



BroadSoft Partner Configuration Guide

Yealink SIP-TxP/T3xG Series

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4th-5th Floor, No.63 Wanghai Road, 2nd Software Park,
Xiamen, Fujian, China 361008
Tel: +86 592 5702 000
Fax: +86 592 5702 455

WWW.YEALINK.COM

BroadWorks® Guide

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Version	Reason for Change
1.1	Introduced document for Yealink SIP-T28 version 2.0.0.9.
1.2	Edited and published document.
1.3	Updated document for additional models.
1.4	Edited and published document.
1.5	Updated document for Yealink SIP-T28 version 2.51.0.1 test with BroadWorks Release 17.0. Updated the document for Device Management.
1.6	Edited and published document.
1.7	Updates to Device Management configuration requirements.
1.8	Edited and published document.
1.9	Added TxP config instructions.
2.0	Edited and published document.
2.1	Modified to incorporate the T18P model and to update the Device Management section.
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2.3	Modified manual instructions for device management file parameters.
2.4	Updated document for Yealink SIP-TxP version X.60.0.110 test with BroadWorks Release 17.0. Modified to incorporate the T38G and T32G model and to update the Device Management configuration instructions.
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Table of Contents

1	Overview	6
2	Interoperability Status	7
2.1	Verified Versions.....	7
2.2	Interface Capabilities Supported.....	8
2.3	Known Issues	12
3	BroadWorks Configuration	13
3.1	BroadWorks Device Profile Configuration.....	13
3.2	BroadWorks Configuration Steps	14
4	SIP-TxP/T3xG Configuration	15
4.1	System Level Configuration	15
4.2	Subscriber Level Configuration Parameters	17
4.3	Shared Call Appearance Configuration.....	19
4.3.1	Bob's Phone Configuration – MAC.cfg.....	20
4.3.2	Joe's Phone Configuration – MAC.cfg	21
5	Device Management	22
5.1	Device Management Capabilities Supported	22
5.2	Device Management Configuration	23
5.2.1	Configure BroadWorks Tags	23
5.2.2	Configure BroadWorks Device Profile.....	26
5.2.3	Create Device Profile Instance	38
5.2.4	Configure Yealink TxP.....	40
Appendix A: Sample SIP-TxP Configuration Files.....		42
Appendix B: Sample SIP-T3xG Configuration Files		52
References		64

Table of Figures

Figure 1 Shared Call Appearance Configuration	19
Figure 2 System Default Tag Settings.....	24
Figure 3 Device Type Specific Tag Settings	26
Figure 4 Device Access FQDN.....	27
Figure 5 Auto Configuration Option Settings	28
Figure 6 Device Management Options Settings	30
Figure 7 System File Settings	32
Figure 8 Device Specific File Settings	34
Figure 9 Static File Settings	36
Figure 10 Identity/Device Profile Add Settings.....	39
Figure 11 Login Screen.....	40
Figure 12 Upgrade Screen.....	41

1 Overview

This document describes the configuration procedures required for a Yealink SIP-TxP/T3xG series to make full use of the capabilities of BroadWorks. This includes the following models:

- SIP-T12P
- SIP-T18P
- SIP-T20P
- SIP-T22P
- SIP-T26P
- SIP-T28P
- SIP-T32G
- SIP-T38G
- SIP-T80P

The SIP-TxP/T3xG is one of the many access devices that interoperate with BroadWorks.

The SIP-TxP/T3xG uses the Session Initiation Protocol (SIP) to communicate with BroadWorks for call control. It also translates voice to audio packets for transmission across a packet network.

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 SIP-TxP/T3xG series. For more information, see the *Yealink TxP SIP Phone User Manual* [\[1\]](#) supplied by Yealink.

2 Interoperability Status

This section provides the known interoperability status of the Yealink SIP-TxP/T3xG 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 SIP-TxP/T3xG and BroadWorks versions and the month/year the testing occurred. If the device has undergone more than one test cycle, versions for each test cycle are listed, with the most recent listed first.

Compatible Versions in the following table identifies specific SIP-TxP/T3xG versions, which the partner has identified as compatible and should interface properly with BroadWorks. Generally, maintenance releases of the validated version are considered compatible and may not be specifically listed here. Contact Yealink for any questions concerning maintenance and compatible releases.

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

Verified Versions Table

Date (mm/yyyy)	BroadWorks Release	SIP-TxP/T3xG Verified Version	SIP-TxP/T3xG Compatible Versions
05/2011	17.0	SIP-T12P 5.60.0.110 SIP-T20P 9.60.0.110 SIP-T22P 7.60.0.110 SIP-T26P 6.60.0.110 SIP-T28P 2.60.0.110 SIP-T32G 32.0.0.20 SIP-T38G 38.0.0.50 SIP-T80P 8.60.0.110	Any maintenance version of the verified versions.
03/2011	17.0	SIP-T18P 18.0.0.80	Any maintenance version of the verified version.

Verified Versions Table			
Date (mm/yyyy)	BroadWorks Release	SIP-TxP/T3xG Verified Version	SIP-TxP/T3xG Compatible Versions
10/2010	17.0	SIP-T12P 5.51.0.10 SIP-T20P 9.51.0.10 SIP-T22P 7.51.0.10 SIP-T26P 6.51.0.10 SIP-T28P 2.51.0.10 SIP-T80P 8.51.0.10	Any maintenance version of the verified versions.
09/2009	14.sp5	SIP-T12P 5.0.0.9 SIP-T20P 9.0.0.9 SIP-T22P 7.0.0.9 SIP-T26P 6.0.0.9 SIP-T28P 2.0.0.9 SIP-T80P 8.0.0.9	Any maintenance version of the verified versions.

2.2 Interface Capabilities Supported

The Yealink SIP-TxP/T3xG has completed interoperability testing with BroadWorks using the *BroadWorks SIP Access Device Interoperability Test Plan* [4]. The results are summarized in the following table.

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

The *Supported* column in the following table identifies the Yealink SIP-TxP/T3xG’s support for each of the items covered in the test plan packages, with the following designations:

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

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

Note that *DUT* in the following table refers to the *Device Under Test*, which in this case is the Yealink SIP-TxP/T3xG.

BroadWorks SIP Access Device 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	

BroadWorks SIP Access Device Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
	Ringback	Yes	
	Forked Dialog	Yes	
	Early UPDATE	No	
	Early-Session	No	
	181 Call Being Forwarded	Yes	
	Dial Plan	Yes	
	DTMF – Inband	Yes	
	DTMF – RFC 2833	Yes	
	DTMF – DTMF Relay	Yes	
	Codec Negotiation	Yes	
	Codec Renegotiation	Yes	
BroadWorks Services	Third-Party Call Control – Basic	NA	
	Third-Party Call Control – Advanced	Yes	
	Voice Message Deposit/Retrieval	Yes	
	Message Waiting Indicator	Yes	
	Voice Portal Outcall	Yes	
	Advanced Alerting	Yes	
	Calling Line ID	Yes	Except T18P
	Connected Line ID	Yes	Except T18P
	Diversion Header	Yes	
	History-Info Header	Yes	
	Advice of Charge	No	
DUT Services – Call Control Services	Call Waiting	Yes	
	Call Hold	Yes	
	Call Transfer	Yes	
	Three-Way Calling	Yes	
	Network-Based Conference	Yes	Except T12P, T18P, T80P
DUT Services – Registration and Authentication	Register Authentication	Yes	
	Maximum Registration	Yes	
	Minimum Registration	Yes	
	Invite Authentication	Yes	
	Re-Invite/Update Authentication	Yes	
	Refer Authentication	Yes	
	Device Authenticating BroadWorks	No	
DUT Services – Fax	G711 Fax Passthrough	NA	

BroadWorks SIP Access Device Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
DUT Services – Miscellaneous	G711 Fax Fallback	NA	
	T38 Fax Messaging	NA	
	Do Not Disturb	Yes	
	Call Forwarding Always	Yes	
	Call Forwarding Always Diversion Inhibitor	Yes	
	Anonymous Call	Yes	
	Anonymous Call Block	Yes	
	Remote Restart Via Notify	Yes	
Advanced Phone Services – Busy Lamp Field	Busy Lamp Field	Yes	Except T12P, T18P
Advanced Phone Services – Feature Key Synchronization	Do Not Disturb	Yes	Except T12P, T18P, T80P
	Do Not Disturb Ring Splash	Yes	Except T12P, T18P, T80P
	Call Forwarding	Yes	Except T12P, T18P, T80P
	Call Forwarding Always Ring Splash	Yes	Except T12P, T18P, T80P
	Call Forwarding Always Diversion Inhibitor	Yes	Except T12P, T18P, T80P
	Call Center Agent Logon/Logoff	No	
	Call Center Agent Unavailable Code	No	
Advanced Phone Services – Missed Calls Display Synchronization	Missed Calls Display Sync	Yes	Except T12P, T18P, T80P
Advanced Phone Services – Shared Call Appearance using Call Info	Line-Seize	Yes	Except T12P, T18P, T80P
	Call-Info/Lamp Management	Yes	Except T12P, T18P, T80P
	Public Hold	Yes	Except T12P, T18P, T80P
	Private Hold	Yes	Except T12P, T18P, T80P
	Multiple Call Arrangement	Yes	Except T12P, T18P, T80P
	Bridging	Yes	Except T12P, T18P, T80P
Advanced Phone Services – Shared Call Appearance using Dialog Event	Dialog Event	No	
	Hold/Retrieve	No	
	Multiple Call Arrangement	No	
	Bridging	No	
Advanced Phone Services – Call Center	Hold Reminder	No	
	Call Information	No	
	Hoteling Event	No	
	Status Event	No	

BroadWorks SIP Access Device Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
	Disposition Code	No	
	Emergency Escalation	No	
	Customer Originated Trace	No	
Redundancy	DNS SRV Lookup	Yes	Except T18P, T80P
	Register Failover/Failback	Yes	Except T18P, T80P
	Invite Failover/Failback	Yes	Except T18P, T80P
	Bye Failover	Yes	Except T18P, T80P
SBC/ALG	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
Video – Basic Video Calls	Call Origination	NA	
	Call Termination	NA	
	Call Hold	NA	
	Call Waiting	NA	
	Call Transfer	NA	
Video – BroadWorks Video Services	Auto Attendant	NA	
	Voice Messaging	NA	
	Custom Ringback	NA	
TCP	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	

2.3 Known Issues

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

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

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

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

Issue Number	Issue Description	Partner Version			
		x.0.0.9	x.51.0.10		
	Device Management – file download fails if Xsp generates HTTP 302. The TxP fails to download configuration files and firmware via the Xsp if the Xsp responds to the http get with a 302 redirect. This occurs in Xsp farm scenarios and other scenarios in which the URL changes. Workaround: No workaround. This issue is resolved in TxP version x.51.0.17.		X		
	Device Management – file download fails if TxP upgrade URL is configured as an FQDN. The TxP fails to download configuration files and firmware via the Xsp if the phone's upgrade URL is configured as an FQDN. Workaround: Ensure the upgrade URL is configured as an IP address. This issue is resolved in TxP version x.51.0.21.		X		

3 BroadWorks Configuration

This section identifies the required BroadWorks device profile for the Yealink SIP-TxP/T3xG as well as any other unique BroadWorks configuration required for interoperability with the SIP-TxP/T3xG.

3.1 BroadWorks Device Profile Configuration

This section identifies the device profile to use when deploying the Yealink SIP-TxP/T3xG with BroadWorks.

The following table identifies the required BroadWorks device identity/profile settings for interoperability between the SIP-TxP/T3xG and BroadWorks. For an explanation of the profile parameters, refer to the *BroadWorks Device Management Configuration Guide* [2].

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

Yealink SIP-TxP/T3xG Identity/Device Profile	
Signaling Address Type	Intelligent Proxy Addressing
Standard Options	
Number of Ports	T12P: 2 T18P: 1 T20P: 2 T22P: 3 T26P: 3 T28P: 6 T32P: 3 T38P: 6 T80P: 6
Ringback Tone/Early Media Support	Local Ringback – No Early Media
Authentication	Enabled
Registration Capable	X
Static Registration Capable	
E.164 Capable	
Trusted	
Authenticate REFER	
RFC 3264 Hold	X
Video Capable	
Use History-Info Header	
Advanced Options	
Route Advance	
Wireless Integration	
PBX Integration	

Yealink SIP-TxP/T3xG Identity/Device Profile	
Add P-Called-Party-ID	
Auto Configuration Soft Client	
Requires BroadWorks Call Waiting Tone	
Advice of Charge Capable	
Forwarding Override	
Conference Device	
Music On Hold Device	
Requires BroadWorks Digit Collection	
Requires MWI Subscription	
Support Call Center MIME Type	
Reset Event	checkSync
Trunk Mode	User
Auto Configuration Options	
Web Based Configuration URL Extension	
Auto Configuration Type	2 Config File
Enable Monitoring	
CPE System File Name	
Device File Format	

3.2 BroadWorks Configuration Steps

No other steps are needed on BroadWorks for setting up the device.

Step	Command	Purpose
System Configuration Items y0000000000<xx>.cfg		
Step 4	Set Register Expire Timer. Expire = 3600	Set the registration period.
Step 5	Enable reliable response. Enable 100Rel = 1	Reliable provisional response (PRACK) should be enabled.
Step 6	Enable Session Timer. EnableSessionTimer = 1 SessionExpires = 300 SessionRefresher = 1	Set the SIP-TxP/T3xG series to enable Session Timer. Session Refresher: 0 = uac 1 = uas
Step 7	Enable Call Waiting. Call_Waiting = 1 Call_WaitingTone = 1	Set the SIP-TxP/T3xG series to enable Call Waiting and Call Waiting Tone.
Step 8	Enable MWI. SubscribeMWI = 0 SubscribeMWIExpire = 3600	MWI: Solicited when setting SubscribeMWI = 1. MWI: Not solicited when setting SubscribeMWI = 0.
Step 9	Enable negotiated DTMF type. DTMFInbandTransfer = 1	Set the SIP-TxP/T3xG series to enable inband or RFC 2833 negotiated DTMF.
Step 10	Select Transport Type. Transport = 0	Set the SIP transport: Transport = 0 (UDP) Transport = 1 (TCP) Transport = 2 (TLS) (except T18P) Transport = 3 (DNS-SRV) (except T80P)
Step 11	Enable Feature Key Sync. BroadsoftFeatureKeySync = 1	Enable Feature Key Sync (except T18): 1: Enable 0: Disable

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 a line to be used. Example: Enable = 1	Enable a line of the SIP-TxP/T3xG series to be used.
Step 2	Configure display name for a line. Example: DisplayName = Joe	For the line, configure the name to be displayed on the device.
Step 3	Set Register User ID for a line. Example: UserName = 2405551111	The <i>register user ID</i> must correspond with the line/port setting on BroadWorks.
Step 4	Enable SIP Authentication for a line. Example: AuthName = 2405551111 password = 123456	If the Authentication service is configured on BroadWorks, these parameters must be configured to match the BroadWorks settings.
Step 5	Configure eventlist BLF for a line. BLFList_URI = <broadworks-blf-list-uri> Example: BLFList_URI = myblflist@as.iopl.broadworks.net	Configure the <i>eventlist</i> busy line field (BLF) on the <i>Account Settings</i> page to match the BroadWorks busy lamp field list URI setting for the user.
Step 6	Configure Network Conference for a line. conf-type = 2 conf-uri = <broadworks conference uri> Example: conf-uri = conf@as.iopl.broadworks.net	Select the <i>Network Conference</i> type and the <i>conference-uri</i> from the <i>Account Settings</i> page. The <i>conference-uri</i> must match the BroadWorks configured <i>conference-uri</i> setting.

Step	Command	Purpose
Subscriber parameters for the <MACADDRESS>.cfg		
Step 7	<p>Configure Network Phonebook for a line.</p> <pre> DisplayName = Broadsoft Phonebook Server = http://xspl.iopl.broadworks.net/com.broadsoft.xsi-actions/v1.0/user/2413333610@as.iopl.broadworks.net/directories/calllogs/placed Port = 8080 UserName = 2413333601@as.iopl.broadworks.net Password = yealink </pre>	<p>This configures the phone to use the BroadWorks Xsi interface to retrieve the group phone directory.</p> <p>Server: This is the identity of the BroadWorks Xsp server/cluster address and relevant xsi-actions parameters.</p> <p>UserName: This is the BroadWorks user's login name.</p> <p>Password: This is the BroadWorks user's login password.</p>

4.3 Shared Call Appearance Configuration

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

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

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

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

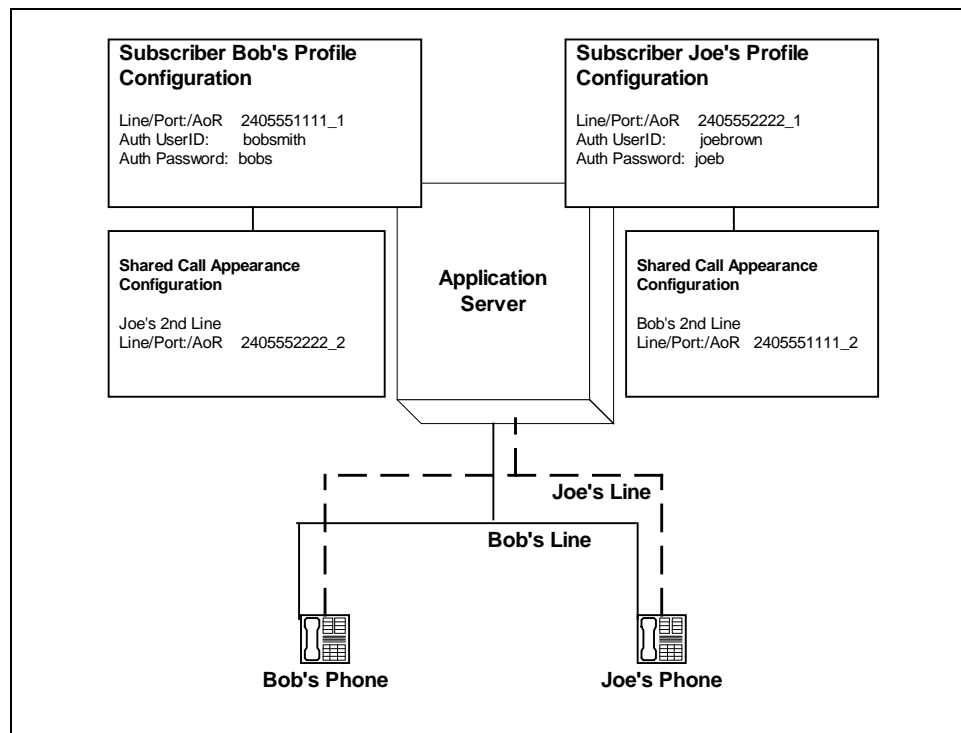


Figure 1 Shared Call Appearance Configuration

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

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

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

For configurations of SCA for the device, refer to the following example:

4.3.1 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>ShareLine = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>UserName = 2405551111_1;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>AuthName = bobsmith;</code> <code>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>DisplayName = 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>ShareLine = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>UserName = 2405551111_2;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>AuthName = joebrown;</code> <code>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>DisplayName = Joe Brown;</code>	Configure the name to be displayed on the device for this line.

4.3.2 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>ShareLine = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>UserName = 2405552222_1;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>AuthName = joebrown;</code> <code>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>DisplayName = 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>ShareLine = 1;</code>	Configure the line as "shared" (as opposed to "private").
Step 2	Set Register User ID. Example: <code>UserName = 2405552222_2;</code>	The register user ID must correspond with the line/port setting on BroadWorks.
Step 3	Enable SIP Authentication. Example: <code>AuthName = bobsmith;</code> <code>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>DisplayName = Bob Smith;</code>	Configure the name to be displayed on the device for this line.

5 Device Management

The BroadWorks Device Management feature provides the capability to automate generation of device configuration files. This section identifies the device management capabilities supported by the Yealink SIP-TxP/T3xG and the configuration steps required. For Device Management configuration details not covered here, refer to the *BroadWorks Device Management Configuration Guide* [2].

5.1 Device Management Capabilities Supported

The Yealink SIP-TxP/T3xG has completed Device Management interoperability testing with BroadWorks using the *BroadWorks Device Management Interoperability Test Plan* [5]. The results are summarized in the following table.

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

The *Supported* column in the following table identifies the Yealink SIP-TxP/T3xG's support for each of the items covered in the test plan packages, with the following designations:

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

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

Note that *DUT* in the following table refers to the *Device Under Test*, which in this case is the Yealink SIP-TxP/T3xG.

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	Except T18P
	HTTPS Download Using Xsp FQDN	Yes	Except T18P
	HTTPS Download Using Xsp Cluster FQDN	Yes	Except T18P
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	

BroadWorks Device Management Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
	Inspect Line Settings	Yes	
	Inspect Service Settings	Yes	
HTTP File Upload	HTTP Upload Using Xsp IP Address	No	
	HTTP Upload Using Xsp FQDN	No	
	HTTP Upload Using Xsp Cluster FQDN	No	
Call Processing Sanity Tests	Register with Authentication	Yes	
	Call Origination	Yes	
	Call Termination	Yes	
	Remote Restart	Yes	
	Shared Line Origination	Yes	Except T18P, T80P
	Shared Line Termination	Yes	Except T18P, T80P
	Shared Line Status	Yes	Except T18P, T80P
	Busy Lamp Field	Yes	Except T18P, T80P

5.2 Device Management Configuration

This section identifies the steps required to enable the Yealink SIP-TxP/T3xG phones for device management. For Device Management configuration details not covered here, see the *BroadWorks Device Management Configuration Guide* [2].

5.2.1 Configure BroadWorks Tags

The Yealink SIP-TxP/T3xG 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

Go 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

Example System Default Tag settings:

System Welcome Default Administrator [Logout](#)

Options:
[Profile](#)
► Resources
[Services](#)
[Communication Barring](#)
[Utilities](#)

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.

OK Apply Add Cancel

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%	199.19.193.12	Edit
<input type="checkbox"/>	%DNS_SERVER_2%	199.19.193.39	Edit
<input type="checkbox"/>	%DNS_SERVER%	199.19.193.12	Edit
<input type="checkbox"/>	%SBC_ADDRESS%	sbc1.iop1.broadworks.net	Edit
<input type="checkbox"/>	%SBC_PORT%	5060	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"/>	%USE_SBC_BOOLEAN%	1	Edit

[Page 1 of 1]

Tag Name ▼ Starts With ▼ [Find](#) [Find All](#)

OK Apply Add Cancel

Figure 2 System Default Tag Settings

5.2.1.2 Create Device Type Specific Tags

Go 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 *Yealink TxP Tags*. Add the device type specific tags in the following table to the device tag set.

Tag Name	Valid Settings	Description
%COUNTRY%	United States Australia Austria Brazil Belgium China Czech Denmark Finland France Germany Great Britain Greece Hungary Lithuania	Identifies country for standard ringtones.

Tag Name	Valid Settings	Description
	India Italy Japan Mexico New Zealand Netherlands Norway Portugal Spain Switzerland Sweden Russia Chile Czech ETSI	
%LANGUAGE%	English Chinese Simplified Chinese Traditional French German Italian Polish Portuguese Turkish Spanish	Web management and phone LCD language.
%T12_FIRMWARE%	5.<x.x.x>.rom Example: 5.51.0.10.rom	T12P FIRMWARE VERSION
%T18_FIRMWARE%	18.<x.x.x>.rom Example: 18.0.0.80.rom	T18P FIRMWARE VERSION
%T20_FIRMWARE%	9.<x.x.x>.rom Example: 9.51.0.10.rom	T20P FIRMWARE VERSION
%T22_FIRMWARE%	7.<x.x.x>.rom Example: 7.51.0.10.rom	T22P FIRMWARE VERSION
%T26_FIRMWARE%	6.<x.x.x>.rom Example: 6.51.0.10.rom	T26P FIRMWARE VERSION
%T28_FIRMWARE%	2.<x.x.x>.rom Example: 2.51.0.10.rom	T28P FIRMWARE VERSION
%T80_FIRMWARE%	8.<x.x.x>.rom Example: 8.51.0.10.rom	T80P FIRMWARE VERSION

Tag Name	Valid Settings	Description
%T32_FIRMWARE%	32.<x.x.x>.rom Example: 32.0.0.40.rom	T32G FIRMWARE VERSION
%T38_FIRMWARE%	38.<x.x.x>.rom Example: 38.0.0.40.rom	T38G FIRMWARE VERSION

Example Device Type Specific Tag settings:

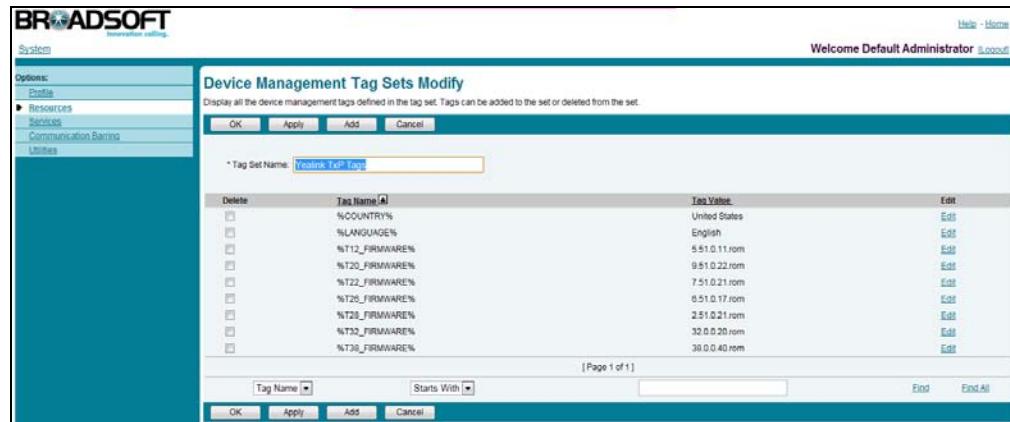


Figure 3 Device Type Specific Tag Settings

5.2.2 Configure BroadWorks Device Profile

There are two BroadWorks device profile configuration methods described, import, and manual. It is necessary to perform only one of the BroadWorks configuration methods. The import method is quick and easy. The manual method walks the administrator through each step.

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 SIP-TxP/T3xG as a Device Management-enabled device type.

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

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

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

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

Go to *System* → *Resources* → *Identity/Device Profile Types* and perform a search to find the imported Yealink device profile type, for example, *Yealink T28P*. Go to the *Profile* page and change the Device Management Device Access FQDN to your Xsp or Xsp cluster address.

Example:

Device Management

Device Type URL: `http://xsp1.iop1.broadworks.net:80/dms/YealinkT28P/`

☐ No Tags

Device Configuration Tags:

☐ Use Default System Tag Set Only
☒ Use Default System Tag Set and Tag Set:

Yealink TxP Tags

☒ 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: `http`
Device Access FQDN: `xsp1.iop1.broadworks.net`
Device Access Port: `80`
Device Access Context Name: `dms`
Device Access URI: `YealinkT28P/`
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 4 Device Access FQDN

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

5.2.2.2 Configuration Method 2: Manual

This section identifies the manual steps necessary to configure BroadWorks to add the Yealink SIP-TxP/T3xG as a Device Management-enabled device type.

The manual method must be used for BroadWorks releases prior to Release 17.0. The manual method is an optional method in Release 17.0 and later.

5.2.2.2.1 Modify Device Profile Type

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

Go 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 Configuration](#).

The *Standard Options* and *Advanced Options* should already be configured as specified in section [3.1 BroadWorks Device Profile Configuration](#). This section identifies the required settings for *Auto Configuration Options* and *Device Management*.

5.2.2.2.1.1 Configure Auto Configuration Options

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

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

Example Auto Configuration Options settings:

Figure 5 Auto Configuration Option Settings

5.2.2.2.1.2 Configure Device Management Options

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

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

Parameter	Value	Description/Notes
Device Configuration Tags	Use Default System Tag Set and Tag Set	Select the device tag set created in section 5.2.1.2 Create Device Type Specific Tags .
Allow Identity/Device Profiles to Configure Custom Tags	checked	Optional
Allow Groups to Configure Custom Tags	checked	Optional
Device Access Protocol	http	
Device Access FQDN	<BroadWorks-Xsp-Cluster-Address> Example: xsp.iop1.broadworks.net	Set to the Xsp cluster FQDN if using an Xsp farm. Otherwise, set to the individual Xsp FQDN or IP address.
Device Access Port	<BroadWorks-Xsp-Port> Example: 80	Should be set to 80.
Device Access Context Name	dms	This does not need to be defined. BroadWorks defaults to the system-defined value.
Device Access URI	<device model name> Example: YealinkT28P	This defines the directory the Xsp uses to access the 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 6 Device Management Options Settings

5.2.2.2.2 Define Device Profile Type Files

This section describes the BroadWorks Device Management configuration necessary to identify the config files and other files that the Yealink TxP/TxG downloads.

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

Go to *System* → *Resources* → *Identity/Device Profile Types* → *Files and Authentication* to add the files.

5.2.2.2.1 System File

Each TxP model downloads a model-specific system file, named as follows:

- T12P: y0000000000008.cfg
- T18P: y0000000000009.cfg
- T20P: y0000000000007.cfg
- T22P: y0000000000005.cfg
- T26P: y0000000000004.cfg
- T28P: y0000000000000.cfg
- T32P: y0000000000032.cfg
- T38P: y0000000000038.cfg
- T80P: y0000000000002.cfg

Add a BroadWorks device profile type file to each Yealink TxP/TxG device profile for the system file using the settings described in the following table.

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

Parameter	Value	Description/Notes
Device Access File Format	<system-file-name> Example: y0000000000000.cfg	This is the file name the phone uses to request the file.
Repository File Format	<system-file-name> Example: y0000000000000-%BWTIMESTAMP%.cfg	This is the file name as stored on the Device Management repository.
File Category	Dynamic Per-Type	Only one system file is generated for the profile type.
File Customization	Administrator	This identifies who can customize the system file template.
Assign File	Custom	
Authentication Mode	User Name and Password	This system file is authenticated with the user name and password.
Device Access HTTP Authentication	Digest	

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

Reminder: Complete these steps for each of the Yealink TxP/TxG models.

Example System File settings:

Identity/Device Profile Type File Modify

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

Device Access File Format: y0000000000008.cfg
Repository File Format: y0000000000008-%BWTIMESTAMP%.cfg
Access File: <http://ksp1.iop1.broadworks.net:80/dms/YealinkT12P/y0000000000008.cfg>
Repository File: [Download](#)
Template File: [Download](#)
File Category: ☐ Static ☒ Dynamic Per-Type ☐ Dynamic Per-Device
File Customization: ▼

Assign File

☐ Manual
☒ Custom

Upload File: No file chosen

Currently using configuration file: /var/broadworks/lpDeviceConfig/type/Yealink_T12P/y0000000000008.cfg.template

```
# File Created: %BWTIMESTAMP%

[ autop_mode ]
path = /config/Setting/autop.cfg
mode = 1
schedule_min =
schedule_time =
schedule_time_end =
schedule_dayofweek =
```

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

Figure 7 System File Settings

5.2.2.2.2 Device-Specific File

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

<mac-address>.cfg

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

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

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

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

Select the appropriate device-specific file to upload based on the model as follows:

- TxP models: %BWMACADDRESS%-TxP.cfg
- T3xG models: %BWMACADDRESS%-T3xG.cfg

Example Device-Specific File settings:

Identity/Device Profile Type File Modify

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

Device Access File Format: %BWMACADDRESS%.cfg
Repository File Format: %BWFQDEVICEID%.cfg
Access File: <http://xsp1.iop1.broadworks.net:80/dms/YealinkT12P/%25BWMACADDRESS%25.cfg>
Repository File:
Template File: [Download](#)
File Category: ☐ Static ☐ Dynamic Per-Type ☒ Dynamic Per-Device
File Customization:

Assign File

☐ Manual
☒ Custom

Upload File: No file chosen

Currently using configuration file: /var/broadworks/lpDeviceConfig/type/Yealink_T12P/%BWMACADDRESS%.cfg.template

```

# File Created: %BWTIMESTAMP%

#####
##configure for line 1                                ##
#####
[ account ]
path = /config/voip/sipAccount0.cfg
Enable = %BWLIN-BINARY-1%
Label = %BWEXTENSION-1%
DisplayName = %BWCLID-1%

```

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

Figure 8 Device Specific File Settings

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 TxP/TxG requires the following static files:

- <firmware-version>.rom
- Ring.wav
- lang+English.txt (or other default language file)
- contactData1.xml (contactData.xml for Yealink T38G and T32G)
- AutoDST.xml
- DialPlan.xml

The Yealink T38G and T32G require the following additional static files:

- DialNow.xml
- Dialing.xml
- CallFailed.xml
- CallIn.xml
- Connecting.xml
- Ringback.xml
- ScreenSaver.png
- Talking.xml

Each TxP model requires a different firmware file.

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

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

Parameter	Value	Description/Notes
Device Access File Format	<file-name> Example: 5.50.0.10.rom	This is the file name the phone uses to request the file.
Repository File Format	<file-name> Example: 5.50.0.10.rom	This is the file name as stored on the Device Management repository. Use the same name as the actual file name.
File Category	Static	This is a static file. There are no dynamic tags in the file.
File Customization	Disallow	This file must not be modified.
Assign File	Custom	
Authentication Mode	Not set	The static files are not authenticated so do not select either of the options.

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

Reminder: Repeat these steps for each Yealink model.

Example Static File settings:

Device Access File Format: zhongguo.wav
Repository File Format: zhongguo.wav
Access File: <http://xsp1.iop1.broadworks.net:80/dms/YealinkT28P/zhongguo.wav>
Repository File: [Download](#)
Template File: [Download](#)
File Category: ☒ Static ☐ Dynamic Per-Type ☐ Dynamic Per-Device
File Customization: Disallow

Assign File
☐ Manual
☒ Custom
Upload File: Choose File No file chosen
Currently using configuration file: /var/broadworks/lpDeviceConfig/type/Yealink_T28P/zhongguo.wav.template

RIFF: WAVEfmt
fact
data

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

Figure 9 Static File Settings

5.2.2.2.4 Time Zone Alias File

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

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

`TimeZoneAliasLabels_<Device_Type_Name>.properties`

For example, if the device type name is *Yealink T28P*, the time zone mapping file name must be *TimeZoneAliasLabels_Yealink+T28P.properties*. (A space in the device name must be converted to a "+" in the file name.)

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

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

This file should contain all the time zones supported by the service provider's BroadWorks system. The Application Server must be restarted to load this file.

The CPE kit contains the time zone properties files defined for the continental U.S. and Canadian time zones.

5.2.3 Create Device Profile Instance

This section describes how to create a BroadWorks device profile instance for an individual Yealink TxP/TxG phone. Device profile instances are usually created at the BroadWorks group level and assigned to users.

Go to the BroadWorks *<group>* → *Resources* → *Identity/Device Profiles* page and select *Add* to add a new Yealink TxP/TxG device profile. Define the device profile instance using the settings described in the following table.

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

Parameter	Value	Description/Notes
Identity/Device Profile Name	<device-profile-name> Example: Yealink T28 - 01	The device profile name is a unique identifier for the device profile instance.
Identity/Device Profile Type	<yealink-tpx-device-profile-type> Example: Yealink T28P	From the drop-down list, select the Yealink device profile type created in the previous section.
Authentication	Use Custom Credentials	Use a unique login user name and password for each phone.
Device Access User Name	<phone-login-name> Example: bsmith	The phone login user naming convention must be determined by the service provider.
Device Access Password	<phone-login-password> Example: bsmith456	

Example Identity/Device Profile Add settings:

Identity/Device Profile Add

Add a new group identity/device profile.

OK
Cancel

Group: Interoperability::BroadSoft

* Identity/Device Profile Name:

Identity/Device Profile Type:

Protocol:

Host Name/IP Address: Port:

Transport:

MAC Address:

Serial Number:

Description:

Outbound Proxy Server:

STUN Server:

Physical Location:

Authentication

☐ Use Identity/Device Profile Type Credentials
☒ Use Custom Credentials

* Device Access User Name:

* Device Access Password:

* Re-type Device Access Password:

Figure 10 Identity/Device Profile Add Settings

5.2.4 Configure Yealink TxP

This section describes the steps necessary to configure the Yealink TxP/TxG to integrate with BroadWorks Device Management.

Log in to the web user interface for the TxP phone (<https://<phone-ip-address>>). Go to the *Upgrade* web page and set the following:

- Check New Config – Power On
- Url – Device Management server (Xsp) device address URL
Example: [http\(s\)://xsp1.broadworks.net:80/dms/Yealink_T28P/](http(s)://xsp1.broadworks.net:80/dms/Yealink_T28P/)
- Account – BroadWorks Device Access User Name
Example: lsmith
- 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 Screen (Default User Name/Password is admin/admin):

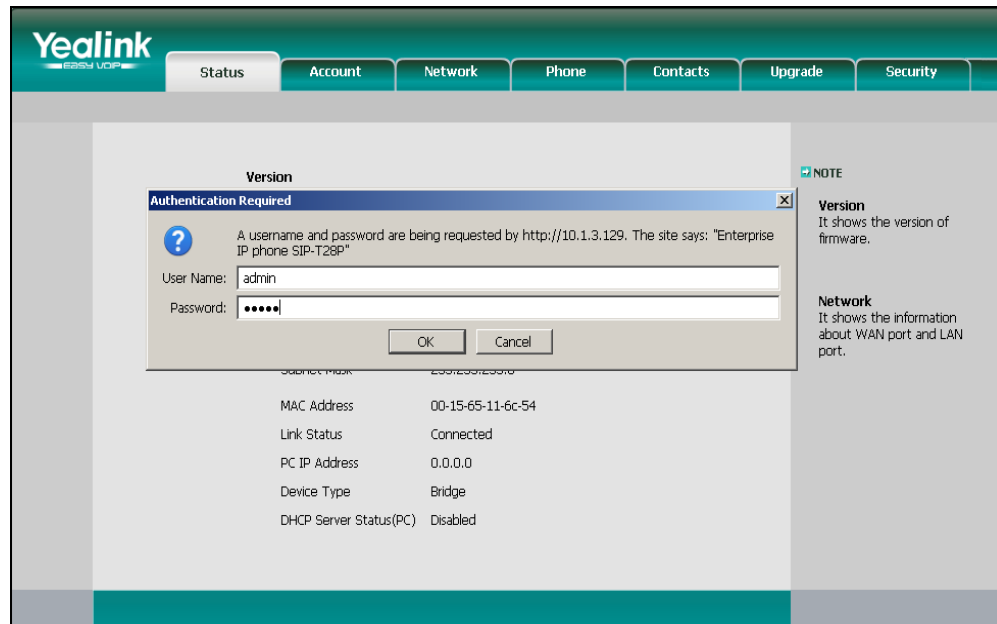


Figure 11 Login Screen

Example Upgrade screen:

Yealink SIP-TXP

Status Account Network Phone Contacts Upgrade Security

Basic | Advanced

Custom Option(128 ~ 254) ?

Custom Option Type String ?

URL http://xsp1.iop1.broadworks.net:80 ?

Account yeawh1 ?

Password ?

Common AES Key ?

MAC-Oriented AES Key ?

PNP Config Enabled ?

Check New Config Power on ?

Click this button to auto provision immediately ?

Export / Import Config Browse... ?

Export System Log Local ?

PCAP Trace ?

NOTE

Custom Option
Specify the DHCP Option that you want to use for provisioning. Refer to Auto Provision Manual for details about provisioning.

AES Key
It is provided by ISP.

Click this button to auto provision immediately
Click this button to auto provision immediately.

Export/Import Config
Export the configuration files to backup the settings, and could import all the settings after reset.

System Log
There are two methods to export the system log, Local or Server.

Figure 12 Upgrade Screen

Appendix A: Sample SIP-TxP Configuration Files

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

System Default File: y0000000000xx.cfg

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

```
#####
## Network Settings                                ##
#####

[ WAN ]
path = /config/Network/Network.cfg
WANType = 0

[ LAN ]
path = /config/Network/Network.cfg
LANTYPE = 1
RouterIP =
LANSubnetMask =
EnabledDHCP = 1
DHCPStartIP = 10.0.0.10
DHCPEndIP = 10.0.0.100

[ VLAN ]
path = /config/Network/Network.cfg
#ISVLAN,VID and USRPRIORITY are used for VLAN on LAN port
#PC_PORT_VLAN_ENABLE,PC_PORT_VID and PC_PORT_PRIORITY are used for PC
port
ISVLAN = 0
VID =
USRPRIORITY =
PC_PORT_VLAN_ENABLE = 0
PC_PORT_VID = 0
PC_PORT_PRIORITY = 0

[ QOS ]
path = /config/Network/Network.cfg
SIGNALTOS = 40
RTPTOS = 40

#####
## Time Settings                                    ##
#####

[ Time ]
path = /config/Setting/Setting.cfg
TimeZone = %TIMEZONE%
TimeZoneName = %TIMEZONENAME%
TimeServer1 = %SNTP_SERVER_1%
TimeServer2 = %SNTP_SERVER_2%
```

```
Interval = 1000
SummerTime = 2
DSTTimeType = 0
TimeZoneInstead = 8
StartTime = 1/1/0
EndTime = 12/31/23
TimeFormat = 1
DateFormat = 0
OffSetTime = 60

#####
# # Feature Settings                                     # #
#####

[ Features ]
path = /config/Features/Phone.cfg
Call_Waiting = 1
Hotlinenumber =
BusyToneDelay = 3
LCD_Logo = 1
DND_Code = 480
Refuse_Code = 486
DND_On_Code = %BWFAC-DND-ACTIVATE-1%
DND_Off_Code = %BWFAC-DND-DEACTIVATE-1%
ButtonSoundOn = 1
CallCompletion = 0
AllowIntercom = 1
IntercomMute = 0
IntercomTone = 1
IntercomBarge = 1
Call_WaitingTone = 1
Hotlinedelay = 4
BroadsoftFeatureKeySync = 1

#####
# # Updating firmware Settings                             # #
#####

[ firmware ]
path = /tmp/download.cfg
server_type =
server_ip =
server_port = 80
login_name =
login_pswd =
http_url =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVI
CEACCESSURI%/
firmware_name =%FIRMWARE_VERSION%
## Firmware Version for Yealink T28

#####
# # Updating File Settings                                 # #
#####

[ ringtone ]
path = /tmp/download.cfg
server_address =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVI
CEACCESSURI%/xxx.wav
```

```
[ Lang ]
path = /tmp/download.cfg
server_address =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVI
CEACCESSURI%/lang+(-)xxx.txt

[ ContactList ]
path = /tmp/download.cfg
server_address =
http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVI
CEACCESSURI%/contactData1.xml

#####
# # Autoprovision Settings # #
#####

[ autoprovision ]
path = /config/Setting/autop.cfg
mode = 1
server_address = http://xsp1.iop1.broadworks.net:80/dms/Yealink-TxP_dm/
user = yealink
password = 123456

[ PNP ]
path = /config/Setting/autop.cfg
Pnp = 1

#####
# # Other Settings # #
#####

[ Trans ]
path = /config/Features/Phone.cfg
IsOnHookTrans = 1

[ AutoRedial ]
path = /config/Features/Phone.cfg
EnableRedial = 0
RedialInterval = 10
RedialTimes = 10

[ PoundSend ]
path = /config/Features/Phone.cfg
Enable = 1
##### "#" key as send: 1 , "*"key as send:2

[ ReplaceRule ]
path = /config/Setting/AdvSetting.cfg
ReplaceAll = 1
```

Phone-Specific File: %BWMACADDRESS%.cfg

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

```
#####
## Account 1 Registration Settings(SIP T18P support Account1 only) ##
#####

[ account ]
path = /config/voip/sipAccount0.cfg
Enable = %BWLIN-BINARY-1%
Label = %BWEXTENSION-1%
DisplayName = %BWCLID-1%
AuthName = %BWAUTHUSER-1%
UserName = %BWLINPORT-1%
password = %BWAUTHPASSWORD-1%
SIPServerHost = %BWHOST-1%
SIPServerPort = 5060
UseOutboundProxy = %USE_SBC_BOOLEAN%
OutboundHost = %SBC_ADDRESS%
OutboundPort = %SBC_PORT%
Transport = %SIP_TRANSPORT%
AnonymousCall = 0
RejectAnonymousCall = 0
MissedCallLog = 1
AutoAnswer = 0
VoiceMail = %BWVOICE-PORTAL-NUMBER-1%

#####
## Account1 Function Settings ##
#####

[ account ]
path = /config/voip/sipAccount0.cfg
ShareLine = %BWSHAREDLINE-1%
conf-type = 2
conf-uri = %BWNETWORK-CONFERENCE-SIPURI-1%
[ blf ]
path = /config/voip/sipAccount0.cfg
SubscribePeriod = 1800
BLFList_URI = %BWBLF-USER-1%

[ Account0 ]
path = /config/Contacts/BroadSoft.cfg
DisplayName =
Server =
Port =
UserName =
Password =

#####
## Account1 Feature Settings ##
#####

[ AlwaysFWD ]
path = /config/Features/Forward.cfg
Enable = %BWCFA-BINARY-1%
Target =
On_Code = %BWFAC-CFA-ACTIVATE-1%
Off_Code = %BWFAC-CFA-DEACTIVATE-1%
```

```
[ BusyFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
On_Code = %BWFAC-CFB-ACTIVATE-1%
Off_Code = %BWFAC-CFB-DEACTIVATE-1%

[ TimeoutFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
Timeout =
On_Code = %BWFAC-CFNA-ACTIVATE-1%
Off_Code = %BWFAC-CFNA-ACTIVATE-1%
# # # # #
# # Account2 Registration Settings (SIP T20P support ccount 2 only) # #
# # # # #

[ account ]
path = /config/voip/sipAccount1.cfg
Enable = %BWLIN-BINARY-2%
Label = %BWEXTENSION-2%
DisplayName = %BWCLID-2%
AuthName = %BWAUTHUSER-2%
UserName = %BWLINPORT-2%
password = %BWAUTHPASSWORD-2%
SIPServerHost = %BWHOST-2%
SIPServerPort = 5060
UseOutboundProxy = %USE_SBC_BOOLEAN%
OutboundHost = %SBC_ADDRESS%
OutboundPort = %SBC_PORT%
Transport = %SIP_TRANSPORT%
AnonymousCall = 0
RejectAnonymousCall = 0
MissedCallLog = 1
AutoAnswer = 0
VoiceMail = %BWVOICE-PORTAL-NUMBER-2%

# # # # #
# # Account2 Function Settings # #
# # # # #

[ account ]
path = /config/voip/sipAccount1.cfg
ShareLine = %BWSHAREDLIN-2%
conf-type = 2
conf-uri = %BWNETWORK-CONFERENCE-SIPURI-2%
[ blf ]
path = /config/voip/sipAccount0.cfg
SubscribePeriod = 1800
BLFList_URI = %BWBLF-USER-2%

[ Account1 ]
path = /config/Contacts/BroadSoft.cfg
DisplayName =
Server =
Port =
UserName =
PassWord =

# # # # #
# # Account2 Feature Settings # #
# # # # #
```

```
[ AlwaysFWD ]
path = /config/Features/Forward.cfg
Enable = %BWCFA-BINARY-1%
Target =
On_Code = %BWFAC-CFA-ACTIVATE-1%
Off_Code = %BWFAC-CFA-DEACTIVATE-1%

[ BusyFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
On_Code = %BWFAC-CFB-ACTIVATE-1%
Off_Code = %BWFAC-CFB-DEACTIVATE-1%

[ TimeoutFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
Timeout =
On_Code = %BWFAC-CFNA-ACTIVATE-1%
Off_Code = %BWFAC-CFNA-ACTIVATE-1%

# # # # #
# # Account3 Registration Settings(T22/T26P support account3 only) # #
# # # # #

[ account ]
path = /config/voip/sipAccount2.cfg
Enable = %BWLIN-BINARY-3%
Label = %BWEXTENSION-3%
DisplayName = %BWCLID-3%
AuthName = %BWAUTHUSER-3%
UserName = %BWLINPORT-3%
password = %BWAUTHPASSWORD-3%
SIPServerHost = %BWHOST-3%
SIPServerPort = 5060
UseOutboundProxy = %USE_SBC_BOOLEAN%
OutboundHost = %SBC_ADDRESS%
OutboundPort = %SBC_PORT%
Transport = %SIP_TRANSPORT%
AnonymousCall = 0
RejectAnonymousCall = 0
MissedCallLog = 1
AutoAnswer = 0
VoiceMail = %BWVOICE-PORTAL-NUMBER-3%

# # # # #
# # Account2 Function Settings # #
# # # # #

[ account ]
path = /config/voip/sipAccount2.cfg
ShareLine = %BWSHAREDLIN-3%
conf-type = 2
conf-uri = %BWN-CONFERENCE-SIPURI-3%
[ blf ]
path = /config/voip/sipAccount2.cfg
SubscribePeriod = 1800
BLFList_URI = %BWBLF-USER-3%

[ Account2 ]
path = /config/Contacts/BroadSoft.cfg
DisplayName =
```

```

Server =
Port =
UserName =
PassWord =

# # # # #
# # Account3 Feature Settings # #
# # # # #

[ AlwaysFWD ]
path = /config/Features/Forward.cfg
Enable = %BWCFA-BINARY-1%
Target =
On_Code = %BWFAC-CFA-ACTIVATE-1%
Off_Code = %BWFAC-CFA-DEACTIVATE-1%

[ BusyFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
On_Code = %BWFAC-CFB-ACTIVATE-1%
Off_Code = %BWFAC-CFB-DEACTIVATE-1%

[ TimeoutFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
Timeout =
On_Code = %BWFAC-CFNA-ACTIVATE-1%
Off_Code = %BWFAC-CFNA-ACTIVATE-1%

# # # # #
# # Account4 Registration Settings # #
# # # # #

[ account ]
path = /config/voip/sipAccount3.cfg
Enable = %BWLIN-BINARY-4%
Label = %BWEXTENSION-4%
DisplayName = %BWCLID-4%
AuthName = %BWAUTHUSER-4%
UserName = %BWLINEPORT-4%
password = %BWAUTHPASSWORD-4%
SIPServerHost = %BWHOST-4%
SIPServerPort = 5060
UseOutboundProxy = %USE_SBC_BOOLEAN%
OutboundHost = %SBC_ADDRESS%
OutboundPort = %SBC_PORT%
Transport = %SIP_TRANSPORT%
AnonymousCall = 0
RejectAnonymousCall = 0
MissedCallLog = 1
AutoAnswer = 0
VoiceMail = %BWVOICE-PORTAL-NUMBER-4%

# # # # #
# # Account4 Function Settings # #
# # # # #

[ account ]
path = /config/voip/sipAccount3.cfg
ShareLine = %BWSHAREDLIN-4%
conf-type = 2

```



```

conf-uri =%BWNETWORK-CONFERENCE-SIPURI-4%
[ blf ]
path = /config/voip/sipAccount3.cfg
SubscribePeriod = 1800
BLFList_URI = %BWBLF-USER-4%

[ Account3 ]
path = /config/Contacts/BroadSoft.cfg
DisplayName =
Server =
Port =
UserName =
PassWord =

# # # # #
# # Account4 Feature Settings # #
# # # # #

[ AlwaysFWD ]
path = /config/Features/Forward.cfg
Enable = %BWCFA-BINARY-1%
Target =
On_Code = %BWFAC-CFA-ACTIVATE-1%
Off_Code = %BWFAC-CFA-DEACTIVATE-1%

[ BusyFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
On_Code = %BWFAC-CFB-ACTIVATE-1%
Off_Code = %BWFAC-CFB-DEACTIVATE-1%

[ TimeoutFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
Timeout =
On_Code = %BWFAC-CFNA-ACTIVATE-1%
Off_Code = %BWFAC-CFNA-ACTIVATE-1%

# # # # #
# # Account5 # #
# # # # #

[ account ]
path = /config/voip/sipAccount4.cfg
Enable = %BWLINE-BINARY-5%
Label = %BWEXTENSION-5%
DisplayName = %BWCLID-5%
AuthName = %BWAUTHUSER-5%
UserName = %BWLINEPORT-5%
password = %BWAUTHPASSWORD-5%
SIPServerHost = %BWHOST-5%
SIPServerPort = 5060
UseOutboundProxy = %USE_SBC_BOOLEAN%
OutboundHost = %SBC_ADDRESS%
OutboundPort = %SBC_PORT%
Transport = %SIP_TRANSPORT%
AnonymousCall = 0
RejectAnonymousCall = 0
MissedCallLog = 1
AutoAnswer = 0
VoiceMail = %BWVOICE-PORTAL-NUMBER-5%

```

```

#####
## Account5 Function Settings ##
#####

[ account ]
path = /config/voip/sipAccount4.cfg
ShareLine = %BWSHAREDLINE-5%
conf-type = 2
conf-uri =%BWNETWORK-CONFERENCE-SIPURI-5%
[ blf ]
path = /config/voip/sipAccount4.cfg
SubscribePeriod = 1800
BLFList_URI = %BWBLF-USER-5%

[ Account4 ]
path = /config/Contacts/BroadSoft.cfg
DisplayName =
Server =
Port =
UserName =
PassWord =

#####
## Account5 Feature Settings ##
#####
[ AlwaysFWD ]
path = /config/Features/Forward.cfg
Enable = %BWCFA-BINARY-1%
Target =
On_Code = %BWFAC-CFA-ACTIVATE-1%
Off_Code = %BWFAC-CFA-DEACTIVATE-1%

[ BusyFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
On_Code = %BWFAC-CFB-ACTIVATE-1%
Off_Code = %BWFAC-CFB-DEACTIVATE-1%

[ TimeoutFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
Timeout =
On_Code = %BWFAC-CFNA-ACTIVATE-1%
Off_Code = %BWFAC-CFNA-ACTIVATE-1%

#####
## Account6 Registration Settings (SIP T28P only) ##
#####

[ account ]
path = /config/voip/sipAccount5.cfg
Enable = %BWLINE-BINARY-6%
Label = %BWEXTENSION-6%
DisplayName = %BWCLID-6%
AuthName = %BWAUTHUSER-6%
UserName = %BWLINEPORT-6%
password = %BWAUTHPASSWORD-6%
SIPServerHost = %BWHOST-6%

```

```
SIPServerPort = 5060
UseOutboundProxy = %USE_SBC_BOOLEAN%
OutboundHost = %SBC_ADDRESS%
OutboundPort = %SBC_PORT%
Transport = %SIP_TRANSPORT%
AnonymousCall = 0
RejectAnonymousCall = 0
MissedCallLog = 1
AutoAnswer = 0
VoiceMail = %BWVOICE-PORTAL-NUMBER-6%

[ Account5 ]
path = /config/Contacts/BroadSoft.cfg
DisplayName =
Server =
Port =
UserName =
PassWord =

#####
# Account6 Function Settings                                     ##
#####

[ account ]
path = /config/voip/sipAccount5.cfg
ShareLine = %BWSHAREDLINE-6%
conf-type = 2
conf-uri = %BWNETWORK-CONFERENCE-SIPURI-6%
[ blf ]
path = /config/voip/sipAccount5.cfg
SubscribePeriod = 1800
BLFList_URI = %BWBLF-USER-6%

#####
# Account6 Feature Settings                                     ##
#####
[ AlwaysFWD ]
path = /config/Features/Forward.cfg
Enable = %BWCFA-BINARY-6%
Target =
On_Code = %BWFAC-CFA-ACTIVATE-1%
Off_Code = %BWFAC-CFA-DEACTIVATE-1%

[ BusyFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
On_Code = %BWFAC-CFB-ACTIVATE-1%
Off_Code = %BWFAC-CFB-DEACTIVATE-1%

[ TimeoutFWD ]
path = /config/Features/Forward.cfg
Enable =
Target =
Timeout =
On_Code = %BWFAC-CFNA-ACTIVATE-1%
Off_Code = %BWFAC-CFNA-ACTIVATE-1%
```

Appendix B: Sample SIP-T3xG Configuration Files

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

System Default File: y0000000000xx.cfg

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

```
#####
## Network Settings                                ##
#####

[ cfg:/phone/config/system.ini,reboot=1 ]
Network.eWANType = 0
Network.strWANIP =
Network.strWANMask =
Network.strWanGateway =
Network.strWanPrimaryDNS = %DNS_SERVER_1%
Network.strWanSecondaryDNS = %DNS_SERVER_2%
Network.strPPPoEUser =
Network.strPPPoEPin =
Network.bBridgeMode = 1
Network.strLanIP = 10.0.0.1
Network.strLanMask = 255.255.250.0
Network.bLanDHCPServer = 1
Network.strDHCPClientBegin = 10.0.0.10
Network.strDHCPClientEnd = 10.0.0.100
Network.strDHCPLease = 3600
VLAN.ISVLAN = 0
VLAN.VID = 0
VLAN.USRPRORITY = 0
VLAN.CFI = 0
VLAN.PC_PORT_VLAN_ENABLE = 0
VLAN.PC_PORT_VID = 0
VLAN.PC_PORT_PRIORITY = 0
LLDP.EnableLLDP = 0
LLDP.PacketInterval = 120

#####
## Time Settings                                    ##
#####

[ cfg:/phone/config/system.ini,reboot=1 ]
LocalTime.TimeZone = %TIMEZONE%
LocalTime.TimeZoneName = %TIMEZONENAME%
LocalTime.TimeServer1 = %SNTP_SERVER_1%
LocalTime.TimeServer2 = %SNTP_SERVER_2%
LocalTime.Interval = 1000
LocalTime.TimeZoneInstead = 8
LocalTime.StartTime = 1/1/0
LocalTime.EndTime = 12/31/23
LocalTime.TimeFormat = 1
LocalTime.DateFormat = 0
```

```
#####
# # Feature Settings                                     # #
#####

[ cfg:/phone/config/user.ini,reboot=0 ]
Features.Call_Waiting = 1
Features.EnableHotline = 0
Features.Callpickup =
Features.Hotlinenumber =
Features.Hotlinedelay = 4
Features.SendDTMFType = 1
Features.BusyToneDelay = 0
Features.LCD_Logo = 0
Features.DND_Code = 480
Features.Refuse_Code = 486
Features.CallCompletion = 0
Features.AllowIntercom = 1
Features.IntercomMute = 0
Features.IntercomTone = 1
Features.IntercomBarge = 1
Features.Call_WaitingTone = 1
Features.ButtonSoundOn = 1
Features.BroadsoftFeatureKeySync = 0
Features.FWD_Code = 302
Features.PswPrefix =
Features.PswLength =
Features.PswDialEnable = 0
Features.SaveCallHistory = 1
Features.HistorySaveDisplay = 1
Phone-DND.DND = 0
Phone-DND.DND_On_Code = %BWFAC-DND-ACTIVATE-1%
Phone-DND.DND_Off_Code = %BWFAC-DND-DEACTIVATE-1%
Trans.IsOnHookTrans = 1
PoundSend.Enable = 1

#####
# # Updating firmware Settings                           # #
#####

[ rom:Firmware]
url =
http://%BWDEVICEACCESSFQDN%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%/T38_FIR
MWARE%

#####
# # #Updating File Settings                               # #
#####

[ bin:/phone/config/ContactData.xml ]
url =
http://%BWDEVICEACCESSFQDN%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%/Contact
Data.xml

[ bin:/phone/config/lang/lang+English.txt ]
url =
http://%BWDEVICEACCESSFQDN%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%/lang+En
glish.txt

[ bin:/phone/config/AutoDST.xml ]
url =
http://%BWDEVICEACCESSFQDN%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%/AutoDST.
xml
```

```
[ bin:/phone/config/DialNow.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/DialNow.
xml

[ bin:/phone/config/DialPlan.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/DialPlan
.xml

[ bin:/phone/userdata/ringtone/Ring.wav ]
url=http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/Ring
.wav

[ bin:/phone/config/vpPhone/Dialing.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/Dialing.
xml

[ bin:/phone/config/vpPhone/CallFailed.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/CallFail
ed.xml

[ bin:/phone/config/vpPhone/CallIn.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/CallIn.x
ml

[ bin:/phone/config/vpPhone/Connecting.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/Connecti
ng.xml

[ bin:/phone/config/vpPhone/RingBack.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/RingBack
.xml

[ bin:/phone/config/vpPhone/Talking.xml ]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/Talking.
xml

[ bin:/phone/userdata/ScreenSaver/IMG.png]
url =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/ScreenSa
ver.png

#####
## Autoprovision Settings                                     ##
#####

[ cfg:/phone/config/system.ini,reboot=1 ]
AutoProvision.bEnablePowerOn = 1
AutoProvision.bEnableWeekly = 0
AutoProvision.strWeeklyMask = 0123456
AutoProvision.strWeeklyBeginTime = 00:00
AutoProvision.strWeeklyEndTime = 00:00
AutoProvision.bEnableRepeat = 0
AutoProvision.nRepeatMinutes = 1440
AutoProvision.bEnablePNP = 1
```

```

AutoProvision.strPNPMulticastIP = 224.0.1.75
AutoProvision.bEnabledDHCPOption = 1
AutoProvision.listUserOptions =
AutoProvision.listSystemOptions = 66,43
AutoProvision.strCommName = y000000000038.cfg
AutoProvision.strServerURL =
http://%BWDEVICEACCESSFQDN%/BWDMSCONTEXT%/BWDEVICEACCESSURI%/
AutoProvision.strKeyAES16 =
AutoProvision.strKeyAES16MAC =

# # # # #
# # Other Settings # #
# # # # #

[ cfg:/phone/config/vpPhone/vpPhone.ini ]
memory1.Line =0
memory1.type = N/A
memory1.Value = %BWEXTENSION-1%
memory1.KEY_MODE = Asterisk
memory1.HotNumber =
memory1.HotLineId = 1
memory1.Callpickup =
memory1.IntercomId = -1
memory1.IntercomNumber =
memory1.DKtype = 21
memory1.PickupValue =

memory2.Line =0
memory2.type = N/A
memory2.Value = %BWEXTENSION-1%
memory2.KEY_MODE = Asterisk
memory2.HotNumber =
memory2.HotLineId = 1
memory2.Callpickup =
memory2.IntercomId = -1
memory2.IntercomNumber =
memory2.DKtype = 21
memory2.PickupValue =

[ cfg:/phone/config/Contacts/LDAP.cfg ]
LDAP.NameFilter =
LDAP.NumberFilter =
LDAP.host =
LDAP.port =
LDAP.base =
LDAP.user =
LDAP.pswd =
LDAP.MaxHits =
LDAP.NameAttr =
LDAP.NumbAttr =
LDAP.DisplayName =
LDAP.version = 3
LDAP.SearchDelay = 2000
LDAP.CallInLookup = 0
LDAP.LDAPSort = 0
LDAP.DialLookup = 0

```

Phone-Specific File: %BWMACADDRESS%.cfg

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

```
#####
## Account 1 SIP Settings ##
#####

[ account ]
[ cfg:/phone/config/voip/sipAccount0.cfg,account=0;reboot=1 ]

account.Enable = %BWLIN-BINARY-1%
account.Label = %BWCLID-1%
account.DisplayName = %BWCLID-1%
account.UserName = %BWLINPORT-1%
account.AuthName = %BWAUTHUSER-1%
account.password = %BWAUTHPASSWORD-1%
account.SIPServerHost = %BWHOST-1%
account.SIPServerPort = 5060
account.SIPListenRandom = 0
account.SIPListenPort = 5062
account.Expire = 3600
account.UseOutboundProxy = %USE_SBC_BOOLEAN%
account.OutboundHost = %SBC_ADDRESS%
account.OutboundPort = %SBC_PORT%
account.EnableEncrypt = 0
account.EncryptKey = 29749
account.EncryptVersion = 1
account.BakOutboundHost =
account.BakOutboundPort = 5060
account.EnableSTUN = 0
account.proxy-require =
account.ptime = 20
account.srtp_encryption = 0
account.srtp_encryption_algorithm = 0
account.BackupSIPServerHost =
account.BackupSIPServerPort =
account.Enable 100Rel = 0
account.precondition = 0
account.SubscribeRegister = 0
account.CIDSource = 1
account.EnableSessionTimer = 1
account.SessionExpires = 3600
account.SessionRefresher = 2
account.EnableUserEqualPhone = 0
account.BLFList_URI =
account.BlflistCode =
account.SubscribeMWI = 1
account.AnonymousCall = 0
account.RejectAnonymousCall = 0
account.Transport = %SIP_TRANSPORT%
account.ShareLine = %BWSHAREDLINE-1%
account.dialoginfo_callpickup = 0
account.AutoAnswer = 0
account.MissedCallLog = 1
account.AnonymousCall_OnCode =
account.AnonymousCall_OffCode =
account.AnonymousReject_OnCode =
account.AnonymousReject_OffCode =
account.BLANumber =
```



```
account.SubscribeMWIExpire = 3600
account.RegisterMAC = 0
account.RegisterLine = 0
account.conf-type = 2
account.conf-uri = %BWNWORK-CONFERENCE-SIPURI-1%
blf.SubscribePeriod = 1800
blf.BLFList_URI = %BWBLF-USER-1%

[ cfg:/phone/config/Contacts/BroadSoft.cfg ]
Account0.DisplayName =
Account0.Server =
Account0.Port =
Account0.UserName =
Account0.Password =

# # # # #
# # Account2 Registration Settings # #
# # # # #

[ cfg:/phone/config/voip/sipAccount1.cfg,reboot=1 ]

account.Enable = %BWLINE-BINARY-2%
account.Label = %BWCLID-2%
account.DisplayName = %BWCLID-2%
account.UserName = %BWLINEPORT-2%
account.AuthName = %BWAUTHUSER-2%
account.password = %BWAUTHPASSWORD-2%
account.SIPServerHost = %BWHOST-2%
account.SIPServerPort = 5060
account.SIPListenRandom = 0
account.SIPListenPort = 5062
account.Expire = 3600
account.UseOutboundProxy = %USE_SBC_BOOLEAN%
account.OutboundHost = %SBC_ADDRESS%
account.OutboundPort = %SBC_PORT%
account.EnableEncrypt = 0
account.EncryptKey = 29749
account.EncryptVersion = 1
account.BakOutboundHost =
account.BakOutboundPort = 5060
account.EnableSTUN = 0
account.proxy-require =
account.ptime = 20
account.srtp_encryption = 0
account.srtp_encryption_algorithm = 0
account.BackupSIPServerHost =
account.BackupSIPServerPort =
account.Enable 100Rel = 0
account.precondition = 0
account.SubscribeRegister = 0
account.CIDSource = 1
account.EnableSessionTimer = 1
account.SessionExpires = 3600
account.SessionRefresher = 2
account.EnableUserEqualPhone = 0
account.BLFList_URI =
account.BlflListCode =
account.SubscribeMWI = 1
account.AnonymousCall = 0
account.RejectAnonymousCall = 0
account.Transport = %SIP_TRANSPORT%
account.ShareLine = %BWSHAREDLINE-2%
account.dialoginfo_callpickup = 0
```

```
account.AutoAnswer = 0
account.MissedCallLog = 1
account.AnonymousCall_OnCode =
account.AnonymousCall_OffCode =
account.AnonymousReject_OnCode =
account.AnonymousReject_OffCode =
account.BLANumber =
account.SubscribeMWIExpire = 3600
account.RegisterMAC = 0
account.RegisterLine = 0
account.conf-type = 2
account.conf-uri = %BWNETWORK-CONFERENCE-SIPURI-2%
account.SubscribeACDExpire= 3600
blf.SubscribePeriod = 1800
blf.BLFList_URI = %BWBLF-USER-2%

[ cfg:/phone/config/Contacts/BroadSoft.cfg ]
Account1.DisplayName =
Account1.Server =
Account1.Port =
Account1.UserName =
Account1.Password =

# # # # #
# # Account3 SIP Settings # #
# # # # #

[ cfg:/phone/config/voip/sipAccount2.cfg,reboot=1 ]

account.Enable = %BWLIN-BINARY-3%
account.Label = %BWCLID-3%
account.DisplayName = %BWCLID-3%
account.UserName = %BWLINPORT-3%
account.AuthName = %BWAUTHUSER-3%
account.password = %BWAUTHPASSWORD-3%
account.SIPServerHost = %BWHOST-3%
account.SIPServerPort = 5060
account.SIPListenRandom = 0
account.SIPListenPort = 5062
account.Expire = 3600
account.UseOutboundProxy = %USE_SBC_BOOLEAN%
account.OutboundHost = %SBC_ADDRESS%
account.OutboundPort = %SBC_PORT%
account.EnableEncrypt = 0
account.EncryptKey = 29749
account.EncryptVersion = 1
account.BakOutboundHost =
account.BakOutboundPort = 5060
account.EnableSTUN = 0
account.proxy-require =
account.ptime = 20
account.srtp_encryption = 0
account.srtp_encryption_algorithm = 0
account.BackupSIPServerHost =
account.BackupSIPServerPort =
account.Enable 100Rel = 0
account.precondition = 0
account.SubscribeRegister = 0
account.CIDSource = 1
account.EnableSessionTimer = 1
account.SessionExpires = 3600
account.SessionRefresher = 2
account.EnableUserEqualPhone = 0
```

```
account.BLFList_URI =
account.BlflistCode =
account.SubscribeMWI = 1
account.AnonymousCall = 0
account.RejectAnonymousCall = 0
account.Transport = %SIP_TRANSPORT%
account.ShareLine = %BWSHAREDLINE-3%
account.dialoginfo_callpickup = 0
account.AutoAnswer = 0
account.MissedCallLog = 1
account.AnonymousCall_OnCode =
account.AnonymousCall_OffCode =
account.AnonymousReject_OnCode =
account.AnonymousReject_OffCode =
account.BLANumber =
account.SubscribeMWIExpire = 3600
account.RegisterMAC = 0
account.RegisterLine = 0
account.conf-type = 2
account.conf-uri = %BWNETWORK-CONFERENCE-SIPURI-3%
blf.SubscribePeriod = 1800
blf.BLFList_URI = %BWBLF-USER-3%

[ cfg:/phone/config/Contacts/BroadSoft.cfg ]
Account2.DisplayName =
Account2.Server =
Account2.Port =
Account2.UserName =
Account2.Password =

# # # # #
# # Account4 SIP Settings # #
# # # # #

[ cfg:/phone/config/voip/sipAccount3.cfg,reboot=1 ]

account.Enable = %BWLINE-BINARY-4%
account.Label = %BWCLID-4%
account.DisplayName = %BWCLID-4%
account.UserName = %BWLINEPORT-4%
account.AuthName = %BWAUTHUSER-4%
account.password = %BWAUTHPASSWORD-4%
account.SIPServerHost = %BWHOST-4%
account.SIPServerPort = 5060
account.SIPListenRandom = 0
account.SIPListenPort = 5062
account.Expire = 3600
account.UseOutboundProxy = %USE_SBC_BOOLEAN%
account.OutboundHost = %SBC_ADDRESS%
account.OutboundPort = %SBC_PORT%
account.EnableEncrypt = 0
account.EncryptKey = 29749
account.EncryptVersion = 1
account.BakOutboundHost =
account.BakOutboundPort = 5060
account.EnableSTUN = 0
account.proxy-require =
account.ptime = 20
account.srtp_encryption = 0
account.srtp_encryption_algorithm = 0
account.BackupSIPServerHost =
account.BackupSIPServerPort =
account.Enable 100Rel = 0
```


20-BD5265-00
PAGE 61 OF 64


```
TimeoutFWD.Enable =  
TimeoutFWD.strTarget =  
TimeoutFWD.Timeout = 50  
TimeoutFWD.On_Code = %BWFAC-CFNA-ACTIVATE-1%  
TimeoutFWD.Off_Code = %BWFAC-CFNA-DEACTIVATE-%
```

References

- [1] Yealink, Inc. 2010. *Yealink TxP SIP Phone User Manual, Release 50.2*. Available from Yealink at <http://www.yealink.com/en/download.asp?BigClassName=IP Phone>.
- [2] BroadSoft, Inc. 2010. *BroadWorks Device Management Configuration Guide, Release 17.0*. Available from BroadSoft at www.broadsoft.com/xchange.
- [3] BroadSoft, Inc. 2010. *BroadWorks Redundancy Guide, Release 17.0*. Available from BroadSoft at www.broadsoft.com/xchange.
- [4] BroadSoft, Inc. 2010. *BroadWorks SIP Access Device Interoperability Test Plan, Release 17.0*. Available from BroadSoft at www.broadsoft.com/xchange.
- [5] BroadSoft, Inc. 2011. *BroadWorks Device Management Interoperability Test Plan, Release 17.0*. Available from BroadSoft at www.broadsoft.com/xchange.