



BroadSoft Partner Configuration Guide

Yealink SIP-T4x IP Phone

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BroadWorks® Guide

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Version	Reason for Change
1.1	Introduced document for Yealink T46G IP Phone version 28.71.0.60 validation with BroadWorks Release 19.sp1.
1.2	Edited and published document.
1.3	Added T41P and T42G as supported models. Appendix updated to reflect the latest configuration template files.
1.4	Edited changes and published document.
1.5	Device configuration section is updated with Xtended Services Interface (Xsi) and Instant Messaging and Presence (IM&P) support.
1.6	Edited changes and published document.
1.7	Updated with Yealink T4x IP Phone version x.72.193.x validation with BroadWorks Release 20.sp1. Added T48G as supported model.
1.8	Edited changes and published document.

Table of Contents

1	Overview	6
2	Interoperability Status	7
2.1	Verified Versions.....	7
2.2	Interface Capabilities Supported.....	8
2.2.1	Other Interface Capabilities.....	12
2.3	Known Issues	14
3	BroadWorks Configuration	15
3.1	BroadWorks Device Profile Type Configuration	15
3.2	BroadWorks Configuration Steps	16
4	T4x IP Phone Configuration	17
4.1	System Level Configuration	17
4.2	Subscriber Level Configuration Parameters	19
4.3	Advanced SIP Feature Configuration.....	20
4.3.1	Shared Call Appearance Configuration.....	20
4.3.2	Busy Lamp Field Configuration.....	26
4.3.3	Feature Key Synchronization Configuration	27
4.3.4	Call Center Feature Configuration	27
4.4	Extended Services Interface (Xsi) Feature Configuration	30
4.4.1	BroadWorks User Service Configuration	31
4.4.2	BroadWorks Directory Configuration.....	32
4.4.3	BroadWorks Call Logs Configuration	33
4.4.4	BroadWorks Call Park Configuration.....	34
4.5	Instant Message and Presence Configuration.....	35
5	Device Management	36
5.1	Device Management Capabilities Supported	36
5.2	Device Management Configuration	38
5.2.1	Configure BroadWorks Tags	38
5.2.2	Configure BroadWorks Device Profile.....	41
5.2.3	Create Device Profile Instance	56
5.2.4	Configure BroadWorks User	58
5.2.5	Configure Edge Device	59
5.2.6	Configure Yealink T4x IP Phone	60
Appendix A: Sample T4x Configuration Files.....		68
Appendix B: %TIMEZONENAME% Values		129
References		132

Table of Figures

Figure 1 Shared Call Appearance Configuration.....	20
Figure 2 Shared Call Appearance configuration Page.....	23
Figure 3 Account Register Page.....	23
Figure 4 Account Register Page.....	24
Figure 5 Shared Line Field.....	24
Figure 6 Line Key Fields.....	25
Figure 7 BLF Settings.....	26
Figure 8 Busy Lamp Field Configuration Page.....	26
Figure 9 Feature Key Synchronization Configuration.....	27
Figure 10 Call Control → Call Centers Page	28
Figure 11 Account Register Page.....	28
Figure 12 SIP Server Type Field	28
Figure 13 Xtended Services Interface Configuration.....	31
Figure 14 Call Logs Configuration	34
Figure 15 Call Park Configuration.....	35
Figure 16 System Default Tag Settings.....	39
Figure 17 Device Type Specific Tag Settings.....	41
Figure 18 Device Access FQDN.....	42
Figure 19 Auto Configuration Option Settings	44
Figure 20 Device Management Options Settings.....	45
Figure 21 System File Settings.....	48
Figure 22 Device Specific File Settings.....	50
Figure 23 Static File Settings	52
Figure 24 Language Mapping.....	55
Figure 25 BroadWorks User Language Definition.....	55
Figure 26 Identity/Device Profile Add Settings.....	57
Figure 27 Device Profile Instance Custom Tags Override.....	57
Figure 28 Device Profile Instance Custom Tags Add.....	58
Figure 29 Addresses Settings.....	59
Figure 30 Login Screen.....	60
Figure 31 Upgrade Screen.....	61
Figure 32 Device Access FQDN.....	63
Figure 33 Default Device Profile Type.....	64
Figure 34 Configure Advanced Options.....	64
Figure 35 Device Management Options Settings.....	65
Figure 36 y000000000xx-default.cfg File	67

1 Overview

This guide describes the configuration procedures required for the Yealink T4x Series for interoperability with BroadWorks. This includes the following models:

- T41P
- T42G
- T46G
- T48G

The T4x Series is an IP phone that uses the Session Initiation Protocol (SIP) to communicate with BroadWorks for call control.

This guide describes the specific configuration items that are important for use with BroadWorks. It does not describe the purpose and use of all configuration items on the T4x IP Phone. For those details, see the *Yealink T4x IP Phone User Guide* [\[1\]](#) supplied by Yealink.

2 Interoperability Status

This section provides the known interoperability status of the Yealink T4x IP Phone with BroadWorks. This includes the version(s) tested, capabilities supported and known issues.

Interoperability testing validates that the device interfaces properly with BroadWorks via the SIP interface. Qualitative aspects of the device or device capabilities not affecting the SIP interface such as display features, performance, and audio qualities are not covered by interoperability testing. Requests for information and/or issues regarding these aspects should be directed to Yealink.

2.1 Verified Versions

The following table identifies the verified Yealink T4x IP Phone and BroadWorks versions and the month/year the testing occurred. If the device has undergone more than one test cycle, versions for each test cycle are listed, with the most recent listed first.

Compatible Versions in the following table identify specific T4x IP Phone versions which the partner has identified as compatible and should interface properly with BroadWorks. Generally, maintenance releases of the validated version are considered compatible and are not specifically listed here. For any questions concerning maintenance and compatible releases, contact Yealink.

NOTE: Interoperability testing is usually performed with the latest generally available (GA) device firmware/software and the latest GA BroadWorks release and service pack at the time the testing occurs. If there is a need to use a non-verified mix of BroadWorks and device software versions, customers can mitigate their risk by self-testing the combination using the *BroadWorks SIP Access Device Interoperability Test Plan* [\[4\]](#).

Verified Versions

Date (mm/yyyy)	BroadWorks Release	T4x IP Phone Verified Version	T4x IP Phone Compatible Versions
05/2014	Release 20.sp1	T48G: 35.72.193.3 T46G: 28.72.193.1 T42G: 29.72.193.1 T41P: 36.72.193.1	Any maintenance revision of the validated releases.
05/2013	Release 19.sp1	T46G: 28.71.0.60 T42G: 29.71.0.90 T41P: 36.71.0.40	None

2.2 Interface Capabilities Supported

The Yealink T4x IP Phone has completed interoperability testing with BroadWorks using the *BroadWorks SIP Access Device Interoperability Test Plan* [4]. The results are summarized in the following table.

The BroadWorks test plan is composed of packages, each covering distinct interoperability areas, such as “Basic” call scenarios and “Redundancy” scenarios. Each package is composed of one or more test items, which in turn, are composed of one or more test cases. The test plan exercises the SIP interface between the device and BroadWorks with the intent to ensure interoperability sufficient to support the BroadWorks feature set.

The *Supported* column in the following table identifies the Yealink T4x IP Phone’s support for each of the items covered in the test plan packages, with the following designations:

- Yes Test item is supported.
- No Test item is not supported.
- NA Test item is not applicable to the device type.
- NT Test item was not tested.

Caveats and clarifications are identified in the *Comments* column.

NOTE: *DUT* in the following table refers to the *Device Under Test*, which in this case is the Yealink T4x IP Phone.

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
Basic	Call Origination	Yes	
	Call Termination	Yes	
	Session Audit	Yes	
	Session Timer	Yes	
	Ringback	Yes	
	Forked Dialog	Yes	
	181 Call Being Forwarded	Yes	
	Dial Plan	Yes	
	DTMF – Inband	Yes	
	DTMF – RFC 2833	Yes	
	DTMF – DTMF Relay	Yes	
	Codec Negotiation	Yes	
	Codec Renegotiation	Yes	
BroadWorks Services	Third-Party Call Control – Basic	NA	
	Third-Party Call Control – Advanced	Yes	
	Voice Message Deposit/Retrieval	Yes	
	Message Waiting Indicator	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table

Test Plan Package	Test Plan Package Items	Supported	Comments
	Voice Portal Outcall	Yes	
	Advanced Alerting – Ringing	Yes	
	Advanced Alerting – Call Waiting	Yes	
	Advanced Alerting – Ring Splash	Yes	
	Advanced Alerting – Silent Alerting	No	
	Calling Line ID	Yes	
	Calling Line ID with Unicode Characters	Yes	
	Connected Line ID	Yes	
	Connected Line ID with Unicode Characters	Yes	
	Connected Line ID on UPDATE	No	
	Connected Line ID on Re-INVITE	No	
	Diversion Header	Yes	
	History-Info Header	Yes	
	Advice of Charge	No	
	Meet-Me Conferencing	Yes	
	Meet-Me Conferencing – G722	Yes	
	Meet-Me Conferencing – AMR-WB	No	
DUT Services – Call Control Services	Call Waiting	Yes	
	Call Hold	Yes	
	Call Transfer	Yes	
	Three-Way Calling	Yes	Before answer scenario is not supported.
	Network-Based Conference	Yes	
DUT Services – Registration and Authentication	Register Authentication	Yes	
	Maximum Registration	Yes	
	Minimum Registration	Yes	
	Invite Authentication	Yes	
	Re-Invite/Update Authentication	Yes	
	Refer Authentication	Yes	
	Device Authenticating BroadWorks	No	
DUT Services – Emergency Call	Emergency Call	No	
	Emergency Call with Ringback	No	
DUT Services – Miscellaneous	Do Not Disturb	Yes	
	Call Forwarding Always	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table

Test Plan Package	Test Plan Package Items	Supported	Comments
	Call Forwarding Always Diversion Inhibitor	Yes	
	Anonymous Call	Yes	
	Anonymous Call Block	Yes	
	Remote Restart Via Notify	Yes	check-sync
Advanced Phone Services – Busy Lamp Field	Busy Lamp Field	Yes	
	Call Park Notification	Yes	
Advanced Phone Services – Feature Key Synchronization, Private Line	Do Not Disturb	Yes	
	Do Not Disturb Ring Splash	Yes	
	Call Forwarding	Yes	
	Call Forwarding Always Ring Splash	Yes	
	Call Forwarding Always Diversion Inhibitor	Yes	
	Call Center Agent Logon/Logoff	Yes	
	Call Center Agent Unavailable Code	Yes	
	Executive – Call Filtering	No	
	Executive-Assistant – Call Filtering	No	
	Executive-Assistant – Diversion	No	
	Call Recording	No	
	Security Classification	No	
Advanced Phone Services – Feature Key Synchronization, Shared Line	Do Not Disturb	Yes	
	Do Not Disturb Ring Splash	Yes	
	Call Forwarding	Yes	
	Call Forwarding Always Ring Splash	Yes	
	Call Forwarding Always Diversion Inhibitor	Yes	
	Security Classification	No	
Advanced Phone Services – Missed Calls Display Synchronization	Missed Calls Display Sync	Yes	
Advanced Phone Services – Shared Call Appearance using Call Info	Line-Seize	Yes	
	Call-Info/Lamp Management	Yes	
	Public Hold	Yes	
	Private Hold	Yes	
	Hybrid Key System	Yes	
	Multiple Call Arrangement	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table

Test Plan Package	Test Plan Package Items	Supported	Comments
	Bridge Active Line	Yes	
	Bridge Active Line – Silent Monitor	No	
	Call Park Notification	Yes	
Advanced Phone Services – Call Park Notification	Call Park Notification	Yes	
Advanced Phone Services – Call Center	Hold Reminder	Yes	
	Call Information	Yes	
	Hoteling Event	Yes	
	Status Event	Yes	
	Disposition Code	Yes	
	Emergency Escalation	Yes	
	Customer Originated Trace	Yes	
Advanced Phone Services – Call Recording Controls	Pause/Resume	No	
	Start/Stop	No	
	Record Local Conference	No	
	Record Network Conference	No	
Advanced Phone Services – Call Recording Video	Basic Call	No	
	Record Local Conference	No	
	Record Network Conference	No	
Advanced Phone Services – Security Classification	Security Classification	No	
Redundancy	DNS SRV Lookup	Yes	
	Register Failover/Failback	Yes	
	Invite Failover/Failback	Yes	
	Bye Failover	Yes	
Session Border Controller (SBC)/Application Layer Gateway (ALG)	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
Video – Basic Video Calls	Call Origination	NA	
	Call Termination	NA	
	Call Hold	NA	
	Call Waiting	NA	
	Call Transfer	NA	
Video – BroadWorks Video Services	Auto Attendant	NA	
	Auto Attendant – HD	NA	

BroadWorks SIP Phone Interoperability Test Plan Support Table

Test Plan Package	Test Plan Package Items	Supported	Comments
	Voice Messaging	NA	
	Voice Messaging – HD	NA	
	Custom Ringback	NA	
Video – BroadWorks Video Conference	Meet-Me Conference	NA	
	Meet-Me Conference – HD	NA	
	Network-based Conference	NA	
	Network-based Conference – HD	NA	
TCP	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
IPV6	Call Origination	NT	
	Call Termination	NT	
	Session Audit	NT	
	Ringback	NT	
	Codec Negotiation/Renegotiation	NT	
	Voice Message Deposit/Retrieval	NT	
	Call Control	NT	
	Registration with Authentication	NT	
	Busy Lamp Field	NT	
	Redundancy	NT	
	SBC	NT	
	Video	NT	
	Dual Stack with Alternate Connectivity	NT	

2.2.1 Other Interface Capabilities

The Yealink T4x Series may have implemented support for the following:

- BroadWorks Xtended Services Interface (Xsi)
- Extensible Messaging and Presence Protocol (XMPP) (BroadCloud/BroadWorks Collaborate Instant Messaging and Presence [IM&P])

Support for these interfaces is demonstrated by completing the *BroadWorks SIP Phone Functional Test Plan* [4]. Support for these interfaces is summarized in the following table.

BroadWorks Xtended Services Interface (Xsi) and BroadCloud IM&P Support Table			
Interface	Feature	Supported	Comments
Xsi Features – Authentication	Authenticate with SIP Credentials	No	
	Authenticate with BroadWorks User Login Credentials	Yes	
	Authenticate with BroadWorks User Directory Number	No	
Xsi Features – User Service Configuration	Remote Office	Yes	
	BroadWorks Anywhere	Yes	
	Simultaneous Ringing	Yes	
	Caller ID Blocking	Yes	
	Call Forwarding Always	Yes	
	Call Forwarding Busy	Yes	
	Call Forwarding No Answer	Yes	
	Do Not Disturb	Yes	
Xsi Features – Directories	Enterprise Directory	Yes	
	Enterprise Common Phone List	Yes	
	Group Directory	Yes	
	Group Common Phone List	Yes	
	Personal Phone List	Yes	
	Search All Directories	Yes	
Xsi Features – Call Logs	Placed Calls	Yes	
	Received Calls	Yes	
	Missed Calls	Yes	
	All Calls	Yes	
	Sort by Name	No	
XMPP Features – Contact/Buddy List	Contacts	Yes	
	Favorites	Yes	
	Groups	Yes	
	Non-XMPP Contacts	No	
	Conferences	No	
XMPP Features – Presence	Login Invisible	Yes	
	Presence State	Yes	
	Presence Status	Yes	
	Contact's Presence State	Yes	

2.3 Known Issues

This section lists the known interoperability issues between BroadWorks and specific partner release(s). Issues identified during interoperability testing and known issues identified in the field are listed.

The following table provides a description of each issue and, where possible, identifies a workaround. The verified partner device versions are listed with an “X” indicating that the issue occurs in the specific release. The issues identified are device deficiencies or bugs, and are typically not BroadWorks release dependent.

If the testing was performed by BroadSoft, then the *Issue Number* is a BroadSoft ExtraView partner issue number. If the testing was performed by the partner or a third party, then the partner may or may not supply a tracking number.

For more information on any issues related to the particular partner device release, see the partner release notes.

Issue Number	Issue Description	Partner Version			
		x.71.x.x	x.72.x.x		
	No issues identified.				

3 BroadWorks Configuration

This section identifies the required BroadWorks device profile type for the Yealink T4x IP Phone as well as any other unique BroadWorks configuration required for interoperability with the T4xG IP Phone.

3.1 BroadWorks Device Profile Type Configuration

This section identifies the device profile type to use when deploying the Yealink T4x IP Phone with BroadWorks.

The following table identifies the required BroadWorks device identity/profile type settings for interoperability between the T4x IP Phone and BroadWorks. For an explanation of the profile parameters, see the *BroadWorks Device Management Configuration Guide* [2].

For most of the following parameters, an “X” indicates that the parameter function is supported and/or required. If the item is blank, it is not supported. For items where text is supplied, the text content maps directly to the web page to add or to modify a device profile type.

Yealink T4x IP Phone Identity/Device Profile Type	
Signaling Address Type	Intelligent Proxy Addressing
Standard Options	
Number of Ports	T41P: 3 T42G: 3 T46G: 6 T48G: 6
Ringback Tone or Early Media Support	Local Ringback – No Early Media
Authentication	Enabled
Hold Normalization	RFC 3264
Registration Capable	X
Static Registration Capable	
E.164 Capable	
Trusted	
Authenticate REFER	X
Video Capable	
Use History-Info Header	
Advanced Options	
Route Advance	
Wireless Integration	
PBX Integration	
Add P-Called-Party-ID	
Auto Configuration Soft Client	

Yealink T4x IP Phone Identity/Device Profile Type	
Requires BroadWorks Call Waiting Tone	
Advice of Charge Capable	
Support Emergency Disconnect Control	
Enable Monitoring	
Static Line/Port Ordering	
Forwarding Override	
Conference Device	
Music On Hold Device	
Requires BroadWorks Digit Collection	
Requires MWI Subscription	
Support Call Center MIME Type	
Support Identity in UPDATE and Re-INVITE	
Support RFC 3398	
Reset Event	checkSync
Trunk Mode	User
Hold Announcement Method	Inactive
Unscreened Presentation Identity Policy	Profile Presentation Identity
Web Based Configuration URL Extension	
Device Configuration Options	
Device Configuration Options	Device Management

3.2 BroadWorks Configuration Steps

No additional BroadWorks configuration steps are required.

4 T4x IP Phone Configuration

The T4x IP Phone can be configured with a configuration file using the Trivial File Transfer Protocol (TFTP) or through its embedded web server. The following examples describe how to set the parameters using a configuration file. This configuration description assumes the T4x IP Phone uses the Dynamic Host Configuration Protocol (DHCP) to obtain an IP address, TFTP server, and other network settings. The T4x IP Phone should be configured to load the configuration file each time it resets or re-synchronizes. For detailed information on automated provisioning, see the *Yealink T4x IP Phone User Guide* [1].

The capabilities of the *T4xG IP Phone* have been verified for use with BroadWorks based on the settings described in the following table. For more information on the meaning, purpose, and applicability of the individual configuration items see the *Yealink T4xG IP Phone User Guide* [1].

Configuration Files

Files Provided by Partner	Level	Description
y0000000000<xx>.cfg	system configuration file	"y0000000000xx.cfg", where "xx" is associated with the hardware version of Yealink Device.
<MACADDRESS>.cfg	device-specific configuration file	

4.1 System Level Configuration

This section describes system-wide configuration items that are generally required for each *T4x IP Phone* to work with BroadWorks. Subscriber-specific settings are described in the next section.

Step	Command	Purpose
System Configuration Items y0000000000<xx>.cfg		
Step 1	Set SIP Proxy/Domain. account.1.sip_server_host = as.broadworks.net account.1.SIPServerPort = 5060	Set the T4xG IP Phone SIP server to the Fully Qualified Domain Name (FQDN) for the BroadWorks Application Server cluster. The domain must match the domain configured for the BroadWorks subscriber's line/port domain.
Step 2	Set Outbound Proxy. account.1.outbound_proxy_enable = 1 account.1.outbound_host = sbc.broadworks.net account.1.outbound_port = 5060	Set the Outbound Proxy to the session border controller (SBC) if one is deployed between the T4xG IP Phone and BroadWorks. If there are redundant SBCs, set it to the FQDN for the SBC cluster.
Step 3	Set SIP Timers. account.1.advanced.timer_t1 = 0.5 account.1.advanced.timer_t2 = 4 account.1.advanced.timer_t4 = 5	The SIP timers should be set to levels short enough to support a timely failover when there is no server response.

Step	Command	Purpose
System Configuration Items y0000000000<xx>.cfg		
Step 4	Set Register Expire Timer. account.1.expires = 3600	Set the registration period.
Step 5	Enable reliable response. account.1.100rel_enable = 1	Reliable provisional response (PRACK) should be enabled.
Step 6	Enable Session Timer. account.1.session_timer.enable = 1 account.1.session_timer.expires = 300 account.1.session_timer.refresher = 1	Set the T4xG IP Phone to enable Session Timer. Session Refresher: 0 = uac 1 = uas
Step 7	Enable Call Waiting. call_waiting.enable = 1 call_waiting.tone = 1	Set the T4xG IP Phone series to enable Call Waiting and Call Waiting Tone.
Step 8	Enable MWI. account.1.subscribe_mwi = 0 account.1.subscribe_mwi_expires = 3600	MWI: Solicited when setting SubscribeMWI = 1. MWI: Not solicited when setting SubscribeMWI = 0.
Step 9	Enable negotiated DTMF type. account.1.dtmf.type = 1	Set the T4xG IP Phone to enable inband or RFC 2833 negotiated DTMF.
Step 10	Select Transport Type. account.1.sip_server.1.transport_type = 0	Set the SIP transport: Transport = 0 (UDP) Transport = 1 (TCP) Transport = 2 (TLS) (except T18P) Transport = 3 (DNS-SRV) (except T80P)
Step 11	Enable Feature Key Sync. bw.feature_key_sync = 1	Enable Feature Key Sync (except T18): 1 = Enable 0 = Disabled

4.2 Subscriber Level Configuration Parameters

This section identifies the device-specific parameters, including registration and authentication. These settings must be unique across devices to be matched with the settings for a BroadWorks subscriber.

Provisioning a subscriber to register with BroadWorks allows calls to terminate to the subscriber's line. Registration requires that a unique address of record (AoR) is provisioned on BroadWorks and the phone; provisioning an AoR on BroadWorks consists of setting the line/port parameter to a unique value within the Application Server cluster.

Step	Command	Purpose
Subscriber parameters for the <MACADDRESS>.cfg		
Step 1	Enable line 1 to be used. Example: <code>account.1.enable = 1</code>	Enable a line of the T4xG IP Phone to be used.
Step 2	Configure display name for a line. Example: <code>account.1.display_name = Joe</code>	For the line, configure the name to be displayed on the device.
Step 3	Set Register User ID for a line. Example: <code>account.1.user_name = 2405551111</code>	The <i>register user ID</i> must correspond with the line/port setting on BroadWorks.
Step 4	Enable SIP Authentication for a line. Example: <code>account.1.auth_name = 2405551111</code> <code>account.1.password = 123456</code>	If the Authentication service is configured on BroadWorks, these parameters must be configured to match the BroadWorks settings.
Step 5	Configure Network Phonebook. <code>account.1.xsi.host = xsp1.iop1.broad works.net</code> <code>account.1.xsi.user = 2413333601@as.iop1.broadworks.net</code> <code>account.1.xsi.password = yealink</code>	This configures the phone to use the BroadWorks Xsi interface to retrieve the group phone directory. Host: This is the identity of the BroadWorks Xsp server/cluster address and relevant xsi-actions parameters. User: This is the BroadWorks user's login name. Password: This is the BroadWorks user's login password.

4.3 Advanced SIP Feature Configuration

This section provides configuration instructions for advanced SIP features supported by the phone including but not limited to Shared Call Appearance, Busy Lamp Field, Feature Key Synchronization, Call Center, and Emergency Call.

4.3.1 Shared Call Appearance Configuration

The Shared Call Appearance (SCA) feature allows the administrator to add multiple locations to a given line. Any of the locations can be used to originate or receive calls.

When a call comes in to an idle line, all the provisioned locations for that line are alerted. The first location to answer the call is connected to the originator. If the line is already active in a call, only the active location is alerted.

A subscriber can originate calls from any of the configured locations. All other locations are unable to originate calls until all calls are released.

It is recommended that the phone number plus an index (<phoneNumber>_<index>) is used when provisioning the unique address of record (AoR) for each shared line. For example: 2405551111_2. If a phone number does not exist, the MAC address plus an index could be used (<macAddress>_<index>).

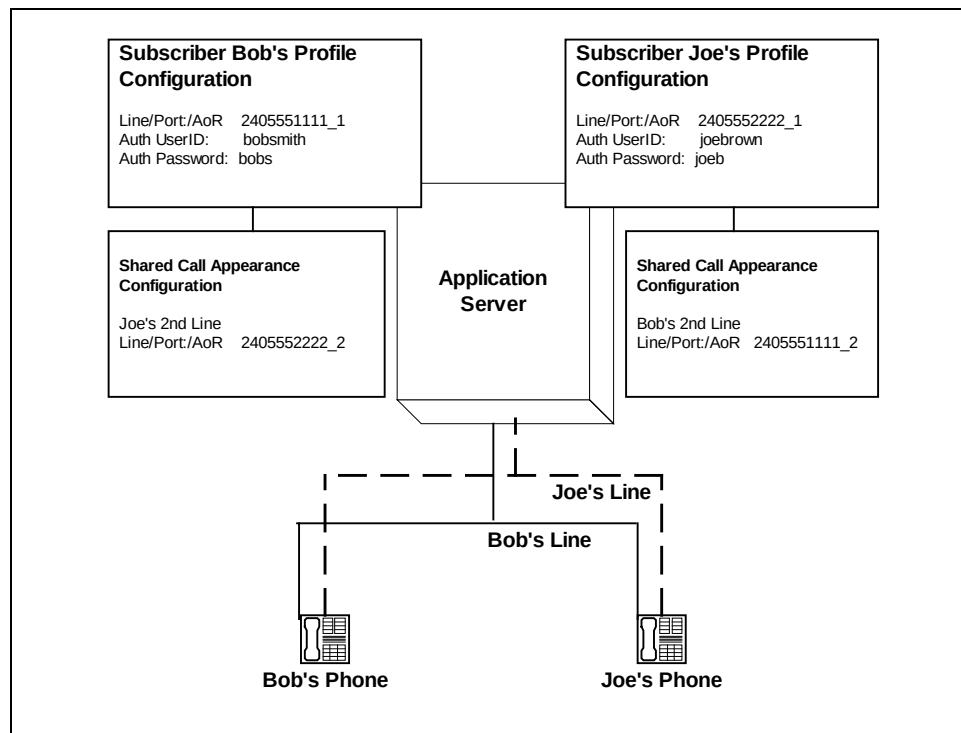


Figure 1 Shared Call Appearance Configuration

Figure 1 shows that Bob and Joe each have two lines and that Bob shares a line with Joe and Joe shares a line with Bob. The figure also shows the applicable Subscriber Profile and Shared Call Appearance Configuration data for subscribers Bob and Joe.

When Bob (2405551111) is called, Bob's first line and Joe's second line will ring. When Joe (2405552222) is called, Joe's first line and Bob's second line will ring.

The following steps show how to configure both phones for this Shared Call Appearance configuration.

For configurations of SCA for the device, see the example in the following section.

4.3.1.1 Bob's Phone Configuration – MAC.cfg

This is the SCA configurations as specified in *MAC.cfg*, that is, *0015651130dc.cfg* where "0015651130dc" is the MAC address of the SIP phone.

The following steps are used to configure line 1 for Bob's phone. This line rings when Bob is called, so it has Bob's authentication information.

Step	Command	Purpose
Step 1	Configure line as shared. account.1.shared_line = 1;	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: account.1.user_name = 2405551111_1;	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: account.1.auth_name = bobsmith; account.1.password = bobs;	If the Authentication service is configured on BroadWorks, these parameters must be configured to match the BroadWorks settings. This line rings when Bob is called, so it has Bob's authentication information.
Step 4	Configure display name. Example: account.1.display_name = Bob Smith;	Configure the name to be displayed on the device for this line.

The following steps are used to configure line 2 for Bob's phone. This line rings when Joe is called, so it has Joe's authentication information.

Step	Command	Purpose
Step 1	Configure line as shared. account.2.shared_line = 1;	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: account.2.user_name = 2405551111_2;	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: account.2.auth_name = joebrown; account.2.password = joeb;	If the Authentication service is configured on BroadWorks, these parameters must be configured to match the BroadWorks settings. This line rings when Joe is called, so it has Joe's authentication information.
Step 4	Configure display name. Example: account.2.display_name = Joe Brown;	Configure the name to be displayed on the device for this line.

4.3.1.2 Joe's Phone Configuration – MAC.cfg

The following steps are used to configure line 1 for Joe's phone. This line rings when Joe is called, so it has Joe's authentication information.

Step	Command	Purpose
Step 1	Configure line as shared. account.1.shared_line = 1;	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: account.1.user_name = 2405552222_1;	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: account.1.Auth_Name = joebrown; account.1.password = joeb;	If the Authentication service is configured on BroadWorks, these parameters must be configured to match the BroadWorks settings. This line rings when Joe is called, so it has Joe's authentication information.
Step 4	Configure display name. Example: account.1.Display_Name = Joe Brown;	Configure the name to be displayed on the device for this line.

The following steps are used to configure line 2 for Joe's phone. This line rings when Bob is called, so it has Bob's authentication information.

Step	Command	Purpose
Step 1	Configure line as shared. account.2.shared_line = 1;	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: account.2.user_name = 2405552222_2;	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: account.2.Auth_Name = bobsmith; account.2.password password = bobs;	If the Authentication service is configured on BroadWorks, these parameters must be configured to match the BroadWorks settings. This line rings when Bob is called, so it has Bob's authentication information.
Step 4	Configure display name. Example: account.2.Display_Name = Bob Smith;	Configure the name to be displayed on the device for this line.

4.3.1.3 Hybrid Key System Configuration

Hybrid Key System emulation requires the phone to support assignment of multiple line keys to a single registering line on the phone. It also requires the phone to limit each line key to a single call appearance or provide the configurability to roll a new call over to the next free line key. Any of the locations can be used to originate or receive calls.

First, from the Shared Call Appearance configuration web page, select **Add** to add a second appearance.



Figure 2 Shared Call Appearance configuration Page

Second, on line registration web page, type in the host line and second appearance line as shown in the following figures.

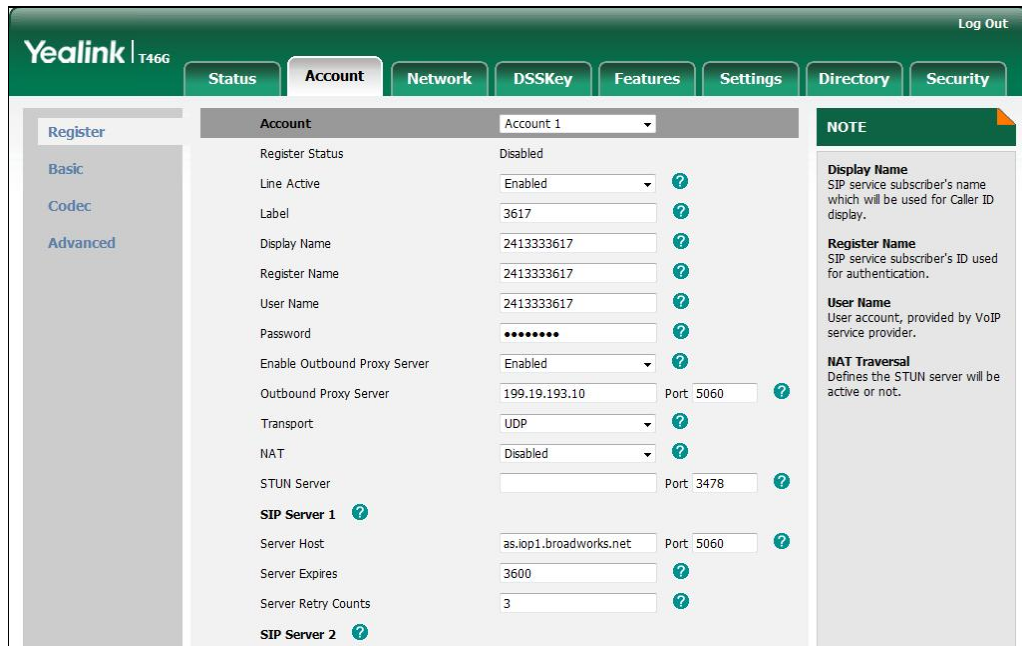


Figure 3 Account Register Page

Figure 4 Account Register Page

Third, all of the advanced setting of the host and the other appearance line must enable the BroadSoft SCA feature. Browse to *Account* → *Advanced* → *Shared Line*.

Figure 5 Shared Line Field

The following steps are used to assign multiple line keys to Line for Bob's phone.

Step	Command	Purpose
Step 1	Set DSS Key. Example: linekey.1.type =15 linekey.1.line = 1	Set memory key to line and apply this key type (line) to the shared line. key type: 15-line line ID: 0:line1 1:line1 2:line2 3:line3 4:line4 5:line5 6:line6

Step	Command	Purpose
Step 2	Set DSS Key. Example: linekey.2.type = 15 linekey.2.line = 1	Set memory key to line and apply this key type (line) to the shared line. key type: 15-line line ID: 0:line1 1:line1 2:line2 3:line3 4:line4 5:line5 6:line6

The following steps are used to assign multiple memory keys to Line for Joe's phone.

Step	Command	Purpose
Step 1	Set DSS Key. Example: linekey.1.type = 15 linekey.1.line = 1	Set memory key to line and apply this key type (line) to the shared line. key type: 15-line line ID: 0:line1 1:line1 2:line2 3:line3 4:line4 5:line5 6:line6

The *Line Key* setting is shown in the following figure.



Figure 6 Line Key Fields

4.3.2 Busy Lamp Field Configuration

The Busy Lamp Field (BLF) implementation provides an attendant console function. Configuration of the phone to enable Busy Lamp Field is described as follows.

Step	Command	Purpose
Step 1	Set the BLF List URI for the line. Example: account.1.blf.blf_list_uri = MyBLFList@BroadWorks.com	The BLF List URI must be configured to match the BroadWorks settings.

Browse to *Account* → *Advanced* → *BLF List URI/ BLF List Code/ BLF List Barge In Code* to configure the BLF settings.

BLF List URI	BLF_3617@iop1.broadworks.net	?
BLF List Code		?
BLF List Barge In Code		?

Figure 7 BLF Settings

On the BroadWorks server, browse to *Client Applications* → *Busy Lamp Field* and configure the settings as shown in the following figure.

Figure 8 Busy Lamp Field Configuration Page

Other related *autop* parameters are listed in the following table.

Parameter	Value	Purpose
<i>bw.directory_enable</i>	0 1	Enable BSFT feature. ▪ 0 for Disabled ▪ 1 for Enable
<i>account.X.blf_list_code =</i>	String	*98 (For example)
<i>phone_setting.auto_blf_list_enable</i>	0 1	Enable or disable auto blf list. ▪ 0 for Disabled ▪ 1 for Enabled (Default)

Parameter	Value	Purpose
<i>phone_setting.blf_list_sequence_type</i>	0 1	Configure the priority of auto blf list. 0 for linekey, memory, exp (Default) 1 for Exp, memory, linekey

4.3.3 Feature Key Synchronization Configuration

Feature Key Synchronization provides synchronization of phone services such as *Call Forwarding* and *Do Not Disturb* with the settings on BroadWorks for the analogous services. Configure the phone to enable Feature Key Synchronization as follows:

Step	Command	Purpose
Step 1	Enable Feature Key Synchronization. Example: bw.feature_key_sync = 1	Enable Feature Key Synchronization feature. 0 for Disabled 1 for Enable

Browse to *Features* → *General Information* and set Feature Key Synchronization to “Enabled”.

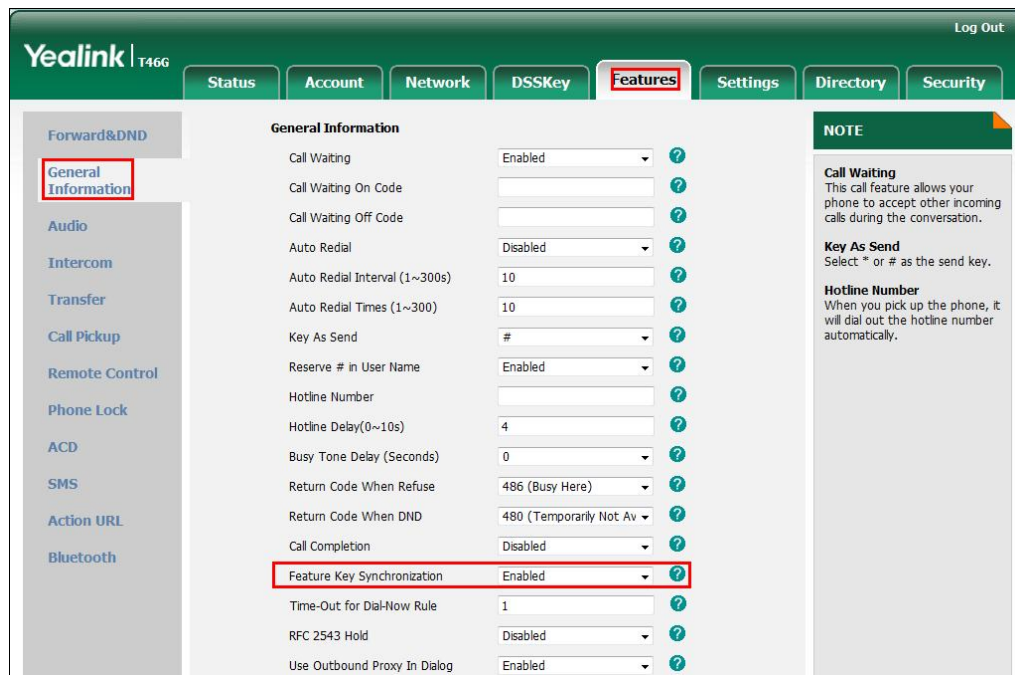


Figure 9 Feature Key Synchronization Configuration

4.3.4 Call Center Feature Configuration

This section provides configuration instructions to configure the phone to enable integration with BroadWorks Call Center features including, but not limited to, call information, hoteling, status, and disposition codes.

- 1) Browse to the *Call Centers* configuration page.

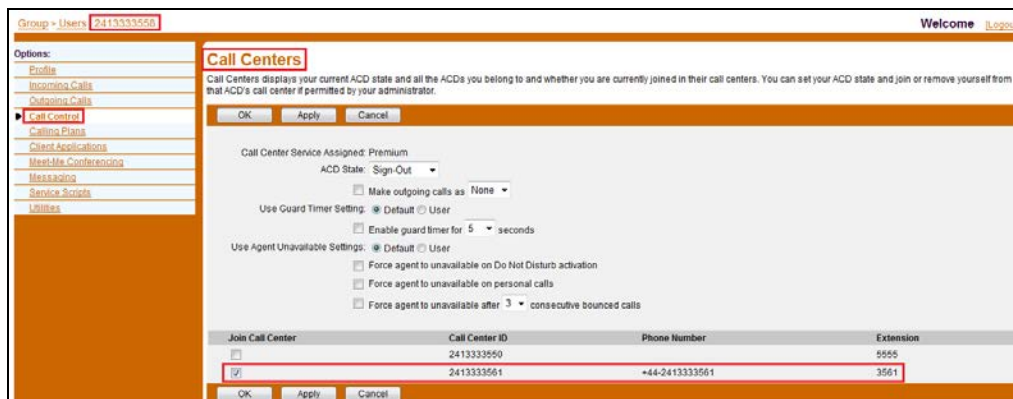


Figure 10 Call Control → Call Centers Page

2) Register the Call Center line.

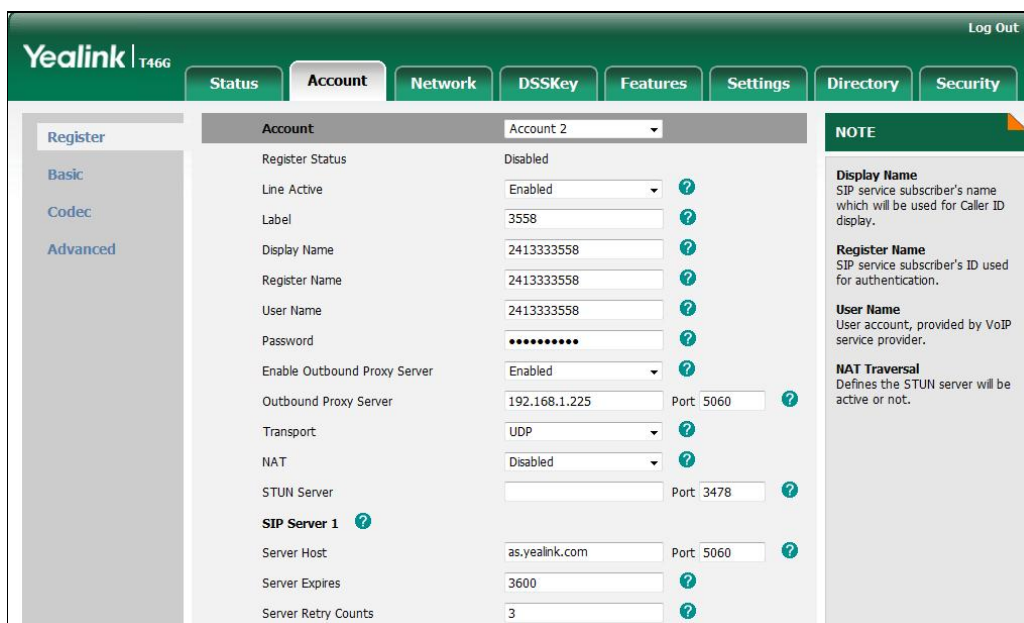


Figure 11 Account Register Page

3) Browse to the *Account* → *Advanced* page and set the SIP Server Type to “Broadsoft”.



Figure 12 SIP Server Type Field

4) Refer to the related “autop” parameters to configure the Call Center features listed in the following table.

Step	Command	Purpose
Step 1	Enable ACD feature for the line. Example: account.1.acd.enable=1	Enable ACD feature. 0 for Disabled 1 for Enable

Step	Command	Purpose
Step 2	Set the phone to display the Unavailable and Available soft keys after logging into the ACD system for the line. Example account.1.acd.available = 1	The Unavailable/Available soft key appears on the LCD screen when the phone logging to the ACD system. ▪ 0 for Disabled ▪ 1 for Enable
Step 3	Configure the initial agent state for the line. Example account.1.acd.initial_state = 1	Configure the initial agent state. ▪ 1 for Available ▪ 2 for Unavailable
Step 4	Configure the unavailable code for the line. account.X.reason_code.Y = <i>code</i> account.X.reason_code_name.Y = <i>name</i> Example: account.1.acd.unavailable_reason_enable = 1 account.1.reason_code.1 = 100 account.1.reason_code_name.1 = rest	Enable unavailable code feature. ▪ 0 for Disabled ▪ 1 for Enable The unavailable code length must be within 10 characters. The unavailable reason length must be within 40 characters. Value Y must be continuous, with minimum and maximum as 1 and 100.
Step 5	Enable the hold reminder feature for the line. Example: account.1.call_center.play_bw_hold_tone_enable = 1	Enable the hold reminder feature. ▪ 0 for Disabled ▪ 1 for Enable
Step 6	Configure the interval to specify how long the call center call information displays. Example: account.1.call_center.call_info_enable = 1 account.1.call_center.show_call_info_time = 30	Enable the call center call information feature. ▪ 0 for Disabled ▪ 1 for Enable
Step 7	Configure the disposition code for the line. account.X.bw_disp_code.Y = <i>disposition code</i> account.X.bw_disp_code_name.Y = <i>disposition code name</i> Example: account.1.call_center.disp_code_enable = 1 account.1.bw_disp_code.1 = 22 account.1.bw_disp_code_name.1 = asleep	Enable account 1's disposition code feature. ▪ 0 for Disabled ▪ 1 for Enable The disposition code must match one of the codes configured on BroadWorks. Value Y must be continuous, with minimum and maximum as 1 and 100.
Step 8	Configure the customer originated trace feature. Example: account.1.call_center.trace_enable = 1	Enable the customer originated trace for account 1. ▪ 0 for Disabled ▪ 1 for Enable

Step	Command	Purpose
Step 9	Configures the emergency escalation feature. account.X.supervisor_info_code_name.Y = <i>supervisor name</i> account.X.supervisor_info_code_name.Y = <i>supervisor name</i> Example: account.1.call_center.emergency_enable = 1 account.1.supervisor_info_code.1 = <i>supervisor number</i> account.1.supervisor_info_code_name.1 = <i>supervisor name</i>	Enable the emergency escalation feature. 0 for Disabled 1 for Enable The supervisor number. The supervisor number length must be within 30 characters. The supervisor name length must be within 99 characters. Value Y must be continuous, with minimum and maximum as 1 and 100.
Step 10	Configure the queue status via the Power Indicator LED. Example: account.1.call_center.queue_status_enable = 1 account.1.call_center.queue_status_light_enable = 1	Enable the queue status notification feature for account 1. 0 for Disabled 1 for Enable

4.4 Xtended Services Interface (Xsi) Feature Configuration

This section applies to SIP phones, soft clients, and other devices that provide a user interface.

This section provides configuration instructions for configuration of Xtended Services Interface features supported by the phone, including but not limited to, BroadWorks Directory and BroadWorks Call Logs.

- 1) Browse to the *Directory* → *Network Directory* → *XSI* settings.

Figure 13 Xtended Services Interface Configuration

2) Type in the related parameters and then click **Confirm**.

4.4.1 BroadWorks User Service Configuration

Integration with the BroadWorks Xtended Services Interface for User Service Configuration enables the phone to display and configure BroadWorks user services such as Remote Office, BroadWorks Anywhere, Call Forwarding, and Simultaneous Ring. To enable User Service Configuration, perform the following steps.

Step	Command	Purpose
Step 1	account.1.xsi.user= account.1.xsi.password = Example: account.1.xsi.user= 2405551111 account.1.xsi.password = 123456	Set the Xsi login user name and password for line 1.
Step 2	account.1.xsi.host = Example: account.1.xsi.host =xsp1.iop1.broadworks.net	Set the IP address or domain name of the Xsp server.
Step 3	account.1.xsi.server_type = Example: account.1.xsi.server_type =http	Set the transport type for Xsi.
Step 4	account.1.xsi.port = Example: account.1.xsi.port =80	Set the transport port for Xsi.

4.4.2 BroadWorks Directory Configuration

Integration with the BroadWorks Xtended Services Interface for directories enables the phone to download personal, group, and enterprise directories from BroadWorks and makes them available to a user via the phone menus. To enable this feature, perform the following steps.

Step	Command	Purpose
Step 1	Enable the group directory to be displayed on the IP phone. Example: <code>bw_phonebook.group_enable = 1</code>	Enable the group directory to be displayed on the IP phone. 0 = Disabled 1 = Enable
Step 2	Configure the group directory name displayed on the IP phone. Example: <code>bw_phonebook.group_displayname = Group</code>	Configure Group as the group directory name displayed on the IP phone. The default value is Group.
Step 3	Configure the group common directory to be displayed on the IP phone. Example: <code>bw_phonebook.group_common_enable = 1</code>	Enable the group common directory to be displayed on the IP phone. 0 = Disabled 1 = Enable
Step 4	Configure the group common directory name displayed on the IP phone. Example: <code>bw_phonebook.group_common_displayname = GroupCommon</code>	Configure "GroupCommon" as the group common directory name displayed on the IP phone. The default value is "GroupCommon".
Step 5	Configure the enterprise directory to be displayed on the IP phone. Example: <code>bw_phonebook.enterprise_enable = 1</code>	Enable the enterprise directory to be displayed on the IP phone. 0 for Disabled 1 for Enabled
Step 6	Configure the enterprise directory name displayed on the IP phone. Example: <code>bw_phonebook.enterprise_displayname = Enterprise</code>	Configure Enterprise as the enterprise directory name displayed on the IP phone. The default value is Enterprise.
Step 7	Enable the enterprise common directory to be displayed on the IP phone. Example: <code>bw_phonebook.enterprise_common_enable = 1</code>	Enable the enterprise common directory to be displayed on the IP phone. 0 for Disabled 1 for Enabled
Step 8	Configure the enterprise common directory name displayed on the IP phone. Example: <code>bw_phonebook.enterprise_common_displayname = EnterpriseCommon</code>	Configure "EnterpriseCommon" as the enterprise common directory name displayed on the IP phone. The default value is "EnterpriseCommon".

Step	Command	Purpose
Step 9	Enable the personal directory to be displayed on the IP phone. Example: bw_phonebook.personal_enable = 1	Enable the personal directory to be displayed on the IP phone. ▪ 0 for Disabled ▪ 1 for Enabled
Step 10	Configure the personal directory name displayed on the IP phone. bw_phonebook.personal_displayname = Personal	Configure "Personal" as the personal directory name displayed on the IP phone. The default value is "Personal".
Step 11	Enable the custom directory feature. Example: bw_phonebook.custom = 1	Enable the custom directory feature. ▪ 0 for Disabled ▪ 1 for Enabled

4.4.3 BroadWorks Call Logs Configuration

Integration with the BroadWorks Xtended Services Interface for Call Logs enables the phone to get call log history (missed, placed, and received calls) from BroadWorks and make them available to a user via the phone menus. To enable this feature, perform the following step.

Step	Command	Purpose
Step 1	Enable the BroadSoft call log feature. Example: bw_phonebook.call_log_enable = 1	Enable BroadWorks call log feature. ▪ 0 for Disabled ▪ 1 for Enabled

Configure the phone as shown in the following figure.

The screenshot shows the Yealink T466 web interface. The top navigation bar includes 'Status', 'Account', 'Network', 'DSSKey', 'Features', 'Settings', 'Directory' (highlighted), and 'Security'. The left sidebar lists 'Local Directory', 'Remote Phone Book', 'Phone Call Info', 'LDAP', 'Network Directory' (highlighted), 'Multicast IP', and 'Setting'. The main content area is divided into three sections: 'XSI', 'Network Directory', and 'Custom Directory'. The 'XSI' section has fields for Host Server, Port, XSI Server Type, User ID, Password, UC Username, and UC Password. The 'Network Directory' section has a table with columns 'Type', 'Enable', and 'Display Name'. The 'Custom Directory' section has a dropdown for 'Enable Custom Directory'. At the bottom, there is a 'Call Log' section with a dropdown for 'Network Call Log' set to 'Enabled'. A 'NOTE' box on the right states: 'Network Directory: The network directory parameters for administrator.'

Figure 14 Call Logs Configuration

4.4.4 BroadWorks Call Park Configuration

Integration with the BroadWorks Xtended Services Interface for Call Park makes call park available to a user via the phone menus. To enable this feature, perform the following steps.

Step	Command	Purpose
Step 1	Enable call park feature for the line. Example: account.1.callpark_enable= 1	Enable call park feature. 0 for Disabled 1 for Enabled
Step 2	Enable the phone to display the Park soft key during a call. Example: call_park.enable = 1	The Park soft key appears on the LCD screen during a call. 0 for Disabled 1 for Enabled
Step 3	Enable the phone to display the GPark soft key during a call. Example: call_park.group_enable= 1	The GPark soft key appears on the LCD screen during a call. 0 for Disabled 1 for Enabled
Step 4	Enable the phone to play a warning tone when a call is parked against its line. Example: call_park.park_ring = 1	Enable the phone to play a warning tone when a call is parked against its line. 0 for Disabled 1 for Enabled

Step	Command	Purpose
Step 5	Enable the phone to display a parked indicator when a call is parked against its line. Example: call_park.park_visual_notify_enable = 1	Enable the phone to display a parked indicator when a call is parked against its line. ▪ 0 for Disabled ▪ 1 for Enabled

Configure the Call Park settings as shown in the following figure.

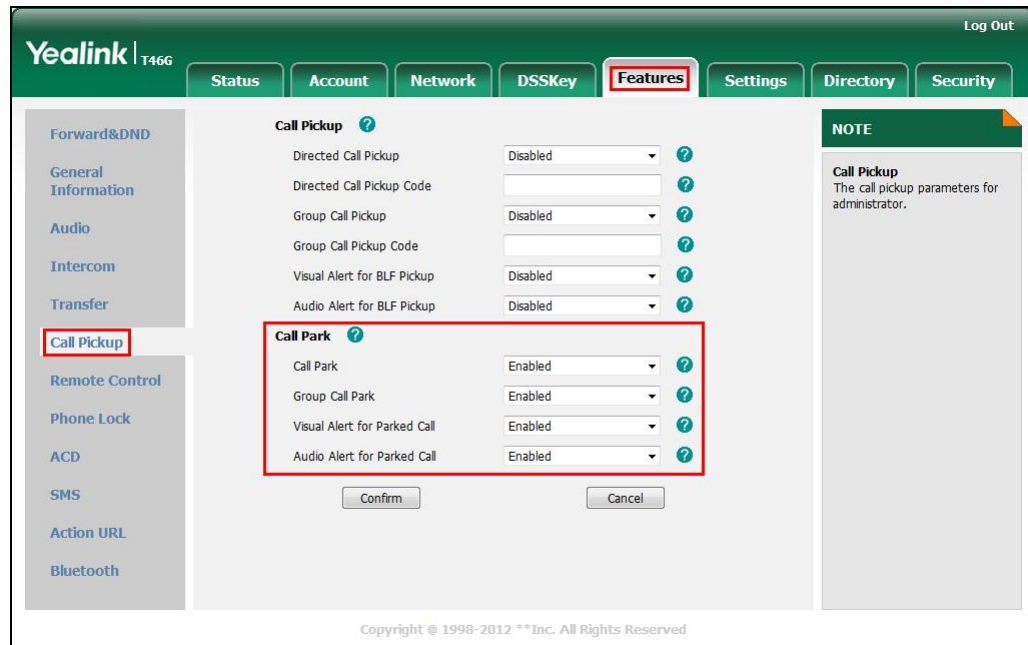


Figure 15 Call Park Configuration

4.5 Instant Message and Presence Configuration

This section applies to SIP phones, soft clients, and other devices that provide a user interface.

NOTE: This feature is only available on the T46G and T48G models.

First, enable the UC Active function by the follow autop statement:

```
features.uc_enable = 1 (1 - Enabled, 0 - Disabled)
```

The other two autop configuration statements are as follows:

```
features.uc_username = (The uc username)
features.uc_password = (The uc password)
```

Second, browse to *Phone* → *Features* → *Auto Call Distribution Settings* and fill in the associated parameter for the UC Username and UC Password fields.

5 Device Management

The BroadWorks Device Management feature provides the capability to automate generation of device configuration files to support mass deployment of devices. This section identifies the device management capabilities supported by the Yealink T4x IP Phone and the configuration steps required. For Device Management configuration details not covered here, see the *BroadWorks Device Management Configuration Guide* [2].

The basic steps to integrate a device with Device Management are as follows:

- 1) Create device template files for the device with the appropriate BroadWorks Device Management tags.
- 2) Define custom and system tags and add them to the *device template* files. Note that these custom and system tags must also be defined on BroadWorks.
- 3) Create a device profile type on BroadWorks for each device model to be integrated with Device Management.
- 4) Add the device template files and other associated files to the device profile type.
- 5) Create a device profile instance of the device profile type and assign it to a user. A user name and password are assigned to this device profile.
- 6) The end device is configured with the Device Management URL for device files, as well as the user name/password access credentials.

This section describes the steps to integrate the Yealink T4x IP Phones.

As part of the Yealink T4x IP Phone CPE kit, BroadSoft has defined a standard device configuration in the device template files that service providers can use on their systems. These files can be uploaded directly to Device Management without modification. However, the service provider also has the option to modify these template files as required to fit their deployment needs.

The CPE kit also includes tools to help automate the integration effort. For releases after Release 17.0, there is a Device Management import/export utility. The CPE kit contains DTAF files that can be used to import the device type and template files.

5.1 Device Management Capabilities Supported

The Yealink T4x IP Phone has completed Device Management interoperability testing with BroadWorks using the *BroadWorks Device Management Interoperability Test Plan* [5]. The results are summarized in the following table.

The BroadWorks test plan is composed of packages, each covering distinct interoperability areas. Each package is composed of one or more test items, which in turn are composed of one or more test cases. The test plan exercises the Device Management interface between the device and BroadWorks with the intent to ensure interoperability.

The *Supported* column in the following table identifies the Yealink T4x IP Phone's support for each of the items covered in the test plan packages, with the following designations:

- Yes Test item is supported.
- No Test item is not supported.
- NA Test item is not applicable.
- NT Test item was not tested.

Caveats or clarifications are identified in the *Comments* column.

Note that *DUT* in the following table refers to the *Device Under Test*, which in this case is the Yealink T4x IP Phone.

BroadWorks Device Management Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
HTTP File Download	HTTP Download Using Xsp IP Address	Yes	
	HTTP Download Using Xsp FQDN	Yes	
	HTTP Download Using Xsp Cluster FQDN	Yes	
	HTTP Download With Double Slash	Yes	
HTTPS File Download	HTTPS Download Using Xsp IP Address	Yes	
	HTTPS Download Using Xsp FQDN	Yes	
	HTTPS Download Using Xsp Cluster FQDN	Yes	
File Inspection	Inspect System Config File	Yes	
	Inspect Device-Specific Config File	Yes	
	Inspect Other Config Files	Yes	
	Inspect Static Files	Yes	
Device Inspection	Inspect SIP Settings	Yes	
	Inspect Line Settings	Yes	
	Inspect Service Settings	Yes	
HTTP File Upload	HTTP Upload Using Xsp IP Address	No	
	HTTP Upload Using Xsp FQDN	No	
	HTTP Upload Using Xsp Cluster FQDN	No	
Call Processing Sanity Tests	Register with Authentication	Yes	
	Call Origination	Yes	
	Call Termination	Yes	
	Remote Restart	Yes	
	Shared Line Origination	Yes	
	Shared Line Termination	Yes	
	Shared Line Status	Yes	
	Busy Lamp Field	Yes	

5.2 Device Management Configuration

This section identifies the steps required to enable the Yealink T4x IP Phone phones for device management. For Device Management configuration details not covered here, see the *BroadWorks Device Management Configuration Guide* [2].

5.2.1 Configure BroadWorks Tags

The template files in Device Management use tags to represent the data stored on BroadWorks. When a configuration changes for a user, Device Management parses the template files and replaces the Device Management tags with the associated data stored on BroadWorks. There are default tags defined in the Device Management software and there are custom tags that the service provider can create/define via the web portal for use by Device Management. There are two types of custom tags that can be defined: system-default tags are common to all phones on the system; device-type-specific tags are common to Yealink T4x phone models only.

The Yealink T4x IP Phone makes use of dynamic tags, which may be configured by a BroadWorks administrator as either system default or device type specific tags. This section identifies the required tags.

5.2.1.1 Create System Default Tags

Browse to *System → Resources → Device Management Tag Sets* and select the *System Default* tag set. Add the system default tags in the following table if they do not already exist.

Tag Name	Valid Settings	Description
%SNTP_SERVER_1%	IP address/FQDN	NTP server address
%SNTP_SERVER_2%	IP address/FQDN	NTP server address alternate
%DNS_SERVER_1%	IP address	DNS server address
%DNS_SERVER_2%	IP address	DNS server address alternate
%SBC_ADDRESS%	IP address/FQDN	SBC SIP address
%SBC_PORT%	Port	SBC SIP port
%USE_SBC_BOOLEAN%	0/1	Use SBC: 1=yes, 0=no
%XSP_ADDRESS_XSI_ACTIONS%	IP address/FQDN	Xtended Services Platform server address

Example System Default Tag settings

Device Management Tag Sets Modify

Display all the device management tags defined in the tag set. Tags can be added to the set or deleted from the set.

Tag Set: System Default

Delete	Tag Name ▲	Tag Value	Edit
☐	%APPLICATION_DOMAIN%	as.iop1.broadworks.net	Edit
☐	%DNS_SERVER_1%	199.19.193.13	Edit
☐	%DNS_SERVER_2%	199.19.193.29	Edit
☐	%DNS_SERVER%	199.19.193.12	Edit
☐	%KWS300_XSP_PATH%	http://xsp.broadsoft.com/dms/kws300	Edit
☐	%OUTBOUNDPROXYADDRESS%	199.19.193.9	Edit
☐	%OUTBOUNDPROXYPORT%	5060	Edit
☐	%OUTBOUNDPROXYTRANSPORT%	UDP	Edit
☐	%SBC_ADDRESS%	sbc1.iop2.broadworks.net	Edit
☐	%SBC_PORT%	5060	Edit
☐	%SIP_TRANSPORT%	0	Edit
☐	%SNTP_SERVER_1%	time-a.nist.gov	Edit
☐	%SNTP_SERVER_2%	time-b.nist.gov	Edit
☐	%SNTP_SERVER%	time-b.nist.gov	Edit
☐	%SNTP_SERVERIP%	192.5.41.41	Edit
☐	%USE_SBC_BOOLEAN%	1	Edit
☐	%XSP_ADDRESS_XSI_ACTIONS%	xsp1.iop1.broadworks.net	Edit
☐	%XSP_ADDRESS%	xsp1.iop1.broadworks.net	Edit

[Page 1 of 1]

Figure 16 System Default Tag Settings

5.2.1.2 Create Device Type Specific Tags

Browse to *System → Resources → Device Management Tag Sets* and select *Add* to add a new tag set. Configure the tag set name using the device name appended by Tags: *Yealink T4x_Tags*. Add the device type specific tags in the following table to the device tag set. If the tag set already exists, ensure the tags are defined in the following table.

Tag Name	Valid Settings	Description
%COUNTRY%	United States, 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, Chile, Czech ETSI	Identifies the country for standard ringtones.
%T46_FIRMWARE%	28.<x.x.x>.rom Example: 28.71.0.60.rom	Defines the T46G firmware version.

Tag Name	Valid Settings	Description
%TRANSPORT_TYPE%	0 1 2 3	Defines the SIP transport. 0 = UDP 1 = TCP 2 = TLS 3 = DNS NAPTR
%REJECT_ANONYMOUS_CALL_BINARY%	0 1	Enable/Disable the anonymous call rejection feature for each line. 0 = Disabled 1 = Enable
%CALL_WAITING_BINARY%	0 1	Enable/Disable the call waiting feature. 0 = Disabled 1 = Enable
%FEATURE_SYN%	0 1	Enable/Disable the feature key synchronization for the phone. 0 = Disabled 1 = Enable
%ACD_SYNC_BINARY%	0 1	Enable/Disable the ACD feature for the phone. 0 = Disabled 1 = Enable
%XSIPASSWORD-x%	string	Xsi login password for line x. *Leave the value as blank, this tag will be customized at each device profile level.
%TIMEZONENAME%	See Appendix B.	Defines the time zone name.
%T42_FIRMWARE%	29.<x.x.x>.rom Example: 29.71.0.90.rom	Defines the T42G firmware version.
%T41_FIRMWARE%	36.<x.x.x>.rom Example: 36.71.0.40.rom	Defines the T41P firmware version.
%T48_FIRMWARE%	35.<x.x.x>.rom Example: 35.72.0.60.rom	Defines the T48G firmware version.
%AUTO_ANSWER_BINARY%	0 1	Enable/Disable the auto answer feature for the phone. 0 = Disabled 1 = Enable
%FEATURE_BW_CALL_PARK%	0 1	Enable/Disable the call park feature for the phone. 0 = Disabled 1 = Enable

Example Device Type Specific Tag Settings

Device Management Tag Sets Modify

Display all the device management tags defined in the tag set. Tags can be added to the set or deleted from the set.

* Tag Set Name:

Delete	Tag Name ▲	Tag Value	Edit
☐	%ACD_SYNC_BINARY%	1	Edit
☐	%AUTO_ANSWER_BINARY%	0	Edit
☐	%CALL_WAITING_BINARY%	1	Edit
☐	%COUNTRY%	United States	Edit
☐	%FEATURE_BW_CALL_PARK%	1	Edit
☐	%FEATURE_SYNC%	1	Edit
☐	%FEATURY_BW_DIR%	1	Edit
☐	%REJECT_ANONYMOUS_CALL_BINARY%	1	Edit
☐	%T41_FIRMWARE%	36.71.0.40.rom	Edit
☐	%T42_FIRMWARE%	29.71.0.90.rom	Edit
☐	%T46_FIRMWARE%	28.71.0.60.rom	Edit
☐	%T48_FIRMWARE%	35.72.0.60.rom	Edit
☐	%TIMEZONENAME%	United States-Eastern Time	Edit
☐	%TRANSPORT_TYPE%	0	Edit
☐	%XSIPASSWORD-1%		Edit

[Page 1 of 1]

Figure 17 Device Type Specific Tag Settings

5.2.2 Configure BroadWorks Device Profile

The device profile type is a system-level structure that defines how the device interfaces with BroadWorks. It also identifies the default configuration files and other files, such as firmware, which are required for the phone to operate correctly. The device profile type is created by the system administrator. Group administrators use the device profile type to create a device profile. The device profile is an instance of the device profile type that is associated with a physical device or IP phone.

There are two BroadWorks device profile configuration methods described: Import and manual. The import method takes a Device Type Archive File (DTAF) as input and builds the BroadWorks device profile type(s) automatically. The manual method walks the administrator through the steps to manually add and configure the device profile type(s).

The import method should be used if all of the prerequisites are met:

- The BroadWorks Release is 17.0 or later.
- The device profile type(s) being imported do not already exist on the system. (If either a previous import or manual configuration was done, the import will fail.)
- There is a DTAF file available for import with a BroadWorks release level that is the same as or prior to the release being imported to. If the DTAF file is at a release level later than the release being imported to, the import may fail.

Otherwise, the manual method must be used.

5.2.2.1 Configuration Method 1: Import

This section identifies the steps necessary to make use of the Device Management import feature to configure BroadWorks to add the Yealink T4x IP Phone as a Device Management-enabled device type.

The import method is available in BroadWorks Release 17.0 and later. For previous releases, use the manual configuration method described in the next section.

Download the Yealink T4x IP Phone CPE kit from the BroadSoft Xchange at www.broadsoft.com/xchange. Extract the DTAF files from the CPE kit. These are the import files. Repeat the following steps for each model you want to import.

Log in to BroadWorks as an administrator. Browse to *System* → *Resources* → *Identity/Device Profile Types* and select *Import*. Select *Browse* to find the extracted DTAF file for the model and click **OK** to start the import.

After the import finishes, the following post-import configuration steps must be completed.

Browse to *System* → *Resources* → *Identity/Device Profile Types* and perform a search to find the imported Yealink device profile type, for example, *Yealink_T46G*. Go to the *Profile* page and change the Device Management Device Access FQDN to your Xtended Services Platform or Xtended Services Platform cluster address.

Example:

The screenshot shows the 'Device Management' configuration page for a Yealink T46G device. The 'Device Access FQDN' field is highlighted with a red box and contains the value 'xsp1.iop1.broadworks.net'. Other visible fields include 'Device Type URL', 'Device Configuration Tags', 'Device Access Protocol', 'Device Access Port', 'Device Access Context Name', 'Device Access URI', 'Default Device Language', 'Default Device Encoding', 'Authentication Mode', 'Device Access Username', 'Device Access Password', 'Re-type Device Access Password', 'MAC Address In', and 'Device Access HTTP Authentication'.

Figure 18 Device Access FQDN

Next, using the *Files and Authentication* link, select the option to rebuild all the system files.

Firmware files must be obtained from Yealink. These files are not included in the import. Complete the steps in section [5.2.2.2.3 Static Files](#) to define the static firmware files and to upload the firmware. Note that the non-firmware static files in section [5.2.2.2.3 Static Files](#) are included in the import.

After importing the DTAFs, the Application Server must be restarted to load the TimeZoneAlias files.

Update the device profile type language setting according to instructions provided in section [5.2.2.2.5 Language Mapping](#).

5.2.2.2 Configuration Method 2: Manual

This section identifies the manual steps necessary to configure BroadWorks to add the Yealink T4x IP Phone as a Device Management-enabled device type.

The manual method must be used for BroadWorks releases prior to Release 17.0. The manual method is an optional method in Release 17.0 and later. To determine when to use the manual method, see section [5.2.2 Configure BroadWorks Device Profile](#). The steps in this section can also be followed to update previously imported or configured device profile type(s) with new configuration files and firmware.

The steps in this section must be completed for the device profile type for each Yealink IP Phone model.

5.2.2.2.1 Modify Device Profile Type

This section identifies the BroadWorks device profile type settings relevant to Device Management for the Yealink T4xG IP Phone.

Browse to *System* → *Resources* → *Identity/Device Profile Types* and perform a search to find the Yealink device profile type(s) created in section [3.1 BroadWorks Device Profile Type Configuration](#) or add the device profile type for each model using the settings from section [3.1 BroadWorks Device Profile Type Configuration](#) if they do not exist.

The *Standard Options* and *Advanced Options* should already be configured as specified in section [3.1 BroadWorks Device Profile Type Configuration](#). If there are differences, update to match the settings in section [3.1 BroadWorks Device Profile Type Configuration](#).

The following subsections identify the required settings specific to Device Management.

5.2.2.2.1.1 Configure Auto Configuration Options

If Device Management has been enabled previously for the device profile type(s), proceed to the next section.

Device Configuration is enabled differently depending on the deployed BroadWorks release.

For BroadWorks Release 18.0 and later, configure as described in the following table.

Parameter	Value	Description
Device Configuration Options	Device Management	Use BroadWorks Device Management.

The following screen capture shows Device Management enablement for BroadWorks Release 18.0 and later.



Device Configuration Options: ☐ Not Supported ☒ Device Management ☐ Legacy

For BroadWorks releases prior to Release 18.0, configure as described in the following table. Note that these settings serve only to enable Device Management and are otherwise not meaningful in this context.

Parameter	Value	Description/Notes
Auto Configuration Type	2 Config File	This setting activates the Device Management configuration items. The 2 <i>Config File</i> button has no relevance to Device Management, but only activates the setting field.
CPE System File Name	not_used	This field is not used by Device Management and should be set to "not_used".
Device File Format	not_used	This field is not used by Device Management and should be set to "not_used".

The following screen capture shows Device Management enablement for BroadWorks release prior to Release 18.0.

Figure 19 Auto Configuration Option Settings

5.2.2.1.2 Configure Device Management Options

Modify the device profile type *Device Management Options* as described in the following table. These are common settings that apply to all devices enabled for Device Management.

Parameters not identified in the following table can usually be left as the defaults.

Parameter	Value	Description/Notes
Device Configuration Tags	Use Default System Tag Set and Tag Set	Select the device tag set created in section 5.2.1.2 Create Device Type Specific Tags .
Allow Identity/Device Profiles to Configure Custom Tags	checked	Optional
Allow Groups to Configure Custom Tags	checked	Optional
Device Access Protocol	http	
Device Access FQDN	<BroadWorks-Xsp-Cluster-Address> Example: xsp.iop1.broadworks.net	Set to the Xsp cluster FQDN if using an Xsp farm. Otherwise, set to the individual Xsp FQDN or IP address.
Device Access Port	<BroadWorks-Xsp-Port> Example: 80	Should be set to 80.
Device Access Context Name	dms	This does not need to be defined. BroadWorks defaults to the system-defined value.
Device Access URI	<device model name> Example: YealinkT42G	This defines the directory the Xsp uses to access the configuration files.

Example Device Management Options settings:

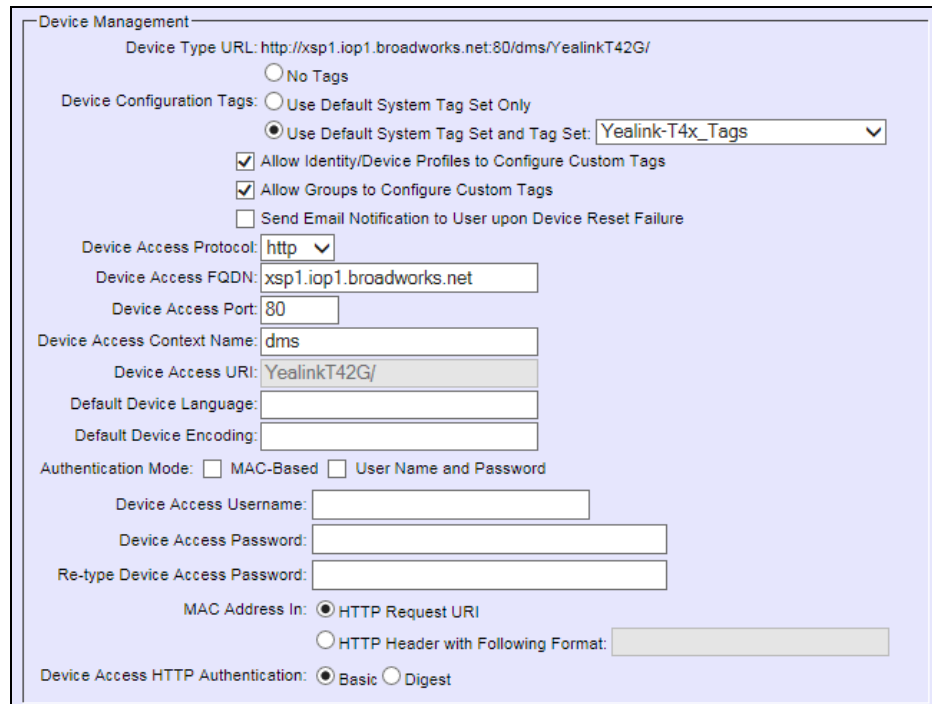


Figure 20 Device Management Options Settings

5.2.2.2.2 Define Device Profile Type Files

This section describes the BroadWorks Device Management configuration necessary to identify the configuration files and other files that the Yealink T4x IP Phone downloads.

To define the files, configuration templates, firmware and other files the T4x IP Phone uses, they must be uploaded to BroadWorks. Download the Yealink T4x CPE kit from BroadSoft Xchange at www.broadsoft.com/xchange. Extract the configuration files from the CPE kit. Obtain the firmware files directly from Yealink.

The following table identifies the Yealink configuration files distributed with the CPE kit.

File Name	CPE Kit Template File Name	File Type	Description
		System-level, Device-specific, Static, Time Zone Alias	
Examples:			
BWMACADDRESS .cfg	%BWMACADDRESS%- T4x.cfg	Device-specific	This file contains device specific parameters that the phone needs to load.

File Name	CPE Kit Template File Name	File Type	Description
y000000000xx.cfg T48: xx=35 T46: xx=28 T42: xx=29 T41: xx=36	y000000000xx.cfg T48: xx=35 T46: xx=28 T42: xx=29 T41: xx=36	System-level	This file contains system level parameters that the phone needs to load.
contact.xml	contact.xml	Static	This file contains the contact information in XML format.
blacklist.xml	blacklist.xml	Static	This file contains the blacklist contact information in XML format.
DialPlan.xml	DialPlan.xml	Static	Specifies the dialing rules.
AutoDST.xml	AutoDST.xml	Static	Rules set of the beginning and end of Day Light Savings Time.
TimeZoneAliasLabels_Yealink+<model>.properties	TimeZoneAliasLabels_Yealink-<model>.properties	Time Zone Alias	The Time zone Alias file is a BroadWorks Device Management file used to map time zone identifiers between BroadWorks and Yealink phones. A Time zone Alias file is required for each model.
WebItemsLevel.cfg	WebItemsLevel.cfg	Static	This file defines the access level of configuration items in cfg format.
CallFailed.xml	Call Failed.xml	Static	This file defines the soft key of call failed state.
CallIn.xml	CallIn.xml	Static	This file defines the https://www.facebook.com/photo.php?v=479189528887447&set=vb.236486913157711&type=2&theater of incoming call state.
Connecting.xml	Connecting.xml	Static	This file defines the soft key of connecting state.
Dialing.xml	Dialing.xml	Static	This file defines the soft key of dialing state.
favorite_setting.xml	favorite_setting.xml	static	This file configures desired lists of the Directory soft key
T41 and T42 Language files: lang+English.txt T46 and T48 Language files: 0.GUI.English.lang	T41 and T42: lang+English(<Phone Model>).txt T46 and T48: 0.GUI.English.lang(Phone Model)	Static	Customized languages file for English.
Ring.wav	Ring.wav	Static	Ring tone in WAV format.
RingBack.xml	RingBack(<Phone Model>).xml	Static	This file defines the soft key of ring back state.
super_search.xml	super_search.xml	Static	This file configures the search source list in dialing.
Talking.xml	Talking(<Phone Model>).xml	Static	This file defines the soft key of talking state.

The following table identifies other files that the Yealink T4xG IP Phone downloads from the server or uploads to the server. These files are not provided in the CPE kit and must be obtained from Yealink.

File Name	File Type	Description
x.x.x.x.x.rom	Static	Device firmware file.
Lang_<Language>.txt	Static	Customized language files.

Browse to *System* → *Resources* → *Identity/Device Profile Types* → *Files and Authentication* to add the files as described in the following subsections.

5.2.2.2.2.1 System File

This section identifies the system-level files used by Yealink and provides instructions for defining the files and uploading for Device Management.

T4x IP Phone model downloads a model-specific system file, named as follows:

- `y0000000000xx.cfg`

Add a BroadWorks device profile type file to Yealink T4xG IP Phone device profile for the system file using the settings described in the following table.

Parameters not identified in the following table can usually be left as defaults.

Parameter	Value	Description/Notes
Device Access File Format	<system-file-name> Example: y000000000028.cfg	This is the file name the phone uses to request the file.
Repository File Format	<system-file-name> Example: y000000000028-%BWTIMESTAMP%.cfg	This is the file name as stored on the Device Management repository.
File Category	Dynamic Per-Type	Only one system file is generated for the profile type.
File Customization	Administrator	This identifies who can customize the system file template.
Assign File	Custom	
Authentication Mode	User Name and Password	This system file is authenticated with the user name and password.
Device Access HTTP Authentication	Digest	

After defining the system file type, upload the corresponding system file template downloaded from the BroadSoft Xchange. Use the *Browse* button on the file definition screen. Be sure to click on **Apply** after uploading the file.

Example System File settings

Identity/Device Profile Type File Modify

Modify or delete a file type defined in an Identity/Device Profile Type.

Device Access File Format: y0000000000028.cfg
 Repository File Format: y0000000000028.cfg-%BWTIMESTAMP%.cfg
 Access File: http://xsp1.iop1.broadworks.net:80/dms/Yealink_T46G_DM/y0000000000028.cfg
 Repository File: Error File Repository Not Found
 Template File: [Download](#)
 File Category: ☐ Static ☒ Dynamic Per-Type ☐ Dynamic Per-Device
 File Customization:
☐ Enable caching

Assign File

☐ Manual
☒ Custom

Upload File:

Currently using configuration file: /var/broadworks/lpDeviceConfig/type/yealink_T46G/y0000000000028.cfg.template

```

#!version:1.0.0.1

##File header "#!version:1.0.0.1" can not be edited or deleted.##

#####
#####
##
Network                                     ##
#####
        
```

File Authentication

Authentication Mode: ☐ MAC-Based ☒ User Name and Password

MAC Address In: ☒ HTTP Request URI

☐ HTTP Header with Following Format:

Device Access HTTP Authentication: ☐ Basic ☒ Digest

Allowed Access Protocols: ☒ http ☒ https ☒ tftp

Figure 21 System File Settings

5.2.2.2.2 Device-Specific File

This section identifies the device-specific files used by Yealink and provides instructions for defining the files and uploading for Device Management.

Each T4xG phone downloads a phone-specific file based on the phone's MAC address using the following file name format:

<mac-address>.cfg

Add a BroadWorks device profile type file to Yealink T4x device profile for the device-specific file using the settings described in the following table.

Parameters not identified in the following table can usually be left as defaults.

Parameter	Value	Description/Notes
Device Access File Format	%BWMACADDRESS%.cfg	This is the file name format the phone uses to request the file.
Repository File Format	%BWFQDEVICEID%.cfg	This is the file name format as stored on the Device Management repository.
File Category	Dynamic Per-Device	This file is unique per device.
File Customization	Administrator and User	This identifies who can customize this file template.
Assign File	Custom	
Authentication Mode	User Name and Password	The phone-specific file is authenticated with the user name and password.
Device Access HTTP Authentication	Digest	

After defining the device-specific file type, upload the corresponding device-specific file template downloaded from the BroadSoft Xchange. Use the *Browse* button on the file definition screen. Be sure to click on **Apply** after uploading the file.

Example Device-Specific File settings

Identity/Device Profile Type File Modify
Modify or delete a file type defined in an Identity/Device Profile Type.

OK Apply Delete Cancel

Device Access File Format: %BWMACADDRESS%.cfg
Repository File Format: %BWFODEVICEID%.cfg
Access File: http://xsp1.xp1.broadworks.net:80/dms/Yealink_T46G_DM/[%25BWMACADDRESS%25].cfg
Note: this URL has undefined content. Validate it manually by replacing any content between [] with valid value(s).
Repository File: Error File Repository Not Found
Template File: [Download](#)
File Category: ☐ Static ☐ Dynamic Per-Type ☒ Dynamic Per-Device
File Customization: **Administrator and User**
☐ Enable caching

Assign File
☐ Manual
☒ Custom
Upload File: [Browse...](#)
Currently using configuration file: /var/broadworks/lpDeviceConfigType/Yealink_T46G/%BWMACADDRESS%.cfg.template

```
#!version:1.0.0.1
##File header "#!version:1.0.0.1" can not be edited or deleted.##
#####
##
#####
##          Account1
##
##
##
##
```

File Authentication
Authentication Mode: ☐ MAC-Based ☒ User Name and Password
MAC Address In: ☒ HTTP Request URI
☐ HTTP Header with Following Format:
Device Access HTTP Authentication: ☐ Basic ☒ Digest
Allowed Access Protocols: ☒ http ☒ https ☒ ttp

OK Apply Delete Cancel

Figure 22 Device Specific File Settings

5.2.2.2.2.3 Static Files

Static files are files such as firmware and media files that are not configurable and/or do not make use of the dynamic BroadWorks Device Management tags. The Yealink T4x requires the following static files:

- <firmware-version>.rom
- Ring.wav
- lang+English.txt (For T41P and T42G)
- 0.GUI.English.lang (For T46G and T48G)
- contact.xml
- AutoDST.xml
- DialBlock.xml
- DialPlan.xml
- DialNow.xml
- CallFailed.xml
- CallIn.xml
- Dialing.xml
- Connecting.xml
- Ringback.xml
- Talking.xml

- *super_search.xml*
- *favorite_setting.xml*
- *WebItemsLevel.cfg*

Add a BroadWorks device profile type file to Yealink T4x device profile for each of the static files using the settings described in the following table.

Parameters not identified in the following table can usually be left as defaults.

Parameter	Value	Description/Notes
Device Access File Format	<file-name> Example: AutoDST.xml	This is the file name the phone uses to request the file.
Repository File Format	<file-name> Example: AutoDST.xml	This is the file name as stored on the Device Management repository. Use the same name as the actual file name.
File Category	Static	This is a static file. There are no dynamic tags in the file.
File Customization	Disallow	This file must not be modified.
Assign File	Custom	
Authentication Mode	Not set	The static files are not authenticated so do not select either of the options.

After defining the static file types, upload the corresponding static files. Firmware must be obtained from Yealink. The other files are available from the BroadSoft Xchange. Use the **Browse** button on the file definition screen. Be sure to click **Apply** after uploading the file.

Example Static File settings

Identity/Device Profile Type File Modify

Modify or delete a file type defined in an Identity/Device Profile Type.

Device Access File Format: AutoDST.xml
 Repository File Format: AutoDST.xml
 Access File: http://xsp1.iop1.broadworks.net:80/dms/Yealink_T46G_DM/AutoDST.xml
 Repository File: Error File Repository Not Found
 Template File: [Download](#)
 File Category: ☒ Static ☐ Dynamic Per-Type ☐ Dynamic Per-Device
 File Customization:
☐ Enable caching

Assign File

☐ Manual
☒ Custom

Upload File:

Currently using configuration file: [./var/broadworks/lp/Device Config/type/Yealink_T46G/AutoDST.xml.template](#)

```

<DSTData>
<DST smTime="-11" smZone="Samoa"/>
<DST smTime="-10" smZone="United States-Hawaii-Aleutian"/>
<DST smTime="-10" smZone="United States-Alaska-Aleutian"/>
<DST smTime="-9" smZone="United States-Alaska Time"
iType="1" smStart="3/2/7/2" smEnd="11/1/7/2"
smOffset="60"/>
<DST smTime="-8" smZone="Canada(Vancouver,Whitehorse)"
iType="1" smStart="3/2/7/2" smEnd="11/1/7/2"
smOffset="60"/>

```

File Authentication

Authentication Mode: ☐ MAC-Based ☐ User Name and Password
 MAC Address In: ☒ HTTP Request URI
☐ HTTP Header with Following Format:
 Device Access HTTP Authentication: ☒ Basic ☐ Digest
 Allowed Access Protocols: ☒ http ☒ https ☒ tftp

Figure 23 Static File Settings

5.2.2.2.4 Time Zone Alias File

To properly map the BroadWorks configured user time zone to the Yealink T4x phone setting, a mapping file must be created on the BroadWorks system. This file maps the BroadWorks time zone settings to the phone's time zone settings. Adding this mapping file for the device profile type is described in the *BroadWorks Device Management Configuration Guide* [2].

This time zone mapping file must be added to the `/usr/local/broadworks/bw_base/conf/dms` directory on the Application Server using the following file name format:

`TimeZoneAliasLabels_<Device_Type_Name>.properties`

For example, if the device type name is *Yealink_T46G*, the time zone mapping file name must be *TimeZoneAliasLabels_Yealink_T46G.properties*. A space in the device name must be converted to a "+" in the file name.

The file must contain the mapping of BroadWorks time zones values to Yealink time zone values. The following is an example of the file contents:

```
US_ALASKA=-9
US_HAWAII=-10
CANADA_PACIFIC_TIME=-8
US_PACIFIC_TIME=-8
US_ARIZONA=-7
CANADA_MOUNTAIN_TIME=-7
US_MOUNTAIN_TIME=-7
CANADA_CENTRAL_TIME=-6
US_CENTRAL_TIME=-6
CANADA_EASTERN_TIME=-5
US_INDIANA=-5
US_EASTERN_TIME=-5
CANADA_ALTANTIC_TIME=-4
CANADA_NEWFOUNDLAND=-3.5
```

This file should contain all the time zones supported by the Service Provider's BroadWorks system. The Application server must be restarted to load this file.

The CPE kit contains the time zone properties files defined for the continental U.S. and Canadian time zones. For other time zone settings, see the *Yealink T4x IP Phone User Guide* [1]. When using the DTAF import, the TimeZoneAlias files are automatically copied onto the system.

The BroadWorks Application Server must be restarted for the TimeZoneAlias files to be picked up by the system.

5.2.2.2.5 Language Mapping

To enable Device Management control of the phone language, the languages defined on the BroadWorks Application Server must be mapped to the Yealink language files. To perform the mapping, select the Yealink T4x device profile type and then select the *Languages* link. The defined BroadWorks languages are listed in a table. If languages other than English do not appear, they have not been defined. The supported languages and required mapping are as follows:

BroadWorks Language	Yealink Language Mapping
English	T41\T42:lang+English.txt T46\T48: X.GUI.English.lang ("X" is used in the order of the language on the phone. The value must be a number, starting with zero.) Example: 0.GUI.English.lang
Spain_Spanish	T41\T42:lang-Spanish.txt T46\T48: X.GUI.Spanish.lang ("X" is used in the order of the language on the phone. The value must be a number, starting with zero.) Example: 1.GUI.Spanish.lang
Polish	T41\T42:lang-Polish.txt T46\T48: X.GUI.Polish.lang ("X" is used in the order of the language on the phone. The value must be a number, starting with zero.) Example: 2.GUI.Polish.lang
Turkish	T41\T42:lang-Turkish.txt T46\T48: X.GUI.Turkish.lang ("X" is used in the order of the language on the phone. The value must be a number, starting with zero.) Example: 3.GUI.Turkish.lang
French	T41\T42:lang-French.txt T46\T48: X.GUI.French.lang ("X" is used in the order of the language in the phone. The value must be a number, starting with zero.) Example: 4.GUI.French.lang
German	T41\T42:lang-German.txt T46\T48: X.GUI.German.lang ("X" is used in the order of the language on the phone. The value must be a number starting with zero.) Example: 5.GUI.German.lang
Italian	T41\T42:lang-Italian.txt T46\T48: X.GUI.Italian.lang ("X" is used in the order of the language in the phone. The value must be a number, starting with zero.) Example: 6.GUI.Italian.lang
Portuguese	T41\T42:lang-Portuguese.txt T46\T48: X.GUI.Portuguese.lang ("X" is used in the order of the language in the phone. The value must be a number, starting with zero.) Example: 7.GUI.Portuguese.lang

Example language mapping:

BroadWorks Language	Device Language
English:	lang+English.txt
French:	lang-French.txt
German:	lang-German.txt
Hungarian:	lang+English.txt
Japanese:	lang+English.txt
Spanish:	lang-Spanish.txt

Figure 24 Language Mapping

The language applied to an individual phone is determined by the language defined for the user on the *BroadWorks User's Profile* page.

Figure 25 BroadWorks User Language Definition

5.2.3 Create Device Profile Instance

The previous sections defined the device profile type such that the system is ready to mass deploy device profiles. A device profile is an instance of the device profile type and defines the BroadWorks interface to a Yealink phone deployed at a user's desk.

This section describes how to create a BroadWorks device profile instance for an individual Yealink T4x IP Phone. Device profile instances are normally created at the BroadWorks Group level and assigned to users.

When the device profile is created, the authentication data must be defined. The authentication data is used by Device Management to challenge a request from a phone to download a configuration file. The device must send credentials that match the credentials stored in the device profile.

Browse to the BroadWorks <group> → *Resources* → *Identity/Device Profiles* and select *Add* to add a new Yealink T4x IP Phone device profile. Define the device profile instance using the settings described in the following table.

Parameters not identified in the following table can normally be left as defaults.

Parameter	Value	Description/Notes
Identity/Device Profile Name	<device-profile-name> Example: YL-T46G	The device profile name is a unique identifier for the device profile instance.
Identity/Device Profile Type	<yealink-T4xG-device-profile-type> Example: Yealink-T46G	From the drop-down list, select the Yealink device profile type created in the previous section.
Authentication	Use Custom Credentials	Use a unique login user name and password for each phone.
Device Access User Name	<phone-login-name> Example: ylt46g	The phone login user naming convention must be determined by the service provider.
Device Access Password	<phone-login-password> Example: 123456	

Example Identity/Device Profile Add settings

Identity/Device Profile Modify
Modify or delete an existing group identity/device profile.

OK Apply Delete Cancel

Profile Users Files Custom Tags

Identity/Device Profile Name: YL-T46G
Identity/Device Profile Type: Yealink-T46G
Device Type URL: http://xsp1.iop1.broadworks.net:80/dms/YealinkT46G/

Protocol: SIP 2.0
Host Name/IP Address: Port:
Transport: Unspecified
MAC Address:
Serial Number:
Description:
Outbound Proxy Server:
STUN Server:
Physical Location:
Lines/Ports: 6
Assigned Lines/Ports: 1
Unassigned Lines/Ports: 5
Version:

Authentication
☒ Use Identity/Device Profile Type Credentials
☐ Use Custom Credentials
* Device Access User Name:
* Device Access Password:
* Re-type Device Access Password:

OK Apply Delete Cancel

Figure 26 Identity/Device Profile Add Settings

For the Xtended Services Interface feature to be authenticated, it is necessary to override the Xtended Services Interface password for each of the lines at the device profile instance level. To override custom tags at the device profile instance level, click on the *Custom Tags* tab.

Identity/Device Profile Modify
View and modify device management tags used by the Identity/Device Profile.

OK Apply Add Cancel

Profile Users Files Custom Tags

Identity/Device Profile Name: YL-T46G
Identity/Device Profile Type: Yealink-T46G

Delete	Tag Name	Tag Value	Edit
No Entries Present			

[Page 1 of 1]

Tag Name Starts With Find Find All

OK Apply Add Cancel

Figure 27 Device Profile Instance Custom Tags Override

Then click **Add** to add a custom tag with the following parameters:

Parameter	Value	Description/Notes
Tag Name	XSIPASSWORD-<line number> Example: XSIPASSWORD-1	This tag provides the Xsi password of the user for the line, which is assigned to the phone. Line number is an integer corresponding to the phone line in assignment.
Tag Value	The user's Xsi password. Example: 123456	

Example device profile custom tag setting

Identity/Device Profile Custom Tag Add
Add a new custom device management tag to the Identity/Device Profile.

OK Cancel

Identity/Device Profile Name: YL-T46G
Identity/Device Profile Type: Yealink-T46G

Tag Name: %XSIPASSWORD-1 %
Tag Value: 123456 x

OK Cancel

Figure 28 Device Profile Instance Custom Tags Add

Repeat the tag adding process for each of the lines provisioned on the device.

5.2.4 Configure BroadWorks User

The user should be configured with the desired BroadWorks configuration and services. Any services that require a specific configuration on the device are managed via Device Management and defined in the device configuration files, given that the template files are created with the correct Device Management tags.

The device profile created in the previous section should be assigned to the BroadWorks user. Assigning the device profile to the user automatically causes the Device Management feature to generate the device configuration files for this user's device.

To assign the device profile to the user, browse to the BroadWorks <user> → *Addresses* page and set the parameters as described in the following table.

It is expected that parameters not identified in the following table are already set or are self-explanatory.

Parameter	Value	Description/Notes
Identity/Device Profile Name	<device-profile-name> Example: YL-T46G	Select from the drop-down the device profile instance created in the previous section.
Line/Port	<SIP register address-of-record> Example: 8881001023@as.iop1.broadworks.net	Supply the desired SIP register address-of-record.

Example user Addresses settings

Figure 29 Addresses Settings

NOTE: Consider the provisioned Xtended Services Interface credentials at the device profile level when defining new users or assigning existing device profiles to other users.

5.2.5 Configure Edge Device

In many deployments, an edge device is deployed on the enterprise edge. Configure the edge device SIP server setting with the service provider's Session Border Controller IP address or FQDN. If there is no edge device and the phones communicate directly with the service provider's SBC, skip this section.

To integrate the edge device with Device Management, the SBC address tag (%SBC_ADDRESS%) defined in section 5.2.1.1 [Create System Default Tags](#) must be overridden at the group level with the LAN address of the edge device. At the *Group* → *Utilities* → *Device Configuration* page, select the Yealink device profile (example: Yealink_T46G). Perform the following steps.

- 1) Click on the *Custom Tags* tab.
- 2) Click the **Add** button.
- 3) Add the *SBC* tag.
- 4) Enter "SBC_ADDRESS" as the tag.
- 5) Enter the IP address as the value (edge device LAN IP address).
- 6) Click **OK** to save the tag data.

This Tag/Value will be applied to all Yealink T4x phones in the group using the modified *Device Profile Type*.

5.2.6 Configure Yealink T4x IP Phone

This section describes the steps necessary to configure the Yealink T4x to integrate with BroadWorks Device Management.

The phone must be configured with the Device Management URL and authentication user name and password. This configuration can be accomplished as described in the sections:

- [5.2.6.1 Manual Provisioning](#)
- [5.2.6.2 No Touch Provisioning via BroadWorks Device Management](#)

5.2.6.1 Manual Provisioning

Log in to the web user interface for the T4x IP Phone (<https://<phone-ip-address>>). Go to the *Settings* → *Auto Provision* web page and set the following:

- Power On – On
- URL – Device Management server (Xtended Services Platform) device address URL
Example: [http\(s\)://xsp1.broadworks.net:80/dms/Yealink_T46G/](http(s)://xsp1.broadworks.net:80/dms/Yealink_T46G/)
- HTTP Authentication:
User Name – BroadWorks Device Access (Example: yealink)
Password – BroadWorks Device Access Password (Example: 123456)

Restart the phone to force the phone to download the Device Management configuration files and firmware.

Example Login (Default User Name/Password is “admin/admin”)

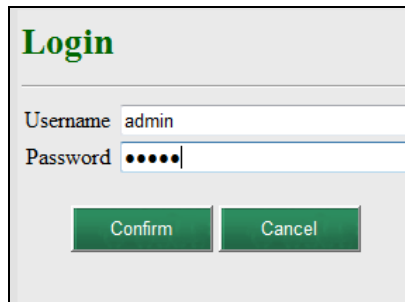


Figure 30 Login Screen

Example Auto Provision web page

Figure 31 Upgrade Screen

The Yealink phone uses the file server parameters configured on the phone unless *Option 66* has been defined on the DHCP server. If the DHCP server returns data set for the *Option 66* parameter, then the Yealink phone uses the address defined in this field as the server address to retrieve its configuration data.

When using manual provisioning, to make sure that the phone interfaces properly with Device Management, the *Option 66* parameter must not be set on the DHCP server. If *Option 66* is defined and cannot be cleared, then the Zero Active parameter in the DHCP menu must be set to “Disabled”. This parameter is set at boot time by accessing the web user interface.

- 1) Go to the *Settings* tab.
- 2) In the *Zero Active* drop down box, select *Disabled*.
- 3) Confirm the configuration changes and start the phone initialization.

After all parameters are entered, click the **Save** button. Allow the phone to reboot and retrieve the new configuration parameters from Device Management.

5.2.6.2 No Touch Provisioning via BroadWorks Device Management

The No Touch Provisioning method via BroadWorks Device Management uses DHCP and Device Management default configuration files. This enables configuration of the phone out-of-the-box without pre-provisioning before sending it to a customer's site.

No Touch Provisioning is done using the DHCP options provided by the end customer's DHCP server. The steps are as follows:

- 1) The phones are shipped to the end customer without pre-provisioning.
- 2) The end customer's DHCP server is configured with *Option 66* with the default Device Management URL.

- 3) The phone is plugged in and it receives the default Device Management URL from the DHCP server.
- 4) The phone queries for the default product file from Device Management.
- 5) The phone receives the default device file from Device Management and provisions the phone with the physical Device Management URL for the specific device model.
- 6) The phone resynchronizes with Device Management and prompts Zero Touch Update.
- 7) The end user or administrator enters the device management credentials into the Auto Provision username and password fields.
- 8) The phone resynchronizes with Device Management and downloads the files associated with the credentials supplied via the above step.

Device Management must be configured to facilitate the No Touch Provisioning method. Configuration can be performed using the Device Management import function or done manually. Each method is described in the following subsections

5.2.6.2.1 Configuration Method 1: Import

This section identifies the steps necessary to make use of the Device Management import feature to configure BroadWorks to add the Device Management Defaults device type for No Touch Provisioning.

The import method is available in BroadWorks Release 17.0 and later. For previous releases, use the manual configuration method described in the next section.

Download the Yealink T4x Series CPE kit from BroadSoft Xchange at www.broadsoft.com/xchange. Extract the *DeviceManagementDefaults.DTAF.zip* file from the CPE kit. This is the import file.

Log in to BroadWorks as an administrator. Browse to *System* → *Resources* → *Identity/Device Profile Types* and select *Import*. Select *Browse* to find the extracted DTAF file and click **OK** to start the import.

After the import finishes, the following post-import configuration steps must be completed.

Browse to *System* → *Resources* → *Identity/Device Profile Types* and perform a search to find the imported *DeviceManagementDefaults* device profile type. Browse to the *Profile* page and change the Device Management Device Access FQDN to your Xtended Services Platform or Xtended Services Platform cluster address.

Example:

Figure 32 Device Access FQDN

Next, using the *Files and Authentication* link, select the option to rebuild all the system files.

5.2.6.2.2 Configuration Method 2: Manual

This section identifies the manual steps necessary to configure BroadWorks to add the Device Management Defaults device type for No Touch Provisioning.

The manual method must be used for BroadWorks releases prior to Release 17.0. It is an optional method in Release 17.0 and later. The steps in this section can also be followed to update previously imported or configured device profile type(s) with new configuration files and firmware.

5.2.6.2.2.1 Create Default Device Profile Type

A Device Management default device profile type must be created. This device profile type can be configured to serve default provisioning files to Polycom endpoints, as well as other vendor devices.

Create a default device profile type as shown in the following figure. Only the device management settings are important in this context since the profile type is used only to serve default provisioning files. The standard and advanced settings do not matter.

5.2.6.2.2.1.1 Configure Standard Options

The device profile type name and standard options do not matter, but an example is provided for reference. All settings can be left with their default values.

Identity/Device Profile Type: DeviceManagementDefaults
 Signaling Address Type: Intelligent Proxy Addressing
☐ Obsolete

Standard Options

Number of Ports: ☒ Unlimited ☐ Limited To

Ringback Tone/Early Media Support: ☒ RTP - Session
☐ RTP - Early Session
☐ Local Ringback - No Early Media

Authentication: ☒ Enabled
☐ Disabled
☐ Enabled With Web Portal Credentials

☐ Registration Capable ☒ Authenticate REFER
☐ Static Registration Capable ☐ RFC3264 Hold
☐ E164 Capable ☐ Video Capable
☐ Trusted ☐ Use History Info Header

Figure 33 Default Device Profile Type

5.2.6.2.2.1.2 Configure Advanced Options

The advanced options do not matter, but an example is provided for reference. All settings can be left with their default values.

Advanced Options

☐ Route Advance ☐ Forwarding Override
☐ Wireless Integration ☐ Conference Device
☐ PBX Integration ☐ Mobility Manager Device
☐ Add P-Called-Party-ID ☐ Music On Hold Device
☐ Auto Configuration Soft Client ☐ Requires BroadWorks Digit Collection
☐ Requires BroadWorks Call Waiting Tone ☐ Requires MWI Subscription
☐ Advice of Charge Capable ☐ Support Call Center MIME Type
☐ Support Emergency Disconnect Control ☐ Support Identity In UPDATE and Re-INVITE
☐ Enable Monitoring

Reset Event: ☐ reSync ☐ checkSync ☒ Not Supported

Trunk Mode: ☒ User ☐ Pilot ☐ Proxy

Unscreened Presentation Identity Policy: ☒ Profile Presentation Identity
☐ Unscreened Presentation Identity
☐ Unscreened Presentation Identity With Profile Domain

Web Based Configuration URL Extension:

Figure 34 Configure Advanced Options

5.2.6.2.2.1.3 Configure Device Management Options

Configure the device profile type *Device Management Options* as directed in the following table. These are common settings, which apply to all devices enabled for Device Management.

Parameters not identified in the following table can usually be left with their default values.

Parameter	Value	Description
Device Configuration Tags	Use Default System Tag Set Only	
Allow Identity/Device Profiles to Configure Custom Tags	Checked	Optional

Parameter	Value	Description
Allow Groups to Configure Custom Tags	Checked	Optional
Device Access Protocol	http	
Device Access FQDN	<BroadWorks-XSP-Cluster-Address> Example: xsp.iop1.broadworks.net	If using an Xtended Services Platform farm, set this to the Xtended Services Platform cluster FQDN. Otherwise, set it to the individual Xtended Services Platform FQDN or IP address.
Device Access Port	<BroadWorks-XSP-Port> Example: 80	This should be set to "80".
Device Access Context Name	dms	This does not need to be defined. BroadWorks defaults to the system-defined value.
Device Access URI	def	This defines the directory the Xtended Services Platform uses to access the default configuration files.

Example *Device Management Options* settings:

Device Management

Device Type URL: http://xsp1.iop1.broadworks.net:80/dms/def/

☐ No Tags

Device Configuration Tags: ☒ Use Default System Tag Set Only

☐ Use Default System Tag Set and Tag Set:

☒ Allow Identity/Device Profiles to Configure Custom Tags

☒ Allow Groups to Configure Custom Tags

☐ Send Email Notification to User upon Device Reset Failure

Device Access Protocol:

Device Access FQDN:

Device Access Port:

Device Access Context Name:

Device Access URI:

Default Device Language:

Default Device Encoding:

Authentication Mode: ☐ MAC-Based ☐ User Name and Password

Device Access Username:

Device Access Password:

Re-type Device Access Password:

MAC Address In: ☒ HTTP Request URI

☐ HTTP Header with Following Format:

Device Access HTTP Authentication: ☒ Basic ☐ Digest

Figure 35 Device Management Options Settings

5.2.6.2.2.2 Define Device Profile Type Files

This section describes the BroadWorks Device Management configuration necessary to identify the configuration files used to enable the *DeviceManagementDefaults* device type for Yealink T4x devices.

Depending on the specific device model, Yealink T4x devices request y0000000000xx.cfg from Device Management at device startup. The y0000000000xx.cfg files provisioned in the *DeviceManagementDefaults* device type will provide the actual Device Management file access path to the respective Yealink T4x phone model.

Add a y0000000000xx.cfg BroadWorks device profile type file to the *DeviceManagementDefaults* device profile for **each** Yealink T4x Device using the settings described in the following table.

Parameters not identified in the following table can usually be left with their default values.

Parameter	Value	Description
Device Access File Format	y0000000000xx.cfg Example: y000000000028.cfg for T46G	This is the file name, which the phone uses to request the file.
Repository File Format	y0000000000xx-%BWTIMESTAMP%.cfg Example: y000000000028-%BWTIMESTAMP%.cfg for T46G	This is the file name, (as stored in the Device Management repository).
File Category	Dynamic Per-Type	This file is a static file. There are no dynamic tags in the file.
File Customization	Disallow	This identifies who can customize this file template.
Enable Caching	Selected	Caching is recommended for this file.
Assign File	Custom	
Authentication Mode	None	The static files are not authenticated so do not select either of the options.

After defining the file, upload the y0000000000xx-default.cfg file template downloaded from BroadSoft Xchange. Be sure to upload the y0000000000xx-default.cfg files and not the y0000000000xx.cfg files. Use the **Browse** button on the *File Definition* screen. Be sure to click **Apply** after uploading the file.

Example y0000000000xx-default.cfg file settings:

Identity/Device Profile Type File Modify
 Modify or delete a file type defined in an Identity/Device Profile Type.

Saved

OK Apply Delete Cancel

Device Access File Format: y000000000028.cfg
 Repository File Format: y000000000028-%\$WTIMESTAMP%.cfg
 Access File: <http://xsp1.lap1.broadworks.net:80/dms/defly000000000028.cfg>
 Repository File: [Download](#)
 Template File: [Download](#)
 File Category: ☐ Static ☒ Dynamic Per-Type ☐ Dynamic Per-Device
 File Customization:
☒ Enable caching

Assign File

☐ Manual
☒ Custom

Upload File: Browse...

Currently using configuration file: /var/broadworks/lpDeviceConfig/type/DeviceManagementDefaults/y000000000028.cfg.template

```
#!version:1.0.0.1

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

#####
#####
##
Autop
```

File Authentication

Authentication Mode: ☐ MAC-Based ☐ User Name and Password
 MAC Address In: ☒ HTTP Request URI
☐ HTTP Header with Following Format:
 Device Access HTTP Authentication: ☒ Basic ☐ Digest
 Allowed Access Protocols: ☒ http ☒ https ☒ tftp

OK Apply Delete Cancel

Figure 36 y0000000000xx-default.cfg File

Appendix A: Sample T4x Configuration Files

NOTE: The following samples are examples and should be used as a reference only. DO NOT CUT AND PASTE THESE EXAMPLES TO GENERATE YOUR CONFIGURATION FILES. Use the configuration files obtained from Yealink with the specific release to generate your configuration files.

System Default File: y000000000035.cfg

NOTE: This is an example file and should be used for reference only.

```
#!/version:1.0.0.1

##File header "#!/version:1.0.0.1" can not be edited or deleted, and must be
placed in the first line.##
##This template file is applicable to SIP-
T28P/T26P/T22P/T20P/T21P/T19P/T48G/T46G/T42G/T41P IP phones running firmware
version 72 or later.##
##For more information on configuration parameters, refer to Yealink_SIP-
T2_Series_T19P_T4_Series_IP_Phones_Auto_Provisioning_Guide.##

#####
#####
##                                     Hostname
##
#####
#####
network.dhcp_host_name =

#####
#####
##                                     PPPoE
##
#####
#####
network.pppoe.user =
network.pppoe.password =

#####
#####
##                                     Network Advanced
##
#####
#####
##It enables or disables the PC port.0-Disabled,1-Auto Negotiation.
##The default value is 1.It takes effect after a reboot.
network.pc_port.enable =
##It configures the transmission mode and speed of the Internet (WAN) port.
##0-Auto negotiate
##1-Full duplex 10Mbps
##2-Full duplex 100Mbps
##3-Half duplex 10Mbps
##4-Half duplex 100Mbps
##5-Full duplex 100Mbps (only applicable to SIP-T42G, SIP-T46G and SIP-T48G
IP phones)
##The default value is 0.It takes effect after a reboot.
network.internet_port.speed_duplex =
##It configures the transmission mode and speed of the PC (LAN) port.
##0-Auto negotiate
##1-Full duplex 10Mbps
##2-Full duplex 100Mbps
```

```

##3-Half duplex 10Mbps
##4-Half duplex 100Mbps
##5-Full duplex 1000Mbps (only applicable to SIP-T42G,SIP-T46G and SIP-T48G
IP phones)
##The default value is 0.It takes effect after a reboot.
network.pc_port.speed_duplex =
##It enables or disables the phone to act as a DHCP server when the PC (LAN)
port is configured as Router.
##0-Disabled 1-Enabled
##The default value is 1.It takes effect after a reboot.
network.pc_port.dhcp_server =
##It enables or disables the phone to use manually configured static IPv4
DNS when Internet (WAN) port type for IPv4 is configured as DHCP.
##0-Disabled (use the IPv4 DNS obtained by DHCP) 1-Enabled
##The default value is 0.It takes effect after a reboot.
network.static_dns_enable =
network.ipv6_static_dns_enable =

###Only T41P/T42G/T46G/T48G Models support this parameter
network.vlan.pc_port_mode =

#####
#####
##
##
##
#####
#####
network.vlan.internet_port_enable =
network.vlan.internet_port_vid =
network.vlan.internet_port_priority =
network.vlan.pc_port_enable =
network.vlan.pc_port_vid =
network.vlan.pc_port_priority =
network.vlan.dhcp_enable =
network.vlan.dhcp_option =

#####
#####
##
##
##
#####
#####
##It configures the HTTP port for web server access.
##The default value is 80.It takes effect after a reboot.
network.port.http =
##It configures the HTTPS port for web server access.
##The default value is 443.It takes effect after a reboot.
network.port.https =
wui.https_enable =
wui.http_enable =

#####
#####
##
##
##
#####
#####
##It configures the voice QoS.
##The default value is 46.It takes effect after a reboot.Integer from 0 to
63
network.qos.rtptos =
##It configures the SIP QoS.
##The default value is 26.It takes effect after a reboot.Integer from 0 to
63
network.qos.signalto =

#####
#####
##
##
##
#####
#####
802.1X
#####
#####

```

```
#####
network.802_1x.mode =
network.802_1x.identity =
network.802_1x.md5_password =
network.802_1x.root_cert_url =
network.802_1x.client_cert_url =

#####
#####
##                               OpenVPN
##
#####
#####
network.vpn_enable =
openvpn.url =

#####
#####
##                               LLDP
##
#####
#####
network.lldp.enable =
network.lldp.packet_interval =

#####
#####
##                               Span to PC
##
#####
#####
network.span_to_pc_port =

#####
#####
##                               RTP Port
##
#####
#####
##It configures the maximum local RTP port.
##The default value is 11800.It takes effect after a reboot.Integer from
1024 to 65535
network.port.max_rtpport =
##It configures the maximum local RTP port.
##The default value is 11780.It takes effect after a reboot.Integer from
1024 to 65535
network.port.min_rtpport =

#####
#####
##                               Syslog
##
#####
#####
syslog.mode =
##It configures the IP address or domain name of the syslog server when
exporting log to the syslog server.
##It takes effect only if the parameter i°syslog.modei± is configured as
Server.
##The default value is blank.It takes effect after a reboot.
syslog.server =
##It configures the detail level of syslog information to be exported.0
means nothing and 6 means all.
##The default value is 3.It takes effect after a reboot.Integer from 0 to 6
syslog.log_level =

#####
#####
##                               TR069
##
#####
```

```
#####
managementserver.enable =
managementserver.username =
managementserver.password =
managementserver.url =
managementserver.connection_request_username =
managementserver.connection_request_password =
managementserver.periodic_inform_enable =
managementserver.periodic_inform_interval =

#####
##                               Autop Mode
##
#####
auto_provision.power_on =

#####
##                               Autop PNP
##
#####
auto_provision.pnp_enable =

#####
##                               Autop DHCP
##
#####
auto_provision.dhcp_option.enable =
auto_provision.dhcp_option.list_user_options =

#####
##                               Autop Repeat
##
#####
auto_provision.repeat.enable =
auto_provision.repeat.minutes =

#####
##                               Autop Weekly
##
#####
auto_provision.weekly.enable =
auto_provision.weekly.dayofweek =
auto_provision.weekly.begin_time =
auto_provision.weekly.end_time =

#####
##                               Autop URL
##
#####
auto_provision.server.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%

#####
##                               Autop AES Key
##
#####
```

```

##It configures the AES key for decrypting the Common CFG file. The valid
characters contain: 0 ~ 9, A ~ Z, a ~ z.
##The default value is blank.
auto_provision.aes_key_16.com =
##It configures the AES key for decrypting the MAC-Oriented CFG file. The
valid characters contain: 0 ~ 9, A ~ Z, a ~ z.
##The default value is blank.
auto_provision.aes_key_16.mac =
auto_provision.aes_key_in_file =
##It configures the access URL of the custom MAC-Oriented CFG file.
##The default value is blank.
custom_mac_cfg.url =
##It configures the value (vendor name of the device) of DHCP option 60.
##The default value is yealink.
auto_provision.dhcp_option.option60_value =

#####
#####
##
##                               Autop Code
##
#####
#####
##It configures the name of the code for triggering auto provisioning.
##The default value is blank.It takes effect after a reboot.
autoprovision.1.name =
##It configures the code for triggering auto provisioning.
##Valid characters are digits, # and *.Example:autoprovision.1.code = *99The
default value is blank.
##It takes effect after a reboot.
autoprovision.1.code =
##It configures the access URL of auto provisioning server.The default value
is blank.
##It takes effect after a reboot.
autoprovision.1.url =
##It configures the user name for authentication during auto provisioning.
##The default value is blank.It takes effect after a reboot.
autoprovision.1.user =
##It configures the password for authentication during auto provisioning.
##The default value is blank.It takes effect after a reboot.
autoprovision.1.password =
##It configures the AES key for decrypting the Common CFG file.
##The default value is blank.It takes effect after a reboot.
autoprovision.1.com_aes =
##It configures the AES key for decrypting the MAC-Oriented CFG file.
##The default value is blank.It takes effect after a reboot.
autoprovision.1.mac_aes =

#####
#####
##
##                               Watch Dog
##
#####
#####
watch_dog.enable =

#####
#####
##
##                               SIP Advanced
##
#####
#####
sip.use_23_as_pound =
sip.rfc2543_hold =
sip.use_out_bound_in_dialog =
sip.reg_surge_prevention =
sip.send_response_by_request =
sip.notify_reboot_enable =

#####
#####
##
##                               Echo Cancellation

```



```
##
#####
#####
voice.vad =
voice.cng =
voice.echo_cancellation =

#####
#####
##                                Jitter Buffer
##
#####
#####
voice.jib.adaptive =
voice.jib.min =
voice.jib.max =
voice.jib.normal =

#####
#####
##                                Volume
##
##
#####
#####
voice.handfree.spk_vol =
voice.handfree.tone_vol =
voice.handset.spk_vol =
voice.handset.tone_vol =
voice.headset.spk_vol =
voice.headset.tone_vol =
voice.ring_vol=
voice.group_spk_vol =

#####
#####
##                                Transfer
##
##
#####
#####
##It enables or disables the transferee party's phone to prompt a missed
call on the LCD screen before displaying
##the caller ID when performing a semi-attended transfer.0-Enabled,1-
Disabled
##The default value is 1.
transfer.semi_attend_tran_enable =
##It enables or disables the phone to complete the blind transfer through
on-hook.0-Disabled,1-Enabled .
##The default value is 1.
transfer.blind_tran_on_hook_enable =
##It enables or disables the phone to transfer call to the two parties after
a local conference call hangs up.
##0-Disabled,1-Enabled.
##The default value is 0.
transfer.tran_others_after_conf_enable =
##It enables or disables the phone to complete the attended transfer through
on-hook.
##0-Disabled,1-Enabled.
##The default value is 1.
transfer.on_hook_trans_enable =
##It configures the DSS key behavior during an active call when user presses
the DSS
##key and the DSS key is configured as a speed dial, transfer or BLF/BLF
list key.
##0-New Call,1-Attended Transfer,2-Blind Transfer.
##The default value is 2.
transfer.dsskey_deal_type =

#####
#####
##                                Auto Redial
```

```
##
#####
#####
auto_redial.enable =
auto_redial.interval =
auto_redial.times =

#####
#####
##
##
##
#####
#####
zero_touch.enable = 1
zero_touch.wait_time = 10

#####
#####
##
##
##
#####
#####
push_xml.server =
push_xml.block_in_calling=
push_xml.sip_notify=

#####
#####
##
##
##
#####
#####
dialplan.area_code.code =
dialplan.area_code.min_len =
dialplan.area_code.max_len =
dialplan.area_code.line_id =

### X ranges from 1 to 10
###dialplan.block_out.number.x =
###dialplan.block_out.line_id.x =

dialplan.block_out.number.1 =
dialplan.block_out.line_id.1 =

###X ranges from 1 to 100
###dialplan.dialnow.rule.X =
###dialplan.dialnow.line_id.X =

dialplan.dialnow.rule.1 =
dialplan.dialnow.line_id.1 =

###X ranges from 1 to 100
###dialplan.replace.prefix.X =
###dialplan.replace.replace.X =
###dialplan.replace.line_id.X =

dialplan.replace.prefix.1 =
dialplan.replace.replace.1 =
dialplan.replace.line_id.1 =

dialplan_dialnow.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%dialnow.xml
phone_setting.dialnow_delay =
dialplan_replace_rule.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%dialplan.xml

#####
#####
##
##
##
#####
#####
Remote Phonebook
```

```
##
#####
#####
###X ranges from 1 to 5
###remote_phonebook.data.X.url =
###remote_phonebook.data.X.name =

remote_phonebook.data.1.url =
remote_phonebook.data.1.name =

###Except T41P/T42G Models
remote_phonebook.display_name =

##It enables or disables the phone to perform a remote phone book search
when receiving an incoming call.
##0-Disabled,1-Enabled.
##The default value is 0.
features.remote_phonebook.enable=
##It configures the interval (in seconds) for the phone to update the data
of the remote phone book from the remote phone book server.
##The default value is 21600.Integer from 3600 to 2592000.
features.remote_phonebook.flash_time =

#####
#####
##
##
##
#####
#####
##It enables or disables LDAP feature.0-Disabled,1-Enabled.
##The default value is 0.
ldap.enable =
##It configures the criteria for searching the contact name attributes.
##The default value is blank.
ldap.name_filter =
##It configures the criteria for searching the contact number attributes.
##The default value is blank.
ldap.number_filter =
##It configures the IP address or domain name of the LDAP server.
##The default value is blank.
ldap.host =
##It configures the port of the LDAP server.
##The default value is 389.Integer from 1 to 65535.
ldap.port =
##It configures the LDAP search base which corresponds to the location of
the LDAP phonebook.
##Example:ldap.base = dc=yealink,dc=cn.
##The default value is blank.
ldap.base =
##It configures the user name for accessing the LDAP server.
##The default value is blank.
ldap.user =
##It configures the password for accessing the LDAP server.
##The default value is blank.
ldap.password =
##It configures the maximum of the search results returned by the LDAP
server to be displayed.
##The default value is 50.Integer from 1 to 32000.
ldap.max_hits =
##It configures the name attributes of each record to be returned by the
LDAP server.
##Multiple attributes are separated by spaces.Example:ldap.name_attr =sn cn.
##The default value is blank.
ldap.name_attr =
##It configures the number attributes of each record to be returned by the
LDAP server.
##Multiple attributes are separated by spaces.Example:ldap.numb_attr =
Mobile iPhone.
##The default value is blank.
ldap.numb_attr =
##It configures the display name of the contact record displayed on the LCD
```

```

screen.
##The default value is blank.
ldap.display_name =
##It configures the LDAP version.
##The default value is 3.
ldap.version =
##It enables or disables the phone to perform an LDAP search when receiving
an incoming call.
##0-Disabled,1-Enabled.
##The default value is 0.
ldap.call_in_lookup =
##It enables or disables the phone to sort the search results in
alphabetical order or numerical order.
##0-Disabled,1-Enabled.
##The default value is 0.
ldap.ldap_sort =

#####
#####
##
##                                     Features
##
#####
#####
features.normal_refuse_code =
features.auto_answer_delay =
features.allow_mute =
features.group_listen_in_talking_enable = 0
features.call_completion_enable =
features.call_num_filter =
features.direct_ip_call_enable =
features.relog_offtime =
features.ringer_device.is_use_headset =
features.factory_pwd_enable = 1
features.export_cfg_erase_pwd =

#####
#####
##
##                                     Features Forward
##
#####
#####
###Except T19P Model
features.fwd_mode =

features.fwd_diversion_enable =

#####
#####
##
##                                     Features DND
##
#####
#####
###Except T19P Model
features.dnd_mode =

features.dnd.enable =
features.dnd.on_code =
features.dnd.off_code =
features.dnd_refuse_code =
features.dnd.emergency_enable =
features.dnd.emergency_authorized_number =

#####
#####
##
##                                     Features Bluetooth(Only for T46G/T48G
model)  ##
#####
#####
features.bluetooth_enable =

#####

```

```
#####
##                                     Features BLF
##
#####
#####
##It configures BLF LED mode and provides four kinds of definition for the
BLF/BLF list key LED status.
##For more information, refer to BLF LED Mode on page 218.
##The default value is 0.
features.blf_led_mode = 1
##It enables or disables the phone to deal with the Version header in the
BLF NOTIFY message sent by the server.
##0-Disabled,1-Enabled.
##The default value is 0.It takes effect after a reboot.
features.blf_list_version =

#####
#####
##                                     Features Intercom
##
#####
#####
features.intercom.allow =
features.intercom.mute =
features.intercom.tone =
features.intercom.barge =

#####
#####
##                                     Features Hotline
##
#####
#####
##It configures the hotline number.
##The default value is blank.
features.hotline_number =
##It configures the delay time (in seconds) for the phone to dial out the
hotline number automatically.
##The default value of delay time is 4.Integer from 0 to 10
features.hotline_delay =

#####
#####
##                                     Features DTMF
##
#####
#####
features.dtmf.hide =

###Except T20P Model
features.dtmf.hide_delay =

features.dtmf.repetition =
features.dtmf.transfer =
features.dtmf.replace_tran =

#####
#####
##                                     Features Audio Settings
##
#####
#####
features.headset_prior =

###Except T19P/T21P Models
features.headset_training =
features.alert_info_tone =
features.busy_tone_delay =
features.send_pound_key =
features.key_as_send =
features.send_key_tone =
```

```

features.key_tone =
features.play_hold_tone.enable =
features.play_hold_tone.delay =
features.redial_tone =
features.partition_tone =

#####
#####
##                               Features Action URI
##
#####
#####
features.action_uri_limit_ip =

#####
#####
##                               Features Prefix
##
#####
#####
features.password_dial.enable =
features.password_dial.prefix =
features.password_dial.length =

#####
#####
##                               Features History
##
#####
#####
features.save_call_history =

#####
#####
##                               Ringtone
##
#####
#####
ringtone.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%Ring.wav
ringtone.delete =

#####
#####
##                               Phone Settings
##
#####
#####
phone_setting.inter_digit_time =
phone_setting.ring_type =

phone_setting.ring_for_tranfailed =
phone_setting.is_deal180 =
phone_setting.show_code403 =
phone_setting.page_tip =

phone_setting.predial_autodial =
phone_setting.headsetkey_mode =
features.voice_mail_tone_enable =

#####
#####
##                               Power Led Settings
##
#####
#####
phone_setting.common_power_led_enable =
phone_setting.talk_and_dial_power_led_enable =
phone_setting.mail_power_led_flash_enable =
phone_setting.ring_power_led_flash_enable =

```

```

phone_setting.mute_power_led_flash_enable=
phone_setting.hold_and_held_power_led_flash_enable =
##It configures the level of the active backlight intensity.
##For SIP-T28P IP phones and the connected EXP39:
##The default value is 2.
##For SIP-T46G IP phones and the connected EXP40:
##The default value is 8.
phone_setting.active_backlight_level =
##It configures the phone to go out or reduce intensity of the backlight on
the LCD screen after a period of inactivity.
##0-Off,1-Low.
##The default value is 1.
phone_setting.inactive_backlight_level =

#####
#####
##
##
##
#####
#####

###Except T20P/T19P/T21P Models
##It configures the backlight time (in seconds).0, 1, 15, 30, 60, 120, 300,
600 or 1800.
phone_setting.backlight_time =

###Only T46G/T48G Model supports the two parameters
###It configures the wallpaper displayed on the phone.
###Example:To configure a phone built-in picture (e.g., 1.png) to be
wallpaper, the value format is:
###phone_setting.backgrounds = Resource:1.png
###To configure a custom picture (e.g., custom1.png) to be wallpaper, the
value format is: Config:custom1.png
###The default value is Resource:Default.jpg.
phone_setting.backgrounds =
wallpaper_upload.url =

#####
#####
##
##
##
#####
#####
###It enables or disables the phone to automatically configure the BLF list
keys in order.
###0-Disabled,1-Enabled.
###The default value is 1.
phone_setting.auto_blf_list_enable = 1

###Only T26P/T28P/T46G/T48G Models support the parameter
###It configures the order of BLF list keys assigned automatically.
###0-Line Keys->Memory Keys->Extension Keys
###1-Extension Keys->Memory Keys->Line Keys
###Memory keys are not applicable to SIP-T46G IP phones.
###The default value is 0.
phone_setting.blf_list_sequence_type =

#####
#####
##
##
##
#####
#####
###Only T41P/T42G/T46G/T48G Models support the two parameters
###It enables or disables keypad lock feature.
###0-Disabled,1-Enabled.
###The default value is 0.
phone_setting.phone_lock.enable =
###It configures the keypad lock type.
###0-All Keys,1-Function Keys,2-Menu Key.

```

```

###The default value is 0.
phone_setting.phone_lock.lock_key_type =

###It configures the password for unlocking the keypad.
###The default value is 123.
phone_setting.phone_lock.unlock_pin =
###It configures the interval (in seconds) to automatically lock the keypad.
###The default value is 0 (the keypad is locked only by long pressing the
pound key or pressing the keypad lock key)
phone_setting.phone_lock.lock_time_out =
phone_setting.emergency.number =

#####
#####
##                               Multicast
##
#####
#####

###Except T19P Model
multicast.codec =

multicast.receive_priority.enable =
multicast.receive_priority.priority =

###X ranges from 1 to 10
###multicast.listen_address.X.label =
###multicast.listen_address.X.ip_address =

multicast.listen_address.1.label =
multicast.listen_address.1.ip_address =

#####
#####
##                               Super Search
##
#####
super_search.recent_call =
super_search.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%super_search.xml

#####
#####
##                               Security
##
#####
###Define the login username and password of the user, var and
administrator.
###If you change the username of the administrator from "admin" to "admin1",
your new administrator's username should be configured as:
security.user_name.admin = admin1.
###If you change the password of the administrator from "admin" to
"admin1pwd", your new administrator's password should be configured as:
security.user_password = admin1:admin1pwd.

###The following examples change the user's username to "user23" and the
user's password to "user23pwd".
###security.user_name.user = user23
###security.user_password = user23:user23pwd
###The following examples change the var's username to "var55" and the var's
password to "var55pwd".
###security.user_name.var = var55
###security.user_password = var55:var55pwd
security.user_name.user =
security.user_name.admin =
security.user_name.var =
security.user_password =

```



```

####It enables or disables the phone to only accept the certificates in the
Trusted Certificates list.
###0-Disabled,1-Enabled.
###The default value is 1.It takes effect after a reboot.
security.trust_certificates =
####It configures the source certificates for the phone to authenticate for
TLS connection.
###0-Default certificates,1-Custom certificates,2-All certificates.
###The default value is 0.It takes effect after a reboot.
security.ca_cert =
####It configures the device certificates for the phone to send for TLS
authentication.
###0-Default certificates,1-Custom certificates.
###The default value is 0.It takes effect after a reboot.
security.dev_cert =
####It enables or disables the phone to mandatorily validate the CommonName
or SubjectAltName of the certificate received from the connecting server.
###0-Disabled,1-Enabled.
###The default value is 0.It takes effect after a reboot.
security.cn_validation =

#####
#####
##                                User Mode
##
#####
#####
####It enables or disables the 3-level permissions (admin, user, var).
###0-Disabled,1-Enabled.
###The default value is 0.It takes effect after a reboot.
security.var_enable =
web_item_level.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%WebItemsLevel.cfg

#####
#####
##                                Trusted Certificates
##
#####
#####
trusted_certificates.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%ca.crt
trusted_certificates.delete =

#####
#####
##                                Server Certificates
##
#####
#####
server_certificates.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%server.pem
server_certificates.delete =

#####
#####
##                                Line Key
##
#####
#####
###Except T19D Model
###T21D/T20P X ranges from 1 to 2
###T22P/T26P X ranges from 1 to 3
###T28P X ranges from 1 to 6
###T41P/T42G X ranges from 1 to 15
###T46G X ranges from 1 to 27
###T48G X ranges from 1 to 29

```

```
#linekey.X.type--Customize the linekey type.
#The valid types are:

#0-NA 1-Conference 2-Forward 3-Transfer 4-Hold 5-DND 7-Call
Return 8-SMS 9-Directed Pickup 10-Call Park 11-DTMF 12-Voice Mail
13-Speed Dial
#14-Intercom 15-Line 16-BLF 17-URL 18-Group Listening 20-Private
Hold 22-XML Group 23-Group Pickup 24-Multicast Paging 25-Record 27-
XML Browser
#34-Hot Desking 35-URL Record 38-LDAP 39-BLF List 40-Prefix 41-
Zero Touch 42-ACD 45-Local Group 46-Network Group 49-Custom Button
50-Keypad Lock
#55-Meet-Me Conference 56-Retrieve Park 57-Hoteling 58-ACD Grace 59-
Sisp Code 60-Emergency 61-Directory

#0-NA £~Only for T41/T42/T46/T48)
#22-XML Group (Not support T20)
#38-LDAP (Not support T20)
#46-Network Group (Not support T20)
#8-SMS (Only support T21/T46/T22/T26/T28)
#17-URL (Only support T41/T42/T46/T48)
#49-Custom Button (Only support T20/T22/T26/T28)
###linekey.X.line =
###linekey.X.value =
###linekey.X.pickup_value =
###linekey.X.type =
###linekey.X.xml_phonebook =
###linekey.X.label =

####It configures the desired line to apply the key feature.Integer from 1 to
6
linekey.1.line =
####It configures the value of the line key feature.
####For example, when setting the key feature to BLF, it configures the
number of the monitored user.
####The default value is blank.
linekey.1.value =
####It configures the pickup code for BLF feature or conference ID followed
by the # sign for Meet-Me conference feature.
####It only applies to BLF and Meet-Me conference features.
####The default value is blank.
linekey.1.pickup_value =
####It configures the key feature for the line key X.
linekey.1.type =
####It configures the desired local group/XML group/network group for the
line key X.
####It only applies to the Local Group, XML Group and Network Group features.
####XML Group and Network Group features are not applicable to SIP-T20P IP
phones.
linekey.1.xml_phonebook =
####It configures the label displayed on the LCD screen for each line key.
####The default value is blank.
linekey.1.label =

#####
#####
##
##
##
#####
#####
###T20P X ranges from 1 to 9
###T28P/T26P X ranges from 1 to 14
###T41P/T42G/T19P/T21P X ranges from 1 to 11
###T46G/T48G X ranges from 1 to 13

#programmablekey.x.type--Customize the programmable key type.
#The valid types are:
#0-NA 2-Forward 5-DND 7-Call Return 8-SMS 9-Directed Pickup 13-
Speed Dial
#22-XML Group 23-Group Pickup 27-XML Browser 28-History 30-Menu
```

```

31-Switch Account 32-New SMS
#33-Status 34-Hot Desking 38-LDAP 40-Prefix 41-Zero Touch 43-Local
Directory 44-Network Directory 45-Local Group
#46-Network Group 47-XML Directory 50-Keypad Lock 51-Switch Account Up
52-Switch Account Down 55-Meet-Me Conference 61-Directory

#40-Prefix (Not support T20)
#22-XML Group (Not support T20)
#31-Switch Account (Not support T19/T41/T42/T46)
#38-LDAP (Not support T19/T20)
#46-Network Group (Not support T20)
#8-SMS (Not support T41/T42/T20)
#32-New SMS (Not support T41/T42/T20)
#47-XML Directory (Not support T20)
#44-Network Directory (Not support T20)
#41-Zero Touch (Not support T41/T42/T46)
#34-Hot Desking (Only support T19/T46)
#51-Switch Account Up (Only support T41/T42/T46)
#52-Switch Account Down (Only support T41/T42/T46)
###programablekey.X.type =
###programablekey.X.line =
###programablekey.X.value =
###programablekey.X.xml_phonebook =
###programablekey.X.history_type =
###programablekey.X.label =
###programablekey.X.pickup_value =

####It configures the key feature for the programmable key X.
programmablekey.1.type = 28
####It configures the desired line to apply the programmable key feature.
programmablekey.1.line =
####It configures the value of the programmable key feature.
####For example, when configuring the key feature to be Speed Dial, it
configures the number.
####The default value is blank.
programmablekey.1.value =
####It configures the desired local group/XML group/network group for the
programmable key.
####It only applies to the Local Group, XML Group and Network Group features.
####XML Group and Network Group features are not applicable to SIP-T20P IP
phones.
programmablekey.1.xml_phonebook =
####It configures the history type of programmable key.
####0-Local History,1-Network History.
####The default value is 0.
programmablekey.1.history_type =
####It configures the label displayed on the LCD screen for each soft key.
####The default value is blank.
programmablekey.1.label = Call Log
####It configures conference ID followed by the # sign for Meet-Me conference
feature.
####It only applies to Meet-Me conference feature.
####The default value is blank.
programmablekey.1.pickup_value =

programmablekey.2.type = 44
programmablekey.2.line =
programmablekey.2.value =
programmablekey.2.xml_phonebook =
programmablekey.2.history_type =
programmablekey.2.label = BSFT Dir
programmablekey.2.pickup_value =

#####
#####
##
##
#####
#####
####T46G/T48G X ranges from 1 to 6, Y ranges from 1 to 40

```

```

####expansion_module.X.key.Y.type =
####expansion_module.X.key.Y.line =
####expansion_module.X.key.Y.value =
####expansion_module.X.key.Y.pickup_value =
####expansion_module.X.key.Y.label =
####expansion_module.X.key.Y.xml_phonebook =

####It configures the key feature of the expansion module X key Y.
expansion_module.1.key.1.type =
####It configures the desired line to apply the expansion module key
feature.Integer from 1 to 6
expansion_module.1.key.1.line =
####It configures the value of the expansion module key feature.
####The default value is blank.
expansion_module.1.key.1.value =
####It configures the pickup code for BLF feature or conference ID followed
by the # sign for Meet-Me conference feature.
####It only applies to BLF and Meet-Me conference features.
####The default value is blank.
expansion_module.1.key.1.pickup_value =
####It configures the label displayed on the LCD screen of the expansion
module for each key.
####The default value is blank.
expansion_module.1.key.1.label =
####It only applies to the Local Group, XML Group and Network Group
features.Integer from 0 to 48.
expansion_module.1.key.1.xml_phonebook =

#####
#####
##                                     Forward Always
##
#####
#####
forward.always.enable =
forward.always.target =
forward.always.on_code =
forward.always.off_code =

#####
#####
##                                     Forward Busy
##
#####
#####
forward.busy.enable =
forward.busy.target =
forward.busy.on_code =
forward.busy.off_code =

#####
#####
##                                     Forward No Answer
##
#####
#####
forward.no_answer.enable =
forward.no_answer.target =
forward.no_answer.timeout =
forward.no_answer.on_code =
forward.no_answer.off_code =

#####
#####
##                                     Forward International
##
#####
####It enables or disables the phone to forward incoming calls to
international numbers.

```

```

###0-Disabled,1-Enabled.
###The default value is 1.
forward.international.enable =

#####
#####
##                                ACD
##
#####
#####
acd.auto_available =
acd.auto_available_timer =

#####
#####
##                                Hotdesking Startup
##
#####
#####
phone_setting.logon_wizard =
hotdesking.startup_register_name_enable =
hotdesking.startup_username_enable =
hotdesking.startup_password_enable =
hotdesking.startup_sip_server_enable =
hotdesking.startup_outbound_enable =

#####
#####
##                                Hotdesking Dsskey
##
#####
#####
hotdesking.dsskey_register_name_enable =
hotdesking.dsskey_username_enable =
hotdesking.dsskey_password_enable =
hotdesking.dsskey_sip_server_enable =
hotdesking.dsskey_outbound_enable =

#####
#####
##                                Alert Info
##
#####
#####
###X ranges from 1 to 100
###distinctive_ring_tones.alert_info.x.text =
###distinctive_ring_tones.alert_info.x.ringer =

###It configures the internal ringer text for distinctive ringtone.
###Example: distinctive_ring_tones.alert_info.1.text = Family
###The default value is blank.
distinctive_ring_tones.alert_info.1.text =
###It configures the desired ring tones for each text.
###The value ranges from 1 to 8, the digit stands for the appropriate
ringtone.
###Ring tones 6-8 are only applicable to SIP-T46G IP phones.
###The default value is 1.
distinctive_ring_tones.alert_info.1.ringer =

#####
#####
##                                Call Waiting
##
#####
#####
call_waiting.enable = %CALL_WAITING_BINARY%
call_waiting.tone =
call_waiting.on_code =
call_waiting.off_code =

#####

```

```
#####
##                                     Action URL
##
#####
#####
action_url.setup_completed =
action_url.registered =
action_url.unregistered =
action_url.register_failed =
action_url.off_hook =
action_url.on_hook =
action_url.incoming_call =
action_url.outgoing_call =
action_url.call_established =
action_url.dnd_on =
action_url.dnd_off =
action_url.always_fwd_on =
action_url.always_fwd_off =
action_url.busy_fwd_on =
action_url.busy_fwd_off =
action_url.no_answer_fwd_on =
action_url.no_answer_fwd_off =
action_url.transfer_call =
action_url.blind_transfer_call =
action_url.attended_transfer_call =
action_url.hold =
action_url.unhold =
action_url.mute =
action_url.unmute =
action_url.missed_call =
action_url.call_terminated =
action_url.busy_to_idle =
action_url.idle_to_busy =
action_url.ip_change =
action_url.forward_incoming_call =
action_url.reject_incoming_call =
action_url.answer_new_incoming_call =
action_url.transfer_finished =
action_url.transfer_failed =

#####
#####
##                                     Contact
##
##
#####
#####
local_contact.data.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%contact.xml

###(Only T46G/T48G Model supports the parameter)
local_contact.data_photo_tar.url =

###(Except T20P Model)
directory_setting.url =

#####
#####
##                                     Custom Factory Configuration
##
##
#####
#####
custom_factory_configuration.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%factory.cfg
features.custom_factory_config.enable =

#####
#####
##                                     Custom Softkey
##
##
```

```
#####
#####
phone_setting.custom_softkey_enable =
custom_softkey_call_failed.url =
custom_softkey_call_in.url =
custom_softkey_connecting.url =
custom_softkey_dialing.url =
custom_softkey_ring_back.url =
custom_softkey_talking.url =

#####
#####
##                                     Configure the access URL of firmware
##
#####
###It configures the access URL of the firmware file.
###The default value is blank.It takes effect after a reboot.
firmware.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACC
ESSURI%T48_FIRMWARE%
```

Phone-Specific File: %BWMACADDRESS%.cfg

NOTE: This is an example file and should be used for reference only.

```
#!/version:1.0.0.1

##File header "#!/version:1.0.0.1" can not be edited or deleted, and must be
placed in the first line.##
##This template file is applicable to SIP-
T28P/T26P/T22P/T20P/T21P/T19P/T48G/T46G/T42G/T41P IP phones running firmware
version 72 or later.##
##For more information on configuration parameters, refer to Yealink_SIP-
T2_Series_T19P_T4_Series_IP_Phones_Auto_Provisioning_Guide.##

#####
#####
##                                     Account1 Basic Settings
##
#####
account.1.enable = %BWLINE-BINARY-1%
account.1.label = %BWEXTENSION-1%
account.1.display_name = %BWCLID-1%
account.1.auth_name = %BWAUTHUSER-1%
account.1.user_name = %BWLINEPORT-1%
account.1.password = %BWAUTHPASSWORD-1%
account.1.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.1.outbound_host = %SBC_ADDRESS%
account.1.outbound_port = %SBC_PORT%
##It configures the local SIP port for account 1. The default value is 5060.
account.1.sip_listen_port =
##It configures the transport type for account 1. 0-UDP,1-TCP,2-TLS,3-DNS-
NAPTR
##The default value is 0.
account.1.transport = %TRANSPORT_TYPE%

#####
#####
##                                     Failback
##
#####
account.1.reregister_enable =
account.1.naptr_build =
```

```
account.1.fallback.redundancy_type =
account.1.fallback.timeout =
account.1.sip_server.1.address = %BWHOST-1%
account.1.sip_server.1.port =
account.1.sip_server.1.expires =
account.1.sip_server.1.retry_counts =
account.1.sip_server.1.failback_mode =
account.1.sip_server.1.failback_timeout =
account.1.sip_server.1.register_on_enable =

account.1.sip_server.2.address =
account.1.sip_server.2.port =
account.1.sip_server.2.expires =
account.1.sip_server.2.retry_counts =
account.1.sip_server.2.failback_mode =
account.1.sip_server.2.failback_timeout =
account.1.sip_server.2.register_on_enable =

account.1.dns_cache_type =
account.1.dns_cache_a.1.name =
account.1.dns_cache_a.1.ip =
account.1.dns_cache_a.1.ttl =
account.1.dns_cache_srv.1.name =
account.1.dns_cache_srv.1.port =
account.1.dns_cache_srv.1.priority =
account.1.dns_cache_srv.1.target =
account.1.dns_cache_srv.1.weight =
account.1.dns_cache_srv.1.ttl =
account.1.dns_cache_naptr.1.name =
account.1.dns_cache_naptr.1.flags =
account.1.dns_cache_naptr.1.order =
account.1.dns_cache_naptr.1.preference =
account.1.dns_cache_naptr.1.replace =
account.1.dns_cache_naptr.1.service =
account.1.dns_cache_naptr.1.ttl =

account.1.dns_cache_type =
account.1.dns_cache_a.2.name =
account.1.dns_cache_a.2.ip =
account.1.dns_cache_a.2.ttl =
account.1.dns_cache_srv.2.name =
account.1.dns_cache_srv.2.port =
account.1.dns_cache_srv.2.priority =
account.1.dns_cache_srv.2.target =
account.1.dns_cache_srv.2.weight =
account.1.dns_cache_srv.2.ttl =
account.1.dns_cache_naptr.2.name =
account.1.dns_cache_naptr.2.flags =
account.1.dns_cache_naptr.2.order =
account.1.dns_cache_naptr.2.preference =
account.1.dns_cache_naptr.2.replace =
account.1.dns_cache_naptr.2.service =
account.1.dns_cache_naptr.2.ttl =

account.1.static_cache_pri =

#####
#####
##                                Register Advanced
##
#####
#####
##It configures the SIP server type for account X.0-Default,2-BroadSoft,4-
Cosmocom,6-UCAP
##The default value is 0.
account.1.sip_server_type = 2
account.1.unregister_on_reboot =
account.1.sip_trust_ctrl =
account.1.proxy_require =
account.1.srv_ttl_timer_enable =
account.1.register_mac =
```



```

account.1.register_line =
account.1.reg_fail_retry_interval =

#####
#####
##                                NAT Settings
##
#####
##It enables or disables the NAT traversal for account X.0-Disabled,1-Enabled
##The default value is 0.
account.1.nat.nat_traversal =
##It configures the IP address or domain name of the STUN server for account
X.
##The default value is blank.
account.1.nat.stun_server =
##It configures the port of the STUN server for account X.
##The default value is 3478.
account.1.nat.stun_port =
##It configures the type of keep-alive packets sent by the phone to the NAT
device to keep the communication port open so that NAT can continue to
function for account X.
##0-Disabled,1-Default: the phone sends UDP packets to the server,2-Option:
the phone sends SIP OPTION packets to the server,3-Notify: the phone sends
SIP NOTIFY packets to the server.
##The default value is 1.
account.1.nat.udp_update_enable =
##It configures the keep-alive interval (in seconds) for account X.
##The default value is 30.Integer from 15 to 2147483647
account.1.nat.udp_update_time =
##It enables or disables NAT Rport feature for account X.0-Disabled,1-Enabled
##The default value is 0.
account.1.nat.rport =

#####
#####
##                                Account1 Advance Settings
##
##
#####
account.1.advanced.timer_t1 =
account.1.advanced.timer_t2 =
account.1.advanced.timer_t4 =

##It configures the voice mail number for account X.
##The default value is blank.
voice_mail.number.1 = %BWVOICE-PORTAL-NUMBER-1%

#####
#####
##                                Subscribe
##
##
#####
##It enables or disables the phone to subscribe the message waiting indicator
for account X.0-Disabled,1-Enabled.
##The default value is 0.
account.1.subscribe_mwi =
##It configures the interval (in seconds) of MWI subscription for account X.
##The default value is 3600.
account.1.subscribe_mwi_expires =
##It enables or disables the phone to subscribe to the voice mail number for
the message waiting indicator for account X.0-Disabled,1-Enabled.
##The default value is 0.
account.1.subscribe_mwi_to_vm =
##It configures the period (in seconds) of ACD subscription for account X.
##The default value is 1800.
account.1.subscribe_acd_expires=

#####
#####

```

```

##                                BLF List
##
#####
##It configures the BLF List URI to monitor a list of users for account X.
##The default value is blank.
account.1.blf.blf_list_uri = %BWBLF-URI-1%
##It configures the feature access code for directed call pickup (default:
*97) for account X.
##The default value is blank.
account.1.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-1%
##It configures the feature access code for directed call pickup with barge-
in (default: *33) for account X.
##The default value is blank.
account.1.blf_list_barge_in_code = %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-
1%

##It configures the period (in seconds) of the BLF subscription for account
X.
##The default value is 1800.Integer from 30 to 2147483647.
account.1.blf.subscribe_period =
##It configures the event of the BLF subscription for account X.0-Dialog,1-
Presence.
##The default value is 0.
account.1.blf.subscribe_event =
##It enables or disables the phone to handle NOTIFY messages out of the BLF
dialog for account X.0-Disabled,1-Enabled.
##The default value is 0.
account.1.out_dialog_blf_enable =

#####
##                                BLA/SCA
##
#####
##It enables or disables Broadsoft SCA feature for account X.0-Disabled,1-
Broadsoft SCA.
##The default value is 0.
account.1.shared_line = %BWSHAREDLINE-BINARY-1%
##It configures the BLA number for account X.
##The default value is blank.
account.1.bla_number =
##It configures the period (in seconds) of BLA subscription for account X.
##The default value is 300.Integer from 60 to 7200
account.1.bla_subscribe_period =

#####
##                                Audio Codec
##
#####
###T19D/T21D support codec1-codec8
###T20P/T22P/T26P/T28P support codec1-codec11
###T41P/T42G/T46G/T48G support codec1-codec12

account.1.codec.1.enable =
account.1.codec.1.payload_type =
account.1.codec.1.priority =
account.1.codec.1.rtpmap =

account.1.codec.2.enable =
account.1.codec.2.payload_type =
account.1.codec.2.priority =
account.1.codec.2.rtpmap =

account.1.codec.3.enable =
account.1.codec.3.payload_type =
account.1.codec.3.priority =
account.1.codec.3.rtpmap =

```

```
account.1.codec.4.enable =
account.1.codec.4.payload_type =
account.1.codec.4.priority =
account.1.codec.4.rtpmap =

account.1.codec.5.enable =
account.1.codec.5.payload_type =
account.1.codec.5.priority =
account.1.codec.5.rtpmap =

account.1.codec.6.enable =
account.1.codec.6.payload_type =
account.1.codec.6.priority =
account.1.codec.6.rtpmap =

account.1.codec.7.enable =
account.1.codec.7.payload_type =
account.1.codec.7.priority =
account.1.codec.7.rtpmap =

account.1.codec.8.enable =
account.1.codec.8.payload_type =
account.1.codec.8.priority =
account.1.codec.8.rtpmap =

account.1.codec.9.enable =
account.1.codec.9.payload_type =
account.1.codec.9.priority =
account.1.codec.9.rtpmap =

account.1.codec.10.enable =
account.1.codec.10.payload_type =
account.1.codec.10.priority =
account.1.codec.10.rtpmap =

account.1.codec.11.enable =
account.1.codec.11.payload_type =
account.1.codec.11.priority =
account.1.codec.11.rtpmap =

account.1.codec.12.enable =
account.1.codec.12.payload_type =
account.1.codec.12.priority =
account.1.codec.12.rtpmap =

#####
#####
##                               Audio Advanced
##
#####
#####
##It configures whether to use voice encryption service for account X.0-
Disabled,1-Optional,2-Compulsory.
##The default value is 0.
account.1.srtp_encryption =
##It configures the RTP packet time for account X.0 (Disabled), 10, 20, 30,
40, 50 or 60.
##The default value is 20.
account.1.ptime =

#####
#####
##                               Anonymous Call
##
#####
#####
account.1.send_anonymous_code =
account.1.anonymous_call =
account.1.anonymous_call_oncode =
account.1.anonymous_call_offcode =
```

```

account.1.reject_anonymous_call = %REJECT_ANONYMOUS_CALL_BINARY%
account.1.anonymous_reject_oncode =
account.1.anonymous_reject_offcode =

#####
#####
##                                Pickup Code
##
#####
#####
##It enables or disables the phone to pick up a call according to the SIP
header of dialog-info for account X.0-Disabled,1-Enabled.
##The default value is 0.
account.1.dialoginfo_callpickup =
##It configures the group pickup code for account X.
##The default value is blank.
account.1.group_pickup_code = %BWFAC-CALL-PICKUP-1%
##It configures the directed pickup code for account X.
##The default value is blank.
account.1.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%

#####
#####
##                                DTMF
##
#####
#####
account.1.dtmf.type =
account.1.dtmf.info_type =
account.1.dtmf.dtmf_payload =

#####
#####
##                                Alert info
##
#####
#####
##It enables or disables the distinctive ringtones by the Alert-Info SIP
header for account X.0-Disabled,1-Enabled.
##The default value is 0.
account.1.alert_info_url_enable =
account.1.ringtone.ring_type =

###Only for T46G/T48G Model
##It enables or disables the phone to download the picture information for
account X when receiving an incoming call or during a call.0-Disabled,1-
Enabled.
##The default value is 0.
account.1.picture_info_enable =

#####
#####
##                                Conference
##
#####
#####
##It configures the conference type for account X.0-Local Conference,2-
Network Conference.
##The default value is 0.
account.1.conf_type =
##It configures the network conference URI for account X.
##The default value is blank.
account.1.conf_uri = %BWNETWORK-CONFERENCE-SIPURI-1%

#####
#####
##                                CID Source
##
#####
#####
account.1.cid_source =

```

```
account.1.cid_source_privacy =
account.1.cid_source_ppi =
account.1.cp_source =

#####
#####
##                               Session Timer
##
#####
#####
account.1.session_timer.enable =
account.1.session_timer.expires =
account.1.session_timer.refresher =

#####
#####
##                               Music on Hold
##
#####
##It configures the way on how the phone processes Music On Hold when placing
an active call on hold for account X.
##0-Calling the music server before holding
##1-Calling the music server after holding
##The default value is 0.
account.1.music_on_hold_type =
##It configures the URI of the Music On Hold server for account X.
##The default value is blank.
account.1.music_server_uri =

#####
#####
##                               Advanced
##
#####
#####
account.1.auto_answer = %AUTO_ANSWER_BINARY%
account.1.missed_calllog =
account.1.100rel_enable =
account.1.enable_user_equal_phone =
account.1.compact_header_enable =

#####
#####
##                               DND
##
#####
#####
account.1.dnd.enable =
account.1.dnd.on_code =
account.1.dnd.off_code =

#####
#####
##                               Call Forward
##
#####
#####
account.1.always_fwd.enable =
account.1.always_fwd.target =
account.1.always_fwd.off_code =
account.1.always_fwd.on_code =
account.1.busy_fwd.enable =
account.1.busy_fwd.target =
account.1.busy_fwd.off_code =
account.1.busy_fwd.on_code =
account.1.timeout_fwd.enable =
account.1.timeout_fwd.target =
account.1.timeout_fwd.timeout =
account.1.timeout_fwd.off_code =
account.1.timeout_fwd.on_code =
```

```
#####
#####
##                               Broadsoft Hoteling
##
#####
#####
account.1.hoteling.enable =
account.1.hoteling.user_id =
account.1.hoteling.password =
account.1.hoteling.auto_login_enable =

#####
#####
##                               Broadsoft ACD
##
#####
#####
account.1.acd.enable =
account.1.acd.unavailable_reason_enable =
account.1.acd.available =
account.1.acd.initial_state =

#####
#####
##                               Broadsoft ACD Call Center
##
#####
#####
account.1.reason_code.1 =
account.1.reason_code_name.1 =
account.1.bw_disp_code.1 =
account.1.bw_disp_code_name.1 =
account.1.supervisor_info_code.1 =
account.1.supervisor_info_code_name.1 =

#####
#####
##                               Broadsoft Call Center
##
#####
#####
account.1.call_center.call_info_enable =
account.1.call_center.show_call_info_time =
account.1.call_center.disp_code_enable =
account.1.call_center.trace_enable =
account.1.call_center.emergency_enable =
account.1.call_center.queue_status_enable =
account.1.call_center.queue_status_light_enable =

#####
#####
##                               Account2 Basic Settings
##
#####
#####
account.2.enable = %BWLIN-BINARY-2%
account.2.label = %BWEXTENSION-2%
account.2.display_name = %BWCLID-2%
account.2.auth_name = %BWAUTHUSER-2%
account.2.user_name = %BWLINPORT-2%
account.2.password = %BWAUTHPASSWORD-2%
account.2.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.2.outbound_host = %SBC_ADDRESS%
account.2.outbound_port = %SBC_PORT%
account.2.sip_listen_port =
account.2.transport = %TRANSPORT_TYPE%

#####
#####
##                               Failback
```

```
##
#####
#####
account.2.reregister_enable =
account.2.naptr_build =
account.2.fallback.redundancy_type =
account.2.fallback.timeout =
account.2.sip_server.1.address = %BWHOST-2%
account.2.sip_server.1.port =
account.2.sip_server.1.expires =
account.2.sip_server.1.retry_counts =
account.2.sip_server.1.failback_mode =
account.2.sip_server.1.failback_timeout =
account.2.sip_server.1.register_on_enable =

account.2.sip_server.2.address =
account.2.sip_server.2.port =
account.2.sip_server.2.expires =
account.2.sip_server.2.retry_counts =
account.2.sip_server.2.failback_mode =
account.2.sip_server.2.failback_timeout =
account.2.sip_server.2.register_on_enable =

account.2.dns_cache_type =
account.2.dns_cache_a.1.name =
account.2.dns_cache_a.1.ip =
account.2.dns_cache_a.1.ttl =
account.2.dns_cache_srv.1.name =
account.2.dns_cache_srv.1.port =
account.2.dns_cache_srv.1.priority =
account.2.dns_cache_srv.1.target =
account.2.dns_cache_srv.1.weight =
account.2.dns_cache_srv.1.ttl =
account.2.dns_cache_naptr.1.name =
account.2.dns_cache_naptr.1.flags =
account.2.dns_cache_naptr.1.order =
account.2.dns_cache_naptr.1.preference =
account.2.dns_cache_naptr.1.replace =
account.2.dns_cache_naptr.1.service =
account.2.dns_cache_naptr.1.ttl =

account.2.dns_cache_type =
account.2.dns_cache_a.2.name =
account.2.dns_cache_a.2.ip =
account.2.dns_cache_a.2.ttl =
account.2.dns_cache_srv.2.name =
account.2.dns_cache_srv.2.port =
account.2.dns_cache_srv.2.priority =
account.2.dns_cache_srv.2.target =
account.2.dns_cache_srv.2.weight =
account.2.dns_cache_srv.2.ttl =
account.2.dns_cache_naptr.2.name =
account.2.dns_cache_naptr.2.flags =
account.2.dns_cache_naptr.2.order =
account.2.dns_cache_naptr.2.preference =
account.2.dns_cache_naptr.2.replace =
account.2.dns_cache_naptr.2.service =
account.2.dns_cache_naptr.2.ttl =

account.2.static_cache_pri =

#####
#####
##                                Register Advanced
##
#####
#####
account.2.sip_server_type = 2
account.2.unregister_on_reboot =
account.2.sip_trust_ctrl =
account.2.proxy_require =
```

```

account.2.srv_ttl_timer_enable =
account.2.register_mac =
account.2.register_line =
account.2.reg_fail_retry_interval =

#####
##                                NAT Settings                                ##
#####
account.2.nat.nat_traversal =
account.2.nat.stun_server =
account.2.nat.stun_port =
account.2.nat.udp_update_enable =
account.2.nat.udp_update_time =
account.2.nat.rport =

#####
#####
##                                Account2 Advance Settings                    ##
##
#####
#####
account.2.advanced.timer_t1 =
account.2.advanced.timer_t2 =
account.2.advanced.timer_t4 =

voice_mail.number.2 = %BWVOICE-PORTAL-NUMBER-2%

#####
#####
##                                Subscribe                                    ##
##
#####
#####
account.2.subscribe_mwi =
account.2.subscribe_mwi_expires =
account.2.subscribe_mwi_to_vm =
account.2.subscribe_acd_expires=

#####
#####
##                                BLF List                                    ##
##
#####
#####
account.2.blf.blf_list_uri = %BWBLF-URI-2%
account.2.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-2%
account.2.blf_list_barge_in_code = %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-2%

account.2.blf.subscribe_period =
account.2.blf.subscribe_event =
account.2.out_dialog_blf_enable =

#####
#####
##                                BLA/SCA                                    ##
##
#####
#####
account.2.shared_line = %BWSHAREDLINE-BINARY-2%
account.2.bla_number =
account.2.bla_subscribe_period =

#####
#####
##                                Audio Codec                                ##
##
#####
#####
###T19D/T21D support codec1-codec8

```



```
###T20P/T22P/T26P/T28P support codec1-codec11
###T41P/T42G/T46G/T48G support codec1-codec12

account.2.codec.1.enable =
account.2.codec.1.payload_type =
account.2.codec.1.priority =
account.2.codec.1.rtpmap =

account.2.codec.2.enable =
account.2.codec.2.payload_type =
account.2.codec.2.priority =
account.2.codec.2.rtpmap =

account.2.codec.3.enable =
account.2.codec.3.payload_type =
account.2.codec.3.priority =
account.2.codec.3.rtpmap =

account.2.codec.4.enable =
account.2.codec.4.payload_type =
account.2.codec.4.priority =
account.2.codec.4.rtpmap =

account.2.codec.5.enable =
account.2.codec.5.payload_type =
account.2.codec.5.priority =
account.2.codec.5.rtpmap =

account.2.codec.6.enable =
account.2.codec.6.payload_type =
account.2.codec.6.priority =
account.2.codec.6.rtpmap =

account.2.codec.7.enable =
account.2.codec.7.payload_type =
account.2.codec.7.priority =
account.2.codec.7.rtpmap =

account.2.codec.8.enable =
account.2.codec.8.payload_type =
account.2.codec.8.priority =
account.2.codec.8.rtpmap =

account.2.codec.9.enable =
account.2.codec.9.payload_type =
account.2.codec.9.priority =
account.2.codec.9.rtpmap =

account.2.codec.10.enable =
account.2.codec.10.payload_type =
account.2.codec.10.priority =
account.2.codec.10.rtpmap =

account.2.codec.11.enable =
account.2.codec.11.payload_type =
account.2.codec.11.priority =
account.2.codec.11.rtpmap =

account.2.codec.12.enable =
account.2.codec.12.payload_type =
account.2.codec.12.priority =
account.2.codec.12.rtpmap =

#####
#####
##                               Audio Advanced
##
#####
#####
account.2.srtp_encryption =
account.2.ptime =
```

```
#####
#####
##                               Anonymous Call
##
#####
#####
account.2.send_anonymous_code =
account.2.anonymous_call =
account.2.anonymous_call_oncode =
account.2.anonymous_call_offcode =
account.2.reject_anonymous_call = %REJECT_ANONYMOUS_CALL_BINARY%
account.2.anonymous_reject_oncode =
account.2.anonymous_reject_offcode =

#####
#####
##                               Pickup Code
##
#####
#####
account.2.dialoginfo_callpickup =
account.2.group_pickup_code = %BWFAC-CALL-PICKUP-2%
account.2.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-2%

#####
#####
##                               DTMF
##
#####
#####
account.2.dtmf.type =
account.2.dtmf.info_type =
account.2.dtmf.dtmf_payload =

#####
#####
##                               Alert info
##
#####
#####
account.2.alert_info_url_enable =
account.2.ringtone.ring_type =

###Only for T46G/T48G Model
account.2.picture_info_enable =

#####
#####
##                               Conference
##
#####
#####
account.2.conf_type =
account.2.conf_uri = %BWNWORK-CONFERENCE-SIPURI-2%

#####
#####
##                               CID Source
##
#####
#####
account.2.cid_source =
account.2.cid_source_privacy =
account.2.cid_source_ppi =
account.2.cp_source =

#####
#####
##                               Session Timer
##
##
```

```
#####
#####
account.2.session_timer.enable =
account.2.session_timer.expires =
account.2.session_timer.refresher =

#####
#####
##                               Music on Hold
##
#####
#####
account.2.music_on_hold_type =
account.2.music_server_uri =

#####
#####
##                               Advanced
##
#####
#####
account.2.auto_answer = %AUTO_ANSWER_BINARY%
account.2.missed_calllog =
account.2.100rel_enable =
account.2.enable_user_equal_phone =
account.2.compact_header_enable =

#####
#####
##                               DND
##
#####
#####
account.2.dnd.enable =
account.2.dnd.on_code =
account.2.dnd.off_code =

#####
#####
##                               Call Forward
##
#####
#####
account.2.always_fwd.enable =
account.2.always_fwd.target =
account.2.always_fwd.off_code =
account.2.always_fwd.on_code =
account.2.busy_fwd.enable =
account.2.busy_fwd.target =
account.2.busy_fwd.off_code =
account.2.busy_fwd.on_code =
account.2.timeout_fwd.enable =
account.2.timeout_fwd.target =
account.2.timeout_fwd.timeout =
account.2.timeout_fwd.off_code =
account.2.timeout_fwd.on_code =

#####
#####
##                               Broadsoft Hoteling
##
#####
#####
account.2.hoteling.enable =
account.2.hoteling.user_id =
account.2.hoteling.password =
account.2.hoteling.auto_login_enable =

#####
#####
##                               Broadsoft ACD
```

```

##
#####
#####
account.2.acd.enable =
account.2.acd.unavailable_reason_enable =
account.2.acd.available =
account.2.acd.initial_state =

#####
#####
##                                Broadsoft ACD Call Center
##
#####
#####
account.2.reason_code.1 =
account.2.reason_code_name.1 =
account.2.bw_disp_code.1 =
account.2.bw_disp_code_name.1 =
account.2.supervisor_info_code.1 =
account.2.supervisor_info_code_name.1 =

#####
#####
##                                Broadsoft Call Center
##
#####
#####
account.2.call_center.call_info_enable =
account.2.call_center.show_call_info_time =
account.2.call_center.disp_code_enable =
account.2.call_center.trace_enable =
account.2.call_center.emergency_enable =
account.2.call_center.queue_status_enable =
account.2.call_center.queue_status_light_enable =

#####
#####
##                                Account3 Basic Settings
##
#####
#####
account.3.enable = %BWLINE-BINARY-3%
account.3.label = %BWEXTENSION-3%
account.3.display_name = %BWCLID-3%
account.3.auth_name = %BWAUTHUSER-3%
account.3.user_name = %BWLINEPORT-3%
account.3.password = %BWAUTHPASSWORD-3%
account.3.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.3.outbound_host = %SBC_ADDRESS%
account.3.outbound_port = %SBC_PORT%
account.3.sip_listen_port =
account.3.transport = %TRANSPORT_TYPE%

#####
#####
##                                Failback
##
#####
#####
account.3.reregister_enable =
account.3.naptr_build =
account.3.fallback.redundancy_type =
account.3.fallback.timeout =
account.3.sip_server.1.address = %BWHOST-3%
account.3.sip_server.1.port =
account.3.sip_server.1.expires =
account.3.sip_server.1.retry_counts =
account.3.sip_server.1.fallback_mode =
account.3.sip_server.1.fallback_timeout =
account.3.sip_server.1.register_on_enable =

```

```
account.3.sip_server.2.address =
account.3.sip_server.2.port =
account.3.sip_server.2.expires =
account.3.sip_server.2.retry_counts =
account.3.sip_server.2.failback_mode =
account.3.sip_server.2.failback_timeout =
account.3.sip_server.2.register_on_enable =

account.3.dns_cache_type =
account.3.dns_cache_a.1.name =
account.3.dns_cache_a.1.ip =
account.3.dns_cache_a.1.ttl =
account.3.dns_cache_srv.1.name =
account.3.dns_cache_srv.1.port =
account.3.dns_cache_srv.1.priority =
account.3.dns_cache_srv.1.target =
account.3.dns_cache_srv.1.weight =
account.3.dns_cache_srv.1.ttl =
account.3.dns_cache_naptr.1.name =
account.3.dns_cache_naptr.1.flags =
account.3.dns_cache_naptr.1.order =
account.3.dns_cache_naptr.1.preference =
account.3.dns_cache_naptr.1.replace =
account.3.dns_cache_naptr.1.service =
account.3.dns_cache_naptr.1.ttl =

account.3.dns_cache_type =
account.3.dns_cache_a.2.name =
account.3.dns_cache_a.2.ip =
account.3.dns_cache_a.2.ttl =
account.3.dns_cache_srv.2.name =
account.3.dns_cache_srv.2.port =
account.3.dns_cache_srv.2.priority =
account.3.dns_cache_srv.2.target =
account.3.dns_cache_srv.2.weight =
account.3.dns_cache_srv.2.ttl =
account.3.dns_cache_naptr.2.name =
account.3.dns_cache_naptr.2.flags =
account.3.dns_cache_naptr.2.order =
account.3.dns_cache_naptr.2.preference =
account.3.dns_cache_naptr.2.replace =
account.3.dns_cache_naptr.2.service =
account.3.dns_cache_naptr.2.ttl =

account.3.static_cache_pri =

#####
#####
##                               Register Advanced
##
#####
#####
account.3.sip_server_type = 2
account.3.unregister_on_reboot =
account.3.sip_trust_ctrl =
account.3.proxy_require =
account.3.srv_ttl_timer_enable =
account.3.register_mac =
account.3.register_line =
account.3.reg_fail_retry_interval =

#####
##                               NAT Settings                               ##
#####
account.3.nat.nat_traversal =
account.3.nat.stun_server =
account.3.nat.stun_port =
account.3.nat.udp_update_enable =
account.3.nat.udp_update_time =
account.3.nat.rport =
```

```
#####
#####
##                               Account3 Advance Settings
##
#####
#####
account.3.advanced.timer_t1 =
account.3.advanced.timer_t2 =
account.3.advanced.timer_t4 =

voice_mail.number.3 = %BWVOICE-PORTAL-NUMBER-3%

#####
#####
##                               Subscribe
##
#####
#####
account.3.subscribe_mwi =
account.3.subscribe_mwi_expires =
account.3.subscribe_mwi_to_vm =
account.3.subscribe_acd_expires=

#####
#####
##                               BLF List
##
#####
#####
account.3.blf.blf_list_uri = %BWBLF-URI-3%
account.3.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-3%
account.3.blf_list_barge_in_code = %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-3%

account.3.blf.subscribe_period =
account.3.blf.subscribe_event =
account.3.out_dialog_blf_enable =

#####
#####
##                               BLA/SCA
##
#####
#####
account.3.shared_line = %BWSHAREDLINE-BINARY-3%
account.3.bla_number =
account.3.bla_subscribe_period =

#####
#####
##                               Audio Codec
##
#####
###T19D/T21D support codec1-codec8
###T20P/T22P/T26P/T28P support codec1-codec11
###T41P/T42G/T46G/T48G support codec1-codec12

account.3.codec.1.enable =
account.3.codec.1.payload_type =
account.3.codec.1.priority =
account.3.codec.1.rtpmap =

account.3.codec.2.enable =
account.3.codec.2.payload_type =
account.3.codec.2.priority =
account.3.codec.2.rtpmap =

account.3.codec.3.enable =
```

```
account.3.codec.3.payload_type =
account.3.codec.3.priority =
account.3.codec.3.rtpmap =

account.3.codec.4.enable =
account.3.codec.4.payload_type =
account.3.codec.4.priority =
account.3.codec.4.rtpmap =

account.3.codec.5.enable =
account.3.codec.5.payload_type =
account.3.codec.5.priority =
account.3.codec.5.rtpmap =

account.3.codec.6.enable =
account.3.codec.6.payload_type =
account.3.codec.6.priority =
account.3.codec.6.rtpmap =

account.3.codec.7.enable =
account.3.codec.7.payload_type =
account.3.codec.7.priority =
account.3.codec.7.rtpmap =

account.3.codec.8.enable =
account.3.codec.8.payload_type =
account.3.codec.8.priority =
account.3.codec.8.rtpmap =

account.3.codec.9.enable =
account.3.codec.9.payload_type =
account.3.codec.9.priority =
account.3.codec.9.rtpmap =

account.3.codec.10.enable =
account.3.codec.10.payload_type =
account.3.codec.10.priority =
account.3.codec.10.rtpmap =

account.3.codec.11.enable =
account.3.codec.11.payload_type =
account.3.codec.11.priority =
account.3.codec.11.rtpmap =

account.3.codec.12.enable =
account.3.codec.12.payload_type =
account.3.codec.12.priority =
account.3.codec.12.rtpmap =

#####
#####
##                               Audio Advanced
##
#####
#####
account.3.srtp_encryption =
account.3.ptime =

#####
#####
##                               Anonymous Call
##
#####
#####
account.3.send_anonymous_code =
account.3.anonymous_call =
account.3.anonymous_call_oncode =
account.3.anonymous_call_offcode =
account.3.reject_anonymous_call = %REJECT_ANONYMOUS_CALL_BINARY%
account.3.anonymous_reject_oncode =
account.3.anonymous_reject_offcode =
```

```
#####
#####
##                               Pickup Code
##
#####
#####
account.3.dialoginfo_callpickup =
account.3.group_pickup_code = %BWFAC-CALL-PICKUP-3%
account.3.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-3%

#####
#####
##                               DTMF
##
#####
#####
account.3.dtmf.type =
account.3.dtmf.info_type =
account.3.dtmf.dtmf_payload =

#####
#####
##                               Alert info
##
#####
#####
account.3.alert_info_url_enable =
account.3.ringtone.ring_type =

###Only for T46G/T48G Model
account.3.picture_info_enable =

#####
#####
##                               Conference
##
#####
#####
account.3.conf_type =
account.3.conf_uri = %BWNWORK-CONFERENCE-SIPURI-3%

#####
#####
##                               CID Source
##
#####
#####
account.3.cid_source =
account.3.cid_source_privacy =
account.3.cid_source_ppi =
account.3.cp_source =

#####
#####
##                               Session Timer
##
#####
#####
account.3.session_timer.enable =
account.3.session_timer.expires =
account.3.session_timer.refresh =

#####
#####
##                               Music on Hold
##
#####
#####
account.3.music_on_hold_type =
account.3.music_server_uri =
```



```
#####
#####
##                               Advanced
##
#####
#####
account.3.auto_answer = %AUTO_ANSWER_BINARY%
account.3.missed_calllog =
account.3.100rel_enable =
account.3.enable_user_equal_phone =
account.3.compact_header_enable =

#####
#####
##                               DND
##
#####
#####
account.3.dnd.enable =
account.3.dnd.on_code =
account.3.dnd.off_code =

#####
#####
##                               Call Forward
##
#####
#####
account.3.always_fwd.enable =
account.3.always_fwd.target =
account.3.always_fwd.off_code =
account.3.always_fwd.on_code =
account.3.busy_fwd.enable =
account.3.busy_fwd.target =
account.3.busy_fwd.off_code =
account.3.busy_fwd.on_code =
account.3.timeout_fwd.enable =
account.3.timeout_fwd.target =
account.3.timeout_fwd.timeout =
account.3.timeout_fwd.off_code =
account.3.timeout_fwd.on_code =

#####
#####
##                               Broadsoft Hoteling
##
#####
#####
account.3.hoteling.enable =
account.3.hoteling.user_id =
account.3.hoteling.password =
account.3.hoteling.auto_login_enable =

#####
#####
##                               Broadsoft ACD
##
#####
#####
account.3.acd.enable =
account.3.acd.unavailable_reason_enable =
account.3.acd.available =
account.3.acd.initial_state =

#####
#####
##                               Broadsoft ACD Call Center
##
#####
#####
```

```
account.3.reason_code.1 =
account.3.reason_code_name.1 =
account.3.bw_disp_code.1 =
account.3.bw_disp_code_name.1 =
account.3.supervisor_info_code.1 =
account.3.supervisor_info_code_name.1 =

#####
#####
##                               Broadsoft Call Center
##
#####
#####
account.3.call_center.call_info_enable =
account.3.call_center.show_call_info_time =
account.3.call_center.disp_code_enable =
account.3.call_center.trace_enable =
account.3.call_center.emergency_enable =
account.3.call_center.queue_status_enable =
account.3.call_center.queue_status_light_enable =

#####
#####
##                               Account4 Basic Settings
##
#####
#####
account.4.enable = %BWLINE-BINARY-4%
account.4.label = %BWEXTENSION-4%
account.4.display_name = %BWCLID-4%
account.4.auth_name = %BWAUTHUSER-4%
account.4.user_name = %BWLINEPORT-4%
account.4.password = %BWAUTHPASSWORD-4%
account.4.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.4.outbound_host = %SBC_ADDRESS%
account.4.outbound_port = %SBC_PORT%
account.4.sip_listen_port =
account.4.transport = %TRANSPORT_TYPE%

#####
#####
##                               Failback
##
#####
#####
account.4.reregister_enable =
account.4.naptr_build =
account.4.fallback.redundancy_type =
account.4.fallback.timeout =
account.4.sip_server.1.address = %BWHOST-4%
account.4.sip_server.1.port =
account.4.sip_server.1.expires =
account.4.sip_server.1.retry_counts =
account.4.sip_server.1.failback_mode =
account.4.sip_server.1.failback_timeout =
account.4.sip_server.1.register_on_enable =

account.4.sip_server.2.address =
account.4.sip_server.2.port =
account.4.sip_server.2.expires =
account.4.sip_server.2.retry_counts =
account.4.sip_server.2.failback_mode =
account.4.sip_server.2.failback_timeout =
account.4.sip_server.2.register_on_enable =

account.4.dns_cache_type =
account.4.dns_cache_a.1.name =
account.4.dns_cache_a.1.ip =
account.4.dns_cache_a.1.ttl =
account.4.dns_cache_srv.1.name =
```

```

account.4.dns_cache_srv.1.port =
account.4.dns_cache_srv.1.priority =
account.4.dns_cache_srv.1.target =
account.4.dns_cache_srv.1.weight =
account.4.dns_cache_srv.1.ttl =
account.4.dns_cache_naptr.1.name =
account.4.dns_cache_naptr.1.flags =
account.4.dns_cache_naptr.1.order =
account.4.dns_cache_naptr.1.preference =
account.4.dns_cache_naptr.1.replace =
account.4.dns_cache_naptr.1.service =
account.4.dns_cache_naptr.1.ttl =

account.4.dns_cache_type =
account.4.dns_cache_a.2.name =
account.4.dns_cache_a.2.ip =
account.4.dns_cache_a.2.ttl =
account.4.dns_cache_srv.2.name =
account.4.dns_cache_srv.2.port =
account.4.dns_cache_srv.2.priority =
account.4.dns_cache_srv.2.target =
account.4.dns_cache_srv.2.weight =
account.4.dns_cache_srv.2.ttl =
account.4.dns_cache_naptr.2.name =
account.4.dns_cache_naptr.2.flags =
account.4.dns_cache_naptr.2.order =
account.4.dns_cache_naptr.2.preference =
account.4.dns_cache_naptr.2.replace =
account.4.dns_cache_naptr.2.service =
account.4.dns_cache_naptr.2.ttl =

account.4.static_cache_pri =

#####
#####
##                               Register Advanced
##
#####
#####
account.4.sip_server_type = 2
account.4.unregister_on_reboot =
account.4.sip_trust_ctrl =
account.4.proxy_require =
account.4.srv_ttl_timer_enable =
account.4.register_mac =
account.4.register_line =
account.4.reg_fail_retry_interval =

#####
##                               NAT Settings                               ##
#####
account.4.nat.nat_traversal =
account.4.nat.stun_server =
account.4.nat.stun_port =
account.4.nat.udp_update_enable =
account.4.nat.udp_update_time =
account.4.nat.rport =

#####
#####
##                               Account4 Advance Settings
##
#####
#####
account.4.advanced.timer_t1 =
account.4.advanced.timer_t2 =
account.4.advanced.timer_t4 =

voice_mail.number.4 = %BWVOICE-PORTAL-NUMBER-4%

#####

```

```
#####
##                               Subscribe
##
#####
#####
account.4.subscribe_mwi =
account.4.subscribe_mwi_expires =
account.4.subscribe_mwi_to_vm =
account.4.subscribe_acd_expires=

#####
#####
##                               BLF List
##
#####
#####

account.4.blf.blf_list_uri = %BWBLF-URI-4%
account.4.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-4%
account.4.blf_list_barge_in_code = %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-4%

account.4.blf.subscribe_period =
account.4.blf.subscribe_event =
account.4.out_dialog_blf_enable =

#####
#####
##                               BLA/SCA
##
#####
#####
account.4.shared_line = %BWSHAREDLINE-BINARY-4%
account.4.bla_number =
account.4.bla_subscribe_period =

#####
#####
##                               Audio Codec
##
#####
#####
###T19D/T21D support codec1-codec8
###T20P/T22P/T26P/T28P support codec1-codec11
###T41P/T42G/T46G/T48G support codec1-codec12

account.4.codec.1.enable =
account.4.codec.1.payload_type =
account.4.codec.1.priority =
account.4.codec.1.rtpmap =

account.4.codec.2.enable =
account.4.codec.2.payload_type =
account.4.codec.2.priority =
account.4.codec.2.rtpmap =

account.4.codec.3.enable =
account.4.codec.3.payload_type =
account.4.codec.3.priority =
account.4.codec.3.rtpmap =

account.4.codec.4.enable =
account.4.codec.4.payload_type =
account.4.codec.4.priority =
account.4.codec.4.rtpmap =

account.4.codec.5.enable =
account.4.codec.5.payload_type =
account.4.codec.5.priority =
account.4.codec.5.rtpmap =
```

```
account.4.codec.6.enable =
account.4.codec.6.payload_type =
account.4.codec.6.priority =
account.4.codec.6.rtpmap =

account.4.codec.7.enable =
account.4.codec.7.payload_type =
account.4.codec.7.priority =
account.4.codec.7.rtpmap =

account.4.codec.8.enable =
account.4.codec.8.payload_type =
account.4.codec.8.priority =
account.4.codec.8.rtpmap =

account.4.codec.9.enable =
account.4.codec.9.payload_type =
account.4.codec.9.priority =
account.4.codec.9.rtpmap =

account.4.codec.10.enable =
account.4.codec.10.payload_type =
account.4.codec.10.priority =
account.4.codec.10.rtpmap =

account.4.codec.11.enable =
account.4.codec.11.payload_type =
account.4.codec.11.priority =
account.4.codec.11.rtpmap =

account.4.codec.12.enable =
account.4.codec.12.payload_type =
account.4.codec.12.priority =
account.4.codec.12.rtpmap =

#####
#####
##                               Audio Advanced
##
#####
#####
account.4.srtp_encryption =
account.4.ptime =

#####
#####
##                               Anonymous Call
##
#####
#####
account.4.send_anonymous_code =
account.4.anonymous_call =
account.4.anonymous_call_oncode =
account.4.anonymous_call_offcode =
account.4.reject_anonymous_call = %REJECT_ANONYMOUS_CALL_BINARY%
account.4.anonymous_reject_oncode =
account.4.anonymous_reject_offcode =

#####
#####
##                               Pickup Code
##
#####
#####
account.4.dialinfo_callpickup =
account.4.group_pickup_code = %BWFAC-CALL-PICKUP-4%
account.4.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-4%

#####
#####
##                               DTMF
```

```
##
#####
#####
account.4.dtmf.type =
account.4.dtmf.info_type =
account.4.dtmf.dtmf_payload =

#####
#####
##                               Alert info
##
#####
#####
account.4.alert_info_url_enable =
account.4.ringtone.ring_type =

###Only for T46G/T48G Model
account.4.picture_info_enable =

#####
#####
##                               Conference
##
#####
#####
account.4.conf_type =
account.4.conf_uri = %BWNWORK-CONFERENCE-SIPURI-4%

#####
#####
##                               CID Source
##
#####
#####
account.4.cid_source =
account.4.cid_source_privacy =
account.4.cid_source_ppi =
account.4.cp_source =

#####
#####
##                               Session Timer
##
#####
#####
account.4.session_timer.enable =
account.4.session_timer.expires =
account.4.session_timer.refreshes =

#####
#####
##                               Music on Hold
##
#####
#####
account.4.music_on_hold_type =
account.4.music_server_uri =

#####
#####
##                               Advanced
##
#####
#####
account.4.auto_answer = %AUTO_ANSWER_BINARY%
account.4.missed_calllog =
account.4.100rel_enable =
account.4.enable_user_equal_phone =
account.4.compact_header_enable =

#####
```

```
#####
##                                DND(Except T19 Model)
##
#####
account.4.dnd.enable =
account.4.dnd.on_code =
account.4.dnd.off_code =

#####
##                                Call Forward(Except T19 Model)
##
#####
account.4.always_fwd.enable =
account.4.always_fwd.target =
account.4.always_fwd.off_code =
account.4.always_fwd.on_code =
account.4.busy_fwd.enable =
account.4.busy_fwd.target =
account.4.busy_fwd.off_code =
account.4.busy_fwd.on_code =
account.4.timeout_fwd.enable =
account.4.timeout_fwd.target =
account.4.timeout_fwd.timeout =
account.4.timeout_fwd.off_code =
account.4.timeout_fwd.on_code =

#####
##                                Broadsoft Hoteling
##
#####
account.4.hoteling.enable =
account.4.hoteling.user_id =
account.4.hoteling.password =
account.4.hoteling.auto_login_enable =

#####
##                                Broadsoft ACD
##
#####
account.4.acd.enable =
account.4.acd.unavailable_reason_enable =
account.4.acd.available =
account.4.acd.initial_state =

#####
##                                Broadsoft ACD Call Center
##
#####
account.4.reason_code.1 =
account.4.reason_code_name.1 =
account.4.bw_disp_code.1 =
account.4.bw_disp_code_name.1 =
account.4.supervisor_info_code.1 =
account.4.supervisor_info_code_name.1 =

#####
##                                Broadsoft Call Center
##
#####
account.4.call_center.call_info_enable =
```

```

account.4.call_center.show_call_info_time =
account.4.call_center.disp_code_enable =
account.4.call_center.trace_enable =
account.4.call_center.emergency_enable =
account.4.call_center.queue_status_enable =
account.4.call_center.queue_status_light_enable =

#####
#####
##                               Account5 Basic Settings
##
#####
#####
account.5.enable = %BWLIN-BINARY-5%
account.5.label = %BWEXTENSION-5%
account.5.display_name = %BWCLID-5%
account.5.auth_name = %BWAUTHUSER-5%
account.5.user_name = %BWLINPORT-5%
account.5.password = %BWAUTHPASSWORD-5%
account.5.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.5.outbound_host = %SBC_ADDRESS%
account.5.outbound_port = %SBC_PORT%
account.5.sip_listen_port =
account.5.transport = %TRANSPORT_TYPE%

#####
#####
##                               Failback
##
#####
#####
account.5.reregister_enable =
account.5.naptr_build =
account.5.failback.redundancy_type =
account.5.failback.timeout =
account.5.sip_server.1.address = %BWHOST-5%
account.5.sip_server.1.port =
account.5.sip_server.1.expires =
account.5.sip_server.1.retry_counts =
account.5.sip_server.1.failback_mode =
account.5.sip_server.1.failback_timeout =
account.5.sip_server.1.register_on_enable =

account.5.sip_server.2.address =
account.5.sip_server.2.port =
account.5.sip_server.2.expires =
account.5.sip_server.2.retry_counts =
account.5.sip_server.2.failback_mode =
account.5.sip_server.2.failback_timeout =
account.5.sip_server.2.register_on_enable =

account.5.dns_cache_type =
account.5.dns_cache_a.1.name =
account.5.dns_cache_a.1.ip =
account.5.dns_cache_a.1.ttl =
account.5.dns_cache_srv.1.name =
account.5.dns_cache_srv.1.port =
account.5.dns_cache_srv.1.priority =
account.5.dns_cache_srv.1.target =
account.5.dns_cache_srv.1.weight =
account.5.dns_cache_srv.1.ttl =
account.5.dns_cache_naptr.1.name =
account.5.dns_cache_naptr.1.flags =
account.5.dns_cache_naptr.1.order =
account.5.dns_cache_naptr.1.preference =
account.5.dns_cache_naptr.1.replace =
account.5.dns_cache_naptr.1.service =
account.5.dns_cache_naptr.1.ttl =

account.5.dns_cache_type =
account.5.dns_cache_a.2.name =

```



```

account.5.dns_cache_a.2.ip =
account.5.dns_cache_a.2.ttl =
account.5.dns_cache_srv.2.name =
account.5.dns_cache_srv.2.port =
account.5.dns_cache_srv.2.priority =
account.5.dns_cache_srv.2.target =
account.5.dns_cache_srv.2.weight =
account.5.dns_cache_srv.2.ttl =
account.5.dns_cache_naptr.2.name =
account.5.dns_cache_naptr.2.flags =
account.5.dns_cache_naptr.2.order =
account.5.dns_cache_naptr.2.preference =
account.5.dns_cache_naptr.2.replace =
account.5.dns_cache_naptr.2.service =
account.5.dns_cache_naptr.2.ttl =

account.5.static_cache_pri =

#####
#####
##                               Register Advanced
##
#####
#####
account.5.sip_server_type = 2
account.5.unregister_on_reboot =
account.5.sip_trust_ctrl =
account.5.proxy_require =
account.5.srv_ttl_timer_enable =
account.5.register_mac =
account.5.register_line =
account.5.reg_fail_retry_interval =

#####
##                               NAT Settings                               ##
#####
account.5.nat.nat_traversal =
account.5.nat.stun_server =
account.5.nat.stun_port =
account.5.nat.udp_update_enable =
account.5.nat.udp_update_time =
account.5.nat.rport =

#####
#####
##                               Account5 Advance Settings
##
#####
#####
account.5.advanced.timer_t1 =
account.5.advanced.timer_t2 =
account.5.advanced.timer_t4 =

voice_mail.number.5 = %BWVOICE-PORTAL-NUMBER-5%

#####
#####
##                               Subscribe
##
#####
#####
account.5.subscribe_mwi =
account.5.subscribe_mwi_expires =
account.5.subscribe_mwi_to_vm =
account.5.subscribe_acd_expires=

#####
#####
##                               BLF List
##
#####

```

```
#####
account.5.blf.blf_list_uri = %BWBLF-URI-5%
account.5.blf.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-5%
account.5.blf.blf_list_barge_in_code = %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-5%

account.5.blf.subscribe_period =
account.5.blf.subscribe_event =
account.5.out_dialog_blf_enable =

#####
#####
##                               BLA/SCA
##
#####
#####
account.5.shared_line = %BWSHAREDLINE-BINARY-5%
account.5.bla_number =
account.5.bla_subscribe_period =

#####
#####
##                               Audio Codec
##
#####
#####
###T19D/T21D support codec1-codec8
###T20P/T22P/T26P/T28P support codec1-codec11
###T41P/T42G/T46G/T48G support codec1-codec12

account.5.codec.1.enable =
account.5.codec.1.payload_type =
account.5.codec.1.priority =
account.5.codec.1.rtpmap =

account.5.codec.2.enable =
account.5.codec.2.payload_type =
account.5.codec.2.priority =
account.5.codec.2.rtpmap =

account.5.codec.3.enable =
account.5.codec.3.payload_type =
account.5.codec.3.priority =
account.5.codec.3.rtpmap =

account.5.codec.4.enable =
account.5.codec.4.payload_type =
account.5.codec.4.priority =
account.5.codec.4.rtpmap =

account.5.codec.5.enable =
account.5.codec.5.payload_type =
account.5.codec.5.priority =
account.5.codec.5.rtpmap =

account.5.codec.6.enable =
account.5.codec.6.payload_type =
account.5.codec.6.priority =
account.5.codec.6.rtpmap =

account.5.codec.7.enable =
account.5.codec.7.payload_type =
account.5.codec.7.priority =
account.5.codec.7.rtpmap =

account.5.codec.8.enable =
account.5.codec.8.payload_type =
account.5.codec.8.priority =
account.5.codec.8.rtpmap =
```

```
account.5.codec.9.enable =
account.5.codec.9.payload_type =
account.5.codec.9.priority =
account.5.codec.9.rtpmap =

account.5.codec.10.enable =
account.5.codec.10.payload_type =
account.5.codec.10.priority =
account.5.codec.10.rtpmap =

account.5.codec.11.enable =
account.5.codec.11.payload_type =
account.5.codec.11.priority =
account.5.codec.11.rtpmap =

account.5.codec.12.enable =
account.5.codec.12.payload_type =
account.5.codec.12.priority =
account.5.codec.12.rtpmap =

#####
#####
##                               Audio Advanced
##
#####
#####
account.5.srtp_encryption =
account.5.ptime =

#####
#####
##                               Anonymous Call
##
#####
#####
account.5.send_anonymous_code =
account.5.anonymous_call =
account.5.anonymous_call_oncode =
account.5.anonymous_call_offcode =
account.5.reject_anonymous_call = %REJECT_ANONYMOUS_CALL_BINARY%
account.5.anonymous_reject_oncode =
account.5.anonymous_reject_offcode =

#####
#####
##                               Pickup Code
##
#####
#####
account.5.dialoginfo_callpickup =
account.5.group_pickup_code = %BWFAC-CALL-PICKUP-5%
account.5.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-5%

#####
#####
##                               DTMF
##
#####
#####
account.5.dtmf.type =
account.5.dtmf.info_type =
account.5.dtmf.dtmf_payload =

#####
#####
##                               Alert info
##
#####
#####
account.5.alert_info_url_enable =
account.5.ringtone.ring_type =
```

```
###Only for T46G/T48G Model
account.5.picture_info_enable =

#####
#####
##                               Conference
##
#####
#####
account.5.conf_type =
account.5.conf_uri = %BWNWORK-CONFERENCE-SIPURI-5%

#####
#####
##                               CID Source
##
#####
#####
account.5.cid_source =
account.5.cid_source_privacy =
account.5.cid_source_ppi =
account.5.cp_source =

#####
#####
##                               Session Timer
##
#####
#####
account.5.session_timer.enable =
account.5.session_timer.expires =
account.5.session_timer.refresher =

#####
#####
##                               Music on Hold
##
#####
#####
account.5.music_on_hold_type =
account.5.music_server_uri =

#####
#####
##                               Advanced
##
#####
#####
account.5.auto_answer = %AUTO_ANSWER_BINARY%
account.5.missed_calllog =
account.5.100rel_enable =
account.5.enable_user_equal_phone =
account.5.compact_header_enable =

#####
#####
##                               DND
##
#####
#####
account.5.dnd.enable =
account.5.dnd.on_code =
account.5.dnd.off_code =

#####
#####
##                               Call Forward
##
#####
#####
```

```

account.5.always_fwd.enable =
account.5.always_fwd.target =
account.5.always_fwd.off_code =
account.5.always_fwd.on_code =
account.5.busy_fwd.enable =
account.5.busy_fwd.target =
account.5.busy_fwd.off_code =
account.5.busy_fwd.on_code =
account.5.timeout_fwd.enable =
account.5.timeout_fwd.target =
account.5.timeout_fwd.timeout =
account.5.timeout_fwd.off_code =
account.5.timeout_fwd.on_code =

#####
#####
##                               Broadsoft Hoteling
##
#####
#####
account.5.hoteling.enable =
account.5.hoteling.user_id =
account.5.hoteling.password =
account.5.hoteling.auto_login_enable =

#####
#####
##                               Broadsoft ACD
##
#####
#####
account.5.acd.enable =
account.5.acd.unavailable_reason_enable =
account.5.acd.available =
account.5.acd.initial_state =

#####
#####
##                               Broadsoft ACD Call Center
##
#####
#####
account.5.reason_code.1 =
account.5.reason_code_name.1 =
account.5.bw_disp_code.1 =
account.5.bw_disp_code_name.1 =
account.5.supervisor_info_code.1 =
account.5.supervisor_info_code_name.1 =

#####
#####
##                               Broadsoft Call Center
##
#####
#####
account.5.call_center.call_info_enable =
account.5.call_center.show_call_info_time =
account.5.call_center.disp_code_enable =
account.5.call_center.trace_enable =
account.5.call_center.emergency_enable =
account.5.call_center.queue_status_enable =
account.5.call_center.queue_status_light_enable =

#####
#####
##                               Account6 Basic Settings
##
#####
#####
account.6.enable = %BWLIN-BINARY-6%
account.6.label = %BWEXTENSION-6%

```

```
account.6.display_name = %BWCLID-6%
account.6.auth_name = %BWAUTHUSER-6%
account.6.user_name = %BWLINEPORT-6%
account.6.password = %BWAUTHPASSWORD-6%
account.6.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.6.outbound_host = %SBC_ADDRESS%
account.6.outbound_port = %SBC_PORT%
account.6.sip_listen_port =
account.6.transport = %TRANSPORT_TYPE%

#####
#####
##                               Failback
##
#####
#####
account.6.reregister_enable =
account.6.naptr_build =
account.6.fallback.redundancy_type =
account.6.fallback.timeout =
account.6.sip_server.1.address = %BWHOST-6%
account.6.sip_server.1.port =
account.6.sip_server.1.expires =
account.6.sip_server.1.retry_counts =
account.6.sip_server.1.failback_mode =
account.6.sip_server.1.failback_timeout =
account.6.sip_server.1.register_on_enable =

account.6.sip_server.2.address =
account.6.sip_server.2.port =
account.6.sip_server.2.expires =
account.6.sip_server.2.retry_counts =
account.6.sip_server.2.failback_mode =
account.6.sip_server.2.failback_timeout =
account.6.sip_server.2.register_on_enable =

account.6.dns_cache_type =
account.6.dns_cache_a.1.name =
account.6.dns_cache_a.1.ip =
account.6.dns_cache_a.1.ttl =
account.6.dns_cache_srv.1.name =
account.6.dns_cache_srv.1.port =
account.6.dns_cache_srv.1.priority =
account.6.dns_cache_srv.1.target =
account.6.dns_cache_srv.1.weight =
account.6.dns_cache_srv.1.ttl =
account.6.dns_cache_naptr.1.name =
account.6.dns_cache_naptr.1.flags =
account.6.dns_cache_naptr.1.order =
account.6.dns_cache_naptr.1.preference =
account.6.dns_cache_naptr.1.replace =
account.6.dns_cache_naptr.1.service =
account.6.dns_cache_naptr.1.ttl =

account.6.dns_cache_type =
account.6.dns_cache_a.2.name =
account.6.dns_cache_a.2.ip =
account.6.dns_cache_a.2.ttl =
account.6.dns_cache_srv.2.name =
account.6.dns_cache_srv.2.port =
account.6.dns_cache_srv.2.priority =
account.6.dns_cache_srv.2.target =
account.6.dns_cache_srv.2.weight =
account.6.dns_cache_srv.2.ttl =
account.6.dns_cache_naptr.2.name =
account.6.dns_cache_naptr.2.flags =
account.6.dns_cache_naptr.2.order =
account.6.dns_cache_naptr.2.preference =
account.6.dns_cache_naptr.2.replace =
account.6.dns_cache_naptr.2.service =
account.6.dns_cache_naptr.2.ttl =
```

```
account.6.static_cache_pri =

#####
#####
##                               Register Advanced
##
#####
account.6.sip_server_type =
account.6.unregister_on_reboot =
account.6.sip_trust_ctrl =
account.6.proxy_require =
account.6.srv_ttl_timer_enable =
account.6.register_mac =
account.6.register_line =
account.6.reg_fail_retry_interval =

#####
##                               NAT Settings                               ##
#####
account.6.nat.nat_traversal =
account.6.nat.stun_server =
account.6.nat.stun_port =
account.6.nat.udp_update_enable =
account.6.nat.udp_update_time =
account.6.nat.rport =

#####
#####
##                               Account6 Advance Settings
##
#####
account.6.advanced.timer_t1 =
account.6.advanced.timer_t2 =
account.6.advanced.timer_t4 =

voice_mail.number.6 = %BWVOICE-PORTAL-NUMBER-6%

#####
#####
##                               Subscribe
##
#####
account.6.subscribe_mwi =
account.6.subscribe_mwi_expires =
account.6.subscribe_mwi_to_vm =
account.6.subscribe_acd_expires=

#####
#####
##                               BLF List
##
#####
account.6.blf.blf_list_uri = %BWBLF-URI-6%
account.6.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-6%
account.6.blf_list_barge_in_code = %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-6%

account.6.blf.subscribe_period =
account.6.blf.subscribe_event =
account.6.out_dialog_blf_enable =

#####
#####
##                               BLA/SCA
##
##
```

```
#####
#####
account.6.shared_line = %BWSHAREDLINE-BINARY-6%
account.6.bla_number =
account.6.bla_subscribe_period =

#####
#####
##                               Audio Codec
##
#####
###T19D/T21D support codec1-codec8
###T20P/T22P/T26P/T28P support codec1-codec11
###T41P/T42G/T46G/T48G support codec1-codec12

account.6.codec.1.enable =
account.6.codec.1.payload_type =
account.6.codec.1.priority =
account.6.codec.1.rtpmap =

account.6.codec.2.enable =
account.6.codec.2.payload_type =
account.6.codec.2.priority =
account.6.codec.2.rtpmap =

account.6.codec.3.enable =
account.6.codec.3.payload_type =
account.6.codec.3.priority =
account.6.codec.3.rtpmap =

account.6.codec.4.enable =
account.6.codec.4.payload_type =
account.6.codec.4.priority =
account.6.codec.4.rtpmap =

account.6.codec.5.enable =
account.6.codec.5.payload_type =
account.6.codec.5.priority =
account.6.codec.5.rtpmap =

account.6.codec.6.enable =
account.6.codec.6.payload_type =
account.6.codec.6.priority =
account.6.codec.6.rtpmap =

account.6.codec.7.enable =
account.6.codec.7.payload_type =
account.6.codec.7.priority =
account.6.codec.7.rtpmap =

account.6.codec.8.enable =
account.6.codec.8.payload_type =
account.6.codec.8.priority =
account.6.codec.8.rtpmap =

account.6.codec.9.enable =
account.6.codec.9.payload_type =
account.6.codec.9.priority =
account.6.codec.9.rtpmap =

account.6.codec.10.enable =
account.6.codec.10.payload_type =
account.6.codec.10.priority =
account.6.codec.10.rtpmap =

account.6.codec.11.enable =
account.6.codec.11.payload_type =
account.6.codec.11.priority =
account.6.codec.11.rtpmap =
```



```
account.6.codec.12.enable =
account.6.codec.12.payload_type =
account.6.codec.12.priority =
account.6.codec.12.rtpmap =

#####
#####
##                               Audio Advanced
##
#####
#####
account.6.srtp_encryption =
account.6.ptime =

#####
#####
##                               Anonymous Call
##
#####
#####
account.6.send_anonymous_code =
account.6.anonymous_call =
account.6.anonymous_call_oncode =
account.6.anonymous_call_offcode =
account.6.reject_anonymous_call = %REJECT_ANONYMOUS_CALL_BINARY%
account.6.anonymous_reject_oncode =
account.6.anonymous_reject_offcode =

#####
#####
##                               Pickup Code
##
#####
#####
account.6.dialinfo_callpickup =
account.6.group_pickup_code = %BWFAC-CALL-PICKUP-6%
account.6.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-6%

#####
#####
##                               DTMF
##
#####
#####
account.6.dtmf.type =
account.6.dtmf.info_type =
account.6.dtmf.dtmf_payload =

#####
#####
##                               Alert info
##
#####
#####
account.6.alert_info_url_enable =
account.6.ringtone.ring_type =

###Only for T46G/T48G Model
account.6.picture_info_enable =

#####
#####
##                               Conference
##
#####
#####
account.6.conf_type =
account.6.conf_uri = %BWNWORK-CONFERENCE-SIPURI-6%

#####
#####
```

```
##                                CID Source
##
#####
account.6.cid_source =
account.6.cid_source_privacy =
account.6.cid_source_ppi =
account.6.cp_source =

#####
##                                Session Timer
##
#####
account.6.session_timer.enable =
account.6.session_timer.expires =
account.6.session_timer.refresher =

#####
##                                Music on Hold
##
#####
account.6.music_on_hold_type =
account.6.music_server_uri =

#####
##                                Advanced
##
#####
account.6.auto_answer = %AUTO_ANSWER_BINARY%
account.6.missed_calllog =
account.6.100rel_enable =
account.6.enable_user_equal_phone =
account.6.compact_header_enable =

#####
##                                DND
##
#####
account.6.dnd.enable =
account.6.dnd.on_code =
account.6.dnd.off_code =

#####
##                                Call Forward
##
#####
account.6.always_fwd.enable =
account.6.always_fwd.target =
account.6.always_fwd.off_code =
account.6.always_fwd.on_code =
account.6.busy_fwd.enable =
account.6.busy_fwd.target =
account.6.busy_fwd.off_code =
account.6.busy_fwd.on_code =
account.6.timeout_fwd.enable =
account.6.timeout_fwd.target =
account.6.timeout_fwd.timeout =
account.6.timeout_fwd.off_code =
account.6.timeout_fwd.on_code =

#####
```

```
#####
##                                Broadsoft Hoteling
##
#####
#####
account.6.hoteling.enable =
account.6.hoteling.user_id =
account.6.hoteling.password =
account.6.hoteling.auto_login_enable =

#####
#####
##                                Broadsoft ACD
##
#####
#####
account.6.acd.enable =
account.6.acd.unavailable_reason_enable =
account.6.acd.available =
account.6.acd.initial_state =

#####
#####
##                                Broadsoft ACD Call Center
##
#####
#####
account.6.reason_code.1 =
account.6.reason_code_name.1 =
account.6.bw_disp_code.1 =
account.6.bw_disp_code_name.1 =
account.6.supervisor_info_code.1 =
account.6.supervisor_info_code_name.1 =

#####
#####
##                                Broadsoft Call Center
##
#####
#####
account.6.call_center.call_info_enable =
account.6.call_center.show_call_info_time =
account.6.call_center.disp_code_enable =
account.6.call_center.trace_enable =
account.6.call_center.emergency_enable =
account.6.call_center.queue_status_enable =
account.6.call_center.queue_status_light_enable =

#####
#####
##                                Broadsoft Setting
##
#####
#####
bw.enable = %FEATURY_BW_DIR%
###It enables or disables feature key synchronization.
###0-Disabled,1-Enabled.
###The default value is 0.
bw.feature_key_sync = %FEATURE_SYNC%

#####
#####
##                                Broadsoft XSI
##
#####
#####
##It configures the user name for XSI authentication for account
X.Example:account.1.xsi.user = 3502@as.iop1.broadworks.net.
##The default value is blank.
account.1.xsi.user = %BWLOGIN-ID-1%
```

```
##It configures the password for XSI authentication for account
X.Example:account.1.xsi.password = 123456.
##The default value is blank.
account.1.xsi.password = %XSIPASSWORD-1%
##It configures the access URL of the Xtended Services Platform server for
account X.Example:account.1.xsi.host = xsp1.iop1.broadworks.net.
##The default value is blank.
account.1.xsi.host = %XSP_ADDRESS%
##It configures the server type of the Xtended Services Platform server for
account X.Example:account.1.xsi.server_type = http.
##The default value is http.
account.1.xsi.server_type =
##It configures the server port of the Xtended Services Platform server for
account X.Example:account.1.xsi.port = 80.
##The default value is 80.Integer from 1 to 65535
account.1.xsi.port =
##It configures the interval (in minutes) for the phone to update the data of
the BroadSoft directory from the BroadSoft server.
##The default value is 60.Integer from 2 to 43200
directory.update_time_interval =

#####
#####
##
##
##
#####
#####
####It enables or disables the phone to display the group directory.
###0-Disabled,1-Enabled.
###The default value is 1.
bw_phonebook.group_enable = 1
####It enables or disables the phone to display the personal directory.
###0-Disabled,1-Enabled.
###The default value is 1.
bw_phonebook.personal_enable = 1
####It enables or disables the phone to display the group common directory.
###0-Disabled,1-Enabled.
###The default value is 1.
bw_phonebook.group_common_enable = 1
####It configures the display name on the LCD screen for the group common
directory.
###The default value is GroupCommon.
bw_phonebook.group_common_displayname = GroupCommon
####It enables or disables the phone to display the enterprise directory.
###0-Disabled,1-Enabled.
###The default value is 1.
bw_phonebook.enterprise_enable = 1
####It enables or disables the phone to display the enterprise common
directory.
###0-Disabled,1-Enabled.
###The default value is 1.
bw_phonebook.enterprise_common_enable = 1
####It configures the display name on the LCD screen for the enterprise common
directory.
###The default value is EnterpriseCommon.
bw_phonebook.enterprise_common_displayname = EnterpriseCommon
####It enables or disables BroadSoft call log feature.
###0-Disabled,1-Enabled.
###The default value is 0.
bw_phonebook.call_log_enable = 1
####It enables or disables custom directory feature.
###0-Disabled,1-Enabled.
###The default value is 0.
bw_phonebook.custom =
####It configures the display name on the LCD screen for the group directory.
###The default value is Group.
bw_phonebook.group_displayname = %BWGROUPID-1%
####It configures the display name on the LCD screen for the enterprise
directory.
###The default value is Enterprise.
bw_phonebook.enterprise_displayname = %BWENTERPRISEID-1%BWSERVICEPROVIDERID-
```

```

1%
bw_phonebook.personal_displayname = Personal

#####
#####
##
##           UC-One(Only T46G/T48G Model supports These settings)
##
#####
#####
features.uc_enable = 1
features.uc_username = %BW_USER_IMP_ID-1%
features.uc_password = %BW_USER_IMP_PWD-1%
phone_setting.dsskey_directory_auto.enable =

#####
#####
##
##           Features Pickup
##
#####
#####
##It enables or disables the phone to display the GPickup soft key when the
phone is in the pre-dialing screen.
##0-Disabled,1-Enabled.
##The default value is 0.
features.pickup.group_pickup_enable =
##It configures the group call pickup code.
##The default value is blank.
features.pickup.group_pickup_code = %BWFAC-CALL-PICKUP-1%
##It enables or disables the phone to display the DPickup soft key when the
phone is in the pre-dialing screen.
##0-Disabled,1-Enabled.
##The default value is 0.
features.pickup.direct_pickup_enable =
##It configures the directed call pickup code.
##The default value is blank.
features.pickup.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%
##It enables or disables the phone to display a visual alert when the
monitored user receives an incoming call.
##0-Disabled,1-Enabled.
##The default value is 0.
features.pickup.blf_visual_enable =
##It enables or disables the phone to play an audio alert when the monitored
user receives an incoming call.
##0-Disabled,1-Enabled.
##The default value is 0.
features.pickup.blf_audio_enable =

#####
#####
##
##           Call Park
##
#####
#####
###It enables or disables the phone to display the Park soft key during a
call.
###0-Disabled,1-Enabled.
###The default value is 0.
call_park.enable = %FEATURE_BW_CALL_PARK%
###It enables or disables the phone to display the GPark soft key during a
call.
###0-Disabled,1-Enabled.
###The default value is 0.
call_park.group_enable = %FEATURE_BW_CALL_PARK%
###It enables or disables the phone to play a warning tone when a call is
parked against its line.
###0-Disabled,1-Enabled.
###The default value is 0.
call_park.park_ring = %FEATURE_BW_CALL_PARK%
###It enables or disables the phone to display a parked indicator when a call
is parked against its line.

```

```

###0-Disabled,1-Enabled.
###The default value is 0.
call_park.park_visual_notify_enable = %FEATURE_BW_CALL_PARK%

#####
#####
##                                Time
##
#####
#####
##It configures the time zone.For more available time zones, refer to Time
Zones on page 215.
##The default value is +8.
local_time.time_zone = %BWTIMEZONE-1%
##It configures the time zone name.For more available time zone names, refer
to Time Zones on page 215.
##The default time zone name is China(Beijing).
local_time.time_zone_name = %TIMEZONENAME%
local_time.ntp_server1 = %SNTP_SERVER_1%
local_time.ntp_server2 = %SNTP_SERVER_2%
##It configures the update interval (in seconds) when using the NTP server.
##The default value is 1000.Integer from 15 to 86400
local_time.interval =
##It enables or disables daylight saving time (DST) feature.
##0-Disabled,1-Enabled,2-Automatic.
##The default value is 2.
local_time.summer_time =
##It configures the way DST works when DST feature is enabled.
##0-DST By Date ,1-DST By Week.
##The default value is 0.
local_time.dst_time_type =
##It configures the start time of the DST.
##Value formats are:Month/Day/Hour (for By Date),Month/ Day of Week/ Day of
Week Last in Month/ Hour of Day (for By Week)
##The default value is 1/1/0.
local_time.start_time =
##It configures the end time of the DST.
##Value formats are:Month/Day/Hour (for By Date),Month/ Day of Week/ Day of
Week Last in Month/ Hour of Day (for By Week)
##The default value is 12/31/23.
local_time.end_time =
##It configures the offset time (in minutes).
##The default value is blank.Integer from -300 to 300
local_time.offset_time =
##It configures the time format.0-12 Hour,1-24 Hour.
##The default value is 1.
local_time.time_format =
local_time.date_format =
##It enables or disables the phone to update time with the offset time
obtained from the DHCP server.
##It is only available to offset from GMT 0.0-Disabled,1-Enabled.
##The default value is 0.
local_time.dhcp_time =
##It configures the phone to obtain time from NTP server or manual
settings.0-Manual,1-NTP
##The default value is 1.
local_time.manual_time_enable =
##It enables or disables the phone to use manually configured NTP server
preferentially.
##0-Disabled (use the NTP server obtained by DHCP preferentially),1-Enabled.
##The default value is 0.
local_time.manual_ntp_srv_prior =
auto_dst.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACCE
SSURI%Autodst.xml

#####
#####
##                                Tones
##
#####

```

```
#####
voice.tone.country = %COUNTRY%
voice.tone.dial =
voice.tone.ring =
voice.tone.busy =
voice.tone.congestion =
voice.tone.callwaiting =
voice.tone.dialrecall =
voice.tone.info =
voice.tone.stutter =
voice.tone.message =
voice.tone.autoanswer =

#####
##                                     Language Settings
##
#####
##It configures the language of the web user interface.
##Chinese_S is only applicable to SIP-T19P, SIP-T21P, SIP-T46G and SIP-T48G
IP phones.
##Chinese_T is only applicable to SIP-T46G and SIP-T48G IP phones.
##French, Portuguese and Spanish are not applicable to SIP-T19P and SIP-T21P
IP phones.
lang.wui =

##It configures the language of the phone user interface.
##Chinese_S and Chinese_T are only applicable to SIP-T19P, SIP-T21P, SIP-T46G
and SIP-T48G IP phones.
##The default value is English.
lang.gui =
gui_lang.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACCE
SSURI%/%BWLLANGUAGE-1%
gui_lang.delete =

#####
##                                     Autop
##
#####
auto_provision.server.username = %BWDEVICEUSERNAME%
auto_provision.server.password = %DEVICE_ACCESS_PWD%

#####
##                                     NETWORK
##
#####
##It configures the IP address mode.0-IPv4,1-IPv6,2-IPv4&IPv6
##The default value is 0.It takes effect after a reboot.
network.ip_address_mode =

network.ipv6_prefix =
network.ipv6_internet_port.type =
network.ipv6_internet_port.ip =
network.ipv6_internet_port.gateway =
network.ipv6_primary_dns =
network.ipv6_secondary_dns =

####Only T46G/T48G Model supports this parameter
network.ipv6_icmp_v6.enable =

network.internet_port.type =
network.internet_port.ip =
network.internet_port.mask =
network.internet_port.gateway =
network.primary_dns= %DNS_SERVER_1%
```

network.secondary_dns = %DNS_SERVER_2%
--

Appendix B: %TIMEZONENAME% Values

Time Zone	Time Zone Name
-11:00	Samoa
-10:00	United States-Hawaii-Aleutian
-10:00	United States-Alaska-Aleutian
-09:00	United States-Alaska Time
-08:00	Canada (Vancouver, Whitehorse)
-08:00	Mexico (Tijuana, Mexicali)
-08:00	United States-Pacific Time
-07:00	Canada (Edmonton, Calgary)
-07:00	Mexico (Mazatlan, Chihuahua)
-07:00	United States-Mountain Time
-07:00	United States-MST no DST
-06:00	Canada-Manitoba (Winnipeg)
-06:00	Chile (Easter Islands)
-06:00	Mexico (Mexico City, Acapulco)
-06:00	United States-Central Time
-05:00	Bahamas (Nassau)
-05:00	Canada (Montreal, Ottawa, Quebec)
-05:00	Cuba (Havana)
-05:00	United States-Eastern Time
-04:30	Venezuela (Caracas)
-04:00	Canada (Halifax, Saint John)
-04:00	Chile (Santiago)
-04:00	Paraguay (Asuncion)
-04:00	United Kingdom-Bermuda (Bermuda)
-04:00	United Kingdom (Falkland Islands)
-04:00	Trinidad&Tobago
-03:30	Canada-New Foundland (St.Johns)
-03:00	Denmark-Greenland (Nuuk)
-03:00	Argentina (Buenos Aires)
-03:00	Brazil (no DST)
-03:00	Brazil (DST)
-02:00	Brazil (no DST)
-01:00	Portugal (Azores)
0	GMT

Time Zone	Time Zone Name
0	Greenland
0	Denmark-Faroe Islands (Torshavn)
0	Ireland (Dublin)
0	Portugal (Lisboa, Porto, Funchal)
0	Spain-Canary Islands (Las Palmas) Administrator's Guide for SIP-T4X IP Phones
0	United Kingdom (London)
0	Morocco
+01:00	Albania (Tirane)
+01:00	Austria (Vienna)
+01:00	Belgium (Brussels)
+01:00	Caicos
+01:00	Chad
+01:00	Croatia (Zagreb)
+01:00	Czech Republic (Prague)
+01:00	Denmark (Kopenhagen)
+01:00	France (Paris)
+01:00	Germany (Berlin)
+01:00	Hungary (Budapest)
+01:00	Italy (Rome)
+01:00	Luxembourg (Luxembourg)
+01:00	Macedonia (Skopje)
+01:00	Netherlands (Amsterdam)
+01:00	Namibia (Windhoek)
+02:00	Estonia (Tallinn)
+02:00	Finland (Helsinki)
+02:00	Gaza Strip (Gaza)
+02:00	Greece (Athens)
+02:00	Israel (Tel Aviv)
+02:00	Jordan (Amman)
+02:00	Latvia (Riga)
+02:00	Lebanon (Beirut)
+02:00	Moldova (Kishinev)
+02:00	Russia (Kaliningrad)
+02:00	Romania (Bucharest)
+02:00	Syria (Damascus)
+02:00	Turkey (Ankara)

Time Zone	Time Zone Name
+02:00	Ukraine (Kyiv, Odessa)
+03:00	East Africa Time
+03:00	Iraq (Baghdad)
+03:00	Russia (Moscow)
+03:30	Iran (Teheran)
+04:00	Armenia (Yerevan)
+04:00	Azerbaijan (Baku)
+04:00	Georgia (Tbilisi)
+04:00	Kazakhstan (Aktau)
+04:00	Russia (Samara)
+04:30	AfghanistanAppendix
+05:00	Kazakhstan (Aqtobe)
+05:00	Kyrgyzstan (Bishkek)
+05:00	Pakistan (Islamabad)
+05:00	Russia (Chelyabinsk)
+05:30	India (Calcutta)
+06:00	Kazakhstan (Astana, Almaty)
+06:00	Russia (Novosibirsk, Omsk)
+07:00	Russia (Krasnoyarsk)
+07:00	Thailand (Bangkok)
+08:00	China (Beijing)
+08:00	Singapore (Singapore)
+08:00	Australia (Perth)
+09:00	Korea (Seoul)
+09:00	Japan (Tokyo)
+09:30	Australia (Adelaide)
+09:30	Australia (Darwin)
+10:00	Australia (Sydney, Melbourne, Canberra)
+10:00	Australia (Brisbane)
+10:00	Australia (Hobart)
+10:00	Russia (Vladivostok)
+10:30	Australia (Lord Howe Islands)
+11:00	New Caledonia (Noumea)
+12:00	New Zealand (Wellington, Auckland)
+12:45	New Zealand (Chatham Islands)
+13:00	Tonga (Nukualofa)

References

- [1] Yealink, Inc. 2013. *Yealink T4x IP Phone User Guide, Release 71*. Available from Yealink at <http://www.yealink.com/DocumentDownload.aspx?CatId=142&flag=142>.
- [2] BroadSoft, Inc. 2014. *BroadWorks Device Management Configuration Guide, Release 19.0*. Available from BroadSoft at xchange.broadsoft.com.
- [3] BroadSoft, Inc. 2013. *BroadWorks Redundancy Guide, Release 19.0*. Available from BroadSoft at xchange.broadsoft.com.
- [4] BroadSoft, Inc. 201. *BroadWorks SIP Access Device Interoperability Test Plan, Release 19.0*. Available from BroadSoft at xchange.broadsoft.com.
- [5] BroadSoft, Inc. 2013. *BroadWorks Device Management Interoperability Test Plan, Release 19.0*. Available from BroadSoft at xchange.broadsoft.com.