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Outbound Status CP965: More > Settings > Advanced (default password: admin) > Accounts > Outbound Status	
Parameter	account.X.outbound_proxy.Y.address[1][2]	<MAC>.cfg
Description	It configures the IP address or domain name of the outbound proxy server. **Note**: It works only if “account.X.outbound_proxy_enable” is set to 1 (Enabled).	
Permitted Values	String within 256 characters	
Default	Blank	

Web UI	Account > Register > Outbound Proxy Server Y	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > Outbound ProxyY CP965: More > Settings > Advanced (default password: admin) > Accounts > Outbound ProxyY	
Parameter	account.X.outbound_proxy.Y.port[1][2]	<MAC>.cfg
Description	It configures the port of the outbound proxy server. **Note**: It works only if "account.X.outbound_proxy_enable" is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 65535	
Default	5060	
Web UI	Account > Register > Outbound Proxy Server Y > Port	
Parameter	account.X.reg_fail_retry_interval[1]	<MAC>.cfg
Description	It configures the re-registration period (in seconds) after the account registration fails.	
Permitted Values	Integer from 0 to 1800	
Default	30	
Web UI	Account > Advanced > SIP Registration Retry Timer (0~1800s)	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]Y is the server ID. Y=1-2.

PSTN Account Configuration

The following table lists the parameters you can use to configure PSTN.

Parameter	pstn.account.X.enable[1]	<MAC>.cfg
Description	It enables or disables the PSTN account X.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	PSTN Account > Register > Line Active	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > PSTNX > Activation CP965: More > Settings > Advanced (default password: admin) > Accounts > PSTNX > Activation	
Parameter	pstn.account.X.label[1]	<MAC>.cfg
Description	(Optional.) It configures the label to be displayed on the LCD screen for PSTN account X.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	PSTN Account > Register > Label	

Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > PSTNX > Label CP965: More > Settings > Advanced (default password: admin) > Accounts > PSTNX > Label	
Parameter	pstn.account.X.missed_calllog[1]	<MAC>.cfg
Description	It enables or disables the phone to indicate and record missed calls for PSTN account X. **Note:** It works only if “features.save_call_history” is set to 1 (Enabled). The prompt message is displayed only if “features.missed_call_popup.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, the phone neither displays a prompt message nor an indicator icon on the idle screen, and the missed calls will not be logged in the Missed Calls list. **1**-Enabled, the phone displays both a prompt message and an indicator icon on the idle screen, and the missed calls will be logged in the Missed Calls list.	
Default	1	
Web UI	PSTN Account > Basic > Missed Call Log	
Parameter	pstn.account.X.auto_answer[1]	<MAC>.cfg
Description	It enables or disables the auto answer feature for PSTN account X. **Note**: The IP phone cannot automatically answer the incoming call during a call even if the auto answer is enabled.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone can automatically answer an incoming call.	
Default	0	
Web UI	PSTN Account > Basic > Auto Answer	
Phone UI	Settings > Features > Auto Answer > PSTNX > Auto Answer CP965: More > Settings > Features > Auto Answer > PSTNX > Auto Answer	
Parameter	pstn.account.X.auto_answer_mute_enable[1]	<MAC>.cfg
Description	It enables or disables the auto answer mute feature for PSTN account X. **Note**: It works only if the values of parameters “pstn.account.X.auto_answer” and “features.allow_mute” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will mute the microphone when an incoming call is automatically answered, and then the other party cannot hear you.	
Default	0	
Web UI	PSTN Account > Basic > Auto Answer Mute **Note**: It is only available for CP phones.	
Phone UI	Settings > Features > Auto Answer > PSTNX > Auto Answer Mute CP965: More > Settings > Features > Auto Answer > PSTNX > Auto Answer Mute **Note**: It is only available for CP phones.	
Parameter	pstn.account.X.ring_type[1]	<MAC>.cfg
Description	It configures a ring tone for PSTN account X.	

	Example: pstn.account.1.ring_type = Ring3.wav It means PSTN account 1 will use the Ring3.wav as the ring tone. pstn.account.1.ring_type = Common It means PSTN account 1 will use the ring tone same as the IP phone configured by the parameter "phone_setting.ring_type".
Permitted Values	Common, Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Ring9.wav, Ring10.wav, Ring11.wav, Ring12.wav, Ring13.wav, Silent.wav, Splash.wav or custom ring tone name (for example, Customring.wav)
Default	Common
Web UI	PSTN Account > Basic > Ring Type
Phone UI	Settings > Basic Settings (default password: admin) > Sound > Ring Tones > PSTN Account X CP965: More > Settings > Basic (default password: admin) > Sound > Ring Tones > PSTN Account X

[1]X is the PSTN account ID. X= 1 to 2.

Registration Settings Configuration

The following table lists the parameters you can use to change the registration settings.

Parameter	account.X.enable_user_equal_phone[1]	<MAC>.cfg
Description	It enables or disables the phone to add "user=phone" to the SIP header of the INVITE message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Account > Advanced > Send user=phone	
Parameter	account.X.register_mac[1]	<MAC>.cfg
Description	It enables or disables the phone to add MAC address to the SIP header of the REGISTER message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Account > Advanced > SIP Send MAC	
Parameter	account.X.register_line[1]	<MAC>.cfg
Description	It enables or disables the phone to add a line number to the SIP header of the REGISTER message. For VP59/T58A/T58W: 0~15 stand for line1~line16; For CP960/CP965: 0 stands for line1.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

Web UI	Account > Advanced > SIP Send Line	
Parameter	account.X.contact_take_line_param[1]	<MAC>.cfg
Description	It enables or disables the phone to carry the line parameter in the Contact header of the Register message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.unregister_on_reboot[1]	<MAC>.cfg
Description	It enables or disables the phone to unregister first before re-registering account X after a reboot.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Account > Advanced > Unregister When Reboot	
Parameter	account.X.sip_server_type[1]	<MAC>.cfg
Description	It configures the type of SIP server.	
Permitted Values	**0**-Default **2**-BroadSoft (It works only if “bw.enable" is set to 1 (Enabled))	
Default	0	
Web UI	Account > Advanced > SIP Server Type	
Parameter	sip.reg_surge_prevention	<y0000000000xx>.cfg
Description	It configures the waiting time (in seconds) for account register after startup.	
Permitted Values	Integer from 0 to 60	
Default	0	
Web UI	Network > Advanced > Registration Random > Registration Random (0~60s)	
Parameter	account.X.subscribe_register[1]	<MAC>.cfg
Description	It enables or disables the phone to subscribe to the registration state change notifications.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Account > Advanced > Subscribe Register	
Parameter	phone_setting.disable_account_without_username.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to disable the account whose username is empty.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.register_expires_overlap[1]	<MAC>.cfg

Description	It configures the renewal time (in seconds) away from the registration lease. **Note**: The re-register time negotiated with the server may be different. The phone will attempt to re-register at the beginning of the overlap period. For example, if expires="120" (configured by the parameter "account.X.sip_server.Y.expires") and overlap="30", the phone will re-register after 90 seconds (120–30).	
Permitted Values	Positive integer and -1	
Default	-1	
Parameter	account.X.subscribe_expires_overlap[1]	<MAC>.cfg
Description	It configures the renewal time (in seconds) away from the subscription lease.	
Permitted Values	Positive integer and -1	
Default	-1	
Parameter	account.X.instance_id.enable	<MAC>.cfg
Description	It enables or disables the phone to add *+sip.instance* attribute to the Contact header of the REGISTER message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Outbound Proxy in Dialog

An outbound proxy server can receive all initiating request messages and route them to the designated destination. If the device is configured to use an outbound proxy server within a dialog, all SIP request messages from the device will be sent to the outbound proxy server as a mandatory requirement.

Note: To use this feature, make sure the outbound server has been correctly configured on the device. For more information on how to configure the outbound server, refer to Server Redundancy.

Topic

Outbound Proxy in Dialog Configuration

Outbound Proxy in Dialog Configuration

The following table lists the parameter you can use to configure the outbound proxy in dialog.

Parameter	sip.use_out_bound_in_dialog	<y0000000000xx>.cfg
Description	It enables or disables the phone to send all SIP requests to the outbound proxy server mandatorily in a dialog. **Note**: It works only if "account.X.outbound_proxy_enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, only the new SIP request messages from the phone will be sent to the outbound proxy server in a dialog. **1**-Enabled, all the SIP request messages from the phone will be sent to the outbound proxy server in a dialog.	
Default	0	

Web UI	Features > General Information > Use Outbound Proxy In Dialog

Server Redundancy

Server redundancy is often required in VoIP deployments to ensure continuity of phone service, for example, take the call server offline for maintenance, the server fails, or the connection between the device and the server fails.

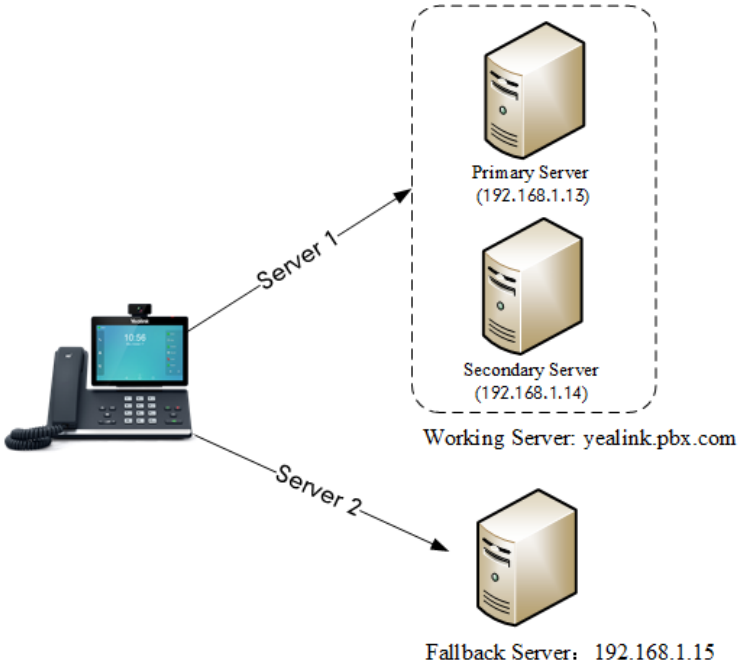
Two types of redundancy are possible. In some cases, a combination of the two may be deployed:

- **Failover:** In this mode, the full phone system functionality is preserved by having a second equivalent capability call server take over from the one that has gone down/off-line. This mode of operation should be done using the DNS mechanism from the primary to the secondary server. Therefore, if you want to use this mode, the server must be configured with a domain name.
- **Fallback:** In this mode, a second less featured call server with SIP capability takes over call control to provide the basic calling capability, but without some advanced features (for example, shared line and MWI) offered by the working server. The phones support configuration of two servers per SIP registration for the fallback purpose.

Note: For concurrent registration mode, it has a certain limitation when using some advanced features, and for successive registration mode, the phone service may have a brief interrupt while the server fails. So we recommend that you use the fail-over mode for server redundancy because this mode can ensure the continuity of the phone service and you can use all the call features while the server fails.

Phone Configuration for Redundancy Implementation

To assist in explaining the redundancy behavior, an illustrative example of how an IP phone may be configured is shown below. In the example, server redundancy for fallback and failover purposes is deployed. Two separate servers (a working server and a fallback server) are configured for per line registration.



- **Working Server**: Server 1 is configured with the domain name of the working server. For example yealink.pbx.com. DNS mechanism is used such that the working server is resolved to multiple servers with different IP addresses for failover purpose. The working server is deployed in redundant pairs, designated as primary and secondary servers. The primary server (for example, 192.168.1.13) has the highest priority server in a cluster of servers resolved by the DNS server. The secondary server (for example, 192.168.1.14) backs up a primary server when the primary server fails and offers the same functionality as the primary server.
- **Fallback Server**: Server 2 is configured with the IP address of the fallback server. For example 192.168.1.15. A fallback server offers less functionality than the working server.

Yealink devices support Failover and Fallback server redundancy types. In some cases, you can deploy a combination of the two server redundancy types. For more information on server redundancy, refer to Server Redundancy on Yealink IP Phones.

Topics

Behaviors When Working Server Connection Fails
Registration Method of the Failover/Fallback Mode
Fallback Server Redundancy Configuration
Failover Server Redundancy Configuration

Behaviors When Working Server Connection Fails

For Outgoing Call

When you initiate a call, the phone will go through the following steps to connect the call:

1. Sends the INVITE request to the primary server.
2. If the primary server does not respond correctly to the INVITE (that is, the primary server responds to the INVITE with 503 message or the request for responding with 100 Trying message times out (64*T1 seconds, defined in RFC 3261)), then tries to make the call using the secondary server.
3. If the secondary server is also unavailable, the phone will try the fallback server until it either succeeds in making a call or exhausts all servers at which point the call will fail.

   At the start of a call, server availability is determined by SIP signaling failure. SIP signaling failure depends on the SIP protocol being used as described below:
   - If TCP is used, then the signaling fails if the connection or the send fails.
   - If UDP is used, then the signaling fails if ICMP is detected or if the signal times out. If the signaling has been attempted through all servers in the list (this list contains all the server addresses resolved by the DNS server) and this is the last server, then the signaling fails after the complete UDP timeout defined in RFC 3261. If it is not the last server in the list, the maximum number of retries depends on the configured retry counts (configured by the parameter "account.X.sip_server.Y.retry_counts").

Registration Method of the Failover/Fallback Mode

Registration method of the failover mode:

The IP phone must always register to the primary server first except in failover conditions. If this is unsuccessful, the phone will re-register as many times as configured until the registration is successful. When the primary server registration is unavailable, the secondary server will serve as the working server. As soon as the primary server registration succeeds, it returns to be the working server.

Registration methods of the fallback mode include (not applicable to outbound proxy servers):

- **Concurrent registration (default)**: The IP phone registers to SIP server 1 and SIP server 2 (working server and fallback server) at the same time. Note that although the IP phone registers to two SIP servers, only one server works at the same time. If it fails, a fallback server can take over the basic calling capability, but without some advanced features (for example, shared lines and MWI) offered by the working server.
- **Successive registration**: The IP phone only registers to one server at a time. The IP phone first registers to the working server. In a failure situation, the phone registers to the fallback server, and the fallback server can take over all calling capabilities.

Fallback Server Redundancy Configuration

The following table lists the parameters you can use to configure fallback server redundancy.

Parameter	account.X.fallback.redundancy_type[1]	<MAC>.cfg
Description	It configures the registration mode in fallback mode. **Note**: It is not applicable to outbound proxy servers.	
Permitted	**0**-Concurrent registration	

Values	**1**-Successive registration	
Default	0	
Parameter	account.X.fallback.timeout[1]	<MAC>.cfg
Description	It configures the time interval (in seconds) for the phone to detect whether the working server is available by sending the registration request after the fallback server takes over call control. **Note**: It is not applicable to outbound proxy servers.	
Permitted Values	Integer from 10 to 2147483647	
Default	120	
Parameter	account.X.outbound_proxy_fallback_interval[1]	<MAC>.cfg
Description	It configures the time interval (in seconds) for the phone to detect whether the working outbound proxy server is available by sending the registration request after the fallback server takes over call control. **Note**: It is only applicable to outbound proxy servers.	
Permitted Values	Integer from 0 to 65535	
Default	3600	
Web UI	Account > Register > Proxy Fallback Interval	
Phone UI	Settings > Advanced Settings (default password: admin) > Accounts > AccountX > Proxy Fallback Interval CP965: More > Settings > Advanced (default password: admin) > Accounts > AccountX > Proxy Fallback Interval	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Failover Server Redundancy Configuration

The following table lists the parameters you can use to configure failover server redundancy.

Parameter	account.X.sip_server.Y.register_on_enable[1][2]	<MAC>.cfg
Description	It enables or disables the phone to send registration requests to the secondary server when encountering a failover.	
Permitted Values	**0**-Disabled, the phone will not attempt to register to the secondary server, since the phone assumes that the primary and secondary servers share registration information. So the phone will directly send the requests to the secondary server. **1**-Enabled, the phone will register to the secondary server first, and then send the requests to it.	
Default	0	
Parameter	sip.skip_redundant_failover_addr	<y0000000000xx>.cfg
Description	It enables or disables the phone only to send requests to the servers with different IP addresses when encountering a failover.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	account.X.sip_server.Y.expires[1][2]	<MAC>.cfg

Description	It configures the registration expiration time (in seconds) of SIP server Y for a specific account.	
Permitted Values	Integer from 30 to 2147483647	
Default	3600	
Web UI	Account > Register > SIP Server Y > Server Expires	
Parameter	account.X.sip_server.Y.retry_counts[1][2]	<MAC>.cfg
Description	It configures the retry times for the phone to resend requests when the SIP server Y is unavailable or there is no response from the SIP server Y. The phone moves to the next available server after three failed attempts.	
Permitted Values	Integer from 0 to 20	
Default	3	
Web UI	Account > Register > SIP Server Y > Server Retry Counts	
Parameter	account.X.sip_server.Y.only_signal_with_registered[1][2]	<MAC>.cfg
Description	It enables or disables the phone to only send requests to the registered server when encountering a failover. **Note**: It works only if "account.X.sip_server.Y.register_on_enable" is set to 1 (Enabled) and "account.X.sip_server.Y.failback_mode" is set to 1, 2 or 3.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.sip_server.Y.invite_retry_counts[1][2]	<MAC>.cfg
Description	It configures the number of retries attempted before sending requests to the next available server when encountering a failover.	
Permitted Values	Integer from 1 to 10	
Default	3	
Parameter	account.X.sip_server.Y.failback_mode[1][2]	<MAC>.cfg
Description	It configures the mode for the phone to retry the primary server in failover. **Note**: It works only if "account.X.sip_server.Y.address" is set to the domain name of the SIP server.	
Permitted Values	**0**-newRequests: all requests are sent to the primary server first, regardless of the last server that was used. **1**-DNSTTL: the phone will send requests to the last registered server first. If the time defined by DNSTTL on the registered server expires, the phone will retry to send requests to the primary server. **2**-Registration: the phone will send requests to the last registered server first. If the registration expires, the phone will retry to send requests to the primary server. **3**-duration: the phone will send requests to the last registered server first. If the time defined by the "account.X.sip_server.Y.failback_timeout" parameter expires, the phone will retry to send requests to the primary server.	
Default	0	
Parameter	account.X.sip_server.Y.failback_timeout[1][2]	<MAC>.cfg
Description	It configures the timeout (in seconds) for the phone to retry to send requests to the primary server after	

	failing over to the current working server. If you set the parameter to 0, the phone will not send requests to the primary server until a failover event occurs with the current working server. If you set the parameter between 1 and 59, the timeout will be 60 seconds. **Note**: It works only if “account.X.sip_server.Y.failback_mode” is set to 3 (duration).	
Permitted Values	0, Integer from 60 to 65535	
Default	3600	
Parameter	account.X.sip_server.Y.failback_subscribe.enable[1][2]	<MAC>.cfg
Description	It enables or disables the phone to retry to re-subscribe after registering to the secondary server with different IP addresses when encountering a failover. **Note**: It works only if "account.X.sip_server.Y.failback_mode" is set to 1, 2 or 3.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will immediately re-subscribe to the secondary server, for ensuring the normal use of the features associated with the subscription (for example, BLF, SCA).	
Default	0	
Parameter	account.X.outbound_proxy.Y.register_on_enable[1][2]	<MAC>.cfg
Description	It enables or disables the phone to register to the secondary outbound proxy server before sending requests to it when encountering a failover.	
Permitted Values	**0**-Disabled, the phone will not attempt to register to the secondary outbound proxy server, since the phone assumes that the primary and secondary outbound proxy servers share registration information. So the phone will directly send the requests to the secondary outbound proxy server. **1**-Enabled, the phone will register to the secondary outbound proxy server first, and then send the requests to it.	
Default	**-1**, the phone will invoke “account.X.sip_server.Y.register_on_enable” to take effect.	
Parameter	account.X.outbound_proxy.Y.retry_counts[1][2]	<MAC>.cfg
Description	It configures the retry times for the phone to resend requests when the outbound proxy server Y is unavailable or there is no response from the outbound proxy server Y. The phone moves to the next available outbound proxy server after three failed attempts.	
Permitted Values	Integer from 0 to 20	
Default	**-1**, the phone will invoke “account.X.sip_server.Y.retry_counts” to take effect.	
Parameter	account.X.outbound_proxy.Y.only_signal_with_registered[1][2]	<MAC>.cfg
Description	It enables or disables the phone to only send requests to the registered outbound proxy server when encountering a failover. **Note**: It works only if “account.X.outbound_proxy.Y.register_on_enable” is set to 1 (Enabled) and “account.X.outbound_proxy.Y.failback_mode” is set to 1, 2 or 3.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	**-1**, the phone will invoke “account.X.sip_server.Y.only_signal_with_registered” to take effect.	
Parameter	account.X.outbound_proxy.Y.invite_retry_counts[1][2]	<MAC>.cfg
Description	It configures the number of retries attempted before sending requests to the next available outbound proxy server when encountering a failover.	

Permitted Values	Integer from 1 to 10	
Default	**-1**, the phone will invoke "account.X.sip_server.Y.invite_retry_counts" to take effect.	
Parameter	account.X.outbound_proxy.Y.failback_mode[1][2]	<MAC>.cfg
Description	It configures the failback mode for the phone to retry the primary outbound proxy server in failover. **Note**: DNSTTL, Registration and duration mode can only be processed when the IP phone is idle (that is, no incoming/outbound calls, no active calls or meetings, and so on).	
Permitted Values	**0**-newRequests: all requests are sent to the primary outbound proxy server first, regardless of the last server that was used. If the primary outbound proxy server does not respond correctly, the phone will try to send requests to the secondary outbound proxy server. **1**-DNSTTL: the phone will send requests to the last registered outbound proxy server first. If the TTL for the DNS A records on the registered outbound proxy server expires, the phone will retry to send requests to the primary outbound proxy server. **2**-Registration: the phone will send requests to the last registered outbound proxy server first. If the registration expires, the phone will retry to send requests to the primary outbound proxy server. **3**-duration: the phone will send requests to the last registered outbound proxy server first. If the time defined by the parameter "account.X.outbound_proxy.Y.failback_timeout" expires, the phone will retry to send requests to the primary outbound proxy server.	
Default	**-1**, the phone will invoke "account.X.sip_server.Y.failback_mode" to take effect.	
Parameter	account.X.outbound_proxy.Y.failback_timeout[1][2]	<MAC>.cfg
Description	It configures the timeout (in seconds) for the phone to retry to send requests to the primary outbound proxy server after failing over to the current working server. If you set the parameter to 0, the phone will not send requests to the primary outbound proxy server until a failover event occurs with the current working server. **Note**: It works only if "account.X.outbound_proxy.Y.failback_mode" is set to 3 (duration).	
Permitted Values	0, Integer from 60 to 65535	
Default	**-1**, the phone will invoke "account.X.sip_server.Y.failback_timeout" to take effect.	
Parameter	account.X.outbound_proxy.Y.failback_subscribe.enable[1][2]	<MAC>.cfg
Description	It enables or disables the phone to retry to re-subscribe after registering to the secondary outbound proxy server with different IP addresses when encountering a failover. **Note**: It works only if "account.X.outbound_proxy.Y.failback_mode" is set to 1, 2 or 3.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will immediately re-subscribe to the secondary outbound proxy server, for ensuring the normal use of the features associated with a subscription (for example, BLF, SCA).	
Default	**-1**, the phone will invoke "account.X.sip_server.Y.failback_subscribe.enable" to take effect.	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]Y is the server ID. Y=1-2.

SIP Server Name Resolution

If a domain name is configured for a server, the IP address(es) associated with that domain name will be resolved through DNS as specified by RFC 3263. The DNS query involves NAPTR, SRV and A queries, which allows the IP

phone to adapt to various deployment environments. The IP phone performs NAPTR query for the NAPTR pointer and transport protocol (UDP, TCP, and TLS), the SRV query on the record returned from the NAPTR for the target domain name and the port number, and the A query for the IP addresses.

If an explicit port (except 0) is specified, A query will be performed only. If a server port is set to 0 and the transport type is set to DNS NAPTR, NAPTR and SRV queries will be tried before falling to A query. If no port is found through the DNS query, 5060 will be used.

Topic

SIP Server Name Resolution Configuration

SIP Server Name Resolution Configuration

The following table lists the parameters you can use to configure the SIP server name resolution.

Parameter	account.X.sip_server.Y.transport_type[1][2]	<MAC>.cfg
Description	It configures the type of transport protocol.	
Permitted Values	**0**-UDP **1**-TCP **2**-TLS **3**-DNS NAPTR, if no server port is given, the device performs the DNS NAPTR and SRV queries for the service type and port.	
Default	0	
Web UI	Account > Register > SIP Server Y > Transport	
Parameter	account.X.naptr_build[1]	<MAC>.cfg
Description	It configures the way of SRV query for the phone to be performed when no result is returned from the NAPTR query.	
Permitted Values	**0**-SRV query using UDP only **1**-SRV query using UDP, TCP, and TLS.	
Default	0	
Parameter	sip.dns_transport_type	<y0000000000xx>.cfg
Description	It configures the transport protocol the phone uses to perform a DNS query.	
Permitted Values	**0**-UDP **1**-TCP	
Default	0	
Parameter	static.network.dns.query_timeout	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) at which the phone retries to resolve a domain name when the DNS server does not respond.	
Permitted Values	Integer from 0 to 65535	
Default	3	
Parameter	static.network.dns.retry_times	<y0000000000xx>.cfg

Description	It configures the retry times when the DNS server does not respond.
Permitted Values	Integer from 0 to 65535
Default	2

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]Y is the server ID. Y=1-2.

Static DNS Cache

Failover redundancy can only be utilized when the configured domain name of the server is resolved to multiple IP addresses. If the IP phone is not configured with a DNS server, or the DNS query returns no result from a DNS server, you can statically configure a set of DNS NAPTR/SRV/A records into the IP phone. The phone will attempt to resolve the domain name of the SIP server with static DNS cache.

Support for negative caching of DNS queries as described in RFC 2308 is also provided to allow faster failover when prior DNS queries have returned no results from the DNS server.

Topics

Behave with a Configured DNS Server
Static DNS Cache Configuration

Behave with a Configured DNS Server

When the phone is configured with a DNS server, it will behave as follows to resolve the domain name of the server:

- The phone performs a DNS query to resolve the domain name from the DNS server.
- If the DNS query returns no results for the domain name, or the returned record cannot be contacted, the values in the static DNS cache (if configured) are used when their configured time intervals are not elapsed.
- If the configured time interval is elapsed, the phone will attempt to perform a DNS query again.
- If the DNS query returns a result, the phone will use the returned record from the DNS server and ignore the statically configured cache values.

When the phone is not configured with a DNS server, it will behave as follows:

- The phone attempts to resolve the domain name within the static DNS cache.
- The phone will always use the results returned from the static DNS cache.

Static DNS Cache Configuration

The following table lists the parameters you can use to configure static DNS cache.

Parameter	account.X.dns_cache_type[1]	<MAC>.cfg
Description	It configures whether the phone uses the DNS cache for domain name resolution of the SIP server and caches the additional DNS records.	
Permitted Values	**0**-Perform real-time DNS query rather than using DNS cache. **1**-Use DNS cache, but do not record the additional records. **2**-Use DNS cache and cache the additional DNS records.	
Default	1	
Parameter	account.X.static_cache_pri[1]	<MAC>.cfg
Description	It configures whether preferentially to use the static DNS cache for domain name resolution of the SIP server.	

Permitted Values	**0**-Use domain name resolution from server preferentially **1**-Use static DNS cache preferentially	
Default	0	
Parameter	dns_cache_naptr.X.name[2]	<y0000000000xx>.cfg
Description	It configures the domain name to which NAPTR record X refers.	
Permitted Values	Domain name	
Default	Blank	
Parameter	dns_cache_naptr.X.order[2]	<y0000000000xx>.cfg
Description	It configures the order of NAPTR record X. NAPTR record with the lower order is more preferred.	
Permitted Values	Integer from 0 to 65535	
Default	0	
Parameter	dns_cache_naptr.X.preference[2]	<y0000000000xx>.cfg
Description	It configures the preference of NAPTR record X. NAPTR record with lower preference is more preferred.	
Permitted Values	Integer from 0 to 65535	
Default	0	
Parameter	dns_cache_naptr.X.replace[2]	<y0000000000xx>.cfg
Description	It configures a domain name to be used for the next SRV query in NAPTR record X.	
Permitted Values	Domain name	
Default	Blank	
Parameter	dns_cache_naptr.X.service[2]	<y0000000000xx>.cfg
Description	It configures the transport protocol available for the SIP server in NAPTR record X.	
Permitted Values	**SIP+D2U**-SIP over UDP **SIP+D2T**-SIP over TCP **SIP+D2S**: SIP over SCTP **SIPS+D2T**-SIPS over TLS	
Default	Blank	
Parameter	dns_cache_srv.X.name[2]	<y0000000000xx>.cfg
Description	It configures the domain name in SRV record X.	
Permitted Values	Domain name	
Default	Blank	
Parameter	dns_cache_srv.X.port[2]	<y0000000000xx>.cfg

Description	It configures the port to be used in SRV record X.	
Permitted Values	Integer from 0 to 65535	
Default	0	
Parameter	dns_cache_srv.X.priority[2]	<y0000000000xx>.cfg
Description	It configures the priority for the target host in SRV record X. Lower priority is more preferred.	
Permitted Values	Integer from 0 to 65535	
Default	0	
Parameter	dns_cache_srv.X.target[2]	<y0000000000xx>.cfg
Description	It configures the domain name of the target host for an A query in SRV record X.	
Permitted Values	Domain name	
Default	Blank	
Parameter	dns_cache_srv.X.weight[2]	<y0000000000xx>.cfg
Description	It configures the weight of the target host in SRV record X. When priorities are equal, weight is used to differentiate the preference. Higher weight is more preferred.	
Permitted Values	Integer from 0 to 65535	
Default	0	
Parameter	dns_cache_a.X.name[2]	<y0000000000xx>.cfg
Description	It configures the domain name in A record X.	
Permitted Values	Domain name	
Default	Blank	
Parameter	dns_cache_a.X.ip[2]	<y0000000000xx>.cfg
Description	It configures the IP address that the domain name in A record X maps to.	
Permitted Values	IP address	
Default	Blank	
Parameter	static.network.dns.ttl_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to use TTL (Time To Live) in the A record.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	static.network.dns.last_cache_expired	<y0000000000xx>.cfg
Description	It configures the validity period of the expired DNS cache.	

	Note: It works only if "static.network.dns.last_cache_expired.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 65535 **0**-the expired DNS cache can only be used once. After using, the phone will perform a DNS query again. **1 to 65535**-the phone will use the expired DNS cache during the specified period. After that, the phone will perform a DNS query again.	
Default	3600	
Parameter	static.network.dns.last_cache_expired.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to use the DNS cache (even if the cache has expired) when the DNS server fails to resolve the domain name.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	static.network.dns_list.mode	<y0000000000xx>.cfg
Description	It configures the DNS query mode in the wired network.	
Permitted Values	**0**-If static DNS is configured, use static DNS. If not, use dynamic DNS obtained by DHCP. **1**-The DNS list consists of static DNS + dynamic DNS. Use static DNS first. When static DNS is invalid, use the DNS address obtained by DHCP. **2**-The DNS list is composed of dynamic DNS + static DNS. Use the DNS obtained by DHCP first, and then use the static DNS when the dynamic DNS is invalid.	
Default	0	
Parameter	static.network.wifi.dns_list.mode	<y0000000000xx>.cfg
Description	It configures the DNS query mode in the wireless network.	
Permitted Values	**0**-If static DNS is configured, use static DNS. If not, use dynamic DNS obtained by DHCP. **1**-The DNS list consists of static DNS and dynamic DNS. Use static DNS preferentially. When static DNS is invalid, use the DNS obtained by DHCP. **2**-The DNS list consists of dynamic DNS and static DNS. Use the DNS obtained by DHCP preferentially, and then use the static DNS when the dynamic DNS is invalid.	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]X is the record ID. X=1-12.

Logon Wizard

Logon wizard allows the phones to provide the logon wizard during the first startup. It works only if there is no registered account on the IP phone.

Topic

Logon Wizard Configuration

Logon Wizard Configuration

The following table lists the parameters you can use to configure the logon wizard.

Parameter	phone_setting.logon_wizard	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide the logon wizard after startup when there is no registered account.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > Logon Wizard	
Parameter	hotdesking.startup_register_name_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of register name on the logon wizard after startup when there is no registered account. **Note**: It works only if "phone_setting.logon_wizard" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	hotdesking.startup_username_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of user name on the logon wizard after startup when there is no registered account. **Note**: It works only if "phone_setting.logon_wizard" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	hotdesking.startup_password_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of password on the logon wizard after startup when there is no registered account. **Note**: It works only if "phone_setting.logon_wizard" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	hotdesking.startup_sip_server_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of SIP server on the logon wizard after startup when there is no registered account. **Note**: It works only if "phone_setting.logon_wizard" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	hotdesking.startup_outbound_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of the outbound server on the logon wizard after startup when there is no registered account. **Note**: It works only if "phone_setting.logon_wizard" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Parameter	phone_setting.logon_wizard_forever_wait	<y0000000000xx>.cfg
Description	It enables or disables the phone to remain at the hot desking logon wizard even though timeout.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

Multiple Line Keys per Account

You can assign multiple line keys to associate with a specific account. The line keys are automatically assigned with Line type from the first unused one (unused one means the line key is configured as N/A or the associated account is not registered). All calls on this account will be distributed evenly among these line keys. It is useful for managing a high volume of calls to an account.

Topics

Multiple Line Keys per Account Configuration
Auto Line Labels Rule Configuration
Default Account

Multiple Line Keys per Account Configuration

The following table lists the parameters you can use to configure multiple line keys per account.

Parameter	features.auto_linekeys.enable	<y0000000000xx>.cfg
Description	It enables or disables to assign multiple line keys to associate with a specific account. **Note**: The number of the line keys is determined by “account.X.number_of_linekey”.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > Auto Linekeys	
Parameter	account.X.number_of_linekey[1]	<MAC>.cfg
Description	It configures the number of line keys to be assigned with a specific account from the first unused one. If a line key is in used, the phone will skip to the next unused DSS key.	
Permitted Values	Integer from 1 to 999 The number of the line keys varies by phone models, for the supported line keys, refer to Supported DSS Keys.	
Default	1	
Web UI	Account > Advanced > Number of Line Key	
Parameter	phone_setting.call_appearance.transfer_via_new_linekey	<y0000000000xx>.cfg
Description	It enables or disables to distribute a transferring call to a new line key (the new line key is not seized). If all line keys are seized, the current line key will be used. **Note**: The number of the line keys is determined by “account.X.number_of_linekey”. The value configured by the parameter “account.X.phone_setting.call_appearance.transfer_via_new_linekey” takes precedence over that configured by this parameter.	

Permitted Values	**0**-Disabled, the phone will transfer a call on the current line key. **1**-Enabled	
Default	1	
Parameter	account.X.phone_setting.call_appearance.transfer_via_new_linekey[1]	<MAC>.cfg
Description	It enables or disables to distribute a transferring call to a new line key (the new line key is not seized) for account X. If all line keys are seized, the current line key will be used. **Note**: The number of the line keys is determined by "account.X.number_of_linekey". The value configured by this parameter takes precedence over that configured by the parameter "phone_setting.call_appearance.transfer_via_new_linekey".	
Permitted Values	**0**-Disabled, the phone will transfer a call on the current line key. **1**-Enabled	
Default	Blank	
Parameter	phone_setting.call_appearance.conference_via_new_linekey	<y0000000000xx>.cfg
Description	It enables or disables to distribute a conference call to a new line key (the new line key is not seized). If all line keys are seized, the current line key will be used. **Note**: The number of the line keys is determined by "account.X.number_of_linekey". The value configured by the parameter "account.X.phone_setting.call_appearance.conference_via_new_linekey" takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled, the phone will place a new call using the current line key when pressing the **Conf**/**Conference** soft key. **1**-Enabled, the phone will place a new call by automatically selecting a new line key (the corresponding line key is not seized) when pressing the **Conf**/**Conference** soft key. If all line keys are seized, the current line key will be used.	
Default	1	
Parameter	account.X.phone_setting.call_appearance.conference_via_new_linekey[1]	<MAC>.cfg
Description	It enables or disables to distribute a conference call to a new line key (the new line key is not seized) for account X. If all line keys are seized, the current line key will be used. **Note**: The number of the line keys is determined by "account.X.number_of_linekey". The value configured by this parameter takes precedence over that configured by the parameter "phone_setting.call_appearance.conference_via_new_linekey".	
Permitted Values	**0**-Disabled, the phone will place a new call using the current line key when pressing the **Conf**/**Conference** soft key. **1**-Enabled, the phone will place a new call by automatically selecting a new line key (the corresponding line key is not seized) when pressing the **Conf**/**Conference** soft key. If all line keys are seized, the current line key will be used.	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Auto Line Labels Rule Configuration

When assigning multiple line keys per account, these automatically assigned line keys use its Account Label (set by “account.X.label”) as default label to display on the screen. In order to distinguish these automatically assigned line keys, you can customize the line key labels one by one or configure the auto line labels rule for these line keys.

The following table lists the parameters you can use to configure the auto line labels rule.

Parameter	account.X.auto_label.enable[1]	<MAC>.cfg
Description	It enables or disables the Auto Label feature. It is only applicable to the automatically assigned line DSS keys. **Note**: It works only if “features.auto_linekeys.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, the line keys labels are determined by “account.X.label”. **1**-Enabled, the line keys labels are determined by the custom label rule (configure by the parameter “accout.X.auto_label.rule”).	
Default	0	
Parameter	account.X.auto_label.rule[1]	<MAC>.cfg
Description	It configures the Auto Label rule. You need to know the following basic regular expression syntax: **{L}**: The value is configured by the parameter “account.X.label”. **{N}**: An increasing number from N. For example, abc{1}{5} represents the following labels: abc15, abc26, abc37, and so on. Multiple labels are separated by “|”. For example, Yea|Yea|Yea|Tom_{2} means to display “Yea” for first three line keys, and from the fourth one, display label Tom_2, Tom_3, and so on in turn. **Other Characters**: for example, ABC, will display ABC the same as what you have configured. **Note**: It works only if “features.auto_linekeys.enable” and “account.X.auto_label.enable” are set to 1 (Enabled). The number of valid labels is configured by the parameter “account.X.number_of_linekey”.	
Permitted Values	String	
Default	{L}_{1}	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Default Account

If there are multiple accounts registered on the phone, the phone will use the default account to dial out by default.

The following table lists the parameters you can use to configure the default account.

Parameter	static.features.default_account	<y0000000000xx>.cfg
Description	It configures the default account. **1**-Account 1 **2**-Account 2 **3**-Account 3 … **16**-Account 16	

	101-PSTN 1 **102**-PSTN 2	
Permitted Values	Integer from 1 to 16, 101, 102	
Default	1	
Parameter	features.show_default_account	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the label of the default account in the left of the status bar on the idle screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except VP59	
Parameter	features.linekey_call_with_default_account	<y0000000000xx>.cfg
Description	It enables or disables the phone to switch the default account when pressing the line key to dial. For example, the account on line 2 is not the default account, if this feature is enabled, when pressing the line key 2 to dial, the default account will switch to the account on line 2.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	

Directory

The Yealink IP phone provides several types of phone directories.

Topics

Local Directory
Local Contacts Backup
Local Contacts Order Configuration
Favorite Contacts
Google Contacts
Lightweight Directory Access Protocol (LDAP)
Remote Phone Book
Directory List for Directory Icon
Directory Search Settings
Number Matching Settings

Note: When you add a phone number to a contact in the local directory, LDAP, Remote phone book or XML phone book, you can use the EDK macros strings. For more information on EDK macros, refer to Enhanced DSS Keys. For more information on XML phone book, refer to XML Browser Developer's Guide for Yealink IP Phones.

Local Directory

Yealink phones maintain a local directory that you can use to store contacts. The local directory can store up to 1000 contacts and 48 groups.

Contacts and groups can be added either one by one or in batch using a local contact file. Yealink phones support both *.xml and *.csv format contact files, but you can only customize the *.xml format contact file.

Topics

Preparing the Tar Formatted File
Local Contact File Customization
Local Contact Files and Resource Upload
Example: Adding Contacts Using a Contact File

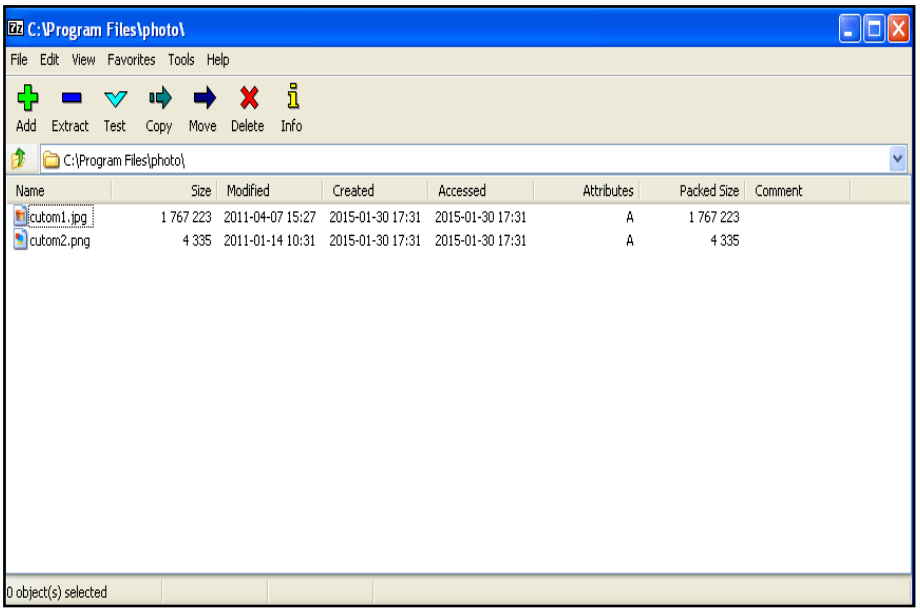
Preparing the Tar Formatted File

This section provides you on how to package the tar file using 7-Zip.

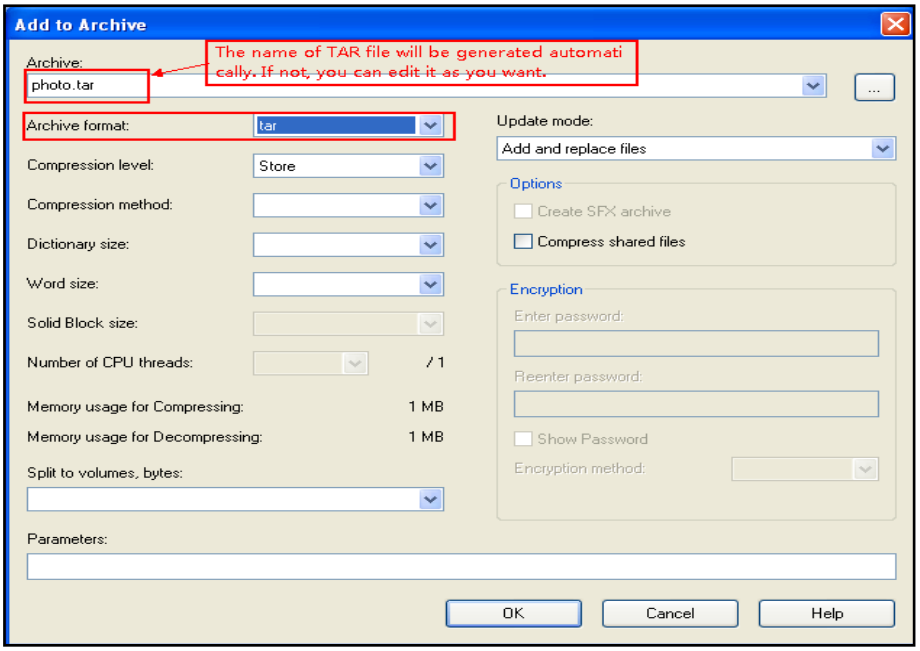
Note: You can package the tar formatted file using the tool 7-Zip or GnuWin32. You can download 7-Zip online: http://www.7-zip.org/ and GnuWin32 online: http://gnuwin32.sourceforge.net/packages/gtar.htm.
The procedure may be different if you package the tar formatted file using other software that is not listed above.

Procedure

1. Download and install 7-Zip on the local system.
2. Create a folder (for example, photo) on the local system (for example, C:\Program Files) and place the file that will be compressed (for example, cutom1.jpg, cutom2.png) to this folder.
3. Start the 7-Zip file manager application (7zFM.exe).
4. Locate the photo folder from the local system (C:\Program Files\photo\).



5. Select the desired photos that will be compressed.
6. Click the **Add** button.
7. Select **tar** from the **Archive format** drop-down menu.



8. Click the **OK** button.
   A photo.tar file is generated in the directory C:\Program Files\photo.

Local Contact File Customization

You can ask the distributor or Yealink FAE for local contact template. You can also obtain the local contact template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

XML Conversion Table
Local Contact File Elements and Attributes

Customizing Local Contact File

XML Conversion Table

XML provides escape facilities for including characters which are problematic to include directly. For example, the characters "<" and "&" are key syntax markers and may never appear in the content. XML has five predefined entities.

The XML conversion table is shown as below:

Character	Name	Escape Sequence
&	Ampersand	&
“	Quote	"
‘	Apostrophe	'
<	Left angle bracket	<
>	Right angle bracket	>

Local Contact File Elements and Attributes

The following table lists the elements and attributes you can use to add groups or contacts in the local contact file. We recommend that you do not edit these elements and attributes.

Elements	Attributes	Description
group	display_name	Specify the group name. For example All Contacts or Blocklist
	ring	Specify a ringtone for the group. System ring tone: Auto Silent.wav Splash.wav RingN.wav (integer N ranges from 1 to 8) Custom ring tone: Name.wav (the custom ring tone should be uploaded in advance)
Contact	display_name	Specify the contact name. For example Jim **Some characters (for example, ") are key syntax markers and may never appear in the content. Non-standard name formats may cause XML parsing to fail. You can use the escape sequence instead.** **Error:** display_name="Hurrell **"&"** Mclean" **Correct 1:** display_name="Hurrell **&** Mclean" **Correct 2**: display_name="Hurrell **&** Mclean" **Note**: The contact name cannot be blank.
	office_number	Specify the office number or macro EDK Macro Strings.
	mobile_number	Specify the mobile number or macro EDK Macro Strings.
	other_number	Specify the other number or macro EDK Macro Strings.

Elements	Attributes	Description
	line	Specify a registered line for this contact for calling. Valid Values: -1~15; -1 stands for Auto (the first registered line); 0~15 stand for line1~line16. **Note**: It is not applicable to CP960/CP965 phones.
	ring	Specify a ringtone for this contact. System ring tone: Auto Silent.wav Splash.wav RingN.wav (integer N ranges from 1 to 8) Custom ring tone: XX.wav (for example, Music.wav, the custom ring tone should be uploaded in advance)
	group_id_name	Specify which group the contact adds to. Built-in group: All Contacts, Blocklist Custom group: XXX (for example, Friend)
	default_photo	Built-in avatar: Resource: avatar name and icon name Custom avatar: Config: custom avatar name and icon name
	auto_divert	Specify a destination number for diverted calls.

Related Topics

Example: Using EDK Macro Strings as the Contact Number
XML Conversion Table

Customizing Local Contact File

1. Open the local contact file.
2. To add a group, add <group display_name="" ring=""/ > to the file. Each starts on a new line.
3. To add a contact, add <contact display_name="" office_number="" mobile_number="" other_number="" line="" ring="" group_id_name="" default_photo="" auto_divert = “”/ > to the file. Each starts on a new line.
4. Specify the values within double quotes.

   For example:

   <group display_name="Friend" ring="Splash.wav"/ >

   <contact display_name="Lily"office_number="1020" mobile_number="1021" other_number="1112" line="1" ring="Ring1.wav" group_id_name="Friend" default_photo="Lily_photo.jpg" auto_divert = “2022”/ >

<contact display_name="Tom" office_number="2020" mobile_number="2021" other_number="2112" line="2" ring="Ring1.wav" group_id_name="Friend" default_photo=" Resource:icon_family_b.png" auto_divert = “2023” / >

5. Save the changes and place this file to the provisioning server.

Local Contact Files and Resource Upload

You can upload local contact files to add multiple contacts at a time or upload the contact resource, such as contact avatar.

The following table lists the parameters you can use to upload the local contact files and resource.

Parameter	local_contact.data.url	<y0000000000xx>.cfg
Description	It configures the access URL of the local contact file (*.xml). **Example**: local_contact.data.url = http://192.168.10.25/contact.xml **Note**: If "static.auto_provision.local_contact.backup.enable" is set to 1 (Enabled), the contacts in the contact file “contact.xml” downloaded from the provisioning server do not take effect.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Directory > Local Directory > Import	
Parameter	local_contact.data.delete	<y0000000000xx>.cfg
Description	It deletes all local contacts. **Example**: local_contact.data.delete = http://localhost/all	
Permitted Values	String	
Default	Blank	
Parameter	local_contact.photo.url	<y0000000000xx>.cfg
Description	It configures the access URL of a contact avatar file. The format of the contact avatar must be *.png, *.jpg, *.bmp, *.jpeg. The contact avatar file should be uploaded to the provisioning server in advance. **Example**: local_contact.photo.url = tftp://192.168.10.25/Photo.jpg	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	local_contact.icon_image.url	<y0000000000xx>.cfg
Description	It configures the access URL of a contact icon file. The format of the contact icon must be *.png, *.jpg, *.bmp, *.jpeg. The contact icon file should be uploaded to the provisioning server in advance. **Example**:	

	local_contact.icon_image.url = tftp://192.168.10.25/Photo.jpg	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	local_contact.image.url	<y0000000000xx>.cfg
Description	It configures the access URL of a TAR contact avatar file. The format of the contact avatar must be *.png, *.jpg, *.bmp, *.jpeg. The contact avatar file should be compressed as a TAR file in advance and then place it to the provisioning server. **Example**: local_contact.image.url = tftp://192.168.10.25/photo.tar	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	local_contact.data_photo_tar.url	<y0000000000xx>.cfg
Description	It configures the access URL of the compressed TAR file consisting of the avatars TAR file and contact XML file. All avatars needed for contacts should be compressed as a TAR file in advance. **Example**: local_contact.data_photo_tar.url = tftp://192.168.10.25/Contact.tar	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	local_contact.icon.url	<y0000000000xx>.cfg
Description	It configures the access URL of a TAR contact icon file. The format of the contact icon must be *.png, *.jpg, *.bmp. The contact icon file should be compressed as a TAR file in advance and then place it to the provisioning server. **Example**: local_contact.icon.url = tftp://192.168.10.25/photo2.tar	
Permitted Values	URL within 511 characters	
Default	Blank	

Example: Adding Contacts Using a Contact File

The following example shows the configuration for customizing a local contact file.

Customize the contact file "contact.xml" and place the contact file "contact.xml" and custom contact source (avatars or icons) to the provisioning server "http://192.168.10.25".

Example

local_contact.photo.url = http://192.168.10.25/Lily_photo.jpg
local_contact.data.url = tftp://192.168.10.25/contact.xml

During auto provisioning, the phone connects to the provisioning server “192.168.10.25”, and downloads the local contact file “contact.xml” and an avatar “Lily_photo.jpg”. You can view the contacts on their phone, and specify the avatar “Lily_photo.jpg” for a contact.

Note: If you have configured to back up the local contacts to the server, the phone will download the contact file “<MAC>-contact.xml” from the backup path from the server and display the downloaded contacts in the local directory list. The contacts in the local contact file “contact.xml” downloaded from the provisioning server do not take effect.

Local Contacts Backup

Yealink phones support storing all local contacts to a contact file named <MAC>-contact.xml. You can back up this file to the server, avoiding data loss. Once the contacts update, the phone will automatically upload this file to the provisioning server or a specific server. If a contact file exists on the server, this file will be overridden. The phone will request to download the <MAC>-contact.xml file according to its MAC address from the server during auto provisioning.

The contact file is named after the MAC address of the IP phone. For example, if the MAC address of an IP phone is 00156574B150, the name of the contact file is 00156574B150-contact.xml (uppercase).

Tip: MAC address, a unique 12-digit serial number is assigned to each phone. You can obtain it from the bar code on the back of the phone.

The following table lists the parameters you can use to back up the local contacts.

Parameter	static.auto_provision.local_contact.backup.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to upload the <MAC>-contact.xml file to the server each time the contacts update and download the <MAC>-contact.xml file from the server during auto provisioning. **Note**: It does not affect the downloading of the contact avatar/icon files.	
Permitted Values	**0**-Disabled, the phone will not upload the contact file “<MAC>-contact.xml” to the server, so the IP phone downloads the contacts in the “contact.xml” from the access URL configured by the parameter “local_contact.data.url” or “local_contact.data_photo_tar.url” during auto provisioning. **1**-Enabled, the phone uploads the contact file “<MAC>-contact.xml” to the specific path configured by the parameter “static.auto_provision.local_contact.backup.path” each time the contacts update; and downloads the contacts in the “<MAC>-contact.xml” according to its MAC address from the specific path during auto provisioning.	
Default	0	
Parameter	static.auto_provision.local_contact.backup.path	<y0000000000xx>.cfg
Description	It configures a path or URL for the phone to upload/download the <MAC>-contact.xml file. If it is left blank, the phone connects to the provisioning server URL, and uploads/downloads the contact file “<MAC>-contact.xml”. **Example**: static.auto_provision.local_contact.backup.path = http://192.168.1.20/contact Once the contacts update, the phone will upload the contact file to the specified path “http://192.168.1.20/contact”. During auto provisioning, the phone downloads the contact file “<MAC>-contact.xml” from the specified path “http://192.168.1.20/contact”. **Note**: It works only if “static.auto_provision.local_contact.backup.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	

Parameter	static.auto_provision.custom.upload_method	<y0000000000xx>.cfg
Description	It configures the way the phone uploads the <MAC>-local.cfg file, <MAC>-calllog.xml file or <MAC>-contact.xml file to the provisioning server (for HTTP/HTTPS server only).	
Permitted Values	**0**-PUT **1**-POST	
Default	0	

Local Contacts Order Configuration

The following table lists the parameters you can use to configure local contacts order.

Parameter	phone_setting.local_directory_order.type	<y0000000000xx>.cfg
Description	It configures the sorting method of the local contacts.	
Permitted Values	**0**-Sort by local contact name. **1**-Sort by local contact number (office number) in ascending order.	
Default	0	

Favorite Contacts

You can enable the user to mark local contacts as favorites. The favorite contacts are stored in the Favorites directory and the phone will automatically assign Speed Dial keys for these favorite contacts.

Topic

Favorites Configuration

Favorites Configuration

The following table lists the parameters you can use to configure the favorites.

Parameter	local_contact.favorite.enable	<y0000000000xx>.cfg
Description	It enables or disables the Favorites feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone automatically assigns Speed Dial keys for favorite contacts.	
Default	0	
Parameter	local.dsskey_type_config.mode	<y0000000000xx>.cfg
Description	It configures which screen to enter by long pressing the line key or ext key. **Note**: It works only if "local_contact.favorite.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Enter the line key/ext key configuration screen **1**-Enter the Add Contact screen	
Default	0	
Parameter	phone_setting.favorite_sequence_type	<y0000000000xx>.cfg
Description	It configures the order of Speed Dial (Favorite) keys to be assigned automatically. **Note**: It works only if "local_contact.favorite.enable" is set to 1 (Enabled). To assign Ext key, make sure the expansion module has been connected to the phone in advance.	

Permitted Values	**0** - linekey > exp1 key > … > expN key **1** - exp1 key > … > expN key > linekey **2** - linekey page1 > page1 from exp1 to expN > page2 from exp1 to expN > … > linekey from page2 to page3 **3**-page1 from exp1 to expN > page2 from exp1 to expN > … > linekey **Note**: N is the number of your connected expansion modules.
Default	0
Supported Devices	T58W, T58A

Google Contacts

Yealink IP phone supports Google contacts feature. After enabling Google contacts on the phone, users can get Google contacts from their Google accounts.

To use this feature, you need to install the GMS core package, and then the user should add Google accounts on the phone. Please ask the distributor or Yealink FAE for the specific version of GMS core package.

It is only applicable to T58A/VP59/T58W phones.

Note: The GMS core package should be a specific version:
T58A Android 5.1: open_gapps-arm-5.1-pico-20170713.zip
VP59 Android 5.1: open_gapps-arm-5.1-pico-20160619.zip
VP59 Android 7.0: open_gapps-arm64-7.1-pico-20190529.zip
VP59/T58W Android 9.0: open_gapps-arm64-9.0-pico-20200616.zip

Topic

Registering Android ID on VP59 Phones
Google Contacts Configuration
GMS Services List
Example: Configuring the Google Contacts Feature

Registering Android ID on VP59 Phones

You need to register the Android ID to use the GMS service on VP59 phones.

Procedure

1. Ask the distributor or Yealink FAE for the GMS core package (open_gapps-arm64-7.1-pico-20190529.zip for Android 7.1; open_gapps-arm64-9.0-pico-20200616.zip for Android 9.0).
2. Place the GMS core package on the provisioning server “192.168.10.25”.
3. Install the GMS core on the phone.

   Example

   pm.gms_install_url = http://192.168.10.25/open_gapps-arm64-9.0-pico-20200616.zip

   Once provisioning, **Play Store** application is added on the second idle screen after phone reboot.
4. Access the web user interface of the phone, navigate to **Settings** > **GMS**.
5. Click **Register** to jump to the page of Google Android device registration: https://www.-google.com/android/uncertified/.
6. Copy the Android ID into the input box and complete the registration.
7. Reboot the phone.

Google Contacts Configuration

The following table lists the parameters you can use to configure Google contacts.

Parameter	pm.gms_install_url[1]	<y0000000000xx>.cfg
Description	It configures the URL of the GMS core package. The GMS core package should be a specific version: T58A Android 5.1: open_gapps-arm-5.1-pico-20170713.zip VP59 Android 5.1: open_gapps-arm-5.1-pico-20160619.zip VP59 Android 7.0: open_gapps-arm64-7.1-pico-20190529.zip VP59/T58W Android 9.0: open_gapps-arm64-9.0-pico-20200616.zip Please ask the distributor or Yealink FAE for the specific version of GMS core package. **Example**: pm.gms_install_url = http://192.168.10.25/open_gapps-arm64-9.0-pico-20200616.zip **Note**: If you upgrade VP59 from Android 7 to 9, you need to uninstall GMS first "pm.gms_uninstall=gms".	
Permitted Values	String	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	pm.gms_uninstall[1]	<y0000000000xx>.cfg
Description	It uninstalls the GMS service.	
Permitted Values	Software package name or APK file name or Application name	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	google_contact_server.enable	<y0000000000xx>.cfg
Description	It enables or disables the Google contacts. **Note**: It works only if GMS core package is installed (configured by "pm.gms_install_url") successfully and Google account is added on the phone.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Directory > Google Contacts > Google Contacts	
Phone UI	Settings > Basic Settings > Google Contacts > Google Contacts	
Parameter	google_contact_server.display_mode	<y0000000000xx>.cfg
Description	It configures the display mode of the Google contacts. **Note**: It works only if "google_contact_server.enable" is set to 1 (Enabled).	

Permitted Values	**0**-All downloaded Google contacts will be displayed on the phone. **1**-Only the Google contacts whose number fields are not empty will be displayed on the phone.
Default	1
Supported Devices	All phones except CP960/CP965

[1]If you change this parameter, the phone will reboot to make the change take effect.

GMS Services List

You can disable some GMS services on the phone.

The following lists all the GMS services you can disable on the phone:

APK Filename/Software Package Name	Description
com.google.android.onetimeinitializer	One-time initialization on first startup.
com.google.android.configupdater	Allows updating the unexecutable system components in the wireless network.
com.google.android.setupwizard	Out-of-the-box user experience.
com.google.android.partnersetup	The initialization service for partner dedicated equipment.
com.google.android.feedback	Allows users to send error reports and give feedback about *GoogleLoginService* to Google.
com.google.android.syncadapters.calendar	Syncs calendar data to the user's Google account.
com.google.android.backuptransport	Backs up data to the user's Google account.
com.android.vending	Playstore

Note: Disabling GMS services listed above will not affect the use of Google contacts. It can reduce CPU consumption and have a positive performance impact for the phone.

Related Topic

Google Contacts Configuration

Example: Configuring the Google Contacts Feature

This section shows an example for you about how to configure Google contacts feature for users.

Procedure

1. Ask the distributor or Yealink FAE for the GMS core package (open_gapps-arm-5.1-pico-20170709.zip).
2. Place the GMS core package on the provisioning server “192.168.10.25”.
3. Install the GMS core on the phone.

   T58A Example

   pm.gms_install_url = http://192.168.10.25/open_gapps-arm-5.1-pico-20170709.zip

   VP59 Example

   pm.gms_install_url = http://192.168.10.25/open_gapps-arm64-7.1-pico-20190529.zip

   After provisioning, there are two applications (**Google Settings** and **Play Store**) added on the second idle screen after phone reboot.
4. Disable some GMS services on the phone.

   Example

   ####Multiple GMS servicess are separated by slashs.####

app.unavailable = com.google.android.onetimeinitializer/com.google.android.configupdater

5. Add a Google account via the phone user interface: **Settings** > **APP Accounts** > **Add account** > **Google**.
6. Enable Google Contacts feature on the phone.

   google_contact_server.enable = 1

   After provisioning, the **Google Contacts** directory appears on the phone. Users can add, edit, delete or search for a Google contact on the phone.

Related Topics

Google Contacts Configuration
GMS Services List
APP Settings Configuration

Lightweight Directory Access Protocol (LDAP)

LDAP is an application protocol for accessing and maintaining information services for the distributed directory over an IP network. You can configure the phones to interface with a corporate directory server that supports LDAP version 2 or 3. The following LDAP servers are supported:

- Microsoft Active Directory
- Sun ONE Directory Server
- Open LDAP Directory Server
- Microsoft Active Directory Application Mode (ADAM)

For more information on LDAP, refer to *LDAP Directory on Yealink IP Phones*.

Topics

LDAP Attributes
Securely Storing the LDAP Credentials
LDAP Configuration

LDAP Attributes

The following table lists the most common attributes used to configure the LDAP lookup on the phones.

Abbreviation	Name	Description
gn	givenName	First name
cn	commonName	LDAP attribute is made up from given name joined to surname.
sn	surname	Last name or family name
dn	distinguishedName	Unique identifier for each entry
dc	dc	Domain component
-	company	Company or organization name
-	telephoneNumber	Office phone number
mobile	mobilephoneNumber	Mobile or cellular phone number
ipPhone	IPphoneNumber	Home phone number

Securely Storing the LDAP Credentials

You can enable the IP phone to securely store the LDAP user credentials when Broadsoft Flexible Seating feature is enabled. When the user logs into the guest profile next time, he/she can access the LDAP directory directly instead of entering the LDAP user credentials again.

The IP phone can store up to 100 LDAP user credentials. If the number of user credentials reaches 100, the user who has the longest inactivity period is removed from the phone when any additional user is added.

The LDAP user credentials persist after the phone reboots.

Related Topic

Broadsoft Flexible Seating

LDAP Configuration

The following table lists the parameters you can use to configure LDAP for all handsets.

Parameter	ldap.enable	<y0000000000xx>.cfg
Description	It enables or disables the LDAP feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Directory > LDAP > Enable LDAP	
Parameter	ldap.search_type	<y0000000000xx>.cfg
Description	It configures the search type for LDAP contact lookup.	
Permitted Values	**0**-Prefix matching, the phone will search the LDAP contact numbers or names start with the entered character(s). **1**-Approximate string matching, the phone will search the LDAP contact numbers or names contain the entered character(s).	
Default	0	
Parameter	ldap.name_filter	<y0000000000xx>.cfg
Description	It configures the search criteria for LDAP contact names lookup. The “*” symbol in the filter stands for any character. The “%” symbol in the filter stands for the name entered by the user. **Example**: ldap.name_filter = (|(cn=%)(sn=%)) When the cn or sn of the LDAP contact matches the entered name, the record will be displayed on the phone screen. ldap.name_filter = (&(cn=*)(sn=%)) When the cn of the LDAP contact is set and the sn of the LDAP contact matches the entered name, the records will be displayed on the phone screen. ldap.name_filter = (!(cn=%)) When the cn of the LDAP contact does not match the entered name, the records will be displayed on the phone screen.	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Directory > LDAP > LDAP Name Filter	

Parameter	ldap.number_filter	<y0000000000xx>.cfg
Description	It configures the search criteria for LDAP contact numbers lookup. The "*" symbol in the filter stands for any number. The "%" symbol in the filter stands for the number entered by the user. **Example**: ldap.number_filter = (|(telephoneNumber=%)(mobile=%)(ipPhone=%)) When the number of the telephoneNumber, mobile or ipPhone of the contact record matches the search criteria, the record will be displayed on the phone screen. ldap.number_filter = (&(telephoneNumber=*)(mobile=%)) When the telephoneNumber of the LDAP contact is set and the mobile of the LDAP contact matches the entered number, the record will be displayed on the phone screen.	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Directory > LDAP > LDAP Number Filter	
Parameter	ldap.tls_mode	<y0000000000xx>.cfg
Description	It configures the connection mode between the LDAP server and the phone.	
Permitted Values	**0**-LDAP—The unencrypted connection between the LDAP server and the IP phone (port 389 is used by default). **1**-LDAP TLS Start—The TLS/SSL connection between the LDAP server and the IP phone (port 389 is used by default). **2**-LDAPs—The TLS/SSL connection between the LDAP server and the IP phone (port 636 is used by default).	
Default	0	
Web UI	Directory > LDAP > LDAP TLS Mode	
Parameter	ldap.host	<y0000000000xx>.cfg
Description	It configures the IP address or domain name of the LDAP server.	
Permitted Values	IP address or domain name	
Default	Blank	
Web UI	Directory > LDAP > LDAP Server Address	
Parameter	ldap.port	<y0000000000xx>.cfg
Description	It configures the port of the LDAP server.	
Permitted Values	Integer from 1 to 65535	
Default	389 (LDAPS: 636)	
Web UI	Directory > LDAP > Port	
Parameter	ldap.base	<y0000000000xx>.cfg
Description	It configures the LDAP search base which corresponds to the location of the LDAP phonebook from	

	which the LDAP search request begins. The search base narrows the search scope and decreases directory search time. **Example**: ldap.base = dc=yealink,dc=cn	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Directory > LDAP > LDAP Base	
Parameter	ldap.user	<y0000000000xx>.cfg
Description	It configures the user name used to log into the LDAP server. This parameter can be left blank in case the server allows anonymity to log into. Otherwise, you will need to provide the user name to log into the LDAP server. **Example**: ldap.user = cn=manager,dc=yealink,dc=cn	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Directory > LDAP > LDAP Username	
Parameter	ldap.password	<y0000000000xx>.cfg
Description	It configures the password to log into the LDAP server. This parameter can be left blank in case the server allows anonymous to log into. Otherwise, you will need to provide the password to log into the LDAP server.	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Directory > LDAP > LDAP Password	
Parameter	ldap.max_hits	<y0000000000xx>.cfg
Description	It configures the maximum number of search results to be returned by the LDAP server.	
Permitted Values	Integer from 1 to 1000	
Default	50	
Web UI	Directory > LDAP > Max Hits (1~1000)	
Parameter	ldap.name_attr	<y0000000000xx>.cfg
Description	It configures the name attributes of each record to be returned by the LDAP server. It compresses the search results. You can configure multiple name attributes separated by spaces. **Example**: ldap.name_attr = cn sn This requires the “cn” and “sn” attributes set for each contact record on the LDAP server.	
Permitted Values	String within 512 characters	

Default	Blank	
Web UI	Directory > LDAP > LDAP Name Attributes	
Parameter	ldap.numb_attr	<y0000000000xx>.cfg
Description	It configures the number attributes of each record to be returned by the LDAP server and display them to the phone in the order of the configured attributes.. Multiple number attributes are separated by spaces.	
Permitted Values	String within 512 characters	
Default	Blank	
Case Scenario	**Contacts and attribute values on the LDAP server are configured as follows**: user0005-telephoneNumber (2598), mobile (13048957895) user0006-telephoneNumber (3598), mobile (15956524892) user0007-telephoneNumber (4598), mobile (blank) user0007-telephoneNumber (blank), mobile (18954125624) **Set the following**: ldap.numb_attr = telephoneNumber mobile This requires the "telephoneNumber" and "mobile" attributes set for each contact record on the LDAP server. And the phone screen will display the number in the order of the configured attributes (telephoneNumber > mobile). **Results**: user0005 2598 user0006 3598 user0007 4598 user0008 18954125624	
Web UI	Directory > LDAP > LDAP Number Attributes	
Parameter	ldap.display_name	<y0000000000xx>.cfg
Description	It configures the display name of the contact record displayed on the phone screen. The value must start with a "%" symbol. **Example**: ldap.display_name = %cn The cn of the contact record is displayed on the phone screen.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Directory > LDAP > LDAP Display Name	
Parameter	ldap.version	<y0000000000xx>.cfg
Description	It configures the LDAP protocol version supported by the IP phone. The version must be the same as the version assigned on the LDAP server.	
Permitted	2 or 3	

Values		
Default	3	
Web UI	Directory > LDAP > Protocol	
Parameter	ldap.call_in_lookup	<y0000000000xx>.cfg
Description	It enables or disables the phone to perform an LDAP search when receiving an incoming call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Directory > LDAP > LDAP Lookup for Incoming Call	
Parameter	ldap.call_out_lookup	<y0000000000xx>.cfg
Description	It enables or disables the phone to perform an LDAP search when placing a call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Directory > LDAP > LDAP Lookup for Callout	
Parameter	ldap.ldap_sort	<y0000000000xx>.cfg
Description	It enables or disables the phone to sort the search results in alphabetical order or numerical order.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Directory > LDAP > LDAP Sorting Results	
Parameter	ldap.incoming_call_special_search.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to search the telephone numbers starting with ”+” symbol and “00” from the LDAP server if the incoming phone number starts with”+” or “00”. When completing the LDAP search, all the search results will be displayed on the phone screen. **Example**: If the phone receives an incoming call from the phone number 0044123456789, it will search 0044123456789 from the LDAP server first, if no result found, it will search +44123456789 from the server again. The phone will display all the search results. **Note**: It works only if “ldap.call_in_lookup” is set to 1 (Enabled). You may need to set “ldap.name_filter” to be (|(cn=%)(sn=%)(telephoneNumber=%)(mobile=%)) for searching the telephone numbers starting with ”+” symbol.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	ldap.numb_display_mode	<y0000000000xx>.cfg
Description	It configures the display mode of the attribute name for the LDAP contact number. **Note**: It works only if “ldap.enable” is set to 1 (Enabled).	
Permitted Values	**0**-NumberN (N is an increasing number), for example Number1, Number2, Number3…	

	1-Attribute name pushed by the server	
Default	0	
Parameter	ldap.customize_label	<y0000000000xx>.cfg
Description	It configures the display name of the LDAP phone book. If it is left blank, LDAP is displayed. **Note**: It works only if "ldap.enable" is set to 1 (Enabled).	
Permitted Values	String within 512 characters	
Default	Blank	
Web UI	Directory > LDAP > LDAP Label	
Parameter	ldap.extra_attr	<y0000000000xx>.cfg
Description	It configures the extra attributes of each record to be returned by the LDAP server. Multiple attributes are separated by spaces. **Example**: ldap.extra_attr = title lang This requires the "title" and "lang" extra attributes set for each contact record on the LDAP server. **Note**: It works only if "ldap.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	ldap.display_extra_attr	<y0000000000xx>.cfg
Description	It configures the extra attributes list of each record to be displayed on the phone. The attribute must start with a "%" symbol. Multiple attributes are separated by spaces. **Example**: ldap.display_extra_attr = %title %lang The title and lang of the contact record are displayed on the phone screen. **Note**: It works only if "ldap.enable" is set to 1 (Enabled). To display extra attributes in the talking screen for T58A/T58W phones, you need to set "phone_setting.contact_photo_display.enable" to 0 (Disabled).	
Permitted Values	String	
Default	Blank	
Parameter	ldap.custom_extra_attr_name	<y0000000000xx>.cfg
Description	It configures the custom attribute names of each record that are displayed on the phone. The valid format is: <custom attribute name on the phone>%<attribute name on the server>. Multiple attribute names are separated by spaces. **Example**: ldap.custom_extra_attr_name = Comment%title Language%lang The phone screen displays "Comment: title of the contact record" and "Language: lang of the contact	

	record". **Note**: It works only if “ldap.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	ldap.anonymous_bind_operation.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to use anonymous identity for accessing the LDAP directory. **Note**: It works only if “ldap.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, if the authentication information is not configured on the phone, the phone can use the empty one to log into the LDAP server. But if the server does not allow anonymity to log into, the phone prompts users to enter the corresponding user name and password.	
Default	1	
Related Parameters	ldap.user ldap.password	

Remote Phone Book

The remote phone book is a centrally maintained phone book, stored on the remote server. Users only need the access URL of the remote phone book. The IP phone can establish a connection with the remote server and download the phone book, and then display the remote phone book entries on the phone.

Yealink phones support up to 5 remote phone books. The remote phone book is customizable.

Note: We recommend that you download less than 5000 remote contacts from the remote server.

Topics

Remote Phone Book File Customization
Remote Phone Book Configuration
Example: Configuring a Remote Phone Book

Remote Phone Book File Customization

Yealink phones support remote phone book contact customization.

You can add multiple contacts at a time and/or share contacts between the phones using the supplied template files (Menu.xml and Department.xml).

You can ask the distributor or Yealink FAE for remote phone book template. You can also obtain the remote phone book template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Remote Phone Book File Elements
Customizing Remote Phone Book File

Remote Phone Book File Elements

Yealink phones support two template files: Menu.xml and Department.xml.

The Menu.xml file defines the group/department of a remote phone book. The Department.xml file defines contact lists for a department/group, which is nested in Menu.xml file.

The following table lists the elements you can use to add groups or contacts in the remote phone book file. We recommend that you do not edit these elements.

Template	Element	Valid Values
Department.xml	<DirectoryEntry> <Name>Contact Name </Name> <Telephone label="Number Label">Contact Number</Telephone> <Extra label="Label"> Extra Information</Extra> </DirectoryEntry>	Add a contact in a department/group: If the label of the contact number is left blank, the default label "Number X" is used.
Menu.xml	<MenuItem> <Name>Department</Name> <URL>Department URI</URL> </MenuItem>	Add a contact department/group file: Specify the department/group name between <Name> and </Name>; Specify the department/group access URL between <URL> and</URL>
	<SoftKeyItem> <Name>#</Name> <URL>http://10.2.9.1:99/Department.xml</URL> </SoftKeyItem>	Specify a department/group file for a key: Specify *key, # key or digit key between <Name> and </Name>; Specify the department/group access URL between <URL> and</URL>

Customizing Remote Phone Book File

1. Add contacts in a Department.xml file. Each starts on a new line.

   For example,

   <DirectoryEntry>

   <Name>Lily </Name>
   <Telephone label="Mobile Number">12345654626</Telephone >

   </DirectoryEntry>
   <DirectoryEntry>

   <Name>Jim</Name>
   <Telephone label="Office Number">654321</Telephone>
   <Telephone label="Mobile Number">54321665462</Telephone>
   <Telephone label="Other Number">8608</Telephone>
   <Extra label="Language">English</Extra>

   </DirectoryEntry>
2. You can create multiple department.xml files, rename these files and specify multiple contacts in these files. For example, Market.xml with contact Lily and Jim, Propaganda.xml with other contacts and so on.
3. Save these files and place them on the provisioning server.
4. Copy the department files URLs and specify them in the Menu.xml file.

   For example,

   <MenuItem>

   <Name > Market</Name>
   <URL > http://192.168.0.1:99/Market.xml</URL>

   </MenuItem>
   <SoftKeyItem>

```
        <Name>1</Name>
        <URL>http://192.168.0.1:99/Propaganda.xml</URL>
    </SoftKeyItem>
```

5. Save Menu.xml file and place it to the provisioning server.

Remote Phone Book Configuration

The following table lists the parameters you can use to configure the remote phone book.

Parameter	remote_phonebook.data.X.url[1]	<y0000000000xx>.cfg
Description	It configures the access URL of the remote phone book. **Note**: The size of a remote phone book file should be less than 60M.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Directory > Remote Phone Book > Remote URL	
Parameter	remote_phonebook.data.X.name[1]	<y0000000000xx>.cfg
Description	It configures the display name of the remote phone book item.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Directory > Remote Phone Book > Display Name	
Parameter	remote_phonebook.data.X.username[1]	<y0000000000xx>.cfg
Description	It configures the user name used to access the remote phone book X.	
Permitted Values	String	
Default	Blank	
Parameter	remote_phonebook.data.X.password[1]	<y0000000000xx>.cfg
Description	It configures the password used to access the remote phone book X.	
Permitted Values	String	
Default	Blank	
Parameter	remote_phonebook.display_name	<y0000000000xx>.cfg
Description	It configures the display name of the remote phone book. If it is left blank, "Remote Phone Book" will be the display name.	
Permitted Values	String within 99 characters	
Default	Blank	
Parameter	features.remote_phonebook.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to perform a remote phone book search for an incoming or outgoing call and display the matched results on the phone screen.	

Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Directory > Remote Phone Book > Incoming/Outgoing Call Lookup	
Parameter	features.remote_phonebook.flash_time	<y0000000000xx>.cfg
Description	It configures how often to refresh the local cache of the remote phone book. If it is set to 3600, the phone will refresh the local cache of the remote phone book every 3600 seconds (1 hour). If it is set to 0, the phone will not refresh the local cache of the remote phone book.	
Permitted Values	0, Integer from 3600 to 1296000	
Default	21600	
Web UI	Directory > Remote Phone Book > Update Time Interval(Seconds)	
Parameter	features.remote_phonebook.enter_update_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to refresh the local cache of the remote phone book at a time when accessing the remote phone book.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the phone book ID. X=1-5.

Example: Configuring a Remote Phone Book

The following example shows the configuration for the remote phone book.

Customize the "Department.xml "and "Menu.xml" files, and then place these files to the provisioning server "http://192.168.10.25".

Example

remote_phonebook.data.1.url = http://192.168.10.25/Menu.xml

remote_phonebook.data.1.name = Yealink

remote_phonebook.data.2.url = http://192.168.10.25/Market.xml

remote_phonebook.data.2.name = Market

After provision, you can navigate to > **Remote Phone Book** (**Directory** > Local Directory > **Remote Phone Book**) to access the corporate directory straight from their phones.

Directory List for Directory Icon

Users can access frequently used directory lists by tapping the directory icon when the IP phone is idle. The lists include Local Directory, Remote Phone Book and Blocklist by default.

You can add the desired lists to directory list using a directory list file (favorite_setting.xml).

Topics

Directory List File Customization
Directory List Configuration

Example: Configuring a Directory List

Directory List File Customization

You can ask the distributor or Yealink FAE for directory template. You can also obtain the directory template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Directory List File Attributes
Customizing Directory List File

Directory List File Attributes

The following table lists the attributes you can use to add contact lists to the directory list file. We recommend that you do not edit these attributes.

Attributes	Valid Values	Description
id_name	localdirectory networkcalllog remotedirectory ldap broadsoftdirectory uc_buddies mobilecontant blocklist googledirectory (not applicable to CP960/CP965 phones) presencelist (not applicable to VP59 phones)	The existing directory list (For example, “localdirectory” for the local directory list). **Note**: Do not edit this field.
display_name	Local Directory Network CallLog Remote Phone Book LDAP Network Directories Buddies Mobile Contacts Blocklist Google Contact (not applicable to CP960/CP965 phones) Presence List (not applicable to VP59 phones)	The display name of the directory list. **Note**: We recommend that you do not edit this field. Network Directories is hidden for phones in GA firmware, GA firmware which is designed for the BroadWorks environment.
priority	1 to 9 (for CP960/CP965) 1 to 10 (for T58A/VP59/T58W) 1 is the highest priority.	The display priority of the directory list.
enable	0/1 **0**: Disabled **1**: Enabled	Whether to display this list when you press Directory (Dir) on the phone.

Customizing Directory List File

1. Open the directory list XML file.
2. To configure each directory list, edit the values within double quotes in the corresponding field.
   For example, enable the local directory, disable the history and specify a priority.
   <item id_name="localdirectory" display_name="Local Directory" priority="1" enable="1" dev="common"/ >
   <item id_name="history" display_name="History" priority="2" enable="0" dev="common"/ >
3. Save the change and place this file to the provisioning server.

Directory List Configuration

The following table lists the parameters you can use to configure the directory list.

Parameter	static.directory_setting.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom directory file (favorite_setting.xml).	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Directory > Settings > Directory	
Parameter	directory_setting.local_directory.enable	<y0000000000xx>.cfg
Description	It enables or disables the users to access the local directory by tapping the directory icon.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	directory_setting.local_directory.priority	<y0000000000xx>.cfg
Description	It configures the display priority of the local directory.	
Permitted Values	Integer greater than or equal to 0	
Default	1	
Parameter	directory_setting.history.enable	<y0000000000xx>.cfg
Description	It enables or disables the users to access the history by tapping the directory icon.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	directory_setting.history.priority	<y0000000000xx>.cfg
Description	It configures the display priority of the call log list.	
Permitted Values	Integer greater than or equal to 0	
Default	2	

Parameter	directory_setting.remote_phone_book.enable	<y0000000000xx>.cfg
Description	It enables or disables the users to access the remote phone book by tapping the directory icon.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	directory_setting.remote_phone_book.priority	<y0000000000xx>.cfg
Description	It configures the display priority of the remote phone book.	
Permitted Values	Integer greater than or equal to 0	
Default	4	
Parameter	directory_setting.ldap.enable	<y0000000000xx>.cfg
Description	It enables or disables the users to access the LDAP by tapping the directory icon.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	directory_setting.ldap.priority	<y0000000000xx>.cfg
Description	It configures the display priority of the LDAP.	
Permitted Values	Integer greater than or equal to 0	
Default	5	

Example: Configuring a Directory List

The following example shows the configuration for the directory list.

Customize the directory list file, and then place this file to the provisioning server “http://192.168.10.25”.

Example

*static.directory_setting.url = http://192.168.10.25/*favorite_setting.xml

After provisioning, you can tap the directory icon to access the desired contact list quickly.

Directory Search Settings

You can configure how the phones search contacts and whether to highlight the matched keywords for contact searching.

Topic

Directory Search Settings Configuration

Directory Search Settings Configuration

The following table lists the parameters you can use to configure directory search settings.

Parameter	directory.search_type	<y0000000000xx>.cfg

Description	It configures the search type when searching the contact in Local Directory, Remote Phone Book, Network Directory or Blocklist.	
Permitted Values	**0**-Approximate string matching, the phone will search the contact numbers or names contain the entered character(s). **1**-Prefix matching, the phone will search the contact numbers or names start with the entered character(s).	
Default	0	
Parameter	phone_setting.search.highlight_keywords.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to highlight the matched characters in the search results.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	phone_setting.search_t9.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to perform an intelligent search when searching for contacts in the directory.	
Permitted Values	**0**-Disabled, the phone only displays the search results of a number match. **1**-Enabled	
Default	1	
Parameter	directory.containing_search.additional_sorting_mode	<y0000000000xx>.cfg
Description	It configures the sorting mode in the search results. **Note**: It works only if "directory.search_type" is set to 0 (Approximate string matching).	
Permitted Values	**0**-Sort by ASCII code order. **1**-The contacts starting with the searched content are displayed first, and the remaining contacts are displayed in the ASCII code order.	
Default	0	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Number Matching Settings

You can configure the pattern to match the contact numbers/blocklist numbers with the caller's phone number.

Topics

Number Matching Settings Configuration
Example: Matching Contacts / Blocklist with the Caller's Phone Number Using the Regular Expression

Number Matching Settings Configuration

The following table lists the parameters you can use to configure number matching settings.

Parameter	phone_setting.reverse_lookup.contact_list.replace.pattern	<y0000000000xx>.cfg
Description	It configures the matching pattern used to identify the replaced string of the contact number / blocklist number.	
Permitted Values	Regular Expression	

Default	Blank	
Related Parameters	phone_setting.reverse_lookup.contact_list.replace.with	
Parameter	phone_setting.reverse_lookup.contact_list.replace.with	<y0000000000xx>.cfg
Description	It configures the string used to replace the certain matched one of the contact number / blocklist number.	
Permitted Values	String within 512 characters	
Default	Blank	
Related Parameters	phone_setting.reverse_lookup.contact_list.replace.pattern	
Parameter	phone_setting.reverse_lookup.incoming_call.replace.pattern	<y0000000000xx>.cfg
Description	It configures the matching pattern used to identify the replaced string of the caller's phone number.	
Permitted Values	Regular Expression	
Default	Blank	
Related Parameters	phone_setting.reverse_lookup.incoming_call.replace.with	
Parameter	phone_setting.reverse_lookup.incoming_call.replace.with	<y0000000000xx>.cfg
Description	It configures the string used to replace the certain matched one of the caller's phone number.	
Permitted Values	String within 512 characters	
Default	Blank	
Related Parameters	phone_setting.reverse_lookup.incoming_call.replace.pattern	

Example: Matching Contacts / Blocklist with the Caller's Phone Number Using the Regular Expression

The following example shows the configuration for matching contacts / blocklist numbers with the caller's phone number using the regular expression.

Example:

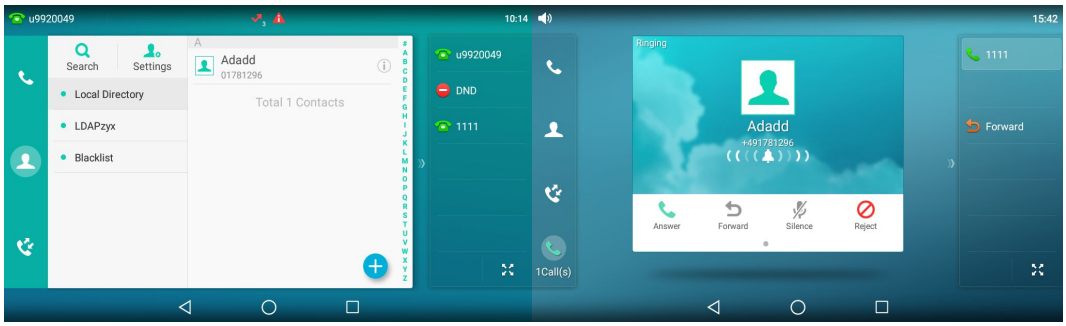
phone_setting.reverse_lookup.contact_list.replace.pattern = 0

phone_setting.reverse_lookup.contact_list.replace.with =

phone_setting.reverse_lookup.incoming_call.replace.pattern = +49

phone_setting.reverse_lookup.incoming_call.replace.with =

After provisioning, the contact number "01781296" will be replaced with "1781296". When receiving the incoming call from "+491781296", "+491781296" will be replaced with "1781296". Then the phone screen displays the contact name and the caller's phone number "+491781296".



After provisioning, the blocklist number "0123456" will be replaced with "123456". When receiving the incoming call from "+49123456" will be replaced with "123456". Then the phone rejects the call from the phone number "+49123456".

Call Log

Yealink phones record and maintain phone events to a call log, also known as a call list.

Call log consists of four lists: Missed Calls, Placed Calls, Received Calls, and Forwarded Calls. Each call log list supports up to 100 entries.

Topics

Call Log Display
Call Log Configuration
Call Logs Backup

Call Log Display

The following table describes the detailed call log information:

Display Field	Description
Name	Shows the name of the remote party.
Number	Shows the number of the remote party.
Time	Shows the call initiation time.
Line	Shows which line is used.
Duration	Shows the duration of the call.
Relation	Shows what happened to the call. The valid display contents are: • **Reject**: Reject an incoming call. • **Forward to X**: Forward an incoming call to X. For example, **Forward to 1048** means you forward an incoming call to 1048. • **Busy**: The outgoing call is rejected. • **Transfer to X**: Transfer a call to X. For example, **Transfer to 1048** means you transfer a call to 1048. • **X**: Answer a transferred/forwarded call from remote party X; your call is transferred/forwarded to X. For example, **1048** means you answer a transferred/forwarded call from remote party 1048. It is configurable by “features.calllog_detailed_information”.

Related Topic

Call Log Configuration

Call Log Configuration

The following table lists the parameters you can use to change the call log settings.

Parameter	features.save_call_history	<y0000000000xx>.cfg
Description	It enables or disables the phone to log the call history (missed calls, placed calls, received calls and forwarded calls) in the call lists.	
Permitted Values	**0**-Disabled, the phone cannot log the placed calls, received calls, missed calls and the forwarded calls in the call lists. **1**-Enabled	

Default	1	
Web UI	Features > General Information > Save Call Log	
Phone UI	Settings > Features > History Record > History Record CP965: More > Settings > Features > History Record > History Record	
Parameter	account.X.missed_calllog[1]	<MAC>.cfg
Description	It enables or disables the phone to record missed calls for account X. **Note:** It works only if "features.save_call_history" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Account > Basic > Missed Call Log	
Parameter	features.call_log_show_num	<y0000000000xx>.cfg
Description	It configures the display type of the other parties' information in the call log lists. **Note**: It works only if "features.save_call_history" is set to 1 (Enabled).	
Permitted Values	**0**-Name, the name is displayed preferentially; if there is no name, the number is displayed **1**-Number **2**-Name & Number, the name and number are displayed; if there is no name, the number is displayed	
Default	0	
Web UI	Features > General Information > Call List Show Number	
Parameter	features.calllog_detailed_information	<y0000000000xx>.cfg
Description	It enables or disables the phone to indicate what happened to the call in the call log lists. It is applicable to the following scenarios: • Reject an incoming call • Forward an incoming call • The outgoing call is rejected • Transfer a call • Answer a transferred/forwarded call from the remote party; your call is transferred/forwarded to another party. **Note**: It works only if "features.save_call_history" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, you can get the detailed call-disposition information . at the **History Details** screen of call log item.	
Default	1	
Parameter	features.save_init_num_to_history.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to log the transfer party's phone number in the call history list.	
Permitted Values	**0**-Disabled, the phone will log the transfer-to party's phone number in the call history list. **1**-Enabled	
Default	1	

Parameter	features.call_out_history_by_off_hook.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to dial out automatically once you go off-hook or press the Speakerphone key in the call history list.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.call_log_merge.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to merge the same history records. **Note**: The merged entry only displays the initiation time of the last call.	
Permitted Values	**0**-Disabled, each call is logged individually in the calls list. **1**-Enabled, consecutive incomplete calls to/from the same party and in the same direction are merged into one record in the calls list. The merged entry displays the number of consecutive calls.	
Default	0	
Parameter	features.local_calllog.received.replace_rule	<y0000000000xx>.cfg
Description	It configures the string of the digit map to be applied to the caller ID for incoming calls before it is recorded to call history list. **Example**: features.local_calllog.received.replace_rule = <00:+>x.|<5:1>xx When the caller's phone number is 001234567, then +1234567 is recorded in the call history list because "001234567" matches the "<00:+>x." in the digit map; When the caller's phone number is 532, then 132 is recorded in the call history list because "532" matches the "<5:1>xx" in the digit map.	
Permitted Values	String	
Default	Blank	

Related Topic

Basic Regular Expression Syntax for Digit Map

Call Logs Backup

Yealink phones support storing all call logs to a call log file named <MAC>-calllog.xml. You can back up this file to the server, avoiding data loss. Once the call logs update, the phone will automatically upload this file to the provisioning server or a specific server. If a call log file exists on the server, it will be overridden. The phone will request to download the <MAC>-calllog.xml file according to its MAC address from the server during auto provisioning.

The call log file is named after the MAC address of the IP phone. For example, if the MAC address of an IP phone is 00156574B150, the name of the call log file is 00156574B150-calllog.xml (uppercase).

Tip: MAC address, a unique 12-digit serial number is assigned to each phone. You can obtain it from the bar code on the back of the IP phone.

The following table lists the parameters you can use to back up the call log.

Parameter	static.auto_provision.local_calllog.backup.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to upload the <MAC>-calllog.xml file to the server each time the call logs update and download the <MAC>-calllog.xml file from the server during auto provisioning.	
Permitted Values	**0**-Disabled, the phone does not upload/download the call log file “<MAC>-calllog.xml” to the server.	

	1-Enabled, the phone uploads the call log file "<MAC>-calllog.xml" to the specific path configured by the parameter "static.auto_provision.local_calllog.backup.path" each time the call logs update; and downloads the call logs in the "<MAC>-calllog.xml" according to its MAC address from the specific path during auto provisioning.	
Default	0	
Parameter	static.auto_provision.local_calllog.backup.path	<y0000000000xx>.cfg
Description	It configures a path or URL for the phone to upload/download the <MAC>-calllog.xml file. If it is left blank, the phone connects to the provisioning server URL, and uploads/downloads the contact file "<MAC>-calllog.xml". **Example**: static.auto_provision.local_calllog.backup.path = http://192.168.1.20/calllog Once the call logs update, the phone will upload the call log file to the specified path "http://192.168.1.20/calllog". During auto provisioning, the phone downloads the call log file "<MAC>-calllog.xml" from the specified path "http://192.168.1.20/calllog". **Note**: It works only if "static.auto_provision.local_calllog.backup.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	static.auto_provision.local_calllog.write_delay.terminated	<y0000000000xx>.cfg
Description	It configures the delay time (in seconds) for the phone to upload the <MAC>-calllog.xml file each time the call logs update. **Note**: It works only if "static.auto_provision.local_calllog.backup.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 10 to 600	
Default	60	
Parameter	static.auto_provision.custom.upload_method	<y0000000000xx>.cfg
Description	It configures the way the phone uploads the <MAC>-local.cfg file, <MAC>-calllog.xml file or <MAC>-contact.xml file to the provisioning server (for HTTP/HTTPS server only).	
Permitted Values	**0**-PUT **1**-POST	
Default	0	

Call Features

This chapter shows you how to configure the call feature on Yealink phones.

Topics

Dial Plan Defined by Four Patterns (Old Dial Plan Mechanism)
Dial Plan Defined by Digit Map (New Dial Plan Mechanism)
Emergency Dialplan and Enhanced 911
Hotline
Off Hook Hot Line Dialing
Live Dialpad
Auto Redial
Recall Configuration
Speed Dial
Password Dial
Call Timeout
Anonymous Call
Call Number Filter
IP Address Call
Ignoring Incoming Calls
Off Hook Answering
Auto Answer
Anonymous Call Rejection
Call Waiting
Do Not Disturb (DND)
Multiple Call Appearances
Call Hold
Call Mute
Call Forward
Call Transfer
Conference
Call Recording
Recording Upload
Multicast Paging

Dial Plan Defined by Four Patterns (Old Dial Plan Mechanism)

Dial plan is a string of characters that governs the way how the phones process the inputs received from the IP phone's keypads. You can use the regular expression to define the dial plan.

It is only applicable to W90 multi-cell system.

Yealink phones support four patterns:

- **Replace rule**: is an alternative string that replaces the numbers entered by the user. Yealink phones support up to 100 replace rules.
- **Dial now**: is a string used to match numbers entered by the user. When entered numbers match the predefined dial now rule, the phone will automatically dial out the numbers without pressing the send key. Yealink phones support up to 100 dial now rules.
- **Area code**: are also known as Numbering Plan Areas (NPAs). They usually indicate geographical areas in one country. When entered numbers match the predefined area code rule, the phone will automatically add the area code before the numbers when dialing out them. Yealink phones only support one area code rule.
- **Block out**: prevents users from dialing out specific numbers. When entered numbers match the predefined block out rule, the phone screen prompts "Forbidden Number". Yealink phones support up to 10 block out rules.

You can configure these four patterns via the web user interface or auto provisioning. For replace rule and dial now, you can select to add the rule one by one or using the template file to add multiple rules at a time.

Note: If you enable a new dial plan mechanism, old dial plan will be ignored. For more information on the new dial plan, refer to Dial Plan Defined by Digit Map (New Dial Plan Mechanism).

Topics

Basic Regular Expression Syntax for Four Patterns
Replace Rule File Customization
Dial Now File Customization
Replace Rule Configuration
Dial Now Configuration
Area Code Configuration
Block Out Configuration
Example: Adding Replace Rules Using a Replace Rule File

Basic Regular Expression Syntax for Four Patterns

You need to know the following basic regular expression syntax when creating an old dial plan:

Regular Expression	Description
.	The dot "." can be used as a placeholder or multiple placeholders for any string. Example: "12." would match "123", "1234", "12345", "12abc", and so on.
x	The "x" can be used as a placeholder for any character. Example: "12x" would match "121", "122", "123", "12a", and so on.
-	The dash "-" can be used to match a range of characters within the brackets. Example: "[5-7]" would match the number "5", "6" or "7".
,	The comma "," can be used as a separator within the bracket. Example: "[2,5,8]" would match the number "2", "5" or "8".
[]	The square bracket "[]" can be used as a placeholder for a single character which matches any of a set of characters. Example: "91[5-7]1234"would match "91**5**1234", "91**6**1234", "91**7**1234".
()	The parenthesis "( )" can be used to group together patterns, for instance, to logically combine two or more patterns. Example: "([1-9])([2-7])3" would match "923", "153", "673", and so on.
$	The "$" followed by the sequence number of a parenthesis means the characters placed in the parenthesis. The sequence number stands for the corresponding parenthesis. Example: A replace rule configuration, Prefix: "001(xxx)45(xx)", Replace: "9001$145$2". When you dial out "0012354599" on your phone, the phone will replace the number with "9001**235**45**99**". "$1" means 3 digits in the first parenthesis, that is, "235". "$2" means 2 digits in the second parenthesis, that is, "99".

Replace Rule File Customization

The replace rule file helps create multiple replace rules. At most 100 replace rules can be added to the IP phone.

You can ask the distributor or Yealink FAE for the replace rule file template. You can also obtain the replace rule file template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Replace Rule File Attributes
Customizing the Replace Rule File

Replace Rule File Attributes

The following table lists the attributes you can use to add replace rules to the replace rule file:

Attributes	Description
Prefix	Specify the number to be replaced.
Replace	Specify the alternate string instead of what the user enters.
LineID	Specify a registered line to apply the replace rule. Valid Values: 0~16 (VP59/T58A/T58W); 0, 1 (CP960/CP965) 0 stands for all lines; 1~16 stand for line1~line16 (VP59/T58A/T58W) 1 stand for line1 (CP960/CP965) Multiple line IDs are separated by commas.

Customizing the Replace Rule File

1. Open the replace rule file.
2. To add a replace rule, add <Data Prefix="" Replace="" LineID=""/> to the file. Each starts on a new line.
3. Specify the values within double quotes.
   For example,
   <Data Prefix="2512" Replace="05922512" LineID="1"/>
4. Save the changes and place this file to the provisioning server.

Dial Now File Customization

The dial now file helps create multiple dial now rules. At most 100 dial now rules can be added to the IP phone.

You can ask the distributor or Yealink FAE for dial now file template. You can also obtain the dial now file template online: http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage.

Topics

Dial Now File Attributes
Customizing the Dial Now File

Dial Now File Attributes

The following table lists the attributes you can use to add dial-now rules to the dial now file:

Attributes	Description
DialNowRule	Specify the dial-now number.
LineID	Specify a registered line to apply the dial-now rule. Valid Values: 0~16 (VP59/T58A/T58W) 0, 1 (CP960/CP965) 0 stands for all lines; 1~16 stand for line1~line16 (VP59/T58A/T58W) 1 stand for line1 (CP960/CP965) Multiple line IDs are separated by commas.

Customizing the Dial Now File

1. Open the dial now file.
2. To add a dial-now rule, add <Data DialNowRule="" LineID="" /> to the file. Each starts on a new line.
3. Specify the values within double quotes.

   For example,

   <Data DialNowRule="1001" LineID="0" />
4. Save the changes and place this file to the provisioning server.

Replace Rule Configuration

You can configure replace rules either one by one or in batch using a replace rule template.

The following table lists the parameters you can use to configure the replace rule.

Parameter	dialplan.replace.prefix.X[1]	<y0000000000xx>.cfg
Description	It configures the entered number to be replaced. **Note**: It works only if "dialplan.digitmap.enable" and "account.X.dialplan.digitmap.enable" are set to 0 (Disabled).	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Settings > Dial Plan > Replace Rule > Prefix	
Parameter	dialplan.replace.replace.X[1]	<y0000000000xx>.cfg
Description	It configures the alternate number to replace the entered number. The entered number is configured by "dialplan.replace.prefix.X". **Note**: It works only if "dialplan.digitmap.enable" and "account.X.dialplan.digitmap.enable" are set to 0 (Disabled).	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Settings > Dial Plan > Replace Rule > Replace	
Parameter	dialplan.replace.line_id.X[1]	<y0000000000xx>.cfg
Description	It configures the desired line to apply the replace rule. The digit 0 stands for all lines. If it is left blank, the replace rule will apply to all lines on the phone. Multiple line IDs are separated by commas. **Note**: It works only if "dialplan.digitmap.enable" and "account.X.dialplan.digitmap.enable" are set to 0 (Disabled).	
Permitted Values	0 to 16 (for VP59/T58A/T58W) 0, 1 (for CP960/CP965)	
Default	Blank	
Web UI	Settings > Dial Plan > Replace Rule > Account	
Parameter	dialplan_replace_rule.url	<y0000000000xx>.cfg
Description	It configures the access URL of the replace rule template file. For customizing replace rule template file, refer to Replace Rule File Customization.	

	Note: It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).
Permitted Values	URL within 511 characters
Default	Blank

[1]X is from 1 to 100.

Dial Now Configuration

You can configure dial now rules either one by one or in batch using a dial now template.

The following table lists the parameters you can use to configure the dial now.

Parameter	dialplan.dialnow.rule.X[1]	<y0000000000xx>.cfg
Description	It configures the dial now rule (the string used to match the numbers entered by the user). When entered numbers match the predefined dial now rule, the phone will automatically dial out the numbers without pressing the send key. **Example**: dialplan.dialnow.rule.1 = 123 **Note**: It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).	
Permitted Values	String within 511 characters	
Default	Blank	
Web UI	Settings > Dial Plan > Dial Now > Rule	
Parameter	dialplan.dialnow.line_id.X[1]	<y0000000000xx>.cfg
Description	It configures the desired line to apply the dial now rule. The digit 0 stands for all lines. If it is left blank, the dial-now rule will apply to all lines on the phone. **Note**: Multiple line IDs are separated by commas. It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).	
Permitted Values	0 to 16 (for VP59/T58A/T58W) 0, 1 (for CP960/CP965)	
Default	Blank	
Web UI	Settings > Dial Plan > Dial Now > Account	
Parameter	phone_setting.dialnow_delay	<y0000000000xx>.cfg
Description	It configures the delay time (in seconds) for the dial now rule. When entered numbers match the predefined dial now rule, the phone will automatically dial out the entered number after the designated delay time. If it is set to 0, the phone will automatically dial out the entered number immediately. **Note**: It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).	
Permitted Values	Integer from 0 to 14	

Default	1	
Web UI	Features > General Information > Time Out for Dial Now Rule	
Parameter	dialplan_dialnow.url	<y0000000000xx>.cfg
Description	It configures the access URL of the dial now template file. For customizing dial now template file, refer to Dial Now File Customization. **Note**: It works only if "dialplan.digitmap.enable" and "account.X.dialplan.digitmap.enable" are set to 0 (Disabled).	
Permitted Values	String within 511 characters	
Default	Blank	
Parameter	dialplan.transfer.mode	<y0000000000xx>.cfg
Description	It configures the transfer type the phone will perform when the entered transferee numbers match the Dial Now rule of the dial plan or the predefined string of the digit map.	
Permitted Values	**0**-Semi-attended Transfer/Attended Transfer **1**-Blind Transfer	
Default	0	
Related Parameters	dialplan.dialnow.rule.X dialplan.digitmap.string account.X.dialplan.digitmap.string	

[1]X is from 1 to 100.

Area Code Configuration

The following table lists the parameters you can use to configure the area code.

Parameter	dialplan.area_code.code	<y0000000000xx>.cfg
Description	It configures the area code to be added before the entered numbers when dialing out. **Note**: The length of the entered number must be between the minimum length configured by the parameter "dialplan.area_code.min_len" and the maximum length configured by the parameter "dialplan.area_code.max_len". It works only if "dialplan.digitmap.enable" and "account.X.dialplan.digitmap.enable" are set to 0 (Disabled).	
Permitted Values	String within 16 characters	
Default	Blank	
Web UI	Settings > Dial Plan > Area Code > Code	
Parameter	dialplan.area_code.min_len	<y0000000000xx>.cfg
Description	It configures the minimum length of the entered number. **Note**: It works only if "dialplan.digitmap.enable" and "account.X.dialplan.digitmap.enable" are set to 0 (Disabled).	
Permitted Values	Integer from 1 to 15	
Default	1	

Web UI	Settings > Dial Plan > Area Code > Min Length (1-15)	
Parameter	dialplan.area_code.max_len	<y0000000000xx>.cfg
Description	It configures the maximum length of the entered number. **Note**: The value must be larger than the minimum length. It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).	
Permitted Values	Integer from 1 to 15	
Default	15	
Web UI	Settings > Dial Plan > Area Code > Max Length (1-15)	
Parameter	dialplan.area_code.line_id	<y0000000000xx>.cfg
Description	It configures the desired line to apply the area code rule. The digit 0 stands for all lines. If it is left blank, the area code rule will apply to all lines on the IP phone. **Note**: Multiple line IDs are separated by commas. It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).	
Permitted Values	0 to 16 (for VP59/T58A/T58W) 0, 1 (for CP960/CP965)	
Default	Blank	
Web UI	Settings > Dial Plan > Area Code > Account	

Block Out Configuration

The following table lists the parameters you can use to configure the block out.

Parameter	dialplan.block_out.number.X[1]	<y0000000000xx>.cfg
Description	It configures the block out numbers. **Example**: dialplan.block_out.number.1 = 4321 When you dial the number “4321” on your phone, the dialing will fail and the phone screen will prompt "Forbidden Number". **Note**: It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Settings > Dial Plan > Block Out > BlockOut NumberX[1]	
Parameter	dialplan.block_out.line_id.X[2]	<y0000000000xx>.cfg
Description	It configures the desired line to apply the block out rule. The digit 0 stands for all lines. If it is left blank, the block out rule will apply to all lines on the IP phone. **Note**: Multiple line IDs are separated by commas. It works only if “dialplan.digitmap.enable” and “account.X.dialplan.digitmap.enable” are set to 0 (Disabled).	
Permitted	0 to 16 (for VP59/T58A/T58W)	

Values	0, 1 (for CP960/CP965)
Default	Blank
Web UI	Settings > Dial Plan > Block Out > Account

[1]X is from 1 to 10.

Example: Adding Replace Rules Using a Replace Rule File

The following example shows the configuration for adding replace rules.

Customize the replace rule template file and place this file to the provisioning server "http://192.168.10.25".

Example

dialplan_replace_rule.url = http://192.168.10.25/DialPlan.xml

After provisioning, the rules defined in this file are added to the IP phone, and you can use the replace rules on the phone.

Dial Plan Defined by Digit Map (New Dial Plan Mechanism)

Digit maps, described in RFC 3435, are defined by a single string or a list of strings. If a number entered matches any string of a digit map, the call is automatically placed. If a number entered matches no string - an impossible match - you can specify the phone's behavior. You can specify the digit map timeout, the period of time before the entered number is dialed out.

Topics

Basic Regular Expression Syntax for Digit Map
Digit Map for All Lines Configuration
Digit Map for a Specific Line Configuration

Basic Regular Expression Syntax for Digit Map

You need to know the following basic regular expression syntax when creating a new dial plan:

T	The timer letter "T" indicates a timer expiry. If "T" is used alone (for example, 123T), the default timeout value of 3 will be used. If "T" is not used alone (for example, 123<Tx>, x can be a digit from 0 to 99), a complete match occurs when waiting x seconds after inputting 123. **Note**: It is not applicable to emergency numbers (phone_setting.phone_lock.emergency.number_rule).
x	The "x" can be used as a placeholder for any digit from 0 to 9. Example: "12x" would match "121", "122", "123", and so on.
[]	The square bracket "[]" can be used as a placeholder for a single character which matches any of a set of characters. Example: "91[5-7]1234" would match "91**5**1234", "91**6**1234", "91**7**1234".
-	The dash "-" can be used to match a range of digits within the brackets. Example: "[35-7]" would match the number "3", "5", "6" or "7". **Note**: The digits must be concrete, for example, [3-x] is invalid.
.	The dot "." can be used as a placeholder or multiple placeholders, including zero, of occurrences of the preceding construct. Examples:

	“123.T” would match “123”, “1233”, “12333”, “123333”, and so on. “x.T” would match an arbitrary number. “[x*#+].T” would match an arbitrary character. **Note**: If the string ends with a dot (for example, 123.), a match will occur immediately after inputting the characters before the dot (e., 123) since the dot allows for zero occurrences of the preceding construct. Therefore, we recommend that you add a letter “T” after the dot (for example, 123.T) for inputting more characters.
R	The letter “R” indicates that certain matched strings are replaced. Using an RRR syntax, you can replace the digits between the first two Rs with the digits between the last two Rs. Example: “R12R234R” would replace **12** with **234**.
<:>	The letter “:” in the angle bracket indicates that certain matched strings are replaced. Using the <:> syntax, you can replace the digits before the colon with the digits after the colon. Example: “<12:234>” would replace **12** with **234**. It is the same with R12R234R.
!	The exclamation mark “!” can be used to prevent users from dialing out specific numbers. It can only be put last in each string of the digit map. Example: “235x!” would match “2351”, “2352”, “2353”, and so on. The number starting with 235 will be blocked to dial out.
,	The comma “,” can be used as a separator to generate a secondary dial tone. Example: “<9,:55>xx”, after entering digit “9”, secondary dial tone plays and you can complete the remaining two-digit number. **Note**: The secondary dial tone can be customized. For more information, refer to Tones.
A	The letter “A” indicates the account that is applied to the digit map. You can use A alone or a combination of A and account ID (for example, <A1>). Example: “123A”, the default account will be applied to the digit map. “123<A2>”, the second account will be applied to the digit map. **Note**: It is not applicable to the digit map on a per-line basis. It is also not applicable to emergency numbers (phone_setting.phone_lock.emergency.number_rule).

Digit Map for All Lines Configuration

The following table lists the parameters you can use to configure the digit map for all lines.

Parameter	dialplan.digitmap.enable	<y0000000000xx>.cfg
Description	It enables or disables the digit map feature. **Note**: The value configured by the parameter “account.X.dialplan.digitmap.enable” takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	dialplan.digitmap.string	<y0000000000xx>.cfg
Description	It configures the digit map pattern used for the dial plan.	

	Example: dialplan.digitmap.string = <[2-9]x:86>3.T|0x.!|1xxx **Note**: The string must be compatible with the digit map feature of MGCP described in 2.1.5 of RFC 3435. It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.string" takes precedence over that configured by this parameter.	
Permitted Values	String within 2048 characters	
Default	[2-9]11 | 0T | 011xxx.T | [0-1][2-9]xx xxxxxxx | [2-9]xx xxxxxxx | [2-9]xxxT | **x.T | +x.T| 00x.T	
Parameter	dialplan.digitmap.interdigit_long_timer	<y0000000000xx>.cfg
Description	It configures the time (in seconds) for the phone to wait before dialing an entered number if it matches part of any string of the digit map. If it is set to 0, the phone will not dial the entered number if only a partial match exists. The value of this parameter should be greater than that configured by the parameter "dialplan.digitmap.interdigit_short_timer". For example: dialplan.digitmap.string = 1xxT|xxxxx<T1> dialplan.digitmap.interdigit_long_timer = 10 dialplan.digitmap.interdigit_short_timer = 5 When you enter 1, it matches part of two-digit maps, the phone tries to wait 10 seconds and then dials out 1 if no numbers entered; When you enter 15, it also matches part of two-digit maps, the phone tries to wait 10 seconds and then dials out 15 if no numbers entered; When you enter 153, it also matches part of two-digit maps, the phone tries to wait 10 seconds. But after waiting for 5 seconds, it completely matches the first digit map and then immediately dials out 153. **Note**: It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.interdigit_long_timer" takes precedence over that configured by this parameter.	
Permitted Values	Integer from 0 to 255	
Default	10	
Parameter	dialplan.digitmap.interdigit_short_timer	<y0000000000xx>.cfg
Description	It configures the timeout interval (in seconds) for any string of digit map. The phone will wait this many seconds before matching the entered digits to the dial plan and placing the call. **Note**: It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.interdigit_short_timer" takes precedence over that configured by this parameter.	
Permitted Values	**Single configuration** (configure a specific value for the timer letter "T" for all strings with "T" of the digit map) **Example**: dialplan.digitmap.interdigit_short_timer = 5	

	If “dialplan.digitmap.string” is set to <[2-9]x:86>3.T|0T, the phone will wait 5 seconds before matching the entered digits to this dial plan and placing the call. **Distribution configuration** (configure a string of positive integers separated by “|” for each string of the digit map in the corresponding position) If there are more digit maps than timeout values, the last timeout is applied to the extra digit map. If there are more timeout values than digit maps, the extra timeout values are ignored. **Example**: dialplan.digitmap.interdigit_short_timer = 4|5|3|6|2|1 If “dialplan.digitmap.string” is set to <[2-9]x:86>3.T|2T|1xxT|0x.!|[2-9]11T, 4 is applied to the “<[2-9]x:86>3.T” digit map, 5 is applied to “2T” digit map, 3 is applied to “1xxT” digit map, 6 is applied to “0x.!” digit map, 2 is applied to the “[2-9]11T” digit map, the last digit 1 is ignored.	
Default	3	
Parameter	dialplan.digitmap.no_match_action	<y0000000000xx>.cfg
Description	It configures the behavior when an impossible digit map match occurs. **Note**: It works only if “dialplan.digitmap.enable” or “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.no_match_action” takes precedence over that configured by this parameter.	
Permitted Values	**0**-prevent users from entering a number and immediately dial out the entered numbers **1**-the dialing will fail and the phone screen will prompt “Forbidden Number” **2**-allow users to accumulate digits and dispatch call manually with the send key or automatically dial out the entered number after a certain period of time configured by the parameter “dialplan.digitmap.interdigit_long_timer”	
Default	0	
Parameter	dialplan.digitmap.active.on_hook_dialing	<y0000000000xx>.cfg
Description	It enables or disables the entered numbers to match the predefined string of the digit map in real time. It is only applicable to the on-hook dialing. **Note**: It works only if “dialplan.digitmap.enable” or “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.active.on_hook_dialing” takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	dialplan.digitmap.apply_to.on_hook_dial	<y0000000000xx>.cfg
Description	It enables or disables the entered number to match the predefined string of the digit map after pressing a send key when dialing on-hook or pressing the DSS key (for example, speed dial, BLF or prefix key). **Note**: It works only if “dialplan.digitmap.enable” or “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.apply_to.on_hook_dial” takes precedence over that configured by this parameter. On-hook dialing is not applicable to CP960/CP965 phones.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	1	
Parameter	dialplan.digitmap.apply_to.directory_dial	<y0000000000xx>.cfg
Description	It enables or disables the digit map to be applied to the numbers dialed from the directory. **Note**: It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.apply_to.directory_dial" takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	dialplan.digitmap.apply_to.history_dial	<y0000000000xx>.cfg
Description	It enables or disables the digit map to be applied to the numbers (received calls or missed calls) dialed from the call history list. **Note**: It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.apply_to.history_dial" takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	dialplan.digitmap.apply_to.forward	<y0000000000xx>.cfg
Description	It enables or disables the digit map to be applied to the numbers that you want to forward to when performing call forward. **Note**: It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.apply_to.forward" takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled, the incoming calls will be forwarded to the desired destination number according to the string of the digit map.	
Default	1	
Parameter	dialplan.digitmap.apply_to.press_send	<y0000000000xx>.cfg
Description	It enables or disables the entered number to match the predefined string of the digit map after tapping a send key. It is only applicable to the off-hook dialing. The off-hook dialing includes: pick up the handset, press the Speakerphone key or tap the line key when the phone is idle. **Note**: It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.apply_to.press_send" takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	dialplan.digitmap.apply_to.prefix_key	<y0000000000xx>.cfg
Description	It enables or disables the phone to apply the predefined string of the digit map after tapping a Prefix key. **Note:** It works only if "dialplan.digitmap.enable" or "account.X.dialplan.digitmap.enable" is set to 1 (Enabled).	

Permitted Values	**0**-Disabled **1**-Enabled
Default	1

Digit Map for a Specific Line Configuration

The following table lists the parameters you can use to configure the digit map for a specific line.

Parameter	account.X.dialplan.digitmap.enable[1]	<MAC>.cfg
Description	It enables or disables the digit map feature for a specific account. **Note**: The value configured by the parameter “account.X.dialplan.digitmap.enable” takes precedence over that configured by the parameter “dialplan.digitmap.enable”.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Parameter	account.X.dialplan.digitmap.string[1]	<MAC>.cfg
Description	It configures the digit map pattern used for the dial plan. **Example**: account.1.dialplan.digitmap.string = <[2-9]x:86>3.T|0x.!|1xxx **Note**: The string must be compatible with the digit map feature of MGCP described in 2.1.5 of RFC 3435. It works only if “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.string” takes precedence over that configured by the parameter “dialplan.digitmap.string”.	
Permitted Values	String within 2048 characters	
Default	Blank	
Parameter	account.X.dialplan.digitmap.interdigit_long_timer[1]	<MAC>.cfg
Description	It configures the time (in seconds) to wait before dialing an entered number if it matches part of any string of the digit map for the account X. If it is set to 0, the phone will not dial the entered number if only a partial match exists. The value of this parameter should be greater than that configured by the parameter “account.X.dialplan.digitmap.interdigit_short_timer”. For example: account.1.dialplan.digitmap.string = 1xxT|xxxxx<T1 > account.1.dialplan.digitmap.interdigit_long_timer = 10 account.1.dialplan.digitmap.interdigit_short_timer = 5 When you enter 1, it matches part of two-digit maps, the phone tries to wait 10 seconds and then dials out 1 if no numbers entered; When you enter 15, it also matches part of two-digit maps, the phone tries to wait 10 seconds and then dials out 15 if no numbers entered; When you enter 153, it also matches part of two-digit maps, the phone tries to wait 10 seconds. But after waiting for 5 seconds, it completely matches the first digit map and then immediately dials out 153. **Note**: It works only if “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured	

	by the parameter "account.X.dialplan.digitmap.interdigit_long_timer" takes precedence over that configured by the parameter "dialplan.digitmap.interdigit_long_timer".	
Permitted Values	Integer from 0 to 255	
Default	Blank	
Parameter	account.X.dialplan.digitmap.interdigit_short_timer[1]	<MAC>.cfg
Description	It configures the timeout interval (in seconds) for any string of digit map. The phone will wait this many seconds before matching the entered digits to the dial plan and placing the call. **Note**: It works only if "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.interdigit_short_timer" takes precedence over that configured by the parameter "dialplan.digitmap.interdigit_short_timer".	
Permitted Values	**Single configuration** (configure a specific value for the timer letter "T" for all strings with "T" of the digit map) **Example**: account.1.dialplan.digitmap.interdigit_short_timer = 5 If "dialplan.digitmap.string" is set to <[2-9]x:86>3.T|0T, the phone will wait 5 seconds before matching the entered digits to this dial plan and placing the call. **Distribution configuration** (configure a string of positive integers separated by "|" for each string of the digit map in the corresponding position) If there are more digit maps than timeout values, the last timeout is applied to the extra digit map. If there are more timeout values than digit maps, the extra timeout values are ignored. **Example**: account.1.dialplan.digitmap.interdigit_short_timer = 4|5|3|6|2|1 If "dialplan.digitmap.string" is set to <[2-9]x:86 > 3.T|2T|1xxT|0x.!|[2-9]11T, 4 is applied to the "<[2-9]x:86 > 3.T" digit map, 5 is applied to "2T" digit map, 3 is applied to "1xxT" digit map, 6 is applied to "0x.!" digit map, 2 is applied to the "[2-9]11T" digit map, the last digit 1 is ignored.	
Default	3	
Parameter	account.X.dialplan.digitmap.no_match_action[1]	<MAC>.cfg
Description	It configures the behavior when an impossible digit map match occurs. **Note**: It works only if "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.no_match_action" takes precedence over that configured by the parameter "dialplan.digitmap.no_match_action".	
Permitted Values	**0**-prevent users from entering a number and immediately dial out the entered numbers **1**-the dialing will fail and the phone screen will prompt "Forbidden Number" **2**-allow users to accumulate digits and dispatch call manually with the send key or automatically dial out the entered number after a certain period of time configured by the parameter "dialplan.digitmap.interdigit_long_timer"	
Default	Blank	
Parameter	account.X.dialplan.digitmap.active.on_hook_dialing[1]	<MAC>.cfg
Description	It enables or disables the entered numbers to match the predefined string of the digit map in real time on the pre-dialing screen. To enter the pre-dialing screen, directly enter numbers when the phone is idle.	

	Note: It works only if “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.active.on_hook_dialing” takes precedence over that configured by the parameter “dialplan.digitmap.active.on_hook_dialing”.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	account.X.dialplan.digitmap.apply_to.on_hook_dial[1]	<MAC>.cfg
Description	It enables or disables the entered number to match the predefined string of the digit map after pressing a send key on the pre-dialing screen or pressing the DSS key (for example, speed dial, BLF or prefix DSS key). To enter the pre-dialing screen, directly enter numbers when the phone is idle. **Note**: It works only if “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.apply_to.on_hook_dial” takes precedence over that configured by the parameter “dialplan.digitmap.apply_to.on_hook_dial”.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Parameter	account.X.dialplan.digitmap.apply_to.directory_dial[1]	<MAC>.cfg
Description	It enables or disables the digit map to be applied to the numbers dialed from the directory. **Note**: It works only if “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.apply_to.directory_dial” takes precedence over that configured by the parameter “dialplan.digitmap.apply_to.directory_dial”.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Parameter	account.X.dialplan.digitmap.apply_to.history_dial[1]	<MAC>.cfg
Description	It enables or disables the digit map to be applied to the numbers (received calls or missed calls) dialed from call log lists. **Note**: It works only if “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.apply_to.history_dial” takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Parameter	account.X.dialplan.digitmap.apply_to.forward[1]	<MAC>.cfg
Description	It enables or disables the digit map to be applied to the numbers that you want to forward to when performing call forward. **Note**: It works only if “account.X.dialplan.digitmap.enable” is set to 1 (Enabled). The value configured by the parameter “account.X.dialplan.digitmap.apply_to.forward” takes precedence over that configured by the parameter “dialplan.digitmap.apply_to.forward”.	
Permitted Values	**0**-Disabled **1**-Enabled, the incoming calls will be forwarded to the desired destination number according to the string of the digit map.	

Default	Blank	
Parameter	account.X.dialplan.digitmap.apply_to.press_send[1]	<MAC>.cfg
Description	It enables or disables the entered number to match the predefined string of the digit map after tapping a send key. The off-hook dialing includes: pick up the handset, press the Speakerphone key or tap the line key when the phone is idle. **Note**: It works only if "account.X.dialplan.digitmap.enable" is set to 1 (Enabled). The value configured by the parameter "account.X.dialplan.digitmap.apply_to.press_send" takes precedence over that configured by the parameter "dialplan.digitmap.apply_to.press_send".	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Emergency Dialplan and Enhanced 911

You can dial the emergency telephone number (emergency services number) at any time when the IP phone is powered on and has been connected to the network. It is available even if your phone keypad is locked or no SIP account is registered.

Yealink phones support emergency dialplan and enhanced 911.

Emergency Dial Plan

You can configure the emergency dial plan for the phone (for example, emergency number, emergency routing). The phone determines if this is an emergency number by checking the emergency dial plan. When placing an emergency call, the call is directed to the configured emergency server. Multiple emergency servers may need to be configured for emergency routing, avoiding that emergency calls could not get through because of the server failure. If the phone is not locked, it checks against the regular dial plan. If the phone is locked, it checks against the emergency dial plan.

Enhanced 911

E911 (Enhanced 911) is a location technology that enables the called party to identify the geographical location of the calling party. For example, if a caller makes an emergency call to E911, the feature extracts the caller's information for the police department to immediately identify the caller's location.

Topic

Emergency Dialplan and Enhanced 911 Configuration

Emergency Dialplan and Enhanced 911 Configuration

The following table lists the parameters you can use to configure emergency dialplan and Enhanced 911.

Parameter	dialplan.emergency.enable	<y0000000000xx>.cfg
Description	It enables or disables the Emergency dialplan feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	dialplan.emergency.asserted_id_source	<y0000000000xx>.cfg
Description	It configures the precedence of the source of emergency outbound identities when placing an emer-	

	gency call. **Note**: If the obtained LLDP-MED ELIN value is blank and no custom outbound identity, the PAI header will not be included in the SIP INVITE request. It works only if “dialplan.emergency.enable” is set to 1 (Enabled).	
Permitted Values	**ELIN**-The outbound identity used in the P-Asserted-Identity (PAI) header of the SIP INVITE request is taken from the network using an LLDP-MED Emergency Location Identifier Number (ELIN). The custom outbound identity configured by “dialplan.emergency.custom_asserted_id” will be used if the phone fails to get the LLDP-MED ELIN value. **CUSTOM**-The custom outbound identity configured by “dialplan.emergency.custom_asserted_id” will be used; if “dialplan.emergency.custom_asserted_id” is left blank, the LLDP-MED ELIN value will be used. **HELD**-The phone will use the HELD protocol to retrieve location information from the Location Information Server. **GENBAND**-Ribbon E911 feature is enabled, the location ID will be added to the INVITE and REGISTER SIP messages.	
Default	ELIN	
Parameter	dialplan.emergency.asserted_id.sip_account	<y0000000000xx>.cfg
Description	It configures the account to be used to retrieve E911 location information.	
Permitted Values	T58A/VP59/T58W: Integer from 1 to 16; CP960/CP965: 1.	
Default	1	
Parameter	dialplan.emergency.custom_asserted_id	<y0000000000xx>.cfg
Description	It configures the custom outbound identity when placing an emergency call. **Note**: It works only if “dialplan.emergency.enable” is set to 1 (Enabled) and “dialplan.emergency.asserted_id_source” is not set to **HELD**.	
Permitted Values	**A number with 10 to 25 digits** - for example, 1234567890. The SIP URI constructed from the number and SIP server (for example, abc.com) is included in the P-Asserted-Identity (PAI) header (for example, <sip:1234567890@abc.com >). **SIP URI** - for example, sip:1234567890123@abc.com. The full URI is included in the P-Asserted-Identity (PAI) header and the address will be replaced by the emergency server (for example, <sip:1234567890123@emergency.com >). **TEL URI** - for example, tel:+16045558000. The full URI is included in the P-Asserted-Identity (PAI) header (for example, <tel:+16045558000 >).	
Default	Blank	
Parameter	dialplan.emergency.server.X.address[1]	<y0000000000xx>.cfg
Description	It configures the IP address or domain name of the emergency server X to be used for routing calls. **Note**: If the account information has been configured (no matter whether the account registration succeeds or fails), the emergency calls will be dialed using the following priority: SIP server > emergency server; if not, the emergency server will be used. It works only if “dialplan.emergency.enable” is set to 1 (Enabled) and “dialplan.emergency.asserted_id_source” is not set to **HELD**.	
Permitted Values	IP address or domain name	
Default	Blank	
Parameter	dialplan.emergency.server.X.port[1]	<y0000000000xx>.cfg

Description	It configures the port of emergency server X to be used for routing calls. **Note**: It works only if "dialplan.emergency.enable" is set to 1 (Enabled) and "dialplan.emergency.asserted_id_source" is not set to **HELD**.	
Permitted Values	Integer from 0 to 65535	
Default	5060	
Parameter	dialplan.emergency.server.X.transport_type[1]	<y0000000000xx>.cfg
Description	It configures the transport protocol the phones use to communicate with the emergency server X. **Note**: It works only if "dialplan.emergency.enable" is set to 1 (Enabled) and "dialplan.emergency.asserted_id_source" is not set to **HELD**.	
Permitted Values	**0**-UDP **1**-TCP **2**-TLS **3**-DNS-NAPTR	
Default	0	
Parameter	dialplan.emergency.X.value[2]	<y0000000000xx>.cfg
Description	It configures the emergency number to use on your phones so a caller can contact emergency services in the local area when required. **Note**: It works only if "dialplan.emergency.enable" is set to 1 (Enabled) and "dialplan.emergency.asserted_id_source" is not set to **HELD**.	
Permitted Values	Number or SIP URI	
Default	When X = 1, the default value is 911; When X = 2-255, the default value is Blank.	
Parameter	dialplan.emergency.X.server_priority[2]	<y0000000000xx>.cfg
Description	It configures the priority of which the emergency servers to be used first. Multiple values are separated by commas. The servers to be used in the order listed (left to right). The IP phone tries to make emergency calls using the emergency server with higher priority, and then with lower priority. The IP phone tries to send the INVITE request to each emergency server three times. **Note**: If the account information has been configured (no matter whether the account registration succeeds or fails), the emergency calls will be dialed using the following priority: SIP server > emergency server; if not, the emergency server will be used. And "dialplan.emergency.asserted_id_source" is not set to **HELD**.	
Permitted Values	a combination of digits 1, 2 and 3	
Default	1, 2, 3	
Parameter	dialplan.emergency.held.server_url	<y0000000000xx>.cfg
Description	It configures the primary Location Information Server URL for the phone to send HELD location request. **Note**: It works only if "dialplan.emergency.enable" is set to 1 (Enabled) and "dialplan.emergency.asserted_id_source" is set to **HELD**.	
Permitted	String	

Values		
Default	Blank	
Parameter	dialplan.emergency.held.secondary.server_url	<y0000000000xx>.cfg
Description	It configures the secondary Location Information Server URL for the phone to send HELD location request. **Note**: It works only if “dialplan.emergency.enable” is set to 1 (Enabled) and “dialplan.emergency.asserted_id_source” is set to **HELD**.	
Permitted Values	String	
Default	Blank	
Parameter	dialplan.emergency.held.request_type	<y0000000000xx>.cfg
Description	It configures the type of location request message. **Note**: It works only if “dialplan.emergency.enable” is set to 1 (Enabled) and “dialplan.emergency.asserted_id_source” is set to **HELD**.	
Permitted Values	SIMPLE or REDSKY If it is set to **SIMPLE**, the phone will send the location request message defined in RFC5985. If it is set to **REDSKY**, the phone will send the location request message defined by REDSKY.	
Default	SIMPLE	
Parameter	dialplan.emergency.held.request_element.X.name[2]	<y0000000000xx>.cfg
Description	It configures the custom element name to be sent in a location request message. **Example**: dialplan.emergency.held.request_element.1.name = mac dialplan.emergency.held.request_element.2.name = companyID dialplan.emergency.held.request_element.3.name = nai **Note**: It works only if “dialplan.emergency.enable” is set to 1 (Enabled) and “dialplan.emergency.asserted_id_source” is set to **HELD**.	
Permitted Values	String	
Default	Blank	
Parameter	dialplan.emergency.held.request_element.X.value[2]	<y0000000000xx>.cfg
Description	It configures the custom element value to be sent in a location request message. **Example**: dialplan.emergency.held.request_element.1.value = 001565B38ECB dialplan.emergency.held.request_element.2.value = 6f2f2d50-c385-4b72-b84a-ce0ca3a77cb7 dialplan.emergency.held.request_element.3.value = 8611@pbx.yealink.com **Note**: It works only if “dialplan.emergency.enable” is set to 1 (Enabled) and “dialplan.emergency.asserted_id_source” is set to **HELD**.	
Permitted Values	String	

Default	Blank	
Parameter	account.X.reg_with_pani_header.enable[3]	<MAC>.cfg
Description	It enables or disables the phone to carry the PANI header in the REGISTER request message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.invite_with_pani_header.enable[3]	<MAC>.cfg
Description	It enables or disables the phone to carry the PANI header in the INVITE request message. The PANI header format is: P-Access-Network-Info:IEEE-802.3; eth-location=<MAC Address Of The Phone > ; local-time-zone-e="0800"	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	sip.emergency_call.mode	<y0000000000xx>.cfg
Description	It configures the server mode for emergency calls.	
Permitted Values	**0**-Use the account's SIP server to make emergency calls first, and switch to the emergency server to call out when the SIP server is unavailable. **1**-Only use the emergency server to make emergency calls. If the emergency server is not available, the call fails directly.	
Default	0	
Related Parameters	account.X.sip_server.Y.address dialplan.emergency.server.X.address	

[1] X is from 1 to 3.

[2] X is from 1 to 255.

[3]X is the account ID. For VP59/T58A/T58W, X=1-16, for CP960/CP965, X=1.

Hotline

Hotline, sometimes referred to as hot dialing, is a point-to-point communication link in which a call is automatically directed to the preset hotline number. If you lift the handset, press the Speakerphone key or the line key, and do nothing for a specified time interval, the phone will automatically dial out the hotline number. Yealink phones only support one hotline number.

Note: If you do not specify a line, the phone uses the first available line to dial out the hotline number by default.
This feature works only if the Off Hook Hot Line Dialing feature is disabled. For more information, refer to Off Hook Hot Line Dialing.

Topic

Hotline Configuration

Hotline Configuration

The following table lists the parameters you can use to configure hotline.

Parameter	features.hotline_number	<y0000000000xx>.cfg
Description	It configures the hotline number that the phone automatically dials out when you lift the handset, press the Speakerphone key or tap the line key. Leaving it blank disables hotline feature. **Note**: Handset and Speakerphone key are not applicable to CP960/CP965 phones.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > General Information > Hotline Number	
Phone UI	Settings > Features > Hot Line > Number CP965: More > Settings > Features > Hot Line > Number	
Parameter	features.hotline_delay	<y0000000000xx>.cfg
Description	It configures the waiting time (in seconds) for the phone to automatically dial out the preset hotline number. If it is set to 0 (0s), the phone will immediately dial out the preset hotline number when you lift the handset, press the Speakerphone key or tap the line key. If it is set to a value greater than 0, the phone will wait the designated seconds before dialing out the preset hotline number when you lift the handset, press the Speakerphone key or tap the line key. **Note**: Handset and Speakerphone key are not applicable to CP960/CP965 phones.	
Permitted Values	Integer from 0 to 10	
Default	4	
Web UI	Features > General Information > Hotline Delay(0~10s)	
Phone UI	Settings > Features > Hot Line > Hotline Delay CP965: More > Settings > Features > Hot Line > Hotline Delay	

Off Hook Hot Line Dialing

For security reasons, the phones support off hook hot line dialing feature, which allows the phone to automatically dial out the pre-configured number when you lift the handset, press the Speakerphone key or tap desired line key. The SIP server may then prompts you to enter an activation code for call service. Only if you enter a valid activation code, the phone will use this account to dial out a call successfully.

Off hook hot line dialing feature is configurable on a per-line basis and depends on the support from a SIP server. The server actions may vary from different servers.

It is also applicable to the IP call and intercom call.

Note: Off hook hot line dialing feature limits the call-out permission of this account and disables the hotline feature. For example, when the phone goes off-hook using the account with this feature enabled, the configured hotline number will not be dialed out automatically.

Topic

Off Hook Hot Line Dialing Configuration

Off Hook Hot Line Dialing Configuration

The following table lists the parameters you can use to configure off hook hot line dialing.

Parameter	account.X.auto_dial_enable[1]	<MAC>.cfg
Description	It enables or disables the phone to automatically dial out a pre-configured number when a user lifts the handset, presses the Speakerphone key or taps the desired line key. **Note**: Handset and Speakerphone key are not applicable to CP960/CP965 phones.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will dial out the pre-configured number (configured by "account.X.auto_dial_num").	
Default	0	
Parameter	account.X.auto_dial_num[1]	<MAC>.cfg
Description	It configures the number that the phone automatically dials out when a user lifts the handset, presses the Speakerphone key or taps the desired line key. **Note**: It works only if "account.X.auto_dial_enable" is set to 1 (Enabled). **Note**: Handset and Speakerphone key are not applicable to CP960/CP965 phones.	
Permitted Values	String within 1024 characters	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Live Dialpad

Live Dialpad allows the phones to automatically dial out the entered phone number without tapping the send key after a designated period of time.

Topic

Live Dialpad Configuration

Live Dialpad Configuration

The following table lists the parameters you can use to configure live dialpad.

Parameter	phone_setting.predial_autodial	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically dial out the entered phone number on the pre-dialing screen without tapping a send key. To enter the pre-dialing screen, directly enter numbers when the phone is idle.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Preference > Live Dialpad	
Parameter	phone_setting.inter_digit_time	<y0000000000xx>.cfg
Description	It configures the delay time (in seconds) for the phone to automatically dial out the entered phone number without tapping a send key. **Note**: It works only if "dialplan.digitmap.enable" is set to 0 (Disabled).	

Permitted Values	Integer from 1 to 14
Default	4
Web UI	Settings > Preference > Inter Digit Time (1~14s)

Auto Redial

You can set the phone automatically redial the last dialed number when the callee is temporarily unavailable. Both the number of attempts and waiting time between redials are configurable.

Topic

Auto Redial Configuration

Auto Redial Configuration

The following table lists the parameters you can use to configure auto redial.

Parameter	auto_redial.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically redial the last dialed number when the callee is temporarily unavailable.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > Auto Redial	
Phone UI	Settings > Features > Auto Redial > Auto Redial CP965: More > Settings > Features > Auto Redial > Auto Redial	
Parameter	auto_redial.interval	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) for the phone to wait between redials. The phone redials the last dialed number at regular intervals untill the callee answers the call.	
Permitted Values	Integer from 1 to 300	
Default	10	
Web UI	Features > General Information > Auto Redial Interval (1~300s)	
Phone UI	Settings > Features > Auto Redial > Redial Interval CP965: More > Settings > Features > Auto Redial > Redial Interval	
Parameter	auto_redial.times	<y0000000000xx>.cfg
Description	It configures the auto redial times when the callee is temporarily unavailable. The phone tries to redial the callee as many times as configured till the callee answers the call.	
Permitted Values	Integer from 1 to 300	
Default	10	
Web UI	Features > General Information > Auto Redial Times (1~300)	

Phone UI	Settings > Features > Auto Redial > Redial Times CP965: More > Settings > Features > Auto Redial > Redial Times	
Parameter	features.redial_via_local_sip_server.enable	<y0000000000xx>.cfg
Description	It configures the phone to redial via local SIP server or remote SIP server.	
Permitted Values	**0**-Remote SIP Server **1**-Local SIP Server	
Default	1	

Recall Configuration

Recall, also known as last call return, allows you to dial the last received call. Recall is implemented on the phones using a Recall key.

The following shows configuration for a Recall key.

Line Key Configuration	Programmable Key Configuration
linekey.X.type = 7 linekey.X.label =Recall	programablekey.X.type = 7

After provisioning, a Recall key is available on the phone. When you tap the Recall key, the phone places a call to the phone number that last called you.

Related Topics

Line Keys Configuration
Programmable Keys Configuration

Speed Dial

Speed dial allows you to speed up dialing the contacts on the phone's idle screen using dedicated DSS keys.

Topic

Speed Dial Key Configuration

Speed Dial Key Configuration

You can configure line key or programmable key as Speed Dial key.

Line Key Configuration	Programmable Key Configuration
linekey.X.type = 13 linekey.X.line = 1 linekey.X.value = 4603 linekey.X.label = Bill	programablekey.X.type = 13 programablekey.X.line = 1 programablekey.X.value = 4603

After provisioning, a Speed Dial key for Bill (4603) is available on the phone, and you can tap the Speed Dial key to call Bill (4603) quickly.

You can configure multiple Speed Dial keys for different contacts which are used frequently or hard to remember.

Related Topics

Line Keys Configuration

Programmable Keys Configuration

Password Dial

Password dial feature allows the callee number to be partly displayed on the IP phone when placing a call. The hidden digits are displayed as asterisks on the phone screen. The number in the placed call list is also partly displayed on the IP phone. This feature is especially useful for users who often place important and confidential calls.

Topic

Password Dial Configuration

Password Dial Configuration

The following table lists the parameters you can use to configure password dial.

Parameter	features.password_dial.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to partly display the callee number when placing a call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > PswDial	
Parameter	features.password_dial.prefix	<y0000000000xx>.cfg
Description	It configures the prefix that the number starts with this prefix will be partially displayed. Multiple numbers are separated by commas. **Example**: features.password_dial.prefix = 12,13 **Note**: It works only if “features.password_dial.enable” is set to 1 (Enabled).	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > General Information > PswPrefix	
Parameter	features.password_dial.length	<y0000000000xx>.cfg
Description	It configures how many digits to be displayed as asterisks. **Example**: features.password_dial.length = 3 If you set the prefix to 12 and the length to 3, when you want to dial the number 123456, the entered number is displayed as 12***6 on the phone screen. **Note**: It works only if “features.password_dial.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 32	
Default	Blank	
Web UI	Features > General Information > PswLength	

Call Timeout

Call timeout defines a specific period of time after which the phone will cancel the dialing if the call is not answered.

Topic

Call Timeout Configuration

Call Timeout Configuration

The following table lists the parameter you can use to configure call timeout.

Parameter	phone_setting.ringback_timeout	<y0000000000xx>.cfg
Description	It configures the duration time (in seconds) in the ringback state. If it is set to 180, the phone will cancel the dialing if the call is not answered after 180 seconds.	
Permitted Values	Integer from 1 to 3600	
Default	180	

Anonymous Call

Anonymous call allows the caller to conceal the identity information shown to the callee. The callee's phone touch screen prompts an incoming call from anonymity.

Anonymous calls can be performed locally or on the server. When performing anonymous call on local, the phone sends an INVITE request with a call source "*From: "Anonymous" sip:anonymous@anonymous.invalid*". If performing Anonymous call on a specific server, you may need to configure anonymous call on code and off code to activate and deactivate server-side anonymous call feature.

Topic

Anonymous Call Configuration

Anonymous Call Configuration

The following table lists the parameters you can use to configure the anonymous call.

Parameter	account.X.anonymous_call[1]	<MAC>.cfg
Description	It triggers the anonymous call feature to on or off.	
Permitted Values	**0**-Off **1**-On, the phone will block its identity from showing to the callee when placing a call. The callee's phone screen presents "Anonymous" instead of the caller's identity.	
Default	0	
Web UI	Account > Basic > Local Anonymous	
Phone UI	Settings > Features > Anonymous > Line X > Local Anonymous CP965: More > Settings > Features > Anonymous > Line X > Local Anonymous	
Parameter	account.X.send_anonymous_code[1]	<MAC>.cfg
Description	It configures the phone to send anonymous on/off code to activate/deactivate the server-side anonymous call feature for a specific account.	
Permitted	**0**-Off Code, the phone will send anonymous off code to the server when you deactivate the anonym-	

Values	ous call feature. **1**-On Code, the phone will send anonymous on code to the server when you activate the anonymous call feature.	
Default	0	
Web UI	Account > Basic > Send Anonymous Code	
Phone UI	Settings > Features > Anonymous > Line X > Send Anonymous Code CP965: More > Settings > Features > Anonymous > Line X > Send Anonymous Code	
Parameter	account.X.anonymous_call.server_base_only[1]	<MAC>.cfg
Description	It enables or disables the phone to perform the anonymous call feature on server-side only. **Note**: You need to configure parameters “account.X.anonymous_call_oncode” and “account.X.anonymous_call_offcode” to activate and deactivate the server-side anonymous call feature.	
Permitted Values	**0**-Disabled, the phone will perform the anonymous call feature on server-side and locally. If the anonymous call feature is enabled on the phone, the phone will carry the Anonymous attribute in the From header of the INVITE message. **1**-Enabled, the phone will perform the anonymous call feature on server-side only. The phone will not carry the Anonymous attribute in the From header of the INVITE message even if the anonymous call feature is enabled on the phone.	
Default	Blank	
Parameter	account.X.anonymous_call_oncode[1]	<MAC>.cfg
Description	It configures the anonymous call on code. The phone will send the code to activate the anonymous call feature on server-side when you activate it on the phone.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Basic > Send Anonymous Code > On Code	
Phone UI	Settings > Features > Anonymous > Line X > On Code CP965: More > Settings > Features > Anonymous > Line X > On Code	
Parameter	account.X.anonymous_call_offcode[1]	<MAC>.cfg
Description	It configures the anonymous call off code. The phone will send the code to deactivate the anonymous call feature on server-side when you deactivate it on the phone.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Basic > Send Anonymous Code > Off Code	
Phone UI	Settings > Features > Anonymous > Line X > Off Code CP965:	

	More > Settings > Features > Anonymous > Line X > Off Code	
Parameter	features.anonymous.feature_key_sync.enable	<y0000000000xx>.cfg
Description	It enables or disables to synchronize the anonymous call status between the IP phone and the server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Number Filter

Call number filter feature allows IP phone to filter designated characters automatically when dialing.

Topic

Call Number Filter Configuration

Call Number Filter Configuration

The following table lists the parameter you can use to configure call number filter.

Parameter	features.call_num_filter	<y0000000000xx>.cfg
Description	It configures the characters the phone filters when dialing. If the dialed number contains configured characters, the phone will automatically filter these characters when dialing. **Example**: features.call_num_filter = - If you dial 3-61, the phone will filter the character - and then dial out 361. **Note**: If it is left blank, the phone will not automatically filter any characters when dialing.	
Permitted Values	String within 99 characters	
Default	?,-( )	
Web UI	Features > General Information > Call Number Filter	

IP Address Call

You can set the phone whether to receive or place an IP call. You can neither receive nor place an IP call if you disable this feature.

Topic

IP Address Call Configuration

IP Address Call Configuration

The following table lists the parameter you can use to configure IP address call.

Parameter	features.direct_ip_call_enable	<y0000000000xx>.cfg
Description	It enables or disables to allow IP address call. **Note**: If you want to receive an IP address call, make sure "sip.trust_ctrl" is set to 0 (Disabled).	

Permitted Values	**0**-Disabled **1**-Enabled
Default	1
Web UI	Features > General Information > Allow IP Call

Ignoring Incoming Calls

By default, when a phone receives an incoming call, the phone screen prompts the incoming call information. You should handle the incoming call first before performing other features. For example, you should handle the incoming call when there is an active call in progress, otherwise, you cannot hold or set up a conference on the current call.

You can configure the phone to ignore an incoming call. The incoming call is still in the progress and is not rejected, you can choose to answer it or not, or perform other features.

When the phone receives an incoming call in the idle state, the screen prompts the incoming call information.

- To ignore the call, and initial a new call, pick up the handset, press the Speakerphone key or HEADSET key, press keypad or other line keys.
- To answer the incoming call, press the corresponding line key, the **Answer** soft key or the **OK** key.

When the phone receives an incoming call in the call state, the screen does not prompt the incoming call information. You can perform other features on the current call. You can only answer the incoming call after ending the current call.

Topic

Ignoring Incoming Calls Configuration

Ignoring Incoming Calls Configuration

The following table lists the parameter you can use to configure ignoring incoming calls.

Parameter	features.ignore_incoming_call.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to ignore the incoming call.	
Permitted Values	**0**-Disabled **1**-Enabled, the incoming call is still in the progress and is not rejected, the user can choose to answer it or not, or perform other features.	
Default	0	

Off Hook Answering

You can set whether to answer an incoming call by picking up the handset, pressing the Speakerphone key or pressing the HEADSET key directly.

It is not applicable to CP960/CP965 phones.

Topic

Off Hook Answering Configuration

Off Hook Answering Configuration

The following table lists the parameter you can use to configure off hook answering.

Parameter	features.off_hook_answer.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to answer an incoming call by picking up the handset, pressing the	

	Speakerphone key or pressing the HEADSET key directly.
Permitted Values	**0**-Disabled, the user needs to press the corresponding line key, the **Answer** soft key or the OK key to answer an incoming call after picking up the handset, pressing the Speakerphone key or pressing the HEADSET key. **1**-Enabled
Default	1
Supported Devices	All phones except CP960/CP965

Auto Answer

Yealink phones support answering a SIP call or an IP address call automatically. Auto answer is configurable on a per-line basis, while IP address call is not.

Topic

Auto Answer Configuration

Auto Answer Configuration

The following table lists the parameters you can use to configure the auto answer.

Parameter	account.X.auto_answer[1]	<MAC>.cfg
Description	It enables or disables auto answer a SIP call. **Note**: The phone cannot automatically answer the incoming call during a call or while dialing even if the auto answer is enabled.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone can automatically answer an incoming call.	
Default	0	
Web UI	Account > Basic > Auto Answer	
Phone UI	Settings > Features > Auto Answer > Account X > Auto Answer CP965: More > Settings > Features > Auto Answer > Account X > Auto Answer	
Parameter	account.X.auto_answer_mute_enable[1]	<MAC>.cfg
Description	It enables or disables the auto answer mute feature. **Note**: It works only if the values of parameters "account.X.auto_answer" and "features.allow_mute" are set to 1 (Enabled). The value configured by this parameter takes precedence over that configured by the parameter "features.mute.autoanswer_mute.enable".	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will mute the microphone when an incoming call is automatically answered, and then the other party cannot hear you.	
Default	0	
Web UI	Account > Basic > Auto Answer Mute **Note**: It is only available for CP phones.	
Phone UI	Settings > Features > Auto Answer > Account 1 > Auto Answer (On) > Auto Answer Mute CP965: More > Features > Auto Answer > Account 1 > Auto Answer (On) > Auto Answer Mute	

	Note: It is only available for CP phones.	
Parameter	features.ip_call.auto_answer.enable	<y0000000000xx>.cfg
Description	It enables or disables the auto answer feature for IP call. **Note**: It works only if “features.direct_ip_call_enable" is set to 1 (Enabled). The phone cannot automatically answer the incoming IP call when the IP phone is in a call or dialing even if IP call auto answer is enabled.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone can automatically answer the IP call.	
Default	0	
Web UI	Features > General Information > IP Direct Auto Answer	
Parameter	features.auto_answer.first_call_only	<y0000000000xx>.cfg
Description	It enables or disables the phone to only automatically answer the incoming call when the phone is idle. **Note**: It works only if “account.X.auto_answer” or “features.ip_call.auto_answer.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled. If there is an incoming call arrived when the phone is in a call or dialing, the phone will automatically answer after you end the current call or cancel the dialing. **1**-Enabled. The phone can only automatically answer the incoming call arrived when the phone is idle. If there is an incoming call arrived when the phone is in a call or dialing, you have to manually pick up the incoming call.	
Default	1	
Parameter	features.auto_answer_delay	<y0000000000xx>.cfg
Description	It configures the delay time (in seconds) before the phone automatically answers an incoming call. **Note**: For the call coming from a SIP account, it works only if “account.X.auto_answer” is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 60	
Default	1	
Web UI	Features > General Information > Auto Answer Delay	
Parameter	features.auto_answer_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play a warning tone when an incoming call is automatically answered. **Note**: For the call coming from a SIP account, it works only if “account.X.auto_answer” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > General Information > Enable Auto Answer Tone	
Parameter	features.auto_answer.ring_type	<y0000000000xx>.cfg
Description	It configures a ring tone the phone plays before the incoming call is automatically answered. **Note**: It works only if “features.auto_answer_tone.enable” is set to 1 (Enabled).	

Permitted Values	0 (beep tone) Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Ring9.wav, Ring10.wav, Ring11.wav, Ring12.wav, Ring13.wav, Silent.wav, Splash.wav or custom ring tone name (for example, Customring.wav)	
Default	0	
Parameter	features.custom_auto_answer_tone.enable	<y0000000000xx>.cfg
Description	It configures the type of auto answer tone. **Note**: It works only if "features.auto_answer_tone.enable" is set to 1 (Enabled).	
Permitted Values	**0**-One beep **1**-Double beep	
Default	1	
Parameter	features.mute.autoanswer_mute.enable	<y0000000000xx>.cfg
Description	It enables or disables the auto answer mute feature. **Note**: It works only if "account.X.auto_answer" and "features.allow_mute" are set to 1 (Enabled). It is not available to the intercom call.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will mute the microphone when an incoming call is automatically answered, and then the other party cannot hear you.	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Anonymous Call Rejection

Anonymous call rejection allows IP phone to automatically reject incoming calls from callers whose identity has been deliberately concealed.

Anonymous call rejection can be performed locally or on the server. When performing anonymous call rejection on local, the phone sends the server a status message "Anonymity Disallowed". If performing Anonymous call rejection on a specific server, you may need to configure anonymous call rejection on code and off code to activate and deactivate server-side anonymous call rejection feature.

Topic

Anonymous Call Rejection Configuration

Anonymous Call Rejection Configuration

The following table lists the parameters you can use to configure anonymous call rejection.

Parameter	account.X.reject_anonymous_call[1]	<MAC>.cfg
Description	It triggers the anonymous call rejection feature to on or off.	
Permitted Values	**0**-Off **1**-On, the phone will automatically reject incoming calls from users enabled anonymous call feature. The anonymous user's phone screen presents "Anonymity Disallowed".	
Default	0	
Web UI	Account > Basic > Local Anonymous Rejection	

Phone UI	Settings > Features > Anonymous > Line X > Anonymous Rejection CP965: More > Settings > Features > Anonymous > Line X > Anonymous Rejection	
Parameter	features.anonymous_response_code	<y0000000000xx>.cfg
Description	It configures the code the phone responds with to the server when it receives an anonymous call. **Note**: It works only if “account.X.reject_anonymous_call“ is set to 1 (On).	
Permitted Values	Integer from 0 to 65535	
Default	433	
Parameter	account.X.anonymous_reject_oncode[1]	<MAC>.cfg
Description	It configures the anonymous call rejection on code. The phone will send the code to activate anonymous call rejection feature on server-side when you activate it on the phone.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Basic > Send Anonymous Rejection Code > On Code	
Phone UI	Settings > Features > Anonymous > Line X > On Code CP965: More > Settings > Features > Anonymous > Line X > On Code	
Parameter	account.X.send_anonymous_rejection_code[1]	<MAC>.cfg
Description	It configures the IP phone to send anonymous call rejection on/off code to activate/deactivate the server-side anonymous call rejection feature for account X.	
Permitted Values	**0**-Off Code, the phone will send anonymous rejection off code to the server when you deactivate the anonymous call rejection feature. **1**-On Code, the phone will send anonymous rejection on code to the server when you activate the anonymous call rejection feature.	
Default	0	
Web UI	Account > Basic > Send Anonymous Rejection Code	
Phone UI	Settings > Features > Anonymous > Line X > Send Anonymous Rejection Code CP965: More > Settings > Features > Anonymous > Line X > Send Anonymous Rejection Code	
Parameter	account.X.anonymous_reject_offcode[1]	<MAC>.cfg
Description	It configures the anonymous call rejection off code. The phone will send the code to deactivate anonymous call rejection feature on server-side when you deactivate it on the phone.	
Permitted Values	String within 32 characters	
Default	Blank	

Web UI	Account > Basic > Send Anonymous Rejection Code > Off Code
Phone UI	Settings > Features > Anonymous > Line X > Off Code CP965: More > Settings > Features > Anonymous > Line X > Off Code

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Waiting

Call waiting enables you to receive another call when there is already an active call on your phone. If it is disabled, the new incoming call will be rejected automatically.

You can enable call waiting feature and set the phone to play a warning tone to avoid missing important calls during a call.

Yealink phones also support call waiting on code and off code to activate and deactivate server-side call waiting feature. They may vary on different servers.

Topic

Call Waiting Configuration

Call Waiting Configuration

The following table lists the parameters you can use to configure call waiting.

Parameter	call_waiting.enable	<y0000000000xx>.cfg
Description	It enables or disables the call waiting feature.	
Permitted Values	**0**-Disabled, a new incoming call is automatically rejected by the phone with a busy message during a call. **1**-Enabled, the phone screen will present a new incoming call during a call.	
Default	1	
Web UI	Features > General Information > Call Waiting	
Phone UI	Settings > Features > Call Waiting > Call Waiting CP965: More > Settings > Features > Call Waiting > Call Waiting	
Parameter	call_waiting.tone	<y0000000000xx>.cfg
Description	It enables or disables the phone to play the call waiting tone when the phone receives an incoming call during a call. **Note**: It works only if "call_waiting.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Audio > Call Waiting Tone	
Phone UI	Settings > Features > Call Waiting > Play Tone CP965: More > Settings > Features > Call Waiting > Play Tone	

Parameter	call_waiting.on_code	<y0000000000xx>.cfg
Description	It configures the call waiting on code. The phone will send the code to activate call waiting on server-side when you activate it on the phone.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > General Information > Call Waiting On Code	
Phone UI	Settings > Features > Call Waiting > On Code CP965: More > Settings > Features > Call Waiting > On Code	
Parameter	call_waiting.off_code	<y0000000000xx>.cfg
Description	It configures the call waiting off code. The phone will send the code to deactivate call waiting on server-side when you deactivate it on the phone.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > General Information > Call Waiting Off Code	
Phone UI	Settings > Features > Call Waiting > Off Code CP965: More > Settings > Features > Call Waiting > Off Code	

Do Not Disturb (DND)

DND feature enables the phone to reject all incoming calls automatically when you do not want to be interrupted. You can choose to implement DND locally on the phone or on the server-side.

Usually, you can activate DND when the phone is idle. The phone stays in the DND state until you deactivate DND manually.

Topics

DND Settings Configuration
DND Feature Configuration
DND Synchronization for Server-side Configuration

DND Settings Configuration

You can change the following DND settings:

- Enable or disable the DND feature. If disabled, the users have no permission to configure DND on their phone.
- Choose a DND mode. You can configure DND for all lines or specific lines.
- Enable or disable DND emergency feature and specify DND authorized numbers. These numbers will not be DND when the DND feature is enabled. The incoming call will not be logged in the Missed Calls list.
- Define the return code and the reason of the SIP response message for a rejected incoming call when DND is activated. The caller's phone screen displays the received return code.
- Allow or disallow the IP phone to display a large DND icon on the idle screen. It helps users to clearly view that DND is activated.

The following table lists the parameters you can use to configure the DND settings.

Parameter	features.dnd.allow	<y0000000000xx>.cfg
Description	It enables or disables the DND feature.	
Permitted Values	**0**-Disabled, DND cannot be activated and users are not allowed to configure DND on the phone. **1**-Enabled	
Default	1	
Parameter	features.dnd_mode	<y0000000000xx>.cfg
Description	It configures the DND mode for the IP phone. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled).	
Permitted Values	**0**-Phone, DND feature is effective for the phone system. **1**-Custom, you can configure the DND feature for each or all accounts.	
Default	0	
Web UI	Features > Forward&DND > DND > Mode	
Parameter	features.keep_dnd.enable	<y0000000000xx>.cfg
Description	It configures if the DND state persists between calls after you activate DND during the call. **Note**: To activate DND during the call, you need to configure a DND key in advance.	
Permitted Values	**0**-DND state is automatically deactivated after the call. **1**-DND state persists across calls. The phone stays in the DND state until you deactivate the DND manually.	
Default	1	
Parameter	features.dnd.emergency_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to receive incoming calls from authorized numbers when the DND feature is enabled. **Note**: The authorized numbers are configured by the parameter "features.dnd.emergency_authorized_number". It works only if "features.dnd.allow" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Forward&DND > DND > DND Emergency	
Parameter	features.dnd.emergency_authorized_number	<y0000000000xx>.cfg
Description	It configures the authorized numbers the phone can receive incoming calls from even if DND feature is activated. Multiple numbers are separated by commas. **Example**: features.dnd.emergency_authorized_number = 123,124 **Note**: It works only if "features.dnd.allow" and "features.dnd.emergency_enable" are set to 1 (Enabled).	
Permitted Values	String within 511 characters	
Default	Blank	

Web UI	Features > Forward&DND > DND > DND Authorized Numbers	
Parameter	features.dnd_refuse_code	<y0000000000xx>.cfg
Description	It configures a return code and reason of SIP response messages when rejecting an incoming call by DND. A specific reason is displayed on the caller's phone screen. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled).	
Permitted Values	**404**-Not Found **480**-Temporarily Unavailable **486**-Busy Here, the caller's phone screen will display the reason "Busy Here" when the callee enables DND feature. **600**-Busy Everywhere **603**-Decline	
Default	480	
Web UI	Features > General Information > Return Code When DND	
Parameter	features.dnd.large_icon.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display a large DND icon on the idle screen. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	features.exit_dnd_mode_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display **Exit DND mode.** after DND is activated. **Note**: It works only if "features.dnd.enable" is set to 1 (On).	
Permitted Values	**0**-Disabled **1**-Enabled, users can tap **Exit DND mode.** from the idle screen to deactivate DND.	
Default	1	
Supported Devices	CP960, CP965	
Parameter	phone_setting.fwd_and_dnd.suspension_prompt	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the floating window prompt on the idle screen after DND is activated.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

DND Feature Configuration

After you choose a DND mode, you can configure the DND feature for all lines or a specific line. It depends on the DND mode (except):

- **Phone** (default): DND feature is effective for all lines.
- **Custom:** DND feature can be configured for a specific line or multiple lines.

Note: DND mode is set by the parameter "features.dnd_mode".

Yealink phones also support DND on code and off code to activate and deactivate server-side DND feature. They may vary on different servers.

Topics

DND in Phone Mode Configuration
DND in Custom Mode Configuration

DND in Phone Mode Configuration

The following table lists the parameters you can use to configure DND in Phone mode.

Parameter	features.dnd.enable	<y0000000000xx>.cfg
Description	It triggers the DND feature to on or off. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled) and "features.dnd_mode" is set to 0 (Phone).	
Permitted Values	**0**-Off **1**-On, the phone will reject incoming calls on all accounts.	
Default	0	
Web UI	Features > Forward&DND > DND > DND Status	
Phone UI	Settings > Features > DND > DND Status CP965: More > Settings > Features > DND > DND Status	
Parameter	features.dnd.on_code	<y0000000000xx>.cfg
Description	It configures the DND on code to activate the server-side DND feature. The phone will send the DND on code to the server when you activate the DND feature on the phone. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled) and "features.dnd_mode" is set to 0 (Phone).	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > DND > On Code	
Phone UI	Settings > Features > DND > On Code CP965: More > Settings > Features > DND > On Code	
Parameter	features.dnd.off_code	<y0000000000xx>.cfg
Description	It configures the DND off code to deactivate the server-side DND feature. The phone will send the DND off code to the server when you deactivate the DND feature on the phone. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled) and "features.dnd_mode" is set to 0 (Phone).	
Permitted Values	String within 32 characters	

Default	Blank
Web UI	Features > Forward&DND > DND > Off Code
Phone UI	Settings > Features > DND > Off Code CP965: More > Settings > Features > DND > Off Code

DND in Custom Mode Configuration

The following table lists the parameters you can use to configure DND in Custom mode.

Parameter	account.X.dnd.enable[1]	<MAC>.cfg
Description	It triggers the DND feature to on or off. **Note:** It works only if “features.dnd.allow” is set to 1 (Enabled) and “features.dnd_mode” is set to 1 (Custom).	
Permitted Values	**0**-Off **1**-On, the phone will reject incoming calls on account X.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward& DND > DND > AccountX > DND Status	
Phone UI	Settings > Features > DND > AccountX > DND Status	
Parameter	account.X.dnd.on_code[1]	<MAC>.cfg
Description	It configures the DND on code to activate the server-side DND feature. The phone will send the DND on code to the server when you activate the DND feature on the phone. **Note:** It works only if “features.dnd.allow” is set to 1 (Enabled) and “features.dnd_mode” is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward& DND > DND > AccountX > On Code	
Phone UI	Settings > Features > DND > AccountX > On Code	
Parameter	account.X.dnd.off_code[1]	<MAC>.cfg
Description	It configures the DND off code to deactivate the server-side DND feature. The phone will send the DND off code to the server when you deactivate the DND feature on the phone. **Note:** It works only if “features.dnd.allow” is set to 1 (Enabled) and “features.dnd_mode” is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	

Supported Devices	All phones except CP960/CP965
Web UI	Features > Forward& DND > DND > AccountX > Off Code
Phone UI	Settings > Features > DND > AccountX > Off Code

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

DND Synchronization for Server-side Configuration

DND synchronization feature provides the capability to synchronize the status of the DND features between the IP phone and the server.

If the DND is activated in phone mode, the DND status changing locally will be synchronized to all registered accounts on the server; but if the DND status of a specific account is changed on the server, the DND status locally will be changed.

The following table lists the parameters you can use to configure DND synchronization for server-side.

Parameter	features.feature_key_sync.enable	<y0000000000xx>.cfg
Description	It enables or disables to synchronize the feature status between the IP phone and the server.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone sends a SUBSCRIBE message with event "as-feature-event".	
Default	0	
Parameter	account.X.feature_key_sync.enable[1]	<MAC>.cfg
Description	It enables or disables to synchronize the feature status between the IP phone and the server for account X. **Note**: The value configured by this parameter takes precedence over that configured by the parameter "features.feature_key_sync.enable".	
Permitted Values	**0**-Disabled **1**-Enabled, the phone to send a SUBSCRIBE message with event "as-feature-event".	
Default	0	
Parameter	features.dnd.feature_key_sync.enable	<y0000000000xx>.cfg
Description	It enables or disables the DND feature synchronization. **Note**: It works only if "features.feature_key_sync.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, server-based DND is enabled. Server and local phone DND are synchronized.	
Default	1	
Parameter	account.X.dnd.feature_key_sync.enable[1]	<MAC>.cfg
Description	It enables or disables the DND feature synchronization for account X. **Note**: The value configured by this parameter takes precedence over that configured by the parameter "features.dnd.feature_key_sync.enable". It works only if "account.X.feature_key_sync.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, server-based DND is enabled. Server and local phone DND are synchronized.	

Default	Blank	
Parameter	features.dnd.feature_key_sync.local_processing.enable	<y0000000000xx>.cfg
Description	It enables or disables the local DND when DND feature synchronization is enabled. **Note**: It works only if “features.feature_key_sync.enable” and “features.dnd.feature_key_sync.enable” are set to 1 (Enabled). The value configured by the parameter “account.X.features.dnd.feature_key_sync.local_processing.enable” takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled, DND is performed on the server side only. **1**-Enabled, DND is performed on both the server side and locally.	
Default	0	
Parameter	account.X.features.dnd.feature_key_sync.local_processing.enable[1]	<MAC>.cfg
Description	It enables or disables the local DND when DND feature synchronization is enabled. **Note**: It works only if “features.feature_key_sync.enable” and “features.dnd.feature_key_sync.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled, DND is performed on the server side only. **1**-Enabled, DND is performed on both the server side and locally.	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Multiple Call Appearances

You can enable each registered line to support multiple concurrent calls. For example, you can place one call on hold, switch to another call on the same registered line, and have both calls displayed.

You can set the maximum number of concurrent calls per line key on all-lines basis or a per-line basis. For example, if you specify 3 concurrent-calls for account 1, you can only have three call appearances on a corresponding line key. The additional incoming calls will be rejected.

Note: The number of concurrent calls applies to all line keys. For example, if three line keys are associated with an account, you can have three call appearances per line key.

Topic

Multiple Call Appearances Configuration

Multiple Call Appearances Configuration

You can specify the maximum concurrent calls per line key.

The following table lists the parameters you can use to configure multiple call appearances.

Parameter	phone_setting.call_appearance.calls_per_linekey	<y0000000000xx>.cfg
Description	It configures the maximum number of concurrent calls per line key for all registered lines. If it is set to 0, there is no limit for the number of concurrent calls. **Example**: phone_setting.call_appearance.calls_per_linekey = 2 It means that you can have up to two concurrent calls per line key on the IP phone. **Note**: The value configured by the parameter “account.X.phone_setting.call_appearance.calls_per_linekey” takes precedence over that configured by this parameter.	

Permitted Values	Integer from 0 to 24	
Default	0	
Parameter	account.X.phone_setting.call_appearance.calls_per_linekey[1]	<MAC>.cfg
Description	It configures the maximum number of concurrent calls per line key for a specific line. If it is set to 0, there is no limit for the number of concurrent calls. **Example**: account.1.phone_setting.call_appearance.calls_per_linekey = 2 It means that you can have up to two concurrent calls per line key associated with account 1. **Note**: The value configured by this parameter takes precedence over that configured by the parameter "phone_setting.call_appearance.calls_per_linekey".	
Permitted Values	Integer from 0 to 24	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Hold

Call hold provides a service of placing an active call on hold. It enables you to pause activity on an active call so that you can use the phone for another task, for example, to place or receive another call.

When a call is placed on hold, the phones send an INVITE request with HOLD SDP to request remote parties to stop sending media and to inform them that they are being held. The phones support two call hold methods, one is RFC 3264, which sets the "a" (media attribute) in the SDP to sendonly, recvonly or inactive (for example, a=se-endonly). The other is RFC 2543, which sets the "c" (connection addresses for the media streams) in the SDP to zero (for example, c=0.0.0.0).

When you place an active call on hold or the call is held by remote parry, a call hold tone or held tone alerts you after a specific period of time that a call is still on hold or is still held by the remote party. You can configure the call hold tone and held tone.

If supported by the server, you can also configure a music-on-hold URI.

Topics

Call Hold Configuration
Music on Hold (MoH) Configuration

Call Hold Configuration

The following table lists the parameters you can use to configure call hold.

Parameter	sip.rfc2543_hold	<y0000000000xx>.cfg
Description	It enables or disables the phone to use RFC 2543 (c=0.0.0.0) outgoing hold signaling.	
Permitted Values	**0**-Disabled, SDP media direction attributes (such as a=sendonly) per RFC 3264 is used when placing a call on hold. **1**-Enabled, SDP media connection address c=0.0.0.0 per RFC 2543 is used when placing a call on hold.	
Default	0	

Web UI	Features > General Information > RFC 2543 Hold	
Parameter	account.X.hold_use_inactive[1]	<MAC>.cfg
Description	It enables or disables the phone to use inactive outgoing hold signaling. **Note**: It works only if “sip.rfc2543_hold" is set to 0 (Disabled).	
Permitted Values	**0**-Disabled, SDP media direction attribute “a=sendonly” is used when placing a call on hold. **1**-Enabled, SDP media direction attribute “a=inactive” is used when placing a call on hold. RTP packets will not be sent or received.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	features.play_hold_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play the call hold tone when you place a call on hold.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > General Information > Play Hold Tone	
Parameter	features.play_hold_tone.delay	<y0000000000xx>.cfg
Description	It configures the time (in seconds) to wait for the phone to play the initial call hold tone. If it is set to 30 (30s), the phone will wait 30 seconds to play the initial call hold tone after you place a call on hold. **Note**: It works only if “features.play_hold_tone.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 3 to 3600	
Default	30	
Web UI	Features > General Information > Play Hold Tone Delay	
Parameter	features.play_hold_tone.interval	<y0000000000xx>.cfg
Description	It configures the time (in seconds) between subsequent call hold tones. If it is set to 3 (3s) and “features.play_hold_tone.delay” is set to 30 (30s), the phone will begin to play a hold tone after you place a call on hold for 30 seconds, and repeat the call hold tone every 3 seconds. **Note**: It works only if “features.play_hold_tone.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 3 to 3600	
Default	30	
Web UI	Features > General Information > Hold Tone Interval(second)	
Parameter	features.play_held_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play the call held tone when a call is held by the other party.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Web UI	Features > General Information > Play Held Tone	
Parameter	features.play_held_tone.delay	<y0000000000xx>.cfg
Description	It configures the time (in seconds) to wait for the phone to play the initial call held tone. If it is set to 30 (30s), the phone will wait 30 seconds to play the initial call held tone after you are held by the other party. **Note**: It works only if the Music on Hold feature is disabled and "features.play_held_tone.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 3 to 3600	
Default	30	
Web UI	Features > General Information > Play Held Tone Delay	
Parameter	features.play_held_tone.interval	<y0000000000xx>.cfg
Description	It configures the time (in seconds) between subsequent call held tones. If it is set to 3 (3s) and "features.play_held_tone.delay" is set to 30 (30s), the phone will begin to play a held tone after a call is held by the other party for 30 seconds, and repeat the call held tone every 3 seconds. **Note**: It works only if the Music on Hold feature is disabled and "features.play_held_tone.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 3 to 3600	
Default	60	
Web UI	Features > General Information > Held Tone Interval(second)	
Parameter	phone_setting.hold_or_swap.mode	<y0000000000xx>.cfg
Description	It configures the display rule of the **Hold**/**Swap** soft key when there are two calls on the phone. **Note**: You can also configure the softkey layout feature to display the **Hold** or **Swap** soft key.	
Permitted Values	**0**-Only display the **Swap** soft key. **1**-Only display the **Hold** soft key. **2**-Display the **Hold** and **Swap** soft keys.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Related Parameters	phone_setting.custom_softkey_enable	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Music on Hold (MoH) Configuration

When a call is placed on hold, the phone will send an INVITE message to the specified MoH server account according to the SIP URI. The MoH server account automatically responds to the INVITE message and immediately plays audio from some source located anywhere (LAN, Internet) to the held party. For more information, refer to draft RFC draft-worley-service-example.

The following table lists the parameters you can use to configure music on hold.

Parameter	account.X.music_server_uri[1]	<MAC>.cfg
Description	It configures the address of the Music On Hold server. Examples for valid values: <10.1.3.165> , 10.1.3.165, sip:moh@sip.com, <sip:moh@sip.com> , <yealink.com > or yealink.com. **Note**: The DNS query in this parameter only supports A query.	
Permitted Values	SIP URI within 256 characters	
Default	Blank	
Web UI	Account > Advanced > Music Server URI	
Parameter	account.X.music_on_hold_type[1]	<MAC>.cfg
Description	It configures the way to process Music On Hold when placing an active call on hold.	
Permitted Values	**0**-Calling the Music On Hold server before holding the call **1**-Calling the Music On Hold server after holding the call	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Mute

You can mute the microphone of the active audio device (handset, headset or speakerphone) on Yealink phones during an active call or when the phone is on the pre-dialing/dialing/calling/ringing screen. The call is automatically muted when setting up successfully. Muting before a call is answered prevents the other party from hearing the local discussion.

You can activate the mute feature by pressing the MUTE key. Normally, the mute feature is automatically deactivated when the active call ends. You can use keep mute feature to keep the mute state persisting across the calls.

Topics

Microphone Mute Configuration
Keep Mute
Mute Alert Tone

Microphone Mute Configuration

The following table lists the parameter you can use to configure the microphone mute feature.

Parameter	features.allow_mute	<y0000000000xx>.cfg
Description	It enables or disables the allow mute feature for the IP phone.	
Permitted Values	**0**-Disabled **1**-Enabled, you are allowed to mute an active call or activate the mute feature on the pre-dialing/dialing/calling/ringing screen.	
Default	1	
Web UI	Features > General Information > Allow Mute	
Parameter	features.dect_mic.mute.mode	<y0000000000xx>.cfg
Description	It configures the mute mode for the phone and the registered Wireless Expansion Mic/connected Wired Expansion Mic.	

Permitted Values	**0**-Synchronous mode, the mute/unmute states on the expansion microphone and on the phone are synchronous. When the phone is in a call, you can mute the call on the phone or on the expansion microphone. **1**-Standalone mode, the mute/unmute states on the expansion microphone and on the phone are mutually independent. When the phone is in a call, you can mute the phone and the expansion microphone together by tapping **All mute** on the phone, mute the phone only by tapping **Mute** on the phone, or mute the expansion microphone only by tapping the mute button on the expansion microphone. **Note**: It is not available when using CP960/CP965 star connection feature.
Default	0
Supported Devices	CP960, CP965
Phone UI	Settings > Wireless Microphone > Synchronous mode/Standalone mode CP965: More > Settings > Wireless Microphone > Synchronous mode/Standalone mode

Keep Mute

Keep mute, also known as persistent mute, allows you to keep the mute state persisting across calls.

In a call center or meet room, if incoming calls are answered automatically, the callers may hear the local discussion. Therefore, you can mute the phone in an idle state to prevent the unintended situation. The mute state persists across calls until you unmute the microphone manually or until the phone restarts.

You can activate the mute feature by pressing the MUTE key in idle/pre-dialing/dialing/ringing/calling/talking state.

Topic

Keep Mute Configuration

Keep Mute Configuration

The following table lists the parameter you can use to enable or disable keep mute.

Parameter	features.keep_mute.enable	<y0000000000xx>.cfg
Description	It configures the keep mute feature. **Note**: It works only if "features.allow_mute" is set to 1 (Enabled).	
Permitted Values	**0**-The mute feature is automatically deactivated when the active call ends. **1**-The mute state is kept until you change the mute state manually or the phone restarts.	
Default	0 (for VP59/T58A/T58W) 1 (for CP960/CP965)	

Mute Alert Tone

You can configure the phone to play an audible tone if the mute status of the phone is changed. This allows you to know if your phone is in the mute or un-mute state. In addition, you can set a periodic reminder which plays the audible tone periodically when the phone is in the mute state. The time interval must not be less than 3 seconds.

It is only applicable to CP960/CP965 phones.

Topic

Mute Alert Tone Configuration

Mute Alert Tone Configuration

The following table lists the parameters you can use to configure the mute alert tone feature.

Parameter	features.play_mute_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play an audible tone when the mute status is changed.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	CP960, CP965	
Parameter	features.play_mute_tone.interval	<y0000000000xx>.cfg
Description	It configures time interval (in seconds) for playing an audible tone when the phone is in the mute state during the call.	
Permitted Values	Integer from 3 to 3600	
Default	5	
Supported Devices	CP960, CP965	

Call Forward

You can forward calls from any line on your phone to a contact. There are two ways of forwarding your calls:

- Forward calls in special situations, such as when the phone is busy or there is no answer, or forwarding all incoming calls to a contact immediately.

  You can set the phone not to forward a call coming from authorized numbers.
- Manually forward an incoming call to a number.

Topics

Call Forward Settings Configuration
Call Forward Feature Configuration
Call Forward Synchronization for Server-side Configuration

Call Forward Settings Configuration

You can change the following call forward settings:

- Enable or disable the call forward feature. If disabled, the users have no permission to configure call forward on their phone.
- Choose a call forward mode. You can configure call forward for all lines or specific lines.
- Allow or disallow users to forward an incoming call to an international telephone number (the prefix is 00).
- Enable or disable forward emergency feature and specify forward authorized numbers. These numbers will not be forwarded when the call forward feature is enabled. The incoming call will not be logged in the Forwarded Calls list.
- Enable or disable the display of the Diversion header. The Diversion header allows the phone which receives a forwarded-call to indicate where the call was from.

The following table lists the parameters you can use to change the call forward settings.

Parameter	features.fwd.allow	<y0000000000xx>.cfg
Description	It enables or disables the call forward feature.	

Permitted Values	**0**-Disabled, call forward feature is not available to the users. **1**-Enabled	
Default	1	
Parameter	features.fwd_mode	<y0000000000xx>.cfg
Description	It configures the call forward mode. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled).	
Permitted Values	**0**-Phone, call forward feature is effective on a phone basis. **1**-Custom, you can configure call forward feature on a per-line basis.	
Default	0	
Web UI	Features > Forward&DND > Forward > Mode	
Parameter	features.forward.emergency.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to receive the call from authorized numbers when the call forward feature is activated. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the call from authorized numbers will not be forwarded when the call forward feature is activated.	
Default	0	
Web UI	Features > Forward&DND > Forward > Forward Emergency	
Parameter	features.forward.emergency.authorized_number	<y0000000000xx>.cfg
Description	It configures the authorized numbers. The call from the authorized numbers cannot be forwarded even if the call forward feature is activated. Multiple numbers are separated by commas. **Note**: It works only if "features.fwd.allow" and "features.forward.emergency.enable" are set to 1 (Enabled).	
Permitted Values	String within 511 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > Forward Authorized Numbers	
Parameter	forward.international.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to forward incoming calls to international numbers (the prefix is 00). **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > General Information > Fwd International	
Phone UI	Settings > Advanced Settings (default password: admin) > FWD International > FWD International CP965: More > Settings > Advanced (default password: admin) > FWD International > FWD International	

Parameter	forward.idle_access_always_fwd.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to always enter the Always Forward setting screen when pressing the Forward key on the Idle screen.	
Permitted Values	**0**-Disabled. When pressing the Forward key, the phone may activate/deactivate the call forward or enter the Always Forward/Busy Forward/No Answer Forward setting screen. **1**-Enabled	
Default	0	
Parameter	features.fwd_diversion_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to present the diversion information when an incoming call is forwarded to the IP phone.	
Permitted Values	**0**-Disabled **1**-Enabled, the server can use the Diversion field with a SIP header to inform the phone of a call's history.	
Default	1	
Web UI	Features > General Information > Diversion/History-Info	
Parameter	phone_setting.fwd_and_dnd.suspension_prompt	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the floating window prompt on the idle screen after call forward is activated.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Call Forward Feature Configuration

After you choose a call forward mode, you can configure call forward feature for all lines or specific lines. It depends on the call forward mode:

- **Phone** (default): Call forward feature is effective for all lines.
- **Custom**: Call forward feature can be configured for a specific line or multiple lines.

Note: Forward mode is set by the parameter "features.fwd_mode".

Yealink phones also support call forward on code and off code to activate and deactivate server-side call forward feature. They may vary on different servers.

Tip: You can set a DSS key as a Forward key, and specify a contact you want to forward the incoming calls to for this key. For more information, refer to DSS Keys.

Topics

Call Forward in Phone Mode Configuration
Call Forward in Custom Mode Configuration

Call Forward in Phone Mode Configuration

The following table lists the parameters you can use to configure call forward in phone mode.

Parameter	forward.always.enable	<y0000000000xx>.cfg
Description	It triggers the always forward feature to on or off on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0	

	(Phone) .	
Permitted Values	**0**-Off **1**-On, incoming calls are forwarded to the destination number (configured by the parameter "forward.always.target") immediately.	
Default	0	
Web UI	Features > Forward&DND > Forward > Always Forward > On/Off	
Phone UI	Settings > Features > Call Forward > Always Forward > Always Forward CP965: More > Settings > Features > Call Forward > Always Forward > Always Forward	
Parameter	forward.always.target	<y0000000000xx>.cfg
Description	It configures the destination number of the always forward on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > Always Forward > Target	
Phone UI	Settings > Features > Call Forward > Always Forward > Forward to CP965: More > Settings > Features > Call Forward > Always Forward > Forward to	
Parameter	forward.always.on_code	<y0000000000xx>.cfg
Description	It configures the always forward on code to activate the server-side always forward feature. The phone will send the always forward on code and the pre-configured destination number (configured by the parameter "forward.always.target") to the server when you activate always forward feature on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > Always Forward > On Code	
Phone UI	Settings > Features > Call Forward > Always Forward > On Code CP965: More > Settings > Features > Call Forward > Always Forward > On Code	
Parameter	forward.always.off_code	<y0000000000xx>.cfg
Description	It configures the always forward off code to deactivate the server-side always forward feature. The phone will send the always forward off code to the server when you deactivate always forward feature on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0 (Phone) .	
Permitted	String within 32 characters	

Values		
Default	Blank	
Web UI	Features > Forward&DND > Forward > Always Forward > Off Code	
Phone UI	Settings > Features > Call Forward > Always Forward > Off Code CP965: More > Settings > Features > Call Forward > Always Forward > Off Code	
Parameter	forward.busy.enable	<y0000000000xx>.cfg
Description	It triggers the busy forward feature to on or off on a phone basis. **Note**: It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 0 (Phone) .	
Permitted Values	**0**-Off **1**-On, incoming calls are forwarded to the destination number (configured by the parameter “forward.busy.target”) when the callee is busy.	
Default	0	
Web UI	Features > Forward&DND > Forward > Busy Forward > On/Off	
Phone UI	Settings > Features > Call Forward > Busy Forward > Busy Forward CP965: More > Settings > Features > Call Forward > Busy Forward > Busy Forward	
Parameter	forward.busy.target	<y0000000000xx>.cfg
Description	It configures the destination number of the busy forward on a phone basis. **Note**: It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > Busy Forward > Target	
Phone UI	Settings > Features > Call Forward > Busy Forward > Forward to CP965: More > Settings > Features > Call Forward > Busy Forward > Forward to	
Parameter	forward.busy.on_code	<y0000000000xx>.cfg
Description	It configures the busy forward on code to activate the server-side busy forward feature. The phone will send the busy forward on code and the pre-configured destination number (configured by the parameter “forward.busy.target”) to the server when you activate the busy forward feature on a phone basis. **Note**: It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	

Web UI	Features > Forward&DND > Forward > Busy Forward > On Code	
Phone UI	Settings > Features > Call Forward > Busy Forward > On Code CP965: More > Settings > Features > Call Forward > Busy Forward > On Code	
Parameter	forward.busy.off_code	<y0000000000xx>.cfg
Description	It configures the busy forward off code to deactivate the server-side busy forward feature. The phone will send the busy forward off code to the server when you deactivate the busy forward feature on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > Busy Forward > Off Code	
Phone UI	Settings > Features > Call Forward > Busy Forward > Off Code CP965: More > Settings > Features > Call Forward > Busy Forward > Off Code	
Parameter	forward.no_answer.enable	<y0000000000xx>.cfg
Description	It triggers the no answer forward feature to on or off on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0 (Phone) . DND activated on the IP phone deactivates the local No Answer Forward settings.	
Permitted Values	**0**-Off **1**-On, incoming calls are forwarded to the destination number (configured by the parameter "forward.no_answer.target") after a period of ring time.	
Default	0	
Web UI	Features > Forward&DND > Forward > No Answer Forward > On/Off	
Phone UI	Settings > Features > Call Forward > No Answer Forward > No Answer Forward CP965: More > Settings > Features > Call Forward > No Answer Forward > No Answer Forward	
Parameter	forward.no_answer.target	<y0000000000xx>.cfg
Description	It configures the destination number of the no answer forward on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > No Answer Forward > Target	
Phone UI	Settings > Features > Call Forward > No Answer Forward > Forward to CP965: More > Settings > Features > Call Forward > No Answer Forward > Forward to	

Parameter	forward.no_answer.timeout	<y0000000000xx>.cfg
Description	It configures ring times (N) to wait before forwarding incoming calls. The incoming calls will be forwarded when not answered after N*M (M is configurable by “phone_setting.ring_duration”) seconds. **Note**: It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 0 (Phone) .	
Permitted Values	Integer from 0 to 20 (determined by “features.forward.no_answer.show_ring_times”)	
Default	2	
Web UI	Features > Forward&DND > Forward > No Answer Forward > After Ring Time (0~120s)	
Phone UI	Settings > Features > Call Forward > No Answer Forward > After Ring Time CP965: More > Settings > Features > Call Forward > No Answer Forward > After Ring Time	
Parameter	features.forward.no_answer.show_ring_times	<y0000000000xx>.cfg
Description	It configures the permitted values of the ring times (N) to wait before forwarding incoming calls. **Example**: features.forward.no_answer.show_ring_times = 0,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19 **Note**: It works only if “forward.no_answer.enable” or “account.X.timeout_fwd.enable” is set to 1 (Enabled).	
Permitted Values	String within 512 characters	
Default	0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20 (1 is not applicable to BroadSoft users)	
Parameter	phone_setting.ring_duration	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) of the ring for the no answer forward feature. **Note**: It works only if “forward.no_answer.enable” or “account.X.timeout_fwd.enable” is set to 1 (Enabled).	
Permitted Values	Integer greater than or equal to 0	
Default	6	
Parameter	forward.no_answer.on_code	<y0000000000xx>.cfg
Description	It configures the no answer forward on code to activate the server-side no answer forward feature. The phone will send the no answer forward on code and the pre-configured destination number (configured by the parameter “forward.no_answer.target”) to the server when you activate the no answer forward feature on a phone basis. **Note**: It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > No Answer Forward > On Code	
Phone UI	Settings > Features > Call Forward > No Answer Forward > On Code	

	CP965: More > Settings > Features > Call Forward > No Answer Forward > On Code	
Parameter	forward.no_answer.off_code	<y0000000000xx>.cfg
Description	It configures the no answer forward off code to deactivate the server-side no answer forward feature. The phone will send the no answer forward off code to the server when you deactivate the no answer forward feature on a phone basis. **Note**: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 0 (Phone) .	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Forward&DND > Forward > No Answer Forward > Off Code	
Phone UI	Settings > Features > Call Forward > No Answer Forward > Off Code CP965: More > Settings > Features > Call Forward > No Answer Forward > Off Code	

Call Forward in Custom Mode Configuration

The following table lists the parameters you can use to configure call forward in custom mode.

Parameter	account.X.always_fwd.enable[1]	<MAC>.cfg
Description	It triggers always forward feature to on or off. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 1 (Custom).	
Permitted Values	**0**-Off **1**-On, incoming calls to the account X are forwarded to the destination number (configured by the parameter "account.X.always_fwd.target") immediately.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Always Forward > On/Off	
Phone UI	Settings > Features > Call Forward > AccountX > Always Forward > Always Forward	
Parameter	account.X.always_fwd.target[1]	<MAC>.cfg
Description	It configures the destination number of the always forward. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Always Forward > Target	

Phone UI	Settings > Features > Call Forward > AccountX > Always Forward > Forward to	
Parameter	account.X.always_fwd.on_code[1]	<MAC>.cfg
Description	It configures the always forward on code to activate the server-side always forward feature. The phone will send the always forward on code and the pre-configured destination number (configured by the parameter “account.X.always_fwd.target”) to the server when you activate always forward feature on the phone. **Note:** It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Always Forward > On Code	
Phone UI	Settings > Features > Call Forward > AccountX > Always Forward > On Code	
Parameter	account.X.always_fwd.off_code[1]	<MAC>.cfg
Description	It configures the always forward off code to deactivate the server-side always forward feature. The phone will send the always forward off code to the server when you deactivate always forward feature on the phone. **Note:** It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Always Forward > Off Code	
Phone UI	Settings > Features > Call Forward > AccountX > Always Forward > Off Code	
Parameter	account.X.busy_fwd.enable[1]	<MAC>.cfg
Description	It triggers the busy forward feature to on or off.	
Permitted Values	**0**-Off **1**-On, incoming calls to the account X are forwarded to the destination number (configured by the parameter “account.X.busy_fwd.target”) when the callee is busy.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Busy Forward > On/Off	
Phone UI	Settings > Features > Call Forward > AccountX > Busy Forward > Busy Forward	
Parameter	account.X.busy_fwd.target[1]	<MAC>.cfg
Description	It configures the destination number of the busy forward.	

	Note: It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Busy Forward > Target	
Phone UI	Settings > Features > Call Forward > AccountX > Busy Forward > Forward to	
Parameter	account.X.busy_fwd.on_code[1]	<MAC>.cfg
Description	It configures the busy forward on code to activate the server-side busy forward feature. The phone will send the busy forward on code and the pre-configured destination number (configured by the parameter "account.X.busy_fwd.target") to the server when you activate the busy forward feature on the phone. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Busy Forward > On Code	
Phone UI	Settings > Features > Call Forward > AccountX > Busy Forward > On Code	
Parameter	account.X.busy_fwd.off_code[1]	<MAC>.cfg
Description	It configures the busy forward off code to deactivate the server-side busy forward feature. The phone will send the busy forward off code to the server when you deactivate the busy forward feature on the phone. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > Busy Forward > Off Code	
Phone UI	Settings > Features > Call Forward > AccountX > Busy Forward > Off Code	
Parameter	account.X.timeout_fwd.enable[1]	<MAC>.cfg
Description	It triggers no answer forward feature to on or off. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 1 (Custom).	
Permitted Values	**0**-Off **1**-On, incoming calls to the account X are forwarded to the destination number (configured by the para-	

	meter “account.X.timeout_fwd.target”) after a period of ring time.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > No Answer Forward > On/Off	
Phone UI	Settings > Features > Call Forward > AccountX > No Answer Forward > No Answer Forward	
Parameter	account.X.timeout_fwd.target[1]	<MAC>.cfg
Description	It configures the destination number of the no answer forward. **Note:** It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > No Answer Forward > Target	
Phone UI	Settings > Features > Call Forward > AccountX > No Answer Forward > Forward to	
Parameter	account.X.timeout_fwd.timeout[1]	<MAC>.cfg
Description	It configures ring times (N) to wait before forwarding incoming calls. The incoming calls will be forwarded when not answered after N*M (M is configurable by “phone_setting.ring_duration”) seconds. **Note:** It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 1 (Custom).	
Permitted Values	Integer from 0 to 20 (determined by “features.forward.no_answer.show_ring_times”)	
Default	2	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > No Answer Forward > After Ring Time(0~120s)	
Phone UI	Settings > Features > Call Forward > AccountX > No Answer Forward > After Ring Time	
Parameter	account.X.timeout_fwd.on_code[1]	<MAC>.cfg
Description	It configures the no answer forward on code to activate the server-side no answer forward feature. The phone will send the no answer forward on code and the pre-configured destination number (configured by the parameter “account.X.timeout_fwd.target”) to the server when you activate no answer forward feature on the phone. **Note:** It works only if “features.fwd.allow” is set to 1 (Enabled) and “features.fwd_mode” is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported	All phones except CP960/CP965	

Devices		
Web UI	Features > Forward&DND > Forward > AccountX > No Answer Forward > On Code	
Phone UI	Settings > Features > Call Forward > AccountX > No Answer Forward > On Code	
Parameter	account.X.timeout_fwd.off_code[1]	<MAC>.cfg
Description	It configures the no answer forward off code to deactivate the server-side no answer forward feature. The phone will send the no answer forward off code to the server when you deactivate no answer forward feature on the phone. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and "features.fwd_mode" is set to 1 (Custom).	
Permitted Values	String within 32 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Forward&DND > Forward > AccountX > No Answer Forward > Off Code	
Phone UI	Settings > Features > Call Forward > AccountX > No Answer Forward > Off Code	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16.

Call Forward Synchronization for Server-side Configuration

Call forward synchronization feature provides the capability to synchronize the status of the call forward features between the IP phone and the server.

If the call forward is activated in phone mode, the forward status changing locally will be synchronized to all registered accounts on the server; but if the forward status of the specific account is changed on the server, the forward status locally will be changed.

The following table lists the parameters you can use to configure call forward synchronization for server-side.

Parameter	features.feature_key_sync.enable	<y0000000000xx>.cfg
Description	It enables or disables to synchronize the feature status between the IP phone and the server.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone sends a SUBSCRIBE message with event "as-feature-event" to the server.	
Default	0	
Parameter	account.X.feature_key_sync.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables to synchronize the feature status between the IP phone and the server for account X. **Note**: The value configured by this parameter takes precedence over that configured by the parameter "features.feature_key_sync.enable".	
Permitted Values	**0**-Disabled **1**-Enabled, the phone to send a SUBSCRIBE message with event "as-feature-event" to the server.	
Default	Blank	

Parameter	features.forward.feature_key_sync.enable	<y0000000000xx>.cfg
Description	It enables or disables the forward feature synchronization. **Note**: It works only if “features.feature_key_sync.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, server-based call forward is enabled. Server and local phone call forward are synchronized.	
Default	1	
Parameter	account.X.forward.feature_key_sync.enable[1]	<MAC>.cfg
Description	It enables or disables the forward feature synchronization for account X. **Note**: The value configured by this parameter takes precedence over that configured by the parameter "features.forward.feature_key_sync.enable". It works only if “account.X.feature_key_sync.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, server-based call forward is enabled. Server and local phone call forward are synchronized.	
Default	Blank	
Parameter	features.forward.feature_key_sync.local_processing.enable	<y0000000000xx>.cfg
Description	It enables or disables the local forward when call forward feature synchronization is enabled. **Note**: It works only if “features.feature_key_sync.enable” and “features.forward.feature_key_sync.enable” are set to 1 (Enabled). The value configured by the parameter “account.X.features.forward.feature_key_sync.local_processing.enable” takes precedence over that configured by this parameter.	
Permitted Values	**0**-Disabled, call forward is performed on the server side only. **1**-Enabled, call forward is performed on both server side and locally.	
Default	0	
Parameter	account.X.features.forward.feature_key_sync.local_processing.enable[1]	<MAC>.cfg
Description	It enables or disables the local forward when call forward feature synchronization is enabled. **Note**: It works only if “features.feature_key_sync.enable” and “features.forward.feature_key_sync.enable” are set to 1 (Enabled).	
Permitted Values	**0**-Disabled, call forward is performed on the server side only. **1**-Enabled, call forward is performed on both server side and locally.	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Transfer

Call transfer enables the phones to transfer an existing call to a third party. For example, if party A is in an active call with party B, party A can transfer this call to party C (the third party). Then, party B will begin a new call with party C, and party A will disconnect.

Yealink phones support call transfer using the REFER method specified in RFC 3515 and offer three types of transfer:

- **Blind Transfer** -- Transfer a call directly to another party without consulting. Blind transfer is implemented by a simple REFER method without Replaces in the Refer-To header.
- **Semi-attended Transfer** -- Transfer a call after hearing the ringback tone. The semi-attended transfer is implemented by a REFER method with Replaces in the Refer-To header.

  The semi-attended transfer is applicable to that when users do not want to consult with the third party after hearing the ringback tone, and the third party has not answered the call, the users can cancel the transfer or implement the transfer.
- **Attended Transfer (Consultative Transfer)** -- Transfer a call with prior consulting. Attended transfer is implemented by a REFER method with Replaces in the Refer-To header.

Topics

Call Transfer Configuration
Transfer Mode for Dsskey Configuration

Call Transfer Configuration

The following table lists the parameters you can use to configure call transfer.

Parameter	transfer.semi_attend_tran_enable	<y0000000000xx>.cfg
Description	It enables or disables the semi-attended transfer.	
Permitted Values	**0**-Disabled, when the user taps the **Transfer** key after hearing the ringback tone, the phone will blind transfer the call. **1**-Enabled, when the user taps the **Transfer** key after hearing the ringback tone, the phone will transfer the call after the transferee answers the call.	
Default	1	
Web UI	Features > Transfer > Semi-Attended Transfer	
Parameter	account.X.transfer_refer_to_contact_header.enable[1]	<MAC>.cfg
Description	It enables or disables the Refer-To header to use the information of the Contact header in the second 200 OK message when attended transfer.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.transfer_keep_session2_after_failed.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to keep the original call status after the server rejects the semi-attended/attended transfer.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	transfer.blind_tran_on_hook_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to complete the blind transfer through on-hook besides tapping the key. **Note**: Blind transfer means transferring a call directly to another party without consulting.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Supported Devices	T58W, T58A, VP59	
Web UI	Features > Transfer > Blind Transfer On Hook	
Parameter	transfer.on_hook_trans_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to complete the semi-attended/attended transfer through on-hook besides tapping the key. **Note**: Semi-attended transfer means transferring a call after hearing the ringback tone; Attended transfer means transferring a call with prior consulting.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	T58W, T58A, VP59	
Web UI	Features > Transfer > Attended Transfer On Hook	
Parameter	account.X.end_call_when_transferred.enable[1]	<MAC>.cfg
Description	It enables or disables the call between the transferred party and transfer party to be directly released when call transfer is completed.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.transfer_complete.prompt.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to pop up a prompt after the transfer operation is completed.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	features.transfer.mode	<y0000000000xx>.cfg
Description	It configures the experience mode of the transfer.	
Permitted Values	**0**-Blind transfer and attended transfer are distinguished in the transfer to screen. **1**-The call screen has softkeys for blind transfer and attended transfer. **2**-The default transfer mode is attended transfer, users can switch to the blind transfer mode in the transfer to screen. **3**-The default transfer mode is blind transfer, users can switch to the attended transfer mode in the transfer to screen. **4**-The default transfer mode is attended transfer, users cannot switch to the blind transfer mode in the transfer to screen.	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Transfer Mode for Dsskey Configuration

The following table lists the parameter you can use to configure transfer mode for Dsskey.

Parameter	transfer.dsskey_deal_type	<y0000000000xx>.cfg
Description	It configures the transfer mode for the DSS key. When the user presses the DSS Key during a call, the DSS Key behavior depends on the transfer mode. **Note**: This feature is only applicable to the Speed Dial key, BLF/BLF List key or Transfer key with an assigned value.	
Permitted Values	**0**-New Call **1**-Attended Transfer **2**-Blind Transfer **4**-Optional, users can choose to transfer the call via New Call, Attended Transfer or Blind Transfer manually	
Default	2	
Web UI	Features > Transfer > Transfer Mode via Dsskey	

Conference

The Yealink phones support local conference and network conference.

Topics

Conference Type Configuration
Local Conference Configuration
Network Conference Configuration

Conference Type Configuration

You can specify which type of conference to establish.

The following table lists the parameter you can use to set a conference type.

Parameter	account.X.conf_type[1]	<MAC>.cfg
Description	It configures the conference type for a specific account.	
Permitted Values	**0**-Local Conference **2**-Network Conference	
Default	0	
Web UI	Account > Advanced > Conference Type	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Local Conference Configuration

The local conference requires a host phone to process the audio of all parties. Yealink phones support up to 5 parties (10 parties for T58A/VP59/T58W phones) (including yourself) in a local conference call.

Note: Codecs that can support 10-party conference: G722, G723, G726, G729, PCMA, PCMU, and iLBC; the codec can only support 5-party conference.

The following table lists the parameters you can use to configure the local conference.

Parameter	features.conference.local.enable	<y0000000000xx>.cfg
Description	It enables or disables the local conference feature for the IP phone. **Note**: It works only when "account.X.conf_type" is set to 0 (Local Conference).	

Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	features.conference.with_previous_call.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to merge two calls into a conference directly by pressing the conference key when there are two calls on the phone.	
Permitted Values	**0**-Disabled, users can select to set up a conference with the held party or a new party during multiple calls. **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	features.local_conf.combine_with_one_press.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to set up a three-way conference directly after the second party answers the call.	
Permitted Values	**0**-Disabled, the user needs to tap the **Conference** soft key again to set up a conference after the second party answers the call. **1**-Enabled, the second party joins a conference with the first party after answering the call, both phones play a warning tone.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	transfer.tran_others_after_conf_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to transfer the local conference call to the other two parties after the conference initiator drops the local conference call. **Note**: It works only if "account.X.conf_type" is set to 0 (Local Conference).	
Permitted Values	**0**-Disabled, all parties are disconnected when the conference initiator drops the conference call. **1**-Enabled, the other two parties remain connected when the conference initiator drops the conference call.	
Default	0	
Web UI	Features > Transfer > Transfer on Conference Hang up	

Network Conference Configuration

Network conference, also known as a centralized conference, provides you with the flexibility of call with multiple participants (more than three). The phones implement network conference using the REFER method specified in RFC 4579. This feature depends on the support from a SIP server

For network conference, if any party leaves the conference, the remaining parties are still connected.

The following table lists the parameter you can use to configure the network conference.

Parameter	account.X.conf_uri[1]	<MAC>.cfg
Description	It configures the network conference URI for a specific account. **Note**: It works only if “account.X.conf_type” is set to 2 (Network Conference).	
Permitted Values	SIP URI within 511 characters	

Default	Blank	
Web UI	Account > Advanced > Conference URI	
Parameter	account.X.networkconf_type[1]	<MAC>.cfg
Description	It configures how a network conference is set up. **Note**: It works only if "account.X.conf_type" is set to 2 (Network Conference).	
Permitted Values	**0**-The phone transfers the participant to the server by a REFER method with conference URI in the Refer-To header. **1**-The phone transfers the server to the participant by a REFER method with SIP URI in the Refer-To header.	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Recording

Yealink phones support recording calls (audio-only calls or video calls) or conferences during a call. By default, the recorded files are saved in the internal SD card. You can also save the recorded files in the connected USB flash drive.

For VP59/T58A/T58W phones, if you connect the USB flash drive to the IP phone, the recorded files will be saved according to the priority: USB flash drive > Internal SD card. For CP960/CP965 phones, if you connect the USB flash drive to the IP phone, you can choose to save the recorded files to the Internal SD card or USB flash drive.

Note: Yealink phones support USB flash drive in FAT32 or NTFS format.

Important: Before recording any call, especially those involving PSTN, it is necessary to know about the rules and restrictions of any governing call-recording in the place where you are. It is also very important to have the consent of the person you are calling before recording the conversation.

Topic

Call Recording Configuration

Call Recording Configuration

The following table lists the parameter you can use to configure call recording.

Parameter	features.usb_call_recording.enable	<y0000000000xx>.cfg
Description	It enables or disables the USB call recording feature. **Note**: It works only if "static.usbdisk.function.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the recorded calls will be saved to the USB flash drive.	
Default	0	
Parameter	features.auto_recording.enable	<y0000000000xx>.cfg
Description	It enables or disables the USB automatic recording feature. **Note**: It works only if "features.usb_call_recording.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Parameter	phone_setting.recorder_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play an alert tone when the recording starts.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

Recording Upload

You can configure the phones to upload the local recording files to a third-party server.

Topic

Recording Upload Configuration

Recording Upload Configuration

The following table lists the parameter you can use to upload recording.

Parameter	features.recording_upload.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to upload the call recording files to a third-party server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.recording_upload.server.address	<y0000000000xx>.cfg
Description	It configures the server address the call recording files are uploaded to. **Note**: It works only if "features.recording_upload.enable" is set to 1 (Enabled).	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	features.recording_upload.server.username	<y0000000000xx>.cfg
Description	It configures the authentication user name of the server for uploading the call recording files. **Note**: It works only if "features.recording_upload.enable" is set to 1 (Enabled).	
Permitted Values	String within 32 characters	
Default	Blank	
Parameter	features.recording_upload.server.password	<y0000000000xx>.cfg
Description	It configures the authentication password of the server for uploading the call recording files. **Note**: It works only if "features.recording_upload.enable" is set to 1 (Enabled).	
Permitted Values	String within 32 characters	
Default	Blank	

Parameter	features.recording_upload_action	<y0000000000xx>.cfg
Description	It configures the recording upload method.	
Permitted Values	**1**-Manual, you need to manually select the recording file to upload. **2**-Auto, after the recording file is generated, it will be automatically uploaded to the designated server.	
Default	1	
Parameter	features.recording_file.delete_method	<y0000000000xx>.cfg
Description	It configures whether to delete the local recording file after it is successfully uploaded to the server.	
Permitted Values	**1**-Whether or not the local recording file is uploaded successfully, it will not be deleted automatically. **2**-Only after the local recording file is uploaded successfully, will it be deleted automatically.	
Default	1	

Multicast Paging

Multicast Paging allows you to easily and quickly broadcast instant audio announcements to users who are listening to a specific multicast group on a specific channel.

Yealink phones support the following 31 channels:

- **0**: Broadcasts are sent to channel 0. Note that the Yealink phones running old firmware version (old paging mechanism) can be regarded as listening to channel 0. It is the default channel.
- **1 to 25**: Broadcasts are sent to channel 1 to 25. We recommend that you specify these channels when broadcasting with Polycom phones which have 25 channels you can listen to.
- **26 to 30**: Broadcasts are sent to channel 26 to 30.

The phones can only send and receives broadcasts to/from the listened channels. Other channels' broadcasts will be ignored automatically by the IP phone.

Topics

Multicast Paging Group Configuration
Multicast Listening Group Configuration
Multicast Paging Settings

Multicast Paging Group Configuration

Yealink phones support up to 31 groups for paging. You can assign multicast IP address with a channel for each group, and specify a label to each group to identify the phones in the group, such as All, Sales, or HR.

Tip: You can set a DSS key as Multicast Paging key or Paging list key on the phone, which allows you to send announcements to the phones with the pre-configured multicast address(es) on the specific channel(s). For more information, refer to DSS Keys.

The following table lists the parameters you can use to configure a multicast paging group.

Parameter	multicast.paging_address.X.ip_address[1]	<y0000000000xx>.cfg
Description	It configures the IP address and port number of the multicast paging group in the paging list.	
Permitted Values	IP address: port (224.0.0.1-239.255.255.255 port: 0-65535)	
Default	Blank	

Web UI	Directory > Multicast IP > Paging List > Paging Address	
Phone UI	Settings > Features > Paging List > Option > Edit > Address CP965: More > Settings > Features > Paging List > Option > Edit > Address	
Parameter	multicast.paging_address.X.label[1]	<y0000000000xx>.cfg
Description	It configures the name of the multicast paging group to be displayed in the paging list. It will be displayed on the phone screen when placing the multicast paging calls.	
Permitted Values	String	
Default	Blank	
Web UI	Directory > Multicast IP > Paging List > Label	
Phone UI	Settings > Features > Paging List > Option > Edit > Label CP965: More > Settings > Features > Paging List > Option > Edit > Label	
Parameter	multicast.paging_address.X.channel[1]	<y0000000000xx>.cfg
Description	It configures the channel of the multicast paging group in the paging list.	
Permitted Values	**0**-all the Yealink phones running old firmware version or Yealink phones listen to channel 0 or third-party available devices in the paging group can receive the RTP stream. **1 to 25**-the Polycom or Yealink phones preconfigured to listen to the channel can receive the RTP stream. **26 to 30**-the Yealink phones preconfigured to listen to the channel can receive the RTP stream.	
Default	0	
Web UI	Directory > Multicast IP > Paging List > Channel	
Phone UI	Settings > Features > Paging List > Option > Edit > Channel CP965: More > Settings > Features > Paging List > Option > Edit > Channel	

[1]X ranges from 1 to 31.

Multicast Listening Group Configuration

Yealink phones support up to 31 groups for listening. You can assign multicast IP address with a channel for each group, and specify a label to each group to identify the phones in the group, such as All, Sales, or HR.

The following table lists the parameters you can use to configure the multicast listening group.

Parameter	multicast.listen_address.X.ip_address[1]	<y0000000000xx>.cfg
Description	It configures the multicast address and port number that the phone listens to.	
Permitted Values	IP address: port (224.0.0.1-239.255.255.255 port: 0-65535)	
Default	Blank	
Web UI	Directory > Multicast IP > Multicast Listening > Listening Address	
Parameter	multicast.listen_address.X.label[1]	<y0000000000xx>.cfg

Description	It configures the label to be displayed on the phone screen when receiving the multicast paging calls.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Directory > Multicast IP > Multicast Listening > Label	
Parameter	multicast.listen_address.X.channel[1]	<y0000000000xx>.cfg
Description	It configures the channel that the phone listens to.	
Permitted Values	**0**-the phone can receive an RTP stream of the pre-configured multicast address from the phones running old firmware version, from the phones listen to the channel 0, or from the available third-party devices. **1 to 25**-the phone can receive an RTP stream of the pre-configured multicast address on the channel 1 to 25 respectively from Yealink or Polycom phones. **26 to 30**-the phone can receive the RTP stream of the pre-configured multicast address on the channel 26 to 30 respectively from Yealink phones.	
Default	0	
Web UI	Directory > Multicast IP > Multicast Listening > Channel	

[1]X ranges from 1 to 31.

Multicast Paging Settings

You can configure some general settings for multicast paging, for example, specify a codec, configure the volume and audio device for listening to a paging call.

By default, all the listening groups are considered with a certain priority from 1 (lower priority) to 31 (higher priority). If you neither want to receive some paging calls nor miss urgent paging calls when there is a voice call or paging call, or when DND is activated, you can use the priority to define how your phone handles different incoming paging calls.

Paging Barge

You can set your phone whether an incoming paging call interrupts an active call.

The Paging Barge defines the lowest priority of the paging group from which the phone can receive a paging call when there is a voice call (a normal phone call rather than a multicast paging call) in progress. You can specify a priority that the incoming paging calls with higher or equal priority are automatically answered, and the lower ones are ignored.

If it is disabled, all incoming paging calls will be automatically ignored.

Paging Priority

You can set your phone whether a new incoming paging call interrupts a current paging call.

The Paging Priority feature decides how the phone handles incoming paging calls when there is already a paging call on the phone. If enabled, the phone will ignore incoming paging calls with lower priorities, otherwise, the phone will answer incoming paging calls automatically and place the previous paging call on hold. If disabled, the phone will automatically ignore all incoming paging calls.

DND for Ignoring Paging Call

If you do not want to miss some urgent paging calls when DND is activated. You can use the Ignore DND feature to define the lowest priority of paging group from which the phone can receive an urgent paging call when DND is

activated. You can specify a priority that the incoming paging calls with higher or equal priority are automatically answered, and the lower ones are ignored.

If it is disabled, all the incoming paging calls will be ignored when DND is activated in phone mode.

Topic

Multicast Paging Settings Configuration

Multicast Paging Settings Configuration

The following table lists the parameters you can use to change multicast paging settings.

Parameter	multicast.codec	<y0000000000xx>.cfg
Description	It configures the codec for multicast paging.	
Permitted Values	PCMU, PCMA, G729, G722	
Default	G722	
Web UI	Features > General Information > Multicast Codec	
Parameter	multicast.receive_priority.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to handle the incoming multicast paging calls when there is an active multicast paging call on the phone.	
Permitted Values	**0**-Disabled, the phone will ignore the incoming multicast paging calls when there is an active multicast paging call on the phone. **1**-Enabled, the phone will receive the incoming multicast paging call with a higher priority and ignore the one with a lower priority.	
Default	1	
Web UI	Directory > Multicast IP > Paging Priority Active	
Parameter	multicast.receive_priority.priority	<y0000000000xx>.cfg
Description	It configures the priority of the voice call (a normal phone call rather than a multicast paging call) in progress. 1 is the highest priority, 31 is the lowest priority.	
Permitted Values	**0**-Disabled, all incoming multicast paging calls will be automatically ignored when a voice call is in progress. **1**-1 **2**-2 **3**-3 ... **31**-31 If it is set to other values, the phone will receive the incoming multicast paging call with a higher or equal priority and ignore the one with a lower priority when a voice call is in progress.	
Default	31	
Web UI	Directory > Multicast IP > Paging Barge	
Parameter	multicast.receive.ignore_dnd.priority	<y0000000000xx>.cfg
Description	It configures the lowest priority of the multicast paging call that can be received when DND is activ-	

	ated in phone mode. 1 is the highest priority, 31 is the lowest priority.	
Permitted Values	**0**-Disabled, all incoming multicast paging calls will be automatically ignored when DND is activated in phone mode. **1**-1 **2**-2 **3**-3 ... **31**-31 If it is not set to 0 (Disabled), the phone will receive the incoming multicast paging call with a higher or same priority than this value and ignore that with a lower priority than this value when DND is activated in phone mode.	
Default	0	
Web UI	Directory > Multicast IP > Ignore DND	
Parameter	multicast.listen_address.X.volume[1]	<y0000000000xx>.cfg
Description	It configures the volume of the speaker when receiving the multicast paging calls. If it is set to 0, the current volume of the speaker takes effect. The volume of the speaker can be adjusted by pressing the Volume key in advance when the phone is during a call. You can also adjust the volume of the speaker during the paging call. If it is set to 1 to 15, the configured volume takes effect and the current volume of the speaker will be ignored. You are not allowed to adjust the volume of the speaker during the paging call.	
Permitted Values	Integer from 0 to 15	
Default	0	
Parameter	multicast.receive.enhance_volume	<y0000000000xx>.cfg
Description	It enables or disables the volume enhancement feature when receiving the multicast paging calls. **Note**: It works only if "multicast.listen_address.X.volume" is not set to 0. If the value the parameter "multicast.listen_address.X.volume" is set to 1-15 and the value of this parameter is set to 1 (Enabled), the receiving volume will be 16-30.	
Permitted Values	**0**-Disabled **1**-Enabled, the receiving volume will be increased by 15 level.	
Default	0	
Parameter	multicast.receive.use_speaker	<y0000000000xx>.cfg
Description	It enables or disables the phone to always use the speaker as the audio device when receiving the multicast paging calls.	
Permitted Values	**0**-Disabled, the engaged audio device will be used when receiving the multicast paging calls. **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	features.paging_auto_resume.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically resume the held multicast paging call after the	

	second multicast paging call or a new call ends.
Permitted Values	**0**-Disabled **1**-Enabled
Default	0

[1]X ranges from 1 to 31.

Video Features

The VP59/T58A/T58W phones support transmission and reception of high quality video images. To transmit video on T58A/T58W phones, you need to connect a USB camera CAM50 to the phone in advance.

The video is compatible with RFC 3984 - RTP Payload Format for H.264 Video, RFC 7741 - on RTP Payload Format for VP8 Video.

Video Settings

The VP59/T58A/T58W phones support using USB camera for point-to-point video calls. Users can place and answer video calls. You can configure camera flicker to optimize video calling. Indoor lights powered by a 50Hz or 60Hz power source can produce a flicker. You can adjust the camera flicker frequency according to the power source.

During video calls, near-site and far-site video images are displayed on the touch screen. You can change the default video layout.

Topic

Video Settings Configuration

Video Settings Configuration

The following table lists the parameters you can use to configure video settings.

Parameter	static.camera.function.enable [1]	<y0000000000xx>.cfg
Description	It enables or disables the USB camera feature.	
Permitted Values	**0**-Disabled, the top USB port is disabled, and the near-site video image will not be transmitted in outgoing and incoming calls. **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	camera.status_bar_icon.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display an icon in the status bar when the camera is not detected.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	video.enable	<y0000000000xx>.cfg
Description	It configures the video call feature for the IP phone. **Note**: If you want to transmit the near-site video image during the video call, you need to set "static.camera.function.enable" to 1 (Enabled).	
Permitted Values	**0**-Disabled, users are only allowed to establish an audio-only call. **1**-Video first, users can establish a video call with the other party that is video-enabled. **2**-Optional, users can choose to establish an audio-only or video call; and switch between the audio-only call and the video call.	

Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Settings > Video > Video Active	
Parameter	account.X.video.mode[2]	<y0000000000xx>.cfg
Description	It configures the video call feature for the IP phone. **Note**: If you want to transmit the near-site video image during the video call, you need to set "static.camera.function.enable" to 1 (Enabled). The value configured by this parameter takes precedence over that configured by the parameter "video.enable".	
Permitted Values	**0**-Disabled, users are only allowed to establish an audio-only call. **1**-Video first, users can establish a video call with the other party that is video-enabled. **2**-Optional, users can choose to establish an audio-only or video call; and switch between the audio-only call and the video call.	
Default	Blank	
Supported Devices	T58W	
Parameter	camera.flicker	<y0000000000xx>.cfg
Description	It configures camera flicker frequency (Hz). **Note**: Indoor lights powered by a 50Hz or 60Hz power source can produce a flicker. You can adjust the camera flicker frequency according to the power source.	
Permitted Values	**50**-50Hz **60**-60Hz	
Default	50	
Supported Devices	All phones except CP960/CP965	
Parameter	features.default_layout	<y0000000000xx>.cfg
Description	It configures the default call layout after a single-way call is set up. **Note**: It works only if "video.enable" is set to 1 (Video first) or 2 (Optional). There is no near-site video image on the VP59/T58A phones if USB camera is not connected.	
Permitted Values	**1**-Focus Big: One video image displays in a large size, the other video image along the right side of the screen displays in small size. **2**-Focus Full Screen: One video image displays in full size, the other video images are hidden.	
Default	1	
Supported Devices	All phones except CP960/CP965/T58W	
Web UI	Features > General Information > Default Layout	
Parameter	features.full_screen_in_call_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to enter the full screen automatically when a video call is set up. **Note**: It works only if "video.enable" is set to 1 (Video first) or 2 (Optional).	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > General Information > Full Screen In Call	
Parameter	features.video_call_bandwidth	<y0000000000xx>.cfg
Description	It specifies the transmission bandwidth for a video call. **Note**: It works only if “video.enable” is set to 1 (Video first) or 2 (Optional). We recommend that you reduce transmission bandwidth when network environment is relatively poor.	
Permitted Values	**0**-Auto, the default transmission bandwidth is 768kb/s. The network environment may affect the performance of the phone. **256**-256kb/s **384**-384kb/s **512**-512kb/s **640**-640kb/s **768**-768kb/s **1024**-1024kb/s **1280**-1280kb/s **1500**-1500kb/s **2000**-2000kb/s	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Settings > Video > Video Call Rate	
Parameter	sip.h264.peer_resolution.default	<y0000000000xx>.cfg
Description	It configures the default video resolution if other party doesn't specify the resolution in H264 packet.	
Permitted Values	**0**-CIF **1**-4CIF **2**-720P **3**-1080P	
Default	2	
Supported Devices	All phones except CP960/CP965	

[1]If you change this parameter, the phone will reboot to make the change take effect.

[2]X is the account ID. X=1-16.

Video Codecs

CODEC is an abbreviation of COmTap-DEComTap, capable of coding or decoding a digital data stream or signal by implementing an algorithm. The object of the algorithm is to represent the high-fidelity video signal with minimum

number of bits while retaining the quality. This can effectively reduce the frame size and the bandwidth required for video transmission.

The video codec that the phone uses to establish a call should be supported by the SIP server. When placing a call, the phone will offer the enabled video codec list to the server and then use the video codec negotiated with the called party according to the priority.

RTPmap

Codecs and priorities of these codecs are configurable on a per-line basis. The attribute "rtpmap" is used to define a mapping from RTP payload codes to a codec, clock rate and other encoding parameters.

The following table lists the video codecs supported by VP59/T58A/T58W phone model:

Name	MIME Type	Bit Rate	Frame Rate	Frame Size
H.264 BP	H264/90000	90 kbps to 2048 kbps	5 fps to 30 fps	Tx: CIF, 360P, W448P, 720P Rx: Conventional Size Below 720P
H.264 HP	H264/90000			
VP8	VP8/90000	128kbps to 2048 kbps		
H.263	H263	90 kbps to 2048 kbps		Tx: CIF, 4CIF RX: QCIF, CIF, 4CIF

Topic

Video Codecs Configuration

Video Codecs Configuration

The following table lists the parameter you can use to configure video codecs.

Parameter	account.X.video.<payload_type>.enable (where <payload_type> should be replaced by the name of video codec)	<MAC>.cfg
Description	It enables or disables the specified video codec for account X. The name of video codec: **h264**-H264 **h264hp**-H264HP **vp8**-VP8 **h263**-H263 **Example**: account.1.video.h264.enable = 1 **Note**: The name of video codec in this parameter should be the correct one as listed in the above example, otherwise the corresponding configuration will not take effect.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP960/CP965	
Web UI	Account > Codec > Video Codec	
Parameter	account.X.video.<payload_type>.priority	<MAC>.cfg

	(where <payload_type> should be replaced by the name of video codec)	
Description	It configures the priority of the enabled video codec for account X. The name of video codec: **h264**-H264 **h264hp**-H264HP **vp8**-VP8 **h263**-H263 **Example**: account.1.video.h264.priority = 2 **Note**: The name of video codec in this parameter should be the correct one as listed in the above example, otherwise the corresponding configuration will not take effect.	
Permitted Values	Integer from 0 to 3 (0 to 4 for VP59 phones)	
Default	When the audio codec is H264HP, the default value is 1; When the audio codec is H264, the default value is 2; When the audio codec is VP8, the default value is 3; When the audio codec is H263, the default value is 4;	
Supported Devices	All phones except CP960/CP965	
Web UI	Account > Codec > Video Codec	

Advanced Features

The advanced features require server support. Consult your server partner to find out if these features are supported.

Topics

Call Pickup
Dialog Info Call Pickup
Call Completion
Call Park and Retrieve
Automatic Call Distribution (ACD)
Busy Lamp Field
Shared Line
Intercom
CSTA Control
Action URL
Action URI
Voice Mail
Short Message Service (SMS)
XML Browser
Hot Desking

Call Pickup

You can use call pickup to answer someone else's incoming call on your phone.

The Yealink phones support Directed Call Pickup and Group Call Pickup:

- **Directed Call Pickup**: allows you to pick up incoming calls to a specific phone.
- **Group Call Pickup**: allows you to pick up incoming calls to any phone within a predefined group of phones.

Topics

Directed Call Pickup
Group Call Pickup

Directed Call Pickup

Directed call pickup is used for picking up an incoming call on a specific extension. You can answer a call that rings on a specific phone. If there are multiple incoming calls on the phone at the same time, you can only pick up the first incoming call.

You can choose to implement directed call pickup using a directed call pick code or using SIP signaling.

Topic

Directed Call Pickup Configuration

Directed Call Pickup Configuration

You can enable directed call pickup, the LCD screen will display a **DPickup** soft key when picking up the handset, pressing the Speakerphone key or pressing the line key (You may need to press the **More** soft key to see the **DPickup** soft key).

You can configure a directed call pickup code and pick up the incoming call using the **DPickup** soft key.

Tip: You can set a DSS key as a Directed Pickup key, and specify a contact you want to pick up a call from for this key. For more information, refer to DSS Keys.

The following table lists the parameters you can use to configure directed call pickup.

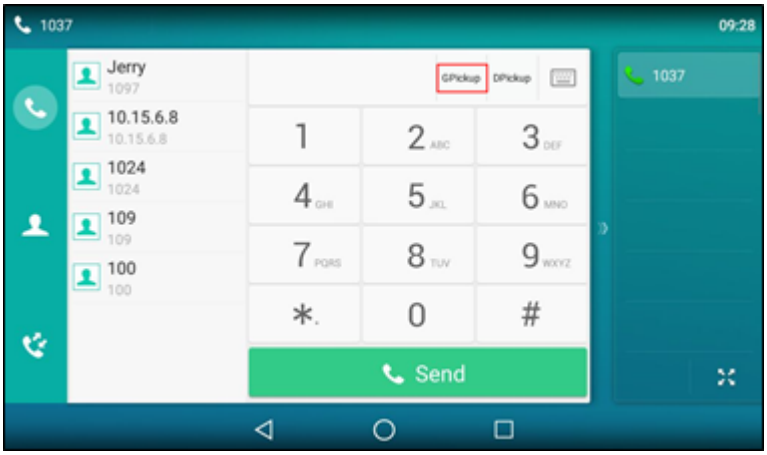
Parameter	features.pickup.direct_pickup_enable	<y0000000000xx>.cfg
Description	It enables or disables the user to use **DPickup** soft key when performing the directed call pickup feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the **DPickup** soft key on the Dialing screen.	
Default	0	
Web UI	Features > Pick up & Park > Directed Call Pickup	
Parameter	features.pickup.direct_pickup_code	<y0000000000xx>.cfg
Description	It configures the directed call pickup code on a phone basis. **Note**: The code configured by "account.X.direct_pickup_code" takes precedence over that configured by this parameter.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Pick up & Park > Directed Call Pickup Code	
Parameter	account.X.direct_pickup_code[1]	<MAC>.cfg
Description	It configures the directed call pickup code. **Note**: The code configured by this parameter takes precedence over that configured by "features.pickup.direct_pickup_code".	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Advanced > Directed Call Pickup Code	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Group Call Pickup

Group call pickup is used for picking up incoming calls within a predefined group. When any phone within a predefined group of phones receives an incoming call, you can pick up that call easily on the phone.

If you enable group call pickup, the phone screen will display a **GPickup** soft key when picking up the handset, tapping the Speakerphone key or tapping the line key. As shown below:



You can pick up the group incoming call using the **GPickup** soft key.

Tip: You can set a DSS key as a Group Pickup key to pick up a group call. For more information, refer to DSS Keys.

Topic

Group Call Pickup Configuration

Group Call Pickup Configuration

The following table lists the parameters you can use to configure the group call pickup.

Parameter	features.pickup.group_pickup_enable	<y0000000000xx>.cfg
Description	It enables or disables the user to use **GPickup** soft key when performing group call pickup feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the **GPickup** soft key on the Dialing screen.	
Default	0	
Web UI	Features > Pick up & Park > Group Call Pickup	
Parameter	features.pickup.group_pickup_code	<y0000000000xx>.cfg
Description	It configures the group call pickup code on a phone basis. **Note**: The code configured by “account.X.group_pickup_code” takes precedence over that configured by this parameter.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Pick up & Park > Group Call Pickup Code	
Parameter	account.X.group_pickup_code[1]	<MAC>.cfg
Description	It configures the group pickup code. **Note**: The code configured by this parameter takes precedence over that configured by “features.pickup.group_pickup_code”.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Advanced > Group Call Pickup Code	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Dialog Info Call Pickup

While some SIP servers implement directed call pickup using a directed call pickup code, others also support implement this feature through SIP signals.

Note: In this way, you do not need to configure the directed call pickup code.

If you enable the phone to implement directed call pickup through SIP signals, the phone picks up an incoming call via a SIP INVITE message with a Replaces header. The value of Replaces is derived from a NOTIFY message with the dialog-info event. This feature applies only to directed call pick-up attempts initiated against monitored BLF resources. It means you can pick up an incoming call by tapping a BLF/BLF List key.

Example of the dialog-info carried in NOTIFY message:

```
<?xml version="1.0"? >
<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="6" state="partial" entity-
y="sip:1011@10.2.1.48:5060" >
<dialog id="65603" call-id="0_1756536024@10.10.20.34" local-tag="3408640225" remote-tag-
g="3779921438" direction="recipient">
<state > early</state>
<local >
<identity > sip:1011@10.2.1.48:5060</identity>
<target uri="sip:1011@10.2.1.48:5060"/>
</local >
<remote >
<identity > sip:1058@10.2.1.48:5060</identity >
<target uri="sip:1058@10.2.1.48:5060"/ >
</remote>
</dialog>
</dialog-info>
```

Example of the Replaces carried in INVITE message:

```
Via: SIP/2.0/UDP 10.10.20.18:5060;branch=z9hG4bK2026058891
From: "1010" <sip:1010@10.2.1.48:5060>;tag=826048502
To: <sip:1058@10.2.1.48:5060>
Call-ID: 0_572446084@10.10.20.18
CSeq: 1 INVITE
Contact: <sip:1010@10.10.20.18:5060>
Content-Type: application/sdp
Allow: INVITE, INFO, PRACK, ACK, BYE, CANCEL, OPTIONS, NOTIFY, REGISTER, SUBSCRIBE, REFER,
PUBLISH, UPDATE, MESSAGE
Max-Forwards: 70
User-Agent: Yealink T58 58.83.0.15

Replaces: 0_1756536024@10.10.20.34;to-tag=3779921438;from-tag=3408640225
Allow-Events: talk,hold,conference,refer,check-sync
Supported: replaces
Content-Length:   304
```

Related Topics

Dialog Info Call Pickup Configuration
Busy Lamp Field

Dialog Info Call Pickup Configuration

The following table lists the parameter you can use to configure dialog Info call pickup.

Parameter	account.X.dialoginfo_callpickup[1]	<MAC>.cfg
Description	It enables or disables the phone implements directed call pickup through SIP signals for a specific account. **Note**: In this way, you do not need to configure the directed call pickup code.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone picks up a call according to the Replaces header in the INVITE message.	
Default	0	
Web UI	Account > Advanced > Dialog Info Call Pickup	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Completion

When you place a call and the callee is temporarily unavailable to answer the call, call completion allows your phone to monitor the busy party and establish a call after the busy party becomes available to receive a call.

Two factors commonly prevent a call from connecting successfully:

- Callee does not answer
- Callee actively rejects the incoming call before answering

Yealink phones support call completion using the SUBSCRIBE/NOTIFY method, which is specified in draft-poetzl-sipping-call-completion-00, to subscribe to the busy party and receive notifications of their status changes.

The caller subscribes for update notifications of the dialog event from the busy party. Example of a SUBSCRIBE message:

```
SUBSCRIBE sip:1000@10.10.20.34:5060 SIP/2.0
Via: SIP/2.0/UDP 10.10.20.32:5060;branch=z9hG4bK2880274891
From: "10111" <sip:10111@10.2.1.48:5060>;tag=8643512
To: <sip:1000@10.2.1.48:5060>;tag=4025601441
Call-ID: 4_2103527761@10.10.20.32
CSeq: 2 SUBSCRIBE
Contact: <sip:10111@10.10.20.32:5060>
Accept: application/dialog-info+xml
Max-Forwards: 70
User-Agent: Yealink T58 58.83.0.15
Expires: 60

Event: dialog
Content-Length: 0
```

Example of a NOTIFY message (The subscription (SUBSCRIBE message) of the dialog event “Call Completion” is confirmed by the busy party):

```
NOTIFY sip:10111@10.10.20.32:5060 SIP/2.0
```

```
Via: SIP/2.0/UDP 10.10.20.31:5060;branch=z9hG4bK1830418099
From: <sip:1000@10.2.1.48:5060>;tag=1032948194
To: "10111" <sip:10111@10.2.1.48:5060>;tag=722495580
Call-ID: 0_160090766@10.10.20.32
CSeq: 2 NOTIFY
Contact: <sip:1000@10.10.20.31:5060>
Content-Type: application/dialog-info+xml
Max-Forwards: 70
User-Agent: Yealink T58 58.83.0.15
Subscription-State: active;expires=60
Event: dialog
Content-Length:   584

<?xml version="1.0"?>
<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="1" state="full" entity="sip:1000@10.2.1.48:5060">
<dialog id="65626" call-id="0_3138198645@10.10.20.31" local-tag="2331766736" remote-tag="1786911541" direction="initiator">

<state>confirmed</state>
<local>
<identity>sip:1000@10.2.1.48:5060</identity>
<target uri="sip:1000@10.2.1.48:5060"/>
</local>
<remote>
<identity>sip:1@10.2.1.48:5060</identity>
<target uri="sip:1@10.2.1.48:5060"/>
</remote>
</dialog>
<dialog id="65622">
<state>terminated</state>
</dialog>
</dialog-info>
```

Example of a NOTIFY message (The busy party has finished the call and is available again. A new notification update from the busy party is received by the caller):

```
NOTIFY sip:10111@10.10.20.32:5060 SIP/2.0
Via: SIP/2.0/UDP 10.10.20.31:5060;branch=z9hG4bK3431394016
From: <sip:1000@10.2.1.48:5060>;tag=1558968605
```

```
To: "10111" <sip:10111@10.2.1.48:5060>;tag=140677866
Call-ID: 0_2584152566@10.10.20.32
CSeq: 5 NOTIFY
Contact: <sip:1000@10.10.20.31:5060>
Content-Type: application/dialog-info+xml
Max-Forwards: 70
User-Agent: Yealink T58 58.83.0.15
Subscription-State: active;expires=48
Event: dialog
Content-Length:   217

<?xml version="1.0"?>
<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="4" state="partial" entity-
y="sip:1000@10.2.1.48:5060">
<dialog id="65644">

<state>terminated</state>
</dialog>
</dialog-info>
```

Topics

Call Completion Configuration
Example: Using Call Completion

Call Completion Configuration

The following table lists the parameters you can use to configure the call completion feature.

Parameter	features.call_completion_enable	<y0000000000xx>.cfg
Description	It enables or disables the call completion feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > Call Completion	
Phone UI	Settings > Features > Call Completion > Call Completion CP965: More > Settings > Features > Call Completion > Call Completion	

Example: Using Call Completion

The following example shows the configuration for call completion.

Example

features.call_completion_enable = 1

After provisioning, when you place a call and the callee is temporarily unavailable to answer the call, the phone screen will prompt whether to wait for the callee party. You can activate the call completion feature. After the called party becomes idle, the phone screen will prompt whether to dial the number.

Call Park and Retrieve

Call park allows users to park a call on a special extension and then retrieve it from another phone (for example, a phone in another office or conference room).

The VP59/T58A/T58W phones support the call park feature under the following modes:

- **FAC mode**: parks the call to the local extension or the desired extension through dialing the park code.
- **Transfer mode**: parks the call to the shared parking lot through performing a blind transfer. For some servers, the system will return a specific call park retrieve number (park retrieve code) from which the call can be retrieved after parking successfully.

Topics

Call Park and Retrieve Configuration
Example: Setting Call Park and Retrieve in FAC Mode
Example: Setting Call Park and Retrieve in Transfer Mode

Call Park and Retrieve Configuration

The following table lists the parameters you can use to configure the call park and retrieve.

Parameter	features.call_park.park_mode	<y0000000000xx>.cfg
Description	It configures the call park mode.	
Permitted Values	**1**-FAC, park a call through dialing the call park code. **2**-Transfer, blind transfer the call to a shared parking lot.	
Default	2	
Web UI	Features > Pick up & Park > Call Park Mode	
Parameter	features.call_park.enable	<y0000000000xx>.cfg
Description	It enables or disables the call park feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Pick up & Park > Call Park	
Parameter	features.call_park.park_code	<y0000000000xx>.cfg
Description	It configures the call park code for FAC call park mode or configures shared parking lot for Transfer call park mode.	
Permitted Values	String within 256 characters	
Default	Blank	
Web UI	Features > Pick up & Park > Call Park Code	
Parameter	features.call_park.park_retrieve_code	<y0000000000xx>.cfg
Description	It configures the park retrieve code for FAC call park mode or configures retrieve parking lot for Trans-	

	fer call park mode.	
Permitted Values	String within 256 characters	
Default	Blank	
Web UI	Features > Pick up & Park > Park Retrieve Code	
Parameter	features.call_park.direct_send.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to dial out the call park code/park retrieve code directly when pressing the **Park**/**Retrieve** soft key. **Note**: It works only if “features.call_park.park_mode” is set to 1 (FAC) and you have configured the call park code/park retrieve code.	
Permitted Values	**0**-Disabled, the phone will enter the dialing screen when pressing the **Park**/**Retrieve** soft key. The user can dial the specific extension manually or press the BLF/BLF List or Speed Dial key to park the call to the specific extension or retrieve the call parked from the specific extension. **1**-Enabled	
Default	1	
Parameter	features.call_park.line_restriction.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to park a call using the specific line of the Call Park key. **Note**: It works only if “features.call_park.park_mode” is set to 2 (Transfer).	
Permitted Values	**0**-Disabled, the call is parked by the current line, which is in call state. **1**-Enabled	
Default	0	
Parameter	features.call_park.performby_holdhardkey.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to park a call using the HOLD hard key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	sip.call_park_without_blf	<y0000000000xx>.cfg
Description	It enables or disables the phone to close the BLF monitoring feature for call park DSS key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Example: Setting Call Park and Retrieve in FAC Mode

The following example shows the configuration for the FAC call park mode.

Example

features.call_park.park_mode = 1

features.call_park.enable = 1

*features.call_park.park_code = *68*

*features.call_park.park_retrieve_code = *88*

After provisioning, the call park mode is set to FAC. A **Park** soft key will display on the phone during an active call, and a **Retrieve** soft key will display on the Dialing screen. You can tap the **Park** soft key to park a call or tap the **Retrieve** soft key to retrieve a parked call.

Tip: You can set a line key as a Park key or a Retrieve key, specify an extension you want to park a call to for Park key and specify a parked extension you want to retrieve a parked call from for Retrieve key. For more information, refer to Line Keys.

Example: Setting Call Park and Retrieve in Transfer Mode

The following example shows the configuration for Transfer call park mode.

Example

features.call_park.park_mode = 2

features.call_park.enable = 1

*features.call_park.park_code = *01*

*features.call_park.park_retrieve_code = *11*

After provisioning, the call park mode is set to Transfer. A **Park** soft key will display on the phone during an active call and a **Retrieve** soft key will display on the Dialing screen. You can tap the **Park** soft key to park a call to the shared parking lot "*01", or tap the **Retrieve** soft key to retrieve the parked call from the shared parking lot "*01" using the retrieve code "*11".

Tip: You can set a line key as a Park key or a Retrieve key, specify a shared parking lot you want to park a call to for Park key and specify a retrieve lot you want to retrieve a parked call from for Retrieve key. For more information, refer to Line Keys.

Automatic Call Distribution (ACD)

ACD enables the use of phones in a call-center role by automatically distributing incoming calls to available users or agents. You can enable users to use their phone in a call center agent/a supervisor role on a supported call server.

The users can sign in and sign out of the ACD state as call center agent using soft keys. The server distributes calls to the agent when the agent state is available, and stops distributing calls when the agent changes state to unavailable. The IP phone remains in the unavailable status until the agent manually changes the IP phone status. You can configure how long the IP phone remains unavailable state and changes to available automatically on a supported call server.

It is not applicable to CP960/CP965 phones.

Topics

ACD Key Configuration
ACD Configuration
Example: Setting ACD

ACD Key Configuration

You can configure a dsskey as ACD key to log into the ACD system. The ACD key on the IP phone indicates the ACD state.

The following shows configuration for an ACD key.

linekey.X.type = 42

linekey.X.label = ACD

After provisioning, an ACD key is available on the phone, and you can tap the ACD key to log into the ACD system.

ACD Configuration

The following table lists the parameters you can use to configure ACD.

Parameter	account.X.acd.enable[1]	<MAC>.cfg
Description	It enables or disables the ACD feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.acd.available[1]	<MAC>.cfg
Description	It enables or disables the phone to display the **Available**/**Avail** or **Unavailable**/**Unavail** soft key after the phone logs into the ACD system. **Note**: It works only if “account.X.acd.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.subscribe_acd_expires[1]	<MAC>.cfg
Description	It configures the period (in seconds) of ACD subscription. **Note**: It works only if “account.X.acd.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 120 to 3600	
Default	3600	
Web UI	Account > Advanced > ACD Subscribe Period(120~3600s)	
Parameter	features.homescreen_softkey.acd.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the ACD softkeys such as **Login** or **Logout** on the idle screen. **Note**: It works only if “account.X.acd.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except VP59	
Parameter	account.X.acd.unavailable_reason_enable[1]	<MAC>.cfg
Description	It enables or disables the unavailable/away reason code feature. **Note**: It works only if “account.X.acd.available" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the unavailable/away reason of agent state will be displayed on the phone screen (for example, on lunch, in the bathroom, taking a coffee break or a personal break).	
Default	0	
Parameter	acd.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically change the status of the ACD agent to available after	

	the designated time. **Note**: It works only if "account.X.acd.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > ACD > ACD > ACD Available Auto	
Parameter	acd.auto_available_timer	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) for the status of the ACD agent to be automatically changed to available. **Note**: It works only if "account.X.acd.enable" and "acd.enable" are set to 1 (Enabled).	
Permitted Values	Integer from 0 to 120	
Default	60	
Web UI	Features > ACD > ACD > ACD Auto Available Timer (0~120s)	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16.

Example: Setting ACD

The following example shows the configuration for ACD.

Example

######Set an ACD for account 1#######

account.1.acd.enable = 1

account.1.acd.available = 1

account.1.subscribe_acd_expires = 3000

acd.enable = 1

acd.auto_available_timer = 60

features.homescreen_softkey.acd.enable = 1

######Set an ACD key#############

linekey.1.type=42

linekey.1.label=ACD

After provisioning, you can tap the **Login** soft key or ACD key to log into the ACD system. After logging into the ACD system, **Available**/**Unavailable** soft key appears on the phone screen. You can tap **Available**/**Unavailable**soft key to change ACD state. The ACD key on the IP phone indicates the ACD state.

Busy Lamp Field

The Busy Lamp Field (BLF) feature enables the IP phone to monitor specific remote lines for state changes on the phone.

Yealink phones support two methods of BLF configuration:

- Configure a line key as BLF key to monitor a specific remote line
- Configure BLF List to monitor a list of specific remote lines

The BLF feature enables the following functions to the users:

- Monitor the status of line on their phone
- Display caller ID information
- Answer incoming calls to the monitored line (called directed call pickup)
- Park and retrieve calls to the monitored line
- Initiate an outgoing intercom call to the monitored line
- Barging In an Active Call by BLF List Key
- Park the active call to the monitored users who are in the BLF list

Topics

BLF Key Configuration
BLF List Configuration
State Indicator of Remote Line
BLF/BLF List Subscription
Visual and Audio Alert for Monitor Lines
LED Mode for BLF/BLF List Key
BLF/BLF List Key LED Status and Behavior Configuration
BLF Key for Intercom Configuration
Call Information Display Configuration

BLF Key Configuration

You can configure a BLF key for a specific line.

The following shows the configuration of a BLF key for Bill.

linekey.X.type=16

linekey.X.line=1

linekey.X.value=1001

linekey.X.label=Bill

Related Topic

Line Keys Configuration

BLF List Configuration

You can configure a BLF List for monitor phone. It enables the monitor phone to subscribe to a list of lines, and receive status notifications of the monitored lines.

Note: The IP phone subscribes to a BLF list that is set up on the server. You must access the server and set up a list of monitored lines.

The following table lists the parameters you can use to configure BLF List.

Parameter	account.X.blf.blf_list_uri[1]	<MAC>.cfg
Description	It configures the BLF List URI to monitor a list of users for account X. **Example**: account.1.blf.blf_list_uri = 4609@pbx.test.com	
Permitted Values	SIP URI within 256 characters	
Default	Blank	
Web UI	Account > Advanced > BLF List URI	
Parameter	account.X.blf_list_code[1]	<MAC>.cfg

Description	It configures the feature access code that initiates a directed call pickup for account X.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Advanced > BLF List Pickup Code	
Parameter	account.X.blf_list_barge_in_code[1]	<MAC>.cfg
Description	It configures the feature access code of directed call pickup with barge-in for account X.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Advanced > BLF List Barge in Code	
Parameter	account.X.blf_list_call_parked_code[1]	<MAC>.cfg
Description	It configures the feature access code of call park for account X.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Advanced > BLF List Call Parked Code	
Parameter	account.X.blf_list_call_parked_list[1]	<MAC>.cfg
Description	It configures the serial numbers of the monitored users in the BLF list where you can park the active call for account X. Multiple serial numbers are separated by commas. **Example:** account.1.blf_list_call_parked_list = When you leave it blank, you cannot park the active call to any monitored user. account.1.blf_list_call_parked_list = all You can park the active call to any monitored user. account.1.blf_list_call_parked_list = 1,3,4 You can park the active call to the first, third or fourth monitored user in the BLF list. **Note:** This parameter has a higher priority than "transfer.dsskey_deal_type", so that when you press the BLF list key during a call, the phone parks a call other than transferring the call. It works only if "account.X.blf_list_call_parked_code" is configured.	
Permitted Values	Blank all serial numbers of monitored users in the BLF list	
Default	Blank	
Supported Devices	All phones except VP59	
Parameter	account.X.blf_list_retrieve_call_parked_code[1]	<MAC>.cfg

Description	It configures the feature access code that initiates retrieval of a parked call on the monitored user.	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Account > Advanced > BLF List Retrieve Call Parked Code	
Parameter	phone_setting.auto_blf_list_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically configure the BLF list DSS keys in order.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	phone_setting.blf_list_sequence_type	<y0000000000xx>.cfg
Description	It configures the order of BLF list DSS keys assigned automatically. **Note**: It works only if "phone_setting.auto_blf_list_enable" is set to 1 (Enabled). To assign Ext Key, make sure the expansion module has been connected to the phone in advance.	
Permitted Values	**0**-linekey > exp1 key > expN key **1**-exp1 key > expN key > linekey **2**-linekey page1 > page1 from exp1 key to expN key > page2 from exp1 key to expN key > … > linekey from page2 to page3 **3**-page1 from exp1 key to expN key > page2 from exp1 key to expN key > … > linekey **Note**: N is the number of your connected expansion modules.	
Default	0	
Supported Devices	T58W, T58A	
Parameter	features.blf_list_version[2]	<y0000000000xx>.cfg
Description	It enables or disables the phone to include the Version header in the BLF list NOTIFY message sent by the server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]If you change this parameter, the phone will reboot to make the change take effect.

State Indicator of Remote Line

The state indicator of the monitored line on BLF/BLF List key varies by phone models.

The following table shows the icons indicator associated with the line you are monitoring.

Icons (T58A/VP59/CP960)	Icons (T58W)	Description
		The monitored line is idle.
		The monitored line is ringing.

(Flashing)	(Flashing)	
(Flashing)	(Flashing)	The monitored line is dialing.
		The monitored line is busy or in a call.
		The monitored line places a call on hold.
		A call is parked to the monitored line.
		The monitored line fails to register or does not exist.

BLF/BLF List Subscription

Yealink phones support BLF using a SUBSCRIBE/NOTIFY mechanism as specified in RFC 3265.

BLF Subscription

When you configure the IP phone to monitor a specific line, the phone sends a SUBSCRIBE request with Request-URI containing the monitor line URI to the server, and then receives a NOTIFY request. The NOTIFY message contains an XML body with the status of the specific monitored line.

The following example shows a NOTIFY message for a BLF line "012":

```
<?xml version="1.0"?>

<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="1" state="full" entity-
y="sip:012@10.20.10.42:5060">

<dialog id="0000" > <state > terminated</state > </dialog >

</dialog-info>
```

BLF List Subscription

When you configure the IP phone to monitor a list of specific remote lines, the phone sends a SUBSCRIBE request with Request-URI containing the BLF List URI, and then receives a NOTIFY request. The NOTIFY message contains an XML body with the status of each monitor line.

The following example shows a NOTIFY message for a BLF List, the BLF List contains 4605 and 4607:

```
<?xml version="1.0" <?xml version="1.0"?>

<list xmlns="urn:ietf:params:xml:ns:rlmi" xmlns="urn:ietf:params:xml:ns:rlmi" version="0" fullState="true">

<resource uri="sip:4605@pbx.yealink.com">

<name > 4605 Yealink</name>

<instance id="JQZxud2qeo" state="active" cid="8y35ri@broadworks"/>

</resource>

<resource uri="sip:4605@pbx.yealink.com">

<name > 4607 Yealink</name>

<instance id="pXHQ97tPyQ" state="active" cid="tYzwJM@broadworks"/>

</resource>

</list>
```

Topic

BLF/BLF List Subscription Configuration

BLF/BLF List Subscription Configuration

The following table lists the parameters you can use to configure BLF/BLF List subscription.

Parameter	account.X.blf.subscribe_period[1]	<MAC>.cfg
Description	It configures the period (in seconds) of the BLF subscription.	
Permitted Values	Integer from 30 to 2147483647	
Default	1800	
Web UI	Account > Advanced > Subscription Period (Seconds)	
Parameter	account.X.blf.subscribe_event[1]	<MAC>.cfg
Description	It configures the event of the BLF subscription.	
Permitted Values	**0**-dialog **1**-presence	
Default	0	
Parameter	account.X.out_dialog_blf_enable[1]	<MAC>.cfg
Description	It enables or disables the phone to handle NOTIFY messages out of the BLF dialog.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.blf.match_host.enable[1]	<MAC>.cfg
Description	It enables or disables host match feature for BLF/BLF list feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone can only recognize the NOTIFY message whose host field is the same as the one in the SUBSCRIBE message.	
Default	0	
Parameter	sip.terminate_notify_sub_delay_time	<y0000000000xx>.cfg
Description	It configures the interval (in seconds) for the phone to re-subscribe when it receives the NOTIFY message with the subscription state of Terminated. If it is set to 0, the phone will re-subscribe immediately.	
Permitted Values	Integer greater than 0	
Default	0	
Parameter	sip.sub_refresh_random	<y0000000000xx>.cfg
Description	It enables or disables the phone to use the random renewal mechanism. **Note**: It works only if “account.X.subscribe_expires_overlap" is set to 0 (Disabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will generate a random value. The final renewal time is equal to the original	

	renewal time plus the random value.
Default	0

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Visual and Audio Alert for Monitor Lines

Visual and Audio Alert feature allows the phone to display the caller ID and play an audio alert when a BLF line receives an incoming call.

Topics

Visual and Audio Alert for BLF Lines Configuration
Example: Configuring Visual and Audio Alert for Monitor Lines

Visual and Audio Alert for BLF Lines Configuration

The following table lists the parameters you can use to configure a visual and audio alert for BLF lines.

Parameter	features.pickup.blf_visual_enable	<y0000000000xx > .cfg
Description	It enables or disables the phone to display a visual alert when the monitored user receives an incoming call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Pickup & Park > Visual Alert for BLF Pickup	
Parameter	features.pickup.blf_visual.list	<y0000000000xx>.cfg
Description	It configures the monitored users who want to enable the visual alert for BLF pickup feature. Multiple monitored users are separated by commas. **Example:** features.pickup.blf_visual.list = any or leave it blank The phone displays a visual alert when any monitored user receives an incoming call. features.pickup.blf_visual.list = 4604,4605 The phone displays a visual alert when monitored user 4604 or 4605 receives an incoming call. features.pickup.blf_visual.list = List1 The phone displays a visual alert when any user in the List 1 receives an incoming call. ListX stands for the BLF list of account X configured by the parameter "account.X.blf.blf_list_uri". **Note:** It works only if "features.pickup.blf_visual_enable" is set to 1 (Enabled).	
Permitted Values	any Monitored phone number ListX[1]	
Default	any	
Supported Devices	T58W, T58A	
Parameter	features.pickup.blf_audio_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play an audio alert when the monitored user receives an incom-	

	ing call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Pickup & Park > Audio Alert for BLF Pickup	
Parameter	features.pickup.blf_audio.list	<y0000000000xx>.cfg
Description	It configures the monitored users who want to enable the audio alert for BLF pickup feature. Multiple monitored users are separated by commas. **Example:** features.pickup.blf_audio.list = any or leave it blank The IP phone plays an audio alert when any monitored user receives an incoming call. features.pickup.blf_audio.list = 4604,4605 The IP phone plays an audio alert when monitored user 4604 or 4605 receives an incoming call. features.pickup.blf_audio.list = List1 The IP phone plays an audio alert when any user in the List 1 receives an incoming call. ListX stands for the BLF list of account X configured by the parameter "account.X.blf.blf_list_uri". **Note:** It works only if "features.pickup.blf_audio_enable" is set to 1 (Enabled).	
Permitted Values	any Monitored phone number ListX[1]	
Default	any	
Supported Devices	All phones except CP960/CP965	
Parameter	features.blf.ring_type	<y0000000000xx>.cfg
Description	It configures an alert tone to play when a monitored line rings. **Note**: It works only if "features.pickup.blf_audio_enable" is set to 1 (Enabled).	
Permitted Values	Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Ring9.wav, Ring10.wav, Ring11.wav, Ring12.wav, Ring13.wav, Silent.wav, Splash.wav or custom ring tone name (for example, Config:Customring.wav).	
Default	Splash.wav	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Pickup & Park > Ring Type for BLF Pickup	
Phone UI	Settings > Basic Settings > Sound > BLF Ring Tones	
Parameter	features.pickup_display.method	<y0000000000xx>.cfg
Description	It configures the display method of the call party information on the visual prompt. **Note**: It works only if "features.pickup.blf_visual_enable" is set to 1 (Enabled).	
Permitted Values	**0**-Name	

	1-Number **2**-Name Number **3**-Number Name	
Default	0	
Parameter	features.blf_pickup_only_send_code	<y0000000000xx>.cfg
Description	It enables or disables the phone to only dial out feature access code of directed pick up when performing BLF/BLF list pickup.	
Permitted Values	**0**-Disabled, the phone dials out feature access code of directed pick up plus monitored number when performing BLF/BLF list pickup. **1**-Enabled	
Default	0	

Example: Configuring Visual and Audio Alert for Monitor Lines

The following example shows the configuration for visual and audio for a monitor line.

Scenario Conditions	Related Topic
linekey.1.extension = *97 = *97 or account.1.direct_pickup_code = *97 or features.pickup.direct_pickup_code = *97	Line Keys Configuration Directed Call Pickup
linekey.1.type = 16 linekey.1.line = 1 linekey.1.value = 1001 linekey.1.label = Bill	BLF Key Configuration

Example

features.pickup.blf_visual_enable = 1

features.pickup.blf_audio_enable = 1

When the monitored line receives an incoming call, the phone screen shows an incoming call to the monitored line (for example, "6001<-6002", 6001 is the monitored extension which receives an incoming call from 6002), the following occurs on the phone:

- The phone plays a specific alert tone.
- The icon / flashes.
- The caller ID appears on the phone screen.

LED Mode for BLF/BLF List Key

BLF LED Mode provides five kinds of definition for the BLF/BLF List key LED status. BLF LED mode is only applicable to the expansion module EXP50 connected to T58A/T58W phones.

Topics

Supported BLF LED Modes
BLF LED Mode Configuration

Supported BLF LED Modes

The following table lists the LED statuses of the BLF/BLF list key when BLF LED Mode is set to 0, 1, 2, 3 or 4 respectively. The default value of BLF LED mode is 0.

Expansion Module Key LED (configured as a BLF key or a BLF List key and BLF LED Mode is set to 0)

LED Status	Description
Solid green	The monitored user is idle.
Fast-flashing red (200ms)	The monitored user receives an incoming call.
Solid red	The monitored user is dialing. The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slowly-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user does not exist.

Expansion Module Key LED (configured as a BLF key or a BLF List key and BLF LED Mode is set to 1)

LED Status	Description
Fast-flashing red (200ms)	The monitored user receives an incoming call.
Solid red	The monitored user is dialing. The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slowly-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user is idle. The monitored user does not exist.

Expansion Module Key LED (configured as a BLF key or a BLF List key and BLF LED Mode is set to 2)

LED Status	Description
Fast-flashing red (200ms)	The monitored user receives an incoming call.
Solid red	The monitored user is dialing. The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slowly-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user is idle. The monitored user does not exist.

Expansion Module Key LED (configured as a BLF key or a BLF List key and BLF LED Mode is set to 3)

LED Status	Description
Fast-flashing green	The monitored user receives an incoming calls

LED Status	Description
(200ms)	
Solid red	The monitored user is dialing. The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slowly-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user is idle. The monitored user does not exist.

Expansion Module Key LED (configured as a BLF key or a BLF List key and BLF LED Mode is set to 4. This mode is specifically designed for the Ribbon server.)

LED Status	Description
Solid green	The monitored user is talking.
Slowly-flashing green (1s)	The monitored user does not exist.
Off	The monitored user is idle.

BLF LED Mode Configuration

The following table lists the parameters you can use to configure BLF LED Mode.

Parameter	features.blf_led_mode	<y0000000000xx>.cfg
Description	It configures the BLF LED mode.	
Permitted Values	0,1,2,3,4 (4 is specifically designed for the Ribbon server)	
Default	0	
Supported Devices	EXP50 expansion modules connected to T58A/T58W phones	
Web UI	Features > General Information > BLF LED Mode	

BLF/BLF List Key LED Status and Behavior Configuration

You can customize the color of BLF icon and BLF/BLF List key behavior for the phones using the EDK macros if required.

This feature depends on support from a SIP server.

Note: For more information on EDK macros, refer to Macro Action Strings.

Topics

Supported BLF/BLF List Key Behaviors
BLF Key LED/Icon and Behavior for Idle State Configuration
BLF Key LED/Icon and Behavior for Call-in State Configuration
BLF Key LED/Icon and Behavior for Call-out State Configuration
BLF Key LED/Icon and Behavior for Talking State Configuration
BLF Key LED/Icon and Behavior for Parked-Against State Configuration
BLF Key LED/Icon and Behavior for Hold State Configuration

BLF Key LED/Icon and Behavior for DND State Configuration

Supported BLF/BLF List Key Behaviors

The following behaviors are supported when pressing the BLF/BLF List keys:

- **newcall** - dial out the phone number
- **btransfer** - transfer the active call to the monitored user without consulting
- **ctransfer** - transfer the active call to the monitored user with prior consulting
- **pickup** - pick up the call directly
- **bargein** - barge in and set up a conference call
- **custom EDK macros** (for example, 1234$Tinvite$) - execute a series of macro action strings
- **intercom** - place an intercom call to the monitored number
- **park** - park the call to the monitored user, it works only when configuring "blf.enhanced.idle.talking.action"
- **retrieve** - retrieve a call from the monitored user, it works only when configuring "blf.enhanced.parked.callin.action", “blf.enhanced.parked.talking.action” and "blf.enhanced.parked.idle.action"

Related Topic

Macro Action Strings

BLF Key LED/Icon and Behavior for Idle State Configuration

The following table lists the parameters you can use to configure BLF key LED/icon and Behavior for the idle state (the monitored user is idle).

Parameter	blf.enhanced.idle.enable	<y0000000000xx>.cfg
Description	It enables or disables the custom configuration when the monitored user is idle.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the custom BLF/BLF List DSS key LED status/icon colors and perform the custom behavior when pressing the BLF/BLF List DSS key.	
Default	0	
Parameter	blf.enhanced.idle.led	<y0000000000xx>.cfg
Description	It configures the custom BLF/BLF List DSS key LED status/icon colors when the monitored user is idle. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.idle.led = $LEDg1000o$ The BLF/BLF List DSS key field displays a green icon for 1000ms and then turns to white. **Note**: It works only if “blf.enhanced.idle.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.idle.callin.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is ringing and monitored user is idle. **Note**: It works only if “blf.enhanced.idle.enable” is set to 1 (Enabled).	
Permitted Values	String	

Default	Blank	
Parameter	blf.enhanced.idle.talking.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is talking and monitored user is idle. **Note**: It works only if "blf.enhanced.idle.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.idle.idle.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor and monitored user are idle. **Note**: It works only if "blf.enhanced.idle.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	

BLF Key LED/Icon and Behavior for Call-in State Configuration

The following table lists the parameters you can use to configure BLF key LED/icon and Behavior for the call-in state (the monitored user is ringing).

Parameter	blf.enhanced.callin.enable	<y0000000000xx>.cfg
Description	It enables or disables the custom configuration when the monitored user is ringing.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the custom BLF/BLF List DSS key LED status/icon colors and perform the custom behavior when pressing the BLF/BLF List DSS key.	
Default	0	
Parameter	blf.enhanced.callin.led	<y0000000000xx>.cfg
Description	It configures the custom BLF/BLF List DSS key LED status/icon colors when the monitored user is ringing. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.callin.led = $LEDg1000o$ The BLF/BLF List DSS key field displays a green icon for 1000ms and then turns to white. **Note**: It works only if "blf.enhanced.callin.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.callin.callin.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor and monitored user are ringing. **Note**: It works only if "blf.enhanced.callin.enable" is set to 1 (Enabled).	
Permitted	String	

Values		
Default	Blank	
Parameter	blf.enhanced.callin.talking.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is talking and monitored user is ringing. **Note**: It works only if “blf.enhanced.callin.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.callin.idle.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is idle and monitored user is ringing. **Note**: It works only if “blf.enhanced.callin.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	

BLF Key LED/Icon and Behavior for Call-out State Configuration

The following table lists the parameters you can use to configure BLF key LED/icon and Behavior for the call-out state (the monitored user is calling out).

Parameter	blf.enhanced.callout.enable	<y0000000000xx>.cfg
Description	It enables or disables the custom configuration when the monitored user is calling out.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the custom BLF/BLF List DSS key LED status/icon colors and perform the custom behavior when pressing the BLF/BLF List DSS key.	
Default	0	
Parameter	blf.enhanced.callout.led	<y0000000000xx>.cfg
Description	It configures the custom BLF/BLF List DSS key LED status/icon colors when the monitored user is calling out. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.callout.led = $LEDg1000o$ The BLF/BLF List DSS key field displays a green icon for 1000ms and then turns to white. **Note**: It works only if “blf.enhanced.callout.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.callout.callin.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is ringing and monitored user is calling out.	

	Note: It works only if "blf.enhanced.callout.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.callout.talking.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is talking and monitored user is calling out. **Note**: It works only if "blf.enhanced.callout.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.callout.idle.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is idle and monitored user is calling out. **Note**: It works only if "blf.enhanced.callout.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	

BLF Key LED/Icon and Behavior for Talking State Configuration

The following table lists the parameters you can use to configure BLF key LED/icon and Behavior for talking state (the monitored user is talking).

Parameter	blf.enhanced.talking.enable	<y0000000000xx>.cfg
Description	It enables or disables the custom configuration when the monitored user is talking.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the custom BLF/BLF List DSS key LED status/icon colors and perform the custom behavior when pressing the BLF/BLF List DSS key.	
Default	0	
Parameter	blf.enhanced.talking.led	<y0000000000xx>.cfg
Description	It configures the custom BLF/BLF List DSS key LED status/icon colors when the monitored user is talking. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.talking.led = $LEDg1000o$ The BLF/BLF List DSS key field displays a green icon for 1000ms and then turns to white. **Note**: It works only if "blf.enhanced.talking.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.talking.callin.action	<y0000000000xx>.cfg

Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is ringing and monitored user is talking. **Note**: It works only if “blf.enhanced.talking.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.talking.talking.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor and monitored user are talking. **Note**: It works only if “blf.enhanced.talking.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.talking.idle.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is idle and monitored user is talking. **Note**: It works only if “blf.enhanced.talking.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	

BLF Key LED/Icon and Behavior for Parked-Against State Configuration

The following table lists the parameters you can use to configure BLF key LED/icon and Behavior for the parked-against state (a call is being parked against the monitored phone).

Parameter	blf.enhanced.parked.enable	<y0000000000xx>.cfg
Description	It enables or disables the custom configuration when a call is parked against the monitored phone.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the custom BLF/BLF List DSS key LED status/icon colors and perform the custom behavior when pressing the BLF/BLF List DSS key.	
Default	0	
Parameter	blf.enhanced.parked.led	<y0000000000xx>.cfg
Description	It configures the custom BLF/BLF List DSS key LED status/icon colors when a call is parked against the monitored phone. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.parked.led = $LEDg1000o$ The BLF/BLF List DSS key field displays a green icon for 1000ms and then turns to white. **Note**: It works only if “blf.enhanced.parked.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	

Parameter	blf.enhanced.parked.callin.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is ringing and a call is parked against the monitored phone. **Note**: It works only if "blf.enhanced.parked.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.parked.talking.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is talking and a call is parked against the monitored phone. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.parked.talking.action = newcall **Note**: It works only if "blf.enhanced.parked.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	blf.enhanced.parked.idle.action	<y0000000000xx>.cfg
Description	It configures the behavior when pressing the BLF/BLF list DSS key if the monitor is idle and a call is parked against the monitored phone. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.parked.idle.action = newcall **Note**: It works only if "blf.enhanced.parked.enable" is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	

BLF Key LED/Icon and Behavior for Hold State Configuration

The following table lists the parameters you can use to configure BLF key LED/icon and Behavior for hold state (the call on the monitored phone is placed on hold).

Parameter	blf.enhanced.hold.enable	<y0000000000xx>.cfg
Description	It enables or disables the custom configuration when the call on the monitored phone is placed on hold.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the custom BLF/BLF List DSS key LED status/icon colors.	
Default	0	
Parameter	blf.enhanced.hold.led	<y0000000000xx>.cfg
Description	It configures the custom BLF/BLF List DSS key LED status/icon colors when the call on the monitored phone is placed on hold. This value uses the same macro action string syntax as an Enhanced DSS key.	

	Example: blf.enhanced.hold.led = $LEDg1000o$ **Note**: It works only if “blf.enhanced.hold.enable” is set to 1 (Enabled).
Permitted Values	String
Default	Blank

BLF Key LED/Icon and Behavior for DND State Configuration

The following table lists the parameters you can use to configure BLF key LED/icon and Behavior for DND state (DND is activated on the monitored phone).

Parameter	blf.enhanced.dnd.enable	<y0000000000xx>.cfg
Description	It enables or disables the custom configuration when DND is activated on the monitored phone.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will display the custom BLF/BLF List DSS key LED status/icon colors.	
Default	0	
Supported Devices	All phones except VP59	
Parameter	blf.enhanced.dnd.led	<y0000000000xx>.cfg
Description	It configures the custom BLF/BLF List DSS key LED status/icon colors when DND is activated on the monitored phone. This value uses the same macro action string syntax as an Enhanced DSS key. **Example**: blf.enhanced.dnd.led = $LEDrd1000o100yd300$ **Note**: It works only if “blf.enhanced.dnd.enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Supported Devices	All phones except VP59	

BLF Key for Intercom Configuration

The BLF key (not include BLF List key) can also be used to initiate an intercom call.

The following table lists the parameter you can use to configure BLF key for Intercom.

Parameter	features.blf.intercom_mode.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to initiate an outgoing intercom call with a monitored user when pressing the BLF key. **Note**: To use this feature, you also need to configure the intercom mode (configured by the parameter “features.intercom.mode”).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

Call Information Display Configuration

The following table lists the parameter you can use to configure call information display.

Parameter	features.blf.show_callinfo.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the call information by long pressing the BLF/BLF List/Call Park key.	
Permitted Values	**0**-Disabled **1**-Enabled, when the monitored line is ringing, during a call, or has a parked call, users can long press the BLF/BLF List/Call Park key to view the call information, and then select to pick up the incoming call (only for BLF/BLF List key), barge in a conference (only for BLF/BLF List key), or retrieve the parked call.	
Default	0	

Shared Line

Yealink phones support Shared Call Appearance (SCA) to share a line. Shared call appearances enable more than one phone to share the same line or registration. The methods you use vary with the SIP server you are using.

The shared line users have the ability to do the following:

- Place and answer calls
- Place a call on hold
- Retrieve a held call remotely
- Barge in an active call
- Pull a shared call

Topic

State Indicator of Shared Line
Shared Call Appearance (SCA) Configuration
Bridge Lines Appearance (BLA)

State Indicator of Shared Line

The shared line is indicated by different line key icon.

The following table shows the icons indicator associated with the shared line:

Icon (T58A/VP59/CP960)	**Icon (T58W)**	**Description**
		The shared line is idle.
(Monitoring SCA Phone)	(Monitoring SCA Phone)	The shared line is seized.
(Flashing)	(Flashing)	The shared line receives an incoming call.
(Flashing)	(Flashing)	The shared line is dialing.
		The shared line is busy or is in a call.
		The call on the shared line is placed on public hold.

(Local SCA Phone) (Othe Phone)	(Local SCA Phone) (Othe Phone)	The call on the shared line is placed on private hold.
		The call on the shared line is barged in by the other shared line user.
		In a multi-party call, place the call on hold at local.

Shared Call Appearance (SCA) Configuration

In SCA scenario, an incoming call can be presented to multiple phones simultaneously. Any IP phone can be used to originate or receive calls on the shared line.

Yealink phones support SCA using a SUBSCRIBE/NOTIFY mechanism as specified in RFC 3265. The events used are:

- “call-info” for call appearance state notification.
- “line-seize” for the phone to ask to seize the line.

You have the option to provide users the ability to do the following:

- Configure a private hold soft key or Private Hold key and provide users the ability to hold a call privately.
- Configure a call pull code, which allows users to retrieve an existing call from another shared phone that is in an active or public hold status.

Topic

SCA Configuration

SCA Configuration

The following table lists the parameters you can use to configure SCA.

Parameter	account.X.shared_line[1]	<MAC>.cfg
Description	It configures the registration line type.	
Permitted Values	**0**-Disabled **1**-Shared Call Appearance	
Default	0	
Web UI	Account > Advanced > Shared Line	
Parameter	account.X.line_seize.expires[1]	<MAC>.cfg
Description	It configures the line-seize subscription expiration time (in seconds). **Note**: It works only if “account.X.shared_line” is set to 1 (Shared Call Appearance).	
Permitted Values	Integer from 0 to 65535	
Default	15	
Parameter	account.X.shared_line_callpull_code[1]	<MAC>.cfg
Description	It configures the call pull feature access code to retrieve an existing call from another shared phone that is in an active or public hold status. **Note**: It works only if “account.X.shared_line” is set to 1 (Shared Call Appearance).	
Permitted Values	String within 99 characters	

Default	Blank	
Web UI	Account > Advanced > Call Pull Feature Access Code	
Parameter	features.barge_in_via_username.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to use the user name of the account to barge in an active call.	
Permitted Values	**0**-Disabled, user register name to barge in, the phone sends INVITE request with the register name when barging in a call **1**-Enabled, the phone sends INVITE request with the user name when barging in a call	
Default	0	
Parameter	phone_setting.call_remote_end_when_hold.busy_tone.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play a busy tone when a public hold call on the shared line is retrieved by the remote party. **Note**: It works only if "features.busy_tone_delay" is not set to 0.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	account.X.shared_line.idle_details[1]	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the basic SCA call information on the idle screen. **Note**: It works only if "account.X.shared_line" is set to 1 (Shared Call Appearance).	
Permitted Values	**0**-Disabled **1**-Enabled, users can also view the call details by long pressing the SCA line key.	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Bridge Lines Appearance (BLA)

BLA allows users to share a SIP line on two or more phones. Users can monitor the specific extension (BLA number) for status changes on each IP phone. To use this feature, a BLA group should be pre-configured on the server and one of them is specified as a BLA number.

Yealink phones support BLA using a SUBSCRIBE/NOTIFY mechanism as specified in RFC 3265. The event used is: "dialog" for bridged line appearance subscribe and notify.

Topic

BLA Configuration

BLA Configuration

The following table lists the parameters you can use to configure BLA.

Parameter	account.X.shared_line[1]	<MAC>.cfg
Description	It configures the registration line type.	
Permitted Values	**0**-Disabled **3**-Draft BLA	
Default	0	

Web UI	Account > Advanced > Shared Line	
Supported Devices	T58W, T58A	
Parameter	account.X.bla_number[1]	<MAC>.cfg
Description	It configures the BLA number. **Note**: It works only if “account.X.shared_line” is set to 3 (Draft BLA).	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Account > Advanced > BLA Number	
Supported Devices	T58W, T58A	
Parameter	account.X.bla_subscribe_period[1]	<MAC>.cfg
Description	It configures the period (in seconds) of the BLA subscription. **Note**: It works only if “account.X.shared_line” is set to 3 (Draft BLA).	
Permitted Values	Integer from 60 to 7200	
Default	300	
Supported Devices	T58W, T58A	
Web UI	Account > Advanced > BLA Subscription Period	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Intercom

Intercom is a useful feature in an office environment to quickly connect with the operator or the secretary. You can press the intercom key to place a call to a contact that is answered automatically on the contact's phone as long as the contact is not in an active call. In addition, the intercom key can be used for monitoring the status changes of a specific line on the phone.

Topics

Intercom Key Configuration
State Monitor for Intercom Contact
Outgoing Intercom Configuration
Incoming Intercom Configuration

Intercom Key Configuration

You can configure an Intercom key to provide users the ability to initiate intercom calls directly to the specified contact.

The following shows configuration for an Intercom key.

Line Key Configuration	Programmable Key Configuration
linekey.X.type = 14	programablekey.X.type = 14
linekey.X.line = 1	programablekey.X.line = 1
linekey.X.value = 4603	programablekey.X.value = 4603

linekey.X.label = Bill	

After provisioning, an Intercom key for Bill (4603) is available on the phone. You can tap the Intercom key to place an intercom call to Bill (4603).

If you want to use the Intercom key to pick up a call, you need to enable the Intercom key to monitor state changes, and configure the pickup code for the Intercom key, for example, set "linekey.X.extension = *97" or "programablekey.X.extension = *97". When the monitored user Bill (4603) receives an incoming call, you can tap the Intercom key to pick up the call to Bill (4603) directly.

Note: You cannot use a programmable key to monitor an intercom contact for state changes, but tap it to pick up a call.

Related Topics

Line Keys Configuration
Programmable Keys Configuration
State Monitor for Intercom Contact

State Monitor for Intercom Contact

You can make the phone to monitor a specific intercom user for state changes (busy or idle). When the monitored user receives an incoming call, the supervisor can tap the intercom key to pick up the call directly. The phones support this feature using a SUBSCRIBE/NOTIFY mechanism as specified in RFC 3265.

Note: If you want to use the Intercom key to pick up a call, you need to configure the pickup code for the Intercom key, for example, "linekey.X.extension = *97".

Topics

State Indicator of Intercom Contact
State Monitor for Intercom Contact Configuration

State Indicator of Intercom Contact

The following table shows the icon indicator associated with the Intercom key:

Icons	Description
	The monitored user is idle.
	The monitored user receives an incoming call.
	The monitored user is dialing. The monitored user is talking.
	The monitored user does not exist.

State Monitor for Intercom Contact Configuration

The following table lists the parameters you can use to configure state monitor for intercom contact.

Parameter	features.intercom.led.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display different intercom key icons when the status of monitored user changes. **Note**: It works only if "features.intercom.subscribe.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

Parameter	features.intercom.subscribe.enable	<y0000000000xx>.cfg
Description	It enables or disables intercom subscription for the phones.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

Outgoing Intercom Configuration

Yealink phones support two methods for initialing intercom calls.

The following table lists the parameters you can use to configure outgoing intercom.

Parameter	features.intercom.mode	<y0000000000xx>.cfg
Description	It configures the intercom mode.	
Permitted Values	**0**-SIP **1**-FAC, the feature access code is configured by “features.intercom.feature_access_code”.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	features.intercom.feature_access_code	<y0000000000xx>.cfg
Description	It configures the intercom feature access code. **Note**: It works only if “features.intercom.mode” is set to 1 (FAC).	
Permitted Values	String	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	account.X.call_info[1]	<MAC>.cfg
Description	It configures the value of the Call-Info header for intercom feature. The value format likes: <sip:XXX (X can be any value)>; answer-after=0. **Note:** If both Call-Info header and Alert-Info header (defined by the parameter "account.X.alert_info") are configured, the Call-Info header has a higher priority than the Alert-Info header.	
Permitted Values	String within 256 characters	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Incoming Intercom Configuration

The IP phone can process incoming calls differently depending on settings.

The following table lists the parameters you can use to configure incoming intercom.

Parameter	features.intercom.allow	<y0000000000xx>.cfg
Description	It enables or disables the phone to answer an incoming intercom call.	

Permitted Values	**0**-Disabled, the phone will handle an incoming intercom call like a normal incoming call. **1**-Enabled, the phone will automatically answer an incoming intercom call.	
Default	1	
Web UI	Features > Intercom > Intercom Allow	
Phone UI	Settings > Features > Intercom > Intercom Allow CP965: More > Settings > Features > Intercom > Intercom Allow	
Parameter	features.intercom.audio.mute	<y0000000000xx>.cfg
Description	It enables or disables the phone to mute the microphone when answering an intercom call. **Note**: It works only if "features.intercom.allow" and "features.allow_mute" are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the microphone is muted for intercom calls, and then the other party cannot hear you.	
Default	0	
Web UI	Features > Intercom > Intercom Audio Mute (Intercom Mute for CP960/CP965)	
Phone UI	Settings > Features > Intercom > Intercom Audio Mute (Intercom Mute for CP960) CP965: More > Settings > Features > Intercom > Intercom Mute	
Parameter	features.intercom.video.mute	<y0000000000xx>.cfg
Description	It enables or disables the phone to turn off the video when the video intercom call is answered.	
Permitted Values	**0**-Disabled, video begins transmitting immediately after a video intercom call is answered. (video.enable = 1 or video.enable = 2) **1**-Enabled, video transmission is initially disabled after a video intercom call is answered, you can tap **Video On** to turn on the video.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Intercom > Intercom Video Mute	
Phone UI	Settings > Features > Intercom > Intercom Video Mute	
Parameter	features.intercom.tone	<y0000000000xx>.cfg
Description	It enables or disables the phone to play a warning tone when answering an intercom call. **Note**: It works only if "features.intercom.allow" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Features > Intercom > Intercom Tone	
Phone UI	Settings > Features > Intercom > Intercom Tone CP965: More > Settings > Features > Intercom > Intercom Tone	

Parameter	features.intercom.barge	<y0000000000xx>.cfg
Description	It enables or disables the phone to answer an incoming intercom call while there is already an active call on the IP phone. **Note**: It works only if “features.intercom.allow” and "call_waiting.enable" are set to 1 (Enabled) and “phone_setting.call_appearance.calls_per_linekey” is greater than 1.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will automatically answer the intercom call and place the active call on hold.	
Default	0	
Web UI	Features > Intercom > Intercom Barge	
Phone UI	Settings > Features > Intercom > Intercom Barge CP965: More > Settings > Features > Intercom > Intercom Barge	
Parameter	features.intercom.barge_in_dialing.enable	<y0000000000xx>.cfg
Description	It enables or disables the intercom call to answer an incoming intercom call while dialing. **Note**: It works only if “features.intercom.barge” is set to 0 (Disabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.intercom.headset_prior.enable	<y0000000000xx>.cfg
Description	It configures the channel mode to use when receiving an incoming intercom call.	
Permitted Values	**0**-Speaker Mode **1**-Headset Mode, it works only if you connect the headset to the IP phone and the headset mode is activated for use.	
Default	1	
Supported Devices	All phones except CP960/CP965	
Parameter	account.X.alert_info[1]	<MAC>.cfg
Description	It configures the value of the Alert-Info header for intercom feature. The value format likes: <sip:XXX (X can be any value)>; answer-after=0. **Note**: If both Call-Info header (defined by the parameter "account.X.call_info") and Alert-Info header are configured, the Call-Info header has a higher priority than the Alert-Info header.	
Permitted Values	String within 256 characters	
Default	Blank	
Parameter	voice.intercom.tone_vol	<y0000000000xx>.cfg
Description	It configures the intercom tone as a fixed volume. **Note**: It works only if “features.intercom.tone” is set to 1 (Enabled). During a call, the phone plays the call waiting tone instead of the intercom tone when the phone receives an intercom call.	
Permitted Values	**Blank**-the user can adjust the intercom tone volume on the phone, the intercom tone is the same volume as the ring tone of the phone.	

	1 to 15-the user cannot adjust the intercom tone volume on the phone, the intercom tone is the configured volume.
Default	Blank

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

CSTA Control

User Agent Computer Supported Telecommunications Applications (uaCSTA) is explained in detail in Using CSTA for SIP Phone User Agents (uaCSTA) and Services for Computer Supported Telecommunications Applications Phase III.

The uaCSTA feature on the phone may be used for remote control of the phone from computer applications such as PC softphone. You can use the application to control the phone to perform basic call operations. For example, place a call, answer a call, end a call and transfer a call to another party.

Topic

CSTA Control Configuration

CSTA Control Configuration

The following table lists the parameter you can use to configure CSTA control.

Parameter	features.csta_control.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the CSTA feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Remote Control > CSTA Control	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Action URL

Action URL allows the phones to interact with web server applications by sending an HTTP or HTTPS GET request.

You can specify a URL that triggers a GET request when a specified event occurs. Action URL can only be triggered by the predefined events (for example, Open DND). The valid URL format is: *http(s)://<server-IPAddress>/help.xml?*.

An HTTP or HTTPS GET request may contain a variable name and a variable value, separated by "=". Each variable value starts with $ in the query part of the URL. The valid URL format is: *http(s)://<server-IPAddress>/help.xml?variable name=$variable value*. The variable name can be customized by users, while the variable value is predefined. For example, a URL "http://192.168.1.10/help.xml?mac=$mac" is specified for the event Mute, the $mac will be dynamically replaced with the MAC address of the IP phone when the IP phone mutes a call.

Topics

Predefined Events List
Variable Values List
Action URL Configuration

Predefined Events List

The following table lists the predefined events for action URL.

Event	Description
Setup Completed	When the IP phone completes startup.
Registered	When the IP phone successfully registers an account.
Unregistered	When the IP phone logs out of the registered account.
Register Failed	When the IP phone fails to register an account.
Off Hook	When the IP phone is off hook.
On Hook	When the IP phone is on hook.
Incoming Call	When the IP phone receives an incoming call.
Outgoing Call	When the IP phone places a call.
Established	When the IP phone establishes a call.
Terminated	When the IP phone terminates a call.
Open DND	When the IP phone enables the DND mode. **Note**: When the DND mode is Phone, the phone sends the action URL for all accounts; when the DND mode is Custom, the phone only sends the action URL for the corresponding account.
Close DND	When the IP phone disables the DND mode. **Note**: When the DND mode is Phone, the phone sends the action URL for all accounts; when the DND mode is Custom, the phone only sends the action URL for the corresponding account.
Always Forward On	When the IP phone enables the always forward. **Note**: When the forward mode is Phone, the phone sends the action URL for all accounts; when the forward mode is Custom, the phone only sends the action URL for the corresponding account.
Always Forward Off	When the IP phone disables the always forward. **Note**: When the forward mode is Phone, the phone sends the action URL for all accounts; when the forward mode is Custom, the phone only sends the action URL for the corresponding account.
Busy Forward On	When the IP phone enables the busy forward. **Note**: When the forward mode is Phone, the phone sends the action URL for all accounts; when the forward mode is Custom, the phone only sends the action URL for the corresponding account.
Busy Forward Off	When the IP phone disables the busy forward. **Note**: When the forward mode is Phone, the phone sends the action URL for all accounts; when the forward mode is Custom, the phone only sends the action URL for the corresponding account.
No Answer Forward On	When the IP phone enables the no answer forward. **Note**: When the forward mode is Phone, the phone sends the action URL for all accounts; when the forward mode is Custom, the phone only sends the action URL for the corresponding account.
No Answer Forward Off	When the IP phone disables the no answer forward. **Note**: When the forward mode is Phone, the phone sends the action URL for all accounts; when the forward mode is Custom, the phone only sends the action URL for the cor-

Event	Description
	responding account.
Transfer Call	When the IP phone transfers a call.
Blind Transfer	When the IP phone performs the blind transfer.
Attended Transfer	When the IP phone performs the semi-attended/attended transfer.
Hold	When the IP phone places a call on hold.
UnHold	When the IP phone resumes a held call.
Held	When a call of the IP phone is held.
UnHeld	When a held call is resumed.
Mute	When the IP phone mutes a call.
UnMute	When the IP phone un-mutes a call.
Missed Call	When the IP phone misses a call.
IP Changed	When the IP address of the IP phone changes.
Idle To Busy	When the state of the IP phone changes from idle to busy.
Busy To Idle	When the state of phone changes from busy to idle.
Reject Incoming Call	When the IP phone rejects an incoming call.
Answer New Incoming Call	When the IP phone answers a new call.
Transfer Failed	When the IP phone fails to transfer a call.
Transfer Finished	When the IP phone completes transferring a call.
Forward Incoming Call	When the IP phone forwards an incoming call.
Autop Finish	When the IP phone completes auto provisioning via power on.
Call Waiting On	When the IP phone enables the call waiting.
Call Waiting Off	When the IP phone disables the call waiting.
Headset	When the IP phone presses the HEADSET key (not applicable to CP960/CP965 phones).
Handfree	When the IP phone presses the Speakerphone key (not applicable to CP960/CP965 phones).
Cancel Call Out	When the phone cancels an outgoing call in the ring-back state.
Remote Busy	When an outgoing call is rejected.
Call Remote Canceled	When the remote party cancels the outgoing call in the ringing state.
Peripheral Information	When the accessory is unplugged or plugged.
VPN IP	When the phone IP address assigned by the VPN server changes.

Variable Values List

The following table lists predefined variable values.

Variable Value	Description
$mac	The MAC address of the IP phone.
$ip	The IP address of the IP phone.
$model	The IP phone model.
$firmware	The firmware version of the IP phone.
$active_url	The SIP URI of the current account when the IP phone places a call, receives an incoming call or establishes a call.
$active_user	The user part of the SIP URI for the current account when the IP phone places a call, receives an incoming call or establishes a call.
$active_host	The host part of the SIP URI for the current account when the IP phone places a call, receives an incoming call or establishes a call.
$local	The SIP URI of the caller when the IP phone places a call. The SIP URI of the callee when the IP phone receives an incoming call.
$remote	The SIP URI of the callee when the IP phone places a call. The SIP URI of the caller when the IP phone receives an incoming call.
$display_local	The display name of the caller when the IP phone places a call. The display name of the callee when the IP phone receives an incoming call.
$display_remote	The display name of the callee when the IP phone places a call. The display name of the caller when the IP phone receives an incoming call.
$call_id	The call-id of the active call.
$callerID	The display name of the caller when the IP phone receives an incoming call.
$calledNumber	The phone number of the callee when the IP phone places a call.
$exp_number	The number of connected expansion modules.
$ehs_number	The number of connected EHS.
$udisk_number	The number of connected USB flash drives.
$usbheadset_number	The number of connected USB headset devices.
$wifi_number	The number of connected Wi-Fi dongles.
$bluetooth_number	The number of connected Bluetooth dongles.
$vpn_ip	The phone IP address assigned by the VPN server.
$cfg_all	The CFG configuration file contains all current configurations of the IP phone. **Note**: The valid URI is: http://<serverIPAddress>/<filename>/?variable name=$variable value. **Example**: http://10.82.21.10/Upload/?Cfg=$cfg_all
$cfg_local	The CFG configuration file contains all non-static parameters made via the phone user interface and web user interface.

Variable Value	Description
	Note: It works only if "static.auto_provision.custom.protect" is set to 1 (Enabled). The valid URI is: http://<serverIPAddress>/<filename>/?variable name=$variable value. **Example**: http://10.82.21.10/Upload/?Cfg=$cfg_local

Action URL Configuration

The following table lists the parameters you can use to configure the action URL.

Parameter	action_url.setup_completed	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends after startup. **Example**: action_url.setup_completed = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Setup Completed	
Parameter	action_url.registered	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends after an account is registered. **Example**: action_url.registered = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Registered	
Parameter	action_url.unregistered	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends after an account is unregistered. **Example**: action_url.unregistered = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Unregistered	
Parameter	action_url.register_failed	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends after a register failed. **Example**: action_url.register_failed = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	

Default	Blank	
Web UI	Features > Action URL > Register Failed	
Parameter	action_url.off_hook	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when off hook. **Example**: action_url.off_hook = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Supported Devices	T58A, VP59	
Web UI	Features > Action URL > Off Hook	
Parameter	action_url.on_hook	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when on hook. **Example**: action_url.on_hook = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Supported Devices	T58A, VP59	
Web UI	Features > Action URL > On Hook	
Parameter	action_url.incoming_call	<y0000000000xx>.cfg
Description	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=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Incoming Call	
Parameter	action_url.outgoing_call	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when placing a call. **Example**: action_url.outgoing_call = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Outgoing Call	

Parameter	action_url.call_established	<y0000000000xx>.cfg
Description	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=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Established	
Parameter	action_url.dnd_on	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when DND feature is activated. **Example**: action_url.dnd_on = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Open DND	
Parameter	action_url.dnd_off	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when DND feature is deactivated. **Example**: action_url.dnd_off = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Close DND	
Parameter	action_url.always_fwd_on	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the always forward feature is activated. **Example**: action_url.always_fwd_on = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Always Forward On	
Parameter	action_url.always_fwd_off	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the always forward feature is deactivated. **Example**: action_url.always_fwd_off = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	

Default	Blank	
Web UI	Features > Action URL > Always Forward Off	
Parameter	action_url.busy_fwd_on	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the busy forward feature is activated. **Example**: action_url.busy_fwd_on = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Busy Forward On	
Parameter	action_url.busy_fwd_off	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the busy forward feature is deactivated. **Example**: action_url.busy_fwd_off = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Busy Forward Off	
Parameter	action_url.no_answer_fwd_on	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the no answer forward feature is activated. **Example**: action_url.no_answer_fwd_on = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > No Answer Forward On	
Parameter	action_url.no_answer_fwd_off	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the no answer forward feature is deactivated. **Example**: action_url.no_answer_fwd_off = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > No Answer Forward Off	
Parameter	action_url.transfer_call	<y0000000000xx>.cfg
Description	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	

Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Transfer Call	
Parameter	action_url.blind_transfer_call	<y0000000000xx>.cfg
Description	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=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Blind Transfer	
Parameter	action_url.attended_transfer_call	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when performing an attended/semi-attended transfer. **Example**: action_url.attended_transfer_call = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Attended Transfer	
Parameter	action_url.hold	<y0000000000xx>.cfg
Description	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=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Hold	
Parameter	action_url.unhold	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when resuming a hold call. **Example**: action_url.unhold = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > UnHold	
Parameter	action_url.held	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when a call is held.	

	Example: action_url.held = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	action_url.unheld	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when a held call is resumed. **Example**: action_url.unheld = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	action_url.mute	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when muting a call. **Example**: action_url.mute = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Mute	
Parameter	action_url.unmute	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when un-muting a call. **Example**: action_url.unmute = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > UnMute	
Parameter	action_url.missed_call	<y0000000000xx>.cfg
Description	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	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Missed Call	
Parameter	action_url.call_terminated	<y0000000000xx>.cfg
Description	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=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Terminated	
Parameter	action_url.busy_to_idle	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when changing the state of the IP phone from busy to idle. **Example**: action_url.busy_to_idle = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Busy to Idle	
Parameter	action_url.idle_to_busy	<y0000000000xx>.cfg
Description	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=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Idle to Busy	
Parameter	action_url.ip_change	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when changing the IP address of the phone. **Example**: action_url.ip_change = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > IP Changed	
Parameter	action_url.forward_incoming_call	<y0000000000xx>.cfg
Description	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	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Forward Incoming Call	

Parameter	action_url.reject_incoming_call	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when rejecting an incoming call. **Example**: action_url.reject_incoming_call = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Reject Incoming Call	
Parameter	action_url.answer_new_incoming_call	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when answering a new incoming call. **Example**: action_url.answer_new_incoming_call = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Answer New Incoming Call	
Parameter	action_url.transfer_finished	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when completing a call transfer. **Example**: action_url.transfer_finished = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Transfer Finished	
Parameter	action_url.transfer_failed	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when failing to transfer a call. **Example**: action_url.transfer_failed = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Transfer Failed	
Parameter	action_url.setup_autop_finish	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when completing auto provisioning via power on. **Example**: action_url.setup_autop_finish = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	

Default	Blank	
Web UI	Features > Action URL > Autop Finish	
Parameter	action_url.call_waiting_on	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the call waiting feature is enabled. **Example**: action_url.call_waiting_on = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Call Waiting On	
Parameter	action_url.call_waiting_off	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the call waiting feature is disabled. **Example**: action_url.call_waiting_off = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Call Waiting Off	
Parameter	action_url.headset	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when pressing the HEADSET key. **Example**: action_url.headset = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Action URL > Headset	
Parameter	action_url.handfree	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when pressing the Speakerphone key. **Example**: action_url.handfree = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Web UI	Features > Action URL > Handsfree	

Parameter	action_url.cancel_callout	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when canceling the outgoing call in the ring-back state. **Example**: action_url.cancel_callout= http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Cancel Call Out	
Parameter	action_url.remote_busy	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the outgoing call is rejected. **Example**: action_url.remote_busy = http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Remote Busy	
Parameter	action_url.call_remote_canceled	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the remote party cancels the outgoing call in the ringing state. **Example**: action_url.call_remote_canceled= http://192.168.0.20/help.xml?IP=$ip	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Features > Action URL > Call Remote Canceled	
Parameter	action_url.peripheral_information	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when you unplug or plug the accessory. **Example**: action_url.peripheral_information = http://192.168.0.20/help.xml?IP=$ip&WIFI=$wifi_number	
Permitted Values	URL within 512 characters	
Default	Blank	
Web UI	Features > Action URL > Peripheral Information	
Parameter	action_url.vpn_ip	<y0000000000xx>.cfg
Description	It configures the action URL the phone sends when the IP address assigned by the VPN server changes. **Example**: action_url.vpn_ip= http://192.168.0.20/help.xml?IP=$ip	
Permitted	URL within 511 characters	

Values	
Default	Blank
Web UI	Features > Action URL > VPN IP

Action URI

Yealink phones can perform the specified action by receiving and handling an HTTP or HTTPS GET request or accept a SIP NOTIFY message with the "Event: ACTION-URI" header from a SIP proxy server.

Topics

Supported HTTP/HTTPS GET Request
Supported SIP Notify Message
Variable Values List
Action URI Configuration
Example: Capturing the Current Screen of the Phone
Example: Placing a Call via Web User Interface

Supported HTTP/HTTPS GET Request

Opposite to action URL, action URI allows the phones to interact with a web server application by receiving and handling an HTTP or HTTPS GET request. When receiving a GET request, the phone will perform the specified action and respond with a 200 OK message.

A GET request may contain a variable named as "key" and a variable value, which are separated by "=". The valid URI format is: http(s)://<phoneIPAddress>/servlet?key=variable value..

Note: Yealink phones are compatible with other two old valid URI formats: http(s)://<phoneIPAddress>/cgi-bin/ConfigManApp.com?key=variable value and http(s)://<phoneIPAddress>/cgi-bin/cgiServer.exx?key=variable value.

For security reasons, the phones do not handle HTTP/HTTPS GET requests by default. You need to specify the trusted IP address for action URI. You can specify one or more trusted IP addresses on the IP phone, or configure the IP phone to receive and handle the URI from any IP address.

Supported SIP Notify Message

In addition, Yealink phones can perform the specified action immediately by accepting a SIP NOTIFY message with the "Event: ACTION-URI" header from a SIP proxy server. The message body of the SIP NOTIFY message may contain a variable named as "key" and a variable value, which are separated by "=".

This method is especially useful for users who always work in the small office/home office where a secure firewall may prevent the HTTP or HTTPS GET request from the external network.

Note: If you want to only accept the SIP NOTIFY message from your SIP server and outbound proxy server, you have to enable the Accept SIP Trust Server Only feature. For more information, refer to Accept SIP Trust Server Only.

If you use SIP NOTIFY message method, you do not need to specify the trusted IP address for action URI. However, you should enable the IP phone to receive the action URI requests.

Example of a SIP Notify with the variable value (OK):

```
Message Header

NOTIFY sip:3583@10.2.40.10:5062 SIP/2.0

Via: SIP/2.0/UDP 10.2.40.27:5063;branch=z9hG4bK4163876675

From: <sip:3586@10.2.1.48 > ;tag=2900480538

To: "3583" <sip:3583@10.2.1.48 > ;tag=490600926

Call-ID: 2923387519@10.2.40.10
```

```
CSeq: 4 NOTIFY
Contact: <sip:3586@10.2.40.27:5063 >
Max-Forwards: 70

User-Agent: Yealink T58 58.83.0.15
Event: ACTION-URI
Content-Type: message/sipfrag
Content-Length: 6
Message Body

key=OK
```

Variable Values List

Yealink phones also support a combination of the variable values in the URI, but the order of the variable value is determined by the operation of the phone. The valid URI format is: http(s)://<phoneIPAddress>/servlet?key=variable value[;variable value]. Variable values are separated by a semicolon from each other.

The following shows an example of answering an incoming call then mute the call immediately:

http://10.3.20.10/servlet?key=ASW;MUTE.

Note: The variable value is not applicable to all events. For example, the variable value “MUTE” is only applicable when the IP phone is during a call.

When authentication is required, you can use the following URI format: http(s)://user-name:password@<phoneIPAddress>/servlet?key=variable value. If you are using a browser, we recommend that you use Firefox.

The following table lists predefined variable values:

Variable Value	Phone Action
OK	Tap **Settings** > **Status**.
SPEAKER	Press the Speakerphone key. (not applicable to CP960/CP965 phones)
F_TRANSFER	Transfer a call to another party.
VOLUME_UP	Increase the volume.
VOLUME_DOWN	Decrease volume.
MUTE	Mute a call.
F_HOLD/HOLD	Place an active call on hold.
F_CONFERENCE	Tap the **Conference** soft key (not applicable to CP960/CP965 phones).
Cancel/CANCEL/X	Cancel actions, reject incoming calls or end a call.
0-9/*/POUND	Press the keypad (0-9, * or #) (not applicable to CP960/CP965 phones).

Variable Value	Phone Action
L1-LX	Tap the line keys (X=27).
LX_LONGPRESS[1]	Perform a corresponding action when long pressing line key X.
BACK_IDLE	Return idle screen directly.
MSG	Press the MESSAGE key. (not applicable to CP960/CP965 phones)
HEADSET	Press the HEADSET key. (not applicable to CP960/CP965 phones)
RD	Redial the last dialed number (not applicable to CP960/CP965 phones).
Reboot	Reboot the phone.
AutoP	Perform auto provisioning.
DNDOn	Activate the DND feature. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled).
DNDOff	Deactivate the DND feature. **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled).
number=xxx&outgoing_uri=y	Place a call to xxx from SIP URI y. **Example**: http://10.3.20.10/servlet?key=number=1234&outgoing_uri-i=1006@10.2.1.48 (1234 means the number you dial out; 1006@10.2.1.48 means the SIP URL you dial from.)
OFFHOOK	Pick up the handset. (not applicable to CP960/CP965 phones)
ONHOOK	Hang up the handset (not applicable to CP960/CP965 phones).
ANSWER/ASW/Asw	Answer a call.
Reset	Reset a phone.
ATrans=xxx	Perform a semi-attended/attended transfer to xxx.
ATrans=callid_A@callid_B	Join any two call parties together on the phone using the call-id. After the call is set up, the two parties disconnect with the phone. **Scene**: A and D are in a call, the call is active; B and D are in a call, the call is placed on hold; C and D are in a call, the call is placed on hold; callid_A: 32775 callid_B: 32776 **Example**: http://10.10.20.10/servlet?key=ATrans=32775@32776

Variable Value	Phone Action
	It means A and B join together and then disconnect with D. But the call between C and D is still in a hold state. **Note**: To get the call-id of the active call, configure the action URL: http(s)://<serverIPAddress>/help.xml?CallId=$call_id. For more information, refer to Action URL.
BTrans=xxx	Perform a blind transfer to xxx.
phonecfg=get[&accounts=x][&dnd=x][&fw=x]	Get firmware version, registration, DND or forward configuration information. The valid value of “x” is 0 or 1, 0 means you do not need to get configuration information. 1 means you want to get configuration information. **Note**: The valid URI is: http(s)://<phoneIPAddress > /servlet?phonecfg=get[&accounts=x][&dnd=x][&fw=x]. **Example**: http://10.3.20.10/servlet?phonecfg=get[&accounts=1][&dnd=0][&fw=1]
phonecfg=set[&configuration parameter=value]	Set the valid value for the specified configuration parameter. **Note**: The valid URI is: http(s)://<phoneIPAddress>/servlet?phonecfg=set[&configuration parameter=value]...[&configuration parameter=value]. It can contain up to 10 configuration parameters. **Example**: http://10.3.20.10/servlet?phone cfg=set[&account.1.enable=1][&features.dnd.enable=1]
phonecfg=get[&configuration parameter]	Get the specified configuration information. **Note**: The valid URI is: http(s)://<phoneIPAddress>/servlet?phonecfg=get[&configuration parameter]...[&configuration parameter]. It can contain up to 10 configuration parameters. **Example**: http://10.3.20.10/servlet?phonecfg= get[&account.1.enable][&features.dnd.enable]
CallWaitingOn	Activate the call waiting feature.
CallWaitingOff	Deactivate the call waiting feature.
AlwaysFwdOn/BusyFwdOn/NoAnswFwdOn=xxx=n	Activate an always/busy/no answer forward feature to xxx for the IP phone (“xxx” means the destination number) The valid value of “n” means the duration time (seconds) before forwarding incoming calls (n is the times of 6, for example, 24). It is only applicable to no answer forward feature. **Note**: For Yealink phones, it works only if “features.fwd.allow” is set to 1 (Enabled) and call forward mode is Phone, the always/busy/no answer forward feature will apply to all the accounts on the phone. **Example**:

Variable Value	Phone Action
	http://10.10.20.10/servlet?key=NoAnswFwdOn=1001=24
AlwaysFwdOff/BusyFwdOff/NoAnswFwdOff	Deactivate the always/busy/no answer forward feature for the IP phone. **Note**: For Yealink phones, it works only if "features.fwd.allow" is set to 1 (Enabled) and call forward mode is Phone, the always/busy/no answer forward feature will apply to all the accounts on the phone. **Example**: http://10.10.20.10/servlet?key=NoAnswFwdOff
CALLEND/CallEnd	End a call.
ASW/CANCEL/HOLD/UNHOLD:xxx	Answer/end/hold/unhold a call (xxx refers to the call-id of the active call). **Example**: http://10.10.20.10/servlet?key=ASW:33093 **Note**: To get the call-id of the active call, configure the action URL: http(s)://<serverIPAddress>/help.xml?CallId=$call_id. For more information, refer to Action URL.
ACDlogin	Log into the ACD system. **Note**: When ACD authentication information is required, the valid URI is: http(s)://<-phoneIPAd-dress>/servlet?key=ACDlogin&agentID=xxx&password=xxx. When ACD authentication information is not required, the valid URI is: http(s)://<phoneIPAddress>/servlet?key=ACDlogin.
ACDlogout	Log out of the ACD system.
SWAP	Swap to the held call when there is an active call and a held call on the phone.
SPLIT	Split the local conference call into individual calls. After the split, the conference call ends, and other parties are held. **Note**: It is not available for network conference.

[1]X is the line key ID. For T58A/T58W/VP59, X=1-27; for CP960/CP965, X=1-30.

Action URI Configuration

The following table lists the parameters you can use to configure action URI.

Parameter	features.action_uri.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to receive the action URI requests.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	1	
Parameter	features.show_action_uri_option	<y0000000000xx>.cfg
Description	It enables or disables the phone to pop up the Allow Remote Control prompt when receiving action URI requests. **Note**: It works only if “features.action_uri.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	features.action_uri_limit_ip	<y0000000000xx>.cfg
Description	It configures server address from which the phone receives the action URI requests. Multiple addresses are separated by commas. (for example, 10.1.4.3,10.1.4.23); Support asterisk wild-card, each asterisk represents a field of the IP address (10.10.*.* represents 10.10.0.0 to 10.10.255.255). **Note**: It works only if “features.action_uri.enable” is set to 1 (Enabled).	
Permitted Values	IP address **Blank**-the phone will reject any HTTP GET request. **any**-the phone will accept and handle HTTP GET requests from any IP address.	
Default	Blank	
Web UI	Features > Remote Control > Action URI Allow IP List	

Example: Capturing the Current Screen of the Phone

You can capture the screen display of the IP phone using the action URI. The phones can handle an HTTP or HTTPS GET request. The URI format is http(s)://<phoneIPAddress>/screencapture. The captured picture is saved as a BMP or JPEG file.

You can also use the URI “http(s)://<phoneIPAddress>/screencapture/download” to capture the screen display first, and then download the image (which is saved as a JPG file and named with the phone model and the capture time) to the local system.

Note: Yealink phones also support capturing the screen display using the old URI “http://<-phoneIPAddress>/servlet?command=screenshot”.

Before capturing the phone’s current screen, ensure that the IP address of the computer is included in the trusted IP address for Action URI on the phone. When you capture the screen display, the phone may prompt you to enter the user name and password of the administrator if the web browser does not remember the user name and password for web user interface login.

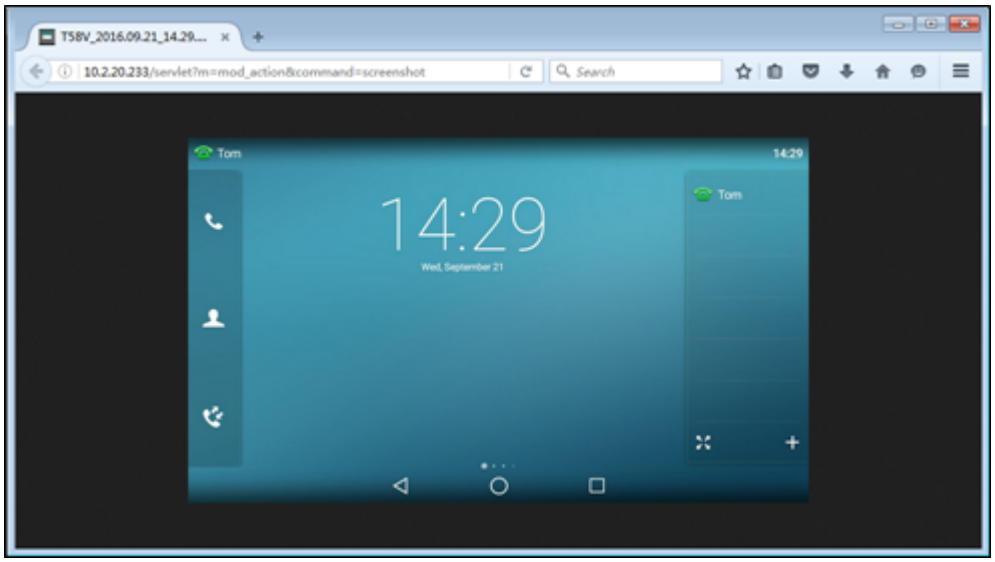
Procedure

1. Enter request URI (for example, http://10.2.20.252/screencapture) in the browser's address bar and press the Enter key on the keyboard.
2. Do one of the following:
   - If it is the first time you capture the phone’s current screen using the computer, the browser will display “Remote control forbidden”, and the phone screen will prompt the message “Allow remote control?”.

     Tap **OK** on the phone to allow remote control. The phone will return to the previous screen.

     Refresh the web page.

     The browser will display an image of the phone’s current screen. You can save the image to your local system.



- Else, the browser will display an image of the phone's current screen directly. You can save the image to your local system.

Note: Frequent capture may affect phone performance. Yealink recommends you to capture the phone screen display within a minimum interval of 4 seconds.

Example: Placing a Call via Web User Interface

Procedure

1. Go to **Directory** > **Phone Call Info**.
2. Select the desired account from the **Outgoing Identity** drop-down menu.
3. Enter the callee's number in the **Dial Number** field.
4. Click **Dial** to dial out the number.
   The web user interface prompts "Call Success" and the phone will automatically dial out the number.

You can click **Hang Up** to end the call.

If it is the first time you place a call via the web user interface, the LCD screen will prompt the message "Allow remote control?". Tap **OK** on the phone to allow remote control and then the phone will automatically dial out the number.

Note: You can also place an IP direct call via the web user interface. The IP phone supports either IPv4 or IPv6 address.

Voice Mail

Yealink phones support voice mail.

You can configure a message waiting indicator (MWI) to inform users how many messages are waiting in their mailbox without calling the mailbox. Yealink phones support both audio and visual MWI alert when receiving new voice messages.

Topic

MWI for Voice Mail Configuration

MWI for Voice Mail Configuration

Yealink phones support both solicited and unsolicited MWI.

Unsolicited MWI: The IP phone sends a SUBSCRIBE message to the server for message-summary updates. The server sends a message-summary NOTIFY within the subscription dialog each time the MWI status changes. Unsolicited MWI is a server related feature.

Solicited MWI: The IP phone can subscribe to the MWI messages to the account or the voice mail number. For solicited MWI, you must enable MWI subscription feature on the phones.

The following table lists the parameters you can use to configure MWI for voice mail.

Parameter	account.X.subscribe_mwi[1]	<MAC>.cfg
Description	It enables or disables the phone to subscribe to the message waiting indicator.	
Permitted Values	**0**-Disabled, the server automatically sends a message-summary NOTIFY in a new dialog each time the MWI status changes. (This requires server support). **1**-Enabled, the phone will send a SUBSCRIBE message to the server for message-summary updates.	
Default	0	
Web UI	Account > Advanced > Subscribe for MWI	
Parameter	account.X.subscribe_mwi_expires[1]	<MAC>.cfg
Description	It configures MWI subscribe expiry time (in seconds). **Note**: It works only if “account.X.subscribe_mwi” is set to 1 (Enabled).	
Permitted Values	Integer from 0 to 84600	
Default	3600	
Web UI	Account > Advanced > MWI Subscription Period (Seconds)	
Parameter	account.X.mwi_parse_terminated[1]	<MAC>.cfg
Description	It enables or disables the phone to parse the Terminated attribute in the received MWI NOTIFY message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.sub_fail_retry_interval[1]	<MAC>.cfg
Description	It configures the interval (in seconds) for the phone to retry to re-subscribe when subscription fails.	
Permitted Values	Integer from 0 to 3600	
Default	30	
Parameter	account.X.subscribe_mwi_to_vm[1]	<MAC>.cfg
Description	It enables or disables the phone to subscribe to the message waiting indicator for the voice mail number. **Note**: It works only if “account.X.subscribe_mwi” is set to 1 (Enabled) and “voice_mail.number.X” is configured.	
Permitted Values	**0**-Disabled, the phone will subscribe to the message waiting indicator to a specific account. **1**-Enabled	

Default	0	
Web UI	Account > Advanced > Subscribe MWI to Voice Mail	
Parameter	voice_mail.number.X[1]	<MAC>.cfg
Description	It configures the voice mail number.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Account > Advanced > Voice Mail	
Phone UI	Message > Set Voice Mail Code > AccountX No. CP965: More > Message > Set Voice Mail Code > AccountX No.	
Parameter	account.X.display_mwi.enable[1]	<MAC>.cfg
Description	It enables or disables the MWI alert to indicate that you have an unread voice mail message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Account > Advanced > Voice Mail Display	
Parameter	features.voice_mail_alert.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to pop up the message when receiving the same amount of new voicemails.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.voice_mail_key_lamp_field.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to subscribe to the message waiting indicator for the voice mail number when configuring a Voice Mail dsskey.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will subscribe to the value of the Voice Mail dsskey from the server. When there are unread voice messages, the dsskey LED indicator flashes or the dsskey icon indicates the number of unread messages.	
Default	0	
Related Parameters	phone_setting.mail_power_led_flash_enable features.voice_mail_popup.enable	
Parameter	phone_setting.old_mail_display.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the number of old voice mails on the View Voice Mail screen.	
Permitted Values	**0**-Disabled, the View Voice Mail screen displays "xx new mail". **1**-Enabled, the View Voice Mail screen displays "xx new xx old mail".	
Default	1	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Short Message Service (SMS)

Yealink phones support short message service (SMS). It allows users to send and receive a text message on the support server.

By default, SMS is enabled. You can use SMS at the path: **Message** > **Text Message**. You can also disable SMS.

Topic

SMS Configuration

SMS Configuration

The following table lists the parameter you can use to configure SMS.

Parameter	features.text_message.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to send and receive a text message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except CP965	
Parameter	phone_setting.message_call.rule	<y0000000000xx>.cfg
Description	It configures the regular expression for extracting the text message number. **Example**: phone_setting.message_call.rule = ([\w-]+(\.[\w-]+)*@[\w-]+(\.[\w-]+)+)|([\d]+\s*[\d]+\s*[\d]+) It means that you can press the **Call** soft key to dial the extracted number after reading the SMS. The rules for extracting numbers are: 1. Extract a string in letters/numbers@domian format. 2. Extract a string of at least 3 numbers, spaces are allowed between numbers, but they must start with numbers.	
Permitted Values	Regular expression	
Default	%NULL% (SMS call back feature is disabled)	
Supported Devices	All phones except CP965	

XML Browser

XML browser simply means that the phone screen display can be managed by external applications. The XML browser feature allows users to develop and deploy custom services which meet user's functional requirements on the server. Users can customize practical applications, such as weather report, stock information, Google search, news service, and so on.

To use the XML browser feature, you must configure an XML browser key in advance.

For more information on XML browser, refer to Yealink IP Phones XML Browser Developer's Guide.

Topic

XML Browser Configuration

The following table lists the parameters you can use to configure XML browser.

Parameter	push_xml.server	<y0000000000xx>.cfg
Description	It configures the address of the push XML server.	
Permitted Values	**Blank**-The phone will reject HTTP POST messages from any server. **any**-The phone will accept HTTP POST messages from any server. **IP address** or **domain name**-Multiple addresses are separated by commas. (for example, 10.1.4.3,10.1.4.23); Support asterisk wildcard, each asterisk represents a field of the IP address (10.10.*.* represents 10.10.0.0 to 10.10.255.255).	
Default	Blank	
Web UI	Features > Remote Control > Push XML Server IP Address	
Parameter	push_xml.block_in_calling	<y0000000000xx>.cfg
Description	It enables or disables the phone to block XML applications during a call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Remote Control > Block XML in Calling	
Parameter	push_xml.sip_notify	<y0000000000xx>.cfg
Description	It enables or disables the phone to process the push XML via SIP NOTIFY message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Remote Control > SIP Notify	
Parameter	push_xml.phonebook.search.delay	<y0000000000xx>.cfg
Description	It configures the time (in milliseconds) to wait for the phone to send the entered keywords to XML phonebook server if the user does not press OK to confirm. If it is set to 0, the phone immediately sends the entered keywords to the server.	
Permitted Values	Integer from 0 to 10000	
Default	1000	
Parameter	features.xml_browser.loading_tip.delay	<y0000000000xx>.cfg
Description	It configures the time (in milliseconds) to wait for the phone to display the loading tip. If the phone doesn't finish loading an XML page within the specified time, the tip, "Loading, please wait" appears on the LCD screen. If it is set to 0, the loading tip feature is disabled. **Note**: It is not applicable to ImageScreen Object and ImageMenu Object.	

Permitted Values	Integer from 0 to 50000	
Default	100	
Parameter	features.xml_browser.user_name	<y0000000000xx>.cfg
Description	It configures the authentication user name for the XML request.	
Permitted Values	String within 15 characters	
Default	Blank	
Parameter	features.xml_browser.pwd	<y0000000000xx>.cfg
Description	It configures the authentication password for the XML request.	
Permitted Values	String within 15 characters	
Default	Blank	
Parameter	push_xml.username	<y0000000000xx>.cfg
Description	It configures the user name for the phone to authenticate with the push XML server. Leave it blank if no authentication is required.	
Permitted Values	String	
Default	Blank	
Web UI	Features > Remote Control > User Name	
Parameter	push_xml.password	<y0000000000xx>.cfg
Description	It configures the password for the phone to authenticate with the push XML server. Leave it blank if no authentication is required.	
Permitted Values	String within 15 characters	
Default	Blank	
Web UI	Features > Remote Control > Password	
Parameter	features.upload_server	<y0000000000xx>.cfg
Description	It configures the server address which the DssKey.cfg file is uploaded to when the phone receives an XML command (Command:UploadSystemInfo).	
Permitted Values	URL within 1024 characters	
Default	Blank	
Parameter	xmlbrowser_icon_upload.url	<y0000000000xx>.cfg
Description	It configures the access URL of the *.tar file for custom icons displayed by XML browser.	
Permitted Values	URL within 511 characters	
Default	Blank	
Parameter	xmlbrowser_icon.delete	<y0000000000xx>.cfg

Description	It deletes the specified or all custom icons for XML browser. **Example**: Delete all custom icons for XML browser: xmlbrowser_icon.delete = http://localhost/all Delete a custom icon for XML browser (for example, customicon.jpg): xmlbrowser_icon.delete = http://localhost/customicon.jpg
Permitted Values	http://localhost/all or http://localhost/name.(jpg/png/bmp/jpeg/dob)
Default	Blank

Hot Desking

A primary motivation for hot desking is cost reduction. Hot desking is regularly used in places where not all employees are in the office at the same time, or not in the office for a long time, which means actual personal offices would often be vacant, consuming valuable space and resources.

Hot desking allows the user to clear pre-registration configurations of all accounts on the phone.

To use this feature, you need to assign a Hot Desking key. You can also specify which registration configurations are available for the users.

Topics

Hot Desking Key Configuration
Hot Desking Configuration

Hot Desking Key Configuration

The following shows configuration for a Hot Desking key.

Line Key Configuration	Programmable Key Configuration
linekey.X.type = 34 *linekey.X.label = Hot Desking*	*programablekey.X.type = 34*

After provisioning, a Hot Desking key is available on the phone. You can tap the Hot Desking key to clear pre-registration configurations of all accounts and register their own account on line 1.

Related Topic

Line Keys Configuration
Programmable Keys Configuration

Hot Desking Configuration

You can specify available configurations for registration when using hot desking.

The following table lists the parameters you can use to configure hot desking.

Parameter	hotdesking.dsskey_register_name_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of register name on the hot desking login wizard when tapping the Hot Desking DSS key.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	0	
Parameter	hotdesking.dsskey_username_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of user name on the hot desking login wizard when tapping the Hot Desking DSS key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	hotdesking.dsskey_password_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of password on the hot desking login wizard when tapping the Hot Desking DSS key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	hotdesking.dsskey_sip_server_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of SIP server on the hot desking login wizard when tapping the Hot Desking DSS key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	hotdesking.dsskey_outbound_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to provide an input field of the outbound server on the hot desking login wizard when tapping the Hot Desking DSS key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

General Features

This section shows you how to configure general features on Yealink phones.

Topics

Line Identification Presentation
Return Code for Refused Call
Return Code for Unanswered Call
Hide Feature Access Codes
Accept SIP Trust Server Only
100 Reliable Retransmission
SIP Session Timer
Session Timer
Reboot in Talking
Reserve # in User Name
Busy Tone Delay
CFG File Version Information
Media Loopback

Line Identification Presentation

Yealink phones can derive calling and connected line identification from SIP headers and display the name associated with the telephone number on the LCD screen.

Calling Line Identification Presentation (CLIP): It allows the phones to display the caller identity, derived from a SIP header contained in the INVITE message when receiving an incoming call. Yealink phones can derive caller identity from three types of SIP header: From, P-Asserted-Identity (PAI) and Remote-Party-ID (RPID). Identity presentation is based on the identity in the relevant SIP header.

Connected Line Identification Presentation (COLP): It allows the phones to display the identity of the connected party specified for outgoing calls. The phones can display the Dialed Digits, or the identity in a SIP header (Remote-Party-ID, P-Asserted-Identity or contact) received, or the identity in the From header carried in the UPDATE message sent by the callee as described in RFC 4916. Connected line identification presentation is also known as Called line identification presentation. In some cases, the remote party will be different from the called line identification presentation due to call diversion.

Note: If the caller/callee already exists in the local directory, the local contact name assigned to the caller will be preferentially displayed and stored in the call log.

For more information on calling line identification presentation, refer to Calling and Connected Line Identification Presentation on Yealink IP Phones.

Topic

CLIP and COLP Configuration

CLIP and COLP Configuration

The following table lists the parameters you can use to configure the CLIP and COLP.

Parameter	account.X.cid_source[1]	<MAC>.cfg
Description	It configures the identity of the caller.	
Permitted Values	**0**-FROM **1**-PAI **2**-PAI-FROM	

	3-PRID-PAI-FROM **4**-PAI-RPID-FROM **5**-RPID-FROM **6**-PREFERENCE, the phone uses the custom priority order for the sources of caller identity (configured by the parameter "sip.cid_source.preference").	
Default	0	
Web UI	Account > Advanced > Caller ID Source	
Parameter	account.X.cid_source_privacy[1]	<MAC>.cfg
Description	It enables or disables the phone to process the Privacy header field in the SIP message. **Note**: The priority order: PPI > Privacy > PRID/PAI/From.	
Permitted Values	**0**-Disabled, the phone does not process the Privacy header. **1**-Enabled, the phone screen presents anonymity instead if there is a Privacy: id in the INVITE request.	
Default	1	
Parameter	account.X.cid_source_ppi[1]	<MAC>.cfg
Description	It enables or disables the phone to process the P-Preferred-Identity (PPI) header in the request message for caller identity presentation.	
Permitted Values	**0**-Disabled, the phone does not process the PPI header. **1**-Enabled, the phone presents the caller identity from the PPI header.	
Default	0	
Parameter	sip.cid_source.preference	<y0000000000xx>.cfg
Description	It configures the priority order for the sources of caller identity information. **Note**: Yealink phones can derive caller identity from the following SIP headers: From, P-Asserted-Identity (PAI), P-Preferred-Identity and Remote-Party-ID (RPID). It works only if "account.X.cid_source" is set to 6 (PREFERENCE).	
Permitted Values	String	
Default	P-Preferred-Identity, P-Asserted-Identity, Remote-Party-ID, From	
Parameter	account.X.cp_source[1]	<MAC>.cfg
Description	It configures the identity of the callee according to the response message.	
Permitted Values	**0**-PAI-RPID **1**-Dialed Digits **2**-RFC4916, the caller sends the SIP request message which contains the from-change tag in the Supported header. The caller then receives an UPDATE message from the server and displays the identity in the "From" header. **3**-PAI-RPID-Contact **4**-The phone displays the identity using the custom priority order configured by "sip.cid_source.-preference".	
Default	0	

Parameter	account.X.callerid_in_support_header.enable	<MAC>.cfg
Description	It enables or disables the callerid attribute to be carried in the Supported header of the INVITE message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Return Code for Refused Call

You can define the return code and reason of the SIP response message for the refused call. The caller's phone LCD screen displays the reason according to the received return code. Available return codes and reasons are:

- 404 (Not Found)
- 480 (Temporarily Unavailable)
- 486 (Busy Here)
- 600 (Busy Everywhere)
- 603 (Decline)

Topic

Return Code for Refused Call Configuration

Return Code for Refused Call Configuration

The following table lists the parameters you can use to configure the return code for the refused call.

Parameter	features.normal_refuse_code	<y0000000000xx>.cfg
Description	It configures a return code and reason of SIP response messages when the phone rejects an incoming call. A specific reason is displayed on the caller's phone screen.	
Permitted Values	**404**-Not Found **480**-Temporarily Unavailable **486**-Busy Here **600**-Busy Everywhere **603**-Decline	
Default	486	
Web UI	Features > General Information > Return Code When Refuse	

Return Code for Unanswered Call

You can define the return code and reason of the SIP response message for the unanswered call. The caller's phone LCD screen displays the reason according to the received return code. Available return codes and reasons are:

- 404 (Not Found)
- 480 (Temporarily Unavailable)
- 486 (Busy Here)
- 600 (Busy Everywhere)
- 603 (Decline)

This feature is not applicable to VP59 phones.

Topic

Return Code for Unanswered Call Configuration

Return Code for Unanswered Call Configuration

The following table lists the parameters you can use to configure the return code for the unanswered call.

Parameter	features.no_answer_code	<y0000000000xx>.cfg
Description	It configures a return code and reason of SIP response messages when the phone does not answer an incoming call. A specific reason is displayed on the caller's phone screen.	
Permitted Values	**404**-Not Found **480**-Temporarily Unavailable (Temporarily not available) **486**-Busy Here **600**-Busy Everywhere **603**-Decline	
Default	486	
Web UI	Features > General Information > Return Code When No Answer	

Hide Feature Access Codes

Hide Feature Access Codes feature enables the IP phone to display the feature name instead of the dialed feature access code automatically. For example, the dialed call park code will be replaced by the identifier "Call Park" when you park an active call.

The hide feature access codes feature is applicable to the following features:

- Voice Mail
- Pick up
- Group Pick up
- Barge In
- Retrieve
- Call Park
- Call Pull

Topic

Hide Feature Access Codes Configuration

Hide Feature Access Codes Configuration

The following table lists the parameters you can use to configure the hide feature access codes.

Parameter	features.hide_feature_access_codes.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the feature name instead of the feature access code when dialing and talking. The following feature access codes will be replaced when this feature is enabled: • Voice Mail • Pick up • Group Pick up • Barge In • Retrieve	

	• Call Park • Group Park • Call Pull
Permitted Values	**0**-Disabled **1**-Enabled
Default	0
Web UI	Features > General Information > Hide Feature Access Codes

Accept SIP Trust Server Only

Accept SIP trust server only enables the phones to only accept the SIP message from your SIP server and outbound proxy server. It can prevent the phone from receiving the ghost calls whose phone number maybe 100, 1000 and so on. If you enable this feature, the phone cannot accept an IP address call.

Topic

Accept SIP Trust Server Only Configuration

Accept SIP Trust Server Only Configuration

The following table lists the parameters you can use to configure accept SIP trust server only.

Parameter	sip.trust_ctrl	<y0000000000xx>.cfg
Description	It enables or disables the phone to only accept the SIP message from the SIP and outbound proxy server.	
Permitted Values	**0**-Disabled **1**-Enabled, users cannot accept the IP call	
Default	0	
Web UI	Features > General Information > Accept SIP Trust Server Only	

100 Reliable Retransmission

As described in RFC 3262, the 100rel tag is for the reliability of provisional responses. When presented in a Supported header, it indicates that the phone can send or receive reliable provisional responses. When presented in a Require header in a reliable provisional response, it indicates that the response is to be sent reliably.

Example of a SIP INVITE message:

```
INVITE sip:1024@pbx.test.com:5060 SIP/2.0

Via: SIP/2.0/UDP 10.3.6.197:5060;branch=z9hG4bK1708689023

From: "1025" <sip:1025@pbx.test.com:5060 > ;tag=1622206783

To: <sip:1024@pbx.test.com:5060 >

Call-ID: 0_537569052@10.3.6.197

CSeq: 2 INVITE

Contact: <sip:1025@10.3.6.197:5060 >

Authorization: Digest username="1025", realm="pbx.test.com", nonce="BroadWorksXi5stub71Ts2nb05BW", uri-
i="sip:1024@pbx.test.com:5060", response="f7e9d35c55af45b3f89beae95e913171", algorithm=MD5, cnon-
ce="0a4f113b", qop=auth, nc=00000001

Content-Type: application/sdp
```

Allow: INVITE, INFO, PRACK, ACK, BYE, CANCEL, OPTIONS, NOTIFY, REGISTER, SUBSCRIBE, REFER, PUBLISH, UPDATE, MESSAGE Max-Forwards: 70 User-Agent: Yealink T58 58.83.0.15 Supported: 100rel Allow-Events: talk,hold,conference,refer,check-sync Content-Length: 302

Topic

100 Reliable Retransmission Configuration

100 Reliable Retransmission Configuration

The following table lists the parameter you can use to configure the 100 reliable retransmission.

Parameter	account.X.100rel_enable[1]	<MAC>.cfg
Description	It enables or disables the 100 reliable retransmission feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Account > Advanced > Retransmission	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

SIP Session Timer

SIP session timers T1, T2 and T4 are SIP transaction layer timers defined in RFC 3261. These session timers are configurable on the phones.

Timer T1

Timer T1 is an estimate of the Round Trip Time (RTT) of transactions between a SIP client and SIP server.

Timer T2

Timer T2 represents the maximum retransmitting time of any SIP request message. The re-transmitting and doubling of T1 will continue until the retransmitting time reaches the T2 value.

Example:

The user registers a SIP account for the IP phone and then set the value of Timer T1, Timer T2 respectively (Timer T1: 0.5, Timer T2: 4). The SIP registration request message will be re-transmitted between the IP phone and SIP server. The re-transmitting and doubling of Timer T1 (0.5) will continue until the retransmitting time reaches the Timer T2 (4). The total registration request retry time will be less than 64 times of T1 (64 * 0.5 = 32). The re-transmitting interval in sequence is 0.5s, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 4s and 4s.

Timer T4

Timer T4 represents that the network will take to clear messages between the SIP client and server.

Topic

SIP Session Timer Configuration

SIP Session Timer Configuration

The following table lists the parameters you can use to configure the SIP session timer.

Parameter	sip.timer_t1	<y0000000000xx>.cfg
Description	It configures the SIP session timer T1 (in seconds).	
Permitted Values	Float from 0.5 to 10	
Default	0.5	
Web UI	Settings > SIP > SIP Session Timer T1 (0.5~10s)	
Parameter	sip.timer_t2	<y0000000000xx>.cfg
Description	It configures the SIP session timer T2 (in seconds).	
Permitted Values	Float from 2 to 40	
Default	4	
Web UI	Settings > SIP > SIP Session Timer T2 (2~40s)	
Parameter	sip.timer_t4	<y0000000000xx>.cfg
Description	It configures the SIP session timer T4 (in seconds).	
Permitted Values	Float from 2.5 to 60	
Default	5	
Web UI	Settings > SIP > SIP Session Timer T4 (2.5~60s)	

Session Timer

Session timer allows a periodic refresh of SIP sessions through an UPDATE request, to determine whether a SIP session is still active. Session timer is specified in RFC 4028. The phones support two refresher modes: UAC and UAS. Whether the endpoint functions as a UAC or a UAS depends on the UA that initiates the SIP request. If the initiator is configured as UAC, the other client or the SIP server will function as a UAS. If the initiator is configured as UAS, the other client or the SIP server will function as a UAC. The session expiration is negotiated via the Session-Expires header in the INVITE message. The negotiated refresher is always the UAC and it will send an UPDATE request at the negotiated session expiration. The value “refresher=uac” included in the UPDATE message means that the UAC performs the refresh.

Example of UPDATE message (UAC mode):

```
UPDATE sip:1058@10.10.20.34:5060 SIP/2.0

Via: SIP/2.0/UDP 10.10.20.32:5060;branch=z9hG4bK2104991394

From: "10111" <sip:10111@10.2.1.48:5060 > ;tag=2170397024

To: <sip:1058@10.2.1.48:5060 > ;tag=200382096

Call-ID: 4_1556494084@10.10.20.32

CSeq: 2 UPDATE

Contact: <sip:10111@10.10.20.32:5060 >

Max-Forwards: 70
```

User-Agent: Yealink T58 58.83.0.15
Session-Expires: 90;refresher=uac
Supported: timer
Content-Length: 0

Topic

Session Timer Configuration

Session Timer Configuration

The following table lists the parameters you can use to configure the session timer.

Parameter	account.X.session_timer.enable[1]	<MAC>.cfg
Description	It enables or disables the session timer.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will send periodic UPDATE requests to refresh the session during a call.	
Default	0	
Web UI	Account > Advanced > Session Timer	
Parameter	account.X.session_timer.expires[1]	<MAC>.cfg
Description	It configures the interval (in seconds) for refreshing the SIP session during a call. An UPDATE will be sent after 50% of its value has elapsed. For example, if it is set to 1800 (1800s), the phone will refresh the session during a call every 900 seconds. **Note**: It works only if "account.X.session_timer.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 90 to 7200	
Default	1800	
Web UI	Account > Advanced > Session Expires (90~7200s)	
Parameter	account.X.session_timer.refresher[1]	<MAC>.cfg
Description	It configures who refreshes the SIP session during a call. **Note**: It works only if "account.X.session_timer.enable" is set to 1 (Enabled).	
Permitted Values	**0**-UAC **1**-UAS	
Default	0	
Web UI	Account > Advanced > Session Refresher	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Reboot in Talking

Reboot in talking feature allows the phones to reboot during an active call when it receives a reboot Notify message.

Topic

Reboot in Talking Configuration

Reboot in Talking Configuration

The following table lists the parameter you can use to configure the reboot in talking.

Parameter	features.reboot_in_talk_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to reboot during a call when it receives a reboot Notify message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > General Information > Reboot in Talking	

Reserve # in User Name

Reserve # in User Name feature allows the phones to reserve “#” in user name. When Reserve # in User Name feature is disabled, “#” will be converted into “%23”. For example, the user registers an account (user name: 1010#) on the phone, the phone will send 1010%23 instead of 1010# in the REGISTER message or INVITE message to the SIP server.

Example of a SIP REGISTER message:

```
INVITE sip:2@10.2.1.48:5060 SIP/2.0

Via: SIP/2.0/UDP 10.3.20.6:5060;branch=z9hG4bK1867789050

From: "1010" <sip:1010%23@10.2.1.48:5060>;tag=1945988802

To: <sip:2@10.2.1.48:5060>

Call-ID: 0_2336101648@10.3.20.6

CSeq: 1 INVITE


Contact: <sip:1010%23@10.3.20.6:5060>

Content-Type: application/sdp

Allow: INVITE, INFO, PRACK, ACK, BYE, CANCEL, OPTIONS, NOTIFY, REGISTER, SUBSCRIBE, REFER,
PUBLISH, UPDATE, MESSAGE

Max-Forwards: 70

User-Agent: Yealink T58 58.83.0.15

Allow-Events: talk,hold,conference,refer,check-sync

Content-Length:   300
```

Topic

Reserve # in User Name Configuration

Reserve # in User Name Configuration

The following table lists the parameter you can use to configure the reserve # in user name.

Parameter	sip.use_23_as_pound	<y0000000000xx>.cfg
Description	It enables or disables the phone to reserve the pound sign (#) in the user name.	
Permitted Values	**0**-Disabled (convert the pound sign into “%23”) **1**-Enabled	

Default	1
Web UI	Features > General Information > Reserve # in User Name

Busy Tone Delay

The busy tone is an audible signal to indicate that the call is released by the other party. You can define the amount of time that the busy tone lasts.

Topic

Busy Tone Delay Configuration

Busy Tone Delay Configuration

The following table lists the parameter you can use to configure busy tone delay.

Parameter	features.busy_tone_delay	<y0000000000xx>.cfg
Description	It configures the duration (in seconds) that the busy tone lasts when the call is released by the remote party.	
Permitted Values	**0**-the phone will not play a busy tone. **1**-1s, a busy tone lasts for 1 second on the phone. **3**-3s, a busy tone lasts for 3 seconds on the phone. **5**-5s, a busy tone lasts for 5 seconds on the phone	
Default	0	
Web UI	Features > General Information > Busy Tone Delay (Seconds)	

CFG File Version Information

You can customize the version information for the CFG configuration file and then check the version information via phone/web user interface. With this feature, you can easily know which version of the CFG configuration file the IP phone is configured.

Topic

CFG File Version Information Configuration

CFG File Version Information Configuration

The following table lists the parameters you can use to configure CFG file version information.

Parameter	static.auto_provision.config_version.com	<y0000000000xx>.cfg
Description	It configures the version information of the Common CFG configuration file. After configuration, you can check the configuration file version information at the path: **Settings** > **Status** > **Phone** > **COM Version** (phone user interface) or **Status** > **Status** > **Version** > **COM Version** (web user interface).	
Permitted Values	String	
Default	Blank	
Parameter	static.auto_provision.config_version.mac	<y0000000000xx>.cfg
Description	It configures the version information of the MAC CFG configuration file.	

	After configuration, you can check the configuration file version information at the path: **Settings** > **Status** > **Phone** > **MAC Version** (phone user interface) or **Status** > **Status** > **Version** > **MAC Version** (web user interface).
Permitted Values	String
Default	Blank

Media Loopback

The SIP RTP media loopback can be used to make test calls to verify the media path between the phone and server.

RTP packets are looped back toward the source device. In a voice loopback call, an echo is heard at the device originating the call.

For more information on media loopback, refer to RFC 6849.

Topic

Media Loopback Configuration

Media Loopback Configuration

The following table lists the parameters you can use to configure media loopback.

Parameter	sip.loopback.enable	<y0000000000xx>.cfg
Description	It configures the loopback role for the phone. **Note:** After the phone accepts the loopback call, the mute feature will be automatically activated on the phone.	
Permitted Values	**0**-Loopback-Mirror, the server initiates a loopback call, and the phone accepts the call and mirrors (echoes) all received media back to the server. **1**-Loopback-Source, the phone can initiate a loopback call as a media source or receive a loopback call as a loopback mirror.	
Default	0	
Parameter	sip.loopback_type	<y0000000000xx>.cfg
Description	It configures the media loopback type.	
Permitted Values	**1**-rtp-media-loopback, the packet received by loopback mirror is re-encoded based on the SDP negotiation. The re-encoded content is returned to the loopback source as an RTP packet with payload type corresponding to the re-encoding format. **2**-rtp-pkt-loopback, the RTP payload is re-encapsulated and the RTP packets are looped back with a new payload type and format. This type of loopback applies to the encapsulated and direct packet loopback. Any type of encoding-related functions must not be part of this type of loopback path. **3**-rtp-media-loopback & rtp-pkt-loopback, the answer must include only one of these two loopback types and should give preference to the first loopback-type in the SDP offer.	
Default	3	
Parameter	sip.pkt_loopback_mode	<y0000000000xx>.cfg
Description	It configures the encapsulation mode of incoming RTP packet. **Note**: It works only if “sip.loopback_type” is set to 2 (rtp-pkt-loopback).	
Permitted Values	**1**-encapsulated packet loopback, the entire incoming RTP packet is encapsulated as payload within an outer RTP packet. The loopback source can generate statistics for one-way path performance up	

	to the RTP level for each direction of travel. **2**-directed packet loopback, the loopback mirror copies the payload of the incoming RTP packet into a new RTP packet. The packet source can compute only two-way path statistics from the direct loop-back packet header. **3**-encapsulated & directed, the loopback mirror loops back the incoming RTP packets using either the encapsulated RTP payload format or the direct loopback RTP payload format.	
Default	3	
Parameter	sip.pkt_loopback_encapsulated_payload	<y0000000000xx>.cfg
Description	It configures the value of dynamic payload for encapsulated RTP. **Note**: It works only if "sip.pkt_loopback_mode" is set to 1 (encapsulated packet loopback).	
Permitted Values	Integer greater than 98	
Default	112	
Parameter	sip.pkt_loopback_directed_payload	<y0000000000xx>.cfg
Description	It configures the value of dynamic payload for the direct loopback RTP. **Note**: It works only if "sip.pkt_loopback_mode" is set to 2 (directed packet loopback).	
Permitted Values	Integer greater than 98	
Default	113	
Parameter	sip.loopback.auto_answer.mode	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically answer the incoming loopback call.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Configuration Parameters

This section provides a description and permitted values of some settings.

Topics

BroadSoft Parameters
Alcatel-Lucent Barge in Parameters
Start2Start ACD Parameters
Ethernet Interface MTU Parameters
SIP Settings Parameters
Call Settings Parameters
APP Settings Configuration

BroadSoft Parameters

This section shows the parameters you can use to configure the phone with BroadSoft server.

For more information on BSFT, refer to Yealink IP Phone Features Integrated with BroadSoft UC-One User Guide or Yealink IP Phones Deployment Guide for BroadSoft UC-One Environment.

BroadSoft Settings

Parameter	bw.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the BroadSoft features.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	bw.features_status.display_mode	<y0000000000xx>.cfg
Description	It configures the icon display mode when the corresponding BSFT feature is enabled on the phone. **Note**: It works only if "bw.enable" and "bw.xsi.enable" are set to 1 (Enabled).	
Permitted Values	**0**-The phone does not display the corresponding icon. (This is the old user experience) **1**-Enabled, the phone displays the corresponding icon when it requests the server to enable the corresponding feature.	
Default	0	
Case Scenario	**Check which BSFT features are currently enabled through the icons displayed on the phone.** It is available to the following scenarios: • Always Forward, Busy Forward, No Answer Forward • Anonymous Call Rejection • Anonymous Call • Simultaneous Ring Personal • Remote Office	
Parameter	bw.features.flash_time	<y0000000000xx>.cfg
Description	It configures the time (in seconds) when the phone actively requests the BSFT server to enable the feature . **Note**: It works only if "bw.enable" and "bw.xsi.enable" are set to 1 (Enabled).	
Permitted Values	Integer from 0 to 86400	

Default	0

[1]If you change this parameter, the phone will reboot to make the change take effect.

Broadsoft UC

Parameter	bw.xmpp.enable[1]	<y0000000000xx>.cfg
Description	It enables or disables the UC feature. **Note**: It works only if "bw.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.uc_username	<y0000000000xx>.cfg
Description	It configures the user name for UC authentication. **Note**: It works only if "bw.xmpp.enable" is set to 1 (Enabled).	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Applications > Broadsoft XMPP > XMPP Account > XMPP UserName	
Parameter	features.uc_password	<y0000000000xx > .cfg
Description	It configures the password for UC authentication. **Note**: It works only if "bw.xmpp.enable" is set to 1 (Enabled).	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Applications > Broadsoft XMPP > XMPP Account > XMPP Password	
Parameter	bw.xmpp.presence_icon.mode	<y0000000000xx>.cfg
Description	It enables or disables to display presence icon in a new style.	
Permitted Values	**0**-Disabled, the phone displays the presence icon in old style before V81 **1**-Enabled, the phone displays the presence icon in the current new style	
Default	0	
Parameter	bw.xmpp.change_presence.force_manual.enable	<y0000000000xx>.cfg
Description	It enables or disables to synchronize the presence status to the BroadWorks server when you change your presence status manually on the IP phone.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	bw.xmpp.change_presence.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to change the user's current presence state locally. **Note**: It works only if "bw.xmpp.enable" is set to 1 (Enabled).	
Permitted	**0**-Disabled	

Values	**1**-Enabled	
Default	0	
Parameter	phone_setting.dsskey_directory_auto.enable	<y0000000000xx>.cfg
Description	It enables or disables the Auto Favorite feature. **Note**: It works only if “bw.xmpp.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will download information of favorites from the cloud server and automatically configure UC Favorite keys from the first unused line key (the line key type is configured as N/A or Line). If a line key is used, the phone will skip to the next unused line key.	
Default	1	
Web UI	Features > General Information > Enable Auto Favorite	
Parameter	phone_setting.uc_favorite_sequence_type	<y0000000000xx>.cfg
Description	It configures the order of UC Favorite keys to be assigned automatically. **Note**: It works only if “phone_setting.dsskey_directory_auto.enable” is set to 1 (Enabled). To assign Ext Key, make sure the expansion module has been connected to the phone in advance.	
Permitted Values	**0**-linekey > exp1 key > expN key **1**-exp1 key > expN key > linekey **2**-linekey page1 > page1 from ex1 key to expN key > page2 from exp1 key to expN key > … > linekey from page2 to page3 **3**-page1 from exp1 key to expN key > page2 from exp1 key to expN key > … > linekey **Note**: N is the number of your connected expansion modules.	
Default	0	
Supported Devices	T58W, T58A	
Parameter	phone_setting.keytype_sequence[1]	<y0000000000xx>.cfg
Description	It configures the display order of BLF List, UC Favorite, Favorite keys when two or three types appear simultaneously. The phone displays the keys with left-to-right order. For example, “favorite,uc_favorite,blf_list” means the display order is Favorite keys > UC Favorite keys > BLF List keys. If only one type is configured, the configured type will have the highest priority. For example, “blf_list” means the IP phone preferentially display the BLF List keys, and remaining keys’ display order is: UC Favorite keys > Favorite keys (the default order). **Note**: If Auto Linekeys feature is enabled (features.auto_linekeys.enable = 1), the Line keys (the line key type is configured as Line) will be shown first.	
Permitted Values	Blank (the display order: BLF List keys > UC Favorite keys > Favorite keys) blf_list, uc_favorite, favorite or a combination of them	
Default	Blank	
Parameter	features.uc_dir.match_tail_number	<y0000000000xx>.cfg
Description	It configures the minimum matched digits of the tail numbers of BroadCloud Buddy. When the entered number matches the tail numbers of a buddy in the buddy directory, the phone will automatically display the matched results on the phone screen when placing a call.	

	If it is set to 0, the entered number must exactly match the number of BroadCloud Buddy. If it is set to other values (for example, 4), the entered number less than 4 digits would not match with the BroadCloud contact. **Example**: If there is a BroadCloud Buddy name "Sunmy" with the phone number "785656" and the parameter "features.uc_dir.match_tail_number" is set to "4", "5656", "85656" or "785656" would match "Sunmy (785656)". "656", "56" or "6" would not match "Sunmy (785656)".	
Permitted Values	Integer greater than or equal to 0	
Default	0	
Parameter	search_in_dialing.bw_uc_buddies.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically search entries from the BroadSoft Buddies directory, and display results on the pre-dialing/dialing screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	search_in_dialing.bw_uc_buddies.priority	<y0000000000xx>.cfg
Description	It configures the search priority of the BroadSoft Buddies directory.	
Permitted Values	Integer greater than or equal to 0	
Default	6	
Parameter	directory_setting.bw_uc_buddies.enable	<y0000000000xx>.cfg
Description	It enables or disables the users to access the BroadSoft Buddies directory by tapping the directory icon ( ).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	directory_setting.bw_uc_buddies.priority	<y0000000000xx>.cfg
Description	It configures the display priority of the BroadSoft Buddies directory.	
Permitted Values	Integer greater than or equal to 0	
Default	12	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Broadsoft XSI

Parameter	account.X.xsi.user[1]	<MAC>.cfg
Description	It configures the user name for XSI authentication. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	String within 99 characters	

Default	Blank	
Web UI	Applications > Broadsoft XSI > XSI Account > User ID	
Parameter	account.X.xsi.password[1]	<MAC>.cfg
Description	It configures the password for XSI authentication. **Note**: It works only if “sip.authentication_for_xsi” is set to 0 (User Login Credentials for XSI Authentication) and “bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Applications > Broadsoft XSI > XSI Account > Password	
Parameter	account.X.xsi.host[1]	<MAC>.cfg
Description	It configures the IP address or domain name of the Xtended Services Platform server. **Note**: It works only if “bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	IP address or domain name	
Default	Blank	
Web UI	Applications > Broadsoft XSI > XSI Account > Host Server	
Parameter	account.X.xsi.server_type[1]	<MAC>.cfg
Description	It configures the access protocol of the Xtended Services Platform server. **Note**: It works only if “bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	**http**-HTTP **https**-HTTPS	
Default	http	
Web UI	Applications > Broadsoft XSI > XSI Account > XSI Server Type	
Parameter	account.X.xsi.port[1]	<MAC>.cfg
Description	It configures the port of the Xtended Services Platform server. **Note**: It works only if “bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 65535	
Default	80	
Web UI	Applications > Broadsoft XSI > XSI Account > Port	
Parameter	bw.xsi.enable[2]	<y0000000000xx>.cfg
Description	It enables or disables the XSI authentication feature for the phone.	
Permitted Values	**0**-Disabled **1**-Enabled If it is set to 0 (Disabled), the following features are unavailable on the phone: BroadWorks Anywhere Remote Office	

	Line ID Blocking Anonymous Call Rejection Simultaneous Ring Personal BroadSoft Directory BroadSoft Call Log Call Park Feature via XSI Mode Call Waiting Feature via XSI Mode Voice Messaging/Video Voice Messaging Centralized Call Recording Executive and Assistant BroadWorks Mobility Group Night Forwarding Silent Alerting	
Default	0	
Parameter	sip.authentication_for_xsi	<y0000000000xx>.cfg
Description	It configures the authentication mechanism for XSI access. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	**0**-User Login Credentials for XSI Authentication, the phone uses the XSI user ID and password for XSI authentication. **1**-SIP Credentials for XSI Authentication, the phone uses the XSI user ID, the register name and password of the SIP account for XSI authentication.	
Default	0	
Web UI	Applications > Broadsoft XSI > XSI Account > Allow SIP Authentication for XSI	
Parameter	default_input_method.xsi_password	<y0000000000xx>.cfg
Description	It configures the default input method when the XSI authentication is failed and the user re-enters the password.	
Permitted Values	123, abc, ABC or 2aB	
Default	2aB	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

[2]If you change this parameter, the phone will reboot to make the change take effect.

Broadsoft ACD

Parameter	account.X.acd.initial_state[1]	<MAC>.cfg
Description	It configures the initial status after logging in to ACD.	
Permitted Values	**1**-Available **2**-Unavailable	
Default	1	

Supported Devices	T58W, T58A, VP59	
Parameter	account.X.reason_code.Y[1][2]	<MAC>.cfg
Description	It configures the unavailable code which must match one of the codes configured on the BroadWorks platform.	
Permitted Values	Integer from 1 to 2147483647	
Default	Blank	
Supported Devices	T58W, T58A, VP59	
Parameter	account.X.reason_code_name.Y[1][2]	<MAC>.cfg
Description	It configures the unavailable reason which must match one of the reasons configured on the BroadWorks platform.	
Permitted Values	String within 99 characters	
Default	Blank	
Supported Devices	T58W, T58A, VP59	
Parameter	features.homescreen_softkey.acd.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the ACD soft keys such as **Login** or **Logout** on the idle screen. **Note**: It works only if “account.X.acd.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except VP59	
Parameter	bw.virtual_user.1.enable	<MAC>.cfg
Description	It enables or disables the virtual account for the call center. **Note**: It works only if “bw.xsi.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	bw.virtual_user.1.label	<MAC>.cfg
Description	It configures the virtual account label displayed on the phone. **Note**: If you leave it blank, the virtual user name uses VirtualUser1 by default.	
Permitted Values	String within 99 characters	
Default	Blank	
Parameter	bw.virtual_user.1.xsi.dnd.enable	<MAC>.cfg
Description	It enables or disables the user to control the DND status for the virtual account. **Note**: It works only if “bw.virtual_user.1.enable” is set to 1 (Enabled).	

Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	bw.virtual_user.1.xsi.user	<MAC>.cfg
Description	It configures the user ID of virtual account for XSI access authentication. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	String within 99 characters	
Default	Blank	
Parameter	bw.virtual_user.1.xsi.password	<MAC>.cfg
Description	It configures the password of virtual account for XSI access authentication. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled) and it is required only when "sip.authentication_for_xsi" is set to 0 (User Login Credentials for XSI Authentication).	
Permitted Values	String within 99 characters	
Default	Blank	
Parameter	bw.virtual_user.1.xsi.host	<MAC>.cfg
Description	It configures the IP address of the Xtended Services Platform server for the virtual account. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	IP address or domain name	
Default	Blank	
Parameter	bw.virtual_user.1.xsi.server_type	<MAC>.cfg
Description	It configures the access protocol of the Xtended Services Platform server for the virtual account. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	HTTP or HTTPS	
Default	Blank	
Parameter	bw.virtual_user.1.xsi.port	<MAC>.cfg
Description	It configures the port of the Xtended Services Platform server for the virtual account. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 1 to 65535	
Default	80	
Parameter	account.X.bw_disp_code.Y[1][2]	<MAC>.cfg
Description	It configures the disposition code which must match one of the codes configured on BroadWorks.	
Permitted Values	Integer from 1 to 2147483647	
Default	Blank	
Parameter	account.X.bw_disp_code_name.Y[1][2]	<MAC>.cfg

Description	It configures the disposition code name which must match one of the names configured on BroadWorks.
Permitted Values	String within 99 characters
Default	Blank

[1]X is the account ID. For VP59/T58A/T58W, X=1-16.

[2]Y is the code ID. Y=1-100.

Broadsoft Centralized Call Recording

Parameter	account.X.call_recording.enable[1]	<MAC>.cfg
Description	It enables or disables the centralized call recording feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	bw.call_recording.mode	<y0000000000xx>.cfg
Description	It configures the centralized call recording mode.	
Permitted Values	**0**-XSI **1**-SIP	
Default	1	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Broadsoft Security Classification

Parameter	account.X.security_classification.enable[1]	<MAC>.cfg
Description	It enables or disables security classification feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Broadsoft Hoteling

Parameter	account.X.hoteling.enable[1]	<MAC>.cfg
Description	It enables or disables the hoteling feature.	
Permitted Values	**0**-Disabled **1**-Enabled, users can use any available host (shared) phone by logging in with user credentials. After logging in, users have access to their own guest profile on the host phone.	
Default	0	
Parameter	account.X.hoteling.user_id[1]	<MAC>.cfg
Description	It configures the user ID used to log into the guest profile.	

Permitted Values	String within 99 characters	
Default	Blank	
Parameter	account.X.hoteling.password[1]	<MAC>.cfg
Description	It configures the password used to log into the guest profile.	
Permitted Values	String within 99 characters	
Default	Blank	
Parameter	features.homescreen_softkey.hoteling.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the Hoteling soft keys such as **GuestIn** or **GuestOut** on the idle screen. **Note**: It works only if "account.X.hoteling.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except VP59	
Parameter	hoteling.authentication_mode	<y0000000000xx>.cfg
Description	It configures the XML browser hoteling authentication mode. **Note**: It works only if "account.X.hoteling.enable" is set to 1 (Enabled).	
Permitted Values	**0**-The phone uses the hoteling user ID and password as authentication credentials. **1**-The phone uses the provisioning user name and password as authentication credentials, and at the same time provides the hoteling user ID and password in the payload of the message for authentication credentials.	
Default	0	
Parameter	account.X.hoteling.expires[1]	<MAC>.cfg
Description	It configures the hoteling subscription expiration time (in seconds).	
Permitted Values	Integer from 30 to 2147483647	
Default	3600	
Parameter	account.X.hoteling.auto_login_enable[1]	<MAC>.cfg
Description	It enables or disables the phone to save login credentials automatically when logging into the guest profile.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Broadsoft Flexible Seating

Parameter	account.X.flexible_seating.enable[1]	<MAC>.cfg

Description	It enables or disables the flexible seating feature. **Note**: For the host, it works only if “account.X.hoteling.enable” and “account.X.acd.enable” are set to 0 (Disabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.hoteling.mode[1]	<MAC>.cfg
Description	It configures the hoteling mode.	
Permitted Values	**0**-Disabled **1**-Hoteling **2**-Flexible Seating Host **3**-Flexible Seating Guest	
Default	0	
Parameter	account.X.hoteling.pin[1]	<MAC>.cfg
Description	It configures the flexible seating PIN.	
Permitted Values	String	
Default	Blank	
Parameter	features.homescreen_softkey.hoteling.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the Flexible Seating soft keys such as **GuestIn** or **GuestOut** on the idle screen. **Note**: It works only if “account.X.flexible_seating.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Supported Devices	All phones except VP59	
Parameter	bw.flexible_seating.remember_password.ldap.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to encrypt and store the LDAP user credentials when using flexible seating feature. **Note**: It works only if "bw.enable" and “account.X.flexible_seating.enable” are set to 1 (Enabled). If you disable this feature after enabling it, all the saved user credentials are cleared.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Related Topic

Securely Storing the LDAP Credentials

Broadsoft Call Decline

Parameter	account.X.features.call_decline.enable[1]	<MAC>.cfg
Description	It enables or disables call decline feature.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	Blank	
Supported Devices	T58W, T58A, VP59	
Parameter	features.call_decline.enable	<y0000000000xx>.cfg
Description	It enables or disables call decline feature for the IP phone.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	T58W, T58A, VP59	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16.

Broadsoft Network Directory

Parameter	bw.xsi.directory.enable	<y0000000000xx>.cfg
Description	It enables or disables the network directory feature. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	bw_phonebook.group_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the group directory. **Note**: It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Applications > Broadsoft XSI > Network Directory > Group	
Parameter	bw_phonebook.personal_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the personal directory. **Note**: It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Applications > Broadsoft XSI > Network Directory > Personal	
Parameter	bw_phonebook.group_common_enable	<y0000000000xx>.cfg

Description	It enables or disables the phone to display the group common directory. **Note**: It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Applications > Broadsoft XSI > Network Directory > Group Common	
Parameter	bw_phonebook.enterprise_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the enterprise directory. **Note**: It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Applications > Broadsoft XSI > Network Directory > Enterprise	
Parameter	bw_phonebook.enterprise_common_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the enterprise common directory. **Note**: It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Web UI	Applications > Broadsoft XSI > Network Directory > Enterprise Common	
Parameter	bw_phonebook.enterprise_common_displayname	<y0000000000xx>.cfg
Description	It configures the display name on the phone screen for the enterprise common directory. **Note**: It works only if "bw.xsi.directory.enable" and "bw_phonebook.enterprise_common_enable" are set to 1 (Enabled).	
Permitted Values	String within 99 characters	
Default	EnterpriseCommon	
Web UI	Applications > Broadsoft XSI > Network Directory > Enterprise Common	
Parameter	bw_phonebook.custom	<y0000000000xx>.cfg
Description	It enables or disables the custom directory feature. **Note**: It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Applications > Broadsoft XSI > Network Directory > Enable Custom Directory	
Parameter	bw_phonebook.group_displayname	<y0000000000xx>.cfg
Description	It configures the display name on the phone screen for the group directory. **Note**: It works only if "bw.xsi.directory.enable" and "bw_phonebook.group_enable" are set to 1 (Enabled).	
Permitted	String within 99 characters	

Values		
Default	Group	
Web UI	Applications > Broadsoft XSI > Network Directory > Group	
Parameter	bw_phonebook.enterprise_displayname	<y0000000000xx>.cfg
Description	It configures the display name on the phone screen for the enterprise directory. **Note**: It works only if "bw.xsi.directory.enable" and "bw_phonebook.enterprise_enable" are set to 1 (Enabled).	
Permitted Values	String within 99 characters	
Default	Enterprise	
Web UI	Applications > Broadsoft XSI > Network Directory > Enterprise	
Parameter	bw_phonebook.personal_displayname	<y0000000000xx>.cfg
Description	It configures the display name on the phone screen for the personal directory. **Note**: It works only if "bw.xsi.directory.enable" and "bw_phonebook.personal_enable" are set to 1 (Enabled).	
Permitted Values	String within 99 characters	
Default	Personal	
Web UI	Applications > Broadsoft XSI > Network Directory > Personal	
Parameter	bw.xsi.call_log.enable	<y0000000000xx>.cfg
Description	It enables or disables the BroadSoft call log feature. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Applications > Broadsoft XSI > Network Directory > Call Log > Network Call Log	
Parameter	bw.xsi.call_log.delete.enable	<y0000000000xx>.cfg
Description	It enables or disables the user to delete the call log entry from BroadSoft Call Log list on the phone. **Note**: It works only if "bw.xsi.call_log.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled, if you delete the BroadSoft call log entry on the phone, the call log entry will be also deleted on the BroadWorks server	
Default	0	
Parameter	bw.xsi.call_log.multiple_accounts.enable	<y0000000000xx>.cfg
Description	It enables or disables the user to view BroadSoft Call Log for multiple accounts. **Note**: It works only if "bw.xsi.call_log.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, you will directly access the BroadSoft Call Log for the first account by default, and you can only view the BroadSoft call log entry for the first account **1**-Enabled, you are allowed to select a specific account to access the BroadSoft Call Log and view the	

	call log entry	
Default	0	
Supported Devices	T58W, T58A, VP59	
Parameter	directory.update_time_interval	<y0000000000xx>.cfg
Description	It configures the interval (in minutes) for the phone to update the data of the BroadSoft directory from the BroadSoft server. **Note**: It works only if “bw.xsi.directory.enable” and “bw.xsi.directory.update.enable” are set to 1 (Enabled).	
Permitted Values	Integer from 60 to 34560	
Default	60	
Parameter	bw.xsi.directory.update.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically download all contacts in the BroadSoft Directory from the server. **Note**: It works only if “bw.xsi.directory.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, the phone downloads partial contacts from the server (the maximum of contacts available for viewing at one time is determined by the server), and you can manually download the remaining contacts as needed. **1**-Enabled	
Default	1	
Parameter	bw.xsi.directory.server_search_type	<y0000000000xx>.cfg
Description	It configures the search type used by the server search mechanism for the BroadSoft Directory. **Note**: It works only if “bw.xsi.directory.enable” is set to 1 (Enabled).	
Permitted Values	**0**-Include search with *search content* field **1**-Forward search with search content* field	
Default	0	
Parameter	bw_phonebook.group_common_displayname	<y0000000000xx>.cfg
Description	It configures the display name on the phone screen for the group common directory. **Note**: It works only if "bw.xsi.directory.enable" and "bw_phonebook.group_common_enable" are set to 1 (Enabled).	
Permitted Values	String within 99 characters	
Default	GroupCommon	
Web UI	Applications > Broadsoft XSI > Network Directory > Group Common	
Parameter	bw.xsi.directory.alphabetized_by_lastname.enable	<y0000000000xx>.cfg
Description	It configures the call ID (first name and last name) display method when the phone receives an incoming call, places an outgoing call or is during an active call.	
Permitted Values	**0**-First name Last name **1**-Last name, First name	

Default	0	
Parameter	bw.calllog_and_dir	<y0000000000xx>.cfg
Description	It enables or disables the phone to directly enter the Network Calls screen when tapping (for VP59/T58A/T58W)/**History** (for CP960/CP965) on the idle screen. **Note**: It works only if "bw.xsi.call_log.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled, the phone will enter Local Calls screen when tapping (for VP59/T58A/T58W)/**History** (for CP960/CP965). **1**-Enabled	
Default	0	
Parameter	search_in_dialing.bw_directory.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to automatically search entries from the BroadSoft directory, and display the results on the pre-dialing/dialing screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	search_in_dialing.bw_directory.priority	<y0000000000xx>.cfg
Description	It configures the search priority of the BroadSoft directory.	
Permitted Values	Integer greater than or equal to 0	
Default	5	
Parameter	directory_setting.bw_directory.enable	<y0000000000xx>.cfg
Description	It enables or disables the users to access the BroadSoft directory by tapping the directory icon (for VP59/T58A/T58W, for CP960, for CP965).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	directory_setting.bw_directory.priority	<y0000000000xx>.cfg
Description	It configures the display priority of the BroadSoft directory.	
Permitted Values	Integer greater than or equal to 0	
Default	6	

Broadsoft Visual Voice Mail

Parameter	bw.voice_mail.visual.enable	<y0000000000xx>.cfg
Description	It enables or disables the visual voice mail feature for the phone. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported	T58W, T58A, VP59	

Devices		
Parameter	bw.voice_mail.visual.display_videomail.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display the video mails in the voice mail list. **Note**: It works only if "bw.xsi.enable" and "bw.voice_mail.visual.enable" are set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Supported Devices	T58W, T58A, VP59	
Parameter	voice_mail.message_key.mode	<y0000000000xx>.cfg
Description	It configures the phone behavior when pressing the MESSAGE key when the phone is idle.	
Permitted Values	**0**-enter the Set Voice Mail Code screen if the voice mail access code has not been configured; dial out the voice mail access code if the voice mail access code has been configured. **1**-enter the View Voice Mail screen	
Default	0	
Supported Devices	T58W, T58A, VP59	

Broadsoft SCA

Parameter	account.X.share_line.barge_in.enable[1]	<MAC>.cfg
Description	It enables or disables the users to interrupt/barge into an active call on the shared line.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	account.X.shared_line_one_touch_bargein.enable[1]	<MAC>.cfg
Description	It enables or disables the phone to barge in the call between remote shared line party and the third party by pressing the line key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.shared_line_one_touch_retrieve.enable[1]	<MAC>.cfg
Description	It enables or disables the phone to retrieve the public held call on remote shared line party phone by pressing the line key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	features.auto_release_bla_line	<y0000000000xx>.cfg
Description	It enables or disables the server to release the connection by sending a notify message to phone when the SCA call is ended.	
Permitted Values	**0**-Disabled, the phone will send a notify message to the server to release the connection. **1**-Enabled	

Default	0

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Broadsoft Call Park

Parameter	features.call_park.park_mode	<y0000000000xx>.cfg
Description	It configures the call park mode.	
Permitted Values	**0**-XSI **1**-FAC, park a call through dialing the call park code.	
Default	0	
Web UI	Features > Pick up & Park > Call Park Mode	
Parameter	features.call_park.group_enable	<y0000000000xx > .cfg
Description	It enables or disables the group call park feature.	
Permitted Values	**0**-Disabled **1**-Enabled, users can select **GPark** during a call to park a call to the first available user in the call park group, and select **Retrieve** in the dialing screen to retrieve the parked call.	
Default	0	
Web UI	Features > Pickup & Park > Group Call Park	
Parameter	features.call_park.park_ring	<y0000000000xx > .cfg
Description	It enables or disables the phone to play a warning tone when a call is parked against its line. **Note**: It works only if "features.call_park.park_visual_notify_enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Pickup & Park > Audio Alert for Parked Call	
Parameter	features.call_park.park_visual_notify_enable	<y0000000000xx > .cfg
Description	It enables or disables the phone to display a parked indicator when a call is parked against its line.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Pickup & Park > Visual Alert for Parked Call	
Parameter	features.parked_call_monitor.blf_audio_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to play an audio alert when a call is parked against the monitored line.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	

Web UI	Features > Pickup & Park > Audio Alert for BLF Parked Call Monitor	
Parameter	features.parked_call_monitor.blf_visual_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to display a visual alert when a call is parked against the monitored line.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Features > Pickup & Park > Visual Alert for BLF Parked Call Monitor	
Parameter	features.parked_call_monitor.blf.ring_type	<y0000000000xx>.cfg
Description	It configures an alert tone to play when a call is parked against the monitored line. **Note**: It works only if “features.parked_call_monitor.blf_audio_enable” is set to 1 (Enabled).	
Permitted Values	Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Ring9.wav, Ring10.wav, Ring11.wav, Ring12.wav, Ring13.wav, Silent.wav, Splash.wav or custom ring tone name (for example, Config:Customring.wav).	
Default	Splash.wav	
Web UI	Features > Pickup & Park > Ring Type for BLF Parked Call Monitor	
Parameter	features.call_park.group_park_code	<y0000000000xx>.cfg
Description	It configures the group call park code. **Note**: It works only if “features.call_park.park_mode” is set to 1 (FAC).	
Permitted Values	String within 32 characters	
Default	Blank	
Web UI	Features > Pickup & Park > Group Call Park Code	
Parameter	account.X.callpark_enable[1]	<MAC>.cfg
Description	It enables or disables Broadsoft call park feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone sends the subscription package to the server with the header "Event:x-broadworks-callpark"	
Default	1	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Broadsoft Emergency Call

Parameter	bw.emergency_calling.enable	<y0000000000xx>.cfg
Description	It enables or disables the BroadWorks Emergency Calling feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone supports network hold and operator ring-back for emergency calls.	
Default	0	

BroadSoft Call Waiting Sync

Parameter	call_waiting.mode	<y0000000000xx>.cfg
Description	It configures the call waiting mode. **Note**: If it is set to 1 (XSI), it works only if "bw.xsi.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Local **1**-XSI, the status of the call waiting feature between the IP phone and the BroadWorks server can be synchronized.	
Default	0	

Start2Start ACD Parameters

For more information on ACD, refer to Using_Star2Star_ACD_on_Yealink_IP_Phones.

Parameter	account.X.acd.call_information[1]	<MAC>.cfg
Description	It configures the string the phone dials out when the ACD agent logs into/logs out of the ACD system (you press the **In**/**Out** (**LogIn**/**Out**) soft key on the phone). The value format: Call Center Number<time interval > User ID<time interval > Password. Time interval ranges from 1 to 20 (in seconds). For example : account.1.acd.call_information = 806<1 > 1005<2 > 1234 The phone will dial out the call center number 806, wait for 1s, automatically enter the user ID 1005, wait for 2s, automatically enter the password 1234 when you press the In/Out (LogIn/Out) soft key on the phone. **Note:** It works only if "account.X.sip_server_type" is set to 12 (Star2Star).	
Permitted Values	String	
Default	Blank	
Parameter	account.X.acd.refresh_url[1]	<MAC>.cfg
Description	It configures the URL the phone sends when the ACD agent logs into/logs out of the ACD system, or refreshes the status (you press the **In**/**Out** (**LogIn**/**Out**) or **Refresh** soft key on the phone). **Note**: It works only if "account.X.sip_server_type" is set to 12 (Star2Star).	
Permitted Values	String	
Default	Blank	
Parameter	account.X.acd.away_url[1]	<MAC>.cfg
Description	It configures the URL the phone sends when the ACD agent changes the status to away (you press the **Away** soft key on the phone). For example : account.1.acd.away_url= http://portal-dev.star2star.com:8181/yealink/reason_code_respon-se?reason_code=#REASONCODE&agent_extension=ext_843 85&agent_location= starbox_628&a-gent_phone=94&customer_id=435s #REASONCODE will be automatically replaced with the away code you entered when the URL is sent to the server.	

	Note: It works only if “account.X.sip_server_type” is set to 12 (Star2Star) and “account.X.acd.unavailable_reason_enable” is set to 1 (Enabled).	
Permitted Values	String	
Default	Blank	
Parameter	account.X.acd.available_url[1]	<MAC>.cfg
Description	It configures the URL the phone sends when the ACD agent changes the status to available (you press the **Avail** soft key on the phone). **Note**: It works only if “account.X.sip_server_type” is set to 12 (Star2Star).	
Permitted Values	String	
Default	Blank	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Alcatel-Lucent Barge in Parameters

If you want to use Barge In feature, you should configure a feature access code on the phone. If no feature access code is configured, the Barge In feature is disabled.

Parameter	blf.normal_barge_in_code	<y0000000000xx>.cfg
Description	It configures the feature access code for normally barging in the active call of the monitored line. If configured, you can press the **Barge In** soft key to barge in the call. Barge-in plays an audio alert to indicate the arrival of a new participant to the call and all call participants can interact. **Note:** It applies to the Alcatel-Lucent CTS only.	
Permitted Values	String within 32 characters	
Default	Blank	
Case Scenario	The feature access code is *32. A (your phone) monitors party B (number: 8866), party B and party C is during the call. Set the following: blf.normal_barge_in_code = *32 features.blf.show_callinfo.enable = 1 During the call of the monitored line, long press the BLF key and press the **Barge In** soft key, then the phone calls ***328866** to barge in the call. All call participants can interact during the call.	
Related Parameters	features.blf.show_callinfo.enable	
Parameter	blf.whisper_barge_in_code	<y0000000000xx>.cfg
Description	It configures the feature access code for barging in the active call of the monitored line in whisper. If configured, you can press the **Whisper BargeIn** soft key to barge in the call. You can hear all call participants but your audio can only be transmitted to the user you are monitoring. **Note:** It applies to the Alcatel-Lucent CTS only.	
Permitted Values	String within 32 characters	

Default	Blank	
Case Scenario	The feature access code is *32. A (your phone) monitors party B (number: 8866), party B and party C is during the call. Set the following: blf.whisper_barge_in_code = *32 features.blf.show_callinfo.enable = 1 During the call of the monitored line, long press the BLF key and press the **Whisper BargeIn** soft key, then the phone calls ***328866** to barge in the call. You can hear all call participants, but only party B can hear you.	
Related Parameters	features.blf.show_callinfo.enable	
Parameter	blf.listen_barge_in_code	<y0000000000xx>.cfg
Description	It configures the feature access code for barging in the active call of the monitored line in listening mode. If configured, you can press the **Listen BargeIn** soft key to barge in the call. You are automatically muted so you can listen on the call only. Your outbound audio can not be transmitted to either party. **Note:** It applies to the Alcatel-Lucent CTS only.	
Permitted Values	String within 32 characters	
Default	Blank	
Case Scenario	The feature access code is *32. A (your phone) monitors party B (number: 8866), party B and party C is during the call. Set the following: blf.listen_barge_in_code = *32 features.blf.show_callinfo.enable = 1 During the call of the monitored line, long press the BLF key and you press the **Listen BargeIn** soft key, then the phone calls ***328866** to barge in the call. You are automatically muted, so you can hear all call participants, but no one can hear you.	
Related Parameters	features.blf.show_callinfo.enable	

Ethernet Interface MTU Parameters

Parameter	static.network.mtu_value[1]	<y0000000000xx>.cfg
Description	It configures the Ethernet interface Maximum Transmission Unit (MTU) on the phones.	
Permitted Values	Integer from 1280 to 1500	
Default	1500	
Parameter	static.network.set_fragment.enable	<y0000000000xx>.cfg
Description	It enables or disables the fragmented packet sending.	
Permitted Values	**0**-Disabled **1**-Enabled	

Default	1

[1]If you change this parameter, the phone will reboot to make the change take effect.

SIP Settings Parameters

Parameter	account.X.compact_header_enable[1]	<MAC>.cfg
Description	It enables or disables the phone to support compact SIP header.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	account.X.custom_ua[1]	<MAC>.cfg
Description	It configures the suffix of User-Agent in SIP request messages from the phone.	
Permitted Values	String within 256 characters	
Default	Blank	
Parameter	account.X.call_id_mode[1]	<MAC>.cfg
Description	It configures the constitution of caller ID.	
Permitted Values	**0**-Use random digits **1**–Use the combination of the digits and letters **2**–Use random digits plus MAC address	
Default	0	
Parameter	account.X.invite_with_rpid_header.enable[1]	<MAC>.cfg
Description	It enables or disables the phone to add the Remote-Party-ID (RPID) header in the initial INVITE message.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	sip.unreg_with_socket_close	<y0000000000xx>.cfg
Description	It enables or disables the phone to close the socket immediately when the user deregisters the corresponding account(s).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	features.call_invite_format	<y0000000000xx>.cfg
Description	It configures the format of callee field in the INVITE message.	
Permitted Values	**0**-sip:XXX **1**-tel:Number, you need to set “account.X.outbound_proxy_enable" to 1.	
Default	0	

Parameter	sip.escape_characters.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to convert ASCII code into corresponding symbol.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Case Scenario	Target characters: **%5F** (escape character **%** plus the ASCII characters **5F**) 1. If you want to convert the ASCII code, set the following: sip.escape_characters.enable = 1 sip.reserve_characters = %NULL% Result: The target characters **%5F** are converted to _. 2. If you do not want to convert the ASCII code, set the following: sip.escape_characters.enable = 0 sip.reserve_characters = % Result: The target characters **%5F** remain the same.	
Parameter	sip.reserve_characters	<y0000000000xx>.cfg
Description	It specifies the characters that the phone does not recognize as the escape one. Multiple characters are not separated.	
Permitted Values	String	
Default	Blank	
Related Parameters	sip.escape_characters.enable	
Parameter	sip.tcp_port_random_mode	<y0000000000xx>.cfg
Description	It configures the listening port mode.	
Permitted Values	**0**-random source port (non 506x), fixed ports (506x) carried in the Contact, Via header. **1**-random source port (non 506x) and other ports (non 506x) carried in the Contact, Via header.	
Default	1	
Parameter	sip.listen_mode	<y0000000000xx>.cfg
Description	It configures the listening mode.	
Permitted Values	**0**-according to the transport protocol **1**-listening TCP and UDP **2**-listening TCP and UDP, and subscribe for BLF List containing transport=TCP in the Contact header.	
Default	0	
Parameter	sip.send_response_by_request	<y0000000000xx>.cfg
Description	It configures where the IP phone retrieves the destination address for response. The phone will then send all SIP response messages to the destination address.	
Permitted Values	**0**-from VIA header in the request message **1**-from source address of the request message	

Default	1	
Parameter	sip.requesturi.e164.addglobalprefix	<y0000000000xx>.cfg
Description	It enables or disables the phone to add a global prefix "+" to the E.164 user parts in SIP: URI.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will automatically add a prefix "+" to the number in the E.164 format when you dial using the SIP URI (for example 862512345000@sip.com).	
Default	0	
Parameter	sip.send_keepalive_by_socket	<y0000000000xx>.cfg
Description	It enables or disables the phone to send the keep-alive packets based on the transport protocol. **Note**: It works only if "account.X.nat.udp_update_enable" is set to 1 (Default).	
Permitted Values	**0**-Disabled, the phone sends the keep-alive packets based on the account **1**-Enabled	
Default	1	
Parameter	sip.sdp_early_answer_or_offer	<y0000000000xx>.cfg
Description	It enables or disables the phone to generate an SDP Offer or Answer message when receiving a reliable provisional response or PRACK request and response.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	sip.reliable_protocol.timerae.enable	<y0000000000xx>.cfg
Description	It enables or disables the timer for ict and nict when TCP protocol is used. **Note:** This parameter can be used for fast failover purpose when TCP connection fails.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Parameter	sip.mac_in_ua	<y0000000000xx>.cfg
Description	It enables or disables the phone to carry the MAC address information in the User-Agent header.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will carry the MAC address with colons (for example 00:15:65:7f:fb:7e) in the User-Agent header. **2**-Enabled, the phone will carry the MAC address without colons (for example 0015657ffb7e) in the User-Agent header.	
Default	0	
Parameter	sip.call_fail_use_reason.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone screen to display the reason carried in the **Reason** header of SIP response when the phone fails to dial out.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	

[1]X is the account ID. For VP59/T58A/T58W, X=1-16; for CP960/CP965, X=1.

Call Settings Parameters

Parameter	phone_setting.show_code403	<y0000000000xx>.cfg
Description	It configures the display message on the phone screen when receiving a 403 message. If it is left blank, the phone will display the value sent from the server when receiving the 403 message.	
Permitted Values	String within 99 characters	
Default	Blank	
Parameter	phone_setting.incoming_call_when_dialing.priority	<y0000000000xx>.cfg
Description	It enables or disables the phone to interrupt the user's operations in the contact, history, and dialing screen when there is an incoming call.	
Permitted Values	**0**-Disabled, the phone will not switch to the incoming call screen if there is an incoming call arrives when the phone is in the dialing/transfer/conference/new call screen. **1**-Enabled, if there is an incoming call arrives when the phone is in the directory/history screen, the phone will the incoming call screen so that you can directly pick up the call. **2**-Enabled, if there is an incoming call arrives when the phone is in the dialing/transfer/conference/new call screen, the phone will switch to the incoming call screen so that you can directly pick up the call.	
Default	1	
Parameter	phone_setting.end_call_net_disconnect.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to end the call if the network is unavailable during the call.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will end the call and go to the Idle screen after 5 seconds.	
Default	0	
Parameter	features.station_name.value	<y0000000000xx>.cfg
Description	It configures station name to be displayed on the top-left corner of the LCD screen. **Note**: The text displayed might be truncated if "features.station_name.scrolling_display" is set to 0 (Disabled).	
Permitted Values	Blank (the label of the default account will be displayed) String	
Default	Blank	
Parameter	features.station_name.scrolling_display	<y0000000000xx>.cfg
Description	It enables or disables the phone to scroll the string display on the top-left corner of the LCD screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	phone_setting.incoming_call.reject.enable	<y0000000000xx>.cfg
Description	It enables or disables the user to manually reject an incoming call on the phone.	

Permitted Values	**0**-Disabled, the **Reject** soft key disappears from the incoming call screen; pressing X/Mute key, tap the on-hook key or using action URI to reject the call is not permitted. **1**-Enabled	
Default	1	
Parameter	features.missed_call_icon_event	<y0000000000xx>.cfg
Description	It configures the effect of tapping the missed call icon.	
Permitted Values	**0**-Tap the missed call icon to pop up the message “X New Missed Call(s)”. **1**-Tap the missed call icon to directly enter the call history screen. **2**-There is no response when tapping the missed call icon.	
Default	0	
Case Scenario	When you disable the phone to pop up the message if it misses a call (features.missed_call_popup.enable=0), you can also disable the phone to pop up the message when tapping the missed call icon in the status bar.	

APP Settings Configuration

Parameter	app.install_url	<y0000000000xx>.cfg
Description	It configures the access URL of application. **Example**: app.install_url = http://192.168.1.10/com.google.android.music_48181.apk	
Permitted Values	String	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	app.uninstall	<y0000000000xx>.cfg
Description	It uninstalls the application. **Example**: To uninstall the application, do one of the following: app.uninstall = com.google.android.music_48181.apk app.uninstall = Google Play Music app.uninstall = com.google.android.music	
Permitted Values	Software package name or APK file name or Application name	
Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	app.autorun	<y0000000000xx>.cfg
Description	It specifies the application to automatically run after the phone starts up. Multiple applications are separated by slashes.	
Permitted Values	Software package name or APK file name or Application name	

Default	Blank	
Supported Devices	All phones except CP960/CP965	
Parameter	app.unavailable	<y0000000000xx>.cfg
Description	It configures the IP phone to hide or disable the preloaded applications or GMS services. Multiple applications/services are separated by slashs. **Example**: app.unavailable = com.google.android.onetimeinitializer/com.google.android.configupdater	
Permitted Values	Software package name or APK file name or Application name	
Default	Blank	
Parameter	features.hide_world_clock.enable	<y0000000000xx>.cfg
Description	It enables or disables to hide the world clock.	
Permitted Values	**0**-Disabled **1**-Enabled, the world clock icon disappears from the digital clock widget. Users can not add the clock of other cities on the phone.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Parameter	app.auto_arrange.enable	<y0000000000xx>.cfg
Description	It enables or disables to arrange the application icons automatically.	
Permitted Values	**0**-Disabled **1**-Enabled, if an application is uninstalled ("app.uninstall") or hidden ("app.unavailable"), phone screen arranges the remaining applications automatically.	
Default	0	

Related Topic

GMS Services List

Unify Parameters

Parameter	unify.enable	<y0000000000xx>.cfg
Description	It enables or disables the Unify features.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Case Scenario	Identify the Notify messages sent by the Unify server and synchronize the FWD / DND feature with server.	

Troubleshooting Methods

Yealink phones provide feedback in a variety of forms such as log files, packets, status indicators and so on, which can help you more easily find the system problem and fix it.

Topics

Exporting All the Diagnostic Files
Log Files
Resetting Phone and Configuration
Packets Capture
Watch Dog
Network Diagnostics
Analyzing Configuration Files
Device Status
Phone Reboot

Exporting All the Diagnostic Files

Yealink phones support three types of diagnostic files (including Pcap trace, log files, and BIN configuration files) to help analyze your problem. You can export these files at a time and troubleshoot if necessary. The file format of the exported diagnostic file is *.tar.

Procedure:

1. From the web user interface, go to **Settings** > **Configuration**.
2. Click **Start** in the **Export All Diagnostic Files** field to begin capturing signal traffic.
   The system log level will be automatically set to 6.
3. Reproduce the issue.
4. Click **Stop** in the **Export All Diagnostic Files** field to stop the capture.
   The system log level will be reset to 3.
5. Click **Export** to open the file download window, and then save the diagnostic file to your local system.
   A diagnostic file named **<MAC>-DiagnoseInfo.tar** is successfully exported to your local system.

Note: After exporting the diagnostic files, you can create a ticket to describe your problem at ticket.yealink.com, and Yealink support team will help you locate the root cause.

Log Files

You can configure your device to generate the log files locally, upload the log to the USB flash drive connected to the phone or sent the log to a syslog server in real time, and use these log files to generate informational, analytic and troubleshoot phones.

Topics

Local Logging
Syslog Logging

Local Logging

You can enable local logging, specify the severity level, and choose to keep the log locally, upload the log to the USB flash drive connected to the phone or upload the local log files to the provisioning server.

Topics

Local Logging Configuration
Exporting the Log Files to a Local PC
Uploading Log to the USB Flash Drive

Viewing the Log Files

Local Logging Configuration

The following table lists the parameters you can use to configure local logging.

Parameter	static.local_log.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to record log locally. **Note**: We recommend that you do not disable this feature.	
Permitted Values	**0**-Disabled, the phone will stop recording log to the log files locally. The log files recorded before are still kept on the phone. **1**-Enabled, the phone will continue to record log to the log files locally. You can upload the local log files to the provisioning server or a specific server or export them to the local system.	
Default	1	
Web UI	Settings > Configuration > Local Log > Enable Local Log	
Parameter	syslog.usb.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to collect log using a USB flash drive. **Note**: It works only if "static.local_log.enable" is set to 1 (Enabled).	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Configuration > Local Log > USB Auto Exporting Syslog	
Parameter	static.local_log.level	<y0000000000xx>.cfg
Description	It configures the lowest level of local log information to be rendered to the <MAC>.log file. When you choose a log level, it includes all events of an equal or higher severity level and excludes events of a lower severity level. The logging level you choose determines the lowest severity of events to log.	
Permitted Values	**0**-the system is unusable **1**-action must be taken immediately **2**-critical condition **3**-error conditions **4**-warning conditions **5**-normal but significant condition **6**-informational	
Default	3	
Web UI	Settings > Configuration > Local Log > Local Log Level	
Parameter	static.local_log.max_file_size	<y0000000000xx>.cfg
Description	It configures the maximum size (in KB) of the log files can be stored on the IP phone. When this size is about to be exceeded, (1) If the local log files are configured to be uploaded to the server by the parameter "static.auto_provision.local_log.backup.enable", the phone will clear all the local log files on the phone once successfully backing up.	

	(2) If “static.auto_provision.local_log.backup.enable” is set to 0 (Disabled), the phone will erase half of the logs from the oldest log information on the phone. **Example**: static.local_log.max_file_size = 1024	
Permitted Values	Integer from 2048 to 20480	
Default	20480	
Web UI	Settings > Configuration > Local Log > Max Log File Size (2048-20480KB)	
Parameter	static.auto_provision.local_log.backup.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to upload the local log files to the provisioning server or a specific server. **Note**: The upload path is configured by the parameter “static.auto_provision.local_log.backup.path”.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will upload the local log files to the provisioning server or the specific server to back up these files when one of the following happens: - Auto provisioning is triggered; - The size of the local log files reaches the maximum configured by the parameter “static.local_log.max_file_size”; - It’s time to upload local log files according to the upload period configured by the parameter “static.auto_provision.local_log.backup.upload_period”.	
Default	0	
Parameter	static.auto_provision.local_log.backup.upload_period	<y0000000000xx>.cfg
Description	It configures the period (in seconds) of the local log files uploads to the provisioning server or a specific server. **Note**: It works only if “static.auto_provision.local_log.backup.enable” is set to 1 (Enabled).	
Permitted Values	Integer from 30 to 86400	
Default	30	
Parameter	static.auto_provision.local_log.backup.path	<y0000000000xx>.cfg
Description	It configures the upload path of the local log files. If you leave it blank, the phone will upload the local log files to the provisioning server. If you configure a relative URL (for example, /upload), the phone will upload the local log files by extracting the root directory from the access URL of the provisioning server. If you configure an absolute URL with the protocol (for example, tftp), the phone will upload the local log files using the desired protocol. If no protocol, the phone will use the same protocol with auto provisioning for uploading files. **Example**: static.auto_provision.local_log.backup.path = tftp://10.3.6.133/upload/ **Note**: It works only if “static.auto_provision.local_log.backup.enable” is set to 1 (Enabled).	
Permitted Values	URL within 1024 characters	

Default	Blank	
Parameter	static.auto_provision.local_log.backup.append	<y0000000000xx>.cfg
Description	It configures whether the uploaded local log files overwrite the existing files or are appended to the existing files.	
Permitted Values	**0**-Overwrite **1**-Append (not applicable to TFTP Server)	
Default	0	
Parameter	static.auto_provision.local_log.backup.append.limit_mode	<y0000000000xx>.cfg
Description	It configures the behavior when local log files on the provisioning server or a specific server reach the maximum file size.	
Permitted Values	**0**-Append Delete, the server will delete the old log and the phone will continue uploading log. **1**-Append Stop, the phone will stop uploading log.	
Default	0	
Parameter	static.auto_provision.local_log.backup.append.max_file_size	<y0000000000xx>.cfg
Description	It configures the maximum size (in KB) of the local log files can be stored on the provisioning server or a specific server.	
Permitted Values	Integer from 200 to 65535	
Default	1024	
Parameter	static.auto_provision.local_log.backup.bootlog.upload_wait_time	<y0000000000xx>.cfg
Description	It configures the waiting time (in seconds) before the phone uploads the boot log file to the provisioning server or a specific server after startup.	
Permitted Values	Integer from 1 to 86400	
Default	120	

Exporting the Log Files to a Local PC

Procedure

1. From the web user interface, go to **Settings** > **Configuration**.
2. In the **Enable Local Log** field, select **Enabled** or **ON**.
3. Select **6** from the **Local Log Level** drop-down menu.
   The default local log level is "3".
4. Enter the limit size of the log files in the **Max Log File Size** field.
5. Click **Confirm** to accept the change.
6. Reproduce the issue.
7. Click **Export** to open the file download window, and then save the file to your local system.
   A diagnostic file named **<MAC>-syslog.zip** is successfully exported to your local system.

Uploading Log to the USB Flash Drive

The phone log can be uploaded to the connected USB flash drive.

Procedure

1. From the web user interface, navigate to **Settings** > **Configuration**.
2. In the **Enable Local Log** field, select **Enabled** or **ON**.
3. In the **USB Auto Exporting Syslog** field, select **Enabled** or **ON**.
4. Select the desired value from the **Local Log Level** drop-down menu.
   The default local log level is “3”.
4. Enter the limit size of the log files in the **Max Log File Size** field.
5. Click **Confirm** to accept the change.
6. Reproduce the issue.
   The log files are uploaded to your USB flash drive.

Viewing the Log Files

You can verify whether you got the correct log through the following key fields:

- <0+emerg >
- <1+alert >
- <2+crit >
- <3+error >
- <4+warning >
- <5+notice >
- <6+info >

The default local log level is 3.

The following figure shows a portion of a boot log file (for example, boot.log):

```
Jan  1 00:00:24 syslogd started: BusyBox v1.10.3
Jan  1 00:00:25 sys [655]: ANY <0+emerg > sys log :type=1,time=0,E=3,W=4,N=5,I=6,D=7
Jan  1 00:00:25 sys [655]: ANY <0+emerg > ANY =3
Jan  1 00:00:25 sys [655]: ANY <0+emerg > Version  :7.2.0.10 for release
Jan  1 00:00:25 sys [655]: ANY <0+emerg > Built-at :Apr 20 2016,11:32:02
May 26 00:00:02 Log [706]: ANY <0+emerg > Log  log :sys=1,cons=1,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:02 Log [706]: ANY <0+emerg > ETLL=3
May 26 00:00:02 auto[706]: ANY <0+emerg > autoServer log :type=1,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:02 auto[706]: ANY <0+emerg > ANY =3
May 26 00:00:02 auto[706]: ANY <0+emerg > Version  :6.1.0.8 for release
May 26 00:00:02 auto[706]: ANY <0+emerg > Built-at :May 25 2016,10:26:42
May 26 00:00:02 sys [706]: ANY <0+emerg > sys log :type=1,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:02 sys [706]: ANY <0+emerg > LSYS=3
May 26 00:00:02 ATP [706]: ANY <0+emerg > ATP log :type=1,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:02 ATP [706]: ANY <0+emerg > ANY =3
May 26 00:00:05 sys [835]: ANY <0+emerg > sys log :type=1,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:05 sys [835]: ANY <0+emerg > LSYS=3
May 26 00:00:05 sua [835]: ANY <0+emerg > sua  log :type=1,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:05 sua [835]: ANY <0+emerg > ANY =5
May 26 00:00:05 sua [835]: ANY <0+emerg > ANY =3
May 26 00:00:06 Log [884]: ANY <0+emerg > Log  log :sys=1,cons=0,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:06 Log [884]: ANY <0+emerg > ANY =5
May 26 00:00:07 ipvp[887]: ANY <0+emerg > 807.194.980:ipvp log :type=1,time=1,E=3,W=4,N=5,I=6,D=7
May 26 00:00:07 ipvp[887]: ANY <0+emerg > 807.196.179:Version  :1.0.0.8 for release
May 26 00:00:07 ipvp[887]: ANY <0+emerg > 807.197.104:Built-at :Feb 29 2016,14:11:35
May 26 00:00:07 ipvp[887]: ANY <0+emerg > 807.198.138:ANY =4
May 26 00:00:07 sys [887]: ANY <0+emerg > sys log :type=1,time=0,E=3,W=4,N=5,I=6,D=7
May 26 00:00:07 sys [887]: ANY <0+emerg > LSYS=3
May 26 00:00:08 TR9 [897]: ANY <0+emerg > TR9  log :sys=1,cons=0,time=0,E=3,W=4,N=5,I=6,D=7
```

The boot log file reports the logs with all severity levels.

The following figure shows a portion of a sys log file (for example, 00156574b150.log):

```

<134>Mar 29 13:01:30  ipvp[1423.1423]: IPVP<6+info  > 690.919.830:dump len:0
<134>Mar 29 13:01:31  sua [1583]: DLG <6+info  > [255] SIP: 206.165.51.38:5060 Keep Alive sent on UDP!
<134>Mar 29 13:01:31  WEB [2225:2248]: WEB <6+info  > 691.692.659:CWebMsgThread::OnOutputDump, dump type 0
<133>Mar 29 13:01:31  dms [1347.1425]: DMS <5+notice> get mkit msg stats, dump type 0
<133>Mar 29 13:01:32  sua [1583]: NET <5+notice> [255] <<<<=== TLS socket 10.100.5.50:5061: read 2 bytes
<134>Mar 29 13:01:32  sys [1344.1380]: SYS <6+info  > dump to file end
<133>Mar 29 13:01:32  sys [1344.1380]: SYS <5+notice> cd /tmp/;/bin/tar -chf log/crash.tar crash;/bin/tar -chf /tmp/syslog.zip log

```

The <MAC>.log file reports the logs with a configured severity level and the higher. For example, if you have configured the severity level of the log to be reported to the <MAC>.log file to 4, then the log with a severity level of 0 to 4 will all be reported.

Syslog Logging

You can also configure the IP phone to send syslog messages to a syslog server in real time.

You can specify syslog details such as IP address or hostname, server type, facility, and the severity level of events you want to log. You can also choose to prepend the phone's MAC address to log messages.

Topics

Syslog Logging Configuration
Viewing the Syslog Messages on Your Syslog Server

Syslog Logging Configuration

The following table lists the parameters you can use to configure syslog logging.

Parameter	static.syslog.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to upload log messages to the syslog server in real time.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Configuration > Syslog > Enable Syslog	
Parameter	static.syslog.server	<y0000000000xx>.cfg
Description	It configures the IP address or domain name of the syslog server when exporting log to the syslog server.	
Permitted Values	String within 99 characters	
Default	Blank	
Web UI	Settings > Configuration > Syslog > Syslog Server	
Parameter	static.syslog.server_port	<y0000000000xx>.cfg
Description	It configures the port of the syslog server.	
Permitted Values	Integer from 1 to 65535	
Default	514	
Web UI	Settings > Configuration > Syslog > Syslog Server > Port	
Parameter	static.syslog.transport_type	<y0000000000xx>.cfg
Description	It configures the transport protocol that the IP phone uses when uploading log messages to the syslog server.	
Permitted Values	**0**-UDP **1**-TCP **2**-TLS	
Default	0	

Web UI	Settings > Configuration > Syslog > Syslog Transport Type	
Parameter	static.syslog.level	<y0000000000xx>.cfg
Description	It configures the lowest level of syslog information that displays in the syslog. When you choose a log level, it includes all events of an equal or higher severity level and excludes events of a lower severity level. The logging level you choose determines the lowest severity of events to log.	
Permitted Values	**0**-Emergency: system is unusable **1**-Alert: action must be taken immediately **2**-Critical: critical conditions **3**-Critical: error conditions **4**-Warning: warning conditions **5**-Warning: normal but significant condition **6**-Informational: informational messages	
Default	3	
Web UI	Settings > Configuration > Syslog > Syslog Level	
Parameter	static.syslog.facility	<y0000000000xx>.cfg
Description	It configures the facility that generates the log messages. **Note**: For more information, refer to RFC 3164.	
Permitted Values	**0**-Kernel Messages **1**-User-level Messages **2**-Mail System **3**-System Daemons **4**-Security/Authorization Messages (Note 1) **5**-Messages are generated internally by syslog **6**-Line Printer Subsystem **7**-Network News Subsystem **8**-UUCP Subsystem **9**-Clock Daemon (note 2) **10**-Security/Authorization Messages (Note 1) **11**-FTP Daemon **12**-NTP Subsystem **13**-Log Audit (note 1) **14**-Log Alert (note 1) **15**-Clock Daemon (Note 2) **16**-Local Use 0 (Local0) **17**-Local Use 1 (Local1)	

	18-Local Use 2 (Local2) **19**-Local Use 3 (Local3) **20**-Local Use 4 (Local4) **21**-Local Use 5 (Local5) **22**-Local Use 6 (Local6) **23**-Local Use 7 (Local7) **Note**: Note 1 - Various operating systems have been found to utilize Facilities 4, 10, 13 and 14 for security/authorization, audit, and alert messages which seem to be similar. Note 2 - Various operating systems have been found to utilize both Facilities 9 and 15 for clock (cron/at) messages.	
Default	16	
Web UI	Settings > Configuration > Syslog > Syslog Facility	
Parameter	static.syslog.prepend_mac_address.enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to prepend the MAC address to the log messages exported to the syslog server.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Web UI	Settings > Configuration > Syslog > Syslog Prepend MAC	

Viewing the Syslog Messages on Your Syslog Server

You can view the syslog file in the desired folder on the syslog server. The location of the folder may differ from the syslog server. For more information, refer to the network resources.

The following figure shows a portion of the syslog:

```
Jun 02 08:42:17  10.2.20.160  local0.notice  Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: APP <5+notice> [SIP]     dtmf_payload     :101
Jun 02 08:42:17  10.2.20.160  local0.notice  Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: APP <5+notice> [SIP]     version          :0
Jun 02 08:42:17  10.2.20.160  local0.notice  Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: APP <5+notice> [SIP] call channels info
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] cb_nict_kill_transaction (id=88)
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] m=audio 7150 RTP/AVP 9 0 8 18 101
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] Allow: INVITE, ACK, CANCEL, OPTIONS, BYE, REGISTER, SUBSCRIBE, NOTIFY,
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] CSeq: 4 INVITE
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] Call-ID: ZWQ3MWM5ZDgwZDMyMmZjY2JkN2YyMzQ1NTJiNWI5Nzg.
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] From: <sip:101@10.2.1.43:5060>;tag=4086693836
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] To: "102"<sip:102@10.2.1.43:5060>;tag=8d378436
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] Contact: <sip:102@10.2.1.43:5060>
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] Via: SIP/2.0/UDP 10.2.20.160:5060;branch=z9hG4bK2209216298
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000] SIP/2.0 200 OK
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000]
Jun 02 08:42:17  10.2.20.160  local0.notice  Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <5+notice> [000] Message recv: (from src=10.2.1.43:5060 len=808)
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: SIP <6+info  > [SIP] match line:name:101 host:10.2.1.43
Jun 02 08:42:17  10.2.20.160  local0.notice  Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: NET <5+notice> [255] <<<<<== UDP socket 10.2.1.43:5060: read 808 bytes
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: SUA <6+info  > [000] ****eCore event:(0x0010)ECORE_CALL_PROCEEDING          ****
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000]
Jun 02 08:42:17  10.2.20.160  local0.info   Jun  2 00:42:48 [00:15:65:74:b1:50] sua [845]: DLG <6+info  > [000]
```

Resetting Phone and Configuration

Generally, some common issues may occur while using the IP phone. You can reset your phone to factory configurations after you have tried all troubleshooting suggestions, but still do not solve the problem. Resetting the phone to factory configurations clears the flash parameters, removes log files, user data, and cached data, and resets the administrator password to admin. All custom settings will be overwritten after resetting.

Five ways to reset the phone:

- **Reset local settings**: All configurations saved in the <MAC>-local.cfg file on the phone will be reset. Changes associated with non-static settings made via the web user interface and phone user interface are saved in the <MAC>-local.cfg file.
- **Reset non-static settings**: All non-static parameters will be reset. After resetting the non-static settings, the phone will perform auto provisioning immediately.
- **Reset static settings**: All static parameters will be reset.
- **Reset userdata & local config**: All the local cache data (for example, user data, history or directory) will be cleared. And all configurations saved in the <MAC>-local.cfg configuration file on the phone will be reset.
- **Reset to Factory**: All configurations on the phone will be reset.

You can reset the IP phone to default factory configurations. The default factory configurations are the settings that reside on the IP phone after it has left the factory. You can also reset the IP phone to custom factory configurations if required. The custom factory configurations are the settings defined by the user to keep some custom settings after resetting. You have to import the custom factory configuration files in advance.

Note: The **Reset local settings**/**Reset non-static settings**/**Reset static settings**/**Reset userdata & local config** option on the web user interface appears only if “static.auto_provision.custom.protect” is set to 1.

Topics

Reset to Factory Configuration
Resetting the IP phone to Default Factory Settings
Resetting the IP phone to Custom Factory Settings
Deleting the Custom Factory Settings Files

Reset to Factory Configuration

The following table lists the parameters you can use to configure reset to factory.

Parameter	features.reset_by_long_press_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to reset to factory by long pressing REDIAL key. **Note**: For CP960/CP965, it enables or disables the phone to reset to factory by long tapping the left Mute key.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	1	
Parameter	features.factory_pwd_enable	<y0000000000xx>.cfg
Description	It enables or disables the phone to prompt for the administrator password when you long press the REDIAL key or tap the left Mute key to perform a factory reset on the idle screen.	
Permitted Values	**0**-Disabled **1**-Enabled	
Default	0	
Case Scenario	**Reset the phone to factory in the User mode** Set the following: features.factory_pwd_enable = 0 static.security.var_enable = 1 When the phone is in the User mode, users can reset the phone to factory settings by long pressing the REDIAL key or tapping the left Mute key.	

Resetting the IP phone to Default Factory Settings

Procedure

1. Click **Settings** > **Upgrade**.
2. Click **Reset to Factory** in the **Reset to Factory** field.
   The web user interface prompts the message "Do you want to reset to factory?".
3. Click **OK** to confirm the resetting.
   The phone will be reset to factory successfully after startup.

Note: Reset of your phone may take a few minutes. Do not power off until the phone starts up successfully.

Resetting the IP phone to Custom Factory Settings

After you enable the custom factory feature, you can import the custom factory configuration file, and then reset the IP phone to custom factory settings.

Procedure

1. From the web user interface, click **Settings** > **Configuration**.
2. In the **Import Factory Configuration** block, click **Browse** to locate the custom factory configuration file from your local system.
3. Click **Import**.
4. After the custom factory configuration file is imported successfully, you can reset the IP phone to custom factory settings.

Topic

Custom Factory Configuration

Custom Factory Configuration

The following table lists the parameters you can use to configure a custom factory.

Parameter	static.features.custom_factory_config.enable	<y0000000000xx>.cfg
Description	It enables or disables the Custom Factory Configuration feature.	
Permitted Values	**0**-Disabled **1**-Enabled, Import Factory Configuration item will be displayed on the IP phone's web user interface at the path **Settings** > **Configuration**. You can import a custom factory configuration file or delete the user-defined factory configuration via the web user interface.	
Default	0	
Parameter	static.custom_factory_configuration.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom factory configuration files. **Note**: It works only if "static.features.custom_factory_config.enable" is set to 1 (Enabled) and the file format of the custom factory configuration file must be *.bin.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Configuration > Import Factory Configuration	

Deleting the Custom Factory Settings Files

You can delete the user-defined factory configurations via the web user interface.

Procedure

1. From the web user interface, click **Settings** > **Configuration**.
2. Click **Delete** in the **Import Factory Configuration** field.
   The web user interface prompts you whether to delete the user-defined factory configuration.
3. Click **OK** to delete the custom factory configuration files.
   The imported custom factory file will be deleted. The phone will be reset to default factory settings after resetting.

Packets Capture

You can capture packet in two ways: capturing the packets via the web user interface or using the Ethernet software. You can analyze the packet captured for troubleshooting purpose.

Topics

Capturing the Packets via Web User Interface
Ethernet Software Capturing Configuration

Capturing the Packets via Web User Interface

For Yealink phones, you can export the packets file to the local system and analyze it.

Yealink devices support the following two modes for capturing the packets:

- **Normal**: Export the packets file after stopping capturing.
- **Enhanced**: Export the packets file while capturing.

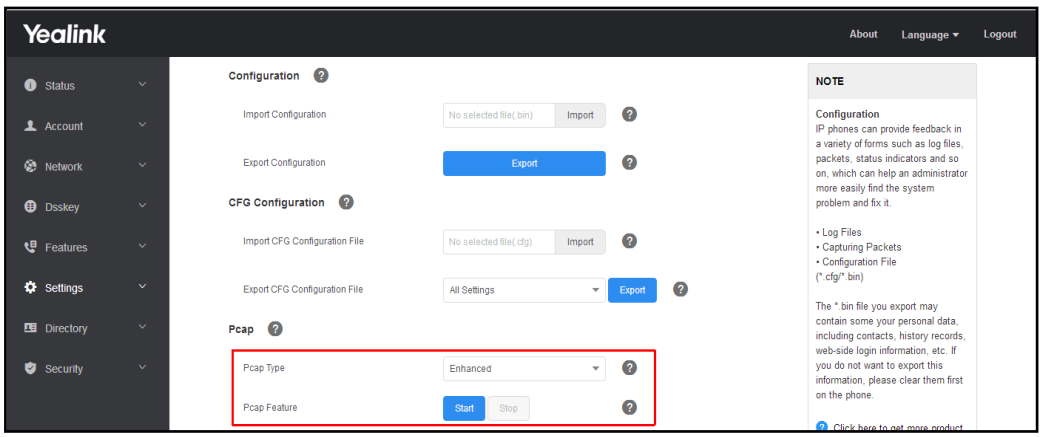
Topics

Capturing the Packets in Enhanced Way
Capturing the Packets in Normal Way

Capturing the Packets in Enhanced Way

Procedure

1. From the web user interface, navigate to **Settings** > **Configuration**.
2. Select **Enhanced** from the **Pcap Type** drop-down menu.
3. Click **Start** in the **Pcap Feature** field to start capturing signal traffic.
4. Reproduce the issue to get stack traces.
5. Click **Stop** in the **Pcap Feature** field to stop capturing.
6. Select a location for saving the packets file on your local system while capturing.



Note: The steps may differ for different web browsers.

Capturing the Packets in Normal Way

Procedure

1. From the web user interface, navigate to **Settings** > **Configuration**.
2. Select **Normal** from the **Pcap Type** drop-down menu.
3. Click **Start** in the **Pcap Feature** field to start capturing signal traffic.
4. Reproduce the issue to get stack traces.
5. Click **Stop** in the **Pcap Feature** field to stop capturing.
6. Click **Export** to open the file download window, and then save the file to your local system.

Ethernet Software Capturing Configuration

You can choose to capture the packets using the Ethernet software in two ways:

- Receiving data packets from the hub: Connect the Internet port of the IP phone and the PC to the same hub, and then use Sniffer, Ethereal or Wireshark software to capture the signal traffic.
- Receiving data packets from PC port: Connect the Internet port of the IP phone to the Internet and the PC port of the IP phone to a PC. Before capturing the signal traffic, make sure the phone can span data packets received from the Internet port to the PC port. It is not applicable to CP960/CP965 phones.

Topic

Span to PC Port Configuration

Span to PC Port Configuration

The following table lists the parameter you can use to configure span to PC port.

Parameter	static.network.span_to_pc_port	<y0000000000xx>.cfg
Description	It enables or disables the phone to span data packets received from the WAN port to the PC port. **Note**: It works only if "static.network.pc_port.enable" is set to 1 (Auto Negotiation).	
Permitted Values	**0**-Disabled **1**-Enabled, all data packets from the Internet port can be received by PC port.	
Default	0	
Supported Devices	All phones except CP960/CP965	
Web UI	Network > Advanced > Span to PC > Span to PC Port	

Watch Dog

The IP phone provides a troubleshooting feature called "Watch Dog", which helps you monitor the IP phone status and provides the ability to get stack traces from the last time the IP phone failed. If the Watch Dog feature is enabled, the phone will automatically reboot when it detects a fatal failure. This feature can be configured using the configuration files or via the web user interface.

Topic

Watch Dog Configuration

Watch Dog Configuration

The following table lists the parameter you can use to configure watch dog.

Parameter	static.watch_dog.enable	<y0000000000xx>.cfg
Description	It enables or disables the Watch Dog feature.	
Permitted Values	**0**-Disabled **1**-Enabled, the phone will reboot automatically when the system crashed.	
Default	1	
Web UI	Settings > Preference > Watch Dog	

Network Diagnostics

You can use ping and traceroute diagnostics for troubleshooting network connectivity via the web user interface or phone user interface.

You can also enable the phone to detect the reachability of the connected wired or wireless network via auto provisioning. The phone can display an icon warning on the phone screen when the network is unreachable. You can set the time interval for network reachability detection.

Topics

Ping and Traceroute Diagnostics
Network Reachability Detection Configuration

Ping and Traceroute Diagnostics

Procedure

1. From the web user interface, click **Network** > **Diagnostics**.
2. Select **Ping** or **Traceroute** from the **Command** drop-down menu.
3. Enter an IP address or a URL (for example, 10.200.108.48) in the **IP Address** field.
4. Click **Start** to start a ping.

You can also diagnose network via the phone user interface at the path: **Settings** > **Features** > **Diagnostics** > **Network** > **Ping** or **Settings** > **Features** > **Diagnostics** > **Network** > **Trace Route**.

Network Reachability Detection Configuration

The following table lists the parameters you can use to configure network reachability detection.

Parameter	static.features.network_test.enable	<y0000000000xx>.cfg
Description	It enables or disables the network reachability detection.	
Permitted Values	**0**-Disabled **1**-Enabled, a network unreachable icon is displayed in the status bar.	
Default	0	
Parameter	static.features.network_test.host	<y0000000000xx>.cfg
Description	It configures the server address that the phone uses to detect the network reachability. The server address can be the IP address or domain name. Multiple server addresses are separated by semicolons. **Example**:	

	static.features.network_test.host = 192.168.1.20;192.168.1.10 **Note**: It works only if "static.features.network_test.enable" is set to 1 (Enabled).	
Permitted Values	**Blank**-The phone does not detect network reachability. String within 1024 characters	
Default	Blank	
Parameter	static.features.network_test.check_policy	<y0000000000xx>.cfg
Description	It configures the policy when detecting the network reachability of multiple servers. **Note**: It works only if "static.features.network_test.enable" is set to 1 (Enabled).	
Permitted Values	**0**-OR **1**-AND	
Default	0	
Parameter	static.features.network_test.period	<y0000000000xx>.cfg
Description	It specifies a period of time (in seconds) to detect the network status when the network is reachable. **Note**: It works only if "static.features.network_test.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 2 to 86400	
Default	60	
Parameter	static.features.network_unavailable_test.period	<y0000000000xx>.cfg
Description	It specifies a period of time (in seconds) to detect the network status when the network is unreachable. **Note**: It works only if "static.features.network_test.enable" is set to 1 (Enabled).	
Permitted Values	Integer from 2 to 86400	
Default	30	

Analyzing Configuration Files

Wrong configurations may have an impact on phone use. You can export configuration file(s) to check the current configuration of the IP phone and troubleshoot if necessary. You can also import configuration files for a quick and easy configuration.

We recommend that you edit the exported CFG file instead of the BIN file to change the phone's current settings. The config.bin file is an encrypted file. For more information on config.bin file, contact your Yealink reseller.

Topics

Exporting CFG Configuration Files from Phone
Importing CFG Configuration Files to Phone
Exporting BIN Files from the Phone
Importing BIN Files from the Phone

Exporting CFG Configuration Files from Phone

You can export the phone's configuration file to local and make changes to the phone's current feature settings. You can apply these changes to any phone by importing the configuration files via the web user interface.

You can export five types of CFG configuration files to the local system:

- **<MAC>-local.cfg**: It contains changes associated with non-static parameters made via the phone user interface and web user interface. It can be exported only if “static.auto_provision.custom.protect” is set to 1 (Enabled).
- **<MAC>-all.cfg**: It contains all changes made via the phone user interface, web user interface and using configuration files.
- **<MAC>-static.cfg**: It contains all changes associated with static parameters (for example, network settings) made via the phone user interface, web user interface and using configuration files.
- **<MAC>-non-static.cfg**: It contains all changes associated with non-static parameters made via the phone user interface, web user interface and using configuration files.
- **<MAC>-config.cfg**: It contains changes associated with non-static parameters made using configuration files. It can be exported only if “static.auto_provision.custom.protect” is set to 1 (Enabled).

Procedure

1. Go to **Settings** > **Configuration** > **CFG Configuration**.
2. In the **Export CFG Configuration File** block, click **Export** to open the file download window, and then save the file to your local system.

Importing CFG Configuration Files to Phone

You can import the configuration files from local to the phones via the web user interface. The configuration files contain the changes for phone features and these changes will take effect after importing.

Procedure

1. Go to **Settings** > **Configuration**.
2. In the **Import CFG Configuration File** block, click **Browse** to locate a CFG configuration file in your local system.
3. Click **Import** to import the configuration file.

Topic

Configuration Files Import URL Configuration

Configuration Files Import URL Configuration

The following table lists the parameters you can use to configure the configuration files import URL.

Parameter	static.custom_mac_cfg.url	<y0000000000xx>.cfg
Description	It configures the access URL of the custom MAC-Oriented CFG file. The URL supports wildcard $pin. For example, http://<ServerIPAddress>/$pin/.	
Permitted Values	URL within 511 characters	
Default	Blank	

Exporting BIN Files from the Phone

Procedure

1. From the web user interface, click **Settings** > **Configuration** > **BIN Configuration**.
2. In the **Export Configuration** block, click **Export** to open the file download window, and then save the file to your local system.

Importing BIN Files from the Phone

Procedure

1. From the web user interface, click **Settings** > **Configuration**.
2. In the **Import Configuration** block, click **Browse** to locate a BIN configuration file from your local system.
3. Click **Import** to import the configuration file.

Topic

BIN Files Import URL Configuration

BIN Files Import URL Configuration

The following table lists the parameter you can use to configure the BIN files import URL.

Parameter	static.configuration.url[1]	<y0000000000xx>.cfg
Description	It configures the access URL for the custom configuration files. **Note**: The file format of the custom configuration file must be *.bin.	
Permitted Values	URL within 511 characters	
Default	Blank	
Web UI	Settings > Configuration > BIN Configuration > Import Configuration	

[1]If you change this parameter, the phone will reboot to make the change take effect.

Device Status

Available information on device status includes:

- General information (IPv4 address or IPv6 address, phone MAC address, Machine ID, Wi-Fi MAC address, firmware version, and warning).
- Network status (IPv4 status or IPv6 status, IP mode, phone MAC address, and Wi-Fi MAC address, and VLAN ID).
- Phone status (product name, hardware version, firmware version, product ID(Firmware ID), phone MAC address, Wi-Fi MAC address, Bluetooth MAC address, Android version and device certificate status).
- Account status (registration status of SIP accounts).
- Storage status (only applicable to VP59/T58A/T58W).
- Dongle status (mode, hardware version, APP version, rom version, RFPI, area; only applicable when DECT USB dongle DD10K is connected to the VP59/T58A/T58W).
- Wi-Fi status

Topic

Viewing Device Status

Viewing Device Status

You can view device status via the phone user interface by navigating to **Settings** > **Status**.

You can also view the device status via the web user interface.

Procedure

1. Open a web browser on your computer.
2. Enter the IP address in the browser's address bar, and then press the **Enter** key.
   For example, "http://192.168.0.10" for IPv4 or "http://[2005:1:1:1:215:65ff:fe64:6e0a]" for IPv6.
3. Enter the user name (admin) and password (admin) in the login page.
4. Click **Login** to log in.

The device status is displayed on the first page of the web user interface.

Phone Reboot

You can reboot the IP phone remotely or locally.

Topics

Rebooting the IP Phone Remotely
Rebooting the Device via the Phone User Interface
Rebooting the Device via Web User Interface

Rebooting the IP Phone Remotely

You can reboot the phones remotely using a SIP NOTIFY message with “Event: check-sync” header. Whether the IP phone reboots or not depends on “sip.notify_reboot_enable”. If the value is set to 1, or the value is set to 0 and the header of the SIP NOTIFY message contains an additional string “reboot=true”, the phone will reboot immediately.

The NOTIFY message is formed as shown:

```
NOTIFY sip:<user>@<dsthost> SIP/2.0
To: sip:<user>@<dsthost>
From: sip:sipsak@<srchost>
CSeq: 10 NOTIFY
Call-ID: 1234@<srchost>
Event: check-sync;reboot=true
```

Topic

Notify Reboot Configuration

Notify Reboot Configuration

The following table lists the parameter you can use to configure notify reboot.

Parameter	sip.notify_reboot_enable	<y0000000000xx>.cfg
Description	It configures the IP phone behavior when receiving a SIP NOTIFY message which contains the header “Event: check-sync”.	
Permitted Values	**0**-The phone will reboot only if the SIP NOTIFY message contains an additional string “reboot=true”. **1**-The phone will reboot. **2**-The phone will ignore the SIP NOTIFY message.	
Default	1	

Rebooting the Device via the Phone User Interface

You can reboot your device via the phone user interface.

Procedure

1. Tap **Settings** > **Basic Settings** (default password: admin) > **Reboot**.
2. Tap **Reboot**.

The device begins rebooting. Any reboot of the device may take a few minutes.

Rebooting the Device via Web User Interface

You can reboot your IP phone via the web user interface.

Procedure

1. Click **Settings** > **Upgrade**.
2. Click **Reboot**.

The device begins rebooting. Any reboot of the device may take a few minutes.

Troubleshooting Solutions

This section describes solutions to common issues that may occur while using the device. Upon encountering a case not listed in this section, contact your Yealink reseller for further support.

Topics

IP Address Issues
Time and Date Issues
Display Issues
Phone Book Issues
Audio Issues
Wi-Fi and Bluetooth Issues
Firmware and Upgrading Issues
System Log Issues
Password Issues
Logo Issues
Power and Startup Issues
Other Issues

IP Address Issues

The device does not get an IP address

Do one of the following:

If your device connects to the wired network:

- Ensure that the Ethernet cable is plugged into the Internet port on the IP phone and the Ethernet cable is not loose.
- Ensure that the Ethernet cable is not damaged.
- Ensure that the IP address and related network parameters are set correctly.
- Ensure that your network switch or hub is operational.
- Ensure that the Wi-Fi feature is disabled.

If your phone connects to the wireless network:

- If the network is secure, ensure the entered password is correct.
- Ensure your gateway/router enables the wireless network feature.

Solving the IP conflict problem

Do one of the following:

- Reset another available IP address for the IP phone.
- Check network configuration via the phone user interface at the path **Settings** > **Advanced Settings** (default password: admin) > **Network** > **WAN Port** > **IPv4** (or **IPv6**). If the Static IP is selected, select DHCP instead.

The Specific format in configuring IPv6 on Yealink phones

Scenario 1:

If the IP phone obtains the IPv6 address, the format of the URL to access the web user interface is “[IPv6 address]” or “http(s)://[IPv6 address]”. For example, if the IPv6 address of your phone is “fe80::204:13ff:fe30:10e”, you can enter the URL (for example, “[fe80::204:13ff:fe30:10e]” or “http(s)://[fe80::204:13ff:fe30:10e])” in the address bar of a web browser on your PC to access the web user interface.

Scenario 2:

Yealink phones support using FTP, TFTP, HTTP, and HTTPS protocols to download configuration files or resource files. You can use one of these protocols for provisioning.

When provisioning your IP phone obtaining an IPv6 address, the provisioning server should support IPv6 and the format of the access URL of the provisioning server can be "tftp://[IPv6 address or domain name]". For example, if the provisioning server address is "2001:250:1801::1", the access URL of the provisioning server can be "tftp://[2001:250:1801::1]/". For more information on provisioning, refer to Yealink SIP IP Phones Auto Provisioning Guide.

Time and Date Issues

Display time and date incorrectly

Check if the IP phone is configured to obtain the time and date from the NTP server automatically. If your phone is unable to access the NTP server, configure the time and date manually.

Display Issues

The phone screen is blank

Do one of the following:

- Ensure that the IP phone is properly plugged into a functional AC outlet.
- Ensure that the IP phone is plugged into a socket controlled by a switch that is on.
- If the IP phone is plugged into a power strip, try plugging it directly into a wall outlet.
- If your phone is PoE powered, ensure that you are using a PoE-compliant switch or hub.

The phone displays "No Service"

The touch screen prompts "No Service" message when there is no available SIP account on the IP phone.

Do one of the following:

- Ensure that an account is actively registered on the phone at the path **Settings** > **Status** > **Accounts**.
- Ensure that the SIP account parameters have been configured correctly.

Phone Book Issues

Difference between a remote phone book and a local phone book

A remote phone book is placed on a server, while a local phone book is placed on the IP phone flash. A remote phone book can be used by everyone that can access the server, while a local phone book can only be used on a specific phone. A remote phone book is always used as a central phone book for a company; each employee can load it to obtain real-time data from the same server.

Audio Issues

Increasing or decreasing the volume

Press the volume key to increase or decrease the ringer volume when the IP phone is idle or ringing, or to adjust the volume of the engaged audio device (handset, speakerphone or headset) when there is an active call in progress.

Get poor sound quality during a call

If you have poor sound quality/acoustics like intermittent voice, low volume, echo or other noises, the possible reasons could be:

- Users are seated too far out of recommended microphone range and sound faint, or are seated too close to sensitive microphones and cause echo.

- Intermittent voice is mainly caused by packet loss, due to network congestion, and jitter, due to message recombination of transmission or receiving equipment (for example, timeout handling, retransmission mechanism, buffer underrun).
- Noisy equipment, such as a computer or a fan, may cause voice interference. Turn off any noisy equipment.
- Line issues can also cause this problem; disconnect the old line and redial the call to ensure another line may provide a better connection.

There is no sound when the other party picks up the call

If the caller and receiver cannot hear anything - there is no sound at all when the other party picks up the call, the possible reason could be: the phone cannot send the real-time transport protocol (RTP) streams, in which audio data is transmitted, to the connected call.

Try to disable the 180 ring workaround feature.

Related Topic

Early Media

Play the local ringback tone instead of media when placing a long-distance number without plus 0

Ensure that the 180 ring workaround feature is disabled.

Related Topic

Early Media

Camera and Video Issues

The video quality is bad

- Ensure that the display device is with the suitable resolution.
- Check whether the packet has been lost.
- Ensure that camera settings are configured correctly, such as brightness and white balance.
- Avoid high-intensity indoor light or direct sunlight on the camera.

You cannot preview local video when the phone is idle

If the camera is properly connected to the IP phone but there are no images on the screen when you launch **Camera** or swipe down from the top of the screen and then tap **Video**, you may need to replace the camera.

There is some dazzle light on the images when previewing the local video

If the camera lens is oily or soiled, there may be some dazzle light on the images. Please try to clean it up.

Wi-Fi and Bluetooth Issues

The wireless signal strength is low

Ensure the IP phone and your gateway/ router are within the working range and there is no obvious interference (walls, doors, and so on.) between them.

The phone cannot connect to Bluetooth devices all the time

Try to delete the registration information of the Bluetooth device on both IP phone and Bluetooth device, and then pair and connect it again. Contact Yealink field application engineer and your Bluetooth device manufacturer for more information.

The Bluetooth headset affects IP phone's voice quality

You may not experience the best voice quality if you use a Bluetooth headset while the 2.4 GHz band is enabled or while you are in an environment with many other Bluetooth devices. This possible loss in voice quality is due to inherent limitations with Bluetooth technology.

You cannot connect the IP phone to the 2.4G/5G wireless network

If you successfully connect the IP phone to the 2.4G/5G wireless network, but the video images is not smooth. Or, you cannot connect the IP phone to the 2.4G/5G wireless network.

- Check if there are too many wireless devices connecting to the same 2.4G/5G wireless network.
- Verify whether the distance between IP phone and the wireless router is too far.

Firmware and Upgrading Issues

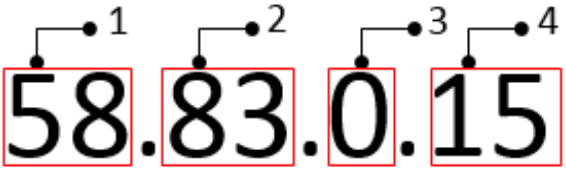
Fail to upgrade the phone firmware

Do one of the following:

- Ensure that the target firmware is not the same as the current firmware.
- Ensure that the target firmware is applicable to the IP phone model.
- Ensure that the current or the target firmware is not protected.
- Ensure that the power is on and the network is available in the process of upgrading.
- Ensure that the web browser is not closed or refreshed when upgrading firmware via the web user interface.

Verifying the firmware version

Tap **Settings** > **Status** when the IP phone is idle to check the firmware version. For example 58.83.0.15.



	Item	Description
1	58	Firmware ID. The firmware ID for each IP phone model is: • 91: VP59 • 58: T58A • 150: T58W • 73: CP960 • 143: CP965
2	83	Major version. **Note**: The larger it is, the newer the major version is.
3	0	A fixed number.

	Item	Description
4	15	Minor version. **Note**: With the same major version, the larger it is, the newer the minor version is.

The IP phone does not update the configurations

Do one of the following:

- Ensure that the configuration is set correctly.
- Reboot the phone. Some configurations require a reboot to take effect.
- Ensure that the configuration is applicable to the IP phone model.
- The configuration may depend on support from a server.

System Log Issues

Fail to export the system log to a provisioning server (FTP/TFTP server)

Do one of the following:

- Ensure that the FTP/TFTP server is downloaded and installed on your local system.
- Ensure that you have configured the FTP/TFTP server address correctly via the web user interface on your IP phone.
- Reboot the phone. The configurations require a reboot to take effect.

Fail to export the system log to a syslog server

Do one of the following:

- Ensure that the syslog server can save the syslog files exported from the IP phone.
- Ensure that you have configured the syslog server address correctly via the web user interface on your IP phone.
- Reboot the phone. The configurations require a reboot to take effect.

Protocols and Ports Issues

What communication protocols and ports do Yealink IP phones support?

Source Device	Source IP	Source Port	Destination Device	Destination IP	Destination Port (Listening port)	Protocol	Description of destination port
IP phones	IP address of IP phones	2~65535	IP phone or voice gateway	IP address of IP phone or voice gateway	Determined by destination device.	UDP	RTP protocol port, it is used to send or receive audio stream.
		1024~65535	SIP Server	IP address of SIP server	Determined by destination device.	UDP/TCP	SIP protocol port, it is used for signaling interaction with SIP server.
		1024~65535	TR-069 Server	IP address of TR-069 server	Determined by destination device.	TCP	TR-069 protocol port, it is used to communicate with TR-069server.
		1024~65535	File server	IP address of file server	Determined by des-	TCP	HTTP protocol port, it is used to download file.

Source Device	Source IP	Source Port	Destination Device	Destination IP	Destination Port (Listening port)	Protocol	Description of destination port
					tination device.		
		1024~65535	Remote phone book server	IP address of remote phone book server	Determined by destination device.	TCP	HTTP protocol port, it is used to access the remote phone book.
		1024~65535	AA	IP address of AA	Determined by destination device.	TCP	HTTP protocol port, it is used for AA communication.
		68	DHCP Server	IP address of DHCP server	67	UDP	DHCP protocol port, it is used to obtain IP address from DHCP server.
		1024~65535	LDAP Server	IP address of LDAP server	Determined by destination device.	TCP	LDAP protocol port, it is used to obtain the contact information from LDAP server.
		1024~65535	NTP Server	IP address of NTP server	123	UDP	NTP protocol port, it is used to synchronize time from NTP time server.
		1024~65535	Syslog Server	IP address of syslog server	514	UDP	Syslog protocol port, it is used for IP phones to upload syslog information to syslog server.
IP phones	IP address of IP phones	1024~65535	PNP Server	IP address of PNP server (Default value: 224.0.1.75)	5059	UDP/TCP	Protocol port, it is used to obtain the URL of updating file from PNP server.
			Multipaging	Multipaging	65000 65001		
PC	IP address of PC	Determined by the destination device.	IP phones	IP address of IP phones	1~65535	TCP	HTTP port (default value: 80)
					1~65535	TCP	HTTP port (default value: 443)
SIP Server	IP address of SIP Server				1024~65534	UDP/TCP	SIP protocol port, it is used for signaling interaction with SIP server.
IP phone of voice gateway	IP address of IP phone or voice gateway				2~65535	UDP	RTP protocol port, it is used by destination device to send or receive audio stream.
TR-069 Server	IP address of TR-069 Server				1024~65535	TCP	TR-069 protocol port, it is used to communicate with TR-069 server.

Password Issues

Restore the administrator password

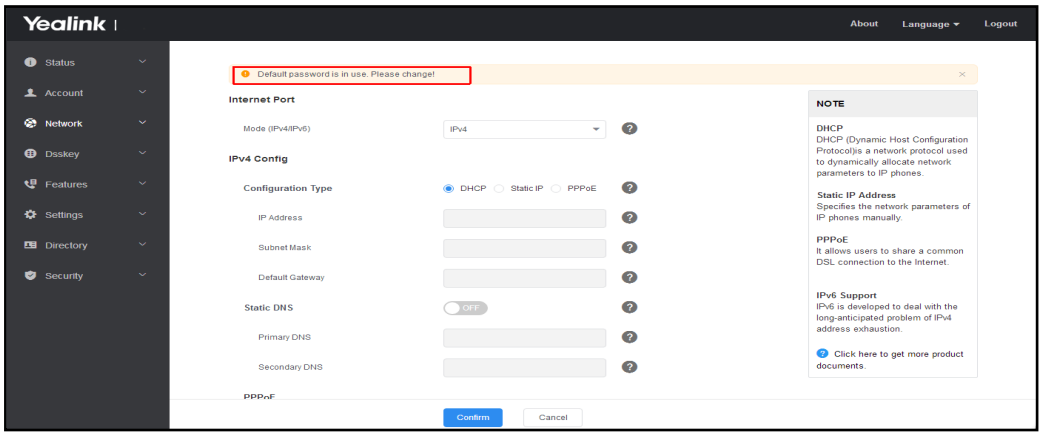
Factory reset can restore the original password. All custom settings will be overwritten after reset.

Related Topic

Resetting the IP phone to Default Factory Settings

The web screen displays "Default password is in use. Please change!"

The web screen prompts "Default password is in use. Please change!" message when the default password is in use. Click the warning message to change the password.



Power and Startup Issues

Both PoE cable and power adapter is connected to the phone

The phones use the PoE preferentially.

The power LED indicator has no lights

If no lights appear on the IP phone when it is powered up, do one of the following:

- Reboot your device.
- Replace the power adapter.

The Phone screen is black

If the power LED indicator is on, the keypad is usable but the phone screen is black, please reboot your IP phone.

Other Issues

The difference among user name, register name, and display name

Both user name and register name are defined by the server. User name identifies the account, while register name matched with a password is for authentication purposes. The display name is the caller ID that will be displayed on the callee's phone touch screen. Server configurations may override the local ones.

On code and off code

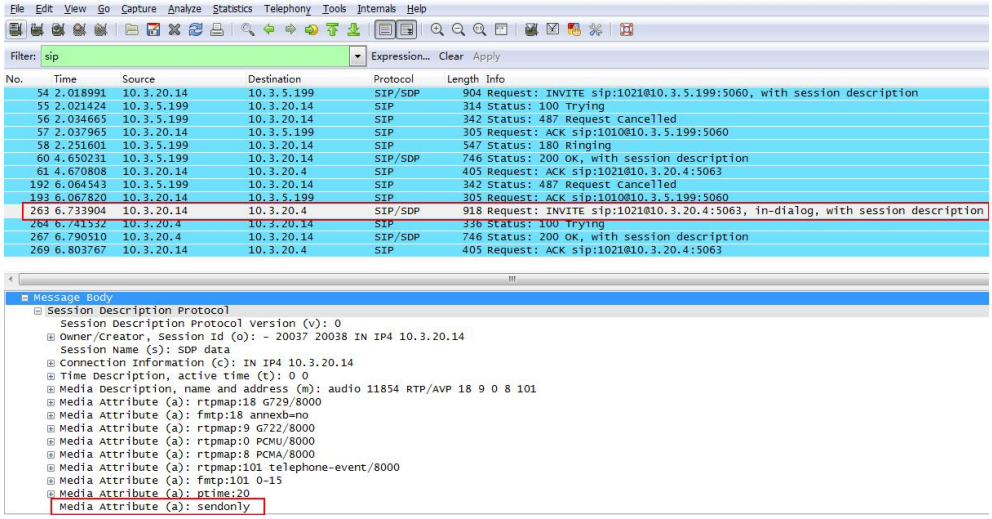
They are codes that the IP phone sends to the server when a certain action takes place. On code is used to activate a feature on the server side, while off code is used to deactivate a feature on the server side.

For example, if you set the Always Forward on code to be *78 (may vary on different servers), and the target number to be 201. When you enable Always Forward on the IP phone, the phone sends *78201 to the server, and then the server will enable Always Forward feature on the server side, hence being able to get the right status of the extension.

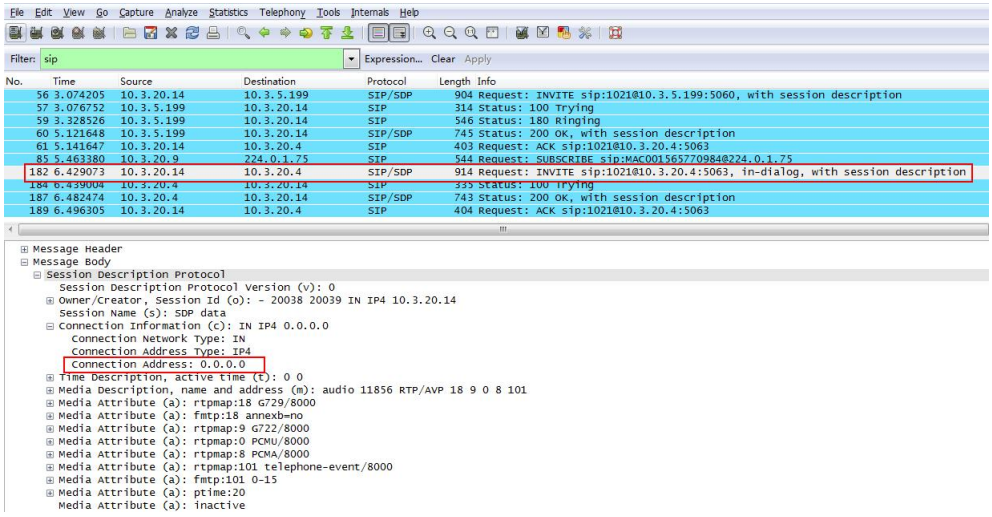
For anonymous call/anonymous call rejection feature, the phone will send either the on code or off code to the server according to the value of Send Anonymous Code/Send Rejection Code.

The difference between RFC 2543 Hold enabled and disabled

Capturing packets after you enable the RFC 2543 Hold feature. SDP media direction attributes (such as a=sendonly) per RFC 2543 is used in the INVITE message when placing a call on hold.



Capturing packets after you disable the RFC 2543 Hold feature. SDP media connection address c=0.0.0.0 per RFC 3264 is used in the INVITE message when placing a call on hold.



Appendix

RFC and Internet Draft Support

The following RFC's and Internet drafts are supported:

- RFC 1321—The MD5 Message-Digest Algorithm
- RFC 1889—RTP Media control
- RFC 2112—Multipart MIME
- RFC 2327—SDP: Session Description Protocol
- RFC 2387—The MIME Multipart/Related Content-type
- RFC 2543—SIP: Session Initiation Protocol
- RFC 2617—Http Authentication: Basic and Digest access authentication
- RFC 2782—A DNS RR for specifying the location of services (DNS SRV)
- RFC 2806—URLs for Telephone Calls
- RFC 2833—RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals
- RFC 2915—The Naming Authority Pointer (NAPTR) DNS Resource Record
- RFC 2976—The SIP INFO Method
- RFC 3087—Control of Service Context using SIP Request-URI
- RFC 3261—SIP: Session Initiation Protocol (replacement for RFC 2543)
- RFC 3262—Reliability of Provisional Responses in the Session Initiation Protocol (SIP)
- RFC 3263—Session Initiation Protocol (SIP): Locating SIP Servers
- RFC 3264—An Offer/Answer Model with the Session Description Protocol (SDP)
- RFC 3265—Session Initiation Protocol (SIP) - Specific Event Notification
- RFC 3266—Support for IPv6 in Session Description Protocol (SDP)
- RFC 3310—HTTP Digest Authentication Using Authentication and Key Agreement (AKA)
- RFC 3311—The Session Initiation Protocol (SIP) UPDATE Method
- RFC 3312—Integration of Resource Management and SIP
- RFC 3313—Private SIP Extensions for Media Authorization
- RFC 3323—A Privacy Mechanism for the Session Initiation Protocol (SIP)
- RFC 3324—Requirements for Network Asserted Identity
- RFC 3325—SIP Asserted Identity
- RFC 3326—The Reason Header Field for the Session Initiation Protocol (SIP)
- RFC 3361—DHCP-for-IPv4 Option for SIP Servers
- RFC 3372—SIP for Telephones (SIP-T): Context and Architectures
- RFC 3398—ISUP to SIP Mapping
- RFC 3420—Internet Media Type message/sipfrag
- RFC 3428—Session Initiation Protocol (SIP) Extension for Instant Messaging
- RFC 3455—Private Header (P-Header) Extensions to the SIP for the 3GPP
- RFC 3486—Compressing the Session Initiation Protocol (SIP)
- RFC 3489—STUN - Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)
- RFC 3515—The Session Initiation Protocol (SIP) Refer Method
- RFC 3550—RTP: Transport Protocol for Real-Time Applications
- RFC 3555—MIME Type Registration of RTP Payload Formats
- RFC 3581—An Extension to the SIP for Symmetric Response Routing
- RFC 3608—SIP Extension Header Field for Service Route Discovery During Registration
- RFC 3611—RTP Control Protocol Extended Reports (RTCP XR)

- RFC 3665—Session Initiation Protocol (SIP) Basic Call Flow Examples
- RFC 3666—SIP Public Switched Telephone Network (PSTN) Call Flows.
- RFC 3680—SIP Event Package for Registrations
- RFC 3702—Authentication, Authorization, and Accounting Requirements for the SIP
- RFC 3711—The Secure Real-time Transport Protocol (SRTP)
- RFC 3725—Best Current Practices for Third Party Call Control (3pcc) in the Session Initiation Protocol (SIP)
- RFC 3842—A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP)
- RFC 3856—A Presence Event Package for Session Initiation Protocol (SIP)
- RFC 3863—Presence Information Data Format
- RFC 3890—A Transport Independent Bandwidth Modifier for the SDP
- RFC 3891—The Session Initiation Protocol (SIP) "Replaces" Header
- RFC 3892—The Session Initiation Protocol (SIP) Referred-By Mechanism
- RFC 3959—The Early Session Disposition Type for SIP
- RFC 3960—Early Media and Ringing Tone Generation in SIP
- RFC 3966—The tel URI for telephone number
- RFC 3968—IANA Registry for SIP Header Field
- RFC 3969—IANA Registry for SIP URI
- RFC 4028—Session Timers in the Session Initiation Protocol (SIP)
- RFC 4083—3GPP Release 5 Requirements on SIP
- RFC 4235—An INVITE-Initiated Dialog Event Package for the Session Initiation Protocol (SIP)
- RFC 4244—An Extension to the SIP for Request History Information
- RFC 4317—Session Description Protocol (SDP) Offer/Answer Examples
- RFC 4353—A Framework for Conferencing with the SIP
- RFC 4458—SIP URIs for Applications such as Voicemail and Interactive Voice Response (IVR)
- RFC 4475—Session Initiation Protocol (SIP) Torture
- RFC 4485—Guidelines for Authors of Extensions to the SIP
- RFC 4504—SIP Telephony Device Requirements and Configuration
- RFC 4566—SDP: Session Description Protocol.
- RFC 4568—Session Description Protocol (SDP) Security Descriptions for Media Streams
- RFC 4575—A SIP Event Package for Conference State
- RFC 4579—SIP Call Control - Conferencing for User Agents
- RFC 4583—Session Description Protocol (SDP) Format for Binary Floor Control Protocol (BFCP) Streams
- RFC 4662—A SIP Event Notification Extension for Resource Lists
- RFC 4730—Event Package for KPML
- RFC 5009—P-Early-Media Header
- RFC 5079—Rejecting Anonymous Requests in SIP
- RFC 5359—Session Initiation Protocol Service Examples
- RFC 5589—Session Initiation Protocol (SIP) Call Control – Transfer
- RFC 5630—The Use of the SIPS URI Scheme in SIP
- RFC 5806—Diversion Indication in SIP
- RFC 5954—Essential Correction for IPv6 ABNF and URI Comparison in RFC 3261
- RFC 6026—Correct Transaction Handling for 2xx Responses to SIP INVITE Requests
- RFC 6141—Re-INVITE and Target-Refresh Request Handling in SIP
- draft-ietf-sip-cc-transfer-05.txt—SIP Call Control - Transfer
- draft-anil-sipping-bla-02.txt—Implementing Bridged Line Appearances (BLA) Using Session Initiation Protocol (SIP)

- draft-anil-sipping-bla-03.txt—Implementing Bridged Line Appearances (BLA) Using Session Initiation Protocol (SIP)
- draft-ietf-sip-privacy-00.txt—SIP Extensions for Caller Identity and Privacy, November
- draft-ietf-sip-privacy-04.txt—SIP Extensions for Network-Asserted Caller Identity and Privacy within Trusted Networks
- draft-levy -sip-diversion-08.txt—Diversion Indication in SIP
- draft-ietf-sipping-cc-conferencing-03.txt—SIP Call Control - Conferencing for User Agents
- draft-ietf-sipping-cc-conferencing-05.txt—Connection Reuse in the Session Initiation Protocol (SIP)
- draft-ietf-sipping-rtcp-summary-02.txt—Session Initiation Protocol Package for Voice Quality Reporting Event
- draft-ietf-sip-connect-reuse-06.txt—Connection Reuse in the Session Initiation Protocol (SIP)
- draft-ietf-bliss-shared-appearances-15.txt—Shared Appearances of a Session Initiation Protocol (SIP) Address of Record (AOR)

To find the applicable Request for Comments (RFC) document, go to http://www.ietf.org/rfc.html and enter the RFC number.

Reading Icons

Icons associated with different features may appear on the touch screen. The following table provides a description for each icon on the phones.

T58W	VP59/T58A	CP960	CP965	Description
				Wired network is unavailable
				Wired network is unreachable
				Private line registers successfully
				Registration failed
(Flashing)	(Flashing)	(Flashing)	(Flashing)	Registering
		/	/	Hands-free (speakerphone) mode
		/	/	Handset mode
		/	/	Headset mode
				Voice Mail
				Auto Answer
				Do Not Disturb
				Always Forward
				Busy Forward

T58W	VP59/T58A	CP960	CP965	Description
				No Answer Forward
		/	/	Call Hold (video)
		/		Call Hold (audio-only)
		/		Call Mute
				Keep Mute
		/	/	Call is encrypted (video)
		/		Call is encrypted (audio-only)
				Silent mode
				Phone Lock
				Received Calls
				Placed Calls
				Missed Calls
				Forwarded Calls
				Recording box is full
				A call cannot be recorded
				Recording starts successfully
				Recording cannot be started
				Recording cannot be stopped
				VPN is enabled
				Bluetooth mode is on
		/	/	Bluetooth headset is both paired and connected
				Bluetooth-enabled mobile phone is both paired and connected

T58W	VP59/T58A	CP960	CP965	Description
				Wi-Fi mode is on
				Wi-Fi connection is unreachable
/				The default local caller photo and local contact icon
/				The default mobile caller photo and mobile contacts icon
/		/	/	DSS Key
				Line key type is Line (line is seized)
				Line key type is Speed Dial
				Line key type is Mobile Account (Bluetooth-enabled mobile phone is connected successfully)
				Line key type is Mobile Account (Bluetooth-enabled mobile phone connection failed)
(Flashing)	(Flashing)	(Flashing)	(Flashing)	Line key type is Mobile Account (Bluetooth-enabled mobile phone is connecting)
				Line key type is BLF/BLF List (BLF/BLF list idle state)
				Line key type is BLF/BLF List (BLF/BLF list ringing state)
				Line key type is BLF/BLF List (BLF hold state)
				Line key type is BLF/BLF List (BLF/BLF list callout state)
				Line key type is BLF/BLF List (BLF/BLF list failed state)
				Line key type is BLF/BLF List (BLF list call park state)
				Line key type is Voice Mail
				Line key type is Direct Pickup
				Line key type is Group Pickup
				Line key type is Call Park/XML Park (park successfully/call park idle state)

T58W	VP59/T58A	CP960	CP965	Description
				Line key type is Call Park/XML Park (call park ringing state)
				Park failed
				Line key type is Intercom (intercom idle state)
				Line key type is Intercom (intercom ringing state)
Callout	Callout	Callout	Talking	Line key type is Intercom (intercom callout state)
Talking	Talking	Talking	Callout	Line key type is Intercom (intercom talking state)
				Line key type is Intercom (intercom failed state)
				Line key type is DTMF/Prefix
				Line key type is Local Group/XML Group/LDAP
				Line key type is XML Browser
		/		Line key type is Conference
				Line key type is Forward
		/		Line key type is Transfer
		/		Line key type is Hold
				Line key type is DND
				Line key type is Recall
				Line key type is Record/URL Record
				Line key type is Record/URL Record (recording starts successfully)
				Line key type is Multicast Paging/Group Listening (Group Listening is not applicable CP960 phones)
				Line key type is Hot Desking

T58W	VP59/T58A	CP960	CP965	Description
				Line key type is Zero Touch
				Line key type is URL
		/	/	Line key type is DECT Intercom
		/	/	The ACD state is available
		/	/	The ACD state is unavailable
		/	/	The ACD state is wrap up
		/	/	Log out of the ACD system
				The shared line/bridged line is idle
(Flashing)	(Flashing)	(Flashing)	(Flashing)	The shared line receives ring-back tone
(Flashing)	(Flashing)	(Flashing)	(Flashing)	The shared line receives an incoming call
				The shared line is in conversation
				The shared line conversation is placed on public hold
				USB flash drive is detected
				High Definition Voice
		/	/	Screenshot captured
		/	/	Downloading file
		/	/	Uploading file
		/	/	Upcoming alarm
		/	/	Unread email

T58W	VP59/T58A	CP960	CP965	Description
/	/			The subsidiary phone is disconnected with the primary phone.
/	/			The star connection group is set up, but there are no subsidiary phones in the star connection group.
/	/	n	n	The number of the subsidiary phones connected successfully is less than the maximum number of subsidiary phones in a star connection group. "n" indicates the number of connected subsidiary phones.
/	/	n	n	All the subsidiary phones in the star connection group are connected successfully. "n" indicates the number of connected subsidiary phones.
				Phone Warning
		/	/	Sharing Content
		/	/	Wireless Access Point