



BroadSoft Partner Configuration Guide

Yealink SIP-T4x IP Phone

December 2018

Document Version 1.33

BroadWorks® Guide

Copyright Notice

Copyright© 2019 BroadSoft, Inc.

All rights reserved.

Any technical documentation that is made available by BroadSoft, Inc. is proprietary and confidential and is considered the copyrighted work of BroadSoft, Inc.

This publication is for distribution under BroadSoft non-disclosure agreement only. No part of this publication may be duplicated without the express written permission of BroadSoft, Inc., 9737 Washingtonian Boulevard, Suite 350, Gaithersburg, MD 20878.

BroadSoft reserves the right to make changes without prior notice.

Trademarks

Any product names mentioned in this document may be trademarks or registered trademarks of BroadSoft or their respective companies and are hereby acknowledged.

This document is printed in the United States of America.

Document Revision History

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.
1.9	Updated with in-house Yealink T4x IP Phone version x.72.193.x validation with BroadWorks Release 20.sp1.
1.10	Updated copyright notice and trademarks. Made editorial changes.
1.11	Edited and published document.
1.12	Appendix A updated due to minor configuration template change.
1.13	Updated with in-house Yealink T4x IP Phone version xx.73.193.50 validation with BroadWorks Release 21.sp1.
1.14	Edited changes and published document.
1.15	Updated with Yealink T4x IP Phone version xx.80.193.70 validation with BroadWorks Release 21.sp1. Also, added newer models.
1.16	Edited changes and published document.
1.17	Updated the document to include the No-Touch Provisioning as supported by Yealink T4x phones.
1.18	Edited changes and published document.
1.19	Updated the DM Supported capability table.
1.20	Edited changes and published document.
1.21	Updated the DM Supported capability table to show status of No-Touch provisioning
1.22	Updated with Yealink T4x IP Phone version xx.81.193.15 validation with BroadWorks Release 21.sp1. Also, added newer models.
1.23	Edited changes and published document.
1.24	Updated with Yealink T4x IP Phone version xx.81.193.80 validation with BroadWorks Release 22.0. Also, added new T40G model.
1.25	Edited changes and published document.
1.26	Updated Yealink T4x IP Phone version xx.81.193.80 SIP and Xsi/XMPP supported capability table.
1.27	Edited changes and published document.
1.28	Updated with Yealink T4x IP Phone version xx.82.x.20 validation with BroadWorks Release 22.0.

Version	Reason for Change
1.29	Edited changes and published document.
1.30	Updated with Yealink T4x IP Phone version xx.83.x.10 validation with BroadWorks Release 22.0.
1.31	Edited changes and published document.
1.32	Updated with Yealink T4x IP Phone version xx.84.x.10 validation with BroadWorks Release 22.0.
1.33	Edited changes and published document.

Table of Contents

1 Overview	8
2 Interoperability Status.....	9
2.1 Verified Versions.....	9
2.2 Interface Capabilities Supported.....	11
2.2.1 SIP Interface Capabilities	11
2.2.2 Other Interface Capabilities.....	16
2.3 Known Issues	18
3 BroadWorks Configuration	20
3.1 BroadWorks Device Profile Type Configuration	20
3.2 BroadWorks Configuration Steps	21
4 T4x IP Phone Configuration	22
4.1 System Level Configuration	22
4.2 Subscriber Level Configuration Parameters	24
4.3 SIP Advanced Feature Configuration.....	24
4.3.1 Shared Call Appearance Configuration.....	24
4.3.2 Busy Lamp Field Configuration.....	31
4.3.3 Feature Key Synchronization Configuration	32
4.3.4 Call Center Feature Configuration	33
4.3.5 Call Recording Feature Configuration	36
4.3.6 Security Classification Feature Configuration	37
4.3.7 Emergency Call Configuration	37
4.3.8 Advice of Charge Configuration.....	37
4.3.9 Conference Event Configuration.....	37
4.3.10 Flexible Seating	37
4.3.11 PANI Header Support Configuration	39
4.3.12 Do Not Disturb	39
4.3.13 Call Forward.....	40
4.4 Xtended Services Interface (Xsi) Feature Configuration	42
4.4.1 BroadWorks User Service Configuration	45
4.4.2 BroadWorks Directory Configuration.....	46
4.4.3 BroadWorks Call Logs Configuration	47
4.4.4 BroadWorks Call Park Configuration.....	48
4.4.5 Broadworks Call Recording Configuration	49
4.4.6 BroadWorks Visual Voice Mail Configuration	50
4.5 Instant Message and Presence Configuration.....	51
4.6 Connected Line Presentation on UPDATE or Re-Invite	53
4.7 Challenge INVITE Requests Configuration	54
5 Device Management.....	55
5.1 Device Management Capabilities Supported	55

5.2	Device Management Configuration	57
5.2.1	Configure BroadWorks Tags	57
5.2.2	Configure BroadWorks Device Profile Type	61
5.2.3	Create Device Profile Instance	73
5.2.4	Configure BroadWorks User	74
5.2.5	File Authentication Using MAC Address from Client Certificate	75
5.2.6	Configure Yealink T4x IP Phone.....	78
5.3	Upgrade from Previous CPE Kits	86
	Appendix A: Reference T4x Configuration Files	87
	Appendix B: %TIMEZONENAME% Values	148
	References.....	151

Table of Figures

Figure 1 Device Identity/Profile Type.....	21
Figure 2 Shared Call Appearance Configuration.....	25
Figure 3 Shared Call Appearance Configuration Page.....	28
Figure 4 Account Register Page.....	28
Figure 5 Account Register Page.....	29
Figure 6 Shared Line Field.....	29
Figure 7 Line Key Fields.....	30
Figure 8 Auto Line Keys.....	30
Figure 9 Number of Line Key.....	30
Figure 10 BLF Settings.....	31
Figure 11 Busy Lamp Field Configuration Page.....	31
Figure 12 Feature Key Synchronization Configuration.....	33
Figure 13 Call Control → Call Centers Page.....	33
Figure 14 Account Register Page.....	34
Figure 15 SIP Server Type Field.....	34
Figure 16 Call Control → Call Recording.....	36
Figure 17 Utilities → Security Classification.....	37
Figure 18 Flexible Host.....	38
Figure 19 Flexible Guest.....	38
Figure 20 Incoming Calls → Do Not Disturb.....	39
Figure 21 Configure Do Not Disturb.....	40
Figure 22 Incoming Calls → Call Forwarding Always.....	41
Figure 23 Incoming Calls → Call Forwarding Busy.....	41
Figure 24 Incoming Calls → Call Forwarding No Answer Busy.....	41
Figure 25 Configure Forward.....	42
Figure 26 Xtended Services Interface Configuration.....	43
Figure 27 Xtended Services Platform Account Configuration.....	44
Figure 28 Xtended Services Platform Configuration.....	45
Figure 29 Call Logs Configuration.....	48
Figure 30 Call Park Configuration.....	49
Figure 31 Visual Voice Mail.....	50
Figure 32 Connected Line Presentation on Update or Re-Invite.....	53
Figure 33 System Default Tag Settings.....	58
Figure 34 Device Type-specific Tag Settings.....	61
Figure 35 Device Access FQDN.....	62
Figure 36 <mac-address>.cfg Settings.....	66
Figure 37 Upload File Setting.....	68
Figure 38 Rebuild All Device Profile Files.....	69
Figure 39 Static File Settings.....	70
Figure 40 Language Mapping.....	72
Figure 41 BroadWorks User Language Definition.....	73
Figure 42 Device Profile Instance.....	74
Figure 43 MAC Address Definition for Device Profile Instance.....	77
Figure 44 Device Profile Type Update for MAC-Based Auth using Client Certificate.....	78
Figure 45 Authentication Mode Set to MAC-Based and Sourced from Client Certificate.....	78
Figure 46 Login Screen.....	79
Figure 47 Upgrade Screen.....	80
Figure 48 Device Access FQDN.....	81
Figure 49 Default Device Profile Type.....	82
Figure 50 Configure Advanced Options.....	83
Figure 51 Device Management Options Settings.....	84
Figure 52 Default y0000000000035.cfg.....	85

1 Overview

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

- T40P
- T40G
- T41P
- T41S
- T42G
- T42S
- T46G
- T46S
- T48G
- T48S

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.

Verified Versions			
Date (mm/yyyy)	BroadWorks Release	T4x IP Phone Verified Version	T4x IP Phone Compatible Versions
12/2018	Release 22.0	T40P: 54.84.0.10 T40G: 76.84.0.10 T41S: 66.84.0.10 T42S: 66.84.0.10 T46S: 66.84.0.10 T48S: 66.84.0.10	Any maintenance revision of the validated releases.
04/2018	Release 22.0	T40P: 54.83.0.10 T40G: 76.83.0.10 T41P: 36.83.0.10 T41S: 66.83.0.10 T42G: 29.83.0.10 T42S: 66.83.0.10 T46G: 28.83.0.10 T46S: 66.83.0.10 T48G: 35.83.0.10 T48S: 66.83.0.10	Any maintenance revision of the validated releases.
10/2017	Release 22.0	T40P: 54.82.0.20 T40G: 76.82.0.20 T41P: 36.82.0.20 T41S: 66.82.0.20 T42G: 29.82.0.20 T42S: 66.82.0.20 T46G: 28.82.0.20 T46S: 66.82.0.20 T48G: 35.82.0.20 T48S: 66.82.0.20	Any maintenance revision of the validated releases.

Verified Versions			
Date (mm/yyyy)	BroadWorks Release	T4x IP Phone Verified Version	T4x IP Phone Compatible Versions
07/2017	Release 22.0	T40P: 54.81.193.80 T40G: 76.81.193.80 T41P: 36.81.193.80 T41S: 66.81.193.80 T42G: 29.81.193.80 T42S: 66.81.193.80 T46G: 28.81.193.80 T46S: 66.81.193.80 T48G: 35.81.193.80 T48S: 66.81.193.80	Any maintenance revision of the validated releases.
12/2016	Release 21.sp1	T40P: 54.81.193.15 T41P: 36.81.193.15 T41S: 66.81.193.15 T42G: 29.81.193.15 T42S: 66.81.193.15 T46G: 28.81.193.15 T46S: 66.81.193.15 T48G: 35.81.193.15 T48S: 66.81.193.15	Any maintenance revision of the validated releases.
01/2016	Release 21.sp1	T40: 54.80.193.70 T40P: 54.80.193.70 T41P: 36.80.193.70 T42G: 29.80.193.70 T46G: 28.80.193.70 T48G: 35.80.193.70 T49G: 51.80.193.70	Any maintenance revision of the validated releases.
05/2015	Release 21.sp1	T48G: 35.73.193.50 T46G: 28.73.193.50 T42G: 29.73.193.50 T41P: 36.73.193.50	Any maintenance revision of the validated releases.

Compatible Versions in the following table identify specific T4x IP Phone versions, which the partner has identified as compatible and they 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 themselves using the *BroadWorks SIP Phone Interoperability Test Plan* [6].

2.2 Interface Capabilities Supported

This section identifies interface capabilities that have been verified through testing as supported by Yealink T4x IP Phone.

The *Supported* column in the tables in this section identifies the Yealink T4x IP Phone's support for each of the items covered in the test plan, 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.

2.2.1 SIP Interface Capabilities

The Yealink T4x IP Phone has completed interoperability testing with BroadWorks using the *BroadWorks SIP Phone Interoperability Test Plan* [6]. 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.

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	
	Third-Party Call Control – Basic	NA	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
BroadWorks Services	Third-Party Call Control – Advanced	Yes	
	Voice Message Deposit/Retrieval	Yes	
	Message Waiting Indicator – Unsolicited	Yes	
	Message Waiting Indicator – Solicited	Yes	
	Message Waiting Indicator – Detail	Yes	Saved and urgent message information not displayed.
	Voice Portal Outcall	Yes	
	Advanced Alerting – Ringing	Yes	
	Advanced Alerting – Call Waiting	Yes	
	Advanced Alerting – Ring Splash	Yes	
	Advanced Alerting – Silent Alerting	Yes	
	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	Yes	
	Connected Line ID on Re-INVITE	Yes	
	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	
	Meet-Me Conferencing – Opus	Yes	Only T40G/T41S/T42S/T46S/T48S.
	Collaborate – Audio	Yes	
	Collaborate – Audio – G722	Yes	
	Collaborate – Audio – Opus	Yes	Only T40G/T41S/T42S/T46S/T48S.
	Call Decline Policy	Yes	
DUT Services – Call Control Services	Call Waiting	Yes	
	Call Hold	Yes	
	Call Transfer	Yes	
	Three-Way Calling	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
DUT Services – Registration and Authentication	Network-Based Conference	Yes	
	Register Authentication	Yes	
	Maximum Registration	Yes	
	Minimum Registration	Yes	
	Invite Authentication	Yes	
	Re-Invite/Update Authentication	Yes	
	Refer Authentication	Yes	
DUT Services – Emergency Call	Device Authenticating BroadWorks	Yes	
	Emergency Call	No	
DUT Services – P-Access-Network-Info Header	Emergency Call with Ringback	No	
	REGISTER with P-Access-Network-Info Header	Yes	
DUT Services – Miscellaneous	INVITE with P-Access-Network-Info Header	Yes	
	Do Not Disturb	Yes	
	Call Forwarding Always	Yes	
	Call Forwarding Always Diversion Inhibitor	Yes	
	Anonymous Call	No	
	Anonymous Call Block	No	
Advanced Phone Services – Busy Lamp Field	Remote Restart Via Notify	Yes	Check-sync.
	Busy Lamp Field	Yes	
Advanced Phone Services – Feature Key Synchronization, Private Line	Call Park Notification	Yes	
	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	Yes	
	Security Classification	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
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	Yes	
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	
	Bridge Active Line	Yes	
	Bridge Active Line – Silent Monitor	Yes	
	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	Yes	
	Start/Stop	Yes	Except Mid-call change to Call Recording Mode.
	Record Local Conference	Yes	
	Record Network Conference	Yes	
Advanced Phone Services – Call Recording Video	Basic Call	No	
	Record Local Conference	No	
	Record Network Conference	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
Advanced Phone Services – Security Classification	Security Classification	Yes	
Advanced Phone Services – Conference Event	Network-Based Conference Creator	No	
	Network-Based Conference Participant	No	
	Meet-Me Conference Participant	No	
Redundancy	DNS SRV Lookup	Yes	
	Register Failover/Failback	Yes	
	Invite Failover/Failback	Yes	
	Bye Failover	Yes	
SBC/ALG - Basic	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
SBC/ALG – Failover/Failback	Register Failover/Failback	Yes	
	Invite Failover/Failback	Yes	
Video – Basic Video Calls	Call Origination	No	
	Call Termination	No	
	Call Hold	No	
	Call Waiting	No	
	Call Transfer	No	
Video – BroadWorks Video Services	Auto Attendant	No	
	Auto Attendant – HD	No	
	Voice Messaging	No	
	Voice Messaging – HD	No	
	Custom Ringback	No	
Video – BroadWorks Video Conference	Network-based Conference	No	
	Network-based Conference – HD	No	
	Collaborate – Video	No	
	Collaborate – Video – HD	No	
Video – BroadWorks WebRTC Client	Call from WebRTC Client	No	
	Call to WebRTC Client	No	
TCP	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
IPV6	Call Origination	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
	Call Termination	Yes	
	Session Audit	Yes	
	Ringback	Yes	
	Codec Negotiation/Renegotiation	Yes	
	Voice Message Deposit/Retrieval	Yes	
	Call Control	Yes	
	Registration with Authentication	Yes	
	Busy Lamp Field	Yes	
	Redundancy	Yes	
	SBC	Yes	
	Video	No	
	Dual Stack with Alternate Connectivity	No	

2.2.2 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* [7]. 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	Yes	
	Authenticate with BroadWorks User Login Credentials	Yes	Default.
	Authenticate with BroadWorks User Directory Number	No	
Xsi Features – User Service Configuration	Remote Office	Yes	
	BroadWorks Anywhere	Yes	Except modifying the number.
	Simultaneous Ringing	Yes	
	Caller ID Blocking	Yes	
	Call Forwarding Always	No	Supported via FKS feature.
	Call Forwarding Busy	No	Supported via FKS feature.
	Call Forwarding No Answer	No	Supported via FKS feature.
	Do Not Disturb	No	Supported via FKS feature.

BroadWorks Xtended Services Interface (Xsi) and BroadCloud IM&P Support Table			
Interface	Feature	Supported	Comments
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	
Xsi Features – Visual Voice Mail	View Messages	Yes	
	Listen to Audio Message	Yes	Except T40 (P/G) models.
	Watch Video Message	No	
	Mark Message Read/Unread	Yes	
	Delete Message	Yes	
	Mark All Messages Read/Unread	Yes	
Xsi Features – Push Notification	Register/Deregister for Push Notifications	No	
	Incoming Call via Push Notification	No	
	Call Update via Push Notification	No	
	Incoming Call via Push Notification; Second Incoming Call	No	
	MWI via Push Notification	No	
	Ring Splash via Push Notification	No	
Xsi Features – Call Recording Configurations	Call Record Mode Get	No	
	Set Record Mode	No	
	Set Play Call Recording to Start and Stop Announcement	No	
	Set Record Voice Messaging	No	
	Set Pause and Resume Notification	No	
	Set Recording Notification	No	
Xsi Features – Call Recording Controls	Record Mode set to Never	Yes	
	Record Mode set to Always	Yes	
	Record Mode set to Always with Pause/Resume	Yes	

BroadWorks Xtended Services Interface (Xsi) and BroadCloud IM&P Support Table			
Interface	Feature	Supported	Comments
	Start Recording Mid-Call with Record Mode set to On Demand	Yes	
	Start Recording During Call Setup with Record Mode set to On Demand	Yes	
	Perform User Initiated Start with Record Mode set to On Demand	Yes	
	Perform Mid-Call Start Recording after Placing Call on Hold	Yes	
	Perform Mid-Call Change to Call Recording Mode	No	
	Record Local Three-Way Call	Yes	
	Record Network Three-Way Call	Yes	
XMPP Features – Contact/Buddy List	Contacts	Yes	Only T46G, T46S, T48G, T48S.
	Favorites	Yes	Only T46G, T46S, T48G, T48S.
	Groups	Yes	Only T46G, T46S, T48G, T48S.
	Non-XMPP Contacts	No	
	Conferences	No	
XMPP Features – Presence	Login Invisible	No	
	Presence State	Yes	Only T46G, T46S, T48G, T48S.
	Presence Status	No	
	Contact's Presence State	Yes	Only T46G, T46S, T48G, T48S. Except in Call History.

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.

The *Issue Number* is a tracking number for the issue. If it is a Yealink issue, the issue number is from Yealink's tracking system. If it is a BroadWorks issue, the issue number is from BroadSoft's tracking system.

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.84.0.10	x.83.0.10	x.82.0.20	x.81.193.80
115961	Call Recording: Mid-Call Change to Call Recording Mode. Server Changes the Call Recording Mode when phone is on talking, phone immediately takes effect on the mode change. Workaround: None.	X	X	X	X

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 T4x 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.

Create a device profile type for the Yealink T48G IP Phone as shown in the following example. A separate device profile type should be created for each Yealink T4x IP Phone model. The settings shown are recommended for use when deploying the Yealink T4x IP Phone with BroadWorks. For an explanation of the profile parameters, see the *BroadWorks Device Management Configuration Guide* [3].

The following device profile type shown provides the *Number of Ports* (number of SIP lines) setting for Yealink T4x IP Phone. For other Yealink T4x IP Phone models, create a new device profile type and set the *Number of Ports* to match the available number of SIP lines per model according to the following table.

Model	Number of Lines
T40P	3 SIP accounts, 3 line keys
T40G	3 SIP accounts, 3 line keys
T41P	6 SIP accounts, 15 line keys
T41S	6 SIP accounts, 15 line keys
T42G	12 SIP accounts, 15 line keys
T42S	12 SIP accounts, 15 line keys
T46G	16 SIP accounts, 27 line keys
T46S	16 SIP accounts, 27 line keys
T48G	16 SIP accounts, 29 line keys
T48S	16 SIP accounts, 29 line keys

Identity/Device Profile Type Modify

Modify an existing Identity/device profile type.

OK
Apply
Delete
Export
Cancel

Identity/Device Profile Type: Yealink-T48G
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

Hold Normalization: ☐ Unspecified Address
☐ Inactive
☒ RFC3284

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

Advanced Options

<input type="checkbox"/> Route Advance	<input type="checkbox"/> Forwarding Override
<input type="checkbox"/> Wireless Integration	<input type="checkbox"/> Conference Device
<input type="checkbox"/> PBX Integration	<input type="checkbox"/> Mobility Manager Device
<input type="checkbox"/> Add P-Called-Party-ID	<input type="checkbox"/> Music On Hold Device
<input type="checkbox"/> Auto Configuration Soft Client	<input type="checkbox"/> Requires BroadWorks Digit Collection
<input type="checkbox"/> Requires BroadWorks Call Waiting Tone	<input type="checkbox"/> Requires MWI Subscription
<input type="checkbox"/> Advice of Charge Capable	<input type="checkbox"/> Support Call Center MIME Type
<input type="checkbox"/> Support Emergency Disconnect Control	<input type="checkbox"/> Support Identity In UPDATE and Re-INVITE
<input type="checkbox"/> Enable Monitoring	<input type="checkbox"/> Support RFC 3398
<input type="checkbox"/> Static Line/Port Ordering	<input type="checkbox"/> Support Client Session Info
<input type="checkbox"/> Support Call Info Conference Subscription URI	<input type="checkbox"/> Support Remote Party Info
<input type="checkbox"/> Support Visual Device Management	<input type="checkbox"/> Bypass Media Treatment
<input type="checkbox"/> Support Cause Parameter	

Reset Event: ☐ reSync ☒ checkSync ☐ Not Supported

Trunk Mode: ☒ User ☐ Pilot ☐ Proxy

Hold Announcement Method: ☒ Inactive ☐ Bandwidth Attributes

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

Web Based Configuration URL Extension:

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

Figure 1 Device Identity/Profile Type

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 get 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
<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 <MACADDRESS>.cfg		
Step 1	Set SIP Proxy/Domain. account.1.sip_server.1.address = as.broadworks.net account.1.sip_server.1.port = 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_proxy.1.address = sbc.broadworks.net account.1.outbound_proxy.1.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. sip.timer_t1 = 0.5 sip.timer_t2 = 4 sip.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 4	Set Register Expire Timer. account.1.sip_server.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	Command	Purpose
System Configuration Items <MACADDRESS>.cfg		
Step 6	Enable Session Timer. <pre>account.1.session_timer.enable = 1 account.1.session_timer.expires = 300 account.1.session_timer.refresher = 1</pre>	Set the T4xG IP Phone to enable Session Timer. Session Refresher: <ul style="list-style-type: none"> 0 = uac 1 = uas
Step 7	Enable Call Waiting. <pre>call_waiting.enable = 1 call_waiting.tone = 1</pre>	Set the T4xG IP Phone series to enable Call Waiting and Call Waiting Tone.
Step 8	Enable MWI. <pre>account.1.subscribe_mwi = 0 account.1.subscribe_mwi_expires = 3600</pre>	MWI: Solicited when setting SubscribeMWI = 1. MWI: Not solicited when setting SubscribeMWI = 0.
Step 9	Enable negotiated DTMF type. <pre>account.1.dtmf.type = 1</pre>	Set the T4xG IP Phone to enable inband or RFC 2833 negotiated DTMF.
Step 10	Select Transport Type. <pre>account.1.sip_server.1.transport_type = 0</pre>	Set the SIP transport: Transport = 0 (UDP) Transport = 1 (TCP) Transport = 2 (TLS) Transport = 3 (DNS-SRV) (except T80P)
Step 11	Enable Feature Key Sync. <pre>features.feature_key_sync.enable = 1</pre>	Enable Feature Key Sync: <ul style="list-style-type: none"> 1 = Enabled 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 = xspl.iopl.broadworks.net</code> <code>account.1.xsi.user = 2413333601@as.iopl.broadworks.net</code> <code>account.1.xsi.password = yealink</code>	This configures the phone to use the BroadWorks Xtended Services Interface (Xsi) to retrieve the group phone directory. Host: This is the identity of the BroadWorks Xtended Services Platform (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 SIP Advanced 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, Emergency Call, Advice of Charge, Call Recording, and Security Classification.

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 to use the phone number plus an index (<phoneNumber>_<index>) when provisioning the unique AoR for each shared line, for example: 2405551111_2. If a phone number does not exist, use the Media Access Control (MAC) address plus an index (<macAddress>_<index>).

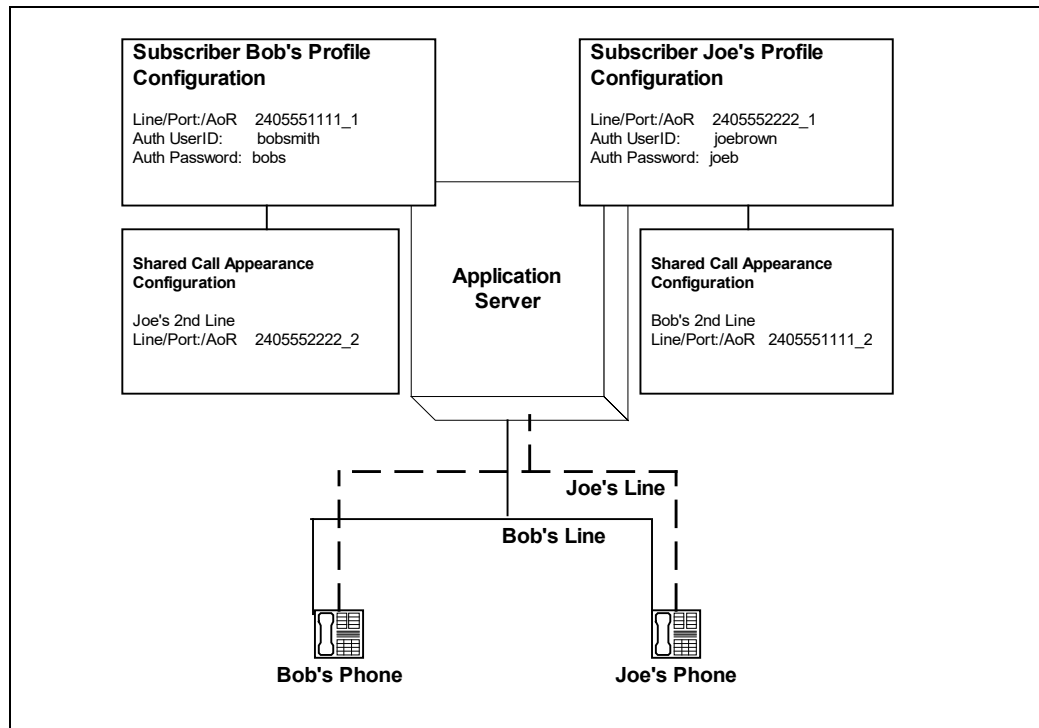


Figure 2 Shared Call Appearance Configuration

Figure 2 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 ring. When Joe (2405552222) is called, Joe's first line and Bob's second line 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. <code>account.1.shared_line = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>account.1.user_name = 2405551111_1;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>account.1.auth_name = bobsmith;</code> <code>account.1.password = bobs;</code>	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: <code>account.1.display_name = Bob Smith;</code>	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. <code>account.2.shared_line = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>account.2.user_name = 2405551111_2;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>account.2.auth_name = joebrown;</code> <code>account.2.password = joe;</code>	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: <code>account.2.display_name = Joe Brown;</code>	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. <code>account.1.shared_line = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>account.1.user_name = 2405552222_1;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>account.1.Auth Name = joebrown;</code> <code>account.1.password = joeb;</code>	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: <code>account.1.Display_Name = Joe Brown;</code>	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. <code>account.2.shared_line = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>account.2.user_name = 2405552222_2;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>account.2.Auth Name = bobsmith;</code> <code>account.2.password password = bobs;</code>	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: <code>account.2.Display_Name = Bob Smith;</code>	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.

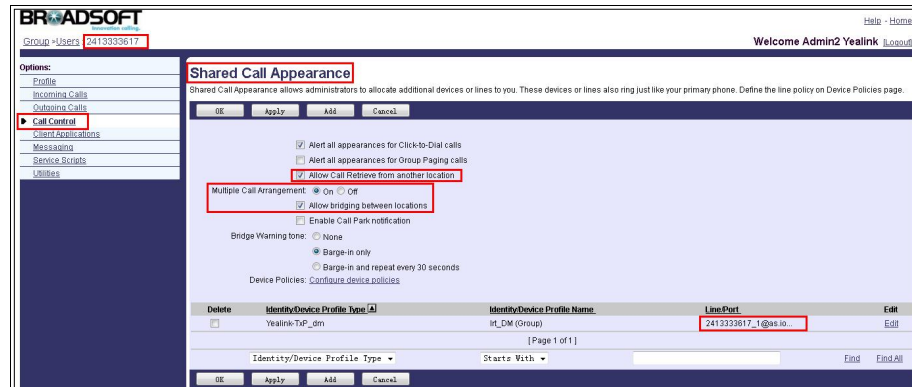


Figure 3 Shared Call Appearance Configuration Page

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

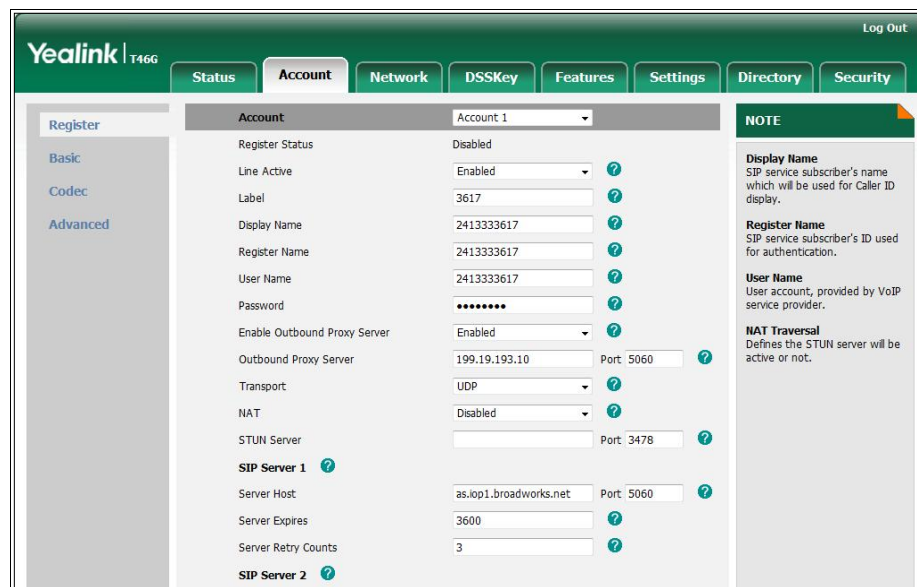


Figure 4 Account Register Page

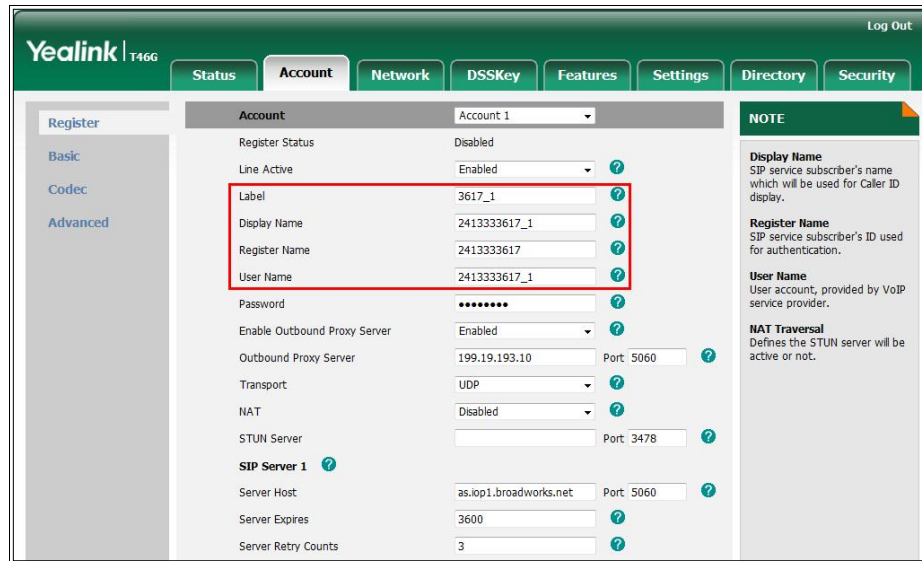


Figure 5 Account Register Page

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 6 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 T40P have three line keys T41P/T41S/T42G/T42S have 15 line keys T46G/T46S have 27 line keys T48G/T48S have 29 line keys

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 T40P have 3 line keys T41P/T41S/T42G/T42S have 15 line keys T46G/T46S have 27 line keys T48G/T48S have 29 line keys

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

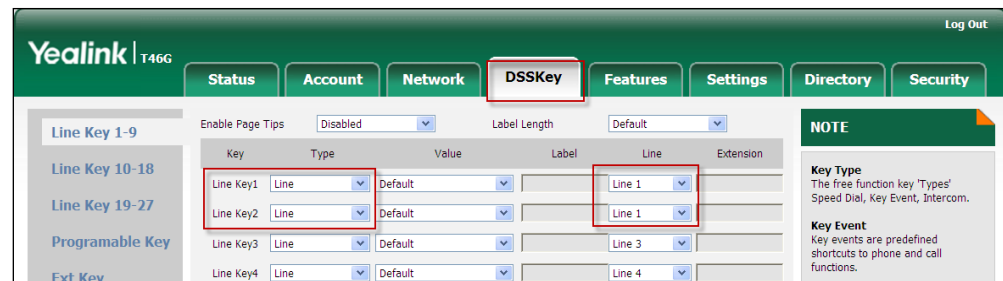


Figure 7 Line Key Fields

Via above method, you can manually set the DSS keys to shared line keys, but after version 72, Yealink phones support setting the DSS keys to shared line keys auto. If you have configured line key 1 to shared line, we need to configure 1 or 1 more free line keys as shared line keys, then you can do as follows. First, go to *Features* → *General Information*, and set the *Auto Linekeys* to “Enabled”, then save the configuration.



Figure 8 Auto Line Keys

Go to *Account* → *Advanced*, input the line key number that you want to set to shared line keys, and then save the configuration. Then the first three free line keys are set to shared line keys.



Figure 9 Number of Line Key

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

Step	Command	Purpose
Step 1	features.auto_linekeys.enable = Example: features.auto_linekeys.enable = 1	Enable setting line keys to shared lines auto <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 2	account.x.number_of_linekey = Example: account.1.number_of_linekey = 5	Set the number of line keys that you want to auto configure to shared line keys. Value range: 1 to 99999

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 = u1062_blflist@as.iop1.broadworks.net	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	<input type="text" value="sip:u1062_blflist@as.iop1.b"/>	?
BLF List Code	<input type="text" value="*97"/>	?
BLF List Barge In Code	<input type="text" value="*33"/>	?
BLF List Retrieve call parked Code	<input type="text" value="*88"/>	?

Figure 10 BLF Settings

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

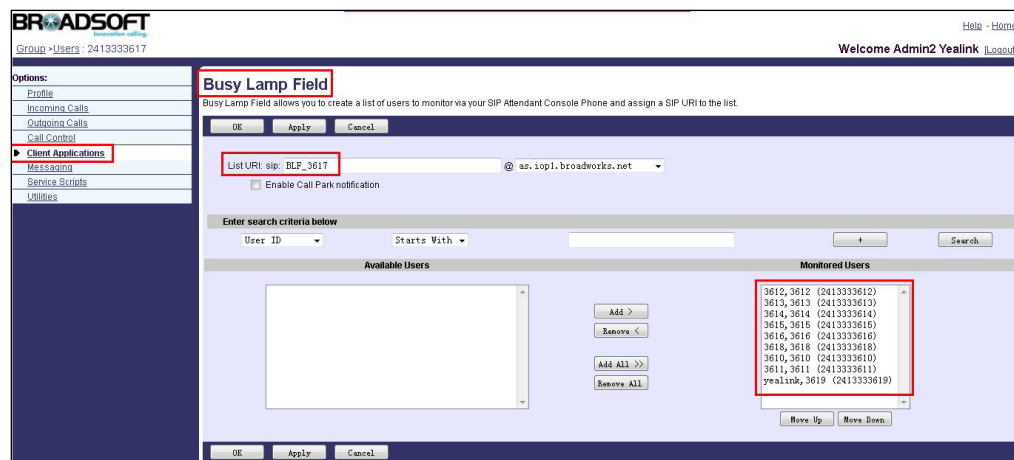


Figure 11 Busy Lamp Field Configuration Page

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

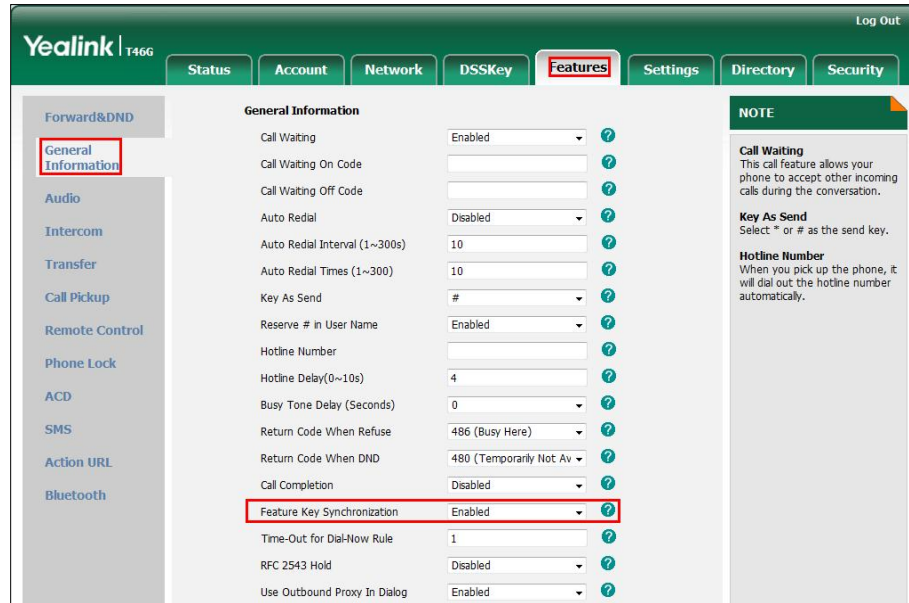
Parameter	Value	Purpose
<i>bw.directory_enable</i>	0 1	Enable BSFT feature. ▪ 0 for Disabled ▪ 1 for Enabled
<i>account.X.blf_list_code =</i>	String	*97 (for example)
<i>account.X.blf_list_barge_in_code =</i>	String	*33 (for example)
<i>account.X.blf_list_retrieve_call_parked_code =</i>	String	*88 (for example)
<i>phone_setting.auto_blf_list_enable</i>	0 1	Enable or disable auto blf list. ▪ 0 for Disabled ▪ 1 for Enabled (Default)
<i>phone_setting.blf_list_sequence_type</i>	0 1 2 3	Configure the priority of auto blf list. ▪ 0 for line key, exp (Default) ▪ 1 for Exp, linekey ▪ 2 for ext1 page1,ext2 page1,.....,ext1 page2,ext2 page2,.....,linekey ▪ 3 for linekey page1,ext1 page1,ext2 page1,.....,linekey page2,ext1 page2,ext2 page2,.....

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: features.feature_key_sync.enable = 1	Enable Feature Key Synchronization feature. ▪ 0 for Disabled ▪ 1 for Enabled

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



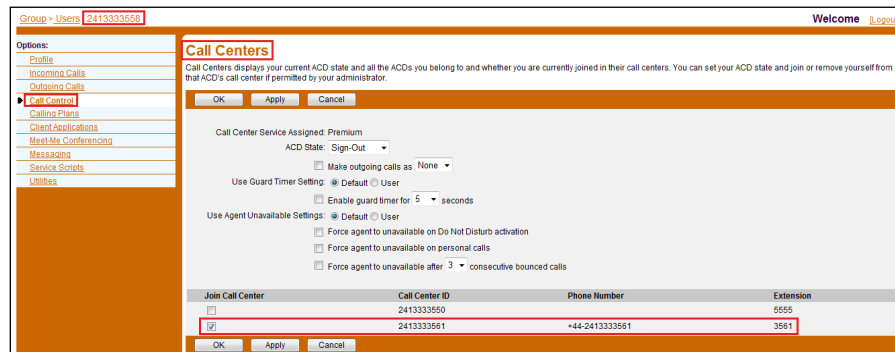
The image shows the 'Features' configuration page for a Yealink T46G phone. The 'General Information' tab is selected. The 'Feature Key Synchronization' option is highlighted with a red box and is set to 'Enabled'. Other settings include Call Waiting (Enabled), Auto Redial (Disabled), and various codes for call waiting and redialing. A 'NOTE' section on the right explains the 'Call Waiting' and 'Key As Send' features.

Figure 12 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.



The image shows the 'Call Centers' configuration page. The 'Call Control' option is selected in the left sidebar. The 'Call Centers' section is active, showing a table of call center lines. The first line is highlighted with a red box, showing the 'Call Center ID' as 2413333561, the 'Phone Number' as +44-2413333561, and the 'Extension' as 3561.

Figure 13 Call Control → Call Centers Page

- 2) Register the Call Center line.

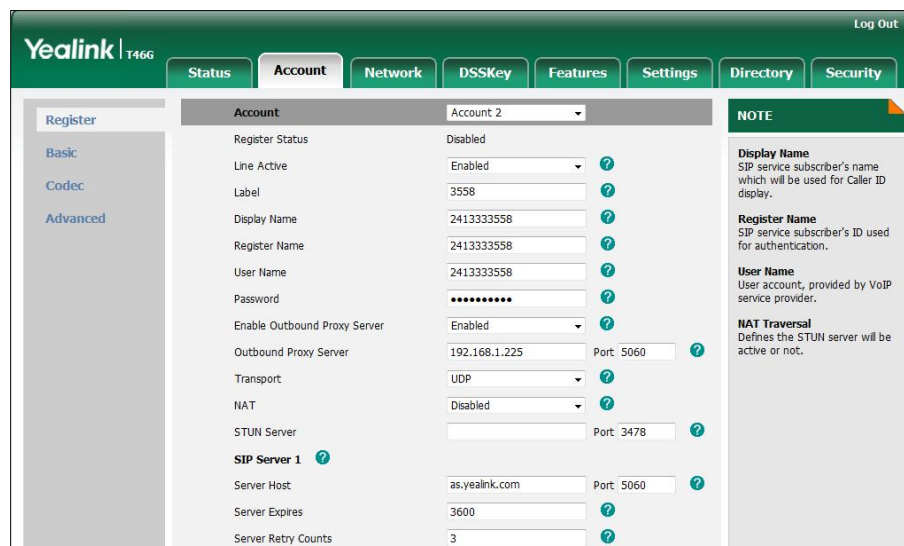


Figure 14 Account Register Page

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



Figure 15 SIP Server Type Field

- 4) To configure the Call Center features listed in the following table, see the related *autop* parameters.

Step	Command	Purpose
Step 1	Enable ACD feature for the line. Example: <code>account.1.acd.enable = 1</code>	Enable ACD feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled
Step 2	Set the phone to display the Unavailable and Available soft keys after logging into the ACD system for the line. Example: <code>account.1.acd.available = 1</code>	The Unavailable/Available soft key appears on the LCD screen when the phone logging to the ACD system. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled
Step 3	Configure the initial agent state for the line. Example <code>account.1.acd.initial_state = 1</code>	Configure the initial agent state. <ul style="list-style-type: none"> 1 for Available 2 for Unavailable
Step 4	Configure the unavailable code for the line. <code>account.X.reason_code.Y = code</code> <code>account.X.reason_code_name.Y = name</code> Example: <code>account.1.acd.unavailable reason enable = 1</code> <code>account.1.reason_code.1 = 100</code> <code>account.1.reason_code_name.1= rest</code>	Enable unavailable code feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable <p>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.</p>

Step	Command	Purpose
Step 5	Enable the hold reminder feature for the line. Example: <pre>account.1.call center.play bw hold t one_enable = 1</pre>	Enable the hold reminder feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled
Step 6	Configure the interval to specify how long the call center call information appears. Example: <pre>account.1.call center.call info enab le = 1 account.1.call center.show call info _time = 30</pre>	Enable the call center call information feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled
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: <pre>account.1.call center.disp code enab le = 1 account.1.bw_disp_code.1 = 22 account.1.bw_disp_code_name.1 = asleep</pre>	Enable account 1's disposition code feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled 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: <pre>account.1.call center.trace enable = 1</pre>	Enable the customer originated trace for account 1. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled
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: <pre>account.1.call center.emergency enab le = 1 account.1.supervisor_info_code.1 = supervisor number account.1.supervisor info code name. 1 = supervisor name</pre>	Enable the emergency escalation feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled 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: <pre>account.1.call center.queue status e nable = 1 account.1.call center.queue status l ight_enable = 1</pre>	Enable the queue status notification feature for account 1. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled

4.3.5 Call Recording Feature Configuration

Centralized Call Recording feature enables you to record all active calls. You can initiate and control call recording process on your phone. The recording files are saved on the server.

On the BroadWorks server, browse to *Call Control* → *Call Recording*.



Figure 16 Call Control → Call Recording

Configuration of the phone to enable Call Recording is described as follows.

Step	Command	Purpose
Step 1	Enable Call Recording. Example: <code>account.X.call_recording.enable=</code>	Enables or disables centralized call recording feature for account. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled
Step 2	Choose Call Recording mode. Example: <code>bw.call_recording.mode =</code>	Choose Call Recording mode. <ul style="list-style-type: none"> 0 for XSI mode 1 for SIP mode

4.3.6 Security Classification Feature Configuration

The Security Classification service allows BroadWorks to classify a user's calls with a security classification level. It enables users to be conscious of the maximum level of classified information that can be exchanged in the conversation.

On the BroadWorks server, browse to *Utilities* → *Security Classification*.



Figure 17 Utilities → Security Classification

Configuration of the phone to enable Call Recording is described in the following table.

Step	Command	Purpose
Step 1	Enable Security Classification. Example: <pre>account.X.security_classification.enable=</pre>	Enables or disables security classification feature for account X. <ul style="list-style-type: none"> 0 for Disabled 1 for Enabled

4.3.7 Emergency Call Configuration

Yealink T4x IP Phone does not support BroadWorks Emergency call feature.

4.3.8 Advice of Charge Configuration

Yealink T4x IP Phone does not support Advice of Charge feature.

4.3.9 Conference Event Configuration

Yealink T4x IP Phone does not support Conference Event.

4.3.10 Flexible Seating

Flexible seating feature has similar functionality to the BroadWorks Hoteling feature. But it uses a different licensing model and allows the device to be provisioned with the guest's profile settings. Flexible seating allows users with the flexible seating guest enabled to create an association with the host in the same group.

On the BroadWorks server, browse to *Services* → *Flexible Seating Host*.

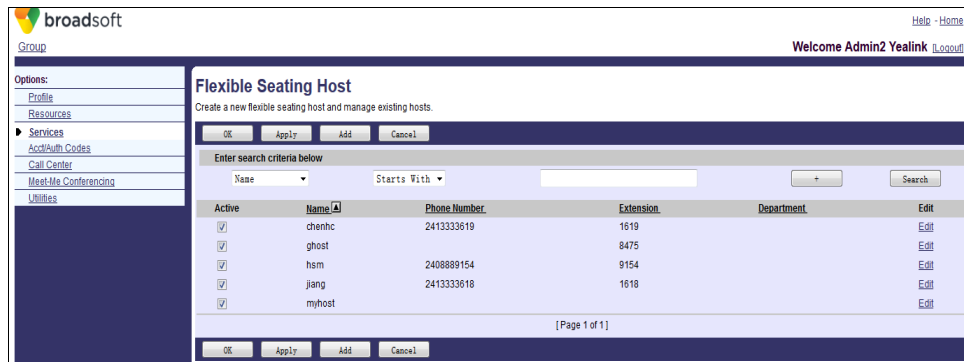


Figure 18 Flexible Host

On the BroadWorks server, browse to *Call Control* → *Flexible Seating Guest*.



Figure 19 Flexible Guest

Configuration of the phone to enable Call Recording is described as follows.

Step	Command	Purpose
Step 1	Enables the flexible seating feature for account X. Example: account.1.flexible_seating.enable=1	Enables or disables the flexible seating feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable
Step 2	Configures the hoteling mode for account X. Example: account.1.hoteling.mode=1	Configures the hoteling mode for account X. <ul style="list-style-type: none"> 0-Disabled 1-Hoteling 2-Flexible Seating Host 3-Flexible Seating Guest
Step 3	Configures the flexible seating pin for account X. Example: account.1.hoteling.pin=1234	Configures the flexible seating pin for account X.

4.3.11 PANI Header Support Configuration

This section provides configuration instructions to configure the device to enable P-Access-Network-Info header. Configure the emergency for phone as follows:

Step	Command	Purpose
Step 1	Configure the emergency number. Example: <code>account.1.invite_witch_pani_header = 1</code>	Configure the PANI header support for the Invite message. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable
Step 2	Configure the PANI header support for register message. Example: <code>account.1.reg_with_pani_header.enable=1</code>	Configure the PANI header support for the register message. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable

4.3.12 Do Not Disturb

Do Not Disturb (DND) allows all incoming calls to be rejected automatically. The BroadWorks server provides an option to play a ring splash reminder on the IP phone when the incoming call is rejected.

On the BroadWorks server, browse to *Incoming Calls* → *Do Not Disturb*.

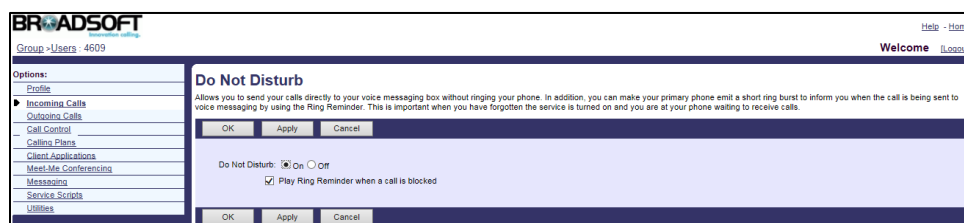


Figure 20 Incoming Calls → Do Not Disturb

Configuration of the phone to enable Call Recording is described as follows.

Step	Command	Purpose
Step 1	Configures the DND feature for DUT. Example: <code>features.dnd.feature_key_sync.enable=1</code>	Enables or disables the DND feature synchronization. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable <p>If it is set to "1 (Enabled)" and the user changes the DND status on BroadWorks, the BroadWorks server notifies the phone of synchronizing the status. Conversely, if the user changes DND status on the phone, the IP phone notifies the BroadWorks server of synchronizing the status.</p> <p>NOTE: It works only when the value of the parameter <code>features.feature_key_sync.enable</code> is set to "1 (Enabled)".</p>

Step	Command	Purpose
Step 2	Enables or disables the local DND when DND is activated on BroadWorks server. <code>features.dnd.feature_key_sync.local_processing.enable=1</code>	Enables or disables the local DND when DND is activated on BroadWorks server. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable NOTE: It works only when the value of the parameters <code>features.feature_key_sync.enable</code> and <code>features.dnd.feature_key_sync.enable</code> are set to "1 (Enabled)". This feature configured on a per-line basis takes precedence over that configured on a phone basis.
Step 3	Enables or disables the local DND when for account X DND is activated on BroadWorks server for account X. <code>account.1.features.dnd.feature_key_sync.local_processing.enable =1</code>	Enables or disables the local DND when for account X DND is activated on BroadWorks server for account X. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable

After a successful update, the user can find the web user interface of the IP phone.

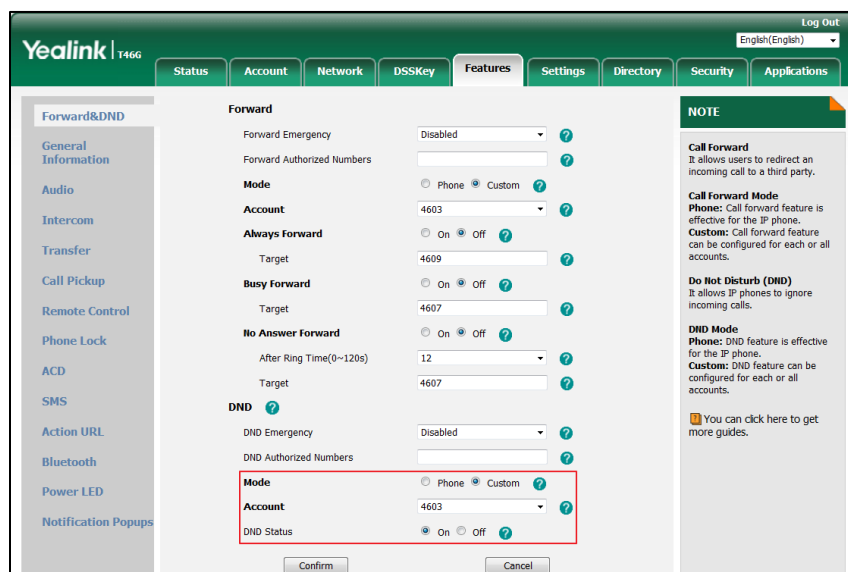


Figure 21 Configure Do Not Disturb

4.3.13 Call Forwarding

Call Forwarding allows users to redirect incoming calls to another destination. When an incoming call is forwarded, the BroadWorks server sends the INVITE request containing the Diversion or History-info header to the destination party. The following describes three Call Forwarding behaviors:

- Call Forwarding Always: Incoming calls are immediately forwarded.
- Call Forwarding Busy: Incoming calls are immediately forwarded if the IP phone is busy.
- Call Forwarding No Answer: Incoming calls are forwarded if not answered after a period of time.

On the BroadWorks server, browse to *Incoming Calls* → *Call Forwarding Always/Call Forwarding Busy/Call Forwarding No Answer*.

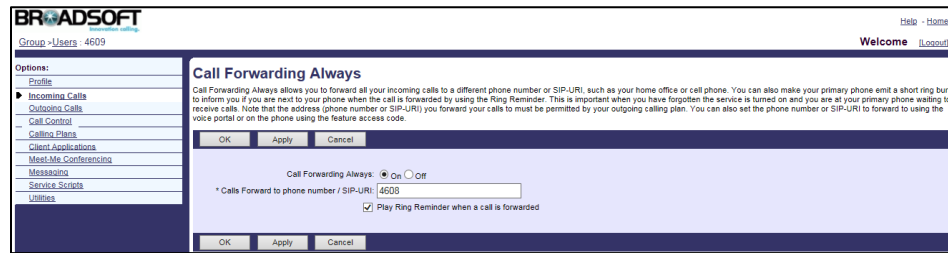


Figure 22 Incoming Calls → Call Forwarding Always

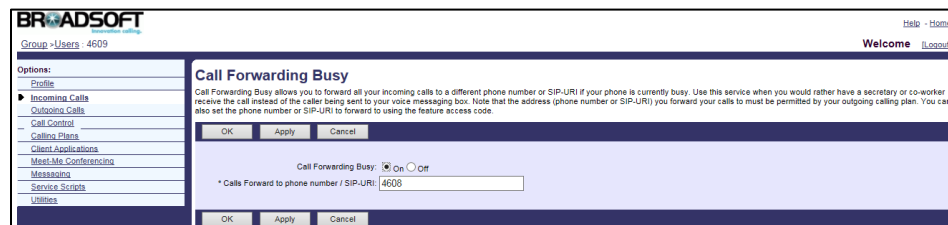


Figure 23 Incoming Calls → Call Forwarding Busy

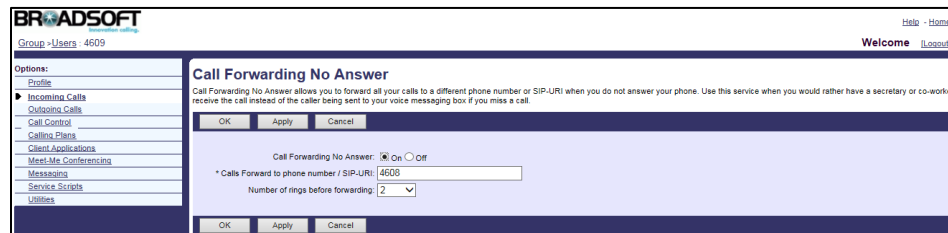


Figure 24 Incoming Calls → Call Forwarding No Answer Busy

Configuration of the phone to enable Call forwarding is described in the following table.

Step	Command	Purpose
Step 1	Configures the FWD feature for DUT. Example: features.forward.feature_key_sync.enable=1	Enables or disables the FWD feature synchronization. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable If it is set to "1 (Enabled)" and the user changes the forward status on BroadWorks, the BroadWorks server notifies the phone of synchronizing the status. Conversely, if the user changes forward status on the phone, the IP phone notifies the BroadWorks server of synchronizing the status. NOTE: It works only when the value of the parameter <i>features.feature_key_sync.enable</i> is set to "1 (Enabled)".

Step	Command	Purpose
Step 2	Enables or disables the local forward when forward is activated on BroadWorks server. features.forward.feature key sync.local processing.enable=1	Enables or disables the local forward when forward is activated on BroadWorks server <ul style="list-style-type: none"> 0 for Disabled 1 for Enable NOTE: It works only when the value of the parameters <i>features.feature_key_sync.enable</i> and <i>features.forward.feature_key_sync.enable</i> are set to "1 (Enabled)". This feature configured on a per-line basis takes precedence over that configured on a phone basis
Step 3	Enables or disables the local forward for account X when forward is activated on BroadWorks server. account.1.features.forward.feature key sync.local processing.enable =1	Enables or disables the local forward for account X when forward is activated on BroadWorks server. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable NOTE: It works only when the value of the parameters <i>features.feature_key_sync.enable</i> and <i>features.forward.feature_key_sync.enable</i> are set to "1 (Enabled)".

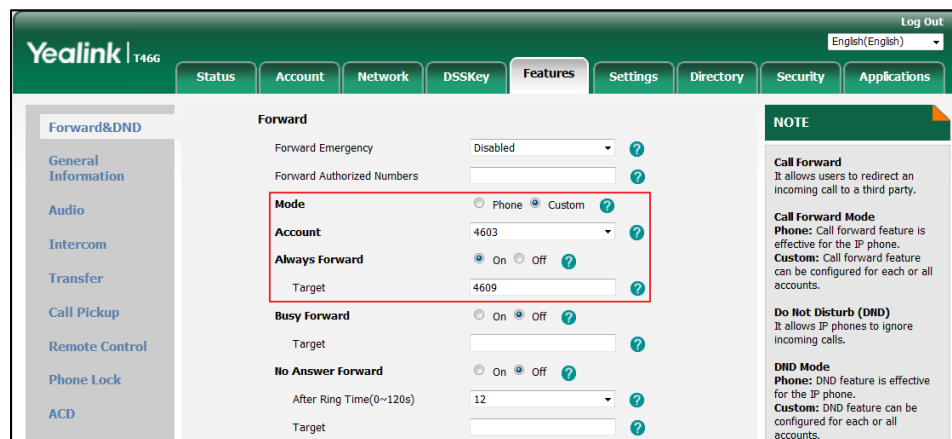


Figure 25 Configure Forward

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.

For a phone to access the Xtended Services Interface features including services, directories, call logs, and so on, the SIP phone must first authenticate the user. Currently, the Yealink SIP phone supports two methods to authenticate a user: BroadWorks User Login Credentials and SIP Authentication Credentials.

BroadWorks User Login Credentials

1) Browse to the *Applications* → *Broadsoft XSI* → *XSI Account*.

Yealink T48S English

Status Account Network Dsskey Features Settings Directory Security Applications

Broadsoft XSI

Broadsoft XMPP

XSI Account

Allow SIP Authentication for XSI: Disabled

Host Server: xsp1.iop1.broadworks.net

Port: 80

XSI Server Type: http

User ID: 2413333612@as.iop1.broadv

Password: *****

Network Directory

Type	Enable	Display Name
Group:	Enabled	Group
Enterprise:	Enabled	Enterprise
GroupCommon:	Enabled	GroupCommon
EnterpriseCommon:	Enabled	EnterpriseCommon
Personal:	Enabled	Personal

Custom Directory

Enable Custom Directories: Enabled

ewewew	<input checked="" type="checkbox"/>
test11	<input checked="" type="checkbox"/>
yea	<input checked="" type="checkbox"/>
yt	<input type="checkbox"/>

Call Log

Network Call Log: Enabled

Confirm Cancel

NOTE

apps-broadsoftxsi-note

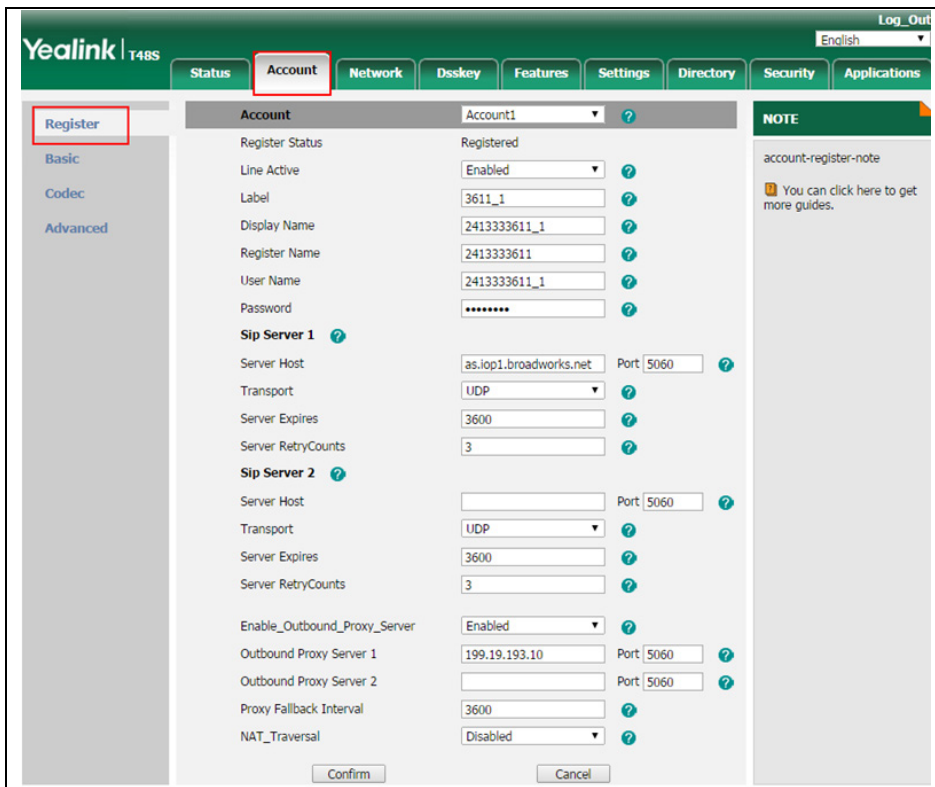
You can click here to get more guides.

Figure 26 Xtended Services Interface Configuration

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

SIP Authentication Credentials

- 1) Browse to the *Account* → *Register*, type in the correct account parameters and then click **Confirm**.



The screenshot shows the Yealink T48S web interface. The top navigation bar includes tabs for Status, Account, Network, Dsskey, Features, Settings, Directory, Security, and Applications. The 'Account' tab is selected. On the left, there is a sidebar with 'Register', 'Basic', 'Codec', and 'Advanced' options. The 'Register' option is highlighted. The main content area is titled 'Account' and shows a form for configuring SIP authentication credentials. The form includes fields for 'Account1' (selected from a dropdown), 'Register Status' (Registered), 'Line Active' (Enabled), 'Label' (3611_1), 'Display Name' (2413333611_1), 'Register Name' (2413333611), 'User Name' (2413333611_1), and 'Password' (masked with asterisks). Below these are sections for 'SIP Server 1' and 'SIP Server 2'. Each server section includes fields for 'Server Host', 'Transport' (UDP), 'Server Expires' (3600), and 'Server RetryCounts' (3). There are also fields for 'Enable_Outbound_Proxy_Server' (Enabled), 'Outbound Proxy Server 1' (199.19.193.10), 'Outbound Proxy Server 2' (empty), 'Proxy Fallback Interval' (3600), and 'NAT_Traversal' (Disabled). A 'NOTE' section on the right states: 'account-register-note. You can click here to get more guides.' At the bottom of the form are 'Confirm' and 'Cancel' buttons.

Figure 27 Xtended Services Platform Account Configuration

- 2) Browse to *Applications* → *Broadsoft XSI*, type in the correct parameters, then save the configuration.

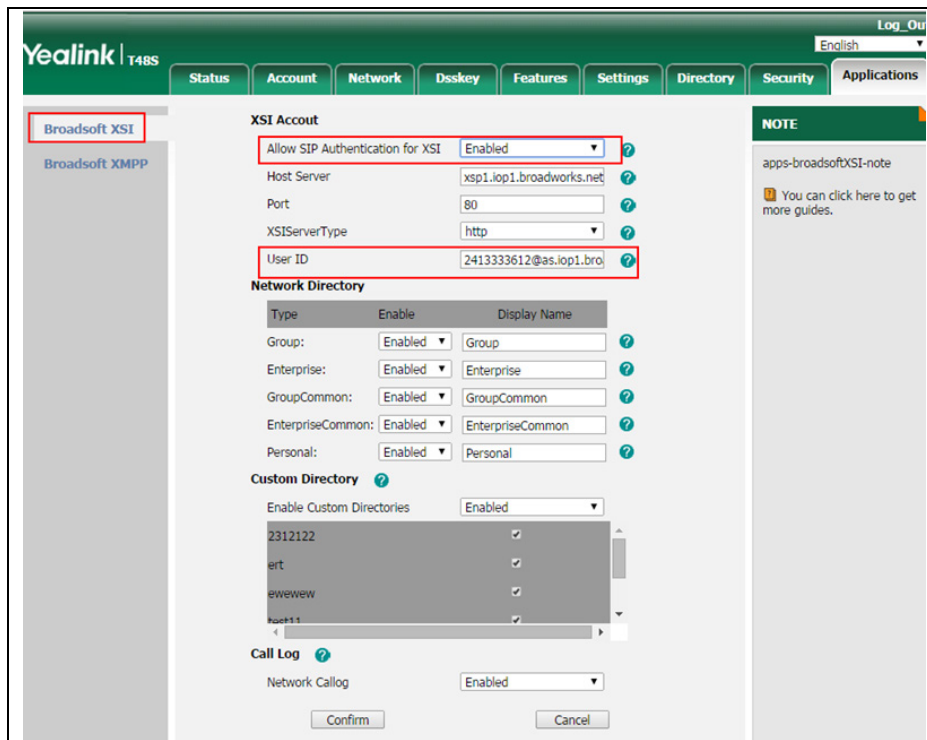


Figure 28 Xtended Services Platform Configuration

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	bw.xsi.enable = Example: bw.xsi.enable = 1	Enable XSI feature. <ul style="list-style-type: none"> 0 for Disabled 1 for Enable
Step 2	sip.authentication_for_xsi = Example: sip.authentication_for_xsi = 1	Enable the Xsp authentication mode. <ul style="list-style-type: none"> 0 = BroadWorks User Login credentials 1 = SIP Authentication credentials
Step 3	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 4	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	Command	Purpose
Step 5	account.1.xsi.server_type = Example: account.1.xsi.server_type =http	Set the transport type for Xsi.
Step 6	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 Network directory to be displayed on the IP phone. Example: bw.xsi.directory.enable =1	Enable the Network directory to be displayed on the IP phone. ▪ 0 = Disabled ▪ 1 = Enabled
Step 2	Enable the group directory to be displayed on the IP phone. Example: bw_phonebook.group_enable = 1	Enable the group directory to be displayed on the IP phone. ▪ 0 = Disabled ▪ 1 = Enabled
Step 3	Configure the group directory name displayed on the IP phone. Example: bw_phonebook.group_displayname = Group	Configure "Group" as the group directory name displayed on the IP phone. The default value is "Group".
Step 4	Configure the group common directory to be displayed on the IP phone. Example: bw_phonebook.group_common_enable = 1	Enable the group common directory to be displayed on the IP phone. ▪ 0 = Disabled ▪ 1 = Enabled
Step 5	Configure the group common directory name displayed on the IP phone. Example: bw_phonebook.group common displayname = GroupCommon	Configure "GroupCommon" as the group common directory name displayed on the IP phone. The default value is "GroupCommon".
Step 6	Configure the enterprise directory to be displayed on the IP phone. Example: bw_phonebook.enterprise_enable = 1	Enable the enterprise directory to be displayed on the IP phone. ▪ 0 = Disabled ▪ 1 = Enabled
Step 7	Configure the enterprise directory name displayed on the IP phone. Example: bw_phonebook.enterprise displayname = Enterprise	Configure "Enterprise" as the enterprise directory name displayed on the IP phone. The default value is "Enterprise".

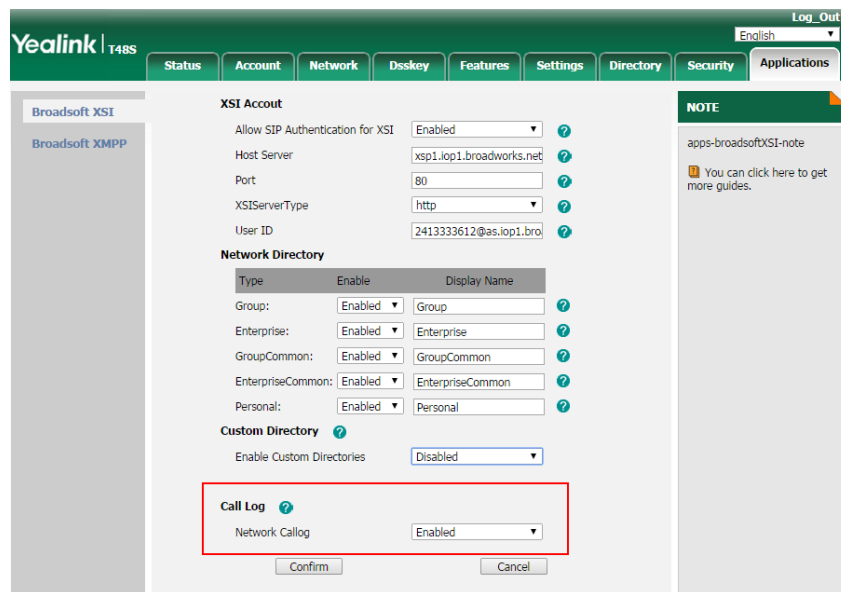
Step	Command	Purpose
Step 8	Enable the enterprise common directory to be displayed on the IP phone. Example: <code>bw_phonebook.enterprise common enable = 1</code>	Enable the enterprise common directory to be displayed on the IP phone. ▪ 0 = Disabled ▪ 1 = Enabled
Step 9	Configure the enterprise common directory name displayed on the IP phone. Example: <code>bw_phonebook.enterprise_common_display name = EnterpriseCommon</code>	Configure "EnterpriseCommon" as the enterprise common directory name displayed on the IP phone. The default value is "EnterpriseCommon".
Step 10	Enable the personal directory to be displayed on the IP phone. Example: <code>bw_phonebook.personal_enable = 1</code>	Enable the personal directory to be displayed on the IP phone. ▪ 0 = Disabled ▪ 1 = Enabled
Step 11	Configure the personal directory name displayed on the IP phone. <code>bw_phonebook.personal displayname = Personal</code>	Configure "Personal" as the personal directory name displayed on the IP phone. The default value is "Personal".
Step 12	Enable the custom directory feature. Example: <code>bw_phonebook.custom = 1</code>	Enable the custom directory feature. ▪ 0 = Disabled ▪ 1 = 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: <code>bw.xsi.call_log_enable = 1</code>	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 T48S web interface. The 'XSI Account' section is active, displaying various configuration fields. The 'Call Log' section is highlighted with a red box, showing 'Network Call Log' set to 'Enabled'. The 'Confirm' and 'Cancel' buttons are visible at the bottom of the form.

Figure 29 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: <code>account.1.callpark_enable= 1</code>	Enable the Call Park feature. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 2	Enable the phone to display the Park soft key during a call. Example: <code>features.call_park.enable = 1</code>	The Park soft key appears on the LCD screen during a call. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 3	Enable the phone to display the GPark soft key during a call. Example: <code>features.call_park.group_enable= 1</code>	The GPark soft key appears on the LCD screen during a call. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 4	Enable the phone to play a warning tone when a call is parked against its line. Example: <code>features.call_park.park_ring = 1</code>	Enable the phone to play a warning tone when a call is parked against its line. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 5	Enable the phone to display a parked indicator when a call is parked against its line. Example: <code>features.call park.park visual notif y_enable = 1</code>	Enable the phone to display a parked indicator when a call is parked against its line. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled

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

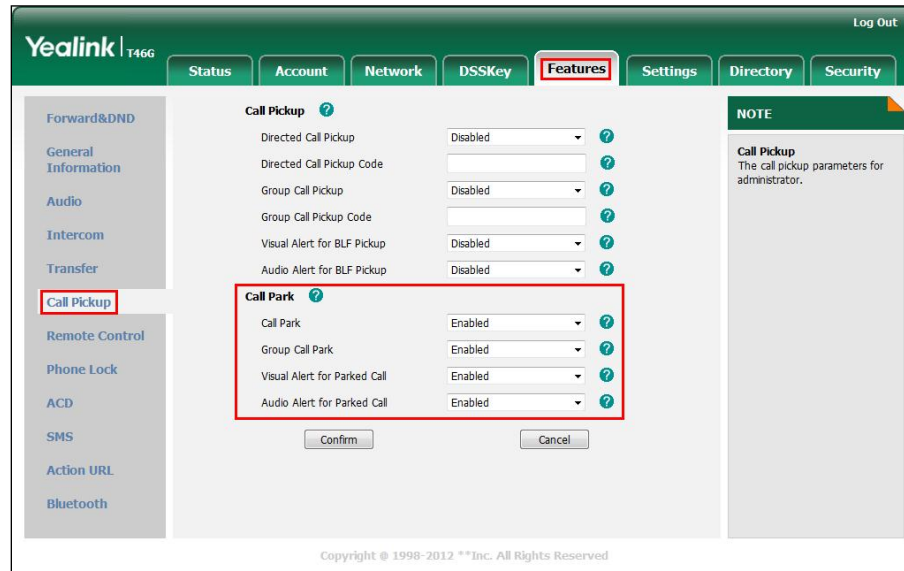


Figure 30 Call Park Configuration

4.4.5 Broadworks Call Recording Configuration

Call Recording features allow the phones to obtain recording status, control the recording.

Step	Command	Purpose
Step 1	Enable call recording feature. Example: <code>account.1.call_recording.enable=1</code>	Enables or disables the call recording feature. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 2	Configure the call recording using XSI. Example: <code>bw.call_recording.mode=0</code>	Configures the call recording using XSI or SIP. <ul style="list-style-type: none"> 0 = XSI 1 = SIP
Step 3	Enable feature key synchronization. Example: <code>features.feature_key_sync.enable =1</code>	Enables or disables the feature key synchronization. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled

4.4.6 BroadWorks Visual Voice Mail Configuration

Visual voice mail feature allows the IP phone to present the users with a list of voice/video mails, download the voice/video mail detail summary content, mark voice/video mails as read or unread, and delete voice/video mails.

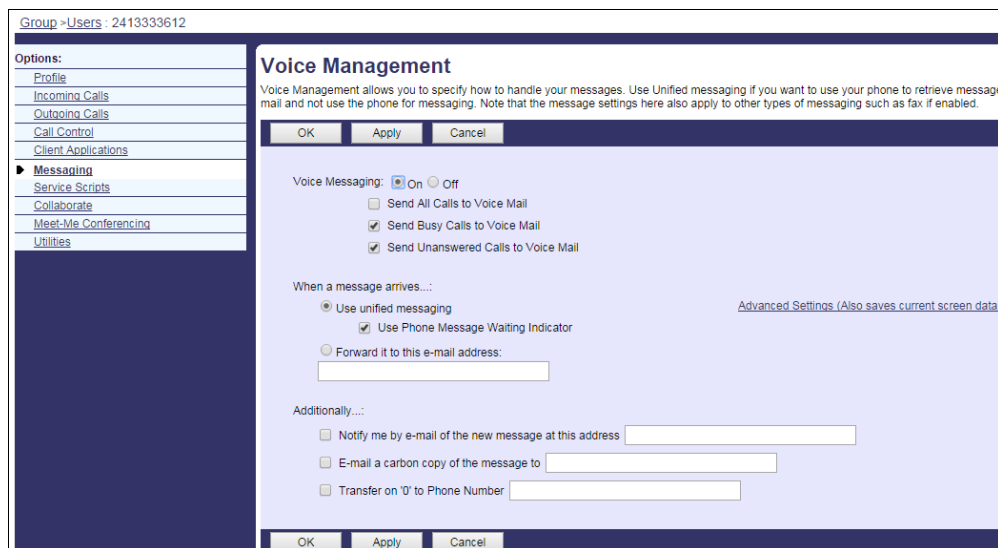


Figure 31 Visual Voice Mail

Step	Command	Purpose
Step 1	Enable visual voice mail feature. Example: <code>bw.voice_mail.visual.enable=1</code>	Enables or disables the visual voice mail feature. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 2	Enable the phone to display the Park soft key during a call. Example: <code>bw.voice mail.visual.display videomail.enable=1</code>	Enables or disables to display the video mails in the Voice Mail list. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
Step 3	Enables going to the View Voice Mail screen when pressing the MESSAGE key when the phone is idle. Example: <code>voice_mail.message_key.mode = 1</code>	Enables or disables going to the View Voice Mail screen when pressing the MESSAGE key when the phone is idle. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled

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/T46S/T48G/T48S models.

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

```
bw.xmpp.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)
```

Parameters	Permitted Values	Default
bw.xmpp.change_presence.enable	Boolean	0
Description: Enables or disables changing your presence status on the IP phone. <ul style="list-style-type: none"> 0-Disabled 1-Enabled 		
bw.xmpp.presence_icon.mode	Boolean	0
Description: Enables or disables to display presence icon in new style. <ul style="list-style-type: none"> 0-Disabled 1-Enabled Note: For more details on the presence icon, see the <i>Yealink IP Phone Features Integrated with BroadSoft UC-One User Guide</i> [2].		
bw.xmpp.change_presence.force_manual.enable	Boolean	1
Enables or disables to synchronize the presence status to BroadWorks server when you change your presence status manually on the IP phone. <ul style="list-style-type: none"> 0-Disabled 1-Enabled 		
phone_setting.dsskey_directory_auto.enable	Boolean	1
Enables or disables the Auto Favorite feature. 0-Disabled 1-Enabled If it is set to 1 (enabled), the IP phone will download information of favorites from the cloud server and automatically configure UC Favorite keys from the first unused line key (the line key type is configured as N/A). If a line key is used, the IP phone will skip to the next unused line key. Note: It works only if the value of the parameter "feature.uc_enable" is set to 1 (Enabled).		
features.uc_dir.match_tail_number	Integer greater than or equal to 0	4

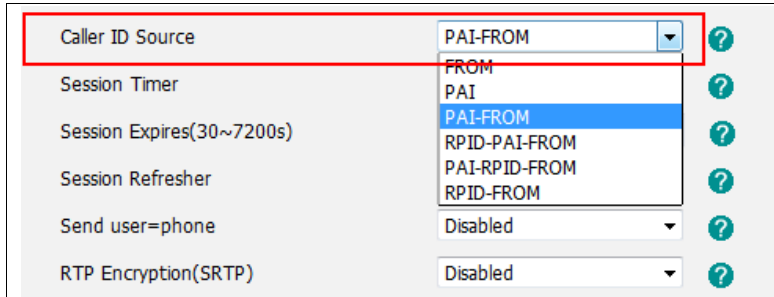
Parameters	Permitted Values	Default
<p>Description:</p> <p>Configures the minimum matched digits of the tail numbers of BroadCloud Buddy. When entered number matches the tail numbers of a buddy in the buddy directory, the IP phone will automatically display the matched results on the LCD screen when placing a call.</p> <p>If it is set to 0, the entered number must exactly match the number of BroadCloud Buddy.</p> <p>If it is set to other values (example, 4), the entered number less than 4 digits would not match with the BroadCloud contact.</p> <p>Example:</p> <p>If there is a BroadCloud Buddy name "Sunmy" with phone number "785656" and the parameter "features.uc_dir.match_tail_number" is set to "4", then "5656", "85656" or "785656" would match "Sunmy (785656)". However, "656", "56", or "6" would not match "Sunmy (785656)".</p>		

Second, browse to *Applications* → *Broadsoft XMPP* and fill in the associated parameter for the UC Username and UC Password fields.

4.6 Connected Line Presentation on UPDATE or Re-Invite

Log in to the device's web portal and enter the Caller ID Source.

Select the configuration item PAI, PAI-FROM, or PAI-RPID-FROM.



Caller ID Source	PAI-FROM	?
Session Timer	FROM	?
Session Expires(30~7200s)	PAI	?
Session Refresher	PAI-FROM	?
Send user=phone	RPID-PAI-FROM	?
RTP Encryption(SRTP)	PAI-RPID-FROM	?
	RPID-FROM	?
	Disabled	?
	Disabled	?

Figure 32 Connected Line Presentation on Update or Re-Invite

Alternatively, you can use the configuration parameter `account.x.cid_source=`. The available values are:

- 0 – FROM
- 1 – PAI
- 2 – PAI-FROM
- 3 – PRID-PAI-FROM
- 4 – PAI-RPID-FROM
- 5 – RPID-FROM

To make this work, you can select “1”, “2”, or “4”.

4.7 Challenge INVITE Requests Configuration

The SIP Phone is configured to challenge INVITE requests from BroadWorks.

Enable the feature using the following *autop* statement:

Parameters	Permitted Values	Default
<code>sip.request_validation.source.list</code>	A valid string	Blank
Description: Configures the name of the request method for which source IP address validation will be applied. It is used to ensure the request that is received from the IP address of a SIP server. Example: <code>sip.request_validation.source.list = INVITE, NOTIYF</code> Web User Interface: None. Phone User Interface: None.		
<code>sip.request_validation.digest.list</code>	A valid string	Blank
Description: Configures the name of the request method for which digest authentication will be applied. It is used to challenge requests with digest authentication that use the local credentials for the associated registered account. Example: <code>sip.request_validation.digest.list = INVITE, SUBSCRIBE</code> Web User Interface: None. Phone User Interface: None.		
<code>sip.request_validation.digest.realm</code>	A valid string	YealinkSPIP
Description: Configures the string used for authentication parameter Realm when performing the digest authentication. Example: <code>sip.request_validation.digest.realm = as.iop1.broadworks.net</code> Web User Interface: None. Phone User Interface: None.		

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* [3] and the *BroadWorks CPE Kit Usage Guide* [9].

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* [8]. 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
- No* Test item is supported only in limited capacity and does not fully comply with BroadWorks requirements

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 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	

BroadWorks Device Management Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
HTTPS File Download with Client Authentication	HTTPS Download with Client Authentication Using XSP FQDN	Yes	
	HTTPS Download with Client Authentication Using XSP Cluster FQDN	Yes	
Time Zone Mapping	Inspect Time Zone Setting	Yes	
Language Mapping	Inspect Language Setting	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	Yes	
	HTTP Upload Using XSP FQDN	Yes	
	HTTP Upload Using XSP Cluster FQDN	Yes	
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	
	Network-Based Conference	Yes	
Flexible Seating	Association via Voice Portal	Yes	
	Association via Phone	Yes	
No Touch Provisioning	Provision via DHCP Options Field	Yes	See section 5.2.6.2.4 DHCP Server Configuration (Direct DM Location) and Redirect Events .
	No Touch Provision via DM redirect	Yes	See section 5.2.6.2.3 DHCP Server Configuration (BroadWorks Default) and Redirect Events .
	No Touch Provision via Vendor redirect	Yes	See section 5.2.6.3 No Touch Provisioning via Yealink Redirect Service .

5.2 Device Management Configuration

This section identifies the steps required to enable the Yealink T4x IP Phone for device management. For Device Management configuration details not covered here, see the *BroadWorks Device Management Configuration Guide* [3] and the *BroadWorks CPE Kit Usage Guide* [9].

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
<input type="checkbox"/>	%APPLICATION_DOMAIN%	as.iop1.broadworks.net	Edit
<input type="checkbox"/>	%DNS_SERVER_1%	199.19.193.13	Edit
<input type="checkbox"/>	%DNS_SERVER_2%	199.19.193.29	Edit
<input type="checkbox"/>	%DNS_SERVER%	199.19.193.12	Edit
<input type="checkbox"/>	%KWS300_XSP_PATH%	http://xsp.broadsoft.com/dms/kws300	Edit
<input type="checkbox"/>	%OUTBOUNDPROXYADDRESS%	199.19.193.9	Edit
<input type="checkbox"/>	%OUTBOUNDPROXYPORT%	5060	Edit
<input type="checkbox"/>	%OUTBOUNDPROXYTRANSPORT%	UDP	Edit
<input type="checkbox"/>	%SBC_ADDRESS%	sbc1.iop2.broadworks.net	Edit
<input type="checkbox"/>	%SBC_PORT%	5060	Edit
<input type="checkbox"/>	%SIP_TRANSPORT%	0	Edit
<input type="checkbox"/>	%SNTP_SERVER_1%	time-a.nist.gov	Edit
<input type="checkbox"/>	%SNTP_SERVER_2%	time-b.nist.gov	Edit
<input type="checkbox"/>	%SNTP_SERVER%	time-b.nist.gov	Edit
<input type="checkbox"/>	%SNTP_SERVERIP%	192.5.41.41	Edit
<input type="checkbox"/>	%USE_SBC_BOOLEAN%	1	Edit
<input type="checkbox"/>	%XSP_ADDRESS_XSI_ACTIONS%	xsp1.iop1.broadworks.net	Edit
<input type="checkbox"/>	%XSP_ADDRESS%	xsp1.iop1.broadworks.net	Edit

[Page 1 of 1]

Figure 33 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, make sure 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.
%FEATURE_BW_CALL_PARK%	0 1	Enable/Disable the call park feature for the phone. <ul style="list-style-type: none"> 0 = Disabled 1 = Enable

Tag Name	Valid Settings	Description
%TRANSPORT_TYPE%	0 1 2 3	Defines the SIP transport. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
%CALL_WAITING_BINARY%	0 1	Enable/Disable the call waiting feature. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
%FEATURE_SYNC%	0 1	Enable/Disable the feature key synchronization for the phone. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
%ACD_SYNC_BINARY%	0 1	Enable/Disable the ACD feature for the phone. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
%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.
%AUTO_ANSWER_BINARY%	0 1	Enable/Disable the auto answer feature for the phone. <ul style="list-style-type: none"> 0 = Disabled 1 = Enabled
%T40_FIRMWARE%	54.<x.x.x>.rom Example:54.84.0.10.rom	Defines the T40P firmware version.
%T41_FIRMWARE%	36.<x.x.x>.rom Example:36.83.0.10.rom	Defines the T41P firmware version.
%T41S_FIRMWARE%	66.<x.x.x>.rom Example:66.84.0.10.rom	Defines the T41S firmware version.
%T42_FIRMWARE%	29.<x.x.x>.rom Example: 29.83.0.10.rom	Defines the T42G firmware version.
%T42S_FIRMWARE%	66.<x.x.x>.rom Example:66.84.0.10.rom	Defines the T42S firmware version.
%T46_FIRMWARE%	28.<x.x.x>.rom Example: 28.83.0.10.rom	Defines the T46G firmware version.
%T46S_FIRMWARE%	66.<x.x.x>.rom Example:66.84.0.10.rom	Defines the T46S firmware version.
%T48_FIRMWARE%	35.<x.x.x>.rom Example: 35.83.0.10.rom	Defines the T48G firmware version.

Tag Name	Valid Settings	Description
%T48S_FIRMWARE%	66.<x.x.x>.rom Example:66.84.0.10.rom	Defines the T48S firmware version.
%BWHOTELINGMODE-x%	0 1 2 3	Configures the hoteling mode for account X. <ul style="list-style-type: none"> ▪ 0 = Disabled ▪ 1 = Hoteling ▪ 2 = Flexible Seating Host ▪ 3-Flexible Seating Guest
%BWFLEXIBLESEATING UNLOCKPIN-x%	string	Configures the flexible seating PIN for account X.
%T49_FIRMWARE%	51.<x.x.x>.rom Example: 51.80.193.80.rom	Defines the T49G firmware version.
%T40G_FIRMWARE%	76.<x.x.x>.rom Example: 76.84.0.10.rom	Defines the T40G firmware version.
%AUTO_LINEKEYS%	0 1	Enable/Disable auto configuration linekeys.
%NUM_OF_LINEKEYS%	number Example:10	Configures the linekey for account X.
%TRANSPORT%	0 1 2 3	Configures the transmission mode. <ul style="list-style-type: none"> ▪ 0-UDP ▪ 1-TCP ▪ 2-TLS ▪ 3-DNS SRV
%STATIC-CACHE-PRI%	0 1	Enable/Disable using the local DND cache firstly. <ul style="list-style-type: none"> ▪ 0 = Disabled ▪ 1 = Enabled
%XSP_ADDRESS%	String	Configures the XSI server address.
%XSIPASSWORD-1%	String	Configures the XSI password.
%FEATURE_SYNC%	0 1	Enable/Disable the Feature Key Synchronization. <ul style="list-style-type: none"> ▪ 0 = Disabled ▪ 1 = Enabled

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
<input type="checkbox"/>	%ACD_SYNC_BINARY%	1
<input type="checkbox"/>	%AUTO_ANSWER_BINARY%	0
<input type="checkbox"/>	%CALL_WAITING_BINARY%	1
<input type="checkbox"/>	%COUNTRY%	United States
<input type="checkbox"/>	%FEATURE_BIW_CALL_PARK%	1
<input type="checkbox"/>	%FEATURE_SYNC%	1
<input type="checkbox"/>	%FEATURE_BIW_DIR%	1
<input type="checkbox"/>	%REJECT_ANONYMOUS_CALL_BINARY%	1
<input type="checkbox"/>	%T40_FIRMWARE%	54.80.193.80.rom
<input type="checkbox"/>	%T40G_FIRMWARE%	76.81.193.80.rom
<input type="checkbox"/>	%T41_FIRMWARE%	36.80.193.80.rom
<input type="checkbox"/>	%T41S_FIRMWARE%	T41S.81.193.80.rom
<input type="checkbox"/>	%T42_FIRMWARE%	29.81.193.80.rom
<input type="checkbox"/>	%T42S_FIRMWARE%	T42S.81.193.80.rom
<input type="checkbox"/>	%T46_FIRMWARE%	28.81.193.80.rom
<input type="checkbox"/>	%T46S_FIRMWARE%	T46S.81.193.80.rom
<input type="checkbox"/>	%T48_FIRMWARE%	35.81.193.80.rom
<input type="checkbox"/>	%T48S_FIRMWARE%	T48S.81.193.80.rom
<input type="checkbox"/>	%T49_FIRMWARE%	51.80.193.80.rom
<input type="checkbox"/>	%TIMEZONENAME%	United States-Eastern Time

Figure 34 Device Type-specific Tag Settings

5.2.2 Configure BroadWorks Device Profile Type

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 device 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.

There are two BroadWorks device profile configuration methods described: import and manual. The import method takes a DTAF as input and builds the BroadWorks device profile type(s) automatically. The manual method takes 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 following 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, then the import fails.)
- There is a DTAF file available for import with a BroadWorks release level that is the same as or prior to the release to which it is being imported. If the DTAF file is at a release level later than the release being imported to, then the import can fail.

Otherwise, use the manual method.

For more detailed instructions, see the *BroadWorks CPE Kit Usage Guide* [9] and the *BroadWorks Device Management Configuration Guide* [3].

5.2.2.1 Configuration Method 1: Import

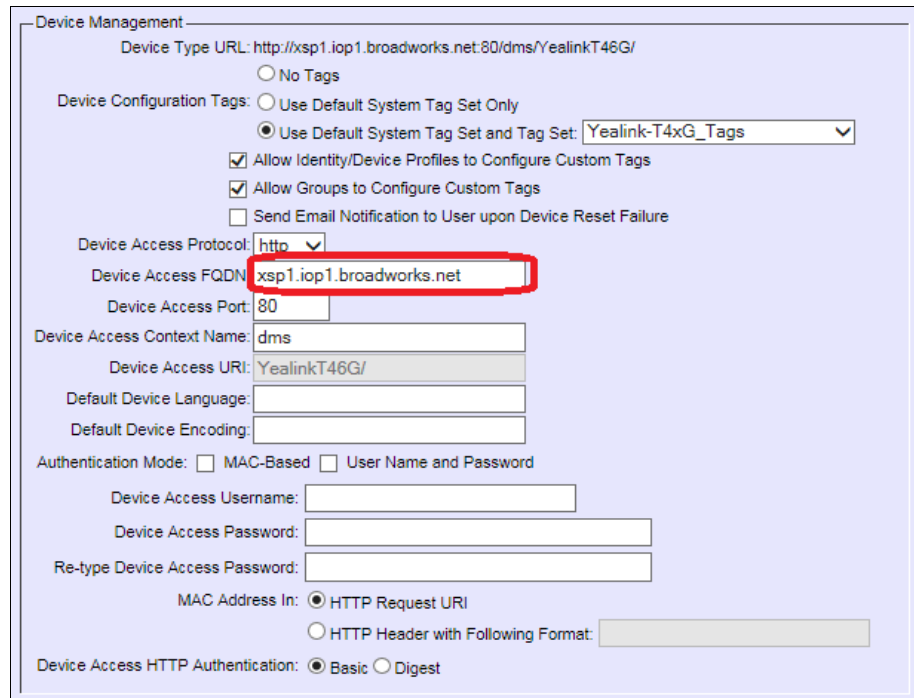
This section identifies the steps necessary to make use of the Device Management import feature to configure BroadWorks to add the Yealink T4x IP Phone as a Device Management-enabled device type. Also, see the *BroadWorks CPE Kit Usage Guide* [9].

Download the Yealink T4x IP Phone CPE kit from BroadSoft Xchange at xchange.broadsoft.com. Extract the DTAF file(s) from the CPE kit. These are the import files. Repeat the following steps for each model you wish to import.

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

After the import finishes, complete the following post-import configuration steps:

- 4) Browse to *System* → *Resources* → *Identity/Device Profile Types*.
- 5) Perform a search to find the imported Yealink device profile type, Yealink T46G.
- 6) Browse to the *Profile* page and change the Device Management Device Access FQDN to your Xtended Services Platform (Xsp) or Xtended Services Platform cluster address.



The screenshot shows the 'Device Management' configuration page. The 'Device Type URL' is set to 'http://xsp1.iop1.broadworks.net:80/dms/YealinkT46G/'. Under 'Device Configuration Tags', 'Use Default System Tag Set and Tag Set' is selected with the value 'Yealink-T4xG_Tags'. Checkboxes for 'Allow Identity/Device Profiles to Configure Custom Tags' and 'Allow Groups to Configure Custom Tags' are checked. The 'Device Access Protocol' is 'http'. The 'Device Access FQDN' is 'xsp1.iop1.broadworks.net' (highlighted with a red box). The 'Device Access Port' is '80', 'Device Access Context Name' is 'dms', and 'Device Access URI' is 'YealinkT46G/'. The 'Authentication Mode' is 'User Name and Password'. The 'Device Access HTTP Authentication' is 'Basic'.

Figure 35 Device Access FQDN

- 7) Click the **Files and Authentication** link and then 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 Define Device Profile Type Files](#) to define the static firmware files and to upload the firmware.

NOTE: The non-firmware static files in section [5.2.2.2 Define Device Profile Type Files](#) are normally included in the import.

- 8) After importing the DTAFs, restart the Application Server to load the *TimeZoneAlias* files.
- 9) Update the device profile type language setting according to instructions provided in section [5.2.2.2.4 Language Mapping](#).

5.2.2.2 Configuration Method 2: Manual

This section identifies the basic steps necessary for an administrator to manually configure BroadWorks to add the Yealink T4x IP Phone as a Device Management-enabled device type. This method should not be used except in special cases as described in the opening to section [5.2.2 Configure BroadWorks Device Profile Type](#).

For more detailed instructions on the manual configuration, see the *BroadWorks CPE Kit Usage Guide* [\[9\]](#) and the *BroadWorks Device Management Configuration Guide* [\[3\]](#).

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.

If there are DTAFs for more than one device model, these steps must be completed for each model.

5.2.2.2.1 Create or Modify Device Profile Type

This section identifies the BroadWorks device profile type settings relevant to Device Management for the Yealink T4x 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.

Configure the device profile type *Signaling Address Type*, *Standard* and *Advanced* options settings to match the settings in section [3.1 BroadWorks Device Profile Type Configuration](#).

Configure the device profile type *Device Management* options as shown in section [5.2.2.1 Configuration Method 1: Import](#).

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

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.

Configuration templates, firmware, and other files the T4x IP Phone uses must be uploaded to BroadWorks. Download the Yealink T4x IP Phone CPE kit from BroadSoft Xchange at xchange.broadsoft.com. Extract the configuration files from the *Configuration Files* folder of CPE kit. Obtain the firmware files directly from Yealink.

The following table identifies the Yealink T4x IP Phone configuration files distributed with the firmware version83 CPE kit.

File Name	CPE Kit Template File Name	File Type	Description
		System-level, Device-specific, Static, Time Zone Alias	
Examples			

File Name	CPE Kit Template File Name	File Type	Description
<i>BWMACADDRESS.cfg</i>	<i>%BWMACADDRESS%-T4x.cfg</i>	Device-specific	This file contains device-specific parameters that the phone has to load.
<i>config.bin</i>	<i>config.bin</i>	static	This file contains the configuration items that the phone has configured.
<i>Contact_group_lisr.xml</i>	<i>Contact_group_list.xml</i>	Static	This file contains the group contact information in XML format.
<i>DialNow.xml</i>	<i>DialNow.xml</i>	Static	This file contains the blacklist contact information in XML format.
<i>DialPlan.xml</i>	<i>DialPlan.xml</i>	Static	Specifies the dialing rules.
<i>AutoDST.xml</i>	<i>AutoDST.xml</i>	Static	Rules set of the beginning and end of daylight savings time.
<i>TimeZoneAliasLabels_Yealink+<model>.properties</i>	<i>TimeZoneAliasLabels_Yealink-<model>.properties</i>	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.
<i>remote_phonebook_list.xml</i>	<i>remote_phonebook_list.xml</i>	Static	This file contains the remote phonebook contact information in XML format.
<i>CallFailed.xml</i>	<i>Call Failed.xml</i>	Static	This file defines the soft key of the call failed state.
<i>CallIn.xml</i>	<i>CallIn.xml</i>	Static	This file defines the incoming call state.
<i>Connecting.xml</i>	<i>Connecting.xml</i>	Static	This file defines the soft key of connecting state.
<i>Dialing.xml</i>	<i>Dialing.xml</i>	Static	This file defines the soft key of dialing state.
<i>favorite_setting.xml</i>	<i>favorite_setting.xml</i>	static	This file configures desired lists of the Directory soft key.
<i>Contact_lisr.xml</i>	<i>Contact_list.xml</i>	Static	This file contains the contact information in XML format.
<i>Ring1.wav</i>	<i>Ring1.wav</i>	Static	This is the ring tone in WAV format.
<i>RingBack.xml</i>	<i>RingBack(<Phone Model>).xml</i>	Static	This file defines the soft key of ring back state.
<i>super_search.xml</i>	<i>super_search.xml</i>	Static	This file configures the search source list in dialing.
<i>Talking.xml</i>	<i>Talking(<Phone Model>).xml</i>	Static	This file defines the soft key of talking state.
<i>Softkey.xml</i>	<i>Softkey.xml</i>	Static	This file defines the soft key on the idle screen.
<i>WebItemsLevel.cfg</i>	<i>WebItemsLevel.cfg</i>	Static	This file defines the access level of configuration items in cfg format.

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
<i>x.x.x.x.rom</i>	Static	Device firmware file.
Language files: <i>xxx.GUI.<language>.lang</i> e.g. <i>000.GUI.English.lang</i>	Static	Customized language files.
<i>%BWMACADDRESS%-local.cfg</i>	Device Type	Supported upload Defines the configuration used to record the change of the phone.
<i>%BWMACADDRESS%-contact.xml</i>	Device Type	The upload is triggered when the local contact changes.
<i>%BWMACADDRESS%-callog.xml</i>	Device Type	The upload is triggered when the local call log changes.

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

5.2.2.2.1 Device-Specific File

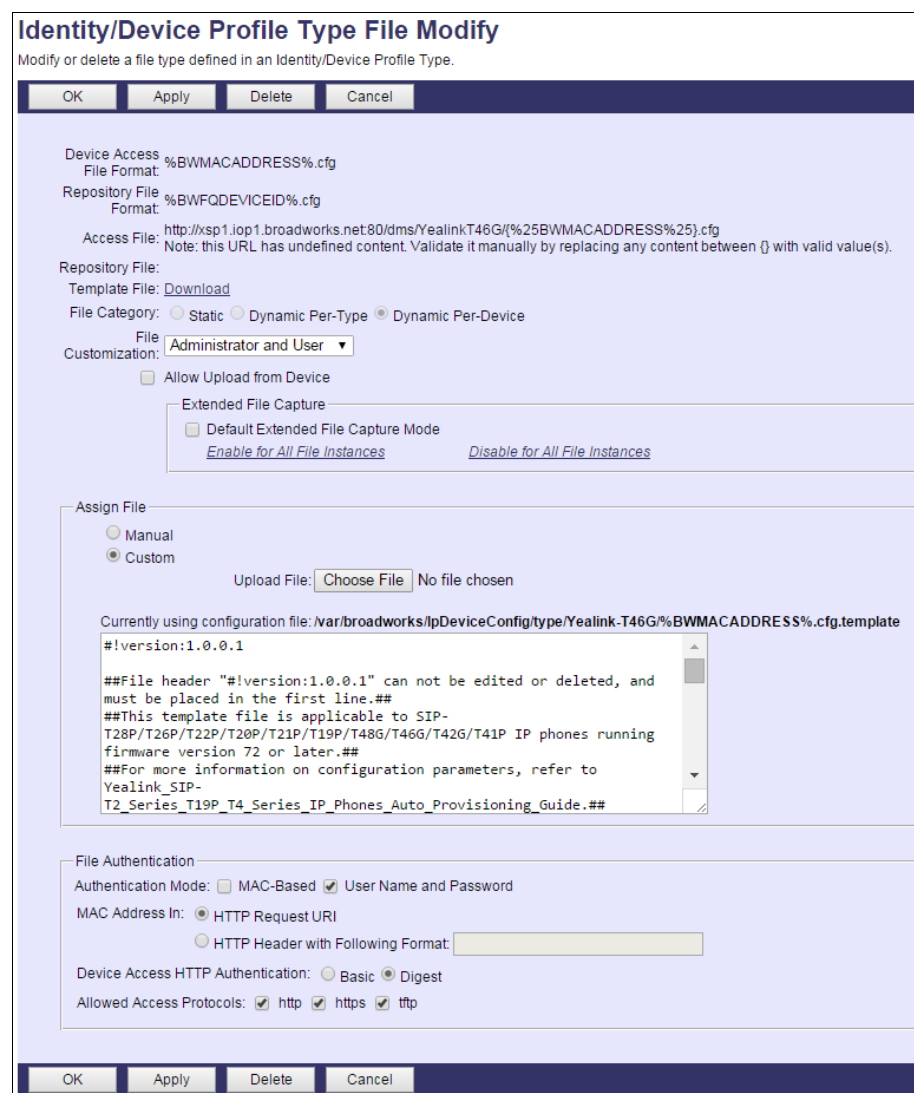
This section identifies the device-specific files used by Yealink and provides instructions for defining the files and uploading for Device Management.

Each T4x phone downloads a phone-specific file based on the phone's MAC address using the following file name format:

- <mac-address>.cfg

Add the <mac-address>.cfg file to the device profile type with the settings shown in [Figure 36 <mac-address>.cfg Settings](#).

After creating the device profile type file, upload <mac-address>.cfg extracted from the CPE kit. Use the **Browse** button on the file definition screen. Be sure to click **Apply** after uploading the file.



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: %BWFQDEVICEID%.cfg
Access File: http://xsp1.iop1.broadworks.net:80/dms/YealinkT46G/{%25BWMACADDRESS%25}.cfg
Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).
Repository File:
Template File: [Download](#)
File Category: ☐ Static ☐ Dynamic Per-Type ☒ Dynamic Per-Device
File Customization:
☐ Allow Upload from Device
Extended File Capture
☐ Default Extended File Capture Mode
[Enable for All File Instances](#) [Disable for All File Instances](#)

Assign File
☐ Manual
☒ Custom
Upload File: No file chosen
Currently using configuration file: /var/broadworks/lpDeviceConfig/type/Yealink-T46G/%BWMACADDRESS%.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.##
##This template file is applicable to SIP-T28P/T26P/T22P/T20P/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.##

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 <mac-address>.cfg Settings

5.2.2.2.2 Device-Specific Upload File

The Yealink T4XX devices periodically upload the <MAC Address>-callog.xml, <MAC Address>-contact.xml and <MAC Address>-local.cfg files onto the device management server for administrative review.

The three files uploaded by the Yealink T4XX devices must be identified to BroadWorks with placeholders so that the phone can upload these files to the system.

Add a BroadWorks device profile type file to the Yealink T4XX device profile for all the <MAC Address>-callog.xml, <MAC Address>-contact.xml and <MAC Address>-local.cfg files 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	%BWMACADDRESS%-callog.xml %BWMACADDRESS%-contact.xml %BWMACADDRESS%-local.cfg	This is the file name that the phone uses to request the file.
Repository File Format	%BWFQDEVICEID%-callog.xml %BWFQDEVICEID%-contact.xml %BWFQDEVICEID%-local.cfg	This is the file name, (as stored in the Device Management repository).
File Category	Dynamic-Per-Device	This file does not contain tags.
File Customization	Administrator	This identifies who can customize the file.
Allow Upload from Device	X	This check box controls whether the file can be uploaded from a device.
Assign File	Manual	
Authentication Mode	User name and password	The phone-specific file is authenticated with a user name and password.
Device Access HTTP Authentication	Digest	

Example:

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: %BWMACADDRESS%-callog.xml
File Format:

Repository: %BWFQDEVICEID%-callog.xml
File Format:

Access File: http://xsp1.iop1.broadworks.net:80/dms/Yealink-T48S/{%25BWMACADDRESS%25}-callog.xml
Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).

Repository
File:

Template File:

File Category: ☐ Static ☐ Dynamic Per-Type ☒ Dynamic Per-Device

File Customization: Administrator

☒ Allow Upload from Device

Extended File Capture

☐ Default Extended File Capture Mode
[Enable for All File Instances](#) [Disable for All File Instances](#)

Assign File

☒ Manual
☐ Custom

Upload File: Browse... No file selected.

File Authentication

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

MAC Address In: ☒ HTTP Request URI
☐ HTTP Header
☐ Client Certificate

MAC Address Format:

Device Access HTTP Authentication: ☐ Basic ☒ Digest

Allowed Access Protocols: ☒ http ☒ https ☒ tftp

OK Apply Delete Cancel

Figure 37 Upload File Setting

After the placeholder files are created, the files must be rebuilt for the appropriate file structure to be created in the file repository. Click on the *Rebuild all device profile files* on the *Identity/Device Profile Type Files* page.

Example Identity/Device Profile Type Files page:

Identity/Device Profile Type Files
 Displays the files defined for the Identity/Device Profile Type.
 Device rebuild or reset is triggered

[Rebuild all device type files](#) [Rebuild all device profile files](#)
 (After rebuilding the files, be sure to reset the phones for your changes to take effect)

[Rebuild all device type files \(force\)](#) [Rebuild all device profile files \(force\)](#)
 (Forces the upload of the files to the repository - After rebuilding the files, be sure to reset the phones for your changes to take effect)

[Reset the phones](#)

File Format [A]	Is Authenticated	Access File	Repository File	Template File	Edit
%BWMACADDRESS%.cfg	✓	http://xsp1.iop1.broadworks.net:80/dms/Yealink-T48S/(%25BWMACADDRESS%25).cfg Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).		Download	Edit
%BWMACADDRESS%-callog.xml	✓	http://xsp1.iop1.broadworks.net:80/dms/Yealink-T48S/(%25BWMACADDRESS%25)-callog.xml Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).			Edit
%BWMACADDRESS%-contact.xml	✓	http://xsp1.iop1.broadworks.net:80/dms/Yealink-T48S/(%25BWMACADDRESS%25)-contact.xml Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).			Edit
%BWMACADDRESS%-local.cfg	✓	http://xsp1.iop1.broadworks.net:80/dms/Yealink-T48S/(%25BWMACADDRESS%25)-local.cfg Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).			Edit

Figure 38 Rebuild All Device Profile Files

Access Extended Captured Files

The files uploaded from Yealink T4XX devices can be accessed by administrators from each device profile's *Files* page.

5.2.2.2.3 Static Files

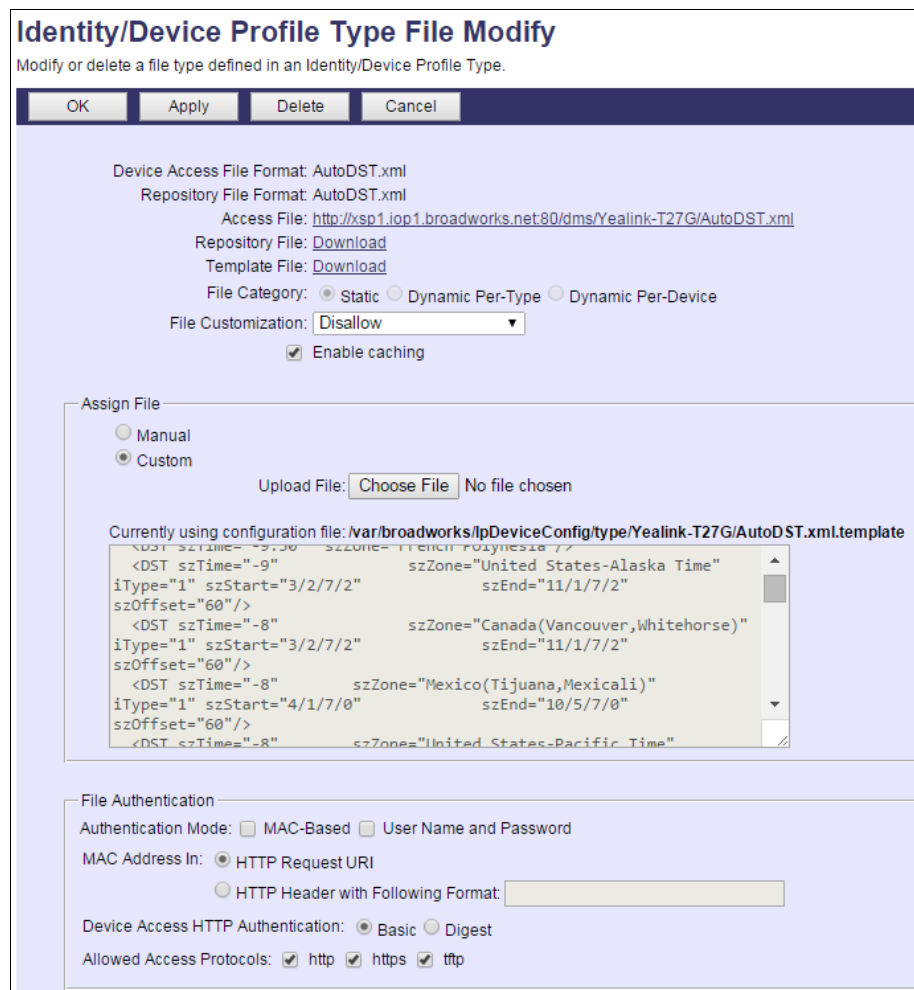
Static files are files such as firmware and media files that are not configurable and/or do not make use of the dynamic BroadWorks Device Management tags. The Yealink T4x requires the following static files:

- <firmware-version>.rom
- Ring1.wav
- 000.GUI.English.lang
- AutoDST.xml
- config.bin
- contact_group_list.xml
- contact_list.xml
- DialPlan.xml
- DialNow.xml
- CallFailed.xml
- CallIn.xml
- Dialing.xml
- Connecting.xml
- RingBack.xml
- Talking.xml
- super_search.xml
- favorite_setting.xml
- remote_phonebook_list.xml

■ Softkey.xml

Add the static files to the device profile type with the settings shown in [Figure 39 Static File Settings](#).

After creating the device profile type file, upload *static files* (extracted from the CPE kit and obtained from Yealink). Use the **Browse** button on the file definition screen. Be sure to click **Apply** after uploading the file.



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: AutoDST.xml
Repository File Format: AutoDST.xml
Access File: <http://xsp1.lsp1.broadworks.net:80/dms/Yealink-T27G/AutoDST.xml>
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: No file chosen

Currently using configuration file: /var/broadworks/lpDeviceConfig/type/Yealink-T27G/AutoDST.xml.template

```
<DST szTime="-9" szZone="United States-Alaska Time"
iType="1" szStart="3/2/7/2" szEnd="11/1/7/2"
szOffset="60"/>
<DST szTime="-8" szZone="Canada(Vancouver,Whitehorse)"
iType="1" szStart="3/2/7/2" szEnd="11/1/7/2"
szOffset="60"/>
<DST szTime="-8" szZone="Mexico(Tijuana,Mexicali)"
iType="1" szStart="4/1/7/0" szEnd="10/5/7/0"
szOffset="60"/>
<DST szTime="-8" szZone="United States-Pacific Time"
```

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 39 Static File Settings

5.2.2.2.3 Time Zone Mapping

The CPE kit contains a time zone properties file for each device model. This file maps the BroadWorks user's time zone settings to the device's time zone settings.

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. A separate *TimeZoneAlias* file must be provided for each device profile type, corresponding to each Yealink T4x IP Phone model.

The following is an example of the file contents:

```

US_ALASKA=-9 cat
US_HAWAII=-10
CANADA_PACIFIC_TIME=-8
MEXICO_PACIFIC_TIME=-8
US_PACIFIC_TIME=-8
US_ARIZONA=-7
CANADA_MOUNTAIN_TIME=-7
MEXICO_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
VENEZUELA_TIME=-4.5
CANADA_ALTANTIC_TIME=-4
CHILE_TIME=-4
CANADA_NEWFOUNDLAND=-3.5
ARGENTINA_TIME=-3
GREENWICH_MEAN_TIME=0
CENTRAL_EUROPEAN_TIME=+1
EASTERN_EUROPEAN_TIME=+2
EAST_AFRICAN_TIME=+3
IRAN_TIME=+3.5
AZERBAIJAN_TIME=+4
AFGHANISTAN_TIME=+4.5
PAKISTAN_TIME=+5
INDIA_TIME=+5.5
EASTERN_KAZAKHSTAN_TIME=+6
MYANMAR_TIME=+6.5
THAILAND_TIME=+7
CHINA_TIME=+8
JAPAN_TIME=+9
AUSTRALIAN_CENTRAL_STANDARD_TIME=+9.5
AUSTRALIAN_EASTERN_STANDARD_TIME=+10
NEWZEALAND_TIME=+12

```

You must restart the Application Server for the *TimeZoneAlias* files to be picked up by the system.

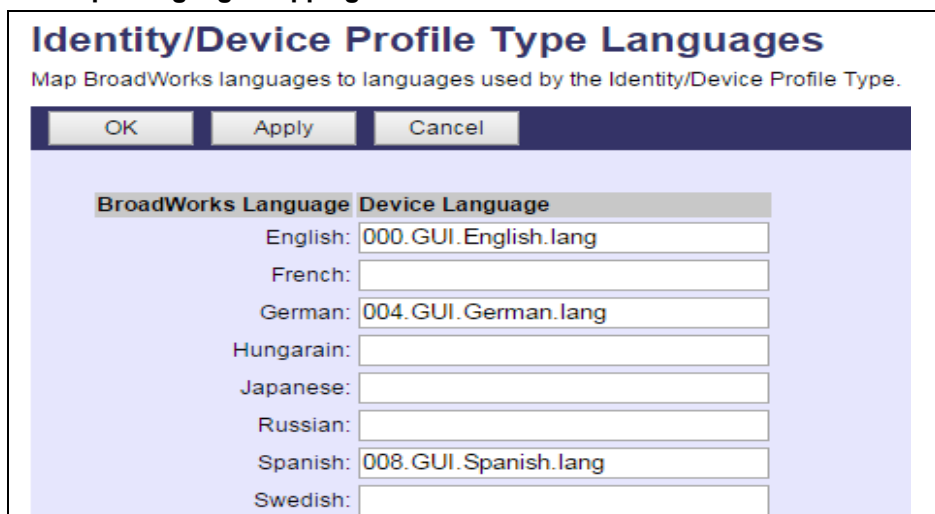
5.2.2.2.4 Language Mapping

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	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: 000.GUI.English.lang

BroadWorks Language	Yealink Language Mapping
Spain_Spanish	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: 010.GUI.Spanish.lang
Polish	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: 007.GUI.Polish.lang
Turkish	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: 012.GUI.Turkish.lang
French	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: 004.GUI.French.lang
German	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: 005.GUI.German.lang
Italian	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: 006.GUI.Italian.lang
Portuguese	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: 008.GUI.Portuguese.lang

Example language mapping:



BroadWorks Language	Device Language
English:	000.GUI.English.lang
French:	
German:	004.GUI.German.lang
Hungarian:	
Japanese:	
Russian:	
Spanish:	008.GUI.Spanish.lang
Swedish:	

Figure 40 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.

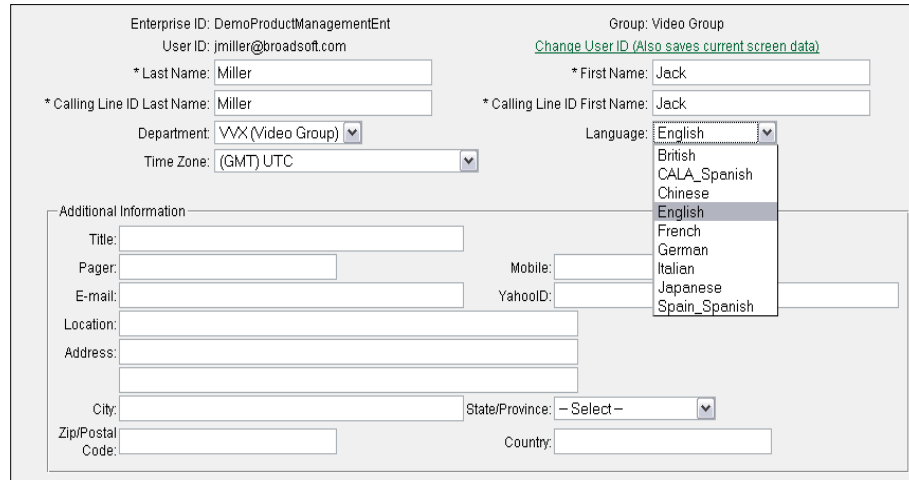


Figure 41 BroadWorks User Language Definition

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 an individual Yealink T4x device.

Browse to the BroadWorks <group> → *Resources* → *Identity/Device Profiles* page and then select **Add** to add a new Yealink T4x device profile. Configure the device profile as shown in the [Figure 42 Device Profile Instance](#) example.

The *Use Custom Credentials* option must be selected. Set the Device Access User Name and Password to the username and password the device uses for file download.

Identity/Device Profile Modify

Modify or delete an existing group identity/device profile.

Profile

Users

Files

Custom Tags

Identity/Device Profile Name: ylt48g-prof3

Identity/Device Profile Type: Yealink-T48G

Device Type URL: http://xsp1.iop1.broadworks.net:80/dms/YealinkT48G/

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: 16

Assigned Lines/Ports: 1

Unassigned Lines/Ports: 15

Version: Yealink SIP-T48G 35.81.193.25

Authentication

☐ Use Identity/Device Profile Type Credentials

☒ Use Custom Credentials

* Device Access User Name:

* Device Access Password:

* Re-type Device Access Password:

Figure 42 Device Profile Instance

5.2.4 Configure BroadWorks User

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

The device profile created in the previous section must 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*. Customize Tags

This section identifies custom tags used by the Yealink T4x that may need to be customized at the group or device profile. Customizing a tag at the group level overrides the setting on the device profile type for the device profiles created within the group. Customizing a tag at the device profile level overrides the setting at the device profile type and/or group level for the individual device profile.

5.2.4.1 SBC Address Customization for Edge Device

In many deployments, an edge device, such as an enterprise SBC or application layer gateway, is deployed on the enterprise edge. The edge device's SIP server or outbound proxy setting is configured with the service provider's SBC IP address or FQDN. If there is no edge device, the following customization does not apply.

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. To do so, perform the following steps.

- 1) At the *Group* → *Utilities* → *Configure Device* page, select the Yealink device profile (for example, Yealink_T46G).
- 2) Click on the *Custom Tags* tab.
- 3) Click **Add**.
- 4) For the tag, enter "SBC_ADDRESS".
- 5) For the value, enter the edge device LAN IP address.
- 6) To save the tag data, click **OK**.

Repeat these steps for each Yealink T4x model provisioned in the group.

5.2.4.2 Xtended Services Interface Password

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.

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

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

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

5.2.5 File Authentication Using MAC Address from Client Certificate

This section describes the steps necessary to configure BroadWorks to perform device management file authentication using the MAC address obtained from the phone's HTTPS client certificate. This secure authentication method based on MAC address is a new feature available from BroadWorks Release 22.0.

Prior to configuring for the MAC address authentication, mutual HTTPS authentication must be established among the Yealink phones and BroadWorks. That is by the implication of client certificate authentication, HTTPS must be enabled on the phones to trust BroadWorks server certificate. Furthermore, HTTPS client certificates offered by the Yealink devices containing the phone's MAC address must also be trusted by BroadWorks.

The public certificates of Yealink's certificate authority can be obtained from Yealink. The Yealink certificate should be installed on the Device Management deploying Xtended Services Platform.

The Yealink T4XX CPE kit starting from version 84 contains additional Device Management DTAF files with support of MAC address authentication using client certificate. These DTAF files can be identified with the appending suffix of “_MAC” (Example: Yealink-T46S_MAC.DTAF.zip). Follow the instructions in section [5.2.2.1 Configuration Method 1: Import](#) to import these DTAF files into BroadWorks. After importing the DTAF files, follow instructions in section [5.2.5.1 Create or Modify Device Profile Instance using MAC Address from Client Certificate](#) to create corresponding device profile instances.

Alternatively, use the instructions detailed in the following sub-sections to manually alter files in the existing device profile types and device profile instances to switch the file authentication mode.

CAUTION: Altering the authentication mode from “username/password” to “MAC address in client certificate” for a given device profile type will affect all existing device profile instances on the BroadWorks system. Prepare the authentication mode switch by collecting all MAC addresses of the existing Yealink phones and use the instructions as follows in the specified order.

5.2.5.1 Create or Modify Device Profile Instance using MAC Address from Client Certificate

When MAC address authentication is chosen as the file authentication mode, every single Yealink phone's MAC address must be added to the corresponding device profile on BroadWorks. The device MAC address is to be configured for the device profile as shown in the following figure. Further, select or update the *Authentication* method from *Use Custom Credentials* to *Use Identity/Device Profile Type Credentials*. If altering the authentication mode, repeat the steps to modify all existing device profiles on the BroadWorks system.

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-T48G-MAC-Profile
 Identity/Device Profile Type: [Yealink-T48S_MAC](#)
 Device Type URL: https://xsp1.iop1.broadworks.net:4433/dms/Yealink-T48S_MAC/
 Protocol: SIP 2.0
 Host Name/IP Address: Port:
 Transport: Unspecified
 MAC Address: 00165612378E
 Serial Number:
 Description:
 Outbound Proxy Server:
 STUN Server:
 Physical Location:
 Lines/Ports: 16
 Assigned Lines/Ports: 0
 Unassigned Lines/Ports: 16
 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 43 MAC Address Definition for Device Profile Instance

5.2.5.2 Update Device Management Authentication Mode on the Device Profile Type

Instructions in this section are only applicable to updating BroadWorks systems with existing Yealink device profile types. Perform the changes as shown on the device profile type to be updated with MAC address authentication using Client Certificate.

Parameter	Value	Description
Device Access Protocol	https	HTTPS protocol is a must when using client mutual authentication with signed certificates.
Device Access Port	XSP's listening port of HTTPS mutual authentication.	Enter the corresponding TCP port.
Authentication Mode	MAC-Based checked	MAC-Based authentication method is used
MAC Address in	Client Certificate radio button selected	MAC address used for authentication is to be obtained from the client certificate to compare to the provisioned values on the device profiles.
MAC Address Format	.*([0-9a-fA-F]{12}).*	Regular expression used to parse the MAC address from the CN field of the client certificate.

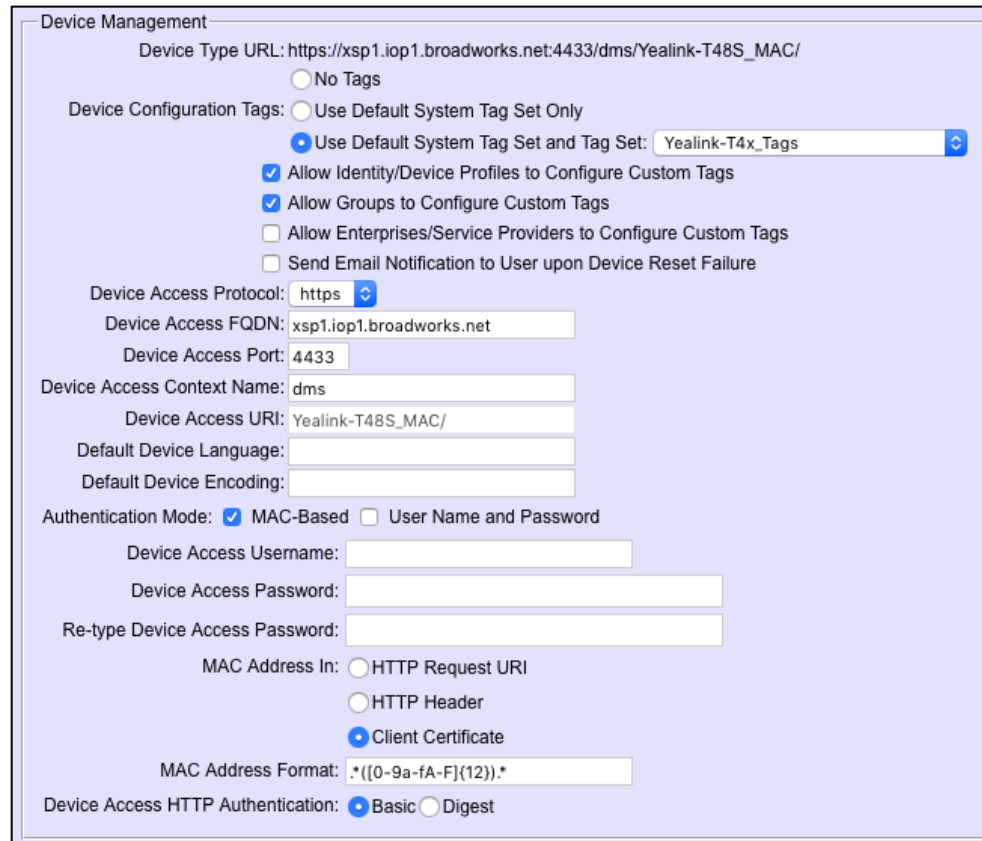


Figure 44 Device Profile Type Update for MAC-Based Auth using Client Certificate

5.2.5.3 Change File Authentication Mode to MAC address in Client Certificate

Instructions in this section are only applicable to updating BroadWorks systems with existing Yealink device profile types. Perform corresponding changes on the authentication mode of all Device-specific files including the upload files listed for Yealink phones as shown in the following figure.

The regular expression used in MAC Address Format is: `.*([0-9a-fA-F]{12}).*`

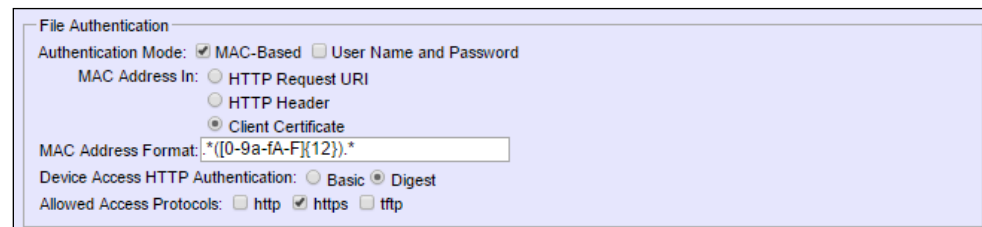


Figure 45 Authentication Mode Set to MAC-Based and Sourced from Client Certificate

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 done as described in the following sections:

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

5.2.6.1 Manual Provisioning

5.2.6.1.1 Check Enterprise/Business DHCP Server Settings

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

5.2.6.1.2 Provision Manual Device Management Settings

Log in to the web user interface for the Yealink 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”)

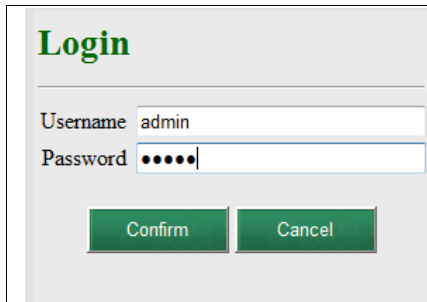


Figure 46 Login Screen

Example Auto Provision Web Page

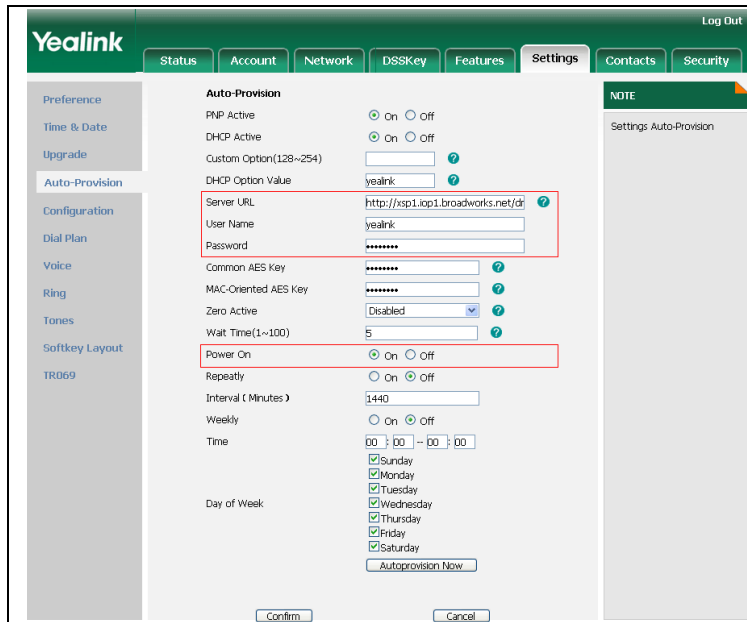


Figure 47 Upgrade Screen

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.

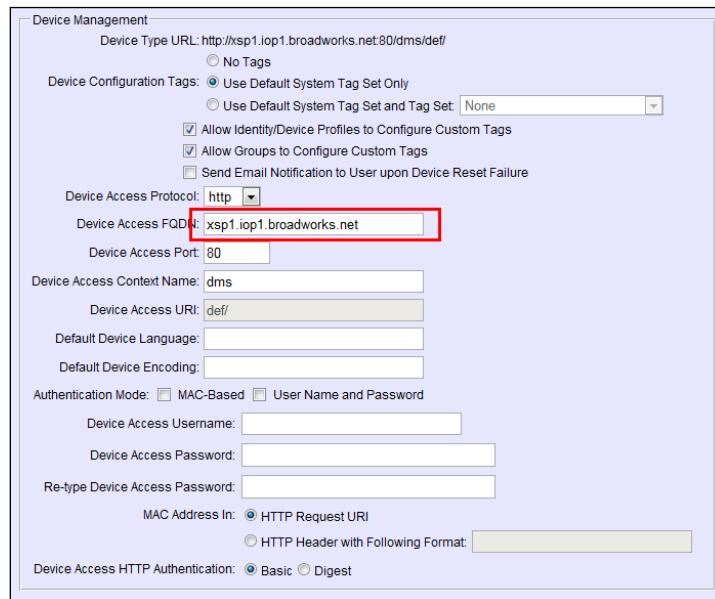
Download the Yealink T4x CPE kit from BroadSoft Xchange at www.broadsoft.com/xchange. Extract the *DeviceManagementDefaults.DTAF.zip* file from the CPE kit. This is the import file.

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:



The screenshot shows the 'Device Management' configuration page. 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 48 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 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 Yealink T4x 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.

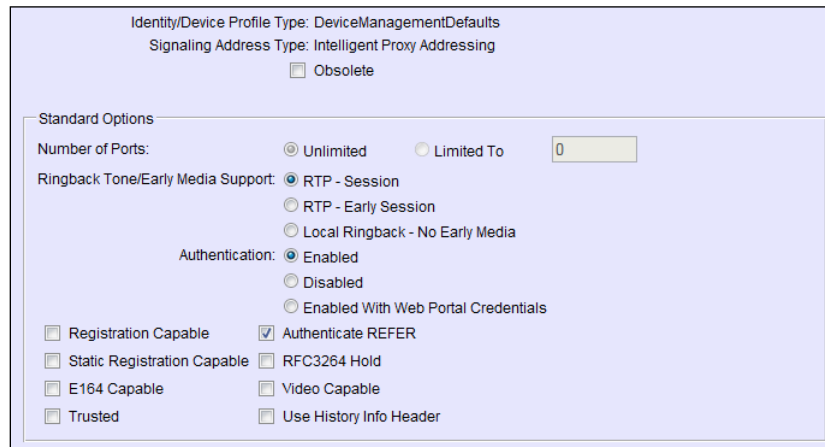


Figure 49 Default Device Profile Type

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.

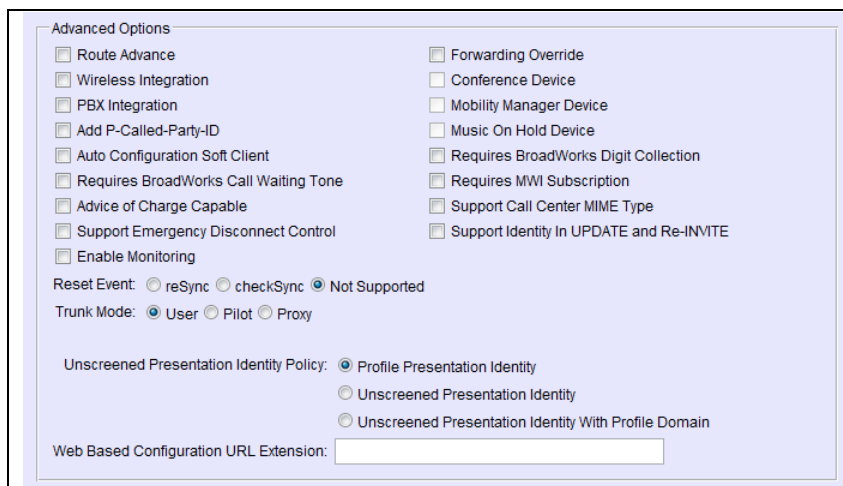


Figure 50 Configure Advanced Options

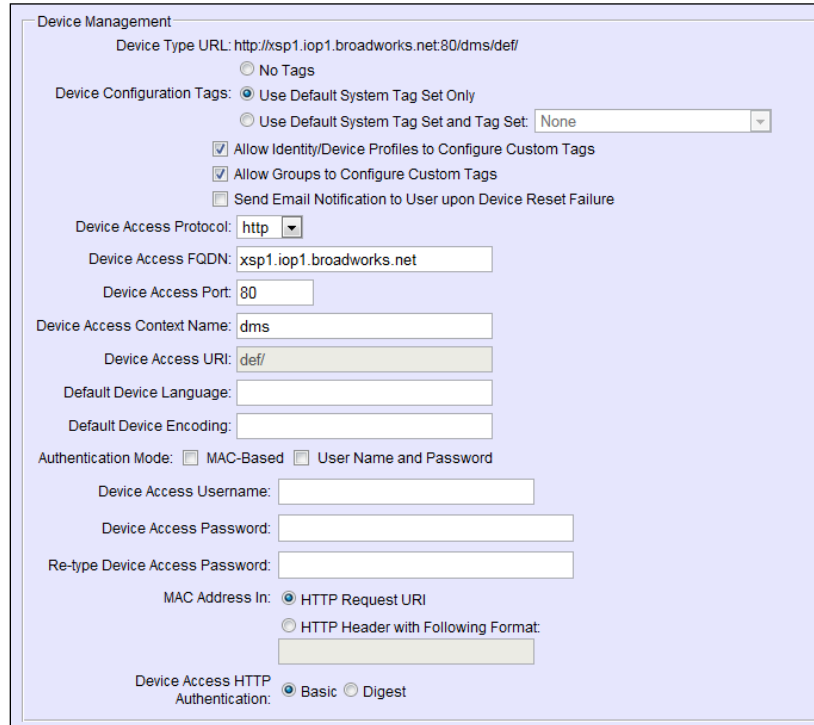
5.2.6.2.2.1.3 Configure Device Management Options

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
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:

☐ 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 51 Device Management Options Settings

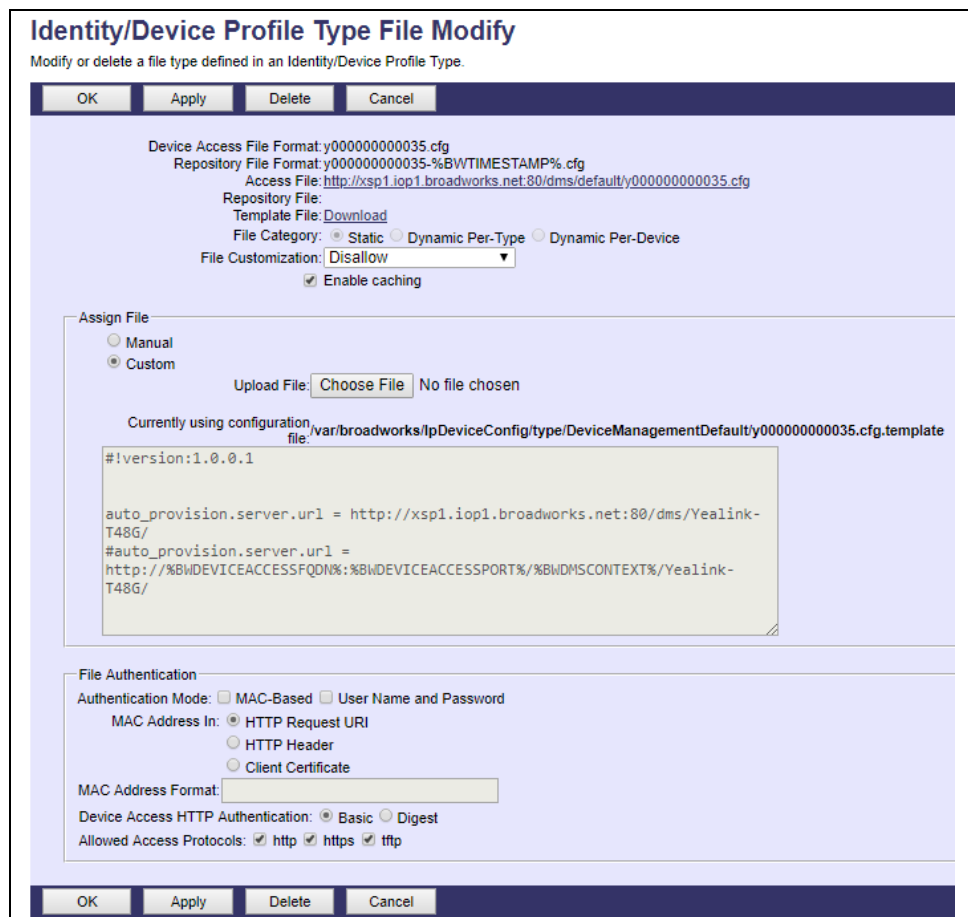
5.2.6.2.2.2 Define Device Profile Type Files

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. The files must be defined as described in the following sections:

y0000000000xx.cfg

- T40P: xx=54
- T40G: xx=76
- T41P: xx=36
- T42G: xx=29
- T46G: xx=28
- T48G: xx=35
- T41S: xx=68
- T42S: xx=67
- T46S: xx=66
- T48S: xx=65

Add the static files to the device profile type with the settings shown in the following figure.



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: y0000000000035.cfg
Repository File Format: y0000000000035-%BWTIMESTAMP%.cfg
Access File: <http://xsp1.iop1.broadworks.net:80/dms/default/y0000000000035.cfg>
Repository File:
Template File: [Download](#)
File Category: ☒ Static ☐ Dynamic Per-Type ☐ Dynamic Per-Device
File Customization: Disallow
☒ Enable caching

Assign File
☐ Manual
☒ Custom
Upload File: Choose File No file chosen
Currently using configuration file: /var/broadworks/lpDeviceConfig/type/DeviceManagementDefault/y0000000000035.cfg.template

```
#!version:1.0.0.1

auto_provision.server.url = http://xsp1.iop1.broadworks.net:80/dms/Yealink-
T48G/
#auto_provision.server.url =
http://%BWDDEVICEACCESSFQDN%:%BWDDEVICEACCESSPORT%/%BWDMSCONTEXT%/Yealink-
T48G/
```

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

OK Apply Delete Cancel

Figure 52 Default y0000000000035.cfg

5.2.6.2.3 DHCP Server Configuration (BroadWorks Default) and Redirect Events

Configure the end-customer's DHCP server with *Option 66/43* containing the default BroadWorks Device Management URL as *http://<Device Access FQDN>:<Device Access Port>/<Device Access Context Name>/def*.

Example:

```
option BWRedir code 43 = string;

subnet 10.2.0.0 netmask 255.255.255.0 {
option subnet-mask 255.255.255.0;
option domain-name-servers 10.2.0.29;
option routers 10.2.0.1;
option BWRedir "http://xsp1.iop1.broadworks.net/dms/def/"
}
```

Yealink T4x starts the provisioning process by following this default BroadWorks Device Management URL to obtain an initial configuration redirect. The following steps detail the phone's sequence to become fully provisioned on BroadWorks after receiving the redirect from BroadWorks.

- 1) The phone does initial resynchronization with Device Management and downloads the default file from location specified in DHCP offer.
- 2) The phone displays configuration wizard on the phone screen.

- 3) The end user or administrator follows the wizard and enters the device username and password using the user interface on the phone.
- 4) The phone resynchronizes with Device Management and downloads the file(s) associated with the credentials supplied in the previous step.

5.2.6.2.4 DHCP Server Configuration (Direct DM Location) and Redirect Events

Configure the end customer's DHCP server with *Option 66/43* containing the direct Yealink Device Management URL as *http://<Device Access FQDN>:<Device Access Port>/<Device Access Context Name>/Yealink-T40P*.

Example:

```
option BWRedir code 43 = string;

subnet 10.2.0.0 netmask 255.255.255.0 {
option subnet-mask 255.255.255.0;
option domain-name-servers 10.2.0.29;
option routers 10.2.0.1;
option BWRedir "http://xsp1.iopl.broadworks.net/dms/Yealink-T40P/"
}
```

Yealink T4x starts the provisioning process by following Yealink Device Management URL to obtain the device configuration files. The following steps detail the phone's sequence to become fully provisioned on BroadWorks after receiving the direct URL from BroadWorks.

- 1) The phone does initial resynchronization with Device Management and downloads the configuration file from location specified in DHCP offer.
- 2) The end user or administrator enters the device username and password using the user interface on the phone.
- 3) The phone resynchronizes with Device Management and downloads the file(s) associated with the credentials supplied via the previous step.

5.2.6.3 No Touch Provisioning via Yealink Redirect Service

Yealink Device Management Redirect is a web redirect service hosted by Yealink. It works in conjunction with the BroadWorks Device Management Redirect. Hence, prior to device deployment, the administrator is required to login to Yealink's web portal to associate each device based on the MAC address to the default BroadWorks Device Management URL. At boot time, the Yealink T4x phones automatically queries the Yealink Device Management Redirect service for the associated BroadWorks URL. The Yealink T4x finally completes the provisioning process as detailed in the previous section. For more information about the Yealink Device Management Redirect service, go to <https://rps.yealink.com/>.

NOTE: If a secured (HTTPS) connection is required, then install the CA certificates or set the *security* → *trusted_certificates* to "disable" and restart the phone.

5.3 Upgrade from Previous CPE Kits

The previous configuration sections are primarily structured around importing or manually configuring the Yealink T4x device profile types for the first time. Many of the steps are unnecessary when upgrading to a new firmware release or CPE kit version.

For general instructions on upgrading, see the *BroadWorks CPE Kit Usage Guide* [9].

Appendix A: Reference T4x Configuration Files

The following is a reference configuration for the T48G configured for use with BroadWorks.

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.

Device-specific File: %BWMACADDRESS%.cfg

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

```
#!version:1.0.0.1

##File header "#!version:1.0.0.1" cannot be edited or deleted, and must be
placed in the first line.##
##account.X.*(T54S/T48G/T48S/T46G/T46S/T29G: X ranges from 1 to 16.
T52S/T42G/T42S: X ranges from 1 to 12. T41P/T41S/T27P/T27G: X ranges from
1 to 6. T40P/T40G/T23P/T23G: X ranges from 1 to 3. T21(P) E2: X ranges
from 1 to 2.)##

#####
#####
##                                     Network CDP
##
#####
#####
static.network.cdp.enable =
static.network.cdp.packet_interval =

#####
#####
##                                     Network IPv6
##
#####
#####
static.network.ipv6_static_dns_enable =
static.network.preference=

#####
#####
##                                     Network WiFi
##
#####
#####
##static.wifi.X.label=
##static.wifi.X.ssid=
##static.wifi.X.priority=
##static.wifi.X.security_mode=
##static.wifi.X.cipher_type=
```

```
##static.wifi.X.password=
##static.wifi.X.eap_type=
##static.wifi.X.eap_user_name=
##static.wifi.x.eap_password=
##(X ranges from 1 to 5)
##Only T54S/T52S/T48G/T48S/T46G/T46S/T42S/T41S/T29G/T27G Models support
these parameters.

static.wifi.enable =
static.wifi.1.label =
static.wifi.1.ssid =
static.wifi.1.priority =
static.wifi.1.security_mode =
static.wifi.1.cipher_type =
static.wifi.1.password =
static.wifi.1.eap_type =
static.wifi.1.eap_user_name =
static.wifi.1.eap_password =
static.wifi.show_scan_prompt =
static.network.redundancy.failback.timeout=
static.network.redundancy.mode=
static.wifi.function.enable=

#####
#####
##                                Network Internet
##
#####
#####
static.network.span_to_pc_port =
static.network.vlan.pc_port_mode =
static.network.static_dns_enable =
static.network.pc_port.enable =

#####
#####
##                                Network Advanced
##
#####
#####
static.network.dhcp_host_name =
static.network.dhcp.option60type =
static.network.mtu_value =
static.network.qos.audiotos =
static.network.port.min_rtpport =
static.network.port.max_rtpport =
static.network.qos.signalto =

static.wui.http_enable =
static.wui.https_enable =
static.network.port.https =
static.network.port.http =

static.network.pc_port.speed_duplex =
static.network.internet_port.speed_duplex =
```



```
#####
#####
##                               Network LLDP
##
#####
#####
static.network.lldp.enable =
static.network.lldp.packet_interval =

#####
#####
##                               Network VLAN
##
#####
#####
static.network.vlan.dhcp_enable =
static.network.vlan.dhcp_option =
static.network.vlan.vlan_change.enable =

static.network.vlan.pc_port_priority =
static.network.vlan.pc_port_vid =
static.network.vlan.pc_port_enable =

static.network.vlan.internet_port_priority =
static.network.vlan.internet_port_vid =
static.network.vlan.internet_port_enable =

#####
#####
##                               Network VPN
##
#####
#####
static.network.vpn_enable =
static.openvpn.url =

#####
#####
##                               Network 802.1x
##
#####
#####
static.network.802_1x.mode =
static.network.802_1x.identity =
static.network.802_1x.md5_password =
static.network.802_1x.client_cert_url =
static.network.802_1x.root_cert_url =
static.network.802_1x.eap_fast_provision_mode =
static.network.802_1x.anonymous_identity =
static.network.802_1x.proxy_eap_logoff.enable =

static.auto_provision.custom.protect =
static.auto_provision.custom.sync =
static.auto_provision.custom.sync.path =
static.auto_provision.custom.upload_method =
```

```
#####
#####
##                                ZERO Touch
##
#####
#####
static.zero_touch.enable = 0
static.zero_touch.wait_time = 10
static.features.hide_zero_touch_url.enable =
static.zero_touch.network_fail_delay_times =
static.zero_touch.network_fail_wait_times =

#####
#####
##                                Autop URL
##
#####
#####
static.auto_provision.server.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CCESSURI%

#####
#####
##                                Autop Weekly
##
#####
#####
static.auto_provision.weekly.enable =
static.auto_provision.weekly.dayofweek =
static.auto_provision.weekly.end time =
static.auto_provision.weekly.begin_time =
static.auto_provision.weekly_upgrade_interval =

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

#####
#####
##                                Autop DHCP
##
#####
#####
static.auto_provision.dhcp_option.list_user_options =
static.auto_provision.dhcp_option.enable =
static.auto_provision.dhcp_option.list_user6_options=

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

```
##                                     Autop Mode
##
#####
#####
static.auto_provision.power_on =

#####
#####
##                                     Flexible Autop
##
#####
#####
static.auto_provision.flexible.end_time =
static.auto_provision.flexible.begin_time =
static.auto_provision.flexible.interval =
static.auto_provision.flexible.enable =

#####
#####
##                                     Autoprovision Other
##
#####
#####
static.auto_provision.prompt.enable =
static.auto_provision.attempt_expired_time =
static.auto_provision.attempt_before_failed =
static.network.attempt_expired_time =
static.auto_provision.update_file_mode =
static.auto_provision.retry_delay_after_file_transfer_failed=
static.auto_provision.inactivity_time_expire =
static.auto_provision.dns_resolv_timeout =
static.auto_provision.dns_resolv_nretry =
static.auto_provision.dns_resolv_nosys =
static.auto_provision.user_agent_mac.enable =
static.auto_provision.server.type =
features.action_uri_force_autop =
static.auto_provision.url_wildcard.pn =
static.auto_provision.reboot_force.enable =
static.auto_provision.dhcp_option.option60_value =
static.custom_mac_cfg.url =
static.auto_provision.aes_key_in_file =
static.auto_provision.aes_key_16.mac =
static.auto_provision.aes_key_16.com =
features.custom_version_info =
static.auto_provision.authentication.expired_time=
static.auto_provision.connect.keep_alive=
sip.pkt_loopback_encapsulated_payload=
sip.pkt_loopback_directed_payload=
sip.pkt_loopback_mode=
sip.loopback.auto_answer.mode=
sip.loopback.enable=

#####
#####
##                                     Autop PNP
##
#####
#####
```

```
static.auto_provision.pnp_enable =

#####
#####
##                               Autop Code
##
#####
#####
##static.autoprovision.X.name
##static.autoprovision.X.code
##static.autoprovision.X.url
##static.autoprovision.X.user
##static.autoprovision.X.password
##static.autoprovision.X.com_aes
##static.autoprovision.X.mac_aes
##Autop Code(X ranges from 1 to 50)

static.autoprovision.1.name =
static.autoprovision.1.code =
static.autoprovision.1.url =
static.autoprovision.1.user =
static.autoprovision.1.password =
static.autoprovision.1.com_aes =
static.autoprovision.1.mac_aes =

#####
#####
##                               TR069
##
#####
#####

static.managementserver.enable =
static.managementserver.username =
static.managementserver.password =
static.managementserver.url =
static.managementserver.periodic_inform_enable =
static.managementserver.periodic_inform_interval =
static.managementserver.connection_request_password =
static.managementserver.connection_request_username =

#####
#####
##                               Redirect
##
#####
#####
static.redirect.user_name =
static.redirect.password =

#####
#####
##                               Firmware Update
##
```

```
#####
#####
static.firmware.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CCESSURI%%T40_FIRMWARE%

#####
#####
##                               Configuration
##
#####
#####
features.factory_reset_option =
features.reset_by_long_press_enable =
features.factory_pwd_enable = 1
features.export_cfg_erase_pwd =
static.configuration.url =
static.features.custom_factory_config.enable =
#static.custom_factory_configuration.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CCESSURI%factory.cfg

#####
#####
##                               SYSLOG
##
#####
#####
static.syslog.enable =
static.syslog.server =
static.syslog.level =
static.syslog.server_port =
static.syslog.transport_type =
static.syslog.facility =
static.syslog.prepend_mac_address.enable =
static.local_log.enable =
static.local_log.level =
static.local_log.max_file_size =
static.syslog.bootlog_upload_wait_time =
static.syslog.ftp.append_limit_mode =
static.syslog.ftp.max_logfile =
static.syslog.ftp.post_mode =
static.syslog.log_upload_period =
static.syslog.log_level =
static.network.promisc_mode.enable =

#####
#####
##                               Log Backup
##
#####
#####
static.auto_provision.local_log.backup.enable =
static.auto_provision.local_log.backup.path =
static.auto_provision.local_log.backup.upload_period =
static.auto_provision.local_log.backup.append =
static.auto_provision.local_log.backup.bootlog.upload_wait_time=
static.auto_provision.local_log.backup.append.max_file_size =
static.auto_provision.local_log.backup.append.limit_mode=
```

```
#####
#####
##                               User Mode
##
#####
#####
static.security.var_enable =
#static.web_item_level.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CCESSURI%WebItemsLevel.cfg

#####
#####
##                               Quick Login
##
#####
#####
wui.quick_login =

#####
#####
##                               Security
##
#####
#####
static.phone_setting.reserve_certs_enable =
phone_setting.reserve_certs_config.enable
features.relog_offtime =
static.security.default_ssl_method =
static.security.cn_validation =
static.security.dev_cert =
static.security.ca_cert =
static.security.trust_certificates =
static.security.user_password =
static.security.user_name.var =
static.security.user_name.admin =
static.security.user_name.user =
security.tls_cipher_list =
security.default_access_level =

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

#####
#####
##                               Server Certificates
##
#####
#####
```

```
#static.server_certificates.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CESSURI%server.pem
static.server_certificates.delete =

#####
#####
##
##
##
#####
#####
#static.trusted_certificates.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CESSURI%ca.crt
static.trusted_certificates.delete =

#####
#####
##
##
##
#####
#####
wui.secure_domain_list =

#####
#####
##
##
##
#####
#####
static.auto_provision.encryption.directory =
static.auto_provision.encryption.call_log =
static.auto_provision.encryption.config =

#####
#####
##
##
##
#####
#####
features.transfer_type=
dialplan.transfer.mode =
transfer.on_hook_trans_enable =
transfer.tran_others_after_conf_enable =
transfer.blind_tran_on_hook_enable =
transfer.semi_attend_tran_enable =
phone_setting.call_appearance.transfer_via_new_linekey=
features.resume_after_exit_transfer_or_conference.enable=

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

```
features.conference.with_previous_call.enable =
features.local_conf.combine_with_one_press.enable=
phone_setting.call_appearance.conference_via_new_linekey=

#####
#####
##                                     Anonymous
##
#####
#####
features.anonymous_response_code=

#####
#####
##                                     Call Configuration
##
#####
#####
phone_setting.incoming_call_when_dialing.priority=
phone_setting.incoming_call_display_name.mode=
phone_setting.hold_or_swap.mode=
features.play_held_tone.interval=
features.play_held_tone.delay=
features.play_held_tone.enable=
features.play_hold_tone.interval=
features.ignore_incoming_call.enable=
force.voice.ring_vol=
features.mute.autoanswer_mute.enable=
features.play_hold_tone.delay =
phone_setting.end_call_net_disconnect.enable =
features.custom_auto_answer_tone.enable=
default_input_method.dialing=
features.speaker_mode.enable=
features.headset_mode.enable=
features.handset_mode.enable=
features.conference.local.enable =
features.off_hook_answer.enable=
features.caller_name_type_on_dialing=
phone_setting.show_code403=
phone_setting.ring_for_tranfailed=
features.password_dial.length=
features.password_dial.prefix=
features.password_dial.enable=
features.group_listen_in_talking_enable= 0
phone_setting.call_info_display_method=
phone_setting.called_party_info_display.enable =
features.headset_training=
features.headset_prior=
features.dtmf.replace_tran =
features.dtmf.transfer =
phone_setting.ringing_timeout=
phone_setting.ringback_timeout=
features.hold_trans_delay=
transfer.multi_call_trans_enable =
features.keep_mute.enable=
linekey.1.shortlabel=
features.config_dsskey_length.shorten =
transfer.dsskey_deal_type =
```



```
features.auto_linekeys.enable= %AUTO_LINEKEYS%
phone_setting.call_appearance.calls_per_linekey=
features.linekey_call_with_default_account=
features.station_name.scrolling_display=
features.station_name.value=
features.headset.ctrl_call.enable=

#####
#####
##                               Custom Softkey
##
#####
#####
phone_setting.custom_softkey_enable=
custom_softkey_talking.url=
custom_softkey_ring_back.url=
custom_softkey_dialing.url=
custom_softkey_connecting.url=
custom_softkey_call_in.url=
custom_softkey_call_failed.url=
features.homescreen_softkey.acd.enable=
features.homescreen_softkey.hoteling.enable=
phone_setting.custom_softkey.apply_to_states=

#####
#####
##                               Features Bluetooth
##
#####
#####
##Only T54S/T52S/T48G/T48S/T46G/T46S/T42S/T41S/T29G/T27G Models support
the parameter.
features.bluetooth_enable=
features.bluetooth_adapter_name=
static.bluetooth.function.enable=

#####
#####
##                               Features USB
##
#####
#####
##Only T54S/T52S/T48G/T48S/T46G/T46S/T42S/T41S/T29G/T27G Models support
the parameter.
features.usb_call_recording.enable =
static.usb.power.enable=

#####
#####
##                               Codec
##
#####
#####
voice.g726.aal2.enable=

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

```
##                                     DTMF
##
#####
#####
features.dtmf.min_interval=
features.dtmf.volume=
features.dtmf.duration =

#####
#####
##                                     Tones
##
#####
#####
voice.side_tone =
features.partition_tone =
voice.tone.secondary_dial=

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

voice.jib.wifi.normal=
voice.jib.wifi.max=
voice.jib.wifi.min=
voice.jib.wifi.adaptive=

#####
#####
##                                     Echo Cancellation
##
#####
#####
voice.echo_cancellation =
voice.cng =
voice.vad =

#####
#                                     SIP Backup Server      ##
#####
static.network.dns.ttl_enable =
static.network.dns.last_cache_expired.enable=
static.network.dns.last_cache_expired
static.network.dns.query_timeout =
static.network.dns.retry_times =

sip.dns_transport_type=
sip.skip_redundant_failover_addr=
sip.switch_server_on_503_response=
sip.dhcp.option120.mode=

#####
#                                     SIP Basic Config      ##
#####
```

```

sip.use_out_bound_in_dialog=
sip.unreg_with_socket_close=
phone_setting.disable_account_without_username.enable=
features.auto_answer.first_call_only=

#####
#                               SIP Advanced config                               ##
#####
sip.request_validation.event=
sip.sdp_early_answer_or_offer=
sip.cid_source.preference=
sip.request_validation.digest.realm=
sip.request_validation.digest.list=
sip.request_validation.source.list=
sip.send_keepalive_by_socket=
sip.reliable_protocol.timer.ae.enable=
sip.listen_in_peer_localip.enable=
sip.requesturi.e164.addglobalprefix=
sip.trust_ctrl=
sip.mac_in_uu=

sip.timer_t1=
sip.timer_t2=
sip.timer_t4=

sip.listen_mode=
sip.listen_port= 5060
sip.tls_listen_port=
sip.tcp_port_random_mode=
sip.escape_characters.enable=
sip.notify_reboot_enable= 1
sip.send_response_by_request=
sip.disp_incall_to_info=
features.call_invite_format=
phone_setting.early_media.rtp_sniffer.timeout=

#####
#                               NAT&ICE                                           ##
#####
static.sip.nat_turn.enable=
static.sip.nat_turn.username=
static.sip.nat_turn.password=
static.sip.nat_turn.server=
static.sip.nat_turn.port=

static.sip.nat_stun.enable=
static.sip.nat_stun.server=
static.sip.nat_stun.port=

static.ice.enable=
static.network.static_nat.enable=
static.network.static_nat.addr=

#####
#####
##                               DNS                                           ##
#####
#####
dns_cache_a.1.name =
```

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

#####
#####
##                                RTP
##
#####
#####
features.rtp_symmetric.enable=

#####
#####
##                                RTCP-XR
##
#####
#####
voice.rtcp.enable=
voice.rtcp_cname=
voice.rtcp_xr.enable=
phone_setting.vq_rtcp_xr_display_symm_oneway_delay.enable=
phone_setting.vq_rtcp_xr_display_round_trip_delay.enable=
phone_setting.vq_rtcp_xr_display_mos_cq.enable=
phone_setting.vq_rtcp_xr_display_mos_lq.enable =
phone_setting.vq_rtcp_xr_display_packets_lost.enable=
phone_setting.vq_rtcp_xr_display_jitter_buffer_max.enable=
phone_setting.vq_rtcp_xr_display_jitter.enable=
phone_setting.vq_rtcp_xr_display_remote_codec.enable=
phone_setting.vq_rtcp_xr_display_local_codec.enable=
phone_setting.vq_rtcp_xr_display_remote_call_id.enable=
phone_setting.vq_rtcp_xr_display_local_call_id.enable=
phone_setting.vq_rtcp_xr_display_stop_time.enable=
phone_setting.vq_rtcp_xr_display_start_time.enable=
phone_setting.vq_rtcp_xr_interval_period=
phone_setting.vq_rtcp_xr_delay_threshold_critical=
phone_setting.vq_rtcp_xr_delay_threshold_warning=
phone_setting.vq_rtcp_xr_mos_lq_threshold_critical=
phone_setting.vq_rtcp_xr_mos_lq_threshold_warning=
phone_setting.vq_rtcp_xr_interval_report.enable=
phone_setting.vq_rtcp_xr.states_show_on_gui.enable=
phone_setting.vq_rtcp_xr.states_show_on_web.enable=
phone_setting.vq_rtcp_xr.session_report.enable=

#####
#####
##                                Directory
##
```

```
#####
#####
static.directory_setting.url=
#super_search.url=http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMS
CONTEXT%/%BWDEVICEACCESSURI%super_search.xml

#local_contact.data.url=http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%
BWDMSCONTEXT%/%BWDEVICEACCESSURI%contact.xml
local_contact.data.delete=

##Only T54S/T52S/T48G/T48S/T46G/T46S/T29G Models support the parameter
phone_setting.contact_photo_display.enable=

phone_setting.incoming_call.horizontal_roll_interval=

##Only T54S/T52S/T48G/T48S/T46G/T46S/T29G Models support the parameter
local_contact.data_photo_tar.url=
local_contact.photo.url=
local_contact.image.url=

##Only T48G/S Models support the parameter
local_contact.icon_image.url=
local_contact.icon.url=
directory_setting.local_directory.enable=0
phone_setting.search.highlight_keywords.enable=

#####
#####
##                                     Remote Phonebook
##
#####
#####
##remote_phonebook.data.X.url
##remote_phonebook.data.X.name
##(X ranges from 1 to 5)

remote_phonebook.data.1.url=
remote_phonebook.data.1.name=
features.remote_phonebook.enter_update_enable=
features.remote_phonebook.flash_time=
features.remote_phonebook.enable=
remote_phonebook.display_name=

#####
#####
##                                     LDAP
##
#####
#####
ldap.enable=
ldap.user=
ldap.password=
ldap.base=
ldap.port=
ldap.host=
ldap.customize_label=
ldap.incoming_call_special_search.enable=
ldap.tls_mode=
```

```
ldap.search_type=
ldap.numb_display_mode=
ldap.ldap_sort=
ldap.call_in_lookup=
ldap.version =
ldap.display_name=
ldap.numb_attr=
ldap.name_attr=
ldap.max_hits=
ldap.number_filter=
ldap.name_filter=
ldap.call_out_lookup=

#####
#####
##                               History
##
#####
#####
static.auto_provision.local_calllog.write_delay.terminated=
static.auto_provision.local_calllog.backup.path=
static.auto_provision.local_calllog.backup.enable=
super_search.recent_call=
features.call_out_history_by_off_hook.enable=
features.save_call_history=
features.call_log_show_num=
search_in_dialing.history.enable=
directory_setting.history.enable=
features.save_init_num_to_history.enable=
features.redial_via_local_sip_server.enable=
features.calllog_detailed_information=

#####
#####
##                               favorite
##
#####
#####
phone_setting.favorite_sequence_type=
local_contact.favorite.enable=

#####
#####
##                               Contact Backup
##
#####
#####
static.auto_provision.local_contact.backup.path =
static.auto_provision.local_contact.backup.enable=

#####
#####
##                               Contact Other
##
#####
#####
directory.search_type=
```

```
#####
#####
##                                     Programablekey
##
#####
#####
#programablekey.X.type
#programablekey.X.line
#programablekey.X.value
#programablekey.X.xml_phonebook
#programablekey.X.history_type
#programablekey.X.label(X ranges from 1 to 4)
#programablekey.X.pickup_value
#programablekey.X.extension
##Programablekey X ranges(T48G/T48S/T46G/T46S: X=1-10, 12-
14;T42G/T42S/T41P/T41S/T40P/T40G: X=1-10, 13;T29G/T27P/T27G: X=1-
14;T23P/T23G/T21(P) E2: 1-10, 14;T19(P) E2: X=1-9, 13, 14;)##

programablekey.1.type = 28
programablekey.1.label = Call Log
programablekey.1.value =
programablekey.1.line =
programablekey.1.history_type = 1
programablekey.1.xml_phonebook =
programablekey.1.pickup_value =
programablekey.1.extension =

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

#####
#####
##                                     Linekey
##
#####
#####
##linekey.X.line
##linekey.X.value
##linekey.X.pickup_value
##linekey.X.extension
##linekey.X.type
##linekey.X.xml_phonebook
##linekey.X.shortlabel
##linekey.X.label
##LineKeyX ranges(T48G/S: X ranges from 1 to 29. T54S/T46G/T46S/T29G: X
ranges from 1 to 27. T42G/T42S/T41P/T41S: X ranges from 1 to 15.
T40P/T40G/T23P/T23G: X ranges from 1 to 3. T52S/T27P/T27G: X ranges from 1
to 21. T21(P) E2: X ranges from 1 to 2.)##
## Not support T19P_E2

linekey.1.label =
linekey.1.line =
linekey.1.value =
linekey.1.pickup_value =
```

```
linekey.1.extension =
linekey.1.type =
linekey.1.xml_phonebook =

#####
#####
##                                Dsskey
##
#####
#####
features.block_linekey_in_menu.enable =
features.shorten_linekey_label.enable =
features.flash_url_dsskey_led.enable =
features.config_dsskey_length =
phone_setting.page_tip =
features.keep_switch_page_key.enable=

##phone_setting.idle_dsskey_and_title.transparency(Only support
T54S/T52S/T48G/T48S)
phone_setting.idle_dsskey_and_title.transparency=

expkey.type_range.custom=
linekey.type_range.custom=
programablekey.type_range.custom=
phone_setting.dsskey_label.display_method=
local.dsskey_type_config.mode=

#####
#####
##                                Expansion Key
##
##
#####
#####
##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.extension
##expansion_module.X.key.Y.label
##expansion_module.X.key.Y.xml_phonebook
## Expansion Key X ranges(SIP-T54S/T52S: X ranges from 1 to 3, Y ranges
from 1 to 60; SIP-T48G/T48S/T46G/T46S:X ranges from 1 to 6, Y ranges from
1 to 40; SIP-T29G/T27P/T27G:X ranges from 1 to 6, Y ranges from 1 to 20,
22 to 40 (Ext key 21 cannot be configured).)##
## Only SIP-T54S/T52S/T48G/T48S/T46G/T46S/T29G/T27P/T27G Models support
the parameter.

expansion_module.1.key.1.type =
expansion_module.1.key.1.label =
expansion_module.1.key.1.value =
expansion_module.1.key.1.line =
expansion_module.1.key.1.pickup_value =
expansion_module.1.key.1.extension =
expansion_module.1.key.1.xml_phonebook =
expansion_module.page_tip.blf_call_in.led =
expansion_module.page_tip.blf_call_in.enable =
```



```
#####
#####
##                                EDK
##
#####
#####
##EDK Soft Keys(X ranges from 1 to 10)

features.enhanced_dss_keys.enable=
edk.id_mode.enable=
softkey.1.position=
softkey.1.use.dialing=
softkey.1.softkey_id=
softkey.1.use.dialtone=
softkey.1.use.conferenced=
softkey.1.use.held=
softkey.1.use.hold=
softkey.1.use.transfer_ring_back=
softkey.1.use.ring_back=
softkey.1.use.call_failed=
softkey.1.use.on_talk=
softkey.1.use.transfer_connecting=
softkey.1.use.connecting=
softkey.1.use.incoming_call=
softkey.1.use.idle=
softkey.1.action=
softkey.1.label=
softkey.1.enable=
edk.edklist.1.action=
edk.edklist.1.mname=
edk.edklist.1.enable=
edk.edkprompt.1.enable=
edk.edkprompt.1.label=
edk.edkprompt.1.type=
edk.edkprompt.1.userfeedback=

#####
#####
##                                XML
##
#####
#####
push_xml.server=
push_xml.sip_notify=
push_xml.block_in_calling=
default_input_method.xml_browser_input_screen=
push_xml.phonebook.search.delay=
features.xml_browser.loading_tip.delay=
features.xml_browser.pwd=
features.xml_browser.user_name=
hoteling.authentication_mode=
push_xml.password=
push_xml.username=

#####
#####
##                                Forward
##
```

```
#####
#####
features.fwd.allow=
features.fwd_mode=
forward.no_answer.enable=
forward.busy.enable=
forward.always.enable=
forward.no_answer.timeout=
forward.no_answer.on_code=
forward.no_answer.off_code=
forward.busy.off_code=
forward.busy.on_code=
forward.always.off_code=
forward.always.on_code=
forward.no_answer.target=
forward.busy.target=
forward.always.target=

features.forward.emergency.authorized_number=
features.forward.emergency.enable=
forward.idle_access_always_fwd.enable=
features.forward_call_popup.enable=
features.forward.no_answer.show_ring_times=

#####
#####
##                                DND
##
#####
#####
features.dnd.allow=
features.dnd_mode=
features.dnd.enable=

features.dnd.off_code=
features.dnd.on_code=

features.dnd.emergency_authorized_number=
features.dnd.emergency_enable=
features.dnd.large_icon.enable=
features.keep_dnd.enable=

#####
#####
##                                Phone Lock
##
#####
#####
phone_setting.phone_lock.enable=
phone_setting.phone_lock.lock_key_type=
phone_setting.phone_lock.unlock_pin=
phone_setting.emergency.number=
phone_setting.phone_lock.lock_time_out=

#####
#####
##                                Hotdesking
##
```

```
#####
#####
phone_setting.logon_wizard=
phone_setting.logon_wizard_forever_wait=

hotdesking.startup_register_name_enable=
hotdesking.startup_username_enable=
hotdesking.startup_password_enable=
hotdesking.startup_sip_server_enable=
hotdesking.startup_outbound_enable=

hotdesking.dsskey_register_name_enable=
hotdesking.dsskey_username_enable=
hotdesking.dsskey_password_enable=
hotdesking.dsskey_sip_server_enable=
hotdesking.dsskey_outbound_enable=

#####
#####
##                               Voice Mail
##
#####
#####
features.voice_mail_alert.enable=
features.voice_mail_popup.enable=
features.voice_mail_tone_enable=
features.hide_feature_access_codes.enable=
voice_mail.number.1=

#####
#####
##                               Text Message
##
#####
#####
features.text_message.enable=
features.text_message_popup.enable=

#####
#####
##                               UME
##
#####
#####
action_url.is_ume=

#####
#####
##                               Audio Intercom
##
#####
#####
features.intercom.mode=
features.intercom.subscribe.enable=
features.intercom.led.enable=
```

```
features.intercom.feature_access_code=
features.blf.intercom_mode.enable=
features.intercom.ptt_mode.enable=

features.redial_tone=
features.key_tone=
features.send_key_tone=

features.intercom.allow=
features.intercom.barge=
features.intercom.tone=
features.intercom.mute=

voice.handset_send=
voice.handfree_send =
voice.headset_send =
features.intercom.headset_prior.enable=
features.ringer_device.is_use_headset=

voice.headset.autoreset_spk_vol=
voice.handset.autoreset_spk_vol=
voice.handfree.autoreset_spk_vol=

#####
#####
##                               Feature General
##
#####
#####
features.ip_call.auto_answer.enable=
features.show_default_account=
features.call.dialtone_time_out=
features.missed_call_popup.enable=
features.auto_answer_tone.enable=
features.play_hold_tone.enable=
features.key_as_send=
features.send_pound_key=
features.busy_tone_delay=
features.hotline_delay=
features.hotline_number=
features.direct_ip_call_enable=
features.call_num_filter=
features.call_completion_enable=
features.allow_mute=
features.auto_answer_delay=
features.normal_refuse_code=
features.dnd_refuse_code=
features.upload_server=
features.dtmf.repetition=
features.dtmf.hide_delay=
features.dtmf.hide=
features.play_local_dtmf_tone_enable =
features.reboot_in_talk_enable =
features.fwd_diversion_enable=

call_waiting.enable= %CALL_WAITING_BINARY%
call_waiting.tone=
call_waiting.off_code=
```

```
call_waiting.on_code=

auto_redial.times=
auto_redial.interval=
auto_redial.enable=

sip.rfc2543_hold=
sip.use_23_as_pound=
forward.international.enable=
phone_setting.headsetkey_mode=
phone_setting.is_deal180=
phone_setting.change_183_to_180=
phone_setting.virtual_keyboard.enable=
phone_setting.keytype_sequence=

#####
#####
##                               Action URL&URI
##
#####
#####
features.csta_control.enable=
features.action_uri.enable=
features.action_uri_limit_ip=
features.show_action_uri_option=
action_url.call_remote_canceled=
action_url.remote_busy=
action_url.cancel_callout=
action_url.handfree=
action_url.headset=
action_url.unheld=
action_url.held=
action_url.transfer_failed=
action_url.transfer_finished=
action_url.answer_new_incoming_call=
action_url.reject_incoming_call=
action_url.forward_incoming_call=
action_url.ip_change=
action_url.idle_to_busy=
action_url.busy_to_idle=
action_url.call_terminated=
action_url.missed_call=
action_url.unmute=
action_url.mute=
action_url.unhold=
action_url.hold=
action_url.always_fwd_off =
action_url.always_fwd_on =
action_url.attended_transfer_call =
action_url.blind_transfer_call =
action_url.busy_fwd_off =
action_url.busy_fwd_on =
action_url.call_established =
action_url.call_waiting_off =
action_url.call_waiting_on =
action_url.dnd_off =
action_url.dnd_on =
action_url.incoming_call =
action_url.no_answer_fwd_off =
action_url.no_answer_fwd_on =
action_url.off_hook =
```

```
action_url.on_hook =
action_url.outgoing_call =
action_url.register_failed =
action_url.registered =
action_url.setup_autop_finish =
action_url.setup_completed =
action_url.transfer_call =
action_url.unregistered =

#####
#####
##                               Power LED
##
#####
#####
phone_setting.hold_and_held_power_led_flash_enable=
phone_setting.mute_power_led_flash_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.common_power_led_enable=
phone_setting.missed_call_power_led_flash.enable=

#####
#####
##                               Multicast Paging
##
#####
##multicast.listen_address.X.label
##multicast.paging_address.X.channel
##multicast.listen_address.X.ip_address
##multicast.paging_address.X.ip_address
##multicast.paging_address.X.label
##multicast.listen_address.X.channel
##multicast.listen_address.X.volume
##Multicast(X ranges from 1 to 31.)

multicast.codec=

multicast.paging_address.1.channel=
multicast.paging_address.1.label=
multicast.paging_address.1.ip_address=
multicast.receive_priority.enable=
multicast.receive_priority.priority=

multicast.receive.use_speaker=
multicast.receive.enhance_volume=
multicast.receive.ignore_dnd.priority=

multicast.listen_address.1.channel=
multicast.listen_address.1.label=
multicast.listen_address.1.ip_address=
multicast.listen_address.1.volume=
```

```
#####
#####
##                                     Preference&Status
##
#####
#####
##Not support T19P_E2
static.features.default_account=

##Logo File Format: .dob
##Resolution: SIP-T42G/T42S/T41P/T41S: <=192*64  2 gray scale;SIP-T27P/G:
<=240*120  2 gray scale;SIP-T40P/T40G/T23P/T23G/T21(P) E2/T19(P) E2:
<=132*64  2 gray scale##
phone_setting.lcd_logo.mode=
lcd_logo.delete=
lcd_logo.url=
phone_setting.lcd_logo.mode=

phone_setting.contrast=
phone_setting.backlight_time=
phone_setting.inactive_backlight_level=
phone_setting.active_backlight_level=
phone_setting.predial_autodial=

#ringtone.url=
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CCESSURI%Ring.wav
ringtone.delete=
phone_setting.ring_type=
phone_setting.inter_digit_time=
phone_setting.ring_duration=

#####
#####
##                                     Digitmap
##
##
#####
#####
dialplan.digitmap.enable=
dialplan.digitmap.string=
dialplan.digitmap.no_match_action=
dialplan.digitmap.interdigit_short_timer=
dialplan.digitmap.interdigit_long_timer=
dialplan.digitmap.apply_to.press_send=
dialplan.digitmap.apply_to.forward=
dialplan.digitmap.apply_to.history_dial=
dialplan.digitmap.apply_to.directory_dial=
dialplan.digitmap.apply_to.on_hook_dial=
dialplan.digitmap.active.on_hook_dialing=
dialplan.digitmap.apply_to.prefix_key=

#####
#####
##                                     Emergency Dialplan
##
##
#####
#####
dialplan.emergency.enable=
```

```
dialplan.emergency.1.value=
dialplan.emergency.server.1.address=
dialplan.emergency.server.1.transport_type=
dialplan.emergency.server.1.port=
dialplan.emergency.1.server_priority=
dialplan.emergency.custom_asserted_id=
dialplan.emergency.asserted_id_source=
dialplan.emergency.asserted_id.sip_account=
dialplan.emergency.held.request_element.1.name=
dialplan.emergency.held.request_element.1.value=
dialplan.emergency.held.request_type=
dialplan.emergency.held.server_url=

#####
#####
##                               Dialplan
##
#####
#####
#dialplan_replace_rule.url=
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CCESSURI%dialplan.xml
dialplan.replace.line_id.1=
dialplan.replace.replace.1=
dialplan.replace.prefix.1=
phone_setting.dialnow_delay=
#dialplan_dialnow.url=http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BW
DMSCONTEXT%/%BWDEVICEACCESSURI%dialnow.xml
dialnow.item.1=
dialplan.dialnow.line_id.1=
dialplan.dialnow.rule.1=
dialplan.block_out.line_id.1=
dialplan.block_out.number.1=
dialplan.area_code.line_id =
dialplan.area_code.max_len =
dialplan.area_code.min_len=
dialplan.area_code.code=

#####
#####
##                               Rings Settings
##
#####
#####
distinctive_ring_tones.alert_info.1.ringer=
distinctive_ring_tones.alert_info.1.text=

#####
#####
##                               IME Settings
##
#####
#####
directory.search_default_input_method=
directory.edit_default_input_method=
gui_input_method.url=

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



```
##                                     Language Settings
##
#####
#####
gui_input_method.delete=

#####
#####
##                                     Screensaver
##
#####
#####
screensaver.type=
screensaver.delete=
screensaver.upload_url=
features.blf_active_backlight.enable=
screensaver.display_clock.enable=
screensaver.clock_move_interval=
screensaver.picture_change_interval=
screensaver.wait_time=
screensaver.xml_browser.url=

#####
#####
##                                     Power Saving
##
#####
#####
features.power_saving.enable=
features.power_saving.power_led_flash.on_time=
features.power_saving.power_led_flash.off_time=
features.power_saving.office_hour.monday=
features.power_saving.office_hour.tuesday=
features.power_saving.office_hour.wednesday=
features.power_saving.office_hour.thursday=
features.power_saving.office_hour.friday=
features.power_saving.office_hour.saturday=
features.power_saving.office_hour.sunday =
features.power_saving.user_input_ext.idle_timeout=
features.power_saving.off_hour.idle_timeout=
features.power_saving.office_hour.idle_timeout=
features.power_saving.intelligent_mode=

#####
#####
##                                     Backgrounds Settings
##
#####
#####
##File Format:
##SIP-T54S/T52S/T48S/T48G/T46G/T46S/T29G: .jpg/.png/.bmp/.jpeg;
##Resolution:
##SIP-T48S/T48G:<=2.0 megapixels;
##for SIP-T46G/T46S/T29G: <=1.8 megapixels;SIP-T54S/T52S:<=4.2 megapixels;
##Single File Size: <=5MB
##2MB of space should be reserved for the phone

wallpaper_upload.url=
```

```
phone_setting.backgrounds=

## phone_setting.backgrounds_with_dsskey_unfold(Only support T48G/S)
phone_setting.backgrounds_with_dsskey_unfold=

##expansion_module.backgrounds(Only support T54S/T52S)
expansion_module.backgrounds=

#####
#####
##                                BLF/BLF List
##
#####
#####
phone_setting.auto_blf_list_enable= 1
phone_setting.blf_list_sequence_type=

blf.enhanced.parked.enable=
blf.enhanced.parked.led =
blf.enhanced.parked.parked.action =
blf.enhanced.parked.talking.action =
blf.enhanced.parked.callin.action =
blf.enhanced.parked.idle.action =

blf.enhanced.talking.enable=
blf.enhanced.talking.led=
blf.enhanced.talking.parked.action =
blf.enhanced.talking.talking.action =
blf.enhanced.talking.callin.action =
blf.enhanced.talking.idle.action =

blf.enhanced.callout.enable =
blf.enhanced.callout.led=
blf.enhanced.callout.parked.action =
blf.enhanced.callout.talking.action =
blf.enhanced.callout.callin.action =
blf.enhanced.callout.idle.action =

blf.enhanced.callin.enable =
blf.enhanced.callin.led=
blf.enhanced.callin.parked.action =
blf.enhanced.callin.talking.action =
blf.enhanced.callin.callin.action=
blf.enhanced.callin.idle.action=

blf.enhanced.idle.enable=
blf.enhanced.idle.led=
blf.enhanced.idle.parked.action=
blf.enhanced.idle.talking.action=
blf.enhanced.idle.callin.action=
blf.enhanced.idle.idle.action=

features.blf_list_version=
sip.sub_refresh_random=
sip.terminate_notify_sub_delay_time=

features.blf_led_mode= 3
features.blf_pickup_only_send_code=

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

```
##                                     SCA
##
#####
#####
features.auto_release_bla_line=
features.barge_in_via_username.enable=

#####
#####
##                                     Call Park
##
#####
#####
features.call_park.direct_send.enable=
sip.call_park_without_blf=
features.call_park.line_restriction.enable=

#####
#####
##                                     Broadsoft ACD
##
#####
#####
acd.enable=
acd.auto_available_timer=

#####
#####
##                                     Broadsoft XSI
##
#####
#####
bw.xsi.enable=1
sip.authentication_for_xsi =
default_input_method.xsi_password=

#####
#####
##                                     Broadsoft Network Directory
##
#####
#####
bw.xsi.directory.enable= 1
bw.calllog_and_dir =
bw.xsi.directory.alphabetized_by_lastname.enable=
directory_setting.bw_directory.enable =1
directory_setting.bw_directory.priority =1
search_in_dialing.bw_directory.enable =1
search_in_dialing.bw_directory.priority =1
bw.xsi.directory.update.enable=
bw.xsi.call_log.multiple_accounts.enable=
bw.xsi.call_log.delete.enable=

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

```
##                                     Call Pickup
##
#####
#####
features.pickup_display.method =

#####
#####
##                                     Alert Info
##
#####
#####
features.alert_info_tone =

#####
#####
##                                     Broadsoft Visual Voice Mail
##
#####
#####
bw.voice_mail.visual.enable=
voice_mail.message_key.mode=
bw.voice_mail.visual.display_videomail.enable=

#####
#####
##                                     Broadsoft Call Recording
##
#####
#####
bw.call_recording.mode =

#####
#####
##                                     Broadsoft Call Decline
##
#####
#####
features.call_decline.enable =

#####
#####
##                                     BLF Ring Type
##
#####
#####
features.blf.ring_type =

#####
#####
##                                     Features Sync
##
##
```

```
#####
#####
features.forward.feature_key_sync.local_processing.enable =
features.forward.feature_key_sync.enable =
features.dnd.feature_key_sync.local_processing.enable =
features.dnd.feature_key_sync.enable =
call_waiting.mode = 1

#####
#####
##                               Broadsoft   UC
##
#####
#####
##Only T54S/T52S/T48G/T48S/T46G/T46S/T29G Models support the parameter
bw.xmpp.presence_icon.mode =
bw.xmpp.change_presence.force_manual.enable =

features.uc_dir.match_tail_number=
directory_setting.bw_uc_buddies.enable =
directory_setting.bw_uc_buddies.priority =
search_in_dialing.bw_uc_buddies.enable =1
search_in_dialing.bw_uc_buddies.priority =2
phone_setting.uc_favorite_sequence_type=

#####
#####
##                               BSFT emergency
##
#####
#####
bw.emergency_calling.enable =

#####
#####
##                               Metaswitch Setting
##
#####
#####
meta.enable =
meta.login_mode =
meta.comm_portal.server.username =
meta.comm_portal.server.password =
meta.comm_portal.server.url =
meta.comm_portal.enable =
meta.comm_portal.contacts.update_interval =
meta.comm_portal.acd.enable=
meta.comm_portal.replace_local_call_list.enable=
meta.comm_portal.contacts.group.mlhgs.label=
meta.comm_portal.contacts.group.extensions.label=
meta.comm_portal.contacts.group.contacts.label=
meta.comm_portal.contacts.group.mlhgs.enable=
meta.comm_portal.contacts.group.extensions.enable=
meta.comm_portal.contacts.group.contacts.enable=
meta.comm_portal.call_list.enable=
meta.comm_portal.contacts.enable=
```

```
meta.comm_portal.message.enable=
meta.comm_portal.logout.enable =
meta.comm_portal.keep_alive_interval_time =

#####
#####
##                               Genbend Setting
##
#####
#####
gb.sopi.enable=
gb.sopi.gab.enable=
gb.sopi.pab.enable=
features.pab.soupuser=
features.pab.enable=
gb.sopi.pab.match_in_calling.enable=
gb.sopi.gab.retain_search_filter=
gb.sopi.service_url=
gb.sopi.password=
gb.sopi.username=
directory_setting.gb_gab_directory.priority =
directory_setting.gb_gab_directory.enable =
directory_setting.gb_pab_directory.enable =
directory_setting.gb_pab_directory.priority =
search_in_dialing.gb_pab_directory.priority =
search_in_dialing.gb_pab_directory.enable =

#####
#####
##                               Transfer
##
#####
#####
account.1.phone_setting.call_appearance.transfer_via_new_linekey=

#####
#####
##                               Conference
##
#####
#####
account.1.phone_setting.call_appearance.conference_via_new_linekey=

#####
#####
##                               Anonymous
##
#####
#####
account.1.anonymous_call.server_base_only =
account.1.send_anonymous_rejection_code =
account.1.anonymous_reject_offcode =
account.1.anonymous_reject_oncode =
account.1.reject_anonymous_call= %REJECT_ANONYMOUS_CALL_BINARY%
account.1.anonymous_call_offcode =
account.1.anonymous_call_oncode =
account.1.anonymous_call =
```

```
account.1.send_anonymous_code =

#####
#####
##                               Call Configuration
##
#####
#####
account.1.music_server_uri=
account.1.music_on_hold_type=
account.1.auto_label.rule=
account.1.auto_label.enable=
account.1.number_of_linekey= %NUM_OF_LINEKEYS%
account.1.phone_setting.call_appearance.calls_per_linekey=
account.1.invite_with_pani_header.enable =

#####
#####
##                               Codec
##
#####
#####
account.1.codec.ilbc_15_2kbps.priority=
account.1.codec.ilbc_15_2kbps.enable=
account.1.codec.ilbc_13_33kbps.priority=
account.1.codec.ilbc_13_33kbps.enable =
account.1.codec.pcma.enable=
account.1.codec.pcma.priority=
account.1.codec.pcmu.enable=
account.1.codec.pcmu.priority=
account.1.codec.opus.priority =
account.1.codec.opus.enable=
account.1.codec.opus.para=
account.1.codec.g726_40.enable=
account.1.codec.g726_40.priority=
account.1.codec.g726_32.enable=
account.1.codec.g726_32.priority=
account.1.codec.g726_24.enable=
account.1.codec.g726_24.priority=
account.1.codec.g726_16.enable=
account.1.codec.g726_16.priority=
account.1.codec.g723_63.priority=
account.1.codec.g723_63.enable=
account.1.codec.g723_53.priority=
account.1.codec.g723_53.enable=
account.1.codec.g729.priority=
account.1.codec.g729.enable=
account.1.codec.g722.priority=
account.1.codec.g722.enable=

#####
#                               Account Register                               ##
#####
account.1.enable = %BWLIN-BINARY-1%
account.1.label = %BWEXTENSION-1%
account.1.display_name = %BWCLID-1%
account.1.auth_name = %BWAUTHUSER-1%
account.1.user_name = %BWLINPORT-1%
account.1.password = %BWAUTHPASSWORD-1%
```

```
account.1.sip_server.1.address= %BWHOST-1%
account.1.sip_server.1.port= 5060
account.1.sip_server.1.transport_type= %TRANSPORT%
account.1.sip_server.1.expires= 3600
account.1.sip_server.1.retry_counts=

account.1.sip_server.2.address=
account.1.sip_server.2.port=
account.1.sip_server.2.transport_type= %TRANSPORT%
account.1.sip_server.2.expires=
account.1.sip_server.2.retry_counts=

account.1.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.1.outbound_proxy.1.address = %SBC_ADDRESS%
account.1.outbound_proxy.1.port = %SBC_PORT%
account.1.outbound_proxy.2.address=
account.1.outbound_proxy.2.port=
account.1.outbound_proxy_fallback_interval=
account.1.nat.nat_traversal=
account.1.sip_server.1.outbound_proxy_enable=
account.1.sip_server_mode=

#####
# Account Basic ##
#####
account.1.proxy_require=
account.1.auto_answer= %AUTO_ANSWER_BINARY%

#####
# Account Advanced ##
#####
account.1.nat.udp_update_enable=
account.1.nat.udp_update_time=
account.1.nat.rport=

account.1.dtmf.type=
account.1.dtmf.info_type=
account.1.dtmf.dtmf_payload=
account.1.100rel_enable=

account.1.subscribe_register=
account.1.cid_source=
account.1.enable_user_equal_phone=
account.1.srtp_encryption=
account.1ptime=
account.1.register_line=
account.1.register_mac=
account.1.reg_fail_retry_interval=
account.1.unregister_on_reboot=

account.1.session_timer.refresher=
account.1.session_timer.expires=
account.1.session_timer.enable=

account.1.conf_type=
account.1.sip_server_type= 2

account.1.srtp.unencrypted_rtcp.enable=
account.1.srtp.unencrypted_rtp.enable=
```



```
#####
#                               SIP Backup Server                               ##
#####
account.1.outbound_proxy.1.register_on_enable=
account.1.outbound_proxy.1.failback_timeout=
account.1.outbound_proxy.1.failback_mode=
account.1.outbound_proxy.1.retry_counts=
account.1.outbound_proxy.1.only_signal_with_registered=
account.1.outbound_proxy.1.failback_subscribe.enable=
account.1.outbound_proxy.1.invite_retry_counts=

account.1.sip_server.1.register_on_enable=
account.1.sip_server.1.failback_timeout=
account.1.sip_server.1.failback_mode=
account.1.sip_server.1.failback_subscribe.enable=
account.1.sip_server.1.only_signal_with_registered=
account.1.sip_server.1.invite_retry_counts=

account.1.outbound_proxy.2.register_on_enable=
account.1.outbound_proxy.2.failback_timeout=
account.1.outbound_proxy.2.failback_mode=
account.1.outbound_proxy.2.retry_counts=
account.1.outbound_proxy.2.only_signal_with_registered=
account.1.outbound_proxy.2.failback_subscribe.enable=
account.1.outbound_proxy.2.invite_retry_counts=

account.1.sip_server.2.register_on_enable=
account.1.sip_server.2.failback_timeout=
account.1.sip_server.2.failback_mode=
account.1.sip_server.2.failback_subscribe.enable=
account.1.sip_server.2.only_signal_with_registered=
account.1.sip_server.2.invite_retry_counts=

account.1.static_cache_pri= %STATIC-CACHE-PRI%
account.1.dns_cache_type=
account.1.naptr_build=
account.1.failback.timeout=
account.1.failback.redundancy_type=
account.1.reg_failed_retry_max_time=
account.1.reg_failed_retry_min_time=
account.1.redundancy_with_reg_fail.enable =

#####
#                               SIP Basic config                               ##
#####
account.1.contact_take_line_param.enable=
account.1.update_ack_while_dialing=
account.1.srtp_lifetime=
account.1.third_part_request_with_route.enable=
account.1.insert_outbound_in_route.enable=
account.1.path.enable=
account.1.rereg_with_auth.enable=
account.1.sub_fail_retry_interval=
account.1.transfer_refer_to_contact_header.enable=
account.1.hold_use_inactive=
account.1.gruu.enable=
account.1.dial_tone=
account.1.call_id_mode=
account.1.subscribe_expires_overlap=
account.1.register_expires_overlap=
account.1.call_info=
```

```
account.1.custom_ua=
account.1.mwi_parse_terminated=
account.1.check_cseq.enable=
account.1.check_to_tag.enable=
account.1.vq_rtcp_xr.collector_server_port=
account.1.vq_rtcp_xr.collector_server_host=
account.1.vq_rtcp_xr.collector_name=
account.1.compact_header_enable=
account.1.cp_source=
account.1.cid_source_ppi=
account.1.cid_source_privacy=

account.1.alert_info=
account.1.picture_info_enable=

#####
#####
##                                     History
##
#####
#####
account.1.missed_calllog=

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

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

#####
#####
##                                     Voice Mail
##
```

```
#####
#####
voice_mail.number.1= %BWVOICE-PORTAL-NUMBER-1%
account.1.subscribe_mwi=
account.1.subscribe_mwi_to_vm=
account.1.subscribe_mwi_expires=
account.1.display_mwi.enable=

#####
#####
##                               Auto Dial
##
#####
#####
account.1.auto_dial_enable=
account.1.auto_dial_num=

#####
#####
##                               Preference&Status
##
#####
#####
account.1.ringtone.ring_type=

#####
#####
##                               Digitmap
##
#####
#####
account.1.dialplan.digitmap.enable=
account.1.dialplan.digitmap.string=
account.1.dialplan.digitmap.no_match_action=
account.1.dialplan.digitmap.interdigit_short_timer=
account.1.dialplan.digitmap.interdigit_long_timer=
account.1.dialplan.digitmap.apply_to.press_send=
account.1.dialplan.digitmap.apply_to.forward=
account.1.dialplan.digitmap.apply_to.history_dial=
account.1.dialplan.digitmap.apply_to.directory_dial=
account.1.dialplan.digitmap.apply_to.on_hook_dial=
account.1.dialplan.digitmap.active.on_hook_dialing=

#####
#####
##                               Rings Settings
##
#####
#####
account.1.alert_info_url_enable=

#####
#####
##                               SCA
##
#####
#####
```

```
account.1.shared_line= %BWSHAREDLINE-BINARY-1%
account.1.line_seize.expires=
account.1.shared_line_one_touch_bargein.enable=
account.1.shared_line_one_touch_retrieve.enable=
account.1.sca_manage_interface_display_time=
account.1.shared_line_callpull_code=
account.1.share_line.barge_in.enable=

#####
#####
##                                     BLA
##
#####
#####
account.1.bla_number=
account.1.bla_subscribe_period=
account.1.bla.notify_with_expire.enable=
account.1.bla.subscribe_uri_build_type=

#####
#####
##                                     Call Park
##
#####
#####
account.1.callpark_enable=

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

#####
#####
##                                     Broadsoft ACD Call Center
##
#####
#####
##account.X.reason_code.Y=
##account.X.reason_code_name.Y=
##account.X.bw_disp_code.Y=
##account.X.bw_disp_code_name.Y=
##account.X.supervisor_info_code.Y=
##account.X.supervisor_info_code_name.Y=
##The value Y must be continuous.

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 =

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

#####
#####
##                               Broadsoft XSI
##
#####
#####
account.1.xsi.user = %BWLOGIN-ID-1%
account.1.xsi.password = %XSIPASSWORD-1%
account.1.xsi.host = %XSP_ADDRESS%
account.1.xsi.server_type =
account.1.xsi.port =

#####
#####
##                               Call Pickup
##
#####
#####
account.1.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%
account.1.group_pickup_code = %BWFAC-CALL-PICKUP-1%
account.1.dialoginfo_callpickup =
account.1.refresh_remote_id.enable =0

#####
#####
##                               Broadsoft Call Recording
##
#####
#####
account.1.call_recording.enable=
```

```
#####
#####
##                               Network Conference
##
#####
#####
account.1.conf_uri= %BWNWORK-CONFERENCE-SIPURI-1%
account.1.bw.conference.member_manage.enable=

#####
#####
##                               Broadsoft Call Decline
##
#####
#####
account.1.features.call_decline.enable =

#####
#####
##                               Broadsoft Security Classification
##
#####
#####
account.1.security_classification.enable =

#####
#####
##                               Broadsoft Flexible Seating
##
#####
#####
account.1.flexible_seating.enable=
account.1.hoteling.mode = %BWHOTELINGMODE-1%
account.1.hoteling.pin = %BWFLEXIBLESEATINGUNLOCKPIN-1%

#####
#####
##                               Features Sync
##
#####
#####
account.1.features.forward.feature_key_sync.local_processing.enable=
account.1.features.dnd.feature_key_sync.local_processing.enable =

#####
#####
##                               ACD
##
#####
#####
account.1.acd.available_url=
account.1.acd.away_url =
account.1.acd.refresh_url =
account.1.acd.call_information=
```

```
#####
#####
##                               Transfer
##
#####
#####
account.2.phone_setting.call_appearance.transfer_via_new_linekey=

#####
#####
##                               Conference
##
#####
#####
account.2.phone_setting.call_appearance.conference_via_new_linekey=

#####
#####
##                               Anonymous
##
#####
#####
account.2.anonymous_call.server_base_only =
account.2.send_anonymous_rejection_code =
account.2.anonymous_reject_offcode =
account.2.anonymous_reject_oncode =
account.2.reject_anonymous_call= %REJECT_ANONYMOUS_CALL_BINARY%
account.2.anonymous_call_offcode =
account.2.anonymous_call_oncode =
account.2.anonymous_call =
account.2.send_anonymous_code =

#####
#####
##                               Call Configuration
##
#####
#####
account.2.music_server_uri=
account.2.music_on_hold_type=
account.2.auto_label.rule=
account.2.auto_label.enable=
account.2.number_of_linekey= %NUM_OF_LINEKEYS%
account.2.phone_setting.call_appearance.calls_per_linekey=
account.2.invite_with_pani_header.enable =

#####
#####
##                               Codec
##
#####
#####
account.2.codec.ilbc_15_2kbps.priority=
account.2.codec.ilbc_15_2kbps.enable=
```

```
account.2.codec.ilbc_13_33kbps.priority=
account.2.codec.ilbc_13_33kbps.enable =
account.2.codec.pcma.enable=
account.2.codec.pcma.priority=
account.2.codec.pcmu.enable=
account.2.codec.pcmu.priority=
account.2.codec.opus.priority =
account.2.codec.opus.enable=
account.2.codec.opus.para=
account.2.codec.g726_40.enable=
account.2.codec.g726_40.priority=
account.2.codec.g726_32.enable=
account.2.codec.g726_32.priority=
account.2.codec.g726_24.enable=
account.2.codec.g726_24.priority=
account.2.codec.g726_16.enable=
account.2.codec.g726_16.priority=
account.2.codec.g723_63.priority=
account.2.codec.g723_63.enable=
account.2.codec.g723_53.priority=
account.2.codec.g723_53.enable=
account.2.codec.g729.priority=
account.2.codec.g729.enable=
account.2.codec.g722.priority=
account.2.codec.g722.enable=

#####
#                               Account Register                               ##
#####
account.2.enable = %BWLIN-BINARY-1%
account.2.label = %BWEXTENSION-1%
account.2.display_name = %BWCLID-1%
account.2.auth_name = %BWAUTHUSER-1%
account.2.user_name = %BWLINPORT-1%
account.2.password = %BWAUTHPASSWORD-1%
account.2.sip_server.1.address= %BWHOST-1%
account.2.sip_server.1.port= 5060
account.2.sip_server.1.transport_type= %TRANSPORT%
account.2.sip_server.1.expires= 3600
account.2.sip_server.1.retry_counts=

account.2.sip_server.2.address=
account.2.sip_server.2.port=
account.2.sip_server.2.transport_type= %TRANSPORT%
account.2.sip_server.2.expires=
account.2.sip_server.2.retry_counts=

account.2.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.2.outbound_proxy.1.address = %SBC_ADDRESS%
account.2.outbound_proxy.1.port = %SBC_PORT%
account.2.outbound_proxy.2.address=
account.2.outbound_proxy.2.port=
account.2.outbound_proxy_fallback_interval=
account.2.nat.nat_traversal=
account.2.sip_server.1.outbound_proxy_enable=
account.2.sip_server_mode=

#####
#                               Account Basic                               ##
#####
account.2.proxy_require=
```



```
account.2.auto_answer= %AUTO_ANSWER_BINARY%

#####
# Account Advanced ##
#####
account.2.nat.udp_update_enable=
account.2.nat.udp_update_time=
account.2.nat.rport=

account.2.dtmf.type=
account.2.dtmf.info_type=
account.2.dtmf.dtmf_payload=
account.2.100rel_enable=

account.2.subscribe_register=
account.2.cid_source=
account.2.enable_user_equal_phone=
account.2.srtp_encryption=
account.2ptime=
account.2.register_line=
account.2.register_mac=
account.2.reg_fail_retry_interval=
account.2.unregister_on_reboot=

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

account.2.conf_type=
account.2.sip_server_type= 2

account.2.srtp.unencrypted_rtcp.enable=
account.2.srtp.unencrypted_rtp.enable=

#####
# SIP Backup Server ##
#####
account.2.outbound_proxy.1.register_on_enable=
account.2.outbound_proxy.1.failback_timeout=
account.2.outbound_proxy.1.failback_mode=
account.2.outbound_proxy.1.retry_counts=
account.2.outbound_proxy.1.only_signal_with_registered=
account.2.outbound_proxy.1.failback_subscribe.enable=
account.2.outbound_proxy.1.invite_retry_counts=

account.2.sip_server.1.register_on_enable=
account.2.sip_server.1.failback_timeout=
account.2.sip_server.1.failback_mode=
account.2.sip_server.1.failback_subscribe.enable=
account.2.sip_server.1.only_signal_with_registered=
account.2.sip_server.1.invite_retry_counts=

account.2.outbound_proxy.2.register_on_enable=
account.2.outbound_proxy.2.failback_timeout=
account.2.outbound_proxy.2.failback_mode=
account.2.outbound_proxy.2.retry_counts=
account.2.outbound_proxy.2.only_signal_with_registered=
account.2.outbound_proxy.2.failback_subscribe.enable=
account.2.outbound_proxy.2.invite_retry_counts=

account.2.sip_server.2.register_on_enable=
```

```
account.2.sip_server.2.failback_timeout=
account.2.sip_server.2.failback_mode=
account.2.sip_server.2.failback_subscribe.enable=
account.2.sip_server.2.only_signal_with_registered=
account.2.sip_server.2.invite_retry_counts=

account.2.static_cache_pri= %STATIC-CACHE-PRI%
account.2.dns_cache_type=
account.2.naptr_build=
account.2.failback.timeout=
account.2.failback.redundancy_type=
account.2.reg_failed_retry_max_time=
account.2.reg_failed_retry_min_time=
account.2.redundancy_with_reg_fail.enable =

#####
#                               SIP Basic config                               ##
#####
account.2.contact_take_line_param.enable=
account.2.update_ack_while_dialing=
account.2.srtplib_lifetime=
account.2.third_part_request_with_route.enable=
account.2.insert_outbound_in_route.enable=
account.2.path.enable=
account.2.rereg_with_auth.enable=
account.2.sub_fail_retry_interval=
account.2.transfer_refer_to_contact_header.enable=
account.2.hold_use_inactive=
account.2.gruu.enable=
account.2.dial_tone=
account.2.call_id_mode=
account.2.subscribe_expires_overlap=
account.2.register_expires_overlap=
account.2.call_info=
account.2.custom_ua=
account.2.mwi_parse_terminated=
account.2.check_cseq.enable=
account.2.check_to_tag.enable=
account.2.vq_rtcprr.collector_server_port=
account.2.vq_rtcprr.collector_server_host=
account.2.vq_rtcprr.collector_name=
account.2.compact_header_enable=
account.2.cp_source=
account.2.cid_source_ppi=
account.2.cid_source_privacy=

account.2.alert_info=
account.2.picture_info_enable=

#####
#####
##                               History                               ##
##
#####
#####
account.2.missed_calllog=

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

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

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

#####
#####
##                                     Voice Mail
##
#####
#####
voice_mail.number.1= %BWVOICE-PORTAL-NUMBER-1%
account.2.subscribe_mwi=
account.2.subscribe_mwi_to_vm=
account.2.subscribe_mwi_expires=
account.2.display_mwi.enable=

#####
#####
##                                     Auto Dial
##
#####
#####
account.2.auto_dial_enable=
account.2.auto_dial_num=

#####
#####
##                                     Preference&Status
##
#####
#####
account.2.ringtone.ring_type=
```

```
#####
#####
##                               Digitmap
##
#####
#####
account.2.dialplan.digitmap.enable=
account.2.dialplan.digitmap.string=
account.2.dialplan.digitmap.no_match_action=
account.2.dialplan.digitmap.interdigit_short_timer=
account.2.dialplan.digitmap.interdigit_long_timer=
account.2.dialplan.digitmap.apply_to.press_send=
account.2.dialplan.digitmap.apply_to.forward=
account.2.dialplan.digitmap.apply_to.history_dial=
account.2.dialplan.digitmap.apply_to.directory_dial=
account.2.dialplan.digitmap.apply_to.on_hook_dial=
account.2.dialplan.digitmap.active.on_hook_dialing=

#####
#####
##                               Rings Settings
##
#####
#####
account.2.alert_info_url_enable=

#####
#####
##                               SCA
##
#####
#####
account.2.shared_line= %BWSHAREDLINE-BINARY-1%
account.2.line_seize.expires=
account.2.shared_line_one_touch_bargein.enable=
account.2.shared_line_one_touch_retrieve.enable=
account.2.sca_manage_interface_display_time=
account.2.shared_line_callpull_code=
account.2.share_line.barge_in.enable=

#####
#####
##                               BLA
##
#####
#####
account.2.bla_number=
account.2.bla_subscribe_period=
account.2.bla.notify_with_expire.enable=
account.2.bla.subscribe_uri_build_type=

#####
#####
##                               Call Park
##
#####
#####
```

```
account.2.callpark_enable=

#####
#####
##                                     Broadsoft ACD
##
#####
#####
account.2.acd.enable=
account.2.acd.available=
account.2.acd.unavailable_reason_enable=
account.2.acd.initial_state=
account.2.subscribe_acd_expires=

#####
#####
##                                     Broadsoft ACD Call Center
##
##
#####
#####
##account.X.reason_code.Y=
##account.X.reason_code_name.Y=
##account.X.bw_disp_code.Y=
##account.X.bw_disp_code_name.Y=
##account.X.supervisor_info_code.Y=
##account.X.supervisor_info_code_name.Y=
##The value Y must be continuous.

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 =

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

```
account.2.hoteling.expires=
account.2.hoteling.auto_login_enable=

#####
#####
##                               Broadsoft XSI
##
#####
#####
account.2.xsi.user = %BWLOGIN-ID-1%
account.2.xsi.password = %XSIPASSWORD-1%
account.2.xsi.host = %XSP_ADDRESS%
account.2.xsi.server_type =
account.2.xsi.port =

#####
#####
##                               Call Pickup
##
#####
#####
account.2.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%
account.2.group_pickup_code = %BWFAC-CALL-PICKUP-1%
account.2.dialoginfo_callpickup =
account.2.refresh_remote_id.enable =0

#####
#####
##                               Broadsoft Call Recording
##
#####
#####
account.2.call_recording.enable=

#####
#####
##                               Network Conference
##
#####
#####
account.2.conf_uri= %BWNETWORK-CONFERENCE-SIPURI-1%
account.2.bw.conference.member_manage.enable=

#####
#####
##                               Broadsoft Call Decline
##
#####
#####
account.2.features.call_decline.enable =

#####
#####
##                               Broadsoft Security Classification
##
#####
#####
```

```
account.2.security_classification.enable =

#####
#####
##                               Broadsoft Flexible Seating
##
#####
#####
account.2.flexible_seating.enable=
account.2.hoteling.mode = %BWHOTELINGMODE-1%
account.2.hoteling.pin = %BWFLEXIBLESEATINGUNLOCKPIN-1%

#####
#####
##                               Features Sync
##
#####
#####
account.2.features.forward.feature_key_sync.local_processing.enable=
account.2.features.dnd.feature_key_sync.local_processing.enable =

#####
#####
##                               ACD
##
#####
#####
account.2.acd.available_url=
account.2.acd.away_url =
account.2.acd.refresh_url =
account.2.acd.call_information=

#####
#####
##                               Transfer
##
#####
#####
account.3.phone_setting.call_appearance.transfer_via_new_linekey=

#####
#####
##                               Conference
##
#####
#####
account.3.phone_setting.call_appearance.conference_via_new_linekey=

#####
#####
##                               Anonymous
##
##
```

```
#####
#####
account.3.anonymous_call.server_base_only =
account.3.send_anonymous_rejection_code =
account.3.anonymous_reject_offcode =
account.3.anonymous_reject_oncode =
account.3.reject_anonymous_call= %REJECT_ANONYMOUS_CALL_BINARY%
account.3.anonymous_call_offcode =
account.3.anonymous_call_oncode =
account.3.anonymous_call =
account.3.send_anonymous_code =

#####
#####
##                               Call Configuration
##
#####
#####
account.3.music_server_uri=
account.3.music_on_hold_type=
account.3.auto_label.rule=
account.3.auto_label.enable=
account.3.number_of_linekey= %NUM_OF_LINEKEYS%
account.3.phone_setting.call_appearance.calls_per_linekey=
account.3.invite_with_pani_header.enable =

#####
#####
##                               Codec
##
#####
#####
account.3.codec.ilbc_15_2kbps.priority=
account.3.codec.ilbc_15_2kbps.enable=
account.3.codec.ilbc_13_33kbps.priority=
account.3.codec.ilbc_13_33kbps.enable =
account.3.codec.pcma.enable=
account.3.codec.pcma.priority=
account.3.codec.pcmu.enable=
account.3.codec.pcmu.priority=
account.3.codec.opus.priority =
account.3.codec.opus.enable=
account.3.codec.opus.para=
account.3.codec.g726_40.enable=
account.3.codec.g726_40.priority=
account.3.codec.g726_32.enable=
account.3.codec.g726_32.priority=
account.3.codec.g726_24.enable=
account.3.codec.g726_24.priority=
account.3.codec.g726_16.enable=
account.3.codec.g726_16.priority=
account.3.codec.g723_63.priority=
account.3.codec.g723_63.enable=
account.3.codec.g723_53.priority=
account.3.codec.g723_53.enable=
account.3.codec.g729.priority=
account.3.codec.g729.enable=
account.3.codec.g722.priority=
account.3.codec.g722.enable=
```



```
#####
#                               Account Register                               ##
#####
account.3.enable = %BWLINE-BINARY-1%
account.3.label = %BWEXTENSION-1%
account.3.display_name = %BWCLID-1%
account.3.auth_name = %BWAUTHUSER-1%
account.3.user_name = %BWLINPORT-1%
account.3.password = %BWAUTHPASSWORD-1%
account.3.sip_server.1.address= %BWHOST-1%
account.3.sip_server.1.port= 5060
account.3.sip_server.1.transport_type= %TRANSPORT%
account.3.sip_server.1.expires= 3600
account.3.sip_server.1.retry_counts=

account.3.sip_server.2.address=
account.3.sip_server.2.port=
account.3.sip_server.2.transport_type= %TRANSPORT%
account.3.sip_server.2.expires=
account.3.sip_server.2.retry_counts=

account.3.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.3.outbound_proxy.1.address = %SBC_ADDRESS%
account.3.outbound_proxy.1.port = %SBC_PORT%
account.3.outbound_proxy.2.address=
account.3.outbound_proxy.2.port=
account.3.outbound_proxy_fallback_interval=
account.3.nat.nat_traversal=
account.3.sip_server.1.outbound_proxy_enable=
account.3.sip_server_mode=

#####
#                               Account Basic                               ##
#####
account.3.proxy_require=
account.3.auto_answer= %AUTO_ANSWER_BINARY%

#####
#                               Account Advanced                               ##
#####
account.3.nat.udp_update_enable=
account.3.nat.udp_update_time=
account.3.nat.rport=

account.3.dtmf.type=
account.3.dtmf.info_type=
account.3.dtmf.dtmf_payload=
account.3.100rel_enable=

account.3.subscribe_register=
account.3.cid_source=
account.3.enable_user_equal_phone=
account.3.srtp_encryption=
account.3.ptime=
account.3.register_line=
account.3.register_mac=
account.3.reg_fail_retry_interval=
account.3.unregister_on_reboot=

account.3.session_timer.refreshes=
```

```
account.3.session_timer.expires=
account.3.session_timer.enable=

account.3.conf_type=
account.3.sip_server_type= 2

account.3.srtp.unencrypted_rtcp.enable=
account.3.srtp.unencrypted_rtp.enable=

#####
#                               SIP Backup Server                               ##
#####
account.3.outbound_proxy.1.register_on_enable=
account.3.outbound_proxy.1.failback_timeout=
account.3.outbound_proxy.1.failback_mode=
account.3.outbound_proxy.1.retry_counts=
account.3.outbound_proxy.1.only_signal_with_registered=
account.3.outbound_proxy.1.failback_subscribe.enable=
account.3.outbound_proxy.1.invite_retry_counts=

account.3.sip_server.1.register_on_enable=
account.3.sip_server.1.failback_timeout=
account.3.sip_server.1.failback_mode=
account.3.sip_server.1.failback_subscribe.enable=
account.3.sip_server.1.only_signal_with_registered=
account.3.sip_server.1.invite_retry_counts=

account.3.outbound_proxy.2.register_on_enable=
account.3.outbound_proxy.2.failback_timeout=
account.3.outbound_proxy.2.failback_mode=
account.3.outbound_proxy.2.retry_counts=
account.3.outbound_proxy.2.only_signal_with_registered=
account.3.outbound_proxy.2.failback_subscribe.enable=
account.3.outbound_proxy.2.invite_retry_counts=

account.3.sip_server.2.register_on_enable=
account.3.sip_server.2.failback_timeout=
account.3.sip_server.2.failback_mode=
account.3.sip_server.2.failback_subscribe.enable=
account.3.sip_server.2.only_signal_with_registered=
account.3.sip_server.2.invite_retry_counts=

account.3.static_cache_pri= %STATIC-CACHE-PRI%
account.3.dns_cache_type=
account.3.naptr_build=
account.3.fallback.timeout=
account.3.fallback.redundancy_type=
account.3.reg_failed_retry_max_time=
account.3.reg_failed_retry_min_time=
account.3.redundancy_with_reg_fail.enable =

#####
#                               SIP Basic config                               ##
#####
account.3.contact_take_line_param.enable=
account.3.update_ack_while_dialing=
account.3.srtp_lifetime=
account.3.third_part_request_with_route.enable=
account.3.insert_outbound_in_route.enable=
account.3.path.enable=
```

```
account.3.rereg_with_auth.enable=
account.3.sub_fail_retry_interval=
account.3.transfer_refer_to_contact_header.enable=
account.3.hold_use_inactive=
account.3.gruu.enable=
account.3.dial_tone=
account.3.call_id mode=
account.3.subscribe_expires_overlap=
account.3.register_expires_overlap=
account.3.call_info=
account.3.custom_ua=
account.3.mwi_parse_terminated=
account.3.check_cseq.enable=
account.3.check_to_tag.enable=
account.3.vq_rtcpxr.collector_server_port=
account.3.vq_rtcpxr.collector_server_host=
account.3.vq_rtcpxr.collector_name=
account.3.compact_header_enable=
account.3.cp_source=
account.3.cid_source_ppi=
account.3.cid_source_privacy=

account.3.alert_info=
account.3.picture_info_enable=

#####
#####
##                                     History
##
#####
#####
account.3.missed_calllog=

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

#####
#####
##                                     DND
##
#####
#####
account.3.dnd.enable=
```

```
account.3.dnd.off_code=
account.3.dnd.on_code=

#####
#####
##                               Voice Mail
##
#####
#####
voice_mail.number.1= %BWVOICE-PORTAL-NUMBER-1%
account.3.subscribe_mwi=
account.3.subscribe_mwi_to_vm=
account.3.subscribe_mwi_expires=
account.3.display_mwi.enable=

#####
#####
##                               Auto Dial
##
#####
#####
account.3.auto_dial_enable=
account.3.auto_dial_num=

#####
#####
##                               Preference&Status
##
#####
#####
account.3.ringtone.ring_type=

#####
#####
##                               Digitmap
##
#####
#####
account.3.dialplan.digitmap.enable=
account.3.dialplan.digitmap.string=
account.3.dialplan.digitmap.no_match_action=
account.3.dialplan.digitmap.interdigit_short_timer=
account.3.dialplan.digitmap.interdigit_long_timer=
account.3.dialplan.digitmap.apply_to.press_send=
account.3.dialplan.digitmap.apply_to.forward=
account.3.dialplan.digitmap.apply_to.history_dial=
account.3.dialplan.digitmap.apply_to.directory_dial=
account.3.dialplan.digitmap.apply_to.on_hook_dial=
account.3.dialplan.digitmap.active.on_hook_dialing=

#####
#####
##                               Rings Settings
##
#####
#####
account.3.alert_info_url_enable=
```

```
#####
#####
##                               SCA
##
#####
#####
account.3.shared_line= %BWSHAREDLINE-BINARY-1%
account.3.line_seize.expires=
account.3.shared_line_one_touch_bargein.enable=
account.3.shared_line_one_touch_retrieve.enable=
account.3.sca_manage_interface_display_time=
account.3.shared_line_callpull_code=
account.3.share_line.barge_in.enable=

#####
#####
##                               BLA
##
#####
#####
account.3.bla_number=
account.3.bla_subscribe_period=
account.3.bla.notify_with_expire.enable=
account.3.bla.subscribe_uri_build_type=

#####
#####
##                               Call Park
##
#####
#####
account.3.callpark_enable=

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

#####
#####
##                               Broadsoft ACD Call Center
##
#####
#####
##account.X.reason_code.Y=
##account.X.reason_code_name.Y=
##account.X.bw_disp_code.Y=
##account.X.bw_disp_code_name.Y=
##account.X.supervisor_info_code.Y=
```

```
##account.X.supervisor_info_code_name.Y=
##The value Y must be continuous.

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 =

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

#####
#####
##
##                               Broadsoft XSI
##
#####
#####
account.3.xsi.user = %BWLOGIN-ID-1%
account.3.xsi.password = %XSIPASSWORD-1%
account.3.xsi.host = %XSP_ADDRESS%
account.3.xsi.server_type =
account.3.xsi.port =

#####
#####
##
##                               Call Pickup
##
#####
#####
account.3.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%
account.3.group_pickup_code = %BWFAC-CALL-PICKUP-1%
account.3.dialoginfo_callpickup =
account.3.refresh_remote_id.enable =0
```

```
#####
#####
##                               Broadsoft Call Recording
##
#####
#####
account.3.call_recording.enable=

#####
#####
##                               Network Conference
##
#####
#####
account.3.conf_uri= %BWNETWORK-CONFERENCE-SIPURI-1%
account.3.bw.conference.member_manage.enable=

#####
#####
##                               Broadsoft Call Decline
##
#####
#####
account.3.features.call_decline.enable =

#####
#####
##                               Broadsoft Security Classification
##
#####
#####
account.3.security_classification.enable =

#####
#####
##                               Broadsoft Flexible Seating
##
#####
#####
account.3.flexible_seating.enable=
account.3.hoteling.mode = %BWHOTELINGMODE-1%
account.3.hoteling.pin = %BWFLEXIBLESEATINGUNLOCKPIN-1%

#####
#####
##                               Features Sync
##
#####
#####
account.3.features.forward.feature_key_sync.local_processing.enable=
account.3.features.dnd.feature_key_sync.local_processing.enable =

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

```
##                                     ACD
##
#####
#####
account.3.acd.available_url=
account.3.acd.away_url =
account.3.acd.refresh_url =
account.3.acd.call_information=

#####
#####
##                                     BSFT Setting
##
#####
#####
bw.enable = 1

#####
#####
##                                     Features Sync
##
#####
#####
features.feature_key_sync.enable = %FEATURE_SYNC%

#####
#####
##                                     Broadsoft Network Directory
##
#####
#####
bw_phonebook.group_enable= 1
bw_phonebook.personal_enable= 1
bw_phonebook.group_common_enable= 1
bw_phonebook.enterprise_enable= 1
bw_phonebook.enterprise_common_enable= 1
bw_phonebook.enterprise_common_displayname=
bw.xsi.call_log.enable= 1
bw_phonebook.custom=

bw_phonebook.group_displayname = %BWGROUPID-1%
bw_phonebook.enterprise_displayname= %BWENTERPRISEID-
1%BWSERVICEPROVIDERID-1%
bw_phonebook.personal_displayname=
bw_phonebook.group_common_displayname=
directory.update_time_interval=

#####
#####
##                                     Broadsoft  UC
##
#####
#####
##Only T54S/T52S/T48G/T48S/T46G/T46S/T29G Models support the parameter
bw.xmpp.enable = 1
features.uc_username = %BW_USER_IMP_ID-1%
features.uc_password = %BW_USER_IMP_PWD-1%
```



```
phone_setting.dsskey_directory_auto.enable = 0
bw.xmpp.change_presence.enable =

#####
#####
##                               Call Pickup
##
#####
#####
features.pickup.direct_pickup_enable =
features.pickup.group_pickup_enable =
features.pickup.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%
features.pickup.group_pickup_code = %BWFAC-CALL-PICKUP-1%

#####
#####
##                               Call Park
##
#####
#####
features.call_park.enable= %FEATURE_BW_CALL_PARK%
features.call_park.park_mode= 1
features.call_park.park_code=
features.call_park.group_park_code=
features.call_park.park_retrieve_code=
features.call_park.park_visual_notify_enable= %FEATURE_BW_CALL_PARK%
features.call_park.park_ring= %FEATURE_BW_CALL_PARK%
features.call_park.group_enable= %FEATURE_BW_CALL_PARK%

#####
#####
##                               Time&Date
##
#####
#####
lcl.datetime.date.format =
auto_dst.url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%Autodst.xml
local_time.manual_time_enable =
local_time.manual_ntp_srv_prior =
local_time.time_format =
local_time.date_format =
local_time.dhcp_time =

local_time.summer_time =
local_time.dst_time_type =
local_time.start_time =
local_time.end_time =
local_time.offset_time =
local_time.interval =

local_time.ntp_server1 = %SNTP_SERVER_1%
local_time.ntp_server2 = %SNTP_SERVER_2%
local_time.time_zone = %BWTIMEZONE-1%
local_time.time_zone_name = %TIMEZONENAME%
```

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

#####
#####
##                               Language Settings
##
#####
#####
wui_lang.url=
wui_lang_note.url=
wui_lang.delete=
#gui_lang.url=
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEA
CCESSURI%BWLLANGUAGE-1%
gui_lang.delete=
static.lang.gui=
static.lang.wui=

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

#####
#####
##                               Network Internet
##
#####
#####
static.network.ip_address_mode =

static.network.ipv6_prefix =
static.network.ipv6_internet_port.type =
static.network.ipv6_internet_port.ip =
static.network.ipv6_internet_port.gateway =
static.network.ipv6_primary_dns =
static.network.ipv6_secondary_dns =
static.network.ipv6_icmp_v6.enable =

static.network.internet_port.type =
```

```
static.network.internet_port.ip =  
static.network.internet_port.mask =  
static.network.internet_port.gateway =  
static.network.primary_dns = %DNS_SERVER_1%  
static.network.secondary_dns = %DNS_SERVER_2%
```

Default-System File: y000000000035.cfg.def file

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

```
#!/version:1.0.0.1  
  
auto_provision.server.url =  
http://xspl.iopl.broadworks.net:80/dms/Yealink-T48G/  
#auto_provision.server.url =  
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/Yealink-  
T48G/
```

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 and Tobago
-03:30	Canada-Newfoundland (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)

Time Zone	Time Zone Name
0	GMT
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-T2XX 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	Jordan (Amman)
+02:00	Latvia (Riga)
+02:00	Lebanon (Beirut)
+02:00	Moldova (Kishinev)
+02:00	Russia (Kaliningrad)
+02:00	Romania (Bucharest)
+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	Afghanistan
+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)

References

- [1] Yealink, Inc. 2018. *Yealink T4x IP Phone User Guide, Release 84*. Available from Yealink at www.yealink.com.
- [2] Yealink, Inc. 2018. *Yealink IP Phone Features Integrated with BroadSoft UC-One User Guide*. Available from Yealink at support.yealink.com.
- [3] BroadSoft, Inc. 2018. *BroadWorks Device Management Configuration Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [4] BroadSoft, Inc. 2017. *BroadWorks Redundancy Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [5] BroadSoft, Inc. 2018. *BroadWorks SIP Access Interface Interworking Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [6] BroadSoft, Inc. 2018. *BroadWorks SIP Phone Interoperability Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [7] BroadSoft, Inc. 2018. *BroadWorks SIP Phone Functional Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [8] BroadSoft, Inc. 2018. *BroadWorks Device Management Interoperability Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [9] BroadSoft, Inc. 2015. *BroadWorks CPE Kit Usage Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.