



Yealink IP Phones Deployment Guide For BroadWorks Environments

About This Guide

This guide describes the BroadWorks device management interface and introduces how to deploy Yealink IP phones for the administrator using the BroadWorks device management interface. In addition, the guide provides the detail instructions for the BroadWorks integrated features.

Who should use this guide?

This deployment guide is intended for system and network administrators familiar with configuring and deploying Yealink IP phones and with the components of the BroadWorks environment.

Before reading this guide, you should be familiar with the following:

- Previous knowledge of and experience with BroadWorks components
- Access to BroadWorks product documentations and relevant firmware
- Previous knowledge of and experience with Yealink IP phones
- Access to Yealink IP phones documentations and relevant firmware

In This Guide

The information detailed in this guide is restricted to the BroadWorks release 18.0 or later and Yealink IP phones running firmware V71 or later. This deployment guide includes the following chapters:

- Chapter 1, "[BroadWorks Device Management](#)" describes BroadWorks device management.
- Chapter 2, "[Configuring Device Management on BroadWorks](#)" describes how to configure device management on BroadWorks.
- Chapter 3, "[Configuring BroadWorks Integrated Features](#)" describes how to configure BroadWorks integrated features on the BroadWorks server and IP phones.
- Chapter 4, "[Upgrading Firmware](#)" describes how to upgrade the firmware of IP phones.
- Chapter 5, "[Downloading and Verifying Configurations](#)" describes how to download configuration files and verify configurations.

Summary of Changes

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

Changes for Release 71.0, Guide Version 71.110

Major updates have occurred to the following sections:

- [BroadSoft Directory](#) on page 50
- [Busy Lamp Field List](#) on page 135
- [Automatic Call Distribution](#) on page 157

Changes for Release 71.0, Guide Version 71.10

The following sections are new:

- [Xtended Services Interface](#) on page 35
- [Simultaneous Ring Personal](#) on page 38
- [Line ID Blocking](#) on page 41
- [Anonymous Call Rejection](#) on page 43
- [BroadWorks Anywhere](#) on page 44
- [Remote Office](#) on page 48
- [Call Park](#) on page 58
- [Group Paging](#) on page 64
- [Instant Group Call](#) on page 67
- [Hunt Group](#) on page 69
- [CommPilot Call Manager](#) on page 71
- [Automatic Callback](#) on page 73
- [Authentication](#) on page 74
- [Authorization/Account Codes](#) on page 76
- [Call Waiting](#) on page 78
- [Diversion Inhibitor](#) on page 81
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- [Call Transfer](#) on page 102

- [Network Conference](#) on page 107
- [Call Pickup](#) on page 108
- [Calling Line ID Presentation](#) on page 118
- [Calling Line ID Blocking Override](#) on page 124
- [Connected Line Identification Restriction](#) on page 127
- [Meet-Me Conferencing](#) on page 129
- [Music/Video on Hold](#) on page 146
- [Priority Alert](#) on page 149
- [Voice Messaging](#) on page 153
- [Hoteling](#) on page 170

Major updates have occurred to the following sections:

- [BroadSoft Directory](#) on page 50
- [BroadSoft Call Log](#) on page 57
- [Automatic Call Distribution](#) on page 157

Changes for Release 70.0, Guide Version 1.3

Major updates have occurred to the following section:

- [Busy Lamp Field List](#) on page 135

Changes for Release 70.0, Guide Version 1.2

Major updates have occurred to the following sections:

- [Feature Key Synchronization](#) on page 105
- [BroadSoft Directory](#) on page 50
- [Busy Lamp Field List](#) on page 135
- [Shared Call Appearance](#) on page 140

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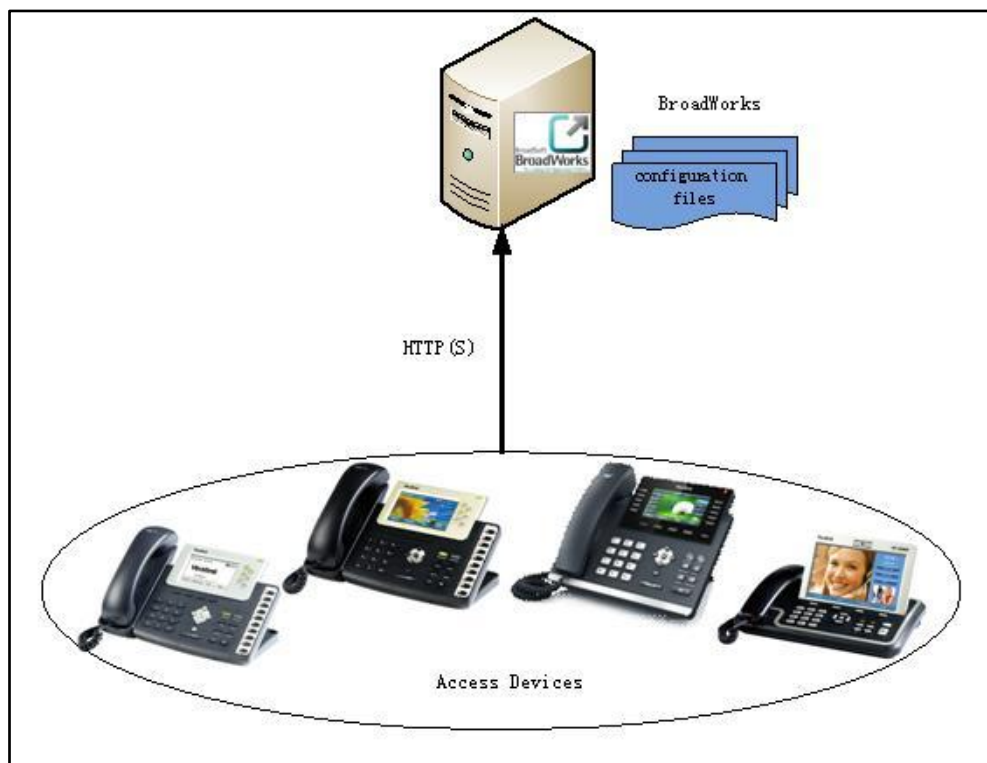
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BroadWorks Device Management

Overview

The BroadWorks Device Management is a comprehensive solution for simplifying the integration, deployment, and maintenance of access devices in your network. Access devices connect to BroadWorks to download the configuration files, firmware, and other static files required to deliver services. The administrator can manage and control all aspects of device configuration centrally in the network.



Key Concepts

To use device management, it is important to first understand a few key concepts and how they apply to the BroadWorks server.

BroadWorks uses the following three key concepts for delivering services and managing devices:

- The Device Profile Type
- The Device Profile
- The User

Device Profile Type

When a new type of device is added to the network, a new device profile type should be created on BroadWorks to manage that type of devices. Only the system administrator can add, modify and delete the device profile type. For more information on how to create a device profile type, refer to [Creating the Device Profile Type](#) on page 14.

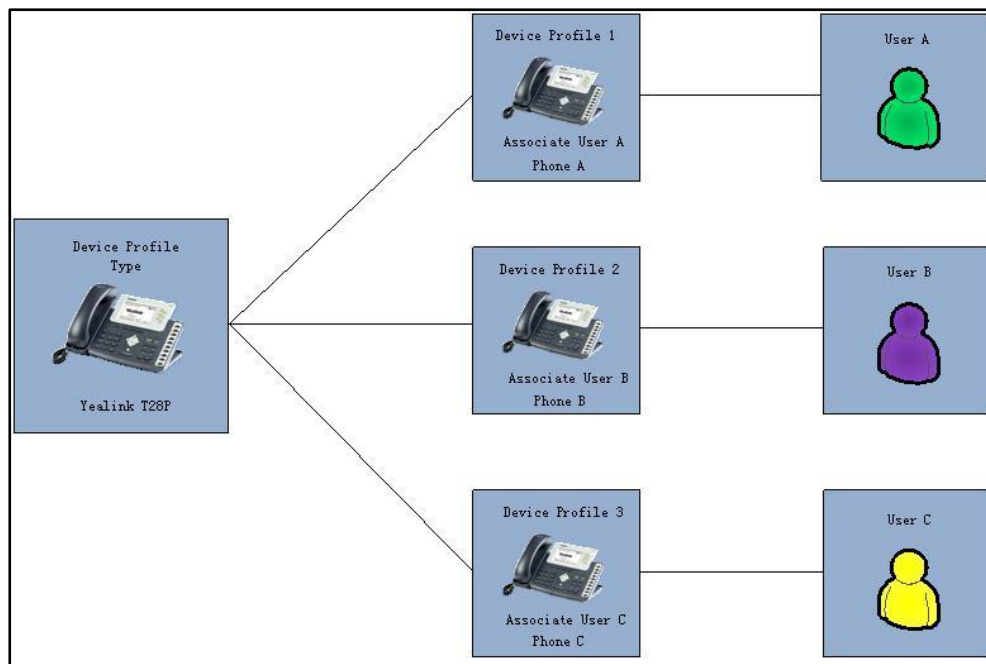
Device Profile

When a new device is added to the network, a new device profile should be created on BroadWorks to manage that device. The device profile should be created from a given device profile type. This gives the device profile a predefined set of settings that are consistent with other devices of the same type in the network. For more information on how to create a device profile, refer to [Creating the BroadWorks Device Profile](#) on page 22.

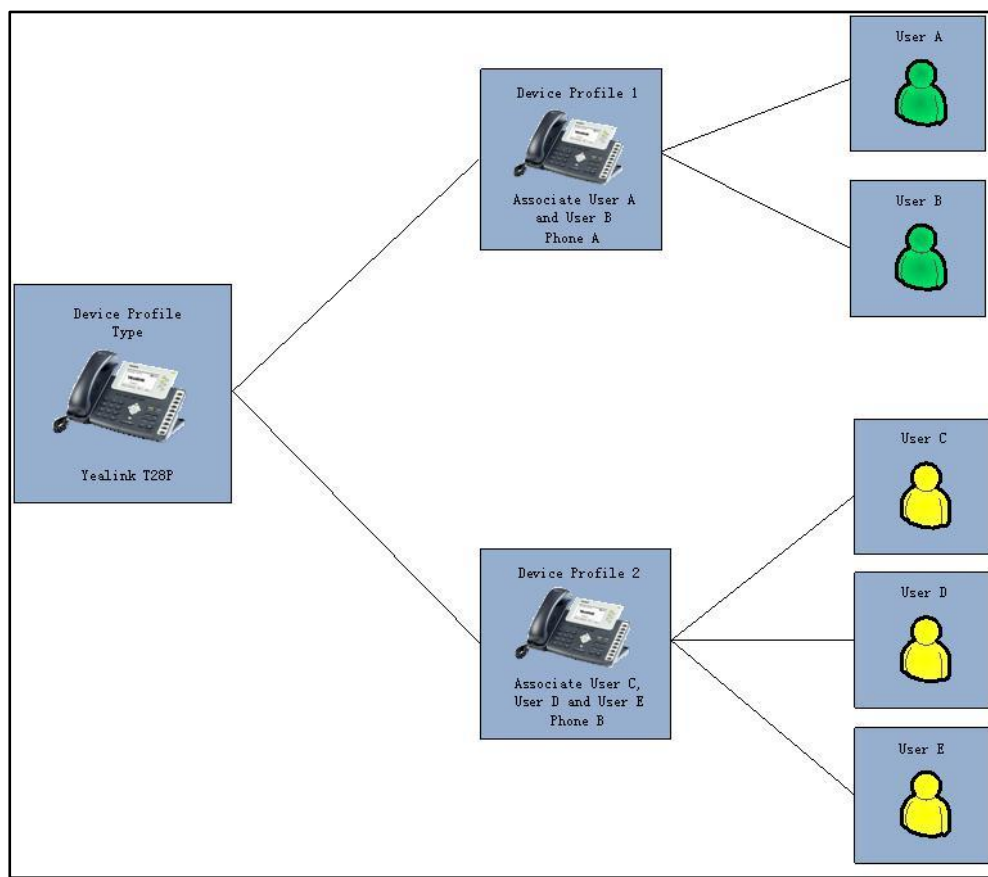
User

The administrator can assign a device profile to one user or multiple users. The number of ports attribute in the device profile type allows BroadWorks to control the maximum number of users who can be associated with a given device profile.

The following figure shows one user per phone device relationship:



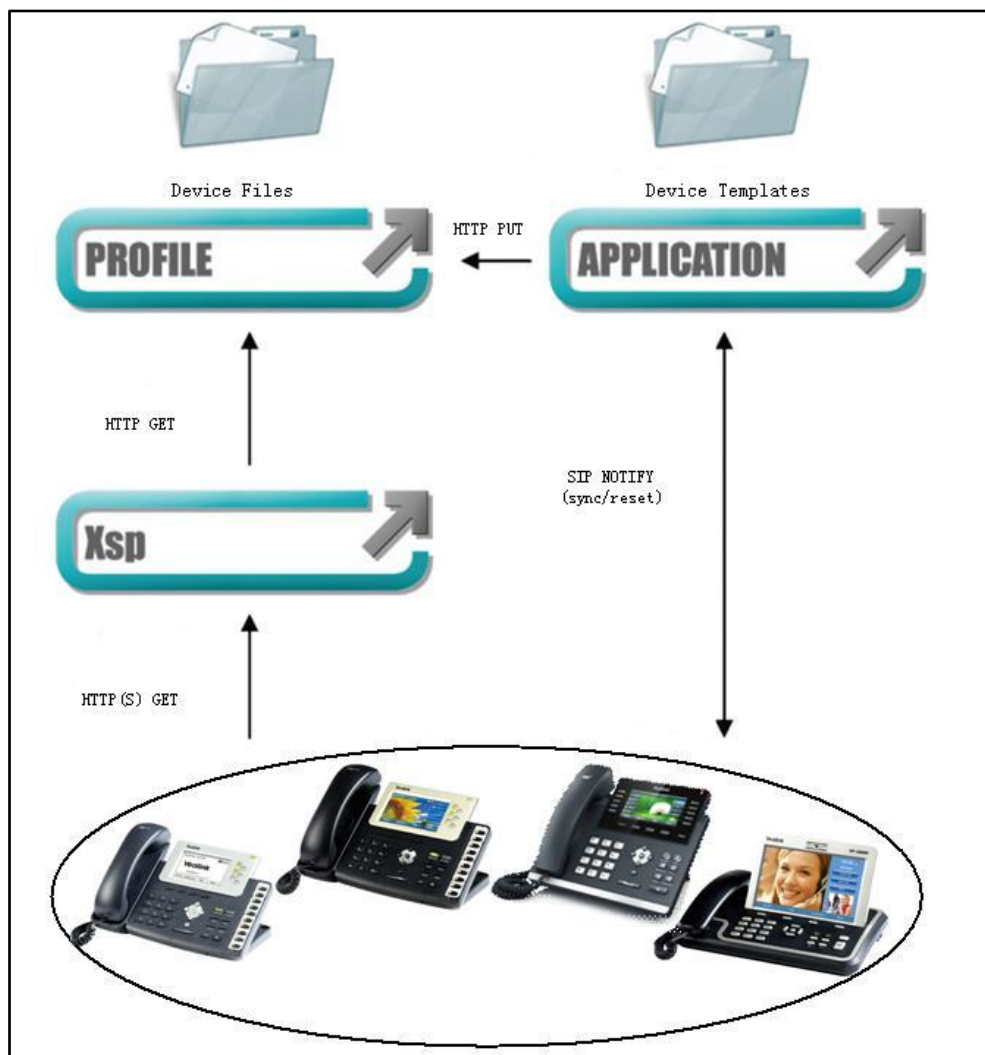
The following figure shows multiple users per phone device relationship:



Network Architecture

The device management functionality is fully integrated into the BroadWorks platform. The Xtended Services Platform (XSP) hosts the access URL and authenticates all request made by the device. Once authenticated, the XSP will request the configuration files from the server and download them to the device over HTTP(S).

The BroadWorks Application server supports ongoing device management by generating notifications to trigger the end device to synchronize its settings, and provide inventory control of devices in the field.



Configuring Device Management on BroadWorks

This chapter introduces the privileges of the system administrator and group administrator on BroadWorks. The following two sections provide a system administrator or a group administrator with step-by-step instructions on how to configure the device management feature, such as customizing tags, uploading files and so on.

Log in BroadWorks as System Administrator

The following sections provide information on how to customize BroadWorks tags, create the device profile type and define the device profile type files at the system level. If you don't have the privilege of system administrator, proceed to the next section [Log in BroadWorks as Group Administrator](#) on page 22.

Customizing BroadWorks Tags

Service integration on BroadWorks is based on the concept of "Tags". Tags are variables that can be embedded in the template configuration files. When BroadWorks generates a configuration file from a configuration template, the tags are replaced with actual values. Tags are delimited with a beginning and ending % sign.

There are two types of tags:

- **Dynamic Built-in Tags:** These tags are predefined by BroadWorks. The value of each built-in tag is dynamically evaluated based on the context of the device profile. A built-in tag for one device is evaluated differently from another device. All built-in tags are prefixed with "BW".

For more information on dynamic built-in tags, refer to *BroadSoft Device Management Configuration Guide*.

- **Static Tags:** These tags are defined by the administrator. For example, system default tags and device type specific tags. The value of each static tag is assigned by the administrator.

Creating System Default Tags

To create system default tags:

1. Click on **Resources->Device Management Tag Sets**.

2. Select the **System Default**.

The screenshot shows the BroadSoft System Administration interface. On the left is a navigation menu with 'Options' (Profile, Resources, Services, Call Center, Communication Barring, Meet-Me Conferencing, Utilities) and 'System'. The main content area is titled 'Device Management Tag Sets' and includes a description: 'Display all the device management tag sets in the system. Tag sets can also be deleted.' Below this is a table with columns 'Delete', 'Tag Set Name', and 'Edit'. The first row shows 'System Default' and 'tagSetName'. A green box highlights the 'Tag Set Name' column. At the bottom, there are search filters for 'Tag SetName' and 'Starts With', and buttons for 'Find' and 'Find All'.

3. Click **Add** to add a new tag.4. Enter the desired name in the **Tag Name** field.

The tag name must not start with “BW”.

5. Enter the desired value in the **Tag Value** field.

The tag in template configuration files can be replaced by the configured tag value.

The screenshot shows the 'Device Management Tag Sets Add Tag' page. It includes a description: 'Add a new device management tag to an existing tag set.' Below this is a form with fields for 'Tag Set Name' (System Default), 'Tag Name' (% NEW_CUSTOM_STATIC_TAG), and 'Tag Value' (value). There are 'OK' and 'Cancel' buttons at the bottom.

6. Click **OK** to accept the change.

7. Repeat steps 3 to 6 to add more system default tags.

The following table lists some system default tags required in the template configuration files.

Tag Name	Valid Value	Description
%SNTP_SERVER_1%	IP address/FQDN Example: time-a.nist.gov	The NTP server address
%SNTP_SERVER_2%	IP address/FQDN Example: time-b.nist.gov	The alternate NTP server address
%DNS_SERVER_1%	IP address Example: 199.19.193.12	The DNS server address
%DNS_SERVER_2%	IP address Example: 199.19.193.39	The alternate DNS server address
%USE_SBC_BOOLEAN%	Boolean	Enables or disables the outbound proxy

Tag Name	Valid Value	Description
		server
%SBC_ADDRESS%	IP address/FQDN Example: 199.19.193.9	The outbound proxy server address
%SBC_PORT%	Integer Example: 5060	The outbound proxy server port

Creating Device Type Specific Tags

To create device type specific tags:

1. Click on **Resources->Device Management Tag Sets**.
2. Click **Add**.
3. Enter the tag set name in the **Tag Set Name** field (e.g., YealinkT28-Tags).
4. Click **Add**.
5. Enter the desired name in the **Tag Name** field.
The tag name must not start with "BW".
6. Enter the desired value in the **Tag Value** field.
The tag in template configuration files can be replaced by the configured tag value.
7. Click **Apply** to accept the change.
8. Repeat steps 4 to 7 to add more device type specific tags.

The following table lists some device type specific tags required in the template configuration files.

Tag Name	Valid Value	Description
%LANGUAGEWEB%	English Chinese_S (For T46G, Chinese) German French Italian Portuguese Spanish Turkish	The language of the web user interface

Tag Name	Valid Value	Description
%LANGUAGEGUI%	English Chinese_S (Except for T20P; For T46G, Chinese) Chinese_T (Except for T20P/T46G) German French Italian Portuguese Polish Spanish Turkish	The language of the phone user interface
%FIRMWARE_VERSION%	<x.x.x.x>.rom Example: 2.70.0.10.rom	The firmware version
%FEATURE_KEY_SYN%	Boolean	Enables or disables feature key synchronization.

Creating the Device Profile Type

Device profile types are the templates for device profiles. They can be created, modified and deleted at the system level. Creating device profile types is a crucial step in the initial planning and deployment. Device profile types should be defined in conjunction with the services being offered to the users. Device profile type can be only deleted when there is no any reference to the device profile type, for example, no device profile is associated with the device profile type.

There are two primary steps to create a device profile type:

- **Defining the access profile:** For the aspects related to the signaling and media interoperability with BroadWorks.
- **Defining the configuration profile:** For the aspects related to the configurations of the device.

Defining the Access Profile

When adding a new device profile type to the system, the first step is to define the access profile. The access profile consists of attributes relating to the signaling and media integration with BroadWorks. These attributes tell BroadWorks how to interact with device profiles of this type. Another important configuration of the access profile is the maximum number of ports available on the device. This attribute allows BroadWorks to control the number of users who can be associated with a given device. The other related configurations of the access profile are encapsulated in the “Standard Options”

and the “Advanced Options” fields.

The following table shows an example of defining the access profile. Parameters not identified in the following table can be usually left as the defaults.

Parameter	Value	Description
Identity/Device Profile Type	Yealink T28P	
Signaling Address Type	Intelligent Proxy Addressing	
Standard Options		
Number of Ports	Limited To 6	Defines the number of users who can be associated with a device of this device profile.
Ringback Tone/Early Media Support	Local Ringback - No Early Media	Determines SDP handling for initial INVITE messages sent to the device.
Authentication	Enabled	Defines whether requests for a device need to be authenticated.
Registration Capable	Checked	Defines whether a device of this device profile type is allowed to register to the BroadWorks.
RFC3264 Hold	Checked	Defines whether the 3264 hold mechanism is used in the SIP signaling.
Advance Options		
Reset Event	checkSync	Determines which type of notify event is sent to the device. BroadWorks reboots the remote device via a NOTIFY request with an event type of either reSyn or checkSync.

Defining the Configuration Profile

When adding a new device profile type to the system, the system administrator must decide which level of configuration management is supported. There are three levels available for configuring:

- **Not Supported:** this is the default option. You don't need to make any configuration.
- **Device Management:** when the Device Management is marked, the parameters needing to be configured are summarized in the following table. Parameters not identified in the following table can usually be left as the defaults.

Parameter	Value	Description
Device Configuration Tags	Use Default System Tag Set and Tag Set. Select the tag set name (e.g., YealinkT28-Tags) from the pull-down list of Use Default System Tag Set and Tag Set .	Selects the device tag set created in the section Creating Device Type Specific Tags on page 13.
Allow Identity/Device Profiles to Configure Custom Tags	Checked	Determines whether new static tags can be customized at the profile level. For more information on how to customize static tags at the profile level, refer to Customizing a Static Tag on page 23.
Allow Groups to Configure Custom Tags	Checked	Determines whether new static tags can be customized at the group level. For more information on how to customize static tags at the group level, refer to Customizing a Static Tag on page 23.
Device Access Protocol	http	Determines the transfer protocol used by the device to get its files.
Device Access FQDN	<BroadWorks-Xsp-Cluster-Address> Example:	Represents the FQDN of the XSP used by the device to get its files.

Parameter	Value	Description
	xsp.iop1.broadworks.net	
Device Access Port	<BroadWorks-Xsp-Port> Example: 80	Represents the port number of the XSP used by the device to get its files.
Device Access Context Name	dms	Represents the name of the BroadworksDms web application which has been predefined.
Device Access URI	<device-type-name> Example: Yealink T28P	Ensures the uniqueness of the URL for each device type. It typically contains the device type name.

- Legacy: when the Legacy is marked, the parameters needing to be configured are summarized in the following table:

Parameter	Value	Description
Legacy Configuration Type	2 Config File	Defines the number of configuration files for the device profile type.
CPE System File Name	y0000000000000.cfg	Specifies the system file name requested by the device.
Device File Format	%BWMACADDRESS%.cfg	Specifies the device file name requested by the device.

To create a device profile type:

1. Click on **Resources->Identity/Device Profile Types**.

2. Click **Add**.
3. Make the desired change.

The screenshot shows the BroadSoft web interface for adding a new identity/device profile type. The left sidebar contains a navigation menu with options: Profile, Resources (selected), Services, Call Center, Communication Barring, Meet-Me Conferencing, and Utilities. The main content area is titled "Identity/Device Profile Type Add" and includes a "Welcome Default Administrator" message. The form contains the following fields and options:

- Identity/Device Profile Type:** A text input field.
- Signaling Address Type:** A dropdown menu set to "Non-intelligent Device Addressing".
- Standard Options:**
 - Number of Ports:** Radio buttons for "Unlimited" (selected) and "Limited To" (with a text input field).
 - Ringback Tone/Early Media Support:** Radio buttons for "RTP - Session" (selected), "RTP - Early Session", and "Local Ringback - No Early Media".
 - Authentication:** Radio buttons for "Enabled" (selected), "Disabled", and "Enabled With Web Portal Credentials".
 - Registration Capable:** A checkbox.
 - Static Registration Capable:** A checkbox.
 - E164 Capable:** A checkbox.
 - Trusted:** A checkbox.
 - Authenticate REFER:** A checked checkbox.
 - RFC3264 Hold:** A checkbox.
 - Video Capable:** A checkbox.
 - Use History Info Header:** A checkbox.
- Advanced Options:**
 - Route Advance:** A checkbox.
 - Wireless Integration:** A checkbox.
 - PBX Integration:** A checkbox.
 - Add P-Called-Party-ID:** A checkbox.
 - Auto Configuration Soft Client:** A checkbox.
 - Requires BroadWorks Call Waiting Tone:** A checkbox.
 - Advice of Charge Capable:** A checkbox.
 - Support Emergency Disconnect Control:** A checkbox.
 - Enable Monitoring:** A checkbox.
 - Forwarding Override:** A checkbox.
 - Conference Device:** A checkbox.
 - Mobility Manager Device:** A checkbox.
 - Music On Hold Device:** A checkbox.
 - Requires BroadWorks Digit Collection:** A checkbox.
 - Requires MWI Subscription:** A checkbox.
 - Support Call Center MME Type:** A checkbox.
 - Support Identity In UPDATE and Re-INVITE:** A checkbox.
- Reset Event:** Radio buttons for "reSync", "checkSync", and "Not Supported" (selected).
- Trunk Mode:** Radio buttons for "User" (selected), "Pilot", and "Proxy".
- Unscreened Presentation Identity Policy:** Radio buttons for "Profile Presentation Identity" (selected), "Unscreened Presentation Identity", and "Unscreened Presentation Identity With Profile Domain".
- Web Based Configuration URL Extension:** A text input field.
- Device Configuration Options:** Radio buttons for "Not Supported" (selected), "Device Management", and "Legacy".

At the bottom of the form are "OK" and "Cancel" buttons.

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

Defining Device Profile Type Files

This section describes how to define the configuration files and static files that IP phones download. There are two configuration files both of which are CFG formatted. We call them the system file and the device-specific file. The static files are required when employing some particular features on IP phones. The following provides detail information for these files.

System File

The system file will be effectual for all IP phones of the same model. The system file has a fixed name for each phone model. The names of the system files for different IP phone

models are:

- T20P: y0000000000007.cfg
- T22P: y0000000000005.cfg
- T26P: y0000000000004.cfg
- T28P: y0000000000000.cfg
- T32G: y0000000000032.cfg
- T38G: y0000000000038.cfg
- T46G: y0000000000028.cfg
- VP530: y0000000000023.cfg

The following table lists the parameters used to define the system file.

Parameter	Value	Description
Device Access File Format	<system-file-name>.cfg Example: y0000000000000.cfg	Specifies the name of the system file.
Repository File Format	<system-file-name>.cfg Example: y0000000000000.cfg	Specifies the name of the system file stored on the Device Management repository.
File Category	Dynamic Per-Type	Specifies the type of the file.
File Customization	Administrator	Identifies who can customize the system file.
Assign File	Custom	
Authentication Mode	User Name and Password	Defines the authentication method.
Device Access HTTP Authentication	Digest	

Device-Specific File

A device-specific file is only effectual for the specific IP phone. The device-specific file is named after the MAC address of the IP phone. The file name format of the device-specific file is as below:

<mac-address>.cfg

The following table lists the parameters used to define the device-specific file:

Parameter	Value	Description
Device Access File Format	%BWMACADDRESS%.cfg	Specifies the name of the device-specific file.
Repository File Format	%BWMACADDRESS%.cfg	Specifies the name of the device-specific file stored on the Device Management repository.
File Category	Dynamic Per-Device	Specifies the type of the file.
File Customization	Administrator and User	Identifies who can customize the device-specific file.
Assign File	Custom	
Authentication Mode	User Name and Password	Defines the authentication method.
Device Access HTTP Authentication	Digest	

Static File

In addition to configuration files, the IP phone may require static files before it can deliver service. The static files required may vary for different IP phone models. Tags cannot be added to the static files. The following lists the static files required for different IP phone models:

The Yealink TxP IP phones require the following static files:

- <firmware-version>.rom
- Ring.wav
- Lang+English.txt
- contactData1.xml
- AutoDST.xml
- dialplan.xml
- dialnow.xml

The Yealink T3xG IP phones require the following static files:

- <firmware-version>.rom
- Ring.wav
- Lang+English.txt

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

The Yealink VPx IP phones require the following static files:

- <firmware-version>.rom
- ca.crt
- ca.pem
- ContactData.xml
- dialnow.xml
- dialplan.xml
- doorphonedata.xml
- Contact.png
- song.wav
- wallpaper.jpg

The following table lists the parameters used to define the static file:

Parameter	Value	Description
Device Access File Format	<file-name>.cfg Example: 2.70.0.10.rom	Specifies the name of the static file.
Repository File Format	<file-name>.cfg Example: 2.70.0.10.rom	Specifies the name of the static file stored on the Device Management repository.
File Category	Static	Specifies the type of the file.
File Customization	allow	Determines whether the static files can be customized.
Assign File	Custom	

Parameter	Value	Description
Authentication Mode	Not set	The static file is not authenticated.
Device Access HTTP Authentication	Basic	

To define the device profile type files:

1. Click on **Resources->Identity/Device Profile Types**.
2. Select the desired device profile type (e.g., Yealink T28P).
3. Click on **Files and Authentication**.
4. Click **Add**.
5. Make the desired change and upload the files.
6. Click **Apply** to accept the change.

Log in BroadWorks as Group Administrator

The following sections provide information on how to customize static tags, create the device profile, upload files and so on at the group level.

Creating the BroadWorks Device Profile

Device profiles represent the devices themselves. When a new device profile is created from a device profile type, it inherits a representation of the access and configuration profiles defined at the type level.

To create a device profile:

1. Click on **Resources->Identity/Device Profiles**.
2. Click **Add**.

3. Select the desired device profile type (e.g., Yealink T28P) from the pull-down list of **Identity/Device Profile Type**.

4. Set the following parameters:

Parameter	Example Value	Description
Identity/Device Profile Name	yealinkT28	Defines the device profile name.
MAC Address	0015651222f9	Specifies the MAC address of the device.
Authentication	Uses Custom Credentials	Specifies the authentication method.
Device Access User Name	admin	Specifies the user name.
Device Access Password	admin-password	Specifies the password.

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

Customizing a Static Tag

You can add a static tag at the group level for the specific device profile or the specific device profile type.

To add a static tag for the specific device profile:

1. Click on **Resources->Identity/Device Profiles->Search** to list all existing device

profiles (Click **Next** to turn to the next page).



2. Select the desired device profile (e.g., yealinkT28) and click **Edit**.
3. Click the **Custom Tags** tab.
4. Click **Add** to add a new tag.
5. Enter the desired tag name (e.g., LANGUAGEGUI) in the **Tag Name** field.
6. Enter the desired tag value (e.g., English) in the **Tag Value** field.



7. Click **OK** to accept the change.

After the above settings, the customized static tag will be only effectual for the device profile (e.g., yealinkT28).

To add a static tag for the specific device profile type:

1. Click on **Utilities->Device Configuration**.

The interface lists all existing device profile types.

CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

BROADSOFT
Innovation calling.

Help - Home

Group Welcome Admin1 Yealink [Logout]

Options:

- Profile
- Resources
- Services
- Acct/Auth Codes
- Call Center
- Meet-Me Conferencing
- Utilities

Device Configuration

Lists the configurable devices for the group.

OK

Identity/Device Profile Type	Configure Device	Edit
Aastra 57i	Configure	Edit
Aastra-Standard		Edit
Atlinks IPx00		Edit
Cisco 7960		Edit
isphone_dm		Edit
Polycom-560		Edit
Polycom-VVX1500		Edit
Polycom-VVX500		Edit
snom_dm		Edit
Yealink T22P		Edit
Yealink T26P		Edit
Yealink T28P		Edit
Yealink T38G		Edit
Yealink-T3xG_dm		Edit
Yealink-T6xP_dm		Edit
Yealink TxP		Edit
Yealink-TxP_dm		Edit
Yealink-VP2009P_dm		Edit
Yealink-VP530_dm		Edit
Yealink-VV5xP_dm		Edit

[Page 1 of 1]

Identity/Device Profile Type Starts With Find Find All

OK

2. Select the desired device profile type (e.g., Yealink T28P).
3. Click the **Custom Tags** tab.
4. Click **Add** to add a new tag.
5. Enter the desired tag name (e.g., LANGUAGEGUI) in the **Tag Name** field.
6. Enter the desired tag value (e.g., English) in the **Tag Value** field.

CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

BROADSOFT
Innovation calling.

Help - Home

Group Welcome Admin1 Yealink [Logout]

Options:

- Profile
- Resources
- Services
- Acct/Auth Codes
- Call Center
- Meet-Me Conferencing
- Utilities

Device Configuration Custom Tag Add

Add a new custom device management tag for the Identity/Device Profile Type in this group.

OK Cancel

Identity/Device Profile Type: Yealink T28P

Tag Name: %LANGUAGEGUI %

Tag Value: English

OK Cancel

7. Click **OK** to accept the change.

After the above settings, the customized static tag will be effectual for the device profile type (e.g., Yealink T28P). All device profiles associated with this device profile type can also use the customized tag.

Uploading Device Template Configuration Files

Yealink provides two types of template configuration files: system and device-specific template configuration files. Before uploading the device template configuration files to BroadWorks, the built-in tags and static tags can be embedded in the template configuration files.

The following table describes system template configuration items that are generally required for SIP-T28P IP phone to work with BroadWorks.

Item	Description
System Template Configuration Items <e.g., y000000000000.cfg>	
network.internet_port.type = 0	Configures the WAN port to obtain IP address from DHCP server.
local_time.ntp_server1 = %SNTP_SERVER_1% local_time.ntp_server2 = %SNTP_SERVER_2%	Configures the primary and secondary NTP servers. The tags %SNTP_SERVER_1% and %SNTP_SERVER_2% are created on BroadWorks. e.g., %SNTP_SERVER_1%=time-a.nist.gov and %SNTP_SERVER_2%=time-b.nist.gov
call_waiting.enable = 1 call_waiting.tone = 1	Enables or disables call waiting and call waiting tone. 0 (Disable), 1 (Enable)
bw.feature_key_sync = %FEATURE_KEY_SYN%	Enables or disables feature key synchronization. 0 (Disable), 1 (Enable) The tag %FEATURE_KEY_SYN% is customized on BroadWorks e.g., %FEATURE_KEY_SYN%=1 or %FEATURE_KEY_SYN%=0
firmware.url = http://%BWDEVICEACCESSFQDN%: %BWDEVICEACCESSPORT%/% BWDMSCONTEXT%/%BWDEVICE ACCESSURI%%FIRMWARE_VERSION%	Configures the access URL for downloading the firmware. e.g., %BWDEVICEACCESSFQDN%= xsp.iop1.broadworks.net , %BWDEVICEACCESSPORT%=80, %BWDMSCONTEXT%=dms and %BWDEVICEACCESSURI%=Yealink T28P These tags are dynamic built-in tags, which are predefined by BroadWorks. The tag %FIRMWARE_VERSION% is customized on BroadWorks. e.g., %FIRMWARE_VERSION%=2.70.0.10

Item	Description
	.rom

The following table describes device-specific template configuration items that are generally required for SIP-T28P IP phone to work with BroadWorks.

Item	Description
Device-specific Template Configuration Items <%BWMACADDRESS%.cfg>	
account.1.enable = %BWLINE-BINARY-1%	Enables or disables the first line. 0 (Disable), 1 (Enable) "%BWLINE-BINARY-1%" identifies whether to assign a line port to the first user.
account.1.display_name = %BWCLID-1%	Configures the name to be displayed on the phone for the first line. The tag "%BWCLID-1%" will be replaced by the Calling Line ID (CLID) retrieved from the Calling Line ID First and Last Name fields in the first user's profile on BroadWorks.
account.1.user_name = %BWLINEPORT-1%	Configures the user ID for the first line. The tag "%BWLINEPORT-1%" will be replaced by the line/port setting in the first user's address on BroadWorks.
account.1.auth_name = %BWAUTHUSER-1% account.1.password = %BWAUTHPASSWORD-1%	Configures SIP authentication for the first line. If the authentication service is assigned on BroadWorks, the tags "%BWAUTHUSER-1%" and "%BWAUTHPASSWORD-1%" will be replaced by the first user's authentication settings on BroadWorks.
account.1.blf.blf_list_uri = %BWBLF-URI-1%	Configures the BLF List for the first line. The tag "%BWBLF-URI-1%" will be replaced by the Busy Lamp Field (BLF) List URI for the first user. e.g., %BWBLF-URI-1%=sip:myblf@as.io p1.broadworks.net If BLF List feature is not configured for the first user, this will be left blank.
account.1.shared_line = %BWSHAREDLINE-BINARY-1%	Configures the first line to be private or shared line. 0 (Private), 1 (Shared)

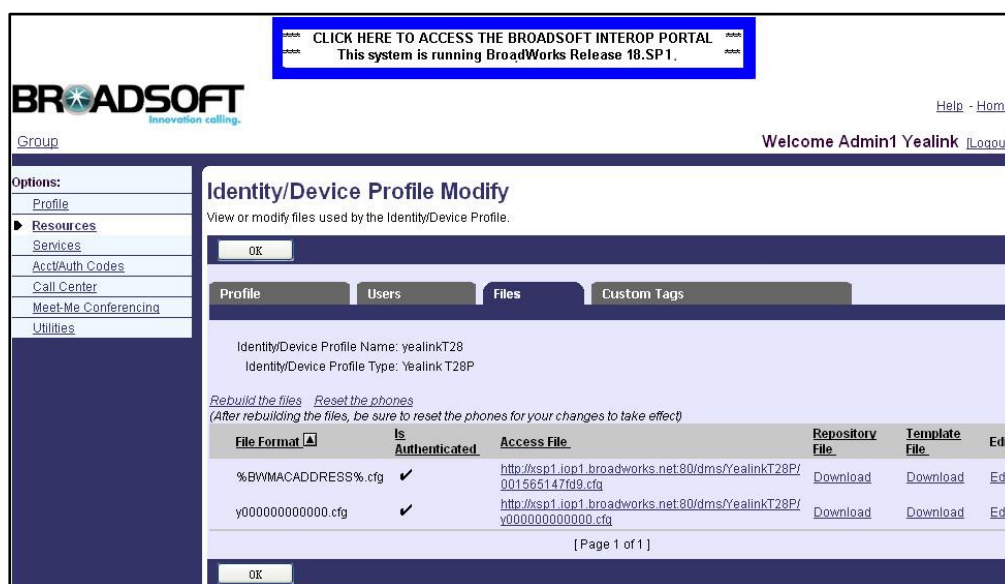
Item	Description
	%BWSHAREDLINE-BINARY-1% indicates whether the first line is shared.
account.1.conf_type = 2 account.1.conf_uri = %BWNETWORK-CONFERENCE-SIPURI-1%	Configures network conference for the first line. “%BWNETWORK-CONFERENCE-SIPURI-1%” will be replaced by the network conference SIP URI for the first user. e.g., %BWNETWORK-CONFERENCE-SIPURI-1%=conference@as.iop1.broadworks.net

You can upload device template configuration files at the profile level or at the group level.

To upload device template configuration files at the profile level:

1. Click on **Resources->Identity/Device Profiles->Search** to list all existing device profiles (Click **Next** to turn to the next page).
2. Select the desired device profile (e.g., yealinkT28) and click **Edit**.
3. Click the **Files** tab.

The interface lists all existing files.



4. Select the desired template configuration file (e.g., %BWMACADDRESS%.cfg) and click **Edit**.
5. Mark the **Custom** radio box in the **Assign File** block.

- Click **Browse** to upload the desired template configuration file.

CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

BROADSOFT
Interoperable softswitch

Group Help - Home
Welcome Admin1 Yealink [Logout](#)

Options:

- Profile
- Resources**
- Services
- Acct/Auth Codes
- Call Center
- Meet-Me Conferencing
- Utilities

Identity/Device Profile File Modify

Modify an existing Identity/Device Profile file.

Identity/Device Profile Name: yealinkT28
Identity/Device Profile Type: Yealink T28P
File Format: %BWMACADDRESS%.cfg
Access File: <http://csp1.jop1.broadworks.net:80/dms/YealinkT28P/001565147f09.cfg>
Repository File: [Download](#)
Template File: [Download](#)

Assign File

☐ Manual
☐ Default
☒ Custom

Upload Configuration File:

Currently using configuration `/var/broadworks/IpDeviceConfig/15090150909724/Yealink_T28P`
file: `/Custom_Yealink_yealinkT28_%BWMACADDRESS%.cfg.template`

```
#!version:1.0.0.1
#####
#####
#####
##
Settings
##
#####
#####
#Active/Deactive account1: 0-Disabled(Default),
1-Enabled
```

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

- Click **Apply** to accept the change.

After the above settings, the template configuration files will be only effectual for the device profile (e.g., yealinkT28).

To upload device profile type template configuration files at the group level:

- Click on **Utilities->Device Configuration**.
The interface lists all existing device profile types.
- Select the desired device profile type (e.g., Yealink T28P) and click **Edit**.
- Click the **Files** tab.

The interface lists all existing template configuration files.

CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

BROADSOFT
Innovation calling.

Group: Welcome Admin1 Yealink (Logout)

Options:
[Profile](#)
[Resources](#)
[Services](#)
[Acct/Auth Codes](#)
[Call Center](#)
[Meet-Me Conferencing](#)
[Utilities](#)

Device Configuration Files

View and modify files used by the Identity/Device Profile Type in the group.

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

Device Type URL: <http://xsp1.iop1.broadworks.net:80/kms/YealinkT28P/>

Files **Custom Tags**

Identity/Device Profile Type: Yealink T28P

File Format	Is Authenticated	Access File	Repository File	Template File	Edit
%BWMACADDRESS%.cfg	✓	http://xsp1.iop1.broadworks.net:80/kms/YealinkT28P/({%25BWMACADDRESS%25}).cfg Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).		Download	Edit
y0000000000000000.cfg	✓	http://xsp1.iop1.broadworks.net:80/kms/YealinkT28P/y0000000000000000.cfg	Download	Download	Edit

[Page 1 of 1]

- Select the desired template configuration file (e.g., y0000000000000000.cfg) and click **Edit**.
- Mark the **Custom** radio box in the **Assign File** block.
- Click **Browse** to upload the desired template configuration file.
- Click **Apply** to accept the change.

After the above settings, the template configuration files will be effectual for the device profile type (e.g., Yealink T28P). All device profiles associated with this device profile type can download the configuration files.

Note

The template configuration files should have existed. For more information on how to create the template configuration files, refer to [Defining Device Profile Type Files](#) on page 18.

Uploading Static Files

You can upload static files at the profile level or at the group level.

To upload static files at the profile level:

- Click on **Resources->Identity/Device Profiles->Search** to list all existing device profiles (Click **Next** to turn to the next page).
- Select the desired device profile (e.g., yealinkT28) and click **Edit**.
- Click the **Files** tab.

The interface lists all existing files.

4. Select the desired static file (e.g., 2.70.0.10.rom) and click **Edit**.
5. Mark the **Custom** radio box in the **Assign File** block.
6. Click **Browse** to upload the desired static file.
7. Click **Apply** to accept the change.

After the above settings, the static files will only be effectual for the device profile (e.g., yealinkT28).

To upload static files at the group level:

1. Click on **Utilities->Device Configuration**.
The interface lists all existing device profile types.
2. Select the desired device profile type (e.g., Yealink T28P) and click **Edit**.
3. Click the **Files** tab.
The interface lists all static files.
4. Select the desired static file to edit (e.g., 2.70.0.10.rom).
5. Mark the **Custom** radio box in the **Assign File** block.
6. Click **Browse** to upload the desired static file.
7. Click **Apply** to accept the change.

After the above settings, the static files will be effectual for the device profile type (e.g., Yealink T28P). All device profiles associated with this device profile type can download the static files.

Note

The static files should have existed. For more information on how to create the static files, refer to [Defining Device Profile Type Files](#) on page 18.

Assigning the Device Profile to the User

To assign the device profile to the user:

1. Click on **Profile->Users->Search** to list all existing users.
2. Select the desired user.
3. Click on **Addresses**.
4. Mark the **Identity/Device Profile** radio box.
5. In the **Identity/Device profile** block, select the created device profile (e.g., yealinkT28) from the pull-down list of **Identity/Device Profile Name**.
6. Enter the register's user name in the **Line/Port** field.

7. Select the domain name (e.g., as.iop1.broadworks.net) from the pull-down list following the @ sign.

BROADSOFT
Innovation calling.

Group > Users : 2413333607

CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

Help - Home

Welcome Admin1 Yealink [Logout]

Options:

- Profile
- Incoming Calls
- Outgoing Calls
- Call Control
- Client Applications
- Meet-Me Conferencing
- Messaging
- Service Scripts
- Utilities

Addresses

Addresses allows you to view and maintain your phone number and other identities that are used to make and receive calls.

OK Apply Cancel

Phone Number: 2413333607 Activated

Extension: 3607

☒ Identity/Device Profile ☐ Trunking ☐ None

Identity/Device Profile

Identity/Device Profile Name: yealinkT28 (Group)

* Line/Port: 2413333607 @ as.iop1.broadworks.net

Aliases: sip: 2413333607@as.iop1.broadworks.net

sip: @ as.iop1.broadworks.net

sip: @ as.iop1.broadworks.net

sip: @ as.iop1.broadworks.net

OK Apply Cancel

8. Click **Apply** to accept the change.

To check the users assigned the device profile:

1. Click on **Resources->Identity/Device Profiles**.

- Click **Search** to display all existing device profiles (Click **Next** to turn to the next page).

BROADSOFT
Innovation calling.

CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

Group Welcome Admin1 Yealink [Logout](#)

Options:
[Profile](#)
Resources
[Services](#)
[Acct/Auth Codes](#)
[Call Center](#)
[Meet-Me Conferencing](#)
[Utilities](#)

Identity/Device Profiles

Add a new group identity/device profile or manage existing identity/device profiles.

OK Add Cancel

Enter search criteria below

Identity/Device Profile Name Starts With + Search

Identity/Device Profile Name	Identity/Device Profile Type	Available Ports	Host Name/IP Address	MAC Address	Status	Edit
Yealink	Yealink-TxP_dm	Unlimited			Online	Edit
yealink_dm_test	Yealink-TxP_dm	Unlimited		001565115FA5	Online	Edit
yealink_T28 3604	Yealink T28P	6			Online	Edit
yealink_T38G	Yealink-T3xG_dm	Unlimited		0015652FACEE	Online	Edit
Yealink_T6X	Yealink-T6xP_dm	Unlimited		0015651112B8	Online	Edit
Yealink_VP009P_3607	Yealink-VP2009P_dm	Unlimited		0015651626DA	Online	Edit
Yealink2_Secondary1	Generic SIP Phone	Unlimited			Online	Edit
yealink2012	Generic SIP Phone	Unlimited			Online	Edit
Yealink3601	Yealink-TxP_dm	Unlimited			Online	Edit
yealink-cc	Generic SIP Phone - Call Center	Unlimited			Online	Edit
Yealink-Dect-Phone	Yealink-VV5xP_dm	Unlimited		0015651B9209	Online	Edit
Yealink Device Profile test3601	Yealink-TxP_dm	Unlimited			Online	Edit
yealink-T18	Yealink-TxP_dm	Unlimited		00156516AF40	Online	Edit
Yealink T26P	Yealink T26P	3		001565121226	Online	Edit
YealinkT26P111	Yealink T26P	3			Online	Edit
yealinkT28	Yealink T28P	5		001565124125	Online	Edit
yealinkT28_1	Yealink T28P	6			Online	Edit
Yealink-T28P_dm_test	Yealink T28P	6		001565111111	Online	Edit
Yealink t2x provisioning	Yealink-TxP_dm	Unlimited		0015651213B7	Online	Edit
Yealink Test Vin	Yealink-TxP_dm	Unlimited		00156512325D	Online	Edit

First Previous [Page 4 of 5] Next Last

OK Add Cancel

- Select the desired device profile (e.g., yealinkT28) and click **Edit**.
- Click the **Users** tab.
- Click **Search** to display all users assigned to the device profile.

BROADSOFT
Innovation calling.

CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

Group Welcome Admin1 Yealink [Logout](#)

Options:
[Profile](#)
Resources
[Services](#)
[Acct/Auth Codes](#)
[Call Center](#)
[Meet-Me Conferencing](#)
[Utilities](#)

Identity/Device Profile Modify

View the line/ports assigned on the Identity/Device Profile.

OK Apply Cancel

Profile Users Files Custom Tags

Enter search criteria below

Line/Port User Part Starts With + Search

Primary Line/Port	Line/Port	Endpoint Type	User ID	Last Name	First Name	Phone Number	Extension	Department	Edit
<input type="checkbox"/>	2413333607@as.jop1.broadwork...	Primary	2413333607	yealink	2413333607	3607			Edit

[Page 1 of 1]

OK Apply Cancel

As shown in the above figure, only the user 2413333607 has been assigned to the device profile yealinkT28.

Configuring BroadWorks Integrated Features

This chapter provides the detail instructions and configurations for the following BroadWorks integrated features:

- [Xtended Services Interface](#)
- [Simultaneous Ring Personal](#)
- [Line ID Blocking](#)
- [Anonymous Call Rejection](#)
- [BroadWorks Anywhere](#)
- [Remote Office](#)
- [BroadSoft Directory](#)
- [BroadSoft Call Log](#)
- [Call Park](#)
- [Group Paging](#)
- [Instant Group Call](#)
- [Hunt Group](#)
- [CommPilot Call Manager](#)
- [Automatic Callback](#)
- [Authentication](#)
- [Authorization/Account Codes](#)
- [Call Waiting](#)
- [Diversion Inhibitor](#)
- [Do Not Disturb](#)
- [Call Forward](#)
- [Alternate Numbers](#)
- [Sequential Ring](#)
- [Call Transfer](#)
- [Feature Key Synchronization](#)
- [Network Conference](#)
- [Call Pickup](#)
- [Calling Line ID Presentation](#)
- [Calling Line ID Blocking Override](#)
- [Connected Line Identification Presentation](#)

- [Connected Line Identification Restriction](#)
- [Meet-Me Conferencing](#)
- [Busy Lamp Field List](#)
- [Shared Call Appearance](#)
- [Music/Video on Hold](#)
- [Priority Alert](#)
- [Voice Messaging](#)
- [Automatic Call Distribution](#)
- [Hoteling](#)

To configure the features above on Yealink IP phones, check the BroadSoft active is enabled and SIP server type is set to BroadSoft. Contact Yealink field application engineer for more information.

Xtended Services Interface

The Xtended Services Interface (XSI) is an HTTP-based, REST-ful Application Programming Interface (API) available over BroadWorks, targeted to end-user functionalities such as call control, call log lists, directories, and end-user service configurations. IP phones interoperate with BroadWorks XSI using HTTP messages.

IP phones support the following features interoperating with BroadWorks XSI:

- Simultaneous Ring Personal
- Line ID Blocking
- Anonymous Call Rejection
- BroadWorks Anywhere
- Remote Office
- BroadSoft Directory
- BroadSoft Call Log
- Call Park

Note

Before configuring the features above, make sure that the XSI has been configured.

Configuring the Yealink IP Phones

The XSI is configurable using the template configuration files or via web user interface.

To configure the XSI using the template configuration files:

1. Configure the XSI using the following parameters in the template configuration file:

For SIP-T2xP, SIP-T3xG, SIP-T4xG IP phones:

The “x” in the parameter is an integer which specifies the line number on the IP phone. X ranges from 1 to 6. If the user (e.g., 2413333502) is the first user assigned to the device profile, replace “x” by “1”.

Parameter	Description	Value
account.x.xsi.user	Specifies the user name provided on the Xtended Services Platform server.	%BWLOGIN-ID-X%
account.x.xsi.password	Specifies the password provided on the Xtended Services Platform server.	%XSIPASSWORD-X%
account.x.xsi.host	Specifies the URL of the Xtended Services Platform server.	%XSP_ADDRESS%
account.x.xsi.server_type	Specifies the server type of the Xtended Services Platform server.	http or https
account.x.xsi.port	Specifies the server port of the Xtended Services Platform server. The default value is 80.	Integer

The following shows an example of XSI configurations for account 1 using the template configuration file (e.g., %BWMACADDRESS%.cfg):

```
account.1.xsi.user = %BWLOGIN-ID-1%
account.1.xsi.password = %XSIPASSWORD-1%
account.1.xsi.host = %XSP_ADDRESS%
account.1.xsi.server_type = http
account.1.xsi.port = 80
```

For VP530 IP phones:

Parameter	Description	Value
xsi.user	Specifies the user name provided on the Xtended Services Platform server.	%BWLOGIN-ID-X%
xsi.host	Specifies the URL of the Xtended Services Platform server.	http://%XSP_ADDRESS%
xsi.password	Specifies the password provided on the Xtended Services Platform server.	%XSIPASSWORD-X%

The following shows an example of XSI configurations using the template configuration file (e.g., y000000000023.cfg):

```
xsi.user = %BWLOGIN-ID-1%  
xsi.host = http://%XSP_ADDRESS%  
xsi.password = %XSIPASSWORD-1%
```

2. Customize the static tags on the BroadWorks server.

The following table shows an example:

Tag Name	Value
%XSIPASSWORD-1%	yealink
%XSP_ADDRESS%	xsp1.yealink.com

For more information, refer to [Customizing a Static Tag](#) on page 23.

Please contact your BroadSoft reseller for the actual values of these tags.

3. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example is shown as below:

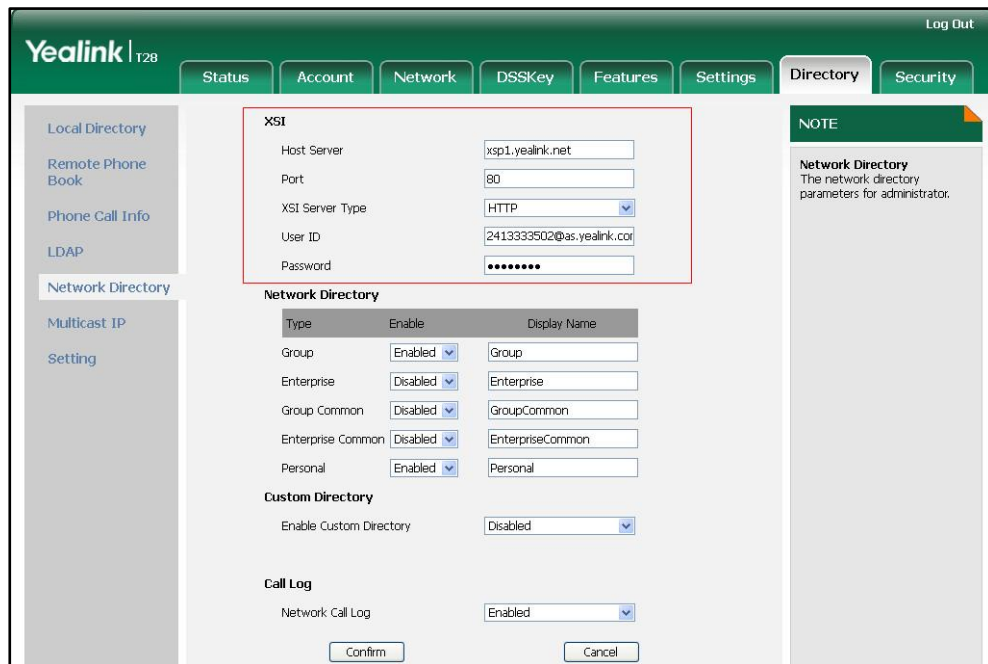
For SIP-T2xP, SIP-T3xG or SIP-T4xG IP phones:

```
account.1.xsi.user = 2413333502@as.yealink.com  
account.1.xsi.password = yealink  
account.1.xsi.host = xsp1.yealink.com
```

For VP530 IP phones:

```
xsi.user = 2413333502@as.yealink.com  
xsi.host = http://xsp1.yealink.com  
xsi.password = yealink
```

After the IP phone downloads the configuration files, the web user interface of the SIP-T28P IP phone is similar to the one as below:



Yealink T28 Log Out

Status Account Network DSSKey Features Settings **Directory** Security

Local Directory
Remote Phone Book
Phone Call Info
LDAP
Network Directory
Multicast IP
Setting

XSI

Host Server: xsp1.yealink.net
Port: 80
XSI Server Type: HTTP
User ID: 2413333502@as.yealink.com
Password:

Network Directory

Type	Enable	Display Name
Group	Enabled	Group
Enterprise	Disabled	Enterprise
Group Common	Disabled	GroupCommon
Enterprise Common	Disabled	EnterpriseCommon
Personal	Enabled	Personal

Custom Directory

Enable Custom Directory: Disabled

Call Log

Network Call Log: Enabled

Confirm Cancel

NOTE
Network Directory
The network directory parameters for administrator.

Simultaneous Ring Personal

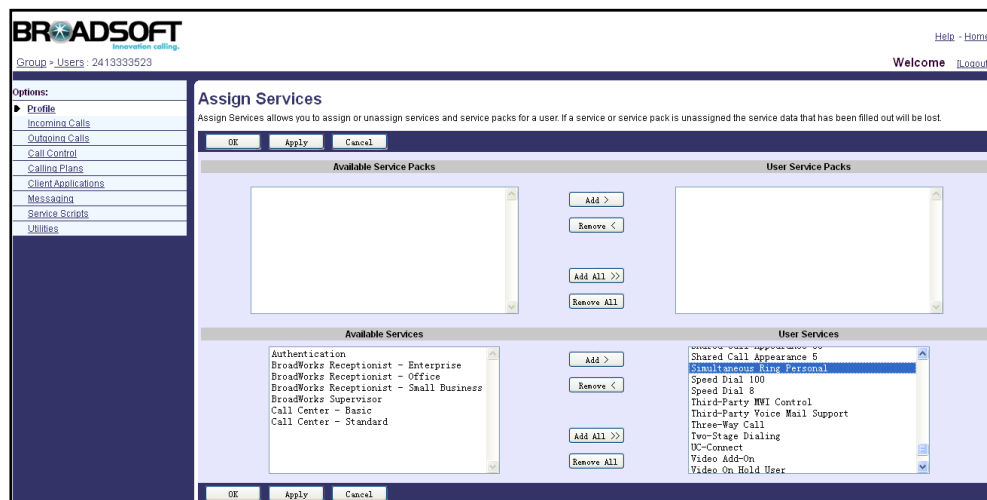
Simultaneous ring personal allows a user to have up to 10 secondary locations to be alerted simultaneously in addition to the user's primary location, when receiving an incoming call that matches the pre-defined criteria. The call is connected to the user who answers the call first. The enhancement, Answer Confirmation, allows simultaneous ringing personal to prompt the callee to enter a digit to confirm the acceptance of the call.

Configuring the BroadWorks Server

To assign the simultaneous ring personal service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523).
4. Click on **Assign Services**.

5. In the **Available Services** box, select **Simultaneous Ring Personal** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure simultaneous ring personal for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523), who has been assigned the simultaneous ring personal service.
4. Click on **Incoming Calls->Simultaneous Ring Personal**.
5. Click **Add** to add a new simultaneous ring personal entry.
6. Set the parameters of the simultaneous ring personal criteria.

The following shows an example:

Description: R-entry1
 Use simultaneous ring personal: Selected
 Selected Time Schedule: Every Day All Day
 Selected Holiday Schedule: None
 Calls from: Any phone number

7. Click **OK** to accept the change.
8. Configure the following parameters for simultaneous ring personal.

Parameter	Description
Simultaneous Ring Personal	Specifies whether to use the simultaneous ring personal service.
Do not ring my Simultaneous Ring Numbers if I'm already on a call	Specifies whether secondary phone numbers or URIs should be alerted while the primary location is already on a call.
Answer confirmation required	Allows simultaneous ring personal to prompt the answering party to enter a digit to confirm the acceptance of the call.
Phone Number / SIP-URI	Specifies the phone number or SIP URI of the location.

The following shows an example:

Simultaneous Ring Personal: Selected

Do not ring my Simultaneous Ring Numbers if I'm already on a call: Selected

Continue the search process if the base location is busy: Selected

Enable caller to skip search process: Selected

Answer confirmation required: Selected

Phone Number / SIP-URI: 2413333524 2413333525

9. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333523). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on simultaneous ring personal, refer to *BroadWorks Web Interface Administrator Guide*.

Note

If the BroadWorks XSI is configured on the IP phone, the simultaneous ring personal configurations can be synchronized between the IP phone and the BroadWorks server.

Line ID Blocking

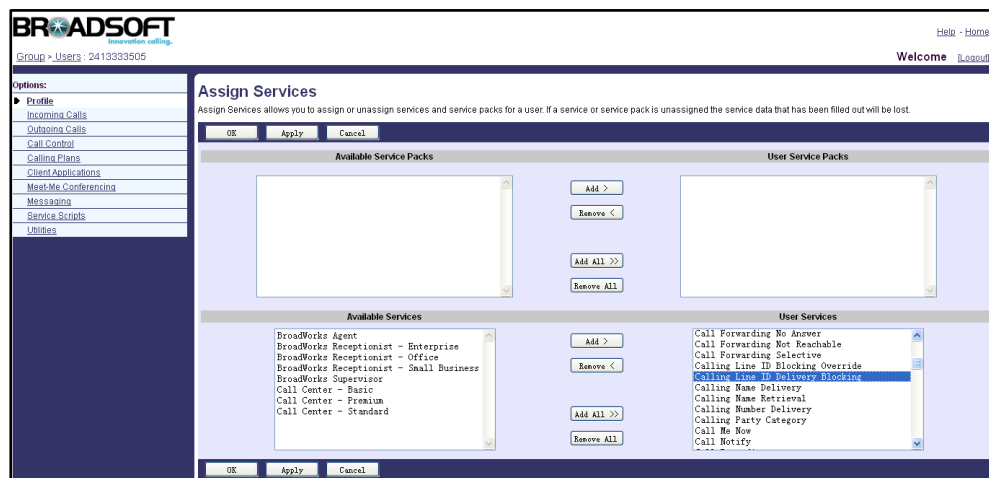
Line ID blocking allows a user to block his identity from showing up when placing a call. When a user with this feature enabled places a call, the BroadWorks sends an INVITE to the callee with From header: From:

"Anonymous" <sip:anonymous@anonymous.invalid>. The callee's phone LCD screen presents "anonymous" instead of the caller's identity. This feature does not apply to calls from within a group.

Configuring the BroadWorks Server

To assign the calling line ID delivery blocking service to a user:

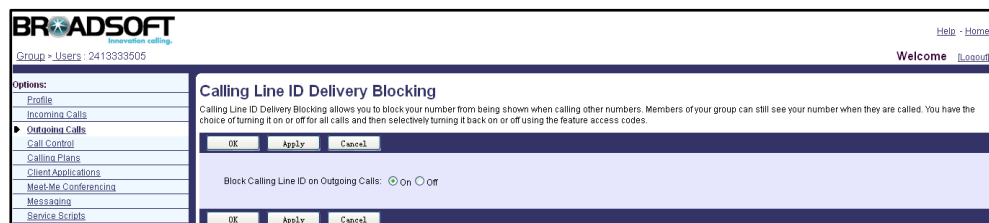
1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333505).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Calling Line ID Delivery Blocking** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure line ID blocking for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333505), who has been assigned the calling line ID delivery blocking service.
4. Click on **Outgoing Calls->Line ID Blocking**.
5. Mark the **On** radio box in the **Block Calling Line ID on Outgoing Call** field.



6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333505). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on line ID blocking, refer to *BroadWorks Web Interface Administrator Guide*.

Note

If the BroadWorks XSI is configured on the IP phone, the line ID blocking configurations can be synchronized between the IP phone and the BroadWorks server.

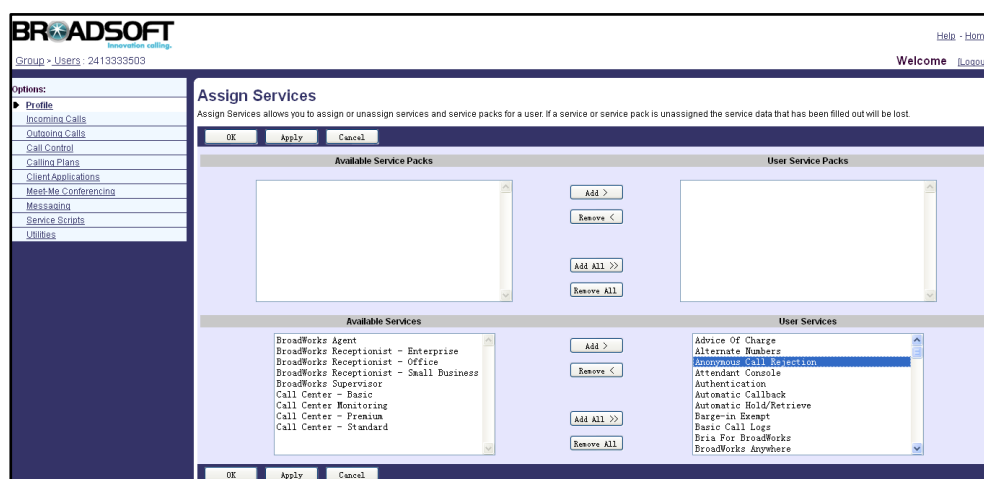
Anonymous Call Rejection

Anonymous call rejection allows a user to automatically reject incoming calls from callers who deliberately block their identities from showing up. This feature does not apply to calls from within a group.

Configuring the BroadWorks Server

To assign the anonymous call rejection service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333503).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Anonymous Call Rejection** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure anonymous call rejection for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333503), who has been assigned the anonymous call rejection service.

4. Click on **Incoming Calls->Anonymous Call Rejection**.
5. Mark the **On** radio box in the **Anonymous Call Rejection** field.

6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333503). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on anonymous call rejection, refer to *BroadWorks Web Interface Administrator Guide*.

Note

If the BroadWorks XSI is configured on the IP phone, the anonymous call rejection configurations can be synchronized between the IP phone and the BroadWorks server.

BroadWorks Anywhere

BroadWorks anywhere is useful for users demanding the flexibility with their fixed and mobile devices. This feature allows users to designate a single phone number for incoming and outgoing calls, regardless of which phone they are currently using. For example, IP desk phone, mobile phone or home phone.

Note

Before configuring the BroadWorks anywhere feature, make sure that remote office is turned off. For more information on remote office, refer to [Remote Office](#) on page 48.

Configuring the BroadWorks Server

To add a BroadWorks anywhere portal:

1. Log in the web portal as a group administrator.
2. Click on **Services->BroadWorks Anywhere**.
3. Click **Add**.

4. Set the BroadWorks anywhere portal parameters.

The following shows an example:

BroadWorks Anywhere ID:	Portal1
Name:	Anywhere Portal1
Calling Line ID Last Name:	Portal1
Calling Line ID First Name:	Anywhere

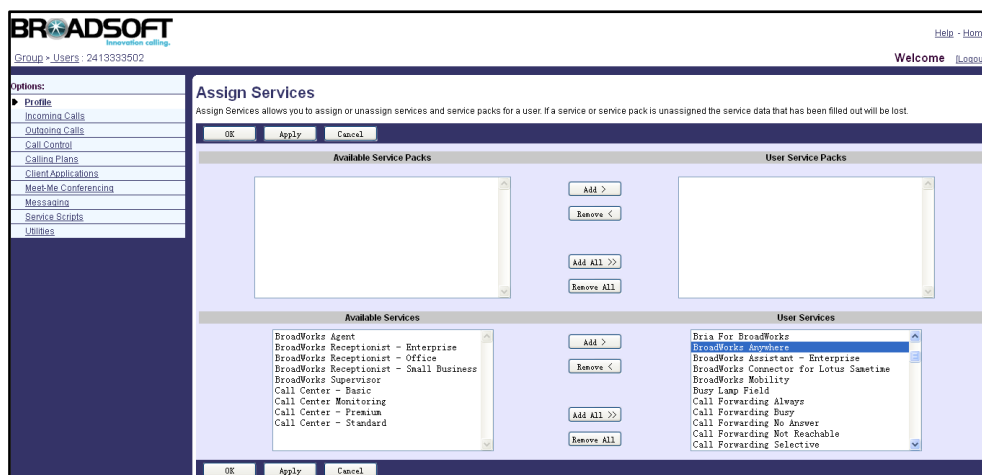
5. Click **OK** to accept the change.
6. Select the anywhere portal added above and click on **Edit**.
7. Click on **Addresses**.
8. Select the phone number from the **Phone Number** field.
9. Enter the extension in the **Extension** field.

10. Click **Apply** to accept the change.

To assign the BroadWorks anywhere service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333502).
4. Click on **Assign Services**.

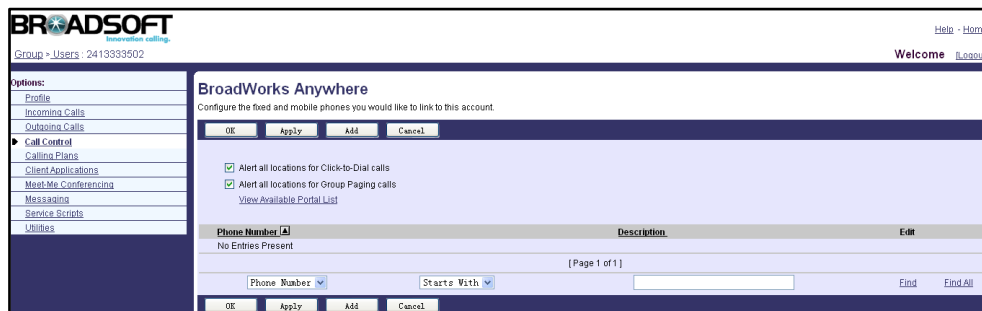
- In the **Available Services** box, select **BroadWorks Anywhere** and then click **Add>**.



- Click **Apply** to accept the change.

To add BroadWorks anywhere locations for the user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333502), who has been assigned the BroadWorks anywhere service.
- Click on **Call Control->BroadWorks Anywhere**.
- Check the **Alert all locations for Click-to-Dial calls** checkbox.
- Check the **Alert all locations for Group Paging calls** checkbox.



- Click **Apply** to accept the change.
- Click **Add** to add a BroadWorks anywhere location.
- Enter the phone number (e.g., a mobile phone number) in the **Phone Number** field.
- Enter the description (e.g., John Mobile) in the **Description** field.
- Check the **Enable this Location** checkbox, which enables this location for BroadWorks anywhere.
- Configure the advanced options:
 - Outbound Alternate Phone Number/SIP URI:** Enter the phone number/SIP URI in this field and this phone number will ring when the IP phone rings.

- **Enable Diversion Inhibitor:** Checking this checkbox prevents a call from being forwarded to another location if you have call forward activated.
- **Require Answer Confirmation:** Checking this checkbox enables the Broadworks server to prompt for an answer confirmation when a call to this anywhere location is answered by the user.
- **Use BroadWorks based Call Control Services:** Checking this checkbox enables call control services to be performed by BroadWorks anywhere location.

13. Click on the **Selective Criteria** tab.

14. Click **Add** to add the criterion for the phone number.

15. Click **OK** to accept the change.

16. Repeat steps 14 to 15 to add more criteria for the phone number.

To change anywhere portal password for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333502), who has been assigned BroadWorks anywhere locations.
4. Click on **Profile->Passwords**.
5. Mark the **Set portal password** radio box.
6. Enter the new password in the **Type new password** field.

7. Re-enter the new password in the **Re-type new password** field.

8. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333502). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on BroadWorks anywhere, refer to *BroadWorks Web Interface Administrator Guide*.

Note

If the BroadWorks XSI is configured on the IP phone, the BroadWorks anywhere configurations can be synchronized between the IP phone and the BroadWorks server.

Remote Office

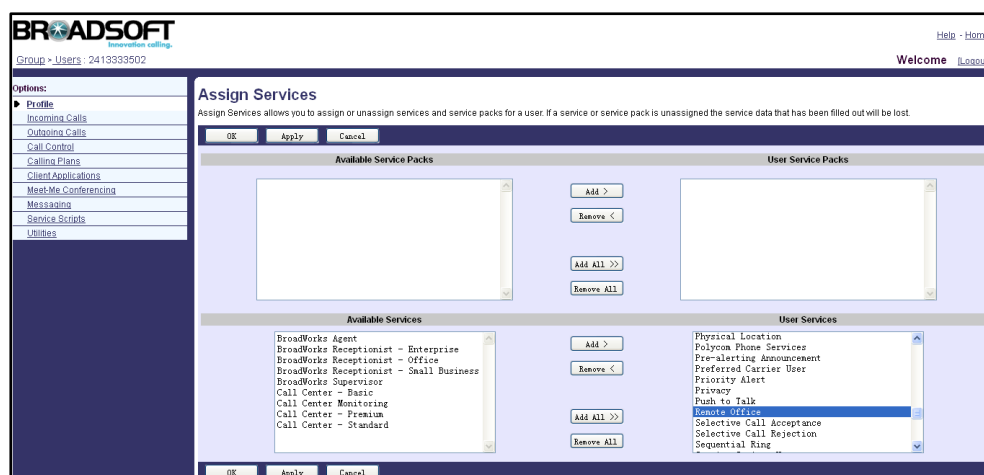
Remote office is especially useful for telecommuters and mobile workers, as it enables them to use all of their phones' features while working remotely (for example, extension dialing, transfers, conference calls, Outlook Integration, directories, and so on).

Configuring the BroadWorks Server

To assign the remote office service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333502).
4. Click on **Assign Services**.

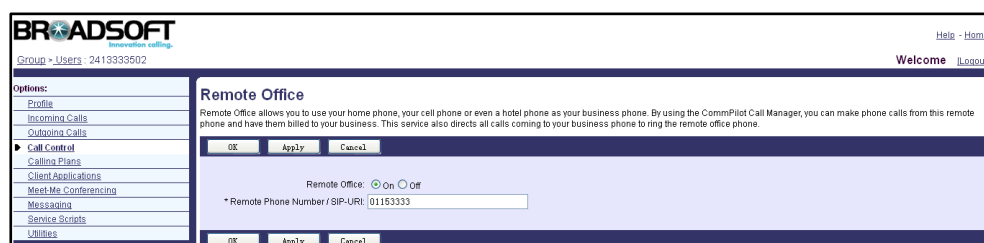
- In the **Available Services** box, select **Remote Office** and then click **Add>**.



- Click **Apply** to accept the change.

To configure remote office for the user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333502).
- Click on **Call Control->Remote Office**.
- Mark the **On** radio box in the **Remote Office** field.
- Enter the remote phone number in the **Remote Phone Number/SIP-URI** field.



- Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333502). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on remote office, refer to *BroadWorks Web Interface Administrator Guide*.

Note

If the BroadWorks XSI is configured on the IP phone, the remote office configurations can be synchronized between the IP phone and the BroadWorks server.

BroadSoft Directory

IP phones support to access the BroadSoft directory locally. The BroadWorks server provides six types of directories: Enterprise Directory, Group Directory, Enterprise Common Directory, Group Common Directory, Personal Directory and Custom Directory.

- **Enterprise Directory:** It contains a list of all users in the enterprise. Each entry in the enterprise directory contains the name, user ID, extension, group, department, etc. The enterprise directory is created automatically from BroadWorks. The user has just read-only access.
- **Group Directory:** It contains a list of all users in the group. Each entry in the group directory contains the name, user ID, extension, department, etc. The group directory is created automatically from BroadWorks. The user has just read-only access.
- **Enterprise Common Directory:** It contains a list of common contacts in the enterprise. Each entry in the directory contains the name and phone number. Only the enterprise administrator can add a new contact to the enterprise common directory. The enterprise common directory is shared with all users within the same enterprise. The user has just read-only access.
- **Group Common Directory:** It contains a list of common contacts in the group. Each entry in the directory contains the name and phone number. The group administrator can add a new contact to the group common directory. The group common directory is shared with all users within the same group. The user has just read-only access.
- **Personal Directory:** It contains a list of personal contacts of the user. Each entry in the directory contains the name and phone number. The user can add a new contact to the personal directory.
- **Custom Directory:** It contains a subset of the users in the group or enterprise. The administrator can add a custom directory, such as an Executive Directory, containing the desired users.

Configuring the BroadWorks Server

To view the group directory:

1. Log in the web portal as a group administrator.
2. Click on **Utilities->Group Directory**.

- Click **Search** to display a list of all users in the group.

Group Directory

Displays the group directory listing. A summary of the group directory can be generated, which can be easily printed and a detailed phone list can be generated.

Enter search criteria below

Last Name Start With

Search


Name [A]	User ID	Phone Number	Extension	Department	Mobile	E-mail Address	YahooID	IMAP ID
3514,3514	2413333514	+44-2413333514	3514					
Anywhere Portal1 (BroadWorks...)	Portal1							
CallCenter (Call Center)	CallCenter	+44-2413333511	3511					
Hunt Group (Hunt Group)	HuntGroup1							
Ins (Instant Group Call)	2413333650	+44-2413333515	3515					
Instant Group (Instant Group ...)	Instantgroup1							
Meet-MeConference (Meet-Me C...)	Meet-Me-Conference	+44-2413333512	3512					
Paging Group1 (Group Paging)	1234567	+44-2413333501	3501					
Paging Group2 (Group Paging)	PagingGroup2							
Pgroup (Group Paging)	2413333701							
Voice Portal (Voice Portal)	232319244_VMR	+44-2413333513	3513					
yealink,3501	2413333501							
yealink,3502	2413333502	+44-2413333502	3502					
yealink,3503	2413333503	+44-2413333503	3503					
yealink,3504	2413333504							
yealink,3505	2413333505	+44-2413333505	3505					
yealink,3506	2413333506	+44-2413333506	3506					
yealink,3507	2413333507	+44-2413333507	3507					
yealink,3508	2413333508	+44-2413333508	3508					
yealink,3509	2413333509	+44-2413333509	3509					

(Page 1 of 2)

- To display the summary of group directory, click **Group Directory Summary**. A printable summary page appears in a separate browser window.

Phone List							
Name	User Id	Number	Extension	Department	Mobile	Email Address	IMP Id
3514,3514	2413333514	+44-2413333514	3514				
Anywhere Portal1 (BroadWorks Anywhere)	Portal1						
CallCenter (Call Center)	CallCenter	+44-2413333511	3511				
Hunt Group (Hunt Group)	HuntGroup1						
Ins (Instant Group Call)	2413333650	+44-2413333515	3515				
Instant Group (Instant Group Call)	Instantgroup1						
Meet-MeConference (Meet-Me Conferencing)	Meet-Me-Conference	+44-2413333512	3512				
Paging Group1 (Group Paging)	1234567	+44-2413333501	3501				
Paging Group2 (Group Paging)	PagingGroup2						
Pgroup (Group Paging)	2413333701						
Voice Portal (Voice Portal)	232319244_VMR	+44-2413333513	3513				
yealink,3501	2413333501						
yealink,3502	2413333502	+44-2413333502	3502				
yealink,3503	2413333503	+44-2413333503	3503				
yealink,3504	2413333504						
yealink,3505	2413333505	+44-2413333505	3505				
yealink,3506	2413333506	+44-2413333506	3506				
yealink,3507	2413333507	+44-2413333507	3507				
yealink,3508	2413333508	+44-2413333508	3508				
yealink,3509	2413333509	+44-2413333509	3509				
yealink,3510	2413333510	+44-2413333510	3510				

Phone List	
3514,3514 2413333514 Voice: +44-2413333514 Extension: 3514	Anywhere Portal1 (BroadWorks Anywhere) Portal1
CallCenter (Call Center) CallCenter Voice: +44-2413333511 Extension: 3511	Hunt Group (Hunt Group) HuntGroup1
Ins (Instant Group Call) 2413333650 Voice: +44-2413333515 Extension: 3515	Instant Group (Instant Group Call) Instantgroup1
Meet-MeConference (Meet-Me Conferencing) Meet-Me-Conference Voice: +44-2413333512 Extension: 3512	Paging Group1 (Group Paging) 1234567 Voice: +44-2413333501 Extension: 3501
Paging Group2 (Group Paging) PagingGroup2	Pgroup (Group Paging) 2413333701
Voice Portal (Voice Portal) 232319244_VMR Voice: +44-2413333513 Extension: 3513	yealink,3501 2413333501
yealink,3502 2413333502 Voice: +44-2413333502 Extension: 3502	yealink,3503 2413333503 Voice: +44-2413333503 Extension: 3503
yealink,3504 2413333504	yealink,3505 2413333505 Voice: +44-2413333505 Extension: 3505
yealink,3506 2413333506 Voice: +44-2413333506 Extension: 3506	yealink,3507 2413333507 Voice: +44-2413333507 Extension: 3507
yealink,3508 2413333508 Voice: +44-2413333508 Extension: 3508	yealink,3509 2413333509 Voice: +44-2413333509 Extension: 3509
yealink,3510 2413333510 Voice: +44-2413333510 Extension: 3510	



Group

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Common Phone List Add

Add a common phone number to the list.

OK

Cancel

* Name:

* Phone Number:

OK

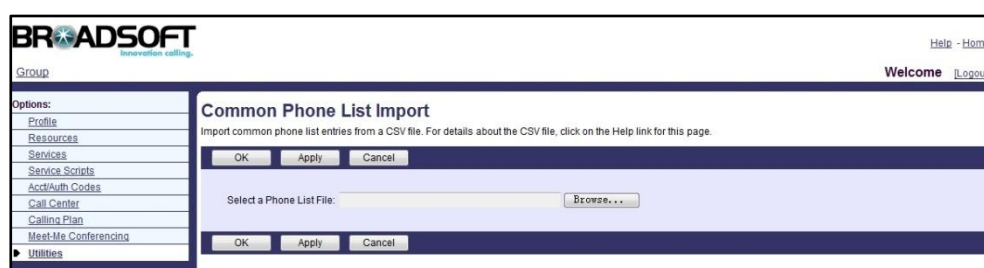
Cancel

Then the contact appears in the group common directory.

You can also import common contacts from an existing comma-delimited text file (file format must be .CSV). To produce a comma-delimited text file, see the instructions for a program such as TXT.

To import a comma-delimited text file:

1. Log in the web portal as a group administrator.
2. Click on **Utilities->Common Phone List**.
3. Click on **Import Phone List**.
4. Click **Browse** to select the .CSV file from your local system and click **Open**. The .CSV file must have headings "Name" and "Number".



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

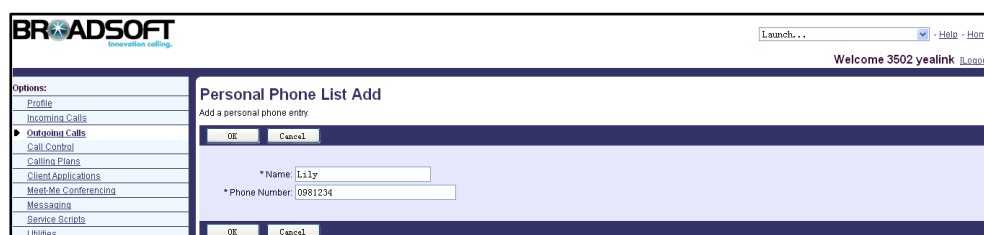
Then the contacts in the .CSV file appear in the group common directory.

The following shows an example of the contacts in an import list created in a text file before the file was converted to a .CSV file.

```
"Name", "Number"
"Bob ", "8003"
"Jony ", "8001"
"Jane ", "8005"
"John ", "8009"
```

To add a contact to the personal directory:

1. Log in the web portal with the user credential.
2. Click on **Outgoing Calls->Personal Phone List**.
3. Click **Add**.
4. Enter the name in the **Name** field.
5. Enter the phone number in the **Phone Number** field.



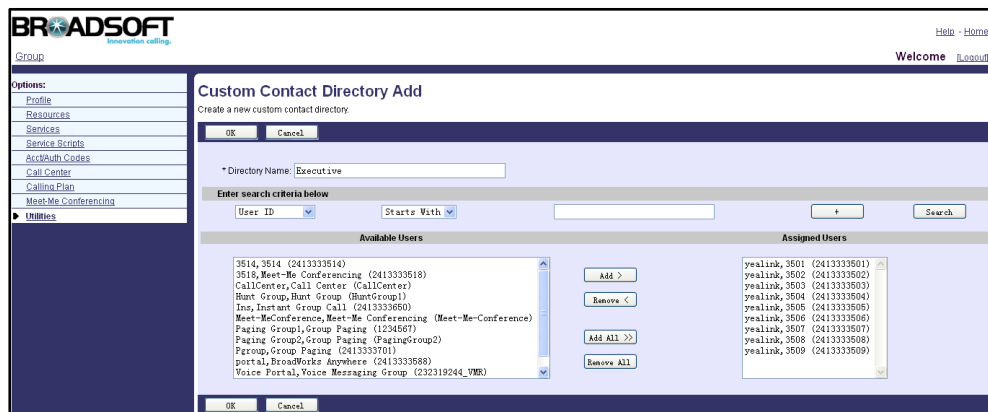
- Click **OK** to accept the change.

Then the contact appears in the user's personal directory.

You can also import personal contacts from an existing comma-delimited text file (file format must be .CSV). For more information, refer to the introduction above.

To add a custom directory:

- Log in the web portal as a group administrator.
- Click on **Utilities->Custom Contact Directories**.
- Click **Add**.
- Enter the name in the **Directory Name** field.
- Click **Search** to display all available users.
- In the **Available Users** box, select the desired user and click **Add>** to assign the user to the directory.
- Repeat the step 6 to add more users.



- Click **OK** to accept the change.

For more information on BroadSoft directory, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

The BroadSoft directory is configurable using the template configuration files or via web user interface.

To configure the BroadSoft directory using the template configuration files:

- Configure the BroadSoft directory using the following parameters in the template configuration file (e.g., y000000000000.cfg).

Parameter	Description	Valid Value
bw_phonebook.group_enable	Enables or disables the group directory to be displayed on the IP phone.	Boolean

Parameter	Description	Valid Value
	0 -Disabled 1 -Enabled The default value is 1.	
bw_phonebook.group_displayname	Specifies the group directory name displayed on the IP phone. The default value is Group.	%BWGROUP-1%
bw_phonebook.group_common_enable	Enables or disables the group common directory to be displayed on the IP phone. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
bw_phonebook.group_common_displayname	Specifies the group common directory name displayed on the IP phone. The default value is GroupCommon.	String
bw_phonebook.enterprise_enable	Enables or disables the enterprise directory to be displayed on the IP phone. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
bw_phonebook.enterprise_displayname	Specifies the enterprise directory name displayed on the IP phone. The default value is Enterprise.	%BWENTERPRISE-1%
bw_phonebook.enterprise_common_enable	Enables or disables the enterprise common directory to be displayed on the IP phone. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
bw_phonebook.enterprise_common_displayname	Specifies the enterprise common directory name displayed on the IP phone. The default value is EnterpriseCommon.	String

Parameter	Description	Valid Value
bw_phonebook.personal_enable	Enables or disables the personal directory to be displayed on the IP phone. 0 -Disabled 1 -Enabled The default value is 1.	Boolean
bw_phonebook.personal_displayname	Specifies the personal directory name displayed on the IP phone. The default value is Personal.	String
bw_phonebook.custom	Enables or disables the custom directory feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean

The following shows an example of BroadSoft directory configurations using the template file:

```
bw_phonebook.group_enable = 1
bw_phonebook.group_displayname = %BWGROUP-1%
bw_phonebook.group_common_enable = 0
bw_phonebook.group_common_displayname = GroupCommon
bw_phonebook.enterprise_enable = 0
bw_phonebook.enterprise_displayname = %BWENTERPRISE-1%
bw_phonebook.enterprise_common_enable = 0
bw_phonebook.enterprise_common_displayname = EnterpriseCommon
bw_phonebook.personal_enable = 1
bw_phonebook.personal_displayname = Personal
bw_phonebook.custom =
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example is shown as below:

```
bw_phonebook.group_displayname = Group
bw_phonebook.enterprise_displayname = Enterprise
```


After the IP phone downloads the configuration files, you can access the BroadSoft directory at the path **Menu->Directory->Network Directories** via phone user interface. The following shows an example of network directory list:



The IP phone connects to load the desired directory, and then displays contacts of this directory on the LCD screen.

You can also configure BroadSoft directory via web user interface at the path **Directory->Network Directory**.

BroadSoft Call Log

IP phones support to access the BroadSoft call log locally. The BroadSoft call log allows users to view and dial the stored numbers in the following lists: Missed Calls, Received Calls, Placed Calls and All Calls. Each call log entry contains call information such as remote party identification, time and date.

Configuring the Yealink IP Phones

The BroadSoft call log is configurable using the template configuration files or via web user interface.

To configure the BroadSoft call log using the template configuration files:

1. Configure the BroadSoft call log using the following parameters in the template configuration file (e.g., y000000000000.cfg):

Parameter	Description	Valid Value
bw_phonebook.call_log_enable	Enables or disables the BroadSoft call log feature. 0-Disabled 1-Enabled The default value is 1.	Boolean

The following shows an example of the BroadSoft call log configuration using the template configuration file:

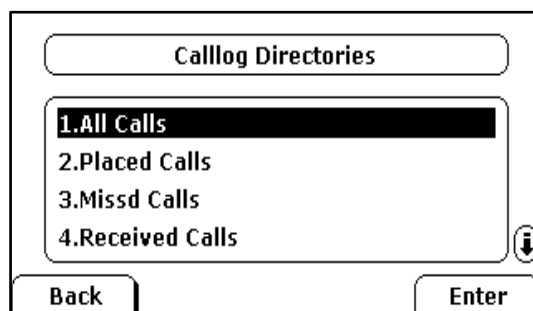
```
bw_phonebook.call_log_enable = 1
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the IP phone downloads the configuration files, the user can access the BroadSoft call log list at the path **Menu->History Type->Network CallLog** via phone user interface.

The following shows an example of call log list:



The IP phone connects to load the desired call log list, and then displays call log entries of this list on the LCD screen.

You can also configure BroadSoft call log via web user interface at the path **Directory->Network Directory**.

Call Park

Call park allows a user to park a call against an extension and then retrieve it on another phone. If a parked call is not retrieved after the pre-configured time, the BroadWorks server will alert the designated user depending on how the server is configured. Group call park hunts for the first available user in the call park group and parks the call there.

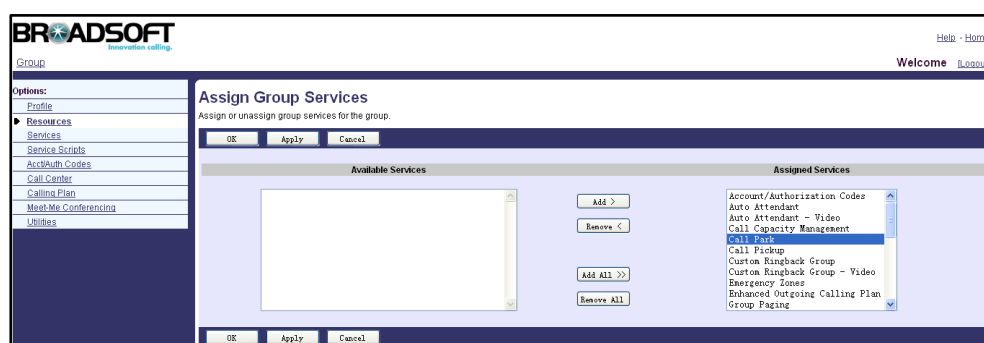
IP phones support Call Park Notification using a SUBSCRIBE/NOTIFY mechanism for communicating to the BroadWorks server when a call is parked against the extension of the IP phone. The IP phone also provides a visual indicator for the parked call and turns off the indicator after the parked call is retrieved.

Configuring the BroadWorks Server

To assign the call park service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resources->Assign Group Services**.

3. In the **Available Services** box, select **Call Park** and click **Add>**.



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

To add a call park group:

1. Log in to the web portal as a group administrator.
2. Click on **Services->Call Park**.

The call park parameters are described as below:

Parameter	Description
Settings for Call Park	<p>Determines where the parked call is sent when the recall timer expires.</p> <p>Alert parking user only: Alerts the user who parked the call only.</p> <p>Alert parking user first, then alternate user: Alerts the user who parked the call first, and then alerts the alternate user if the parking user does not answer the recall.</p> <p>Alert alternate user only: Alerts the alternate user only.</p> <p>The setting is initially set to Alert parking user only. You can only change the setting after you assign an alternate recall user.</p>
Settings for Group Call Park	<p>Display Timer: Specifies how long the server waits before automatically releasing the call. It is used to park a call with Group Call Park.</p> <p>Enable Parked Destination Announcement: Determines whether to announce to the parking user the extension of the destination against which the call has been parked.</p>
Settings for All Parked Calls	<p>Ring Pattern for Recalled Calls: This allows users to distinguish between new and recall calls.</p> <p>Recall Timer: Configures the time after which the parked call is recalled.</p>

Parameter	Description
	Alert Alternate Recall User Wait Time: Configures the time after which the alternate user is called (if configured).

- Make the desired change.

BROADSOFT integrated calling

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Options:

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Call Park

Create a new call park group and manage existing call park groups. Defining call park groups allows users in these groups to park calls on that group. Can also configure Call Park settings for your group's users.

OE Apply Add Cancel

Settings for Call Park:

Alternate Recall User: [Select Alternate Recall User](#)

Recall To: ☒ Alert parking user only
☐ Alert parking user first, then alternate user
☐ Alert alternate user only

Settings for Group Call Park:

Display Timer: 5 seconds
☒ Enable Parked Destination Announcement

Settings for All Parked Calls:

Ring Pattern for Recalled Calls: Normal
 Recall Timer: 45 seconds
 Alert Alternate Recall User Wait Time: 45 seconds

Group Call Park Name: Edit

Park1 Edit

OE Apply Add Cancel

- Click **Add**.
- Enter the desired group name in the **Group Name** field.
- Click **Search** to display all available users.
- In the **Available Users** box, select the desired user and click **Add>** to assign the user to the call park group.
- Repeat the step 7 to add more users.

BROADSOFT integrated calling

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Options:

- Profile
- Resources
- Services
 - Service Scripts
 - Account Codes
 - Call Center
 - Calling Plan
 - Meet-Me Conferencing
 - Utilities

Group Call Park Modify

Modify the selected Group Call Park group.

OE Apply Delete Cancel

Profile **Alternate Recall User**

* Group Name: Marketing

Recall To: ☒ Alert parking user only
☐ Alert parking user first, then alternate user
☐ Alert alternate user only

Enter search criteria below

User ID Starts With Search

Available Users

Assigned Users

yealink, 3501 (2413333501)
 yealink, 3502 (2413333502)
 yealink, 3503 (2413333503)
 yealink, 3504 (2413333504)
 yealink, 3505 (2413333505)
 yealink, 3506 (2413333506)
 yealink, 3507 (2413333507)
 yealink, 3508 (2413333508)
 yealink, 3509 (2413333509)
 yealink, 3510 (2413333510)
 yealink, 3508 (2413333508)

OE Apply Delete Cancel

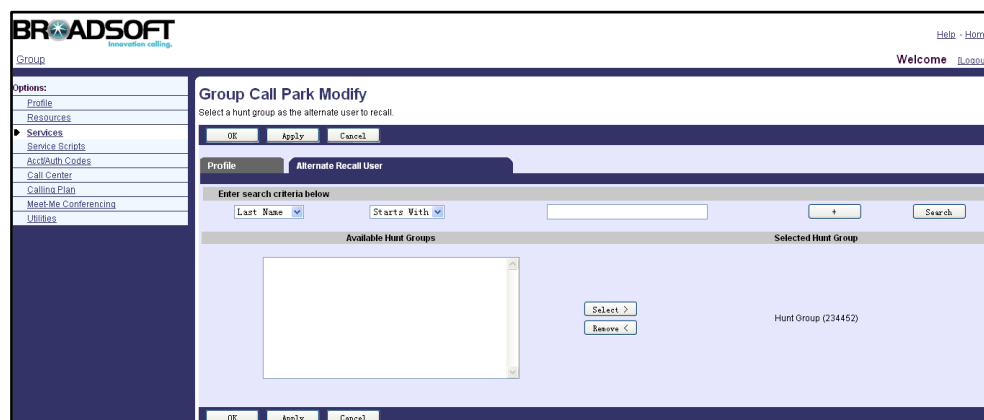
- Click **Apply** to accept the change.

To assign alternate recall users for the call park group:

- Log in the web portal as a group administrator.
- Click on **Services->Call Park**.

3. Select the desired call park group and click **Edit**.
4. Click on the **Alternate Recall User** tab.
5. Click **Search** to display all available hunt groups.
6. In the **Available Hunt Groups** box, select the desired hunt group and then click **Select>**.

Make sure the hunt groups have been pre-configured on the BroadWorks server.



7. Click **Apply** to accept the change.

For more information on call park, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

Call park is configurable using the template configuration files or via web user interface.

To configure call park using the template configuration files:

1. Configure call park using the following parameters in the template configuration file (e.g., y0000000000000.cfg):

The “x” in the parameter is an integer which specifies the line number on the IP phone. X ranges from 1 to 6. If the user is the first user assigned to the device profile, replace “x” by “1”.

Parameter	Description	Value
account.x.callpark_enable	Enables or disables the call park feature. 0-Disabled 1-Enabled The default value is 1.	Boolean
call_park.enable	Enables or disables the IP phone to display the Park soft key during a call.	Boolean

Parameter	Description	Value
	0 -Disabled 1 -Enabled The default value is 0.	
call_park.group_enable	Enables or disables the phone to display the GPark soft key during a call. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
call_park.park_ring	Enables or disables the IP phone to play a warning tone when a call is parked against its line. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
call_park.park_visual_notify_enable	Enables or disables the IP phone to display a parked indicator when a call is parked against its line. 0 -Disabled 1 -Enabled The default value is 0.	Boolean

The following shows an example of call park configurations using the template configuration file:

```
account.1.callpark_enable =1
call_park.enable = 1
call_park.group_enable = 1
call_park.park_ring = 1
call_park.park_visual_notify_enable = 1
```

To configure a retrieve park key using the template configuration files:

1. Configure a DSS key to be a retrieve park key using the following parameters in the template configuration file (e.g., y0000000000000.cfg):

You can configure a memory key to be a retrieve park key (Except for T20P/T22P/T32G/T46G/VP530).

The “x” is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type. 56 -Retrieve Park	56
memorykey.x.value	Specifies the extension where you want to park the call.	String
memorykey.x.line	Specifies the line to apply the retrieve park key. The value values are: 0 to 5 (For T28P/T38G) 0 to 2 (For T26P) 0 -Line1 1 -Line2 2 -Line3 3 -Line4 4 -Line5 5 -Line6	Integer

The following shows an example of retrieve park key (memory key) configurations using the template configuration file:

```
memorykey.1.type = 56
memorykey.1.value = 3607
memorykey.1.line = 0
```

You can also configure a line key to be a retrieve park key.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 27 (For T46G, x ranges from 1 to 27; For T28P/T38G, x ranges from 1 to 6; For VP530, x ranges from 1 to 4; For T22P/T26P/T32G, x ranges from 1 to 3; For T20P, x ranges from 1 to 2).

Parameter	Description	Value
linekey.x.type	Defines the line key type. 56 -Retrieve Park	56
linekey.x.value	Specifies the extension where you want to park the call.	String
linekey.x.line	Specifies the line to apply the retrieve park key. The value values are: 0 to 5 (For T28P/T38G/T46G) 0 to 3 (For VP530) 0 to 2 (For T22P/T26P/T32G) 0 to 1 (For T20P) 0 -Line1	Integer

Parameter	Description	Value
	1-Line2 2-Line3 3-Line4 4-Line5 5-Line6	

The following shows an example of retrieve park key (line key) configurations using the template configuration file:

```
linekey.1.type = 56
linekey.1.value = 3507
linekey.1.line = 0
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the IP phone downloads the configuration files, the user can park a call using the **Park** soft key and retrieve the parked call using the **Retrieve** soft key or the retrieve park key. When a call is parked against the extension of the IP phone, the IP phone LCD screen is similar to the one as below:



You can also configure call park via web user interface at the path **Features->Call Pickup**.

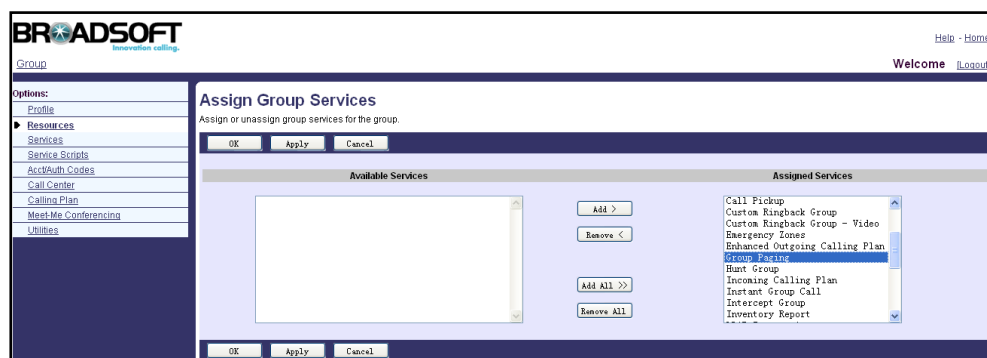
Group Paging

Group paging allows authorized users (originators) to broadcast one-way audio announcements to a group of users (targets) by dialing a paging group number or extension. Group paging originator is the subscriber who may originate pages for this paging group. Group paging target is the subscriber whom the pages from this group will be sent to.

Configuring the BroadWorks Server

To assign the group paging service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resource->Assign Group Services**.
3. In the **Available Services** box, select **Group Paging** and then click **Add>**.



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

To add a paging group:

1. Log in the web portal as a group administrator.
2. Click on **Services->Group Paging**.
3. Click **Add**.
4. Set the parameters of paging group.

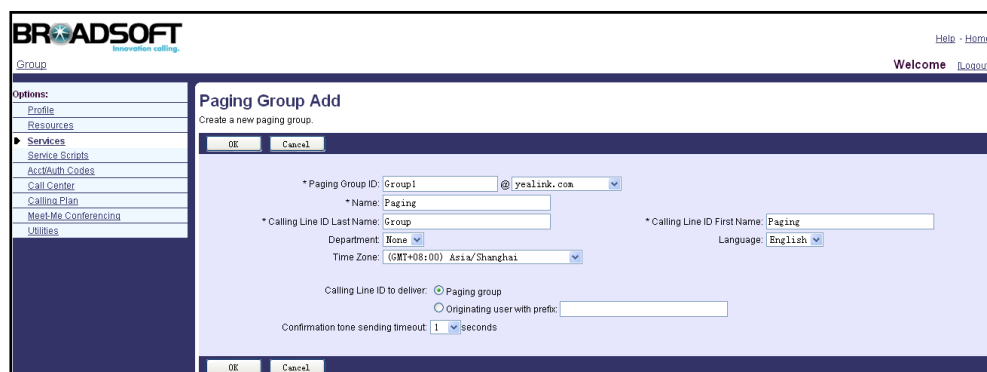
The following shows an example:

Paging Group ID: Group1

Name: Paging

Calling Line ID Last Name: Group

Calling Line ID First Name: Paging



5. Click **OK** to accept the change.
6. Select the paging group added above and click **Edit**.
7. Click on **Addresses**.

8. Select the phone number from the pull-down list of **Phone Number**.
9. Enter the extension in the **Extension** field.

BROADSOFT
BroadWorks® calling

Group > Paging Groups > Group1

Options:
Profile

Paging Group Addresses
Addresses allows you to view and maintain your phone number and other identities that are used to make and receive calls.

OK Apply Cancel

Phone Number: +44-2413333518
Extension: 3518

Aliases: sip: @as.yealink.com
sip: @as.yealink.com
sip: @as.yealink.com

OK Apply Cancel

10. Click **Apply** to accept the change.

To configure the originator and targets for the paging group:

1. Log in the web portal as a group administrator.
2. Click on **Services->Group Paging**.
3. Select the paging group added above and click **Edit**.
4. Click on **Originators**.
5. Click **Search** to display all available users.
6. In the **Available Originators** box, select the desired user and then click **Add>**.

BROADSOFT
BroadWorks® calling

Group > Paging Groups > Group1

Options:
Profile

Paging Group Originators
Create and manage the list of subscribers who may originate calls to the paging group.

OK Apply Cancel

Enter search criteria below
User ID Starts With + Search

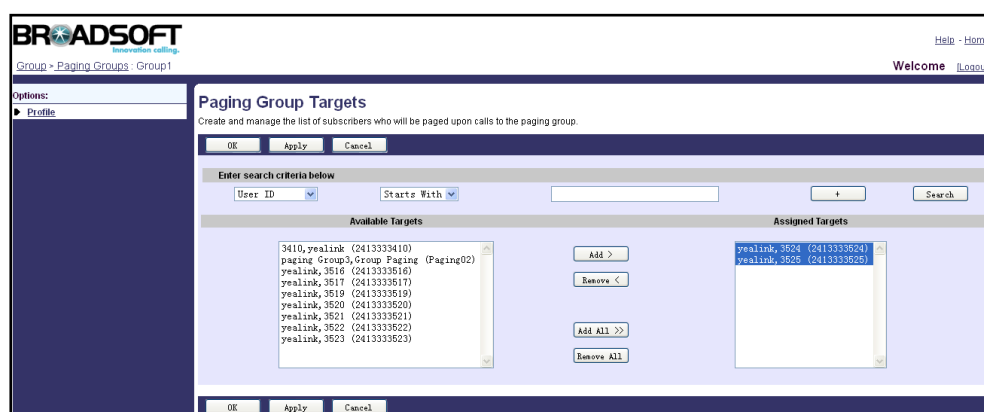
Available Originators	Assigned Originators
3410, yealink (2413333410) yealink, 3516 (2413333516) yealink, 3517 (2413333517) yealink, 3519 (2413333519) yealink, 3520 (2413333520) yealink, 3521 (2413333521) yealink, 3522 (2413333522) yealink, 3524 (2413333524) yealink, 3525 (2413333525)	yealink, 3523 (2413333523)

Add > Remove < Add All >> Remove All

OK Apply Cancel

7. Click **OK** to accept the change.
8. Click on **Targets**.
9. Click **Search** to display all available users.

10. In the **Available Targets** box, select the desired users and then click **Add>**.



11. Click **Apply** to accept the change.

For more information on group paging, refer to *BroadWorks Web Interface Administrator Guide*.

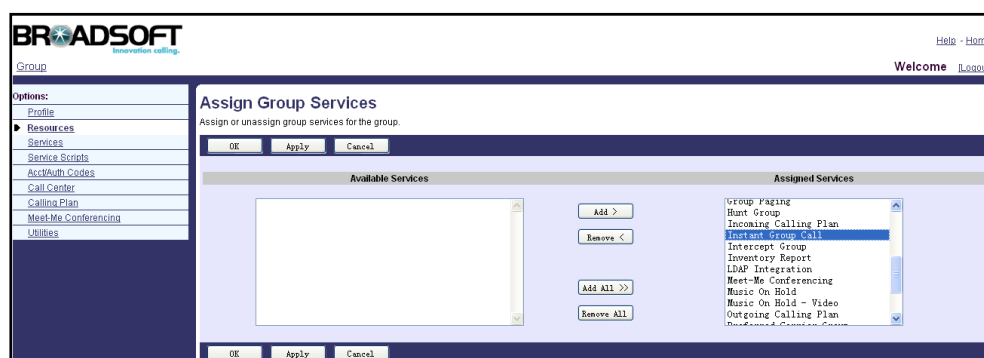
Instant Group Call

Instant group call allows users to instantly call a pre-defined group of users for an ad hoc conference call by dialing a phone number or an extension. The originators can be part of the same group or external users.

Configuring the BroadWorks Server

To assign the instant group call service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resource->Assign Group Services**.
3. In the **Available Services** box, select **Instant Group Call** and then click **Add>**.



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

To add an instant group call:

1. Log in the web portal as a group administrator.

2. Click on **Services->Instant Group Call**.
3. Click **Add**.
4. Set the parameters of the instant group.

The following shows an example:

Instant Group Call ID: Instantgroup1
 Name: Instant Group
 Calling Line ID Last Name: Group
 Calling Line ID First Name: Instant
 Instant Group Call User List: 2413333523
 2413333524
 2413333525

5. Click **OK** to accept the change.
6. Select the instant group call added above and click **Edit**.
7. Click on **Addresses**.
8. Select the phone number from the pull-down list of **Phone Number**.
9. Enter the extension in the **Extension** field.

10. Click **Apply** to accept the change.

For more information on instant group call, refer to *BroadWorks Web Interface Administrator Guide*.

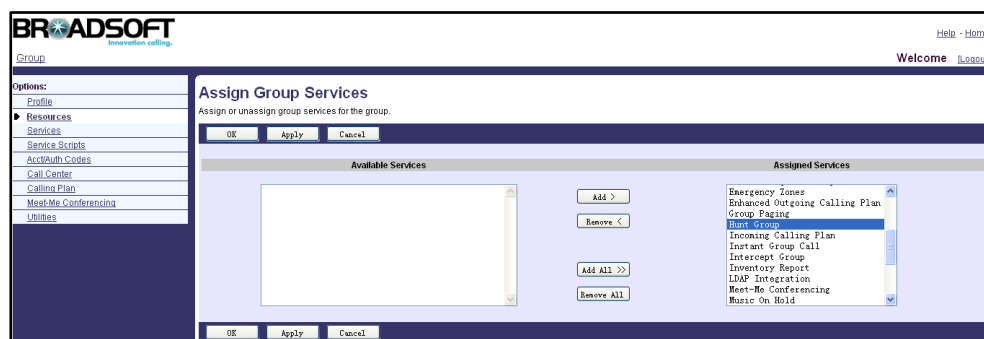
Hunt Group

Hunt group allows incoming calls to a central phone number to be distributed among a group of users according to a hunting policy.

Configuring the BroadWorks Server

To assign the hunt group service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resources->Assign Group Services**.
3. In the **Available Services** box, select **Hunt Group** and click **Add>**.



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

To add a hunt group:

1. Log in the web portal as a group administrator.
2. Click on **Services->Hunt Group**.
3. Click **Add**.
4. Set the parameters of hunt group:

The following shows an example:

Hunt Group ID: HuntGroup1

Name: Hunt Group

Calling Line ID Last Name: Group

Calling Line ID First Name: Hunt

5. Mark the desired radio box in the **Group Policy** field.
 - **Circular:** Sends incoming calls to users according to their position in a list. After a call has been sent to the last user in the list, the next call is sent to the user at the top of the list.
 - **Regular:** Sends incoming calls to the next available user in the hunt group.
 - **Simultaneous:** Sends incoming calls to all users at the same time. The call is connected to the user who answers the call first.

- **Uniform:** Sends incoming call to the user who has been idle for the longest time. After a user has answered a call, the user is moved to the bottom of the call queue.
 - **Weighted Call Distribution:** Sends incoming calls randomly to users according to their relative weight. Users with a higher weight are assigned more incoming calls than users with lower weights.
6. Click **Search** to display all available users.
 7. In the **Available Users** box, select the desired user and click **Add>** to assign it to the hunt group.

BROADSOFT
BroadWorks

Group > Hunt Groups > HuntGroup1

Help - Home

Welcome Logout

Hunt Group Profile
Modify the selected hunt group.

Options:
Profile
Calling Plans

Buttons: OK, Apply, Delete, Cancel

Hunt Group ID: HuntGroup1 [Change User ID \(Also saves current screen data\)](#)

* Name: Hunt Group

* Calling Line ID Last Name: Group * Calling Line ID First Name: Hunt

Department: None Language: English

Time Zone: (GMT+08:00) Asia/Shanghai

☐ Allow Call Waiting on agents

Group Policy: ☐ Circular ☒ Regular ☐ Simultaneous ☐ Uniform ☐ Weighted Call Distribution

No Answer Settings

☐ Skip to next agent after 5 Rings

☐ Forward call after waiting 0 seconds

Calls Forward to:

Not Reachable Settings

☐ Enable Call Forwarding Not Reachable

Calls Forward to:

☐ Make Hunt Group busy when all available agents are not reachable

Calling Line ID Settings

☒ Use the system default CLID configuration (currently including the Hunt Group Name in the CLID)

☐ Customize the CLID for this Hunt Group

☒ Include the Hunt Group Name in the CLID

Enter search criteria below

User ID Starts With + Search

Available Users	Assigned Users
3514, 3514 (2413333514)	yealink, 3501 (2413333501)
yealink, 3509 (2413333509)	yealink, 3502 (2413333502)
yealink, 3510 (2413333510)	yealink, 3503 (2413333503)
	yealink, 3504 (2413333504)
	yealink, 3505 (2413333505)
	yealink, 3506 (2413333506)
	yealink, 3507 (2413333507)
	yealink, 3508 (2413333508)

Buttons: Add >, Remove <, Add All >>, Remove All, Move Up, Move Down

Buttons: OK, Apply, Delete, Cancel

8. Click **OK** to accept the change.
9. Select the hunt group added above and click **Edit**.
10. Click on **Addresses**.
11. Select the phone number from the **Phone Number** field.

12. Enter the extension in the **Extension** field.

13. Click **Apply** to accept the change.

To configure weighted call distribution:

1. Log in the web portal as a group administrator.
2. Click on **Services->Hunt Group**.
3. Select the hunt group added above and click **Edit**.
4. Click on **Profile->Weighted Call Distribution**. This link appears only if you enabled the weighted call distribution policy for this hunt group.
5. Enter the desired percentage values in the corresponding fields.

6. Click **Apply** to accept the change.

For more information on hunt group, refer to *BroadWorks Web Interface Administrator Guide*.

CommPilot Call Manager

CommPilot call manager allows users to use a web-based tool for service invocation and call control. It provides users with a visual, graphical user interface to initiate, manipulate, and release calls. It also provides the following functions:

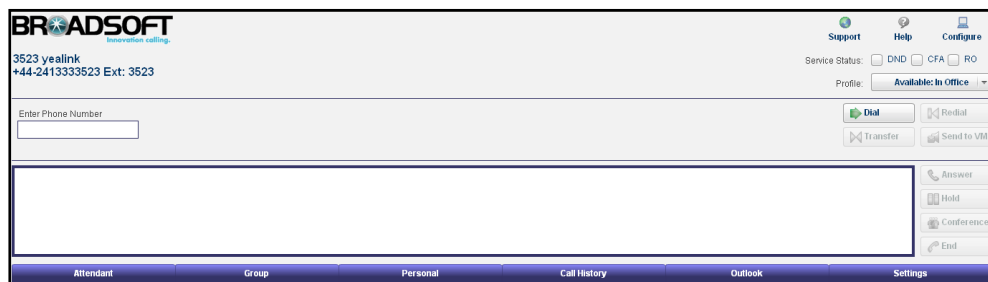
- Navigation, support, help – Useful links include support (to send an e-mail to the applicable support service), help (to display a context-sensitive help web page), and configure (to jump to the CommPilot Personal web portal).

- User information – Presents the name, phone number, and extension of the user of the CommPilot call manager.
- Service link area – Provides status and configuration for commonly used services.
- Call display – Presents the user with information on active calls and allows the user to select calls with the mouse.
- Directories – Provides access to the user directories, including the group and the personal.
- Call History – Provides access to the user call log.
- Settings – Allows the user to configure the CommPilot call manager.

To log in the call manager:

1. Log in the web portal with the user credential.
2. Select the **Call Manager/Attendant Console** from the pull-down list on the upper right corner.

The CommPilot call manager is shown as below:



Note

Before logging in the call manager, check whether the version of web browser and flash player installed on your computer is proper. For more information, contact your BroadSoft reseller.

To initiate, manipulate and release a call via the call manager:

1. Enter the phone number in the **Enter Phone Number** field
2. Click **Dial** to make a call.

The caller's IP phone is alerted first. After the caller answers the incoming call on his IP phone, the callee's IP phone is alerted. After the callee answers the incoming call on his phone, the two-way voice is established between two parties.

3. Click **Hold** to place the active call on hold.
4. Click **Resume** to retrieve the held call.
5. Click **End** to release the call.

For more information on CommPilot call manager, refer to *BroadWorks Web Interface Administrator Guide*.

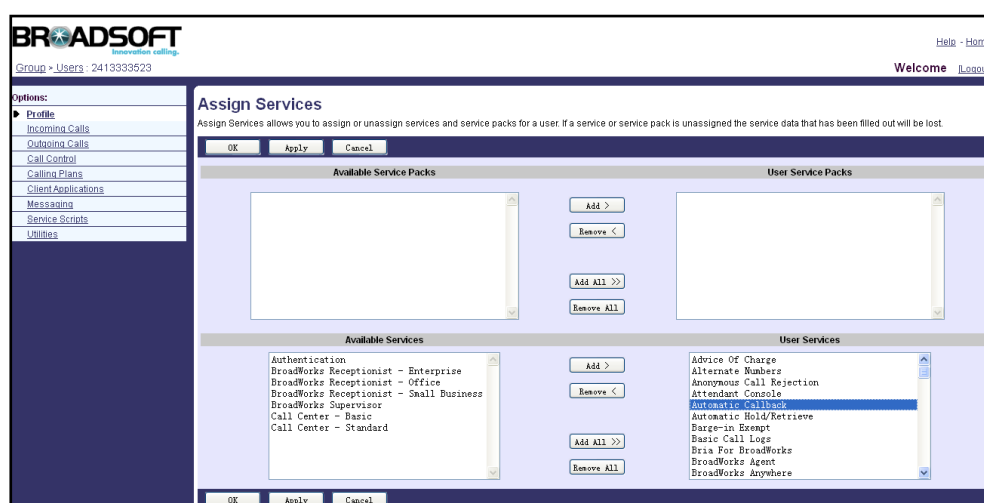
Automatic Callback

Automatic callback allows a user to monitor a busy party and automatically establish a call when the busy party becomes idle. The user receives a notification when the busy party becomes available.

Configuring the BroadWorks Server

To assign the automatic callback service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Automatic Callback** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure automatic callback for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523), who has been assigned the automatic callback service.
4. Click on **Outgoing Calls->Automatic Callback**.

5. Mark the **On** radio box in the **Automatic Callback** field.

6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333523). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on automatic callback, refer to *BroadWorks Web Interface Administrator Guide*.

Authentication

Authentication provides authentication of sessions for SIP IP phones to prevent unauthorized access to the system. Authentication is performed on registrations (SIP REGISTERs), redirections (SIP REFERs) as well as incoming calls (SIP INVITEs). Standard MD5 digest authentication is used.

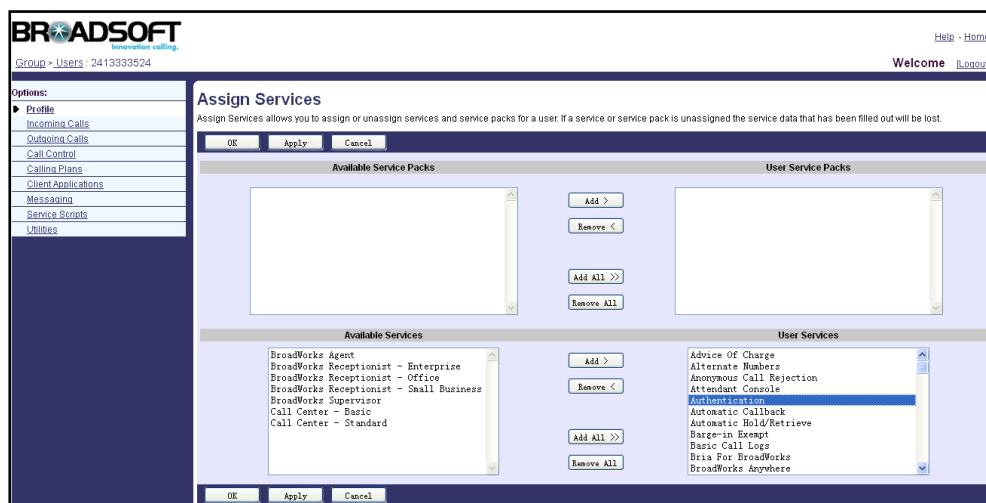
Configuring the BroadWorks Server

To use authentication service, make sure the authentication service is assigned to the user, the user ID and password for authentication are configured.

To assign the authentication service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524).
4. Click on **Assign Services**.

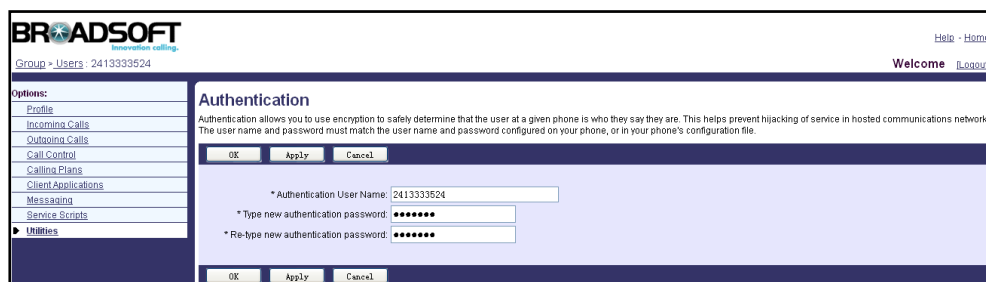
5. In the **Available Services** box, select **Authentication** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure the user ID and password for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524), who has been assigned the authentication service.
4. Click on **Utilities->Authentication**.
5. Enter the user ID in the **Authentication User Name** field.
6. Enter the password in the **Type new authentication password** and **Re-type new authentication password** fields.



7. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333524). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on authentication, refer to *BroadWorks Web Interface Administrator Guide*.

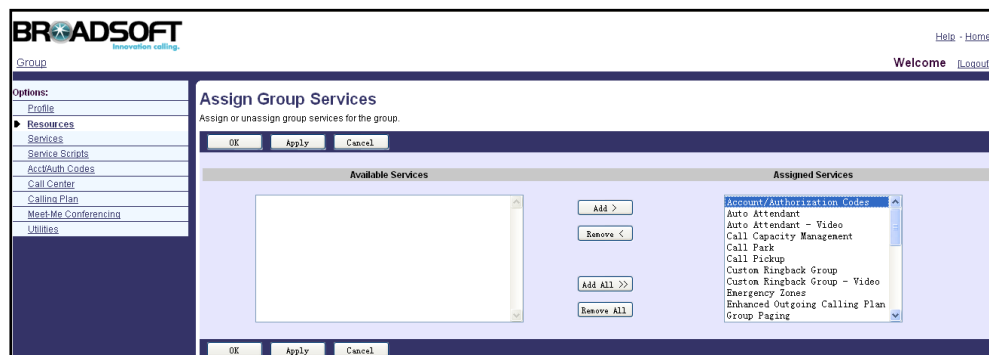
Authorization/Account Codes

Authorization/Account codes allow users to use authorization and account codes for outgoing calls. Authorization code allows authorization of calls made outside the group by prompting users for an authorization code. Calls are not connected unless a valid code is entered. Account code allows tracking of calls made outside the group by prompting users for an account code. Account codes have a fixed length, as configured by the group administrator. When prompted for an account code, the user is informed of the digits to enter, which match the length of the account codes.

Configuring the BroadWorks Server

To assign the authorization/account codes service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resources->Assign Group Services**.
3. In the **Available Services** box, select **Authorization/Account Codes** and then click **Add>**.



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

To configure the type of code for the group:

1. Log in the web portal as a group administrator.
2. Click on **Acct/Auth Codes->Administration**.
3. Set the parameters of account/authorization codes.

The following shows an example:

Type: Authorization Code

Number of Digits: 4

Allow Local and Toll-Free Calls without Account/Authorization Code: Selected

Restricted Users: 2413333523@as.iop1.broadworks.net

2413333524@as.iop1.broadworks.net

2413333525@as.iop1.broadworks.net

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

To configure the authentication code:

1. Log in the web portal as a group administrator.
2. Click on **Acct/Auth Codes->Codes Management**.
3. Click **Add** to add the authentication codes.
4. Enter the configured number of digits in the **Account/Authentication Code** field.
5. Enter the desired description in the **Description** field.

6. Click **OK** to accept the change.

For more information on authorization/account codes, refer to *BroadWorks Web Interface Administrator Guide*.

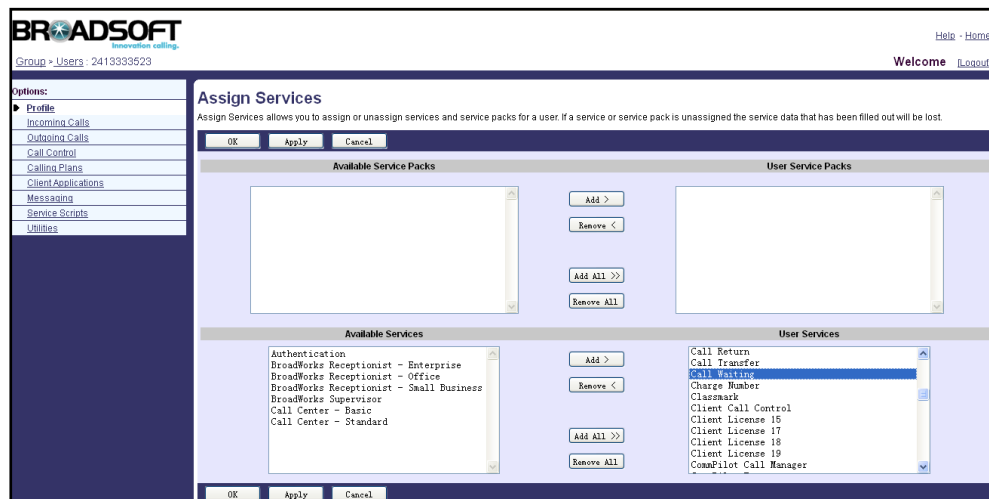
Call Waiting

Call waiting allows users to receive another call while already engaged in a call. Call waiting tone enables the IP phone to play a short tone when receiving another incoming call during a call. Call waiting tone works only if call waiting is enabled.

Configuring the BroadWorks Server

To assign the call waiting service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523).
4. In the **Available Services** box, select **Call Waiting** and then click **Add>**.



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

To configure call waiting for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523), who has been assigned the call waiting service.
4. Click on **Call Control->Call Waiting**.

5. Mark the **On** radio box in the **Call Waiting** field.

The screenshot shows the BroadSoft web interface for user configuration. On the left is a navigation menu with options like Profile, Incoming Calls, Outgoing Calls, Call Control, Call Plans, Client Applications, Messaging, Service Scripts, and Utilities. The main content area is titled 'Call Waiting' and includes a description: 'Call Waiting allows you to receive another call while you are on the phone. You can turn it on or off for all calls and then selectively turn it back on or off using the feature access codes.' Below this, there are three buttons: 'OK', 'Apply', and 'Cancel'. The 'Call Waiting' field is set to 'On' with a radio button, and the 'Disable Calling Line ID Delivery on Call Waiting' checkbox is unchecked. The 'Apply' button is highlighted.

6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333523). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on call waiting, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

Call waiting and call waiting tone are configurable using the template configuration files, via web user interface, or via phone user interface. Feature access codes (FACs) configured on IP phones are used to activate or deactivate the server-side call waiting feature.

To configure call waiting and call waiting tone using the template configuration files:

1. Configure call waiting and call waiting tone using the following parameters in the template configuration file (e.g., y0000000000000000.cfg). If the user (e.g., 2413333523) is the first user assigned to the device profile, replace "x" by "1".

Parameter	Description	Value
call_waiting.enable	Enables or disables call waiting. 0 -Enabled 1 -Disabled The default value is 1.	%CALL_WAITING_BINARY%
call_waiting.tone	Enables or disables call waiting tone. 0 -Enabled 1 -Disabled The default value is 1.	Boolean
call_waiting.on_code	Configures the Call Waiting Activation FAC (default: *43).	%BWFAC-CW-PER-SISTENT-ACTIVATE-X%
call_waiting.off_code	Configures the Call Waiting Deactivation FAC (default:	%BWFAC-CW-PER-SISTENT-DEACTIVA

Parameter	Description	Value
	#43).	TE-X%

The following shows an example of call waiting configurations using the template configuration file:

```
call_waiting.enable = %CALL_WAITING_BINARY%
call_waiting.tone = 1
call_waiting.on_code = %BWFAC-CW-PERSISTENT-ACTIVATE-1%
call_waiting.off_code = %BWFAC-CW-PERSISTENT-DEACTIVATE-1%
```

2. Customize the static tag on the BroadWorks server. The tag name is %CALL_WAITING_BINARY % and the tag value is 1.

For more information, refer to [Customizing a Static Tag](#) on page 23.

3. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tag in the template file will be replaced by the actual parameter value. An example is shown as below:

```
call_waiting.enable = 1
call_waiting.on_code = *43
call_waiting.off_code = #43
```

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

The screenshot displays the Yealink T28 web interface. The 'Features' tab is selected, and the 'General Information' section is highlighted with a red box. This section contains the following settings:

- Call Waiting: Enabled (dropdown)
- Call Waiting On Code: *43 (text input)
- Call Waiting Off Code: #43 (text input)
- Auto Redial: Disabled (dropdown)
- Auto Redial Interval (1~300s): 10 (text input)
- Auto Redial Times (1~300): 10 (text input)
- Key As Send: # (dropdown)
- Reserve # in User Name: Enabled (dropdown)
- Hotline Number: (text input)
- Hotline Delay(0~10s): 4 (text input)
- Busy Tone Delay (Seconds): 0 (text input)
- Return Code When Refuse: 486 (Busy Here) (dropdown)
- Return Code When DND: 480 (Temporarily Not Av) (dropdown)
- Call Completion: Disabled (dropdown)
- Feature Key Synchronization: Disabled (dropdown)
- Time-Out For Dial-Now Rule: 1 (text input)
- RFC 2543 Hold: Disabled (dropdown)
- Use Outbound Proxy In Dialog: Enabled (dropdown)
- 180 Ring Workaround: Enabled (dropdown)
- Logon Wizard: Disabled (dropdown)
- PswPrefix: (text input)

A 'NOTE' section on the right provides additional information:

- Call Waiting**: This call feature allows your phone to accept other incoming calls during the conversation.
- Key As Send**: Select * or # as the send key.
- Hotline Number**: When you pick up the phone, it will dial out the hotline number automatically.

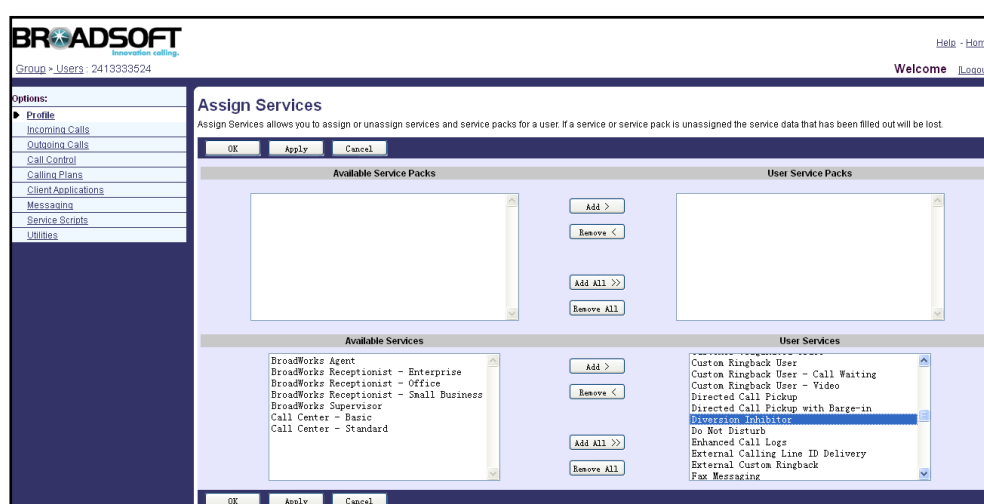
Diversion Inhibitor

Diversion inhibitor prevents calls from being redirected by the callee. When receiving the INVITE message sent by BroadWorks with “diversion-inhibited” in the diversion or history-info header, the callee is forbidden to forward the call even if call forward is enabled on the callee’s phone. The user can activate diversion inhibitor by dialing the feature access code (FAC) as a dial prefix when making a call.

Configuring the BroadWorks Server

To assign the diversion inhibitor service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Diversion Inhibitor** and then click **Add>**.



6. Click **Apply** to accept the change.

To check the Diversion Inhibitor FAC:

1. Log in the web portal as a group administrator.
2. Click on **Utilities->Feature Access Codes**.
3. Check the Diversion Inhibitor FAC.

Administrator can modify the code in the **Main (Required)** field or enter an alternate code in the **Alternate (Optional)** field.

For more information on diversion inhibitor, refer to *BroadWorks Web Interface Administrator Guide*.

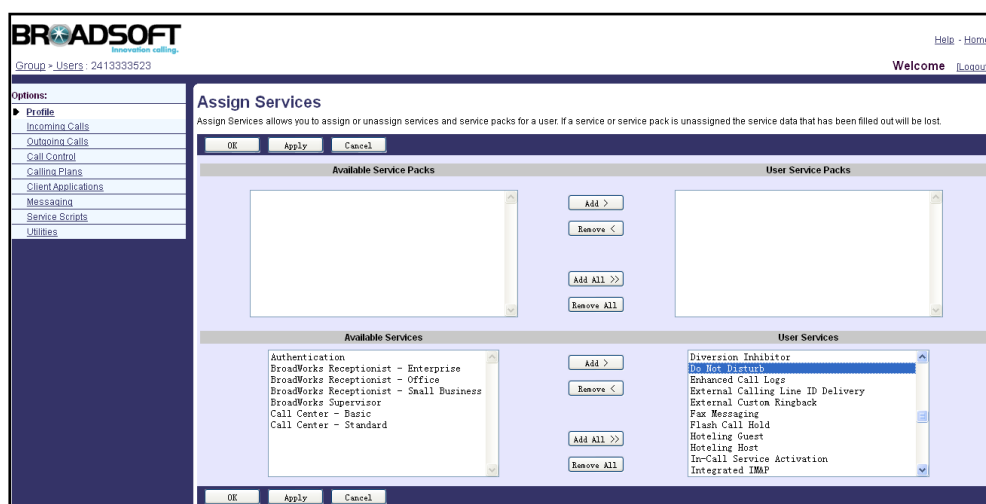
Do Not Disturb

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.

Configuring the BroadWorks Server

To assign the DND service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Do Not Disturb** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure DND for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524), who has been assigned the DND service.
4. Click on **Incoming Calls->Do Not Disturb**.
5. Mark the **On** radio box in the **Do Not Disturb** field.

6. Check the **Play Ring Reminder when a call is blocked** checkbox.

7. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333524). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on DND, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

There are two DND modes: Phone (default) and Custom. The DND mode is configurable using the configuration files or via web user interface. DND key is configurable using the template configuration files, via web user interface or via phone user interface. Feature access codes (FACs) configured on IP phones are used to activate or deactivate the server-side DND feature. A user can activate or deactivate the DND feature on the IP phone using the DND soft key or a DND key.

To configure DND using the template configuration files:

1. Configure DND using the following parameters in the template configuration files.

The “x” in the parameter is an integer which specifies the line number on the IP phone. If the user (e.g., 2413333524) is the second user assigned to the device profile, replace “x” by “2”.

Parameter	Description	Value
features.dnd_mode	Specifies the mode for the IP phone to handle DND. 0-Phone 1-Custom The default value is 0.	Integer
features.dnd.enable	Enables or disables DND. 0-Disabled 1-Enabled The default value is 0. It takes effect only if the parameter “features.dnd_mode” is set to	Boolean

Parameter	Description	Value
	0.	
features.dnd.on_code	Configures the DND Activation FAC (default: *78). It takes effect only if the parameter "features.dnd_mode" is set to 0.	String
features.dnd.off_code	Configures the DND Deactivation FAC (default: *88). It takes effect only if the parameter "features.dnd_mode" is set to 0.	String
account.x.dnd.enable	Enables or disables DND on a per-account basis. 0-Disabled 1-Enabled The default value is 0. It takes effect only if the parameter "features.dnd_mode" is set to 1.	%BWDND-BINARY-X%
account.x.dnd.on_code	Configures the DND Activation FAC (default: *78) for the account x. It takes effect only if the parameter "features.dnd_mode" is set to 1.	%BWFAC-DND-ACTIVATE-X%
account.x.dnd.off_code	Configures the DND Deactivation FAC (default: *88) for the account x. It takes effect only if the parameter "features.dnd_mode" is set to 1.	%BWFAC-DND-DEACTIVATE-X%

The following shows an example of DND configurations for account 2 using the template configuration file:

```
features.dnd_mode = 1
account.2.dnd.enable = %BWDND-BINARY-2%
```

```
account.2.dnd.on_code = %BWFAC-DND-ACTIVATE-2%
```

```
account.2.dnd.off_code = %BWFAC-DND- DEACTIVATE -2%
```

2. Upload the template configuration files.

After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example is shown as below:

```
account.2.dnd.enable = 1
```

```
account.2.dnd.on_code = *78
```

```
account.2.dnd.off_code = *88
```

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

To configure a DND key using the template configuration files:

1. Configure a DSS key to be a DND key using the following parameter in the template configuration file (e.g., y000000000000.cfg).

You can configure a memory key to be a DND key (Except for T20P/T22P/T32G/T46G/VP530).

The "x" is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type.	5

Parameter	Description	Value
	5-DND	

The following shows an example of the DND key (memory key) configuration using the template configuration file:

```
memorykey.1.type = 5
```

You can also configure a line key to be a DND key.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 27 (For T46G, x ranges from 1 to 27; For T28P/T38G, x ranges from 1 to 6; For VP530, x ranges from 1 to 4; For T22P/T26P/T32G, x ranges from 1 to 3; For T20P, x ranges from 1 to 2).

Parameter	Description	Value
linekey.x.type	Defines the line key type. 5-DND	5

The following shows an example of the DND key (line key) configuration using the template configuration file:

```
linekey.1.type = 5
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

Call Forward

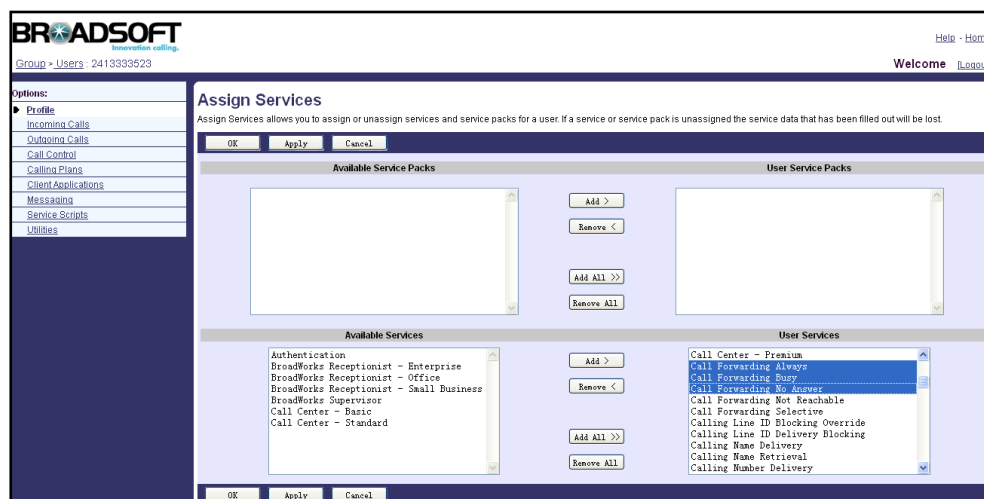
Call forward allows users to redirect incoming calls to another destination. When an incoming call is forwarded, the BroadWorks server sends the INVITE request containing the Diversion or History-info header to the destination party. The following describes three call forward behaviors:

- **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.

Configuring the BroadWorks Server

To assign the call forward service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Call Forwarding Always**, **Call Forwarding Busy** and **Call forwarding No Answer** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure call forwarding always for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.

3. Select the desired user (e.g., 2413333523), who has been assigned the call forward service.
4. Click on **Incoming Calls->Call Forwarding Always**.
5. Mark the **On** radio box in the **Call Forwarding Always** field.
6. Enter the destination number or SIP-URI in the **Calls Forward to phone number / SIP-URI** field.
7. Check the **Play Ring Reminder when a call is forwarded** checkbox.

8. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333523). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

To configure call forwarding busy for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333517), who has been assigned the call forward service.
4. Click on **Incoming Calls->Call Forwarding Busy**.
5. Mark the **On** radio box in the **Call Forwarding Busy** field.
6. Enter the destination number or SIP-URI in the **Calls Forward to phone number / SIP-URI** field.

7. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333517). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

To configure call forwarding No Answer for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333520), who has been assigned the call forward service.
4. Click on **Incoming Calls->Call Forwarding No Answer**.
5. Mark the **On** radio box in the **Call Forwarding No Answer** field.
6. Enter the destination number or SIP-URI in the **Calls Forward to phone number / SIP-URI** field.
7. Select the desired value from the pull-down list of **Number of rings before forwarding**.

8. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333520). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on call forward, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

There are two call forward modes: Phone (default) and Custom. The call forward mode and the presentation of diversion information are configurable using the configuration files or via web user interface. Call forward is configurable using the configuration files, via web user interface or via phone user interface. Feature access codes (FACs) configured on IP phones are used to activate or deactivate the server-side call forward feature.

To configure call forward using the template configuration files:

1. Configure the call forward feature using the following parameters in the template configuration files.

The “x” in the parameter is an integer which specifies the line number on the IP phone. If the user (e.g., 2413333523) is the second user assigned to the device profile, replace “x” by “2”.

Parameter	Description	Value
features.fwd_mode	Specifies the call forward mode. 0 -Phone 1 -Custom The default value is 0.	Integer
forward.always.enable	Enables or disables always call forward. 0 -Disabled 1 -Enabled The default value is 0. It takes effect only if the parameter "features.fwd_mode" is set to 0.	Boolean
forward.always.target	Defines the destination number of always call forward. It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
forward.always.on_code	Sets the Call Forwarding Always Activation FAC (default: *72). It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
forward.always.off_code	Sets the Call Forwarding Always Deactivation FAC (default: *73). It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
forward.busy.enable	Enables or disables busy call forward. 0 -Disabled 1 -Enabled The default value is 0. It takes effect only if the parameter "features.fwd_mode" is set to	Boolean

Parameter	Description	Value
	0.	
forward.busy.target	Defines the destination number of busy call forward. It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
forward.busy.on_code	Sets the Call Forwarding Busy Activation FAC (default: *90). It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
forward.busy.off_code	Sets the Call Forwarding Busy Deactivation FAC (default: *91). It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
forward.no_answer.enable	Enables or disables no answer call forward. 0-Disabled 1-Enabled The default value is 0. It takes effect only if the parameter "features.fwd_mode" is set to 0.	Boolean
forward.no_answer.target	Defines a period of ring time to wait before forwarding the ringing call. The interval of the ring time is n*6 (0≤n≤20), the valid values ranges from 0 to 20. The default value is 2. It takes effect only if the parameter "features.fwd_mode" is set to 0.	Integer
forward.no_answer.timeout	Defines the destination number of no answer call	String

Parameter	Description	Value
	forward. It takes effect only if the parameter "features.fwd_mode" is set to 0.	
forward.no_answer.on_code	Sets the Call Forwarding No Answer Activation FAC (default: *92). It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
forward.no_answer.off_code	Sets the Call Forwarding No Answer Deactivation FAC (default: *93). It takes effect only if the parameter "features.fwd_mode" is set to 0.	String
account.x.always_fwd.enable	Enables or disables always call forward on a per-account basis. 0 -Disabled 1 -Enabled The default value is 0. It takes effect only if the parameter "features.fwd_mode" is set to 1.	%BWCFA-BINARY-X%
account.x.always_fwd.target	Defines the destination number of always call forward for the account x. It takes effect only if the parameter "features.fwd_mode" is set to 1.	String
account.x.always_fwd.on_code	Sets the Call Forwarding Always Activation FAC (default: *72) for the account x. It takes effect only if the parameter "features.fwd_mode" is set to	%BWFAC-CFA-ACTIVATE-X%

Parameter	Description	Value
	1.	
account.x.always_fwd.off_code	Sets the Call Forwarding Always Deactivation FAC (default: *73) for the account x. It takes effect only if the parameter "features.fwd_mode" is set to 1.	%BWFAC-CFA-DEACTIVATE-X%
account.x.busy_fwd.enable	Enables or disables busy call forward on a per-account basis. 0 -Disabled 1 -Enabled The default value is 0. It takes effect only if the parameter "features.fwd_mode" is set to 1.	Boolean
account.x.busy_fwd.target	Defines the destination number of busy call forward for the account x. It takes effect only if the parameter "features.fwd_mode" is set to 1.	String
account.x.busy_fwd.on_code	Sets the Call Forwarding Busy Activation FAC (default: *90) for the account x. It takes effect only if the parameter "features.fwd_mode" is set to 1.	%BWFAC-CFB-ACTIVATE-X%
account.x.busy_fwd.off_code	Sets the Call Forwarding Busy Deactivation FAC (default: *91) for the account x. It takes effect only if the parameter "features.fwd_mode" is set to 1.	%BWFAC-CFB-DEACTIVATE-X%
account.x.timeout_fwd.enable	Enables or disables no answer call forward on a per-account basis.	Boolean

Parameter	Description	Value
	0-Disabled 1-Enabled The default value is 0. It takes effect only if the parameter "features.fwd_mode" is set to 1.	
account.x.timeout_fwd.timeout	Defines a period of ring time to wait before forwarding the ringing call. The interval of the ring time is $n \times 6$ ($0 \leq n \leq 20$), the valid values ranges from 0 to 20. The default value is 2. It takes effect only if the parameter "features.fwd_mode" is set to 1.	Integer
account.x.timeout_fwd.target	Defines the destination number of no answer call forward. It takes effect only if the parameter "features.fwd_mode" is set to 1.	String
account.x.timeout_fwd.on_code	Sets the Call Forwarding No Answer Activation FAC (default: *92) for the account x. It takes effect only if the parameter "features.fwd_mode" is set to 1.	%BWFAC-CFNA-Activate-X%
account.x.timeout_fwd.off_code	Sets the Call Forwarding No Answer Deactivation FAC (default: *93) for the account x. It takes effect only if the parameter "features.fwd_mode" is set to 1.	%BWFAC-CFNA-Deactivate-X%
features.fwd_diversion_enable	Enables or disables the IP phone to present the	Boolean

Parameter	Description	Value
	diversion information when the call is forwarded to your IP phone. 0 -Disabled 1 -Enabled The default value is 1.	

The following shows an example of always call forward configurations for account 2 using the template configuration file:

```
features.fwd_mode = 1  
  
account.2.always_fwd.enable = %BWFAC-CFA- BINARY-2%  
account.2.always_fwd.target = 3524  
account.2.always_fwd.on_code = %BWFAC-CFA-ACTIVATE-2%  
account.2.always_fwd.off_code = %BWFAC-CFA-DEACTIVATE-2%
```

2. Upload the template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template configuration files will be replaced by the actual parameter values. An example is shown as below:

```
account.2.always_fwd.enable = 1  
account.2.always_fwd.on_code = *72  
account.2.always_fwd.off_code = *73
```

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

The screenshot shows the Yealink T28 web interface. The 'Features' tab is selected. The 'Forward' section is highlighted with a red box. It includes settings for 'Mode' (Phone/Custom), 'Account' (2413333523), 'Always Forward' (On/Off), 'Target' (3524), 'On Code' (*72), and 'Off Code' (*73). Below this is the 'Busy Forward' section with 'On/Off' options and 'Target', 'On Code', and 'Off Code' fields. The 'No Answer Forward' section has 'On/Off' options, 'After Ring Times' (12), and 'Target', 'On Code', and 'Off Code' fields. The 'DND' section includes 'DND Emergency' (Disabled), 'DND Authorized Numbers', 'Mode' (Phone/Custom), 'Account' (2413333523), and 'DND Status' (On/Off). A 'NOTE' sidebar on the right explains the Forward feature.

NOTE

Forward
This feature allows you to forward an incoming call to another phone number.

Target
The number to which the incoming calls will be forwarded.

On Code
The code that will be sent to PBX when it is switched On.

Off Code
The code that will be sent to PBX when it is switched Off.

Alternate Numbers

Alternate numbers allow a user to have up to ten alternate phone numbers or extensions in addition to the main phone number or extension. The user can be reached through any of the phone numbers or extensions. Calls to the main number result in the normal ring pattern. Calls to an alternate number result in a distinctive ring pattern configured for that number. Each alternate phone number or extension can be assigned one of four distinctive ring patterns.

Normal Ring Pattern

Calls to the main number alert the user with the normal ring pattern as shown in the following table:

Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Ringing	2s On	1800	2000	2200
Silent	4s Off	3600	4000	4400

Long-Long Ring Pattern

Selecting this pattern results in the following distinctive ring pattern:

Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Ringing	Long	630	800	1025
Silent		315	400	525
Ringing	Long	630	800	1025
Silent		3475	4000	4400

Short-Long Ring Pattern

Selecting this pattern results in the following distinctive ring pattern:

Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Ringing	Short	315	400	525
Silent		145	200	525
Ringing	Short	315	400	525
Silent		145	200	525
Ringing	Long	630	800	1025
Silent		2975	4000	4400

Short-Long-Short Ring Pattern

Selecting this pattern results in the following distinctive ring pattern:

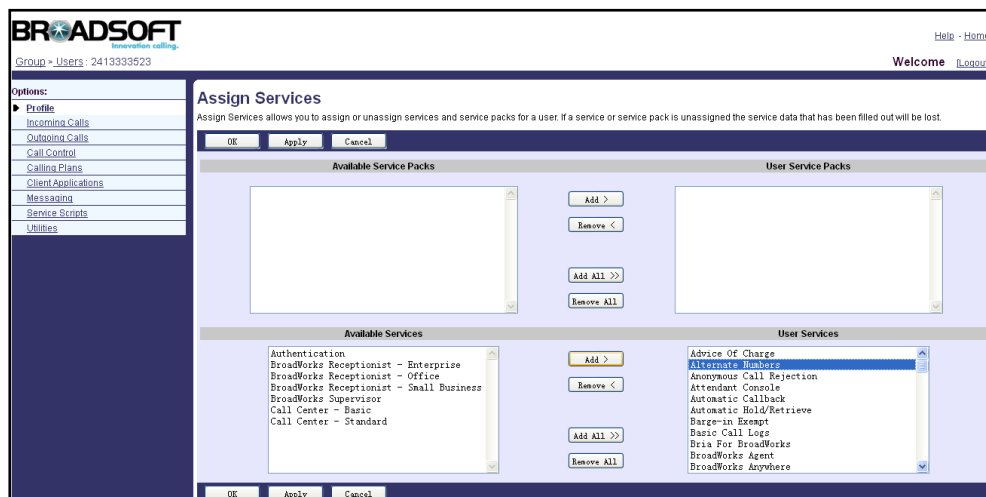
Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Ringing	Short	200	300	525
Silent		145	200	525
Ringing	Long	800	1000	1100
Silent		145	200	525
Ringing	Short	200	300	525
Silent		2975	4000	4400

Configuring the BroadWorks Server

To assign the alternate numbers service to a user:

1. Log in the web portal as a group administrator.

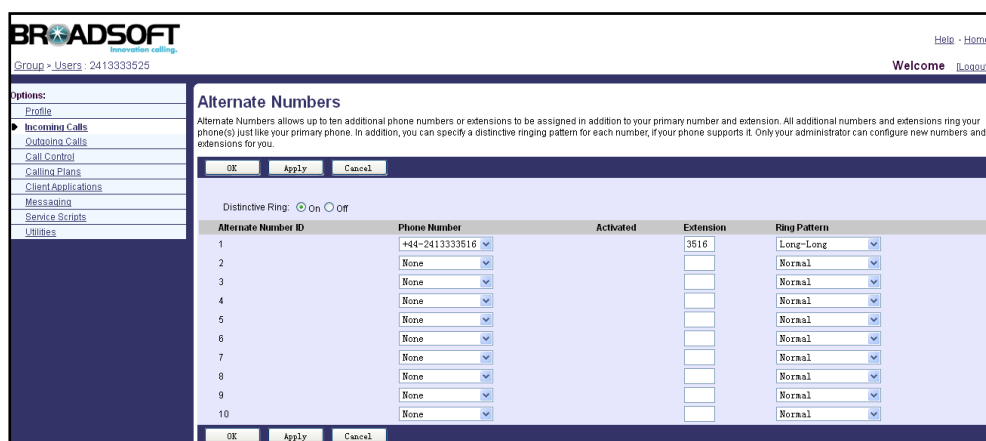
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333523).
- Click on **Assign Services**.
- In the **Available Services** box, select **Alternate Numbers** and then click **Add>**.



- Click **Apply** to accept the change.

To assign alternate numbers and extensions to a user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333525), who has been assigned the alternate number service.
- Click on **Incoming Calls->Alternate Numbers**.
- Mark the **On** radio box in the **Distinctive Ring** field.
- Select the alternate number from the pull-down list of **Phone Number**.
- Enter the extension in the **Extension** field.
- Select the desired ring pattern from the pull-down list of **Ring Pattern**.



9. Repeat steps 6 to 8 to assign more alternate numbers to the user.
10. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333525). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on alternate numbers, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

To use alternate number, the distinctive ring feature should be enabled on the IP phone. Distinctive ring is configurable using the template configuration files.

To configure distinctive ring using the template configuration files:

1. Configure distinctive ring using the following parameters in the template configuration file (e.g., y000000000000.cfg):

Parameter	Description	Value
features.alert_info_tone	Enables and disables the IP phone to ring distinctive tones provided on BroadWorks server. 0-Disabled 1-Enabled	Integer

The following shows an example of distinctive ring configurations using the template configuration file:

```
features.alert_info_tone = 1
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

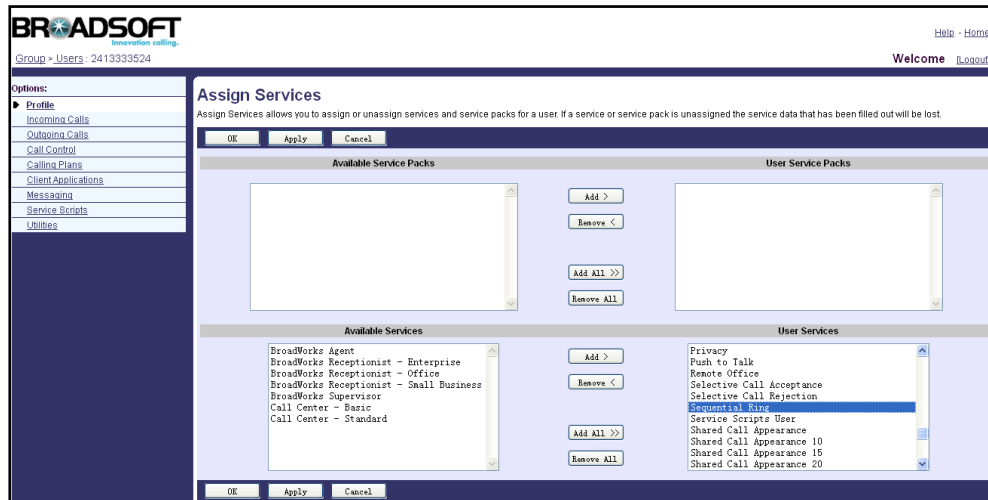
Sequential Ring

Sequential ring allows a user to have up to five secondary locations, which are alerted sequentially upon receiving an incoming call that matches a set of criteria. Each secondary location can be either a phone number or SIP-URI. This service attempts to call the user by ringing the phone numbers or URIs in the sequential ring list (starting with the user's base location, if enabled) one after the other until the call is answered. The enhancement, Answer Confirmation, allows sequential ring to prompt the callee to enter a digit to confirm the acceptance of the call.

Configuring the BroadWorks Server

To assign the sequential ring service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Sequential Ring** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure a sequential ring list for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524), who has been assigned the sequential ring service.
4. Click on **Incoming Calls->Sequential Ring**.
5. Click **Add** to add a new sequential ring entry.

6. Set the following parameters to add a sequential ring entry.

The following shows an example:

Description: Entry 1
 Use sequential ring: Selected
 Selected Time Schedule: Every Day All Day
 Selected Holiday Schedule: None
 Calls from: Any phone number

BROADSOFT
 Group > Users : 2413333524
 Help - Home
 Welcome Logout

Options:
 Profile
 Incoming Calls
 Outgoing Calls
 Call Control
 Calling Plans
 Client Applications
 Messaging
 Service Scripts
 Utilities

Sequential Ring Add
 Allows you to add a sequential ring entry. Specify the time schedule and/or holiday schedule you would like calls sequentially rung. Also, you can have the call sequentially rung when only the specified numbers call or all numbers call. If you need more than 12 numbers or more distinct time or holiday periods, you can create multiple sequential ring entries.

OK Cancel

* Description: 5-Ring
☒ Use sequential ring
☐ Do not use sequential ring

Selected Time Schedule: Every Day All Day
 Selected Holiday Schedule: None

Calls from:
☒ Any phone number
☐ Following phone numbers:
☐ Any private number
☐ Any unavailable number
 Specific phone numbers:

OK Cancel

7. Click **OK** to accept the change.

8. Configure the following parameters for sequential ring.

Parameter	Description
Use Base Location first	Specifies whether to alert the base location when receiving an incoming call.
Number of rings for Base Location	Configures the number of rings for the base location.
Continue the search process if the base location is busy	Specifies whether to continue the search process if the base location is busy.
Enable caller to skip search process. Assumes forwarding or messaging is enabled	Specifies whether to skip the search process when the forwarding or voice messaging is activated.
Phone Number / SIP-URI	Specifies the phone number or SIP URI of the secondary location.
Number of rings	Configures the number of rings for the secondary location.
Answer confirmation required	Allows sequential ring to prompt the secondary location to enter a digit to confirm the acceptance of the call

The following shows an example:

Use Base Location first: Selected

Number of rings for Base Location: 3

Continue the search process if the base location is busy: Selected

Enable caller to skip search process: Selected

Phone Number / SIP-URI: 2413333523 2413333525

Number of rings: 3

Answer confirmation required: Selected

BROADSOFT
Information calling

Group » Users » 2413333524

Help - Home

Welcome [Logout]

Options:

- Profile
- Incoming Calls
- Outgoing Calls
- Call Control
- Call Forwarding
- Client Applications
- Messaging
- Service Scripts
- Utilities

Sequential Ring

Sequential Ring allows you to sequentially ring up to 5 locations in addition to the base location for a specified number of rings. The 5 locations can be either a phone number or a SIP-URI. The feature applies to calls matching your pre-defined criteria. Use this service to ring calls from your manager, a family member, or an important customer on your cell phone, alternate business phone, or home phone. The criteria for each Sequential Ring entry can be a list of up to 12 phone numbers or digit patterns, a specified time schedule, and a specified holiday schedule. All criteria for an entry must be satisfied for the call to enter Sequential Ring (phone number and day of week and time of day). If the criteria do not match, the call continues as if this service was not turned on.

OK Apply Add Cancel

☒ Use Base Location first
Number of rings for Base Location: 3

☒ Continue the search process if the base location is busy.

☒ Enable caller to skip search process. Assumes forwarding or messaging is enabled.

Location	Phone Number / SIP-URI	Number of rings	Answer confirmation required
1	2413333523	3	<input checked="" type="checkbox"/>
2	2413333525	3	<input checked="" type="checkbox"/>
3		3	<input type="checkbox"/>
4		3	<input type="checkbox"/>
5		3	<input type="checkbox"/>

Active	Description	Ring Sequentially	Calls from	Edit
<input checked="" type="checkbox"/>	S-Ring	Yes	All calls	Edit

OK Apply Add Cancel

9. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333524). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on sequential ring, refer to *BroadWorks Web Interface Administrator Guide*.

Call Transfer

Call transfer allows a user to transfer an existing call to another party. IP phones support call transfer using the REFER method specified in RFC 3515. The following describes three call transfer behaviors:

- **Blind Transfer:** Transfer a call directly to another party without consulting. There is no dialog between the user and the transfer-to party before transfer. Blind transfer is implemented by a simple REFER method without Replaces in the REFER-TO header.
- **Attended Transfer After Answer:** Transfer a call with prior consulting. There is a confirmed dialog between the user and the transfer-to party before transfer. Attended transfer after answer is implemented by a REFER method with Replaces in the REFER-TO header.
- **Attended Transfer Before Answer:** Transfer a call after hearing the ringback tone. The transfer-to party has been called by the user, but the transfer-to party has not

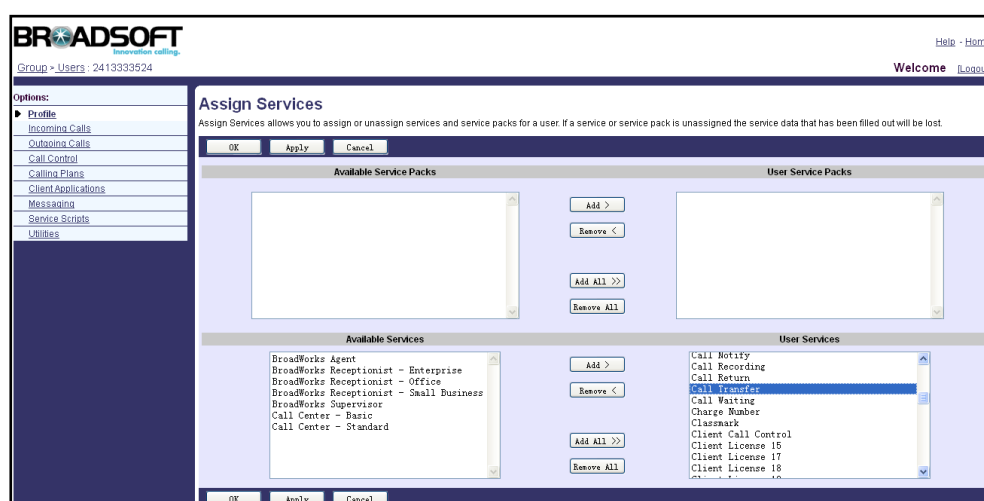
answered yet before transfer. Attended transfer before answer is implemented by a REFER method with Replaces in the REFER-TO header.

BroadWorks provides two options for call transfer: Busy Camp On and Call Transfer Recall. Busy Camp On allows users to camp the call against a busy destination. Call Transfer Recall allows users to be recalled if the transferred call is not answered for any reason. Busy Camp On only applies to the blind call transfer.

Configuring the BroadWorks Server

To assign the call transfer service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Call Transfer** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure call transfer for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524), who has been assigned the call transfer service.
4. Click on **Call Control->Call Transfer**.

5. Configure the following parameters of call transfer.

Parameter	Description
Call Transfer Recall	This option allows for a transferred call to be reconnected to the transferring party if it reaches a failure or no-answer condition after transfer. Enables or disables Call Transfer Recall.
Number of rings before recall	Specifies the number of rings before Call Transfer Recall is automatically triggered.
Enable Busy Camp On seconds	This option allows users to camp the call against a busy destination and recall the transferring user after the specified time. Enables or disables Busy Camp On and specifies the time after which the transferring user should be recalled.
Use Diversion Inhibitor for Blind Transfer	This option allows users to prevent blind transferred calls from being redirected. Enables or disables the use of diversion inhibitor for blind transferred calls.
Use Diversion Inhibitor for Consultative Calls	This option allows users to prevent attended transferred calls from being redirected. Enables or disables the use of diversion inhibitor for calls transferred with consultation.

The following shows an example:

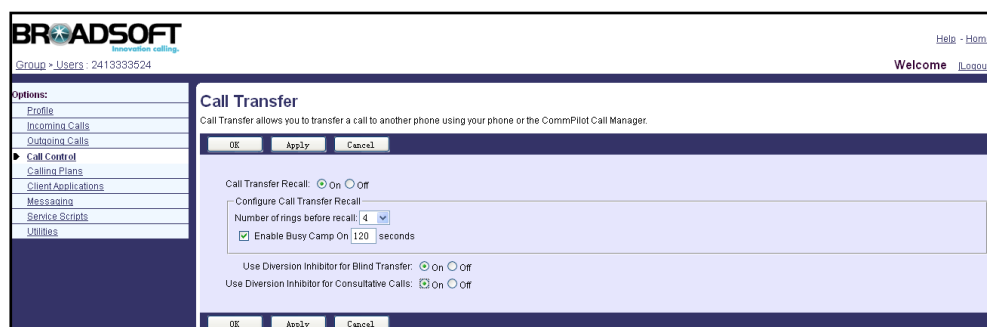
Call Transfer Recall: Selected

Number of rings before recall: 4

Enable Busy Camp On seconds: Selected 120

Use Diversion Inhibitor for Blind Transfer: On

Use Diversion Inhibitor for Consultative Calls: On



6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333524). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on call transfer, refer to *BroadWorks Web Interface Administrator Guide*.

Feature Key Synchronization

Feature key synchronization provides the capability to synchronize the status of the following features between the IP phone and BroadWorks:

- Do Not Disturb
- Call Forwarding Always (CFA)
- Call Forwarding Busy (CFB)
- Call Forwarding No Answer (CFNA)
- ACD state

If feature key synchronization is enabled, a user changes the status of one of these features on BroadWorks, the BroadWorks server notifies the phone of synchronizing the status. Conversely, if the user changes the feature status on the phone, the IP phone notifies the BroadWorks server of synchronizing the status.

Configuring the Yealink IP Phones

Feature key synchronization is configurable using the template configuration files or via web user interface.

To configure feature key synchronization using the template configuration files:

1. Configure feature key synchronization using the following parameters in the template configuration file (e.g., y0000000000000000.cfg):

Parameter	Description	Value
bw.feature_key_sync	Enables or disables the feature key synchronization. 0 -Disabled 1 -Enabled The default value is 0.	%FEATURE_KEY_S YN%

2. Customize the static tag on BroadWorks. The tag name is % FEATURE_KEY_SYN % and the tag value is 1.

For more information, refer to [Customizing a Static Tag](#) on page 23.

3. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tag in the template file will be replaced by the actual parameter value. An example is shown as below:

```
bw.feature_key_sync = 1
```

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

The screenshot shows the Yealink T28 web interface. The 'Features' tab is selected. On the left sidebar, 'General Information' is expanded. The 'General Information' section contains various settings. The 'Feature Key Synchronization' setting is highlighted with a red box and is set to 'Enabled'. Other settings include Call Waiting (Enabled), Call Waiting On Code (*43), Call Waiting Off Code (#43), Auto Redial (Disabled), Auto Redial Interval (1~300s) (10), Auto Redial Times (1~300) (10), Key As Send (#), Reserve # in User Name (Enabled), Hotline Number, Hotline Delay (0~10s) (4), Busy Tone Delay (Seconds) (0), Return Code When Refuse (486 (Busy Here)), Return Code When DND (480 (Temporarily Not Av)), Call Completion (Disabled), Time-Out For Dial-Now Rule (1), RFC 2543 Hold (Disabled), Use Outbound Proxy In Dialog (Enabled), 180 Ring Workaround (Enabled), Logon Wizard (Disabled), and PswPrefix.

NOTE

Call Waiting
This call feature allows your phone to accept other incoming calls during the conversation.

Key As Send
Select * or # as the send key.

Hotline Number
When you pick up the phone, it will dial out the hotline number automatically.

Network Conference

Network conference allows a user to conduct a conference with more than three participants. The maximum of the participants depends on the BroadWorks server. The network conference is implemented using a conference URI, which is used to identify a request for a BroadWorks conference resource. IP phones support network conference using the REFER method as specified in RFC 4579.

Note

The conference URI can be configured on the BroadWorks server via the command line interface. The command line interface access may be restricted on the BroadWorks server. Contact your BroadSoft reseller for the conference URI.

Configuring the Yealink IP Phones

Network conference is configurable using the template configuration files or web user interface.

To configure network conference using the template configuration files:

1. Configure network conference using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg):
The "x" in the parameter is an integer which specifies the line number on the IP phone. If the user (e.g., 2413333505) is the first user assigned to the device profile, replace the "x" by "1".

Parameter	Description	Value
account.x.conf_type	Defines the conference type: 0 -Local 2 -Network The default value is 0.	Integer
account.x.conf_uri	Sets the URI of the network conference.	%BWNWORK-C ONFERENCE-SIPU RI-X%

The following shows an example of network conference configurations using the template configuration file:

```
account.1.conf_type = 2
account.1.conf_uri = %BWNWORK-C ONFERENCE-SIPURI-1%
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tag in the template file will be replaced by the actual parameter value. An example is shown as below:

```
account.1.conf_uri = conference@as.yealink.com
```

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

The screenshot shows the Yealink T28 web interface. The top navigation bar includes 'Status', 'Account', 'Network', 'DSSKey', 'Features', 'Settings', 'Directory', and 'Security'. The 'Account' tab is active, and the 'Advanced' sub-tab is selected. The 'Account' section shows 'Account 1' selected. The 'Keep Alive Type' is 'Default', 'Keep Alive Interval' is '30', 'Local SIP Port' is '5060', 'RPort' is 'Disabled', 'SIP Session Timer T1' is '0.5', and 'SIP Session Timer T2' is '4'. Below these, there are three vertical dots indicating more settings. The 'Conference Type' is set to 'Network Conference' and the 'Conference URI' is 'conference@as.lip1.broadw'. Other settings include 'ACD Subscrip Period' (3600), 'Early Media' (Disabled), 'SIP Server Type' (Default), 'Music Server URI', 'Directed Call Pickup Code', 'Group Call Pickup Code', 'Distinctive Ring Tones' (Disabled), 'Unregister When Reboot' (Disabled), and 'Out Dialog BLF' (Disabled). A 'NOTE' box on the right states 'Advanced: The Advanced parameters for administrator.' At the bottom, there are 'Confirm' and 'Cancel' buttons.

Call Pickup

IP phones support two call pickup behaviors: Directed Call Pickup and Group Call Pickup. Directed call pickup allows users to pick up an incoming call on a specific extension. Group call pickup allows users to pick up incoming calls within a pre-defined group. BroadWorks also provides two enhanced services: Directed Call Pickup with Barge-in (DPUBI) and Barge-in Exempt.

DPUBI allows users to dial a FAC followed by an extension to pick up a call directed to another user, or barge in the call if it was already answered. When a barge-in occurs, a three-way call is established between the parties with the DPUBI user as the controller.

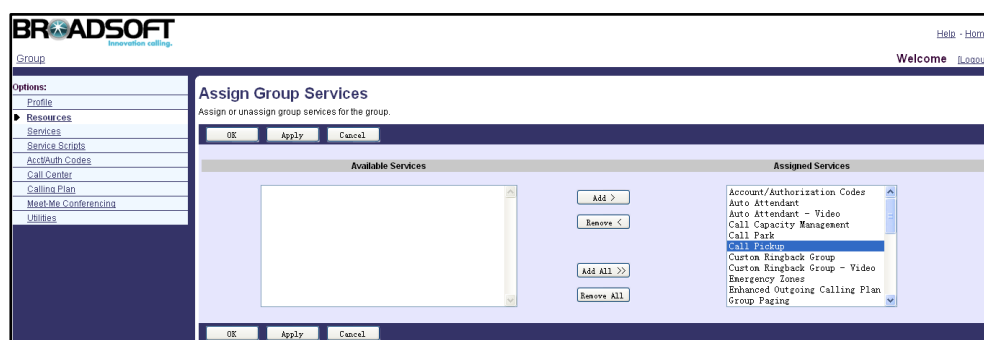
Barge-in exempt allows users to block barge-in attempts from other users with DPUBI. Barge-in exempt does not block pickup attempts.

Configuring the BroadWorks Server

To assign the call pickup service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resource->Assign Group Services**.

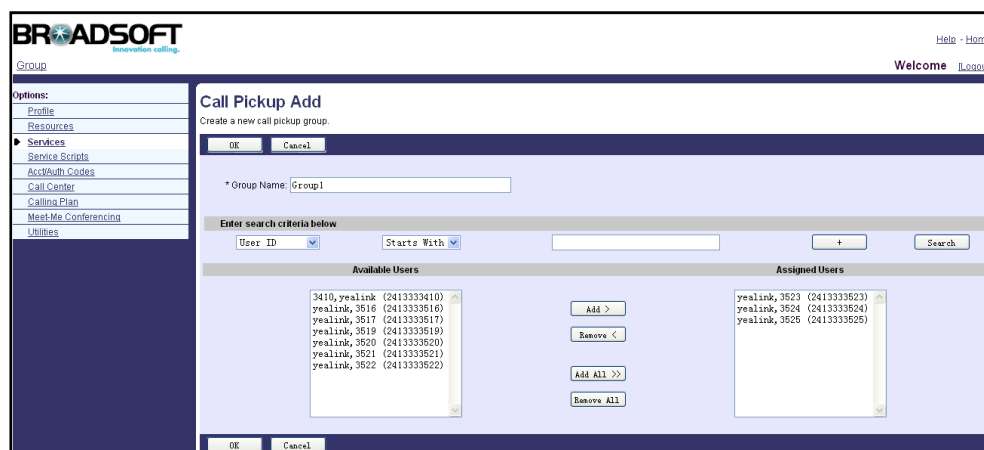
3. In the **Available Services** box, select **Call Pickup** and then click **Add>**.



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

To add a call pickup group and assign users to the call pickup group:

1. Log in the web portal as a group administrator.
2. Click on **Services->Call Pickup**.
3. Click **Add**.
4. Enter a name in the **Group Name** field.
5. Click **Search** to display all available users.
6. In the **Available Users** box, select the desired user and then click **Add>** to assign the user to the call pickup group.

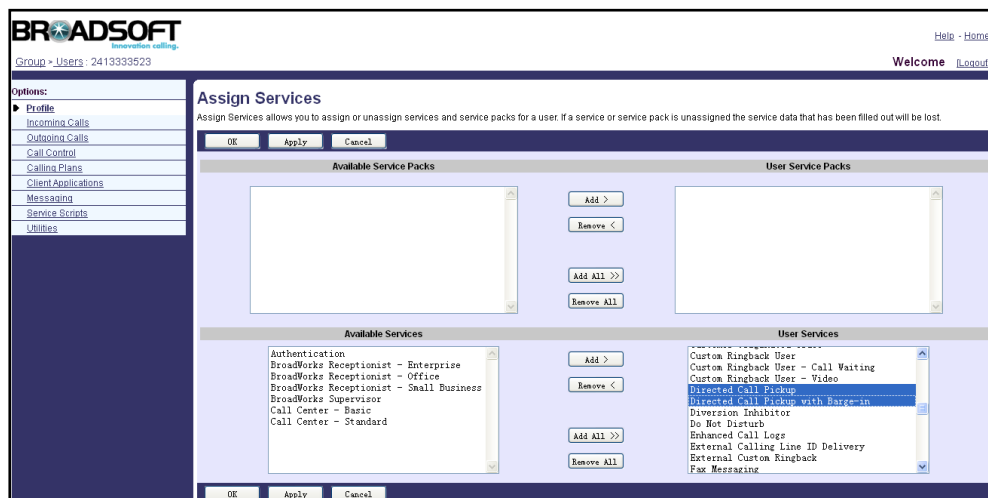


7. Click **OK** to accept the change.
8. Repeat steps 6 to 7 to assign more users to the call pickup group.

To assign the directed call pickup and directed call pickup with barge-in services to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333523).
4. Click on **Assign Services**.

- In the **Available Services** box, select **Directed Call Pickup** and **Directed Call Pickup with Barge-in**, and then click **Add>**.



- Click **Apply** to accept the change.

To configure directed call pickup with barge-in for a user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333523), who has been assigned the directed call pickup with barge-in service.
- Click on **Call Control->Directed Call Pickup with Barge-in**.
- Configure the following parameters for directed call pickup with barge-in.

Parameter	Description
Barge-in Warning Tone	Specifies whether a warning tone is played to the picked up user when a barge-in occurs. The default state is "On".
Automatic Target Selection	Enables or disables the user with DPUBI service to initiate a pickup or barge-in by dialing the DPBUI FAC without an extension. When this option is enabled, the user can initiate a pickup or barge-in by dialing the FAC alone if only one user is active (on a call or ringing). The default state is "Off".
Silent Monitoring Warning Tone	Silent monitoring is the ability for a supervisor to listen into calls being handled by their agents.

Parameter	Description
	This option specifies whether to play a warning tone to inform the agents that they are being monitored. The default state is "Off".

The following shows an example:

Simultaneous Ring Personal: On

Automatic Target Selection: On

Silent Monitoring Warning Tone: On

6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333523). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

To assign the barge-in exempt service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Barge-in Exempt** and then click **Add>**.

- Click **Apply** to accept the change.

To configure barge-in exempt for a user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333524), who has been assigned the barge-in exempt service.
- Click on **Call Control->Barge-in Exempt**.
- Mark the **On** radio box in the **Barge-in Exempt** field.

- Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333524). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on call pickup, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

In addition to picking up a call by dialing the FACs, a user can pick up the incoming call using call pickup keys or call pickup soft keys. Call pickup keys are configurable using the template configuration files, via web user interface or via phone user Interface. Call pickup soft keys are configurable using the template configuration files or via web user Interface.

Note

We recommend that you should not configure the DPickup soft key and directed call pickup key simultaneously. If you do, the directed call pickup key will not be used correctly.

To configure call pickup using the template configuration files:

1. Configure directed call pickup using the following parameters in the template configuration files.

The “x” is an integer which specifies the line number on the IP phone. X ranges from 1 to 6.

Parameter	Description	Value
features.pickup.direct_pickup_enable	Enables or disables the IP phone to display the DPickup soft key in the pre-dialing interface. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
features.pickup.direct_pickup_code	Configures the Directed Call Pickup FAC (default: *97) on a phone basis.	%BWFAC-DIRECTE D-CALL-PICKUP-1%
account.x.direct_pickup_code	Configures the Directed Call Pickup FAC (default: *97) on a per-account basis. The Directed Call Pickup FAC configured on a per-account basis takes precedence over that configured on a phone basis. We recommend that you just configure the FAC either on a phone basis or on a per-account basis.	String

2. Configure group call pickup using following parameters in the template configuration files.

The “x” is an integer which specifies the line number on the IP phone. X ranges from 1 to 6.

Parameter	Description	Value
features.pickup.group_pickup_enable	Enables or disables the IP phone to display the GPickup soft key in the pre-dialing interface. 0 -Disabled 1 -Enabled The default value is 0.	Boolean

Parameter	Description	Value
features.pickup.group_pickup_code	Configures the Call Pickup FAC (default: *98) on a phone basis.	%BWFAC-CALL-PI CKUP-1%
account.x.group_pickup_code	Configures the Call Pickup FAC (default: *98) on a per-account basis. The Call Pickup FAC configured on a per-account basis takes precedence over that configured on a phone basis. We recommend that you just configure the FAC either on a phone basis or on a per-account basis.	String

The following shows an example of call pickup configurations using the template configuration files:

```
#Directed call pickup
features.pickup.direct_pickup_enable = 1
features.pickup.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%

#Group call pickup
features.pickup.group_pickup_enable = 1
features.pickup.group_pickup_code = %BWFAC-CALL-PICKUP-1%
```

3. Upload the template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template file will be replaced by the actual parameter value. An example is shown as below:

```
features.pickup.direct_pickup_code = *97

features.pickup.group_pickup_code = *98
```

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

To configure the call pickup keys using the template configuration files:

1. Configure a memory key as a directed call pickup key using the following parameters in the template configuration files (e.g., y0000000000000.cfg).

The “x” is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type. 9-Directed Call Pickup	9
memorykey.x.value	Specifies the directed call pickup FAC (default: *97) followed by a specific extension.	String
memorykey.x.line	Specifies the line to apply the directed call pickup key. The value ranges from 0 to 5. 0-Line1 1-Line2 2-Line3 3-Line4 4-Line5 5-Line6	Integer

The following shows an example of directed call pickup key (memory key) configurations using the template configuration file:

```
memorykey.1.type = 9
memorykey.1.value = *973503
memorykey.1.line = 0
```

You can also configure a line key to be a directed call pickup key using the following parameters in the configuration file.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 6.

Parameter	Description	Value
linekey.x.type	Defines the line key type. 9 -Directed Call Pickup	9
linekey.x.value	Specifies the Directed Call Pickup FAC (default: *97) followed by a specific extension.	String
linekey.x.line	Specifies the line to apply the directed call pickup key. The value ranges from 0 to 5. 0 -Line1 1 -Line2 2 -Line3 3 -Line4 4 -Line5 5 -Line6	Integer

The following shows an example of directed call pickup key (line key) configurations using the template configuration file:

```
line.1.type = 9
line.1.value = *973503
line.1.line = 0
```

2. Configure a memory key to be a group call pickup key using the following parameters in the template configuration files (e.g., y000000000000.cfg).

The “x” is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type. 23 -Group Call Pickup	23
memorykey.x.value	Specifies the Call Pickup FAC (default: *98).	String
memorykey.x.line	Specifies the line to apply the group call pickup key. The value ranges from 0 to 5. 0 -Line1 1 -Line2 2 -Line3	Integer

Parameter	Description	Value
	3 -Line4 4 -Line5 5 -Line6	

The following shows an example of group call pickup key (memory key) configurations using the template configuration file:

```
memorykey.2.type = 23
memorykey.2.value = *98
memorykey.2.line = 0
```

You can also configure a line key to be a group call pickup key using the following parameters in the configuration file.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 6.

Parameter	Description	Value
linekey.x.type	Defines the line key type. 23 -Group Call Pickup	9
linekey.x.value	Specifies the Call Pickup FAC (default: *98).	String
linekey.x.line	Specifies the line to apply the group call pickup key. The value ranges from 0 to 5. 0 -Line1. 1 -Line2 2 -Line3 3 -Line4 4 -Line5 5 -Line6	Integer

The following shows an example of group call pickup key (line key) configurations using the template configuration file:

```
linekey.2.type = 23
linekey.2.value = *98
linekey.2.line = 0
```

3. Upload the template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

Key	Type	Value	Line	Extension
Memory 1	Directed Pickup	*973503	Line 1	
Memory 2	Group Pickup	*98	Line 1	
Memory 3	N/A		N/A	
Memory 4	N/A		N/A	
Memory 5	N/A		N/A	
Memory 6	N/A		N/A	
Memory 7	N/A		N/A	
Memory 8	N/A		N/A	
Memory 9	N/A		N/A	
Memory 10	N/A		N/A	

NOTE

Key Type
The free function key "Types" Speed Dial, Key Event, Intercom.

Key Event
Key events are predefined shortcuts to phone and call functions.

Intercom
Enable the 'Intercom' mode and it is useful in an office environment as a quick access to connect to the operator or the secretary.

Calling Line ID Presentation

Calling Line ID Presentation (CLIP) allows the IP phone to display the caller's identity, derived from a SIP header carried in the INVITE request, when receiving an incoming call. The caller's identity consists of the calling line ID last name, calling line ID first name, and phone number. The BroadWorks server provides external calling line ID delivery and internal calling line ID delivery services. External calling line ID delivery allows the calling line ID for callers from outside your group or enterprise to be displayed. Internal calling line ID delivery allows the calling line ID for callers from inside your group to be displayed.

Calling Name Presentation

Calling Name Presentation allows the IP phone to display the caller's name, derived from a SIP header contained in the INVITE request, when receiving an incoming call. The caller's name consists of the calling line ID last name and calling line ID first name. The BroadWorks server provides external calling name delivery and Internal calling name delivery services. External calling name delivery allows the name for callers from outside your group or enterprise to be displayed. Internal calling name delivery allows the name for callers from inside your group to be displayed.

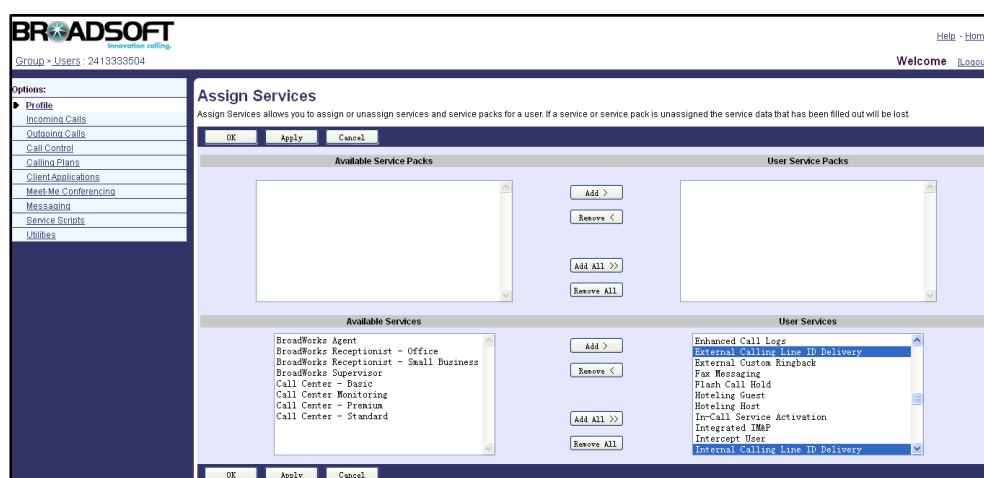
Calling Number Presentation

Calling Number Presentation allows the IP phone to display the caller's phone number, derived from a SIP header contained in the INVITE request, when receiving an incoming call. The BroadWorks server provides external calling number delivery and internal calling number delivery services. External calling number delivery allows the number for callers from outside your group or enterprise to be displayed. Internal calling number delivery allows the number for callers from inside your group to be displayed.

Configuring the BroadWorks Server

To assign the calling line ID delivery service to a user:

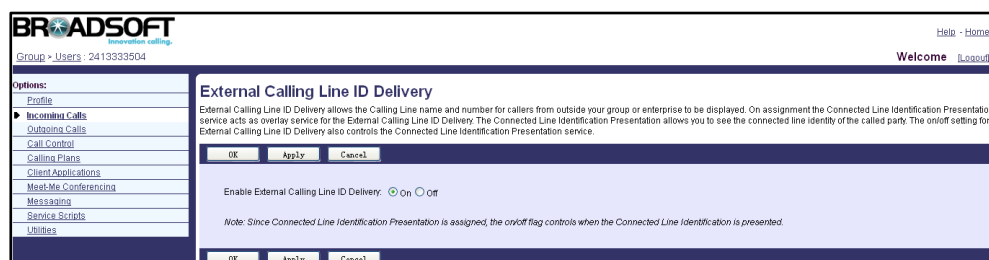
1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333504).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **External Calling Line ID Delivery** and **Internal Calling Line ID Delivery**, and then click **Add>**.



6. Click **Apply** to accept the change.

To configure calling line ID presentation for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333504), who has been assigned the calling line ID delivery service.
4. Click on **Incoming Calls->External Calling Line ID Delivery**.
5. Mark the **On** radio box in the **Enable External Calling Line ID Delivery** field.



6. Click **OK** to accept the change.
7. Click on **Incoming Calls->Internal Calling Line ID Delivery**.

8. Mark the **On** radio box in the **Enable Internal Calling Line ID Delivery** field.

BROADSOFT
Innovation calling

Group > Users : 2413333504

Options:
 Profile
 Incoming Calls
 Outgoing Calls
 Call Control
 Calling Plans
 Client Applications
 Meet-Me Conferencing
 Messaging
 Service Scripts
 Utilities

Internal Calling Line ID Delivery

Internal Calling Line ID Delivery allows the Calling Line name and number for callers from inside your group to be displayed. On assignment the Connected Line Identification Presentation service acts as overlay service for the Internal Calling Line ID Delivery. The Connected Line Identification Presentation allows you to see the connected line identity of the called party. The on/off setting for Internal Calling Line ID Delivery also controls the Connected Line Identification Presentation service.

OK Apply Cancel

Enable Internal Calling Line ID Delivery: ☒ On ☐ Off

Note: Since Connected Line Identification Presentation is assigned, the on/off flag controls when the Connected Line Identification is presented.

OK Apply Cancel

9. Click **Apply** to accept the change.

To assign the calling name delivery service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333504).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Calling Name Delivery** and then click **Add>**.

BROADSOFT
Innovation calling

Group > Users : 2413333504

Options:
 Profile
 Incoming Calls
 Outgoing Calls
 Call Control
 Calling Plans
 Client Applications
 Meet-Me Conferencing
 Messaging
 Service Scripts
 Utilities

Assign Services

Assign Services allows you to assign or unassign services and service packs for a user. If a service or service pack is unassigned the service data that has been filled out will be lost.

OK Apply Cancel

Available Service Packs

Add >
 Remove <
 Add All >>
 Remove All

User Service Packs

Available Services

BroadWorks Agent
 BroadWorks Receptionist - Office
 BroadWorks Receptionist - Small Business
 BroadWorks Supervisor
 Call Center - Basic
 Call Center Monitoring
 Call Center - Premium
 Call Center - Standard

Add >
 Remove <
 Add All >>
 Remove All

User Services

Busy Lamp Field
 Call Forwarding Always
 Call Forwarding Busy
 Call Forwarding No Answer
 Call Forwarding Not Reachable
 Call Forwarding Selective
 Calling Line ID Blocking Override
 Calling Line ID Delivery Blocking
 Calling Name Delivery
 Calling Name Retrieval
 Calling Number Delivery

OK Apply Cancel

6. Click **Apply** to accept the change.

To configure calling name presentation for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333504), who has been assigned the calling name delivery service.
4. Click on **Incoming Calls-> Calling Name Delivery**.
5. Mark the **On** radio box in the **Enable External Calling Name Delivery** field.

- Mark the **On** radio box in the **Enable Internal Calling Name Delivery** field.

- Click **Apply** to accept the change.

To assign the calling number delivery service to a user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333504).
- Click on **Assign Services**.
- In the **Available Services** box, select **Calling Number Delivery** and then click **Add>**.

- Click **Apply** to accept the change.

To configure calling number presentation for the user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333504), who has been assigned the calling number delivery service.
- Click on **Incoming Calls-> Calling Number Delivery**.
- Mark the **On** radio box in the **Enable External Calling Number Delivery** field.

- Mark the **On** radio box in the **Enable Internal Calling Number Delivery** field.

- Click **Apply** to accept the change.

Note

The internal calling line ID delivery and external calling line ID delivery services have precedence over calling name/number delivery service. If you have either the internal calling line ID delivery or external calling line ID delivery service assigned, the assignment and configuration of the calling name/number delivery service has no effect.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333504). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on CLIP, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

IP phones support to derive calling line ID from the FROM, P-Preferred-Identity, P-Asserted-Identity and Remote-Party-ID SIP headers in the INVITE request. The calling line ID source is configurable using the template configuration files or via web user interface.

To configure the calling line ID source using the template configuration files:

- Configure the calling line ID source using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg):

The “x” in the parameter is an integer which specifies the line number on the IP phone. X ranges from 1 to 6.

Parameter	Description	Valid Value
account.x.cid_source	Configures the calling line ID source. 0 -FROM (Derives the name and number of the caller from the “From” header). 1 -PAI (Derives the name	Integer

Parameter	Description	Valid Value
	and number of the caller from the "PAI" header. If the server does not send the "PAI" header, displays "anonymity" on the callee's phone). 2-PAI-FROM (Derives the name and number of the caller from the "PAI" header preferentially. If the server does not send the "PAI" header, derives from the "From" header). 3-RPID-PAI-FROM 4-PAI-RPID-FROM 5-RPID-FROM The default value is 0.	

The following shows an example of the calling line ID source configuration using the template configuration file:

```
account.1.cid.source = 1
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

The screenshot shows the Yealink T28 web interface. The top navigation bar includes 'Status', 'Account', 'Network', 'DSSKey', 'Features', 'Settings', 'Directory', and 'Security'. The 'Account' tab is selected. On the left, there are links for 'Register', 'Basic', 'Codec', and 'Advanced'. The main content area displays configuration settings for 'Account 1'. The 'Caller ID Source' is set to 'FROM' and is highlighted with a red box. Other settings include 'Keep Alive Type' (Default), 'Keep Alive Interval' (30), 'Local SIP Port' (5060), 'RPort' (Disabled), 'SIP Session Timer T1' (0.5), 'SIP Session Timer T2' (4), 'SIP Session Timer T4' (5), 'Subscribe Period' (1800), 'DTMF Type' (RFC2833), 'DTMF Info Type' (DTMF-Relay), 'DTMF Payload Type' (101), 'Retransmission' (Disabled), 'Subscribe for MWI' (Disabled), 'MWI Subscription Period' (3600), 'Subscribe MWI To Voice Mail' (Disabled), 'Voice Mail' (empty), 'Session Timer' (Disabled), 'Session Expires' (1800), 'Session Refresher' (UAC), and 'Send user=phone' (Disabled). A 'NOTE' section on the right states: 'Advanced: The Advanced parameters for administrator.'

Calling Line ID Blocking Override

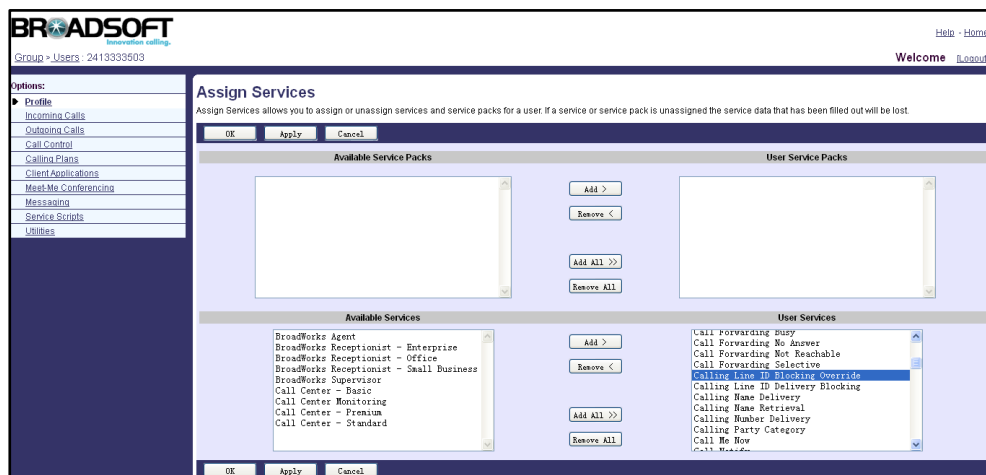
Calling Line ID Blocking Override allows the IP phone to always display the caller's identity, regardless of whether it is blocked by the caller.

Configuring the BroadWorks Server

To assign the calling line ID blocking override service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333503).
4. Click on **Assign Services**.

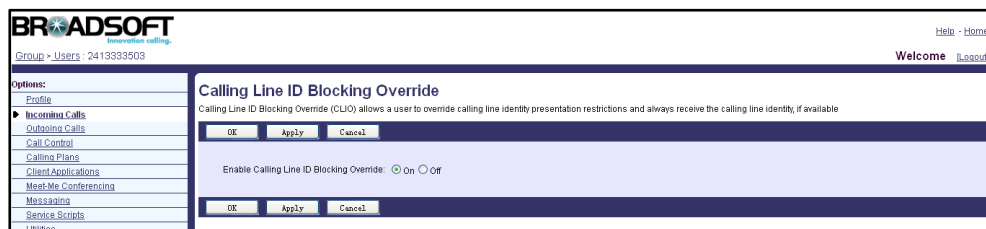
- In the **Available Services** box, select **Calling Line ID Blocking Override** and then click **Add>**.



- Click **Apply** to accept the change.

To configure calling line ID blocking override for the user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333503), who has been assigned the calling line ID blocking override service.
- Click on **Incoming Calls->Calling Line ID Blocking Override**.
- Mark the **On** radio box in the **Enable Calling Line ID Blocking Override** field.



- Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333503). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on calling line ID blocking override, refer to *BroadWorks Web Interface Administrator Guide*.

Connected Line Identification Presentation

Connected Line Identification Presentation (COLP) allows the IP phone to display the callee's identity specified for outgoing calls. The callee's identity consists of the calling line ID last name, calling line ID first name, and phone number.

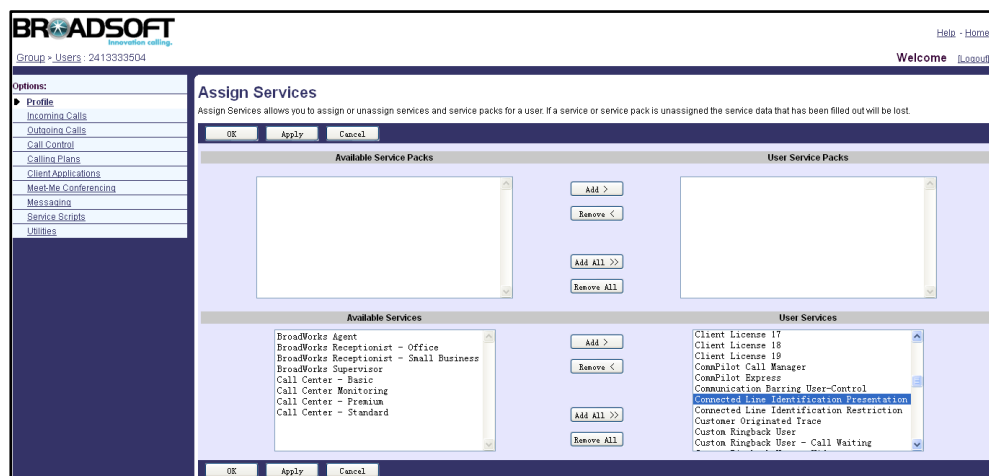
Note

Before configuring the COLP feature, make sure the necessary calling line ID delivery service for a call is set to "On" on the BroadWorks server.

Configuring the BroadWorks Server

To assign the connected line identification presentation service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333504).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Connected Line Identification Presentation** and then click **Add>**.



6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333504). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on COLP, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

IP phones support to display the dialed digits, or the identity from a SIP header (Remote-Party-ID or P-Asserted-Identity) carried in the 18x or 200 OK response, or the

identity from the From header carried in the UPDATE message as described in RFC 4916. The connected line identification source is configurable using the template configuration files.

To configure the connected line identification source using the template configuration files:

1. Configure the connected line identification source using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg):

The “x” in the parameter is an integer which specifies the line number on the IP phone. X ranges from 1 to 6.

Parameter	Description	Valid Value
account.x.cp_source	Configures the connected line identification source. 0 -PAI-RPID (Derives the name and number of the callee from the “PAI” header preferentially. If the server does not send the “PAI” header, derives from the “RPID” header). 1 -Dialed Digits 2 -RFC 4916 (Derives the identity of the callee from “From” header in the UPDATE message). The default value is 1.	Integer

The following shows an example of the connected line identification source configuration using the template configuration file:

```
account.1.cp.source = 2
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

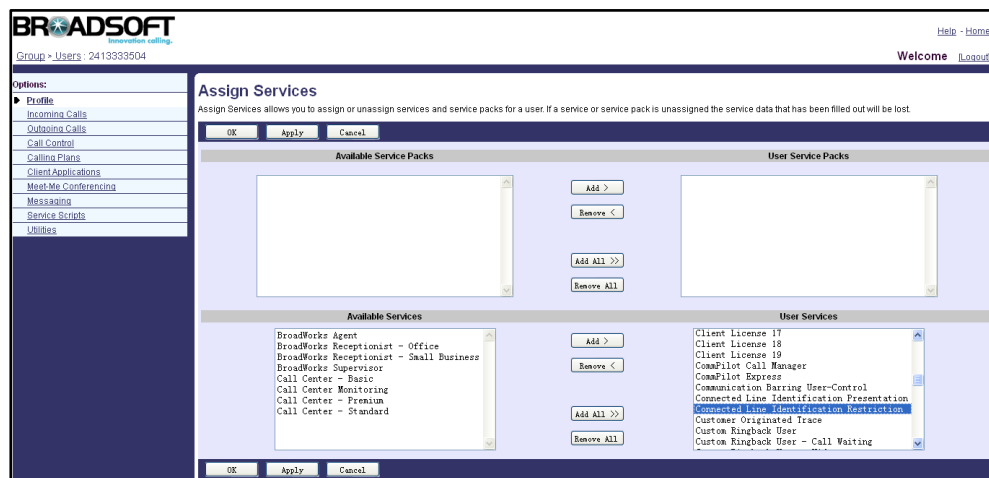
Connected Line Identification Restriction

Connected Line Identification Restriction (COLR) allows a user to block his identity from showing up when receiving a call. When placing a call to the user with COLR enabled, the 18x response from BroadWorks to the caller contains a Privacy header set to “id”. The caller’s phone LCD screen updates the callee’s identity and displays “anonymous”. This feature does not apply to calls from within a group.

Configuring the BroadWorks Server

To assign the connected line identification restriction service to a user:

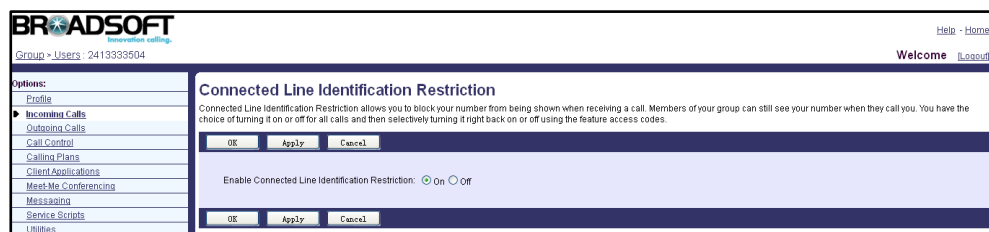
1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333504).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Connected Line Identification Restriction** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure the connected line identification restriction for a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333504).
4. Click on **Incoming Calls->Connected Line Identification Restriction**.
5. Mark the **On** radio box in the **Enable Connected Line Identification Restriction** field.



6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333504). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on COLR, refer to *BroadWorks Web Interface Administrator Guide*.

Meet-Me Conferencing

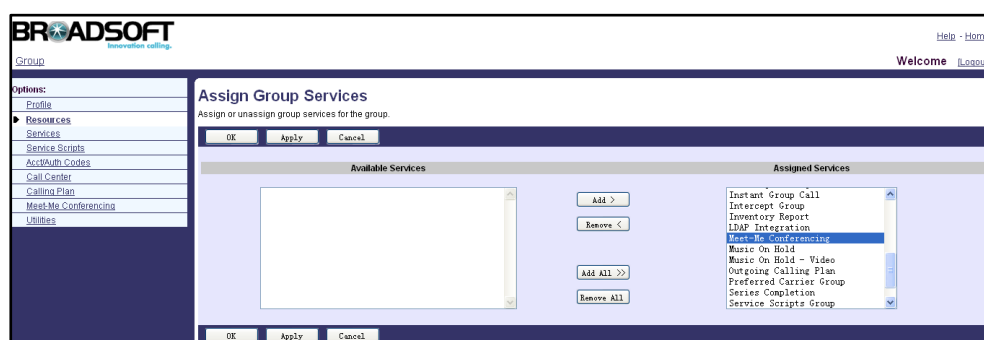
Meet-Me conferencing provides the ability to schedule conference calls, where the moderator (who has control of the conference) and other participants calling into the conference are connected at the appropriate time. IP phones support high-definition audio conference.

A group administrator creates a conference bridge and designates BroadWorks users who can host conferences on that bridge. Hosts can create scheduled and reservationless conferences. When a conference is created, there is a moderator PIN generated along with the conference ID. Any participant who joins the conference using the moderator PIN has special privileges for that instance of the conference. Within a conference, moderators can invoke functions such as recording, locking a conference, and inviting a new participant. There can be multiple moderators for an instance of a conference.

Configuring the BroadWorks Server

To assign the Meet-Me conferencing service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resources->Assign Group Services**.
3. In the **Available Services** box, select **Meet-Me Conferencing** and click **Add>**.



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

To add a Meet-Me conference bridge:

1. Log in the web portal as a group administrator.
2. Click on **Meet-Me Conferencing->Meet-Me Conference Bridges**.
3. Click **Add**.
4. Set the Meet-Me conference bridge parameters.

The following shows an example:

Conference Bridge ID: Bridgeone
 Name: Meet-Me Conference
 Calling Line ID Last Name: Conference
 Calling Line ID First Name: Meet-Me
 Allocated Ports To This Bridge: at least 4

5. Click **Search** to display all available users.
6. In the **Available Users** box, select the desired user and click **Add>** to assign the user to the conference bridge.

7. Click **OK** to accept the change.
8. Select the desired conference bridge added above and click on **Edit**.
9. Click on **Addresses**.
10. Select the phone number from the **Phone Number** field.
11. Enter the extension in the **Extension** field.

12. Click **Apply** to accept the change.

To add a new conference:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all available users.
3. Select the desired user (e.g., 2413333502), who has been assigned to the Meet-Me conference bridge.
4. Click on **Meet-Me Conferencing->Conferences**.
5. Click **Add**.
6. Set the Meet-Me conference parameters.

The main parameters are described as below:

Parameter	Description
Estimated number of participants	Specifies the number of participants the conference may have. Note: The number is not higher than the maximum number of ports available on the bridge on which this conference is hosted.
When attendees join/leave	Specifies how to notify the conference participants when other participants join or leave the conference.
Type	Specifies the type of conference you want to create. One Time: The conference happens once, on the scheduled date and time, and is not repeated. Recurring (Daily, Weekly, Monthly, or Yearly): This is a scheduled conference that happens regularly at specified intervals. It can be ongoing or have an end-date. Reservationless: The conference is not scheduled for any particular time, can be started at any time.

The following shows an example:

Title: Myconference
 Estimated number of participants: 4
 Type: Reservationless
 Schedule Start Date: Select today's date
 Schedule End Date: Never

The screenshot shows the 'Meet-Me Conference Add' form in the BroadSoft web interface. The form is titled 'Meet-Me Conference Add' and includes a 'Create a new conference.' button. The form fields are as follows:

- Bridge: Meet-Me Conference (dropdown menu)
- Title: Myconference (text input)
- Account Code: (text input)
- Estimated number of participants: 4 (text input)
- Options:
 - ☐ Restrict number of participants to (text input)
 - ☐ Mute all attendees on entry
 - ☐ End conference when moderator departs
 - ☐ Moderator required to start conference
- When attendees join/leave:
 - ☒ Play tone
 - ☐ Play recorded name
 - ☐ No notification
- Type:
 - ☐ One Time
 - ☐ Recurring
 - ☒ Reservationless
- Schedule:
 - Start Date: 1/11/2013 (calendar icon)
 - * End Date:
 - ☒ Never
 - ☐ Date: 2/11/2013 (calendar icon)

- Click **OK** to accept the change.

After the conference is created, select the conference created above and note the Conference ID and Moderator PIN.

After the above configurations, create a device profile and assign it to the conference host user (e.g., 2413333502). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on Meet-Me conferencing, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

The Meet-Me Conference key is configurable using the configuration file, via web user interface or via phone user interface. When a Meet-Me Conference key is configured on the IP phone, the user can join in the conference by pressing the Meet-Me Conference key directly.

To configure a Meet-Me Conference key using the configuration files:

- Configure a DSS key to be a Meet-Me Conference key using the following parameters in the template configuration file (e.g., y000000000000.cfg).

You can configure a memory key to be a Meet-Me Conference key (Except for T20P/T22P/T32G/T46G/VP530).

The “x” is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type. 55-Meet-Me Conference	55
memorykey.x.line	Specifies the line to apply the Meet-Me conference key. The value values are: 0 to 5 (For T28P/T38G) 0 to 2 (For T26P) 0-Line1 1-Line2 2-Line3 3-Line4 4-Line5 5-Line6	Integer
memorykey.x.value	Specifies the Meet-Me conference bridge number.	Integer
memorykey.x.pickup_value	Specifies the conference ID or Moderator PIN followed by the # sign.	Integer

The following shows an example of Meet-Me conference key (memory key) configurations using the template configuration files:

```
memorykey.1.line = 0
memorykey.1.value = 3514
memorykey.1.type = 55
memorykey.1.pickup_value = 828591#
```

You can also configure a line key to be Meet-Me conference key.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 27 (For T46G, x ranges from 1 to 27; For T28P/T38G, x ranges from 1 to 6; For VP530, x ranges from 1 to 4; For T22P/T26P/T32G, x ranges from 1 to 3; For T20P, x ranges from 1 to 2).

Parameter	Description	Value
linekey.x.type	Defines the memory key type. 55-Meet-Me Conference	55
linekey.x.line	Specifies the line to apply the Meet-Me conference key. The value values are:	Integer

Parameter	Description	Value
	0 to 5 (For T28P/T38G/T46G) 0 to 3 (For VP530) 0 to 2 (For T22P/T26P/T32G) 0 to 1 (For T20P) 0-Line1 1-Line2 2-Line3 3-Line4 4-Line5 5-Line6	
linekey.x.value	Specifies the Meet-Me conference bridge number.	Integer
linekey.x.pickup_value	Specifies the conference ID or Moderator PIN followed by the # sign.	Integer

The following shows an example of Meet-Me conference key (line key) configurations using the template configuration file:

```
linekey.2.line = 0
linekey.2.value = 3514
linekey.2.type = 55
linekey.2.pickup_value = 858291#
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the IP phone downloads the configuration files, the web user interface of the IP phone is similar to the one as below:

Key	Type	Value	Line	Extension
Memory 1	Meet-Me Confer	3514	Line 1	*****
Memory 2	N/A		N/A	
Memory 3	N/A		N/A	
Memory 4	N/A		N/A	
Memory 5	N/A		N/A	
Memory 6	N/A		N/A	
Memory 7	N/A		N/A	
Memory 8	N/A		N/A	
Memory 9	N/A		N/A	
Memory 10	N/A		N/A	

NOTE

Key Type
The free function key 'Types' Speed Dial, Key Event, Intercom.

Key Event
Key events are predefined shortcuts to phone and call functions.

Intercom
Enable the 'Intercom' mode and it is useful in an office environment as a quick access to connect to the operator or the secretary.

Busy Lamp Field List

Busy Lamp Field (BLF) List allows a list of specific extensions to be monitored for status changes. It enables the monitoring phone to subscribe to a list of users, and receive notifications of the status of monitored users. Different indicators on the monitoring phone show the status of monitored users. The monitoring user can also be notified about calls being parked/no longer parked against any monitored user. IP phones support BLF list using a SUBSCRIBE/NOTIFY mechanism as specified in RFC 3265.

When a monitored user is idle, the monitoring user presses the BLF list key to dial out the phone number. When a monitored user receives an incoming call, the monitoring user presses the BLF list key to pick up the call directly. When a monitored user is during a conversation, the monitoring user presses the BLF list key to barge in and set up a conference call.

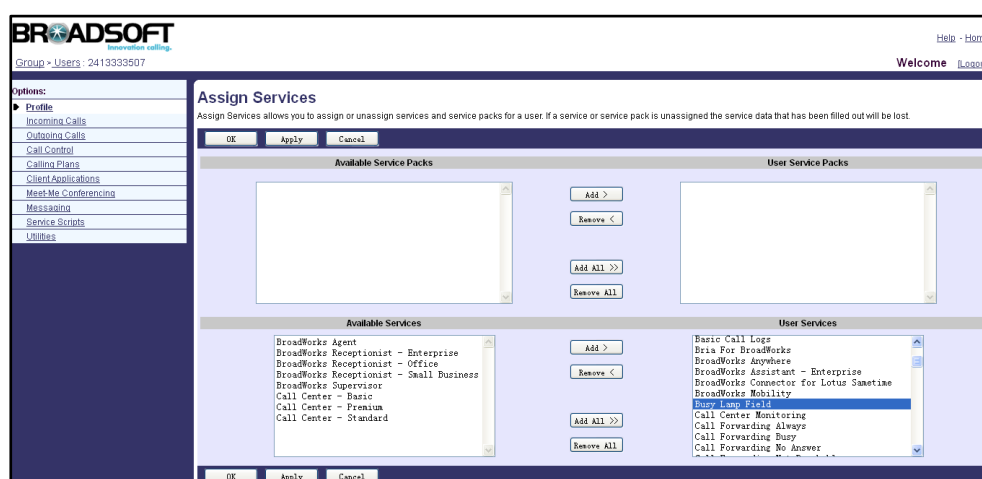
Note

To use barge-in, make sure Barge-In Exempt for the monitored user is set to "Off" on the BroadWorks server. For more information on Barge-In Exempt, refer to [Call Pickup](#) on page 108.

Configuring the BroadWorks Server

To assign the BLF service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333507).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Busy Lamp Field** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure BLF List for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333507), who has been assigned the Busy Lamp Field service.
4. Click on **Client Applications->Busy Lamp Field**.
5. Enter the BLF List URI (e.g., 3507_blf) in the **List URI** field.
6. Select the domain name (e.g., as.yealink.com) from the pull-down list following the @ sign.
7. Check the **Enable Call Park notification** checkbox.
8. Click **Search** to display all available users.
9. In the **Available Users** box, select the desired users and then click **Add>**.
10. Repeat the step 9 to add more users to the **Monitored Users** box.

11. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333507). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on Meet-Me conferencing, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

BLF List is configurable using the template configuration files or via web user interface.

To configure BLF list using the template configuration files:

1. Configure BLF List using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg):

The “x” in the parameter is an integer which specifies the line number on the IP

phone. If the user (e.g., 2413333507) is the first user assigned to the device profile, replace the “x” by “1”.

Parameter	Description	Value
account.x.blf.blf_list_uri	Defines the BLF List URI to monitor the users.	%BWBLF-URI-X%
account.x.blf_list_code	Specifies the Directed Call Pickup FAC (default: *97).	%BWFAC-DIRECTED-CALL-PICKUP-X%
account.x.blf_list_barge_in_code	Specifies the Directed Call Pickup with Barge-in FAC (default: *33).	%BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-X%
phone_setting.auto_blf_list_enable	Enables or disables the phone to automatically configure the BLF list keys. 0-Disabled 1-Enabled The default value is 1.	Boolean
phone_setting.blf_list_sequence_type	Specifies the order of BLF list keys assigned automatically. 0-Line Key->Memory Key->Ext Key 1-Ext Key->Memory Key->Line Key The default value is 0.	Integer

The following shows an example of BLF List configurations using the template configuration file:

```
account.1.blf.blf_list_uri = %BWBLF-URI-1%
account.1.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-1%
account.1.blf_list_barge_in_code
= %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-1%
phone_setting.auto_blf_list_enable = 1
phone_setting.blf_list_sequence_type = 0
```

If the parameter “phone_setting.auto_blf_list_enable” is set to 0, you need to configure the BLF list keys manually.

Configure DSS keys to be BLF List keys using the following parameters in the template configuration file (e.g., y000000000000.cfg).

You can configure memory keys to be BLF List keys (Except for T20P/T22P/T32G/T46G/VP530).

The “x” is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type. 39 -BLF List.	39
memorykey.x.line	Specifies the line to apply the BLF List key. The value values are: 0 to 5 (For T28P/T38G) 0 to 2 (For T26P) 0 -Line1 1 -Line2 2 -Line3 3 -Line4 4 -Line5 5 -Line6	Integer

The following shows an example of BLF list keys (memory keys) configurations using the template configuration files:

```
memorykey.1.line = 0
memorykey.1.type = 39
memorykey.2.line = 0
memorykey.2.type = 39
memorykey.3.line = 0
memorykey.3.type = 39
memorykey.4.line = 0
memorykey.4.type = 39
```

You can also configure line keys to be BLF List keys.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 27 (For T46G, x ranges from 1 to 27; For T28P/T38G, x ranges from 1 to 6; For VP530, x ranges from 1 to 4; For T22P/T26P/T32G, x ranges from 1 to 3; For T20P, x ranges from 1 to 2).

Parameter	Description	Value
linekey.x.type	Defines the line key type. 39 -BLF List.	39
linekey.x.line	Specifies the line to apply the BLF List key. The value values are: 0 to 5 (For T28P/T38G/T46G) 0 to 3 (For VP530) 0 to 2 (For T22P/T26P/T32G)	Integer

Parameter	Description	Value
	0 to 1 (For T20P)	
	0-Line1	
	1-Line2	
	2-Line3	
	3-Line4	
	4-Line5	
	5-Line6	

The following shows an example of BLF List keys (line keys) configurations using the template configuration file

```
linekey.1.line =0
linekey.1.type =39
linekey.2.line =0
linekey.2.type =39
linekey.3.line =0
linekey.3.type =39
linekey.4.line =0
linekey.4.type =39
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template file (e.g., %BWMACADDRESS%.cfg) will be replaced by the actual parameter values. An example is shown as the following:

```
account.1.blf.blf_list_uri = sip:3507_blf@as.yealink.com
account.1.blf_list_code = *97
account.1.blf_list_barge_in_code= *33
```

After downloading the configuration files, the IP phone will automatically configure the BLF List keys beginning from the first unused DSS key (Line Key->Memory Key->Ext Key), according to the response message from the BroadWorks server. If a DSS key is seized, the IP phone will skip this key and configure the next DSS key.

The IP phone LCD screen is similar to the one as below:



You can also configure the BLF List feature via web user interface at the path **Account->Advanced**.

Shared Call Appearance

Shared Call Appearance (SCA) allows users to share a SIP line on several IP phones. Any IP phone can be used to originate or receive calls on the shared line. An incoming call can be presented to multiple phones simultaneously. The incoming call can be answered on any IP phone but not all. A call that is active on one IP phone will be presented visually to other IP phones that share the call appearance. All SCA phones can also be notified about calls being parked/no longer parked against any SCA phone's extension.

IP phones support SCA using a SUBSCRIBE/NOTIFY mechanism as specified in RFC 3265. The events used are:

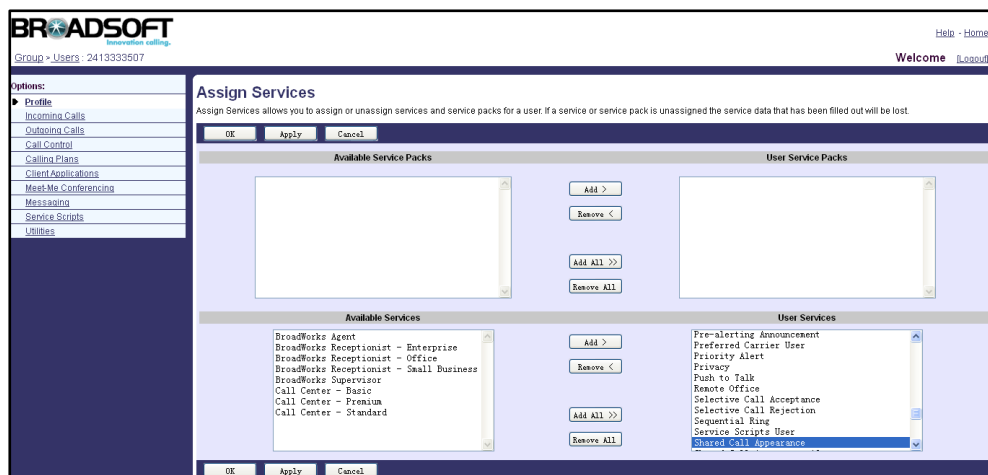
- "call-info" for call appearance state notification
- "line-seize" for the IP phone to ask to seize the line

The SCA feature also has private hold capability. When putting a shared line call on private hold, the user can retrieve it on the hold phone only. Retrieve attempts on other phones are rejected.

Configuring the BroadWorks Server

To assign the SCA service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333507).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Shared Call Appearance** and then click **Add>**.



- Click **Apply** to accept the change.

To configure SCA for the user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333507), who has been assigned the Shared Call Appearance service.
- Click on **Call Control->Shared Call Appearance**.

The main SCA parameters are described as below:

Parameter	Description
Alert all appearances for Click-to-Dial calls	Allows alerting all the locations sharing the call appearance when a location places a call from the CommPilot Call Manager.
Allow Call Retrieve from another location	Allows the other location sharing the call appearance to retrieve a call by dialing a call retrieve FAC.
Multiple Call Arrangement	Provides the ability for multiple calls to be handled concurrently on different SCA locations for a user.
Allow bridging between locations	Allows SCA locations to barge in on an active call involving another location.
Enable Call Park notification	Alerts all shared call appearance locations when a call is parked against the user's extension.
Bridge Warning tone	Determines whether to play a warning tone when a shared location barges in on an active call. None: disables the warning tone feature. Barge-in only: enables the warning tone feature. Barge-in and repeat every 30 seconds: enables the warning tone feature and the warning tone is repeated periodically every 30 seconds.

The following shows an example:

Alert all appearances for Click-to-Dial calls: Selected

Alert all appearances for Group Paging calls: Selected

Allow Call Retrieve from another location: Selected

Multiple Call Arrangement: On

Allow bridging between locations: Selected

Enable Call Park notification: Selected

Bridge Warning tone: Barge-in only

BROADSOFT
Group > Users > 2413333507

Options:
 Profile
 Incoming Calls
 Outgoing Calls
 Call Control
 Calling Plans
 Client Applications
 Meet-Me Conferencing
 Messaging
 Service Scripts
 Utilities

Shared Call Appearance
 Shared Call Appearance allows administrators to allocate additional devices or lines to you. These devices or lines also ring just like your primary phone. Define the line policy on Device Policies page.

OE Apply Add Cancel

☒ Alert all appearances for Click-to-Dial calls
☒ Alert all appearances for Group Paging calls
☒ Allow Call Retrieve from another location
 Multiple Call Arrangement: ☒ On ☐ Off
☒ Allow bridging between locations
☒ Enable Call Park notification
 Bridge Warning tone: ☐ None ☒ Barge-in only ☐ Barge-in and repeat every 30 seconds
 Device Policies: [Configure device policies](#)

Delete	Identity/Device Profile Type	Identity/Device Profile Name	Line/Port	Edit
No Entries Present				

[Page 1 of 1]

Identity/Device Profile Type Starts With Find Find All

OE Apply Add Cancel

- Click **Apply** to accept the change.
- Click **Add**.
- Select the desired device profile name (e.g., Yealink-TXP) from the pull-down list of **Identity/Device Profile Name**. Make sure the selected device profile have been created and note this device profile.
- Enter the alternate phone number (e.g., 2413333507_1) in the ***Line/Port** field.
- Select the domain name (e.g., as.iop1.broadworks.net) from the pull-down list following the @ sign.

BROADSOFT
Group > Users > 2413333507

Options:
 Profile
 Incoming Calls
 Outgoing Calls
 Call Control
 Calling Plans
 Client Applications
 Meet-Me Conferencing
 Messaging
 Service Scripts
 Utilities

Shared Call Appearance Add
 Allows administrators to allocate additional devices or lines to you.

OE Cancel

Identity/Device Profile Name: Yealink-TXP (Group)
 *Line/Port: 2413333507_1 @yealink.com
☒ Enable this location
☒ Allow Origination from this location
☒ Allow Termination to this location

OE Cancel

- Click **OK** to accept the change.
- Repeat steps 6 to 10 to configure more alternate locations.

After the above configurations, create a device profile and assign it to the primary account (e.g., 2413333507). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on SCA, refer to *BroadWorks Web Interface Administrator Guide*.

Note

The primary account and the alternate accounts should be assigned to different device profiles.

Configuring the Yealink IP Phones

SCA is configurable using the template configuration files or via web user interface.

To register the primary account and configure SCA on the primary phone using the template configuration files:

1. Register the primary account on the primary phone using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg).

The “x” in the parameter is an integer which specifies the line number on the IP phone. If the primary account (e.g., 2413333507) is the second user assigned to the device profile, replace “x” by “2”.

Parameter	Description	Value
account.x.enable	Enables or disables the line. 0-Disabled 1-Enabled The default value is 0.	%BWLINE-BINARY-X%
account.x.label	Configures the label to be displayed on the phone when the phone is idle.	%BWEXTENSION-X%
account.x.display_name	Configures the name to be displayed on the callee’s phone.	%BWCLID-X%
account.x.auth_name	Configures authentication ID for the line.	%BWAUTHUSER-X%
account.x.password	Configures authentication password for the line.	%BWAUTHPASSWORD-X%
account.x.user_name	Configures the user ID for the line.	%BWLINEPORT-X%
account.x.sip_server_host	Configures the SIP server address.	%BWHOST-X%
account.x.sip_server_port	Configures the SIP server port.	5060
account.x.outbound_proxy_enable	Enables or disables the outbound proxy server. 0-Disabled 1-Enabled The default value is 0.	%USE_SBC_BOOLEAN%
account.x.outbound_host	Configures the outbound proxy server address.	%SBC_ADDRESS%
account.x.outbound_port	Configures the outbound proxy server port	%SBC_PORT%

2. Configure SCA on the primary phone using the following parameter in the template

configuration file (e.g., %BWMACADDRESS%.cfg).

The “x” in the parameter is an integer which specifies the line number on the phone. If the primary account (e.g., 2413333507) is the second user assigned to the device profile, replace “x” by “2”.

Parameter	Description	Value
account.x.shared_line	Sets the line to be private or shared. 0 -Private line 1 -Shared line	%BWSHAREDLINE-BINARY-X%

The following shows an example of the SCA configuration using the template configuration file:

```
account.2.shared_line = %BWSHAREDLINE-BINARY-2%
```

3. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example is shown as below:

```
account.2.enable = 1
account.2.label = 3507
account.2.display_name = 3507 yealink
account.2.auth_name = 2413333507
account.2.password = yealink
account.2.user_name = 2413333507
account.2.sip_server_host = as.yealink.com
account.2.sip_server_port = 5060
account.2.outbound_proxy_enable = 1
account.2.outbound_host = 192.168.1.225
account.2.outbound_port = 5060
account.2.shared_line = 1
```

After the IP phone downloads the configuration files, the primary phone LCD screen is similar to the one as below:



The first line is private and the second line is shared.

To register the alternate accounts and configure SCA on the alternate phones using the template configuration files:

1. Register the alternate account on the other phone using the template configuration file (e.g., %BWMACADDRESS%.cfg).

The “x” in the parameter is an integer which specifies the line number on the IP phone. If the user is the second user assigned to the device profile, replace the “x” by “2”.

```
account.x.enable = %BWLINE-BINARY-X%
account.x.label = %BWEXTENSION-X%
account.x.display_name = %BWCLID-X%
account.x.auth_name = %BWAUTHUSER-X%
account.x.password = %BWAUTHPASSWORD-X%
account.x.user_name = %BWLINEPORT-X%
account.x.sip_server_host = %BWHOST-X%
account.x.sip_server_port = 5060
account.x.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.x.outbound_host = %SBC_ADDRESS%
account.x.outbound_port = %SBC_PORT%
```

2. Configure SCA on the alternate phone using the template configuration file (e.g., %BWMACADDRESS%.cfg).

The “x” in the parameter is an integer which specifies the line number on the IP phone. If the user is the second user assigned to the device profile, replace the “x” by “2”.

```
account.x.shared_line = %BWSHAREDLINE-BINARY-X%
```

3. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example is shown as below:

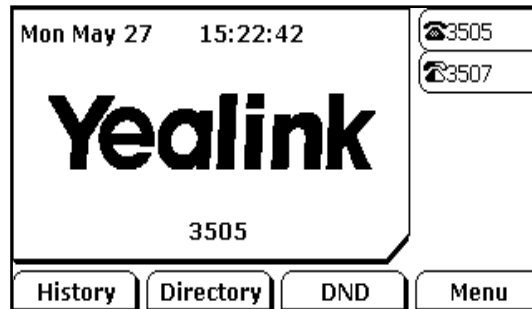
```
account.2.enable = 1
account.2.label = 3507
account.2.display_name = 3507 yealink
account.2.auth_name = 2413333507
account.2.password = yealink
account.2.user_name = 2413333507_1
account.2.sip_server_host = as.yealink.com
account.2.sip_server_port = 5060
```

```

account.2.outbound_proxy_enable = 1
account.2.outbound_host = 192.168.1.225
account.2.outbound_port = 5060
account.2.shared_line = 1

```

After the IP phone downloads the configuration files, the alternate IP phone LCD screen is similar to the one as below:



The first line is private and the second line is shared.

4. Repeat steps 1 to 3 to register more alternate accounts and configure SCA on other alternate phones using the template configuration file.

You can also configure the SCA feature via web user interface at the path **Account->Advanced**.

Music/Video on Hold

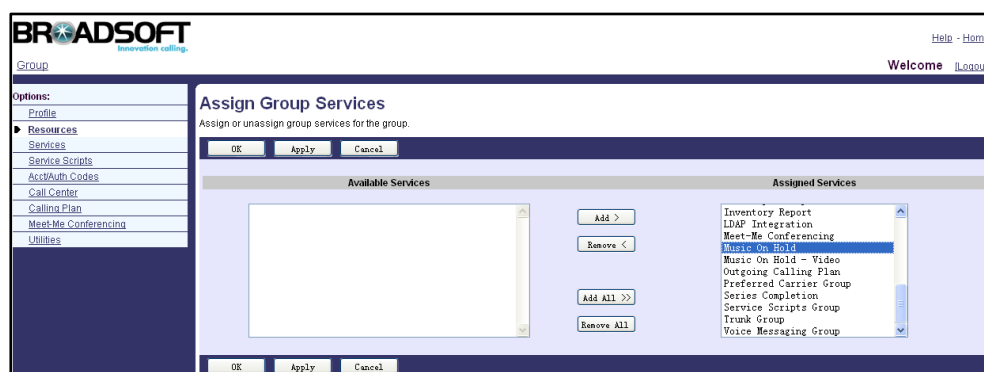
Music/Video on Hold allows an audio or video source to be played to held parties in various scenarios (Call Park, Call Hold, and Busy Camp On).

Configuring the BroadWorks Server

To assign the Music/Video on Hold service to the group:

1. Log in the web portal as a group administrator.
2. Click on **Resources->Assign Group Services**.

3. In the **Available Services** box, select **Music On Hold** and **Music On Hold-Video**, and then click **Add>**.



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

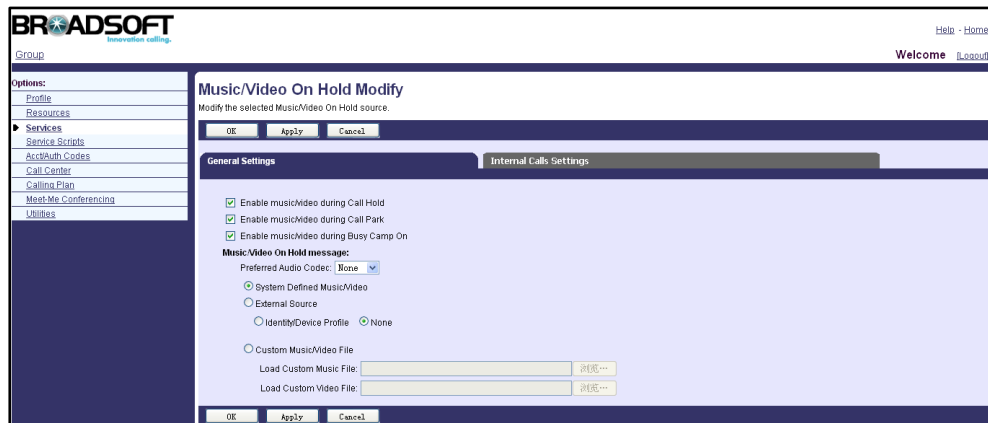
To configure Music/Video on Hold for a department:

1. Log in the web portal as a group administrator.
2. Click on **Services->Music/Video On Hold**.
3. Click **Add**.
4. Select the desired department from the pull-down list of **Department**.
5. Configure the Music on/Video on Hold for individual services:
 - **Enable music/video during Call Hold:** Checking this checkbox enables the phone to play an audio or video file for held callers.
 - **Enable music/video during Call Park:** Checking this checkbox enables the phone to play an audio or video file for parked callers.
 - **Enable music/video during Busy Camp On:** Checking this checkbox enables the phone to play an audio or video file for camped callers.
6. Configure the source of the Music/Video on Hold message to play.
7. Click **Apply** to accept the change.

To modify Music/Video on Hold for a group/department:

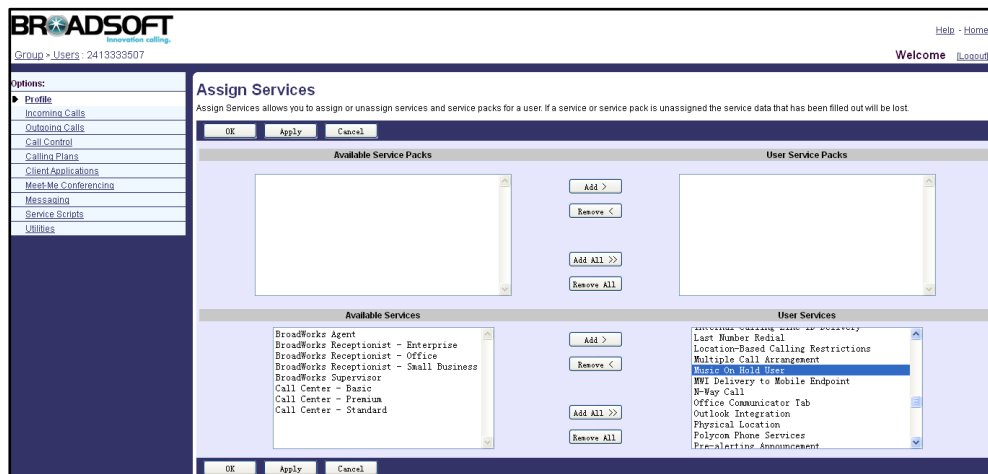
1. Log in the web portal as a group administrator.
2. Click on **Services->Music/Video On Hold**.
3. Select the desired group/department and click **Edit**.

4. Make the desired change.

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

To assign the Music/Video on Hold User service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333507).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Music On Hold User** and then click **Add>**.

6. Click **Apply** to accept the change.

To configure Music/Video on Hold for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333507), who has been assigned the Music on Hold User service.
4. Click on **Call Control->Music/Video On Hold**.
5. Mark the **On** radio box in the **Music On Hold** field.

6. Configure the source of the Music/Video on Hold message to play.



7. Click **Apply** to accept the change.

After the above configurations, create device profiles and assign them to the primary account (e.g., 2413333507) and the alternate accounts. Refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on Music/Video on Hold, refer to *BroadWorks Web Interface Administrator Guide*.

Priority Alert

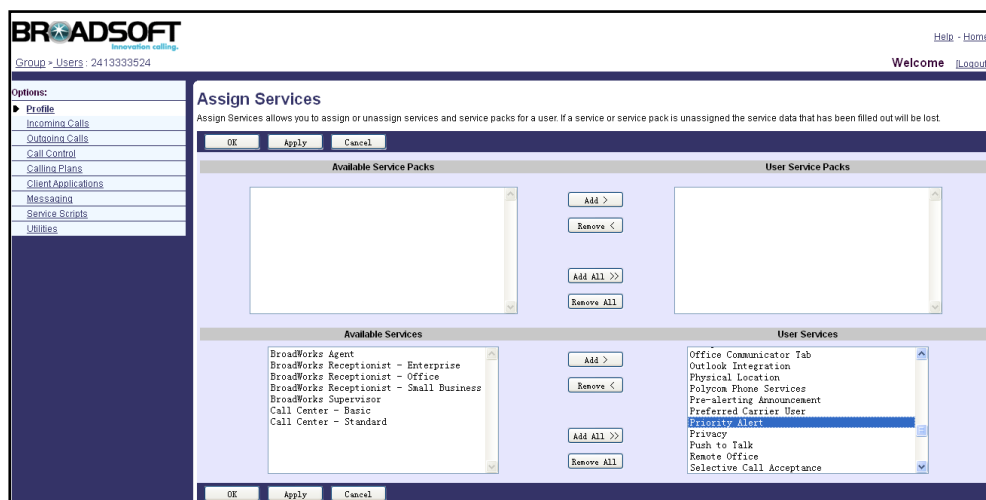
Priority alert allows users to define criteria to have certain incoming calls trigger distinctive alerting. Criteria can be defined based on the incoming phone numbers or digit patterns, the time schedule, and the holiday schedule. When the incoming call matches the pre-defined criteria, the BroadWorks server sends an INVITE request to the callee with “Alert-Info” header. The priority alert service can be also assigned to hunt groups and call centers. In this case, the analysis of the incoming call against the set of criteria is done at the hunt group level or the call center level, and then affects the ringing pattern of all agents.

Configuring the BroadWorks Server

To assign the priority alert service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333524).
4. Click on **Assign Services**.

- In the **Available Services** box, select **Priority Alert** and then click **Add>**.



- Click **Apply** to accept the change.

To configure priority alert for a user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333524), who has been assigned the priority alert service.
- Click on **Incoming Calls->Priority Alert**.
- Click **Add** to add a new priority alert entry.
- Set the parameters of priority alert.

The following shows an example:

Description: D-Ring

Use Priority Alert: Selected

Select Time Schedule: Every Day All Day

Select Holiday Schedule: None

Any external phone number: Selected

7. Click **OK** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333524). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

To configure priority alert for a hunt group:

1. Log in the web portal as a group administrator.
2. Click on **Services->Hunt Group**.
3. Select the desired group and click **Edit**.
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Priority Alert** and then click **Add>**.

6. Click **OK** to accept the change.
7. Click on **Incoming Calls->Priority Alert**.
8. Click **Add** to add a new priority alert entry.

9. Set the parameters of priority alert.

The following shows an example:

Description: G-ring

Use Priority Alert: Selected

Select Time Schedule: Every Day All Day

Select Holiday Schedule: None

Following phone numbers: Selected

Any private number: Selected

10. Click **OK** to accept the change.

To configure priority alert for call center:

1. Log in the web portal as a group administrator.
2. Click on **Call Center->Call Centers**.
3. Select the desired call center and click **Edit**.
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Priority Alert** and then click **Add>**.

6. Click **OK** to accept the change.
7. Click on **Incoming Calls->Priority Alert**.
8. Click **Add** to add a new priority alert entry.

9. Set the parameters of priority alert.

The following shows an example:

Description: C-ring

Use Priority Alert: Selected

Select Time Schedule: Every Day All Day

Select Holiday Schedule: None

Following phone numbers: Selected

Specific phone numbers: 2413333523 2413333524

BROADSOFT
BroadWorks Edition

Group > Call Centers > 2413333800

Help - Home
Welcome Logout

Options:
Profile
Incoming Calls
Calling Plans

Priority Alert Add
Allows you to add a priority alert entry. Specify the time schedule and/or holiday schedule you would like a priority alert to occur. Also, you can have a priority alert occur when only specified numbers call or all external numbers call. If you need more than 12 numbers or more distinct time or holiday periods, you can create multiple priority alert entries.

OK Cancel

* Description: C-ring

☒ Use priority alert
☐ Do not use priority alert

Selected Time Schedule: Every Day All Day

Selected Holiday Schedule: None

Calls from

☐ Any external phone number
☒ Following phone numbers:
☐ Any private number
☒ Any unavailable number

Specific phone numbers:

2413333523		
2413333524		

OK Cancel

10. Click **OK** to accept the change.

After the above configurations, create device profiles and assign them to the primary account (e.g., 2413333524) and the alternate accounts. Refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on priority alert, refer to *BroadWorks Web Interface Administrator Guide*.

To use priority alert, the distinctive ring feature should be enabled on the IP phone. For more information, refer to [Alternate Numbers](#) on page 96.

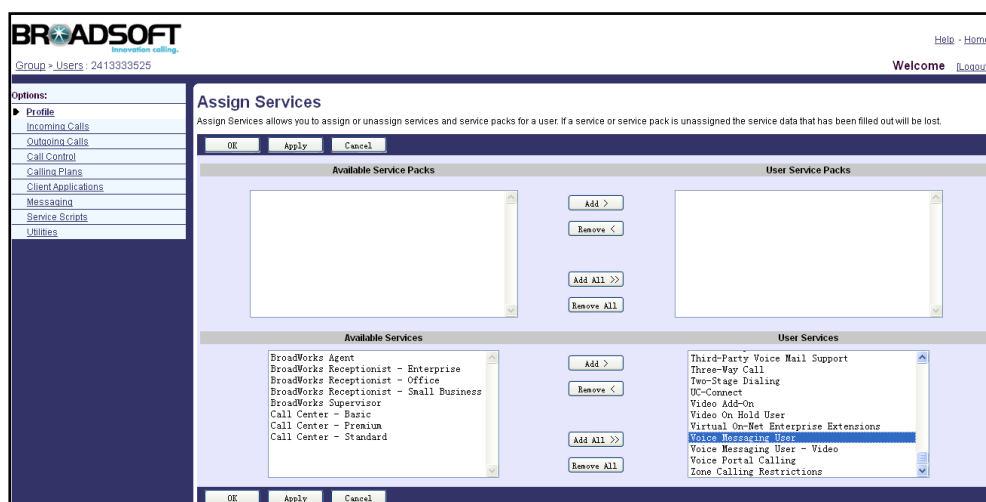
Voice Messaging

Voice messaging service allows users to record messages from callers for calls that are not answered within a specified number of rings, or for calls that receive a busy condition. BroadWorks also provides two options for voice messaging: Distribution List and Voice Portal Calling. Distribution List allows users to send voice messages to the pre-defined list of numbers in bulk. Voice Portal Calling allows users to originate calls from the voice portal.

Configuring the BroadWorks Server

To assign the voice messaging service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333525).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Voice Messaging User** and then click **Add>**.



6. Click **Apply** to accept the change.

To add a distribution list for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333525), who has been assigned the voice messaging service.
4. Click on **Messaging->Distribution Lists**.
5. Click the desired distribution list number.
6. Enter the description of the distribution list in the **Description** field.

- Enter the number or the SIP-URI in the **Phone Number / SIP-URI** field and click **Add**.

- Repeat steps 7-8 to add more numbers.
- Click **Apply** to accept the change.

To configure voice messaging for the user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333525), who has been assigned the voice messaging service.
- Click on **Messaging->Voice Management**.
- Set the parameters of voice messaging.

The following shows an example:

Voice Messaging: On

Send Busy Calls to Voice Mail: Selected

Send Unanswered Calls to Voice Mail: Selected

Use unified Messaging: Selected

Use Phone Message Waiting Indicator: Selected

- Click **Apply** to accept the change.

To configure voice portal calling for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333525), who has been assigned the voice messaging service.
4. Click on **Messaging->Voice Portal Calling**.
5. Mark the **On** radio box in the **Voice Portal Calling** field.

6. Click **Apply** to accept the change.

After the above configurations, create a device profile and assign it to the user (e.g., 2413333525). For more information, refer to [Creating the BroadWorks Device Profile](#) on page 22 and [Assigning the Device Profile to the User](#) on page 31.

For more information on voice messaging, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

Voice messaging is configurable using the template configuration files.

To configure voice messaging using the template configuration files:

1. Configure voice messaging using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg):

The “x” in the parameter is an integer which specifies the line number on the IP phone. If the user (e.g., 2413333525) is the first user assigned to the device profile, replace “x” by “1”.

Parameter	Description	Value
voice_mail.number.x	Sets the voice number.	%BWVOICE-PORTAL-NUMBER-X%

The following shows an example of the voice messaging configuration using the template configuration file:

```
voice_mail.number.1 = %BWVOICE-PORTAL-NUMBER-1%
```

2. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tag in the template file will be replaced by the actual parameter values. An example is shown as below:

```
voice_mail.number.1 = 2413333588

#The number"2413333588"is the voice portal number provided on the
BroadWorks server.
```

Automatic Call Distribution

Automatic Call Distribution (ACD) is often used in offices for customer service, such as call center. The ACD system handles incoming calls by automatically queuing and directing calls to available registered IP phone users (agents). The primary benefit of ACD is to reduce customer waiting time and improve the quality of service.

Once ACD is enabled on the IP phone, the user can log in the ACD system by pressing the **Login** soft key. After logging in the ACD system, the ACD system monitors the ACD status on the user's phone and then decides whether to assign an incoming call to it. The user can change the ACD status on the IP phone. You can configure a reason for changing the agent state to unavailable (e.g., on lunch, in the bathroom, taking a coffee break or a personal break).

Hold Reminder

If a call center call has been on hold after the pre-configured time, BroadWorks sends an INVITE with an Alert-Info header with the ring splash cadence to alert the agent. BroadWorks then sends a CANCEL for the ring splash INVITE. The CANCEL request contains a Reason header indicating ring splash which tells the IP phone that the call must not be identified as a missed call. The IP phone does not add the call to the missed calls list.

Call Information

When the agent receives an incoming call, the call center call information is shown on the agent's phone LCD screen. Call center call information includes wait time, call center name, call center phone number and number of calls in queue. BroadWorks provides the capability to send additional call center call information via a call center MIME type carried in the INVITE SDP. In order for BroadWorks to send the call center call information in the INVITE SDP, the Support Call Center MIME Type option must be selected on the BroadWorks device profile.

Disposition Code

Disposition Code is an additional attribute that enables calls to be identified with promotions, consults and other tags. BroadWorks provides the capability to obtain a call center call disposition code entered by the user via the IP phone. During a call, the disposition code is communicated from the IP phone to BroadWorks by use of an INFO message. During wrap-up, the code is communicated via the INVITE message from the

IP phone to BroadWorks. This feature is implemented using the Disp Code soft key or a Disp Code key on the IP phone.

Customer Originated Trace

Customer Originated Trace is used to trace the origin of an obscene, harassing, or threatening call. BroadWorks provides the capability for the call center agent to invoke a customer originated trace during the call or wrap-up. During a call, the request for customer originated trace is communicated from the IP phone to BroadWorks by use of an INFO message. During wrap-up, the request is communicated via INVITE from the IP phone to BroadWorks. This feature is implemented using the Trace soft key or an ACD Trace key on the IP phone.

Emergency Escalation

BroadWorks provides the capability for the call center agent to immediately escalate a call to a supervisor by pressing a key on the phone. The supervisor is immediately joined into the call. During a call, the request for emergency escalation is communicated from the IP phone to BroadWorks by use of an INFO message. This feature is implemented using the Emergency soft key or an Emergency key on the IP phone.

Queue Status Notification

Queue Status Notification enables the agent to view the status of the call center queue on the IP phone. The queue can be in one of the following three states:

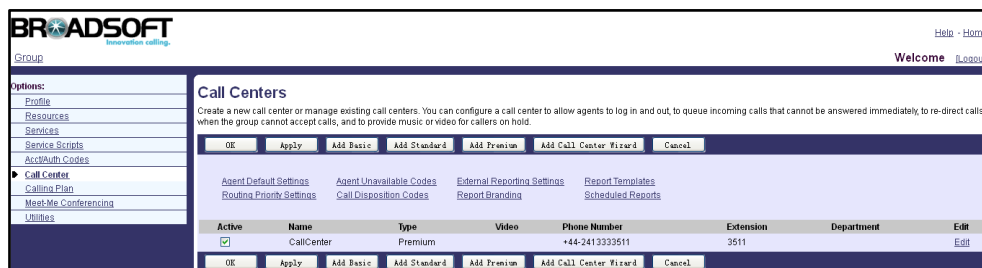
- **empty**: Indicates that no calls are currently in the queue.
- **q'ing**: Indicates that one or more calls are currently in the queue.
- **ALERT**: Indicates that the call queue has reached the maximum number of calls, or that a call has been in the queue for too long. The Power Indicator LED will also flash. The LED will stop flashing once the call queue status changes back to empty or q'ing.

Configuring the BroadWorks Server

To add a premium call center:

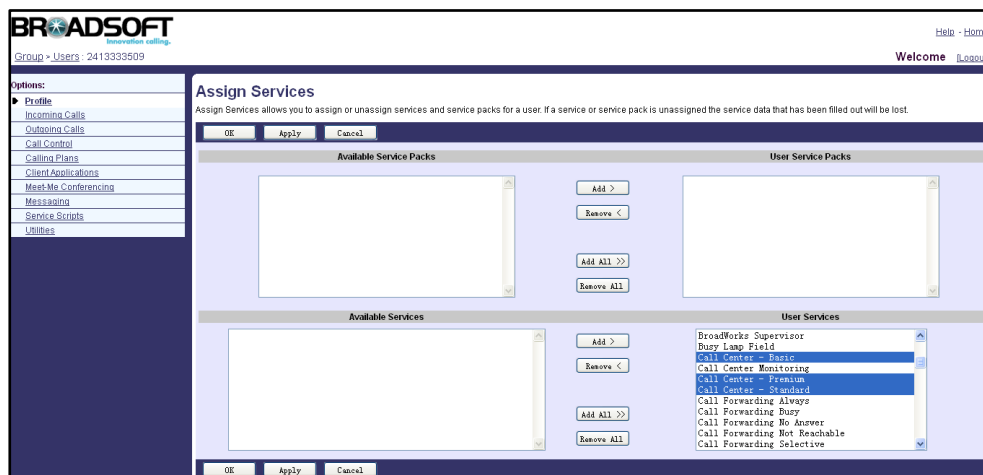
1. Log in the web portal as a group administrator.
2. Click on **Call Center->Call Centers->Add Premium**.

- After creating the call center, go back to **Call Center->Call Centers** and check the **Active** checkbox for the call center.



To assign the call center service to a user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413335509).
- Click on **Assign Services**.
- In the **Available Services** box, select **Call Center-Basic**, **Call Center-Premium** and **Call Center-Standard**, and then click **Add>**.



- Click **Apply** to accept the change.

To assign users to the call center on the BroadWorks server:

- Log in the web portal as a group administrator.
- Click on **Call Center->Call Centers**.
- Select the call center added above and click **Edit**.
- Click on **Agents**.
- Click **Search** to display all available users, who have been assigned the call center service.

- In the **Available Agents** box, select the desired agent and click **Add>**.

- Repeat step 5 to assign more agents to the call center.
- Click **Apply** to accept the change.

To change the agent state:

- Log in the web portal as a group administrator.
- Click on **Profile->Users**.
- Click **Search** to display all available users.
- Select the desired agent (e.g., 2413333509).
- Click on **Call Control ->Call Centers**.

- Select the desired state from the pull-down list of **ACD State**.
- Click **Apply** to accept the change.

Note

Make sure the **Join Call Center** checkbox is checked.

Unavailable Codes

To configure unavailable codes:

- Log in the web portal as a group administrator.

- Click on **Call Center->Agent Unavailable Codes**.
- Check **Enable Agent Unavailable Codes** checkbox.
- Click **Apply** to accept the change.
- Click **Add**.
- Enter the desired unavailable code and unavailable code name in the **Code** and **Description** fields respectively.
- Check the **Active** checkbox.

BROADSOFT
Innovative calling.

Group: [] Help - Home Welcome Logout

Options:
 Profile
 Resources
 Services
 Service Scripts
 Account Codes
 Call Center
 Calling Plan
 Meet-Me Conferencing
 Utilities

Agent Unavailable Codes Add
 Agent Unavailable Codes Add allows you to add a new Unavailable Code entry. Specify the code and description you would like for it.

OK Cancel

☒ Active
 * Code: 500
 Description: On Lunch

OK Cancel

- Click **OK** to accept the change.
- Repeat the steps 5 to 8 to add more unavailable codes.

Hold Reminder

To configure hold reminder:

- Log in the web portal as a group administrator.
- Click on **Call Center->Call Centers**.
- Select the call center added above and click **Edit**.
- Click on **Routing Policies->Bounced Calls**.
- Check the **Alert agent if call is on hold for longer than <number>seconds** checkbox, and enter the amount of time (in seconds) if you want agents to be alerted about long-held calls.
- Check the **Bound Bounce calls after being on hold by agent for longer than <number> seconds** checkbox, and enter the number of time (in seconds) to bounce calls that are on hold longer than the specified number of seconds.

BROADSOFT
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Group > Call Centers > CallCenter Help - Home Welcome Logout

Options:
 Profile
 Routing Policies
 Incoming Calls
 Outgoing Calls
 Call Control
 Calling Plans
 Client Applications
 Messaging
 Utilities

Bounced Calls
 Configure the call center routing policy for calls unanswered by agents.

OK Apply Cancel

☒ Bounce Calls after 5 Rings
☐ Transfer to phone number / SIP-URI
☐ Bounce calls if agent becomes unavailable while routing the call
☒ Alert agent if call is on hold for longer than 30 seconds
☒ Bounce calls after being on hold by agent for longer than 30 seconds

OK Apply Cancel

- Click **Apply** to accept the change.

Call Information

To configure call information:

1. Log in the web portal as a group administrator.
2. Create a device profile. Make sure the selected device profile type supports Call Center MIME Type.

3. Assign the call center agent to the device profile. Make sure the selected device profile is the one created above.

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

Disposition Code

To configure disposition codes:

1. Log in the web portal as a group administrator.
2. Click on **Call Center->Call Centers**.
3. Select the call center added above and click **Edit**.
4. Click on **Call Disposition Codes**.

5. Check **Enable call disposition codes** checkbox.

6. Click **Apply** to accept the change.

To configure disposition codes:

1. Log in the web portal as a group administrator.
2. Click on **Call Center->Call Disposition Codes**.
3. Click **Add**.
4. Enter the desired disposition code and disposition name in the **Code** and **Description** fields respectively.
5. Check the **Active** checkbox.

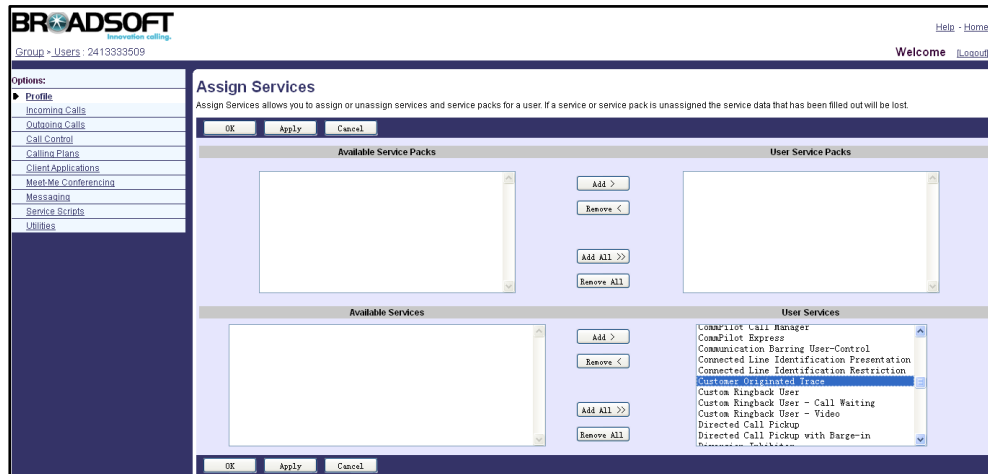
6. Click **OK** to accept the change.
7. Repeat the steps 3 to 5 to add more disposition codes.

Customer Originated Trace

To configure customer originated trace for the agent:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users**.
3. Click **Search** to display all available users.
4. Select the desired agent (e.g., 2413333509).
5. Click on **Assign Services**.

- In the **Available Services** box, select **Customer Originated Trace** and then click **Add>**.

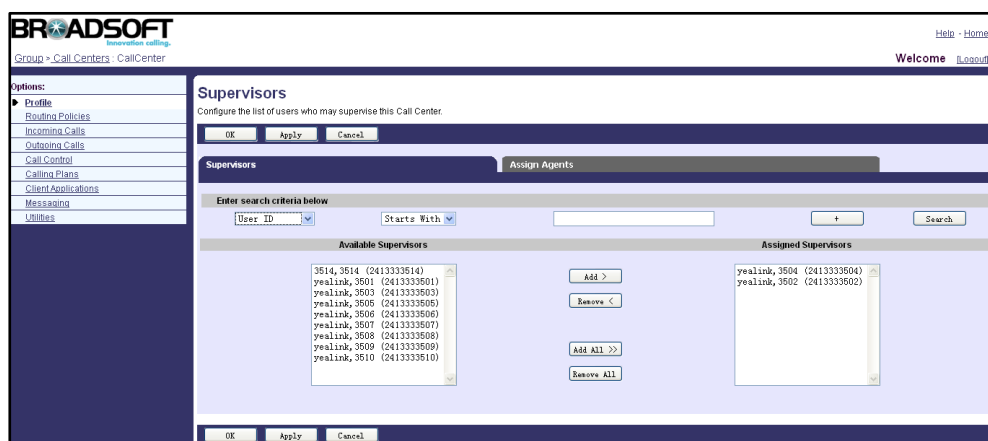


- Click **Apply** to accept the change.

Emergency Escalation

To assign supervisors to the call center:

- Log in the web portal as a group administrator.
- Click on **Call Center->Call Centers**.
- Select the call center added above and click **Edit**.
- Click on **Supervisors**.
- Click **Search** to display all available supervisors.
- In the **Available Supervisors** box, select the desired supervisor and then click **Add>**.



- Repeat the step 5 to assign more supervisors to the call center.
- Click on the **Assign Agents** tab.
- Select the desired supervisor from the pull-down list of **Supervisors**.
- Click **Search** to display all available agents for the supervisor.

11. In the **Available Agents** box, select the desired agent and then click **Add>**.

12. Click **Apply** to accept the change.

Queue Status Notification

To configure queue status notification:

1. Log in the web portal as a group administrator.
2. Click on **Call Center->Call Centers**
3. Select the call center added above and click **Edit**.
4. Click on **Queue Status Notification**.
5. Check the **Enable notification of queue status to agent devices** checkbox.
6. Check the **Number of calls in queue: <number>** checkbox, and enter a threshold on the number of calls in queue.
7. Check **Longest waiting time: <number> seconds** checkbox, and enter a threshold on the longest waiting time.

8. Click **Apply** to accept the change.

For more information on ACD, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

To configure ACD using the template configuration files:

1. Configure ACD using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg):

The “x” in the parameter is an integer which specifies the line number of the host user on the IP phone. If the primary account (e.g., 2413333509) is the first user assigned to the device profile, replace “x” by “1”. X ranges from 1 to 6, Y ranges from 1 to 100.

Parameter	Description	Value
account.x.acd.enable	Enables or disables the ACD feature. 0 -Disabled 1 -Enabled The default value is 0.	%ACD_LINE_BINARY%
account.x.acd.initial_state	Configures the initial agent state. 1 -Available 2 -Unavailable The default value is 1.	Integer
account.x.acd.available	Enables or disables the phone to display the Unavail and Available soft keys after logging into the ACD system. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
Unavailable Code		
account.x.acd.unavailable_reason_enable	Enables or disables the unavailable code feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
account.X.reason_code.Y	Configures the unavailable code which must match one of the codes configured on BroadWorks. The unavailable code length must be within 10 characters.	Integer
account.X.reason_code_name.Y	Configures the unavailable reason which must match one of the reasons configured on	String

Parameter	Description	Value
	BroadWorks.. The unavailable reason length must be within 40 characters.	
Hold Reminder		
account.x.call_center. play_bw_hold_tone_enable	Enables or disables the hold reminder feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
Call Information		
account.x.call_center. call_info_enable	Enables or disables the call center call information feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
account.x.call_center. show_call_info_time	Configures the interval (in seconds) to specify how long the call center call information displays. The default value is 30 seconds.	Integer
Disposition Code		
account.x.call_center. disp_code_enable	Enables or disables the disposition code feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
account.X.bw_disp_code.Y	Configures the disposition code which must match one of the codes configured on BroadWorks.	Integer
account.X.bw_disp_code_name.Y	Configures the disposition code name which must match one of the names configured on BroadWorks.	String
Customer Originated Trace		
account.x.call_center. trace_enable	Enables or disables the customer originated trace feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean

Parameter	Description	Value
Emergency Escalation		
account.x.call_center.emergency_enable	Enables or disables the emergency escalation feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
account.X.supervisor_info_code.Y	Configures the supervisor number. The supervisor number length must be within 30 characters.	Integer
account.X.supervisor_info_code_name.Y	Configures the supervisor name. The supervisor name length must be within 99 characters.	String
Queue Status Notification		
account.x.call_center.queue_status_enable	Enables or disables the queue status notification feature. 0 -Disabled 1 -Enabled The default value is 0.	Boolean
account.x.call_center.queue_status_light_enable	Specifies whether to indicate the queue status via the Power Indicator LED, when the queue status notification feature is enabled. 0 -Disabled 1 -Enabled The default value is 0.	Boolean

The following shows an example of ACD configurations using the template configuration file:

```

account.1.acd.enable = %ACD_LINE_BINARY%
account.1.acd.initial_state = 1
account.1.acd.available = 1
account.1.acd.unavailable_reason_enable = 1
account.1.reason_code.1 = 500
account.1.reason_code_name.1 = On Lunch
account.1.call_center.play_bw_hold_tone_enable = 1
account.1.call_center.call_info_enable = 1
account.1.call_center.show_call_info_time = 30
account.1.call_center.disp_code_enable = 1

```



```

account.1.bw_disp_code.1 = 100
account.1.bw_disp_code_name.1 = Promotion A
account.1.call_center.trace_enable = 1
account.1.call_center.emergency_enable = 1
account.1.supervisor_info_code.1 = 2413333504
account.1.supervisor_info_code_name.1 = Supervisor A
account.1.call_center.queue_status_enable = 1
account.1.call_center.queue_status_light_enable = 1

```

2. Configure feature key synchronization using the following parameters in the template configuration file (e.g., y0000000000000000.cfg):

```
bw.feature_key_sync = 1
```

3. Configure a DSS key to be an ACD key, a Disp Code key, an ACD Trace key or an Emergency key using the following parameters in the template configuration file (e.g., y0000000000000000.cfg):

You can configure a memory key to be an ACD key, a Disp Code key, an ACD Trace key or an Emergency key (Except for T20P/T22P/T32G/T46G/VP530).

The “x” is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type. 42 -ACD 58 -ACD Trace 59 -Disp Code 60 -Emergency	Integer
memorykey.x.value	Configure the value for the Disp Code key or the Emergency key.	Integer

The following shows an example of the ACD Trace key (memory key) configuration using the template configuration file:

```
memorykey.1.type = 58
```

You can also configure a line key to be an ACD key, a Disp Code key, an ACD Trace key or an Emergency key.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 27 (For T46G, x ranges from 1 to 27; For T28P/T38G, x ranges from 1 to 6; For VP530, x ranges from 1 to 4; For T22P/T26P/T32G, x ranges from 1 to 3; For T20P, x ranges from 1 to 2).

Parameter	Description	Value
linekey.x.type	Defines the line key type. 42 -ACD	Integer

Parameter	Description	Value
	58 -ACD Trace 59 -Disp Code 60 -Emergency	
linekey.x.value	Configure the value for the Disp Code key or the Emergency key.	Integer

The following shows an example of the ACD Trace key (line key) configuration using the template configuration file:

```
linekey.2.type = 58
```

4. Customize the static tag on BroadWorks. The tag name is %ACD_LINE_BINARY% and the tag value is 1.

For more information, refer to [Customizing a Static Tag](#) on page 23.

5. Upload the template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tag in the template file will be replaced by the actual parameter value. An example is shown as below:

```
account.1.acd.enable = 1
```

Hoteling

Hoteling enables users to use any available host (shared) phone by logging in with user credentials. After logging in, users have access to their own guest profile on the host phone. This is accomplished via a SUBSCRIBE/NOTIFY mechanism with the x-broadworks-hoteling event. Hoteling can be used on a private line only.

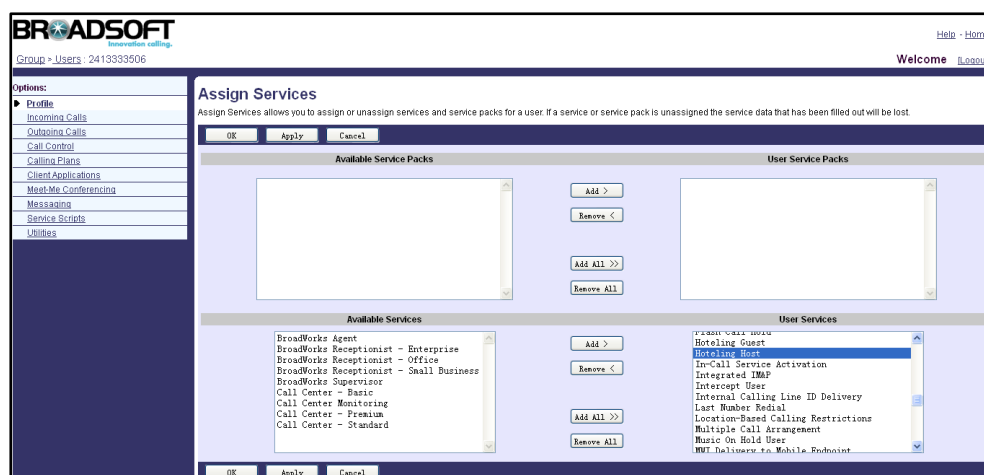
Configuring the BroadWorks Server

To use hoteling, you need to first enable hoteling on the BroadWorks server by creating a host profile and a guest profile. The host profile is the shared phone's default configuration. You can assign guest profiles to users who require hot desking.

To assign the hoteling host service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333506).
4. Click on **Assign Services**.

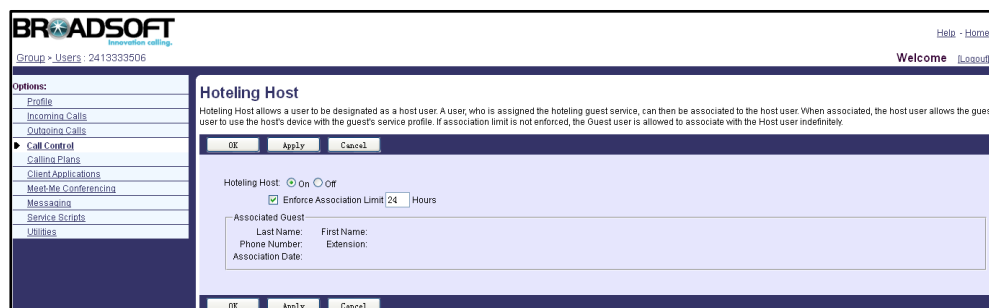
5. In the **Available Services** box, select **Hoteling Host** and then click **Add>**.



6. Click **Apply** to accept the change.

To configure a host profile for the user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333506), who has been assigned the hoteling host service.
4. Click on **Call Control->Hoteling Host**.
5. Mark the **On** radio box in the **Hoteling Host** field.
6. Check the **Enforce Association Limit <number> Hours** checkbox, and enter the number of hours to use the hoteling guest profile. If unchecked, the hoteling guest is allowed to associate with the hoteling host indefinitely.

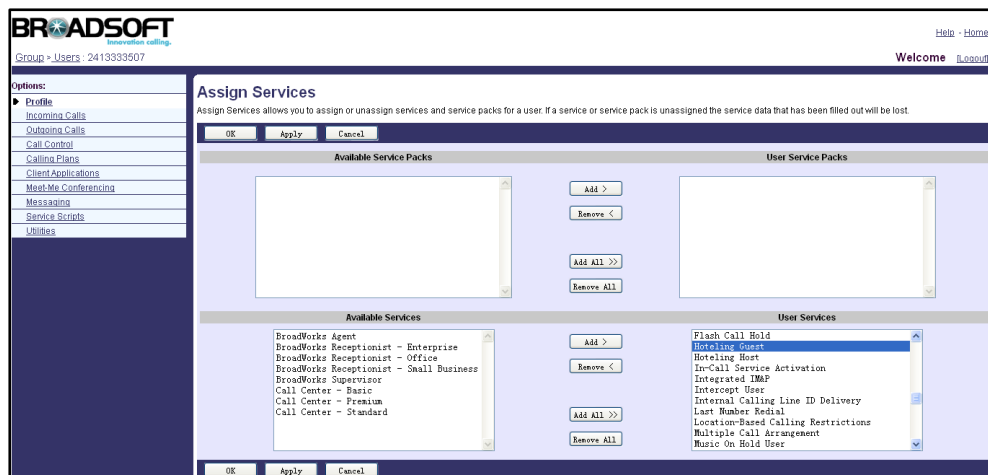


7. Click **Apply** to accept the change.

To assign the hoteling guest service to a user:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 2413333507).
4. Click on **Assign Services**.

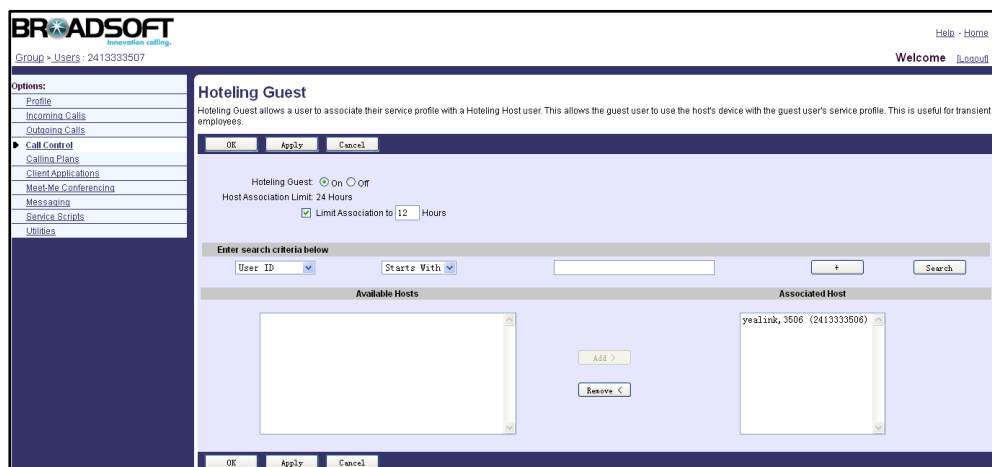
- In the **Available Services** box, select **Hoteling Guest** and then click **Add>**.



- Click **Apply** to accept the change.

To configure a guest profile for the user:

- Log in the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 2413333507), who has been assigned the hoteling guest service.
- Click on **Call Control->Hoteling Guest**.
- Mark the **On** radio box in the **Hoteling Guest** field.
- Check the **Limit Association to <number> Hours** checkbox, and enter the number of hours to associate with the hoteling host. The number of hours must be equal or less than the association limit of the hoteling host.
- Click **Search** to display all available hoteling hosts.
- In the **Available Hosts** box, select the desired host and then click **Add>**.



- Click **Apply** to accept the change.

To change a hoteling guest password:

1. Log in the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the hoteling guest added above and click **Edit**.
4. Click on **Profile->Passwords**.
5. Mark the **Set portal password** radio box.
6. Enter the new password in the **Type new password** field.
7. Re-enter the new password in the **Re-type new password** field.

8. Click **Apply** to accept the change.

For more information on hoteling, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the Yealink IP Phones

After setting up hoteling on the BroadWorks, you need to configure hoteling on the IP phone. Hoteling is configurable using the template configuration files.

To configure hoteling using the template configuration files:

1. Configure hoteling using the following parameters in the template configuration file (e.g., %BWMACADDRESS%.cfg):

The “x” in the parameter is an integer which specifies the line number of the host user on the IP phone. X ranges from 1 to 10.

Parameter	Description	Value
account.x.hoteling.enable	Enables or disables the Hoteling feature. 0-Disabled 1-Enabled The default value is 0.	Boolean

The following shows an example of the hoteling configuration using the template configuration file:

```
account.1.hoteling.enable = 1
```

2. Configure a DSS key to be a hoteling key using the following parameter in the

template configuration file (e.g., y00000000000000000000.cfg).

You can configure a memory key to be a hoteling key (Except for T20P/T22P/T32G/T46G/VP530).

The “x” is an integer which specifies the sequence number of the memory key. X ranges from 1 to 10.

Parameter	Description	Value
memorykey.x.type	Defines the memory key type. 57 -Hoteling.	59

The following shows an example of the hoteling key (memory key) configuration using the template configuration file:

```
memorykey.1.type = 57
```

You can also configure a line key to be a hoteling key.

The “x” is an integer which specifies the sequence number of the line key. X ranges from 1 to 27 (For T46G, x ranges from 1 to 27; For T28P/T38G, x ranges from 1 to 6; For VP530, x ranges from 1 to 4; For T22P/T26P/T32G, x ranges from 1 to 3; For T20P, x ranges from 1 to 2).

Parameter	Description	Value
linekey.x.type	Defines the line key type. 57 -Hoteling.	59

The following shows an example of the hoteling key (line key) configuration using the template configuration file:

```
linekey.2.type = 57
```

3. Upload the template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After downloading the configuration files, the IP phone with host user registered can be shared to the guest (e.g., 2413333507), who can log in to and out of the guest profile on the IP phone. Once users have logged in to the guest profile, the shared phone acts exactly like their own phone.

Upgrading Firmware

To upgrade firmware using the template configuration files:

1. Upgrade firmware using the following parameter in the template configuration file (e.g., y0000000000000000.cfg):

```
firmware.url=http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWD
MSCONTEXT%/%BWDEVICEACCESSURI%%FIRMWARE_VERSION%
```

2. Customize the static tag. The tag name is %FIRMWARE_VERSION% and the tag value is the firmware version (e.g., 2.71.0.10.rom).

For more information, refer to [Customizing a Static Tag](#) on page 23.

3. Upload the firmware (e.g., 20.71.0.10.rom).

For more information, refer to [Uploading Static Files](#) on page 30.

4. Upload the template configuration file.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 26.

After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example is shown as below:

```
firmware.url =
http://xspl.iopl.broadworks.net:80/dms/YealinkT28P/2.71.0.10.rom
```

You can also upgrade the firmware via web user interface at the path:

Settings->Upgrade. For more information on how to upgrade the firmware, refer to *Yealink IP phones Family Administrator Guide*.

Downloading and Verifying Configurations

Downloading Configuration Files

Once obtaining the access URL, the phone will connect to the BroadWorks server and download the configuration files. You should check the BroadWorks server settings and configure the Yealink IP phone in advance.

To check the BroadWorks server settings:

1. Log in the web portal as a group administrator.
2. Click on **Resources->Identity/Device Profiles**.
3. Click **Search** to display all existing device profiles (Click **Next** to turn to the next page).

BROADSOFT
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CLICK HERE TO ACCESS THE BROADSOFT INTEROP PORTAL
This system is running BroadWorks Release 18.SP1.

Group Welcome Admin1 Yealink [Logout]

Options:

- Profile
- Resources
- Services
- Acct/Auth Codes
- Call Center
- Meet-Me Conferencing
- Utilities

Identity/Device Profiles
Add a new group identity/device profile or manage existing identity/device profiles.

OK Add Cancel

Enter search criteria below

Identity/Device Profile Name Starts With + Search

Identity/Device Profile Name	Identity/Device Profile Type	Available Ports	Host Name/IP Address	MAC Address	Status	Edit
Yealink	Yealink-TxP_dm	Unlimited			Online	Edit
yealink_dm_test	Yealink-TxP_dm	Unlimited		001565115FA5	Online	Edit
yealink_T28 3604	Yealink T28P	6			Online	Edit
yealink_T39G	Yealink-T3xG_dm	Unlimited		0015652FACEE	Online	Edit
Yealink_T6X	Yealink-T6xP_dm	Unlimited		0015651112B8	Online	Edit
Yealink_VP009P_3607	Yealink-VP2009P_dm	Unlimited		0015651626DA	Online	Edit
Yealink2_Secondary1	Generic SIP Phone	Unlimited			Online	Edit
yealink2012	Generic SIP Phone	Unlimited			Online	Edit
Yealink3601	Yealink-TxP_dm	Unlimited			Online	Edit
yealink-cc	Generic SIP Phone - Call Center	Unlimited			Online	Edit
Yealink-Dect-Phone	Yealink-W5xP_dm	Unlimited		0015651B9209	Online	Edit
Yealink Device Profile test3601	Yealink-TxP_dm	Unlimited			Online	Edit
yealink-T18	Yealink-TxP_dm	Unlimited		00156516AF40	Online	Edit
Yealink T26P	Yealink T26P	3		001565121226	Online	Edit
YealinkT26P111	Yealink T26P	3			Online	Edit
yealinkT28	Yealink T28P	5		001565124125	Online	Edit
yealinkT28_1	Yealink T28P	6			Online	Edit
Yealink-T28P_dm_test	Yealink T28P	6		001565111111	Online	Edit
Yealink t2x provisioning	Yealink-TxP_dm	Unlimited		0015651213B7	Online	Edit
Yealink Test Vin	Yealink-TxP_dm	Unlimited		00156512325D	Online	Edit

First Previous [Page 4 of 5] Next Last

OK Add Cancel

4. Select the desired device profile (e.g., yealinkT28) to edit.
5. Click on the **Profile** tab.

6. Check the parameters: URL, mac address, user name and password in the corresponding fields.

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Group Help - Home

Welcome Admin1 Yealink [Logout]

Options:

- Profile
- Resources**
- Services
- Acct/Auth Codes
- Call Center
- Meet-Me Conferencing
- Utilities

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: yealinkT28
Identity/Device Profile Type: Yealink T28P

Device Type URL: http://xsp1.iop1.broadworks.net:80/dms/yealinkT28P/

Protocol: SIP 2.0

Host Name/IP Address: Port:

Transport: Unspecified

MAC Address: 001565124125

Serial Number:

Description:

Outbound Proxy Server:

STUN Server:

Physical Location:

Lines/Ports: 6
Assigned Lines/Ports: 1
Unassigned Lines/Ports: 5

Authentication

☐ Use Identity/Device Profile Type Credentials

☒ Use Custom Credentials

* Device Access User Name: yeawhl

* Device Access Password:

* Re-type Device Access Password:

OK Apply Delete Cancel

To configure the Yealink IP phone:

1. Log in the web user interface as an administrator.
2. Click on **Settings->Auto Provision**.
3. Enter the parameters: URL, user name and password in the corresponding fields.

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

The screenshot shows the Yealink T28 web interface. The 'Settings' tab is active, and the 'Auto Provision' section is expanded. The 'Power On' field is highlighted with a red box, and the 'On' radio button is selected. Other fields like 'Server URL', 'User Name', and 'Password' are also highlighted. The 'NOTE' section on the right states: 'Auto Provision: The auto provision parameters for administrator.'

- Click **Confirm** to save the setting.

After the above the configurations, reboot the IP phone. The IP phone will try to download the configuration files from the BroadWorks server.

Verifying Configurations

After auto provisioning, the IP phone reboots in some cases. You can verify the configurations via phone user interface or web user interface of the phone. During the auto provisioning process, you can monitor the downloading request and response message by a WinPcap tool.

Example: Yealink IP phone downloads configuration files by HTTP.

No.	Time	Source	Destination	Protocol	Length	Info
18	1.718551	10.2.11.174	199.19.193.16	HTTP	244	GET /dms/YealinkT28P/y0000000000000.cfg HTTP/1.1
29	2.124294	199.19.193.16	10.2.11.174	HTTP	404	HTTP/1.1 401 Unauthorized
42	2.857698	10.2.11.174	199.19.193.16	HTTP	522	GET /dms/YealinkT28P/y00000000000000.cfg HTTP/1.1
94	4.661294	199.19.193.16	10.2.11.174	HTTP	1296	HTTP/1.1 200 OK (text/plain)
320	29.879430	10.2.11.174	199.19.193.16	HTTP	243	GET /dms/YealinkT28P/001565147Fd9.cfg HTTP/1.1
326	30.249306	199.19.193.16	10.2.11.174	HTTP	404	HTTP/1.1 401 Unauthorized
337	30.964733	10.2.11.174	199.19.193.16	HTTP	520	GET /dms/YealinkT28P/001565147Fd9.cfg HTTP/1.1
402	32.709461	199.19.193.16	10.2.11.174	HTTP	1374	HTTP/1.1 200 OK (text/plain)