



Yealink IP Phones Deployment Guide for BroadSoft UC-One Environments

Version 73.10

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About This Guide

BroadSoft UC-One is a complete Unified Communications solution, providing a comprehensive suite of services meeting both business and consumer requirements. The UC-One solution effectively leverages multiple BroadSoft products: BroadWorks, BroadTouch and BroadCloud, to provide the full UC-One User Experience. This guide describes the BroadWorks device management interface and introduces how to deploy Yealink W52P IP DECT phones for the administrator using the BroadWorks device management interface. In addition, the guide provides the detailed instructions for BroadSoft integrated features. The BroadCloud features are not available on Yealink W52P IP DECT phones. The BroadSoft BroadWorks features are available on Yealink W52P IP DECT phones running UC-One firmware version 50 or later. These features require support from the BroadSoft BroadWorks platform.

Who should use this guide?

This deployment guide is intended for system and network administrators familiar with configuring and deploying Yealink W52P IP DECT phones and with the components of the BroadSoft environment.

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

- Previous knowledge of and experience with BroadSoft UC-One components
- Access to BroadSoft UC-One 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

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 BroadSoft UC-One Integrated Features](#)" describes how to configure BroadSoft integrated features on the BroadSoft 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.
- Chapter 6, “[Troubleshooting](#)” describes how to troubleshoot the phone problem.

Summary of Changes

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

Changes for Release 73, Guide Version 73.10

Major updates have occurred to the following sections:

- [Xtended Services Interface](#) on page 26

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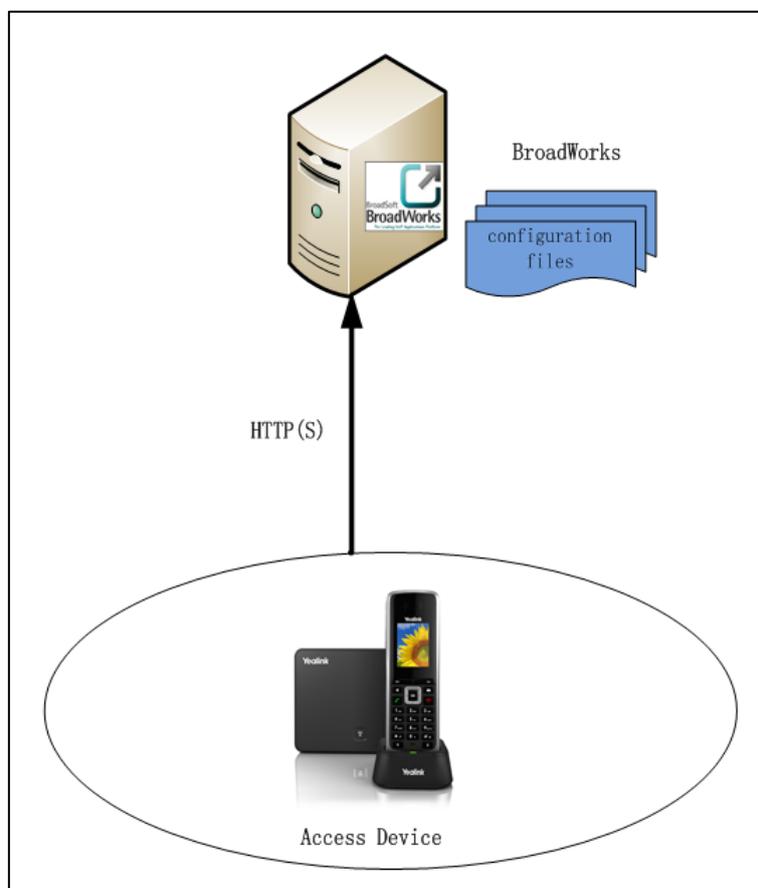
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BroadWorks Device Management

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 are applied 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 device. 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 8.

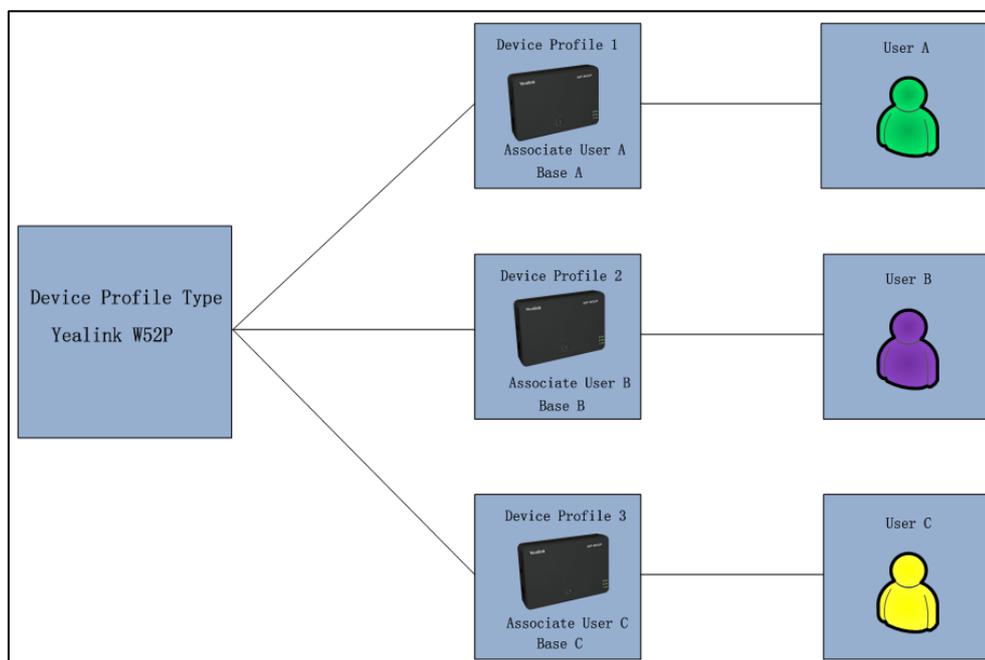
Device Profile

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 set of predefined 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 14.

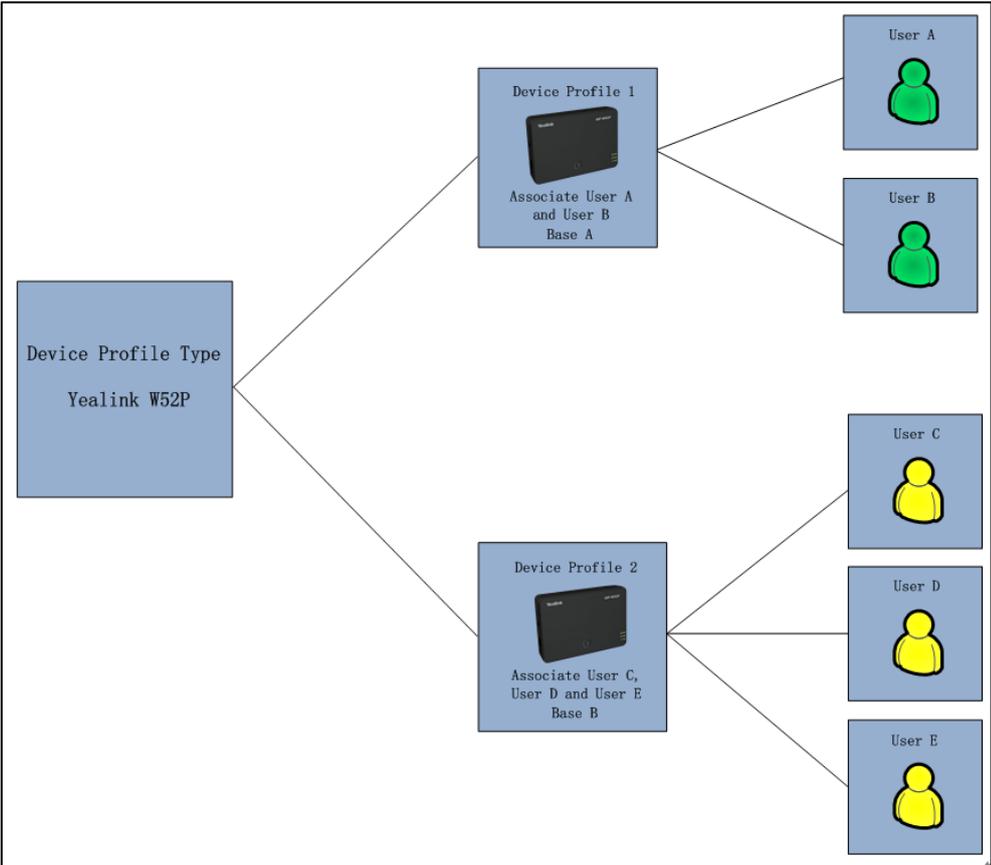
User

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:



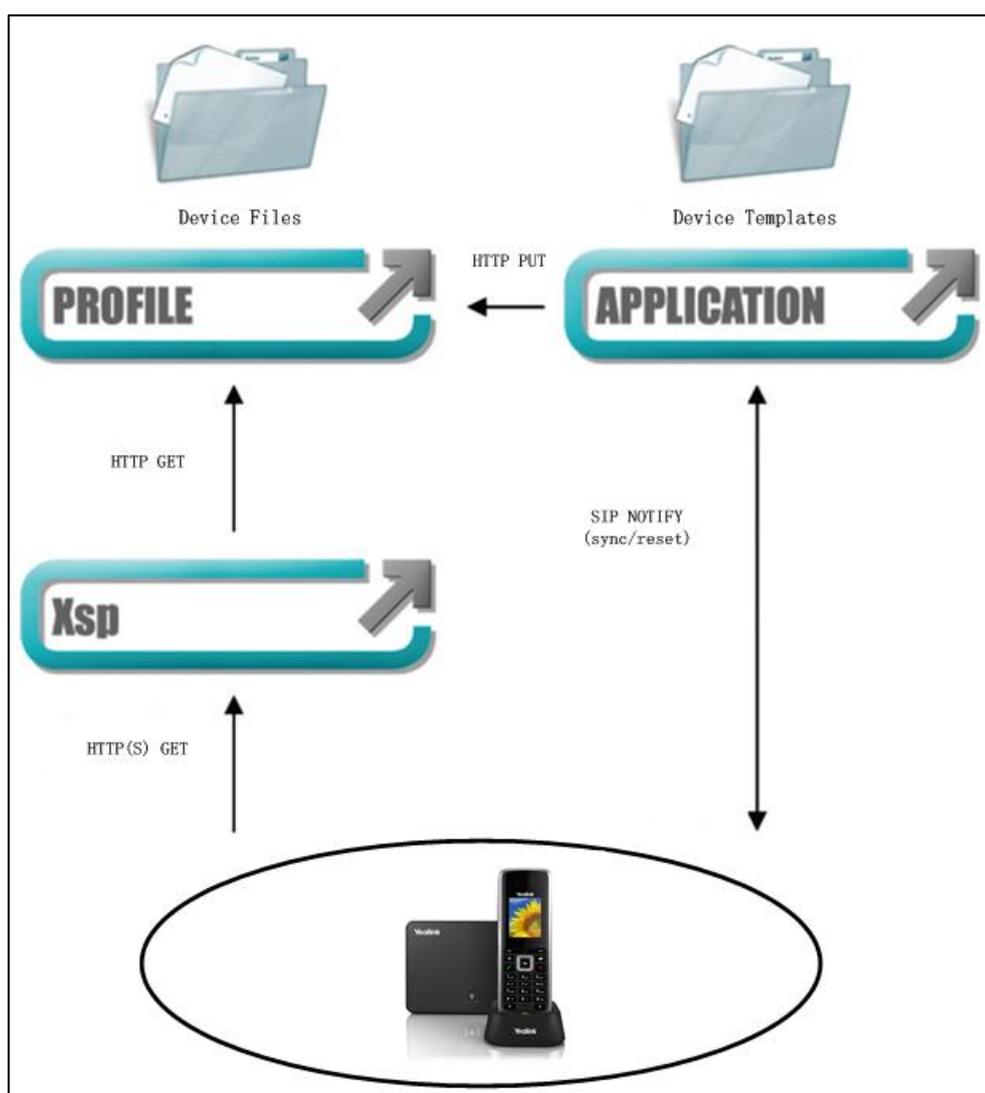
The following figure shows multiple users per phone device relationship:



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 requests made by the device. Once authenticated, the XSP will request the configuration files from the profile server and download them to the device over HTTP(S). The Profile server stores the device configuration files which are built by the BroadWorks Application server.

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 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 14.

Customizing BroadWorks Tags

Service integration on BroadWorks is based on the concept of "Tags". Tags are variables that can be embedded in 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".

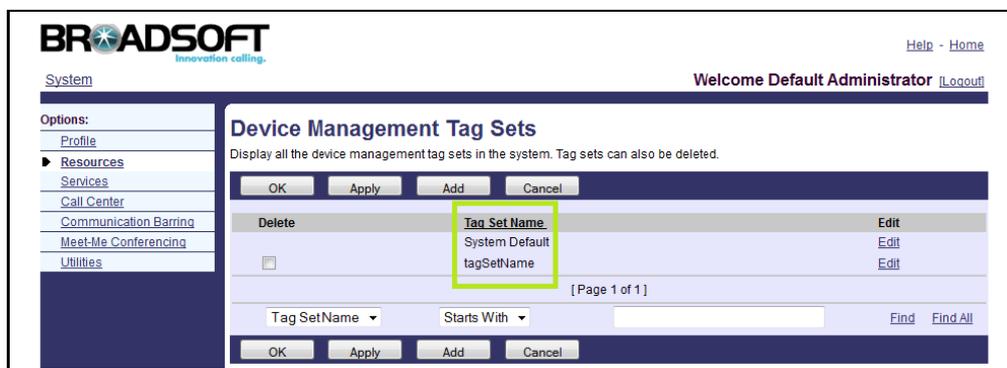
For more information on dynamic built-in tags, refer to *BroadSoft Device Management Configuration Guide*.

- **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.

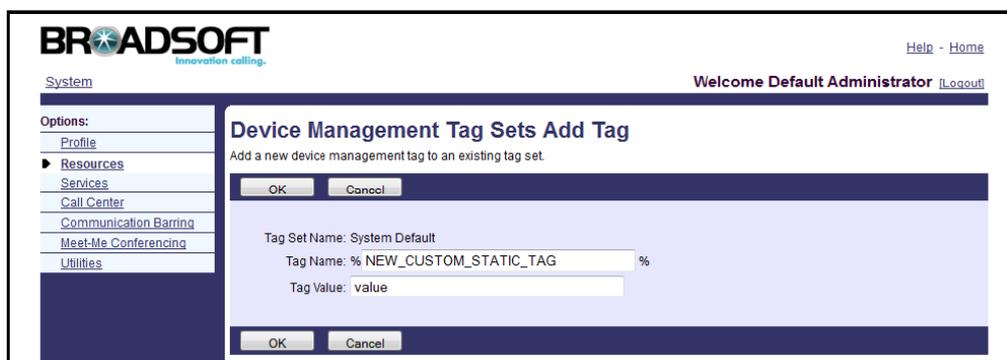
Creating System Default Tags

To create system default tags:

1. Click on **Resources->Device Management Tag Sets**.
2. Select the **System Default**.



3. Click **Add** to add a new tag.
The tag name must not start with "BW".
4. Enter the desired name in the **Tag Name** field.
5. Enter the desired value in the **Tag Value** field.
The tag in template configuration files can be replaced by the configured tag value.



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 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

Tag Name	Valid Value	Description
%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 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., YealinkW52P-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 template configuration files.

Tag Name	Valid Value	Description
%LANGUAGEWEB%	English Turkish Portuguese Spanish Italian French Deutsch Polski Czech	The language of the web user interface
%FEATURE_KEY_SYN%	Boolean	Enables or disables feature key synchronization.

Tag Name	Valid Value	Description
%CALL_WAITING_BINARY%	Boolean	Enables or disables call waiting feature

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 only be 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_W52P	
Signaling Address Type	Intelligent Proxy Addressing	
Standard Options		
Number of Ports	Limited To 5	Defines the number of users who can be associated with a device of this device profile.

Parameter	Value	Description
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 be registered to the BroadWorks.
RFC3264 Hold	Checked	Defines whether the RFC3264 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., YealinkW52P-Tags)	Selects the device tag set created in the section Creating Device Type Specific Tags on page 7.

Parameter	Value	Description
	from the pull-down list of Use Default System Tag Set and Tag Set.	
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 15.
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 15.
Device Access Protocol	http	Determines the transfer protocol used by the device to get its files.
Device Access FQDN	<BroadWorks-Xsp-Cluster-Address> Example: xsp.iop1.broadworks.net	Represents the FQDN of the XSP used by the device to get its files.
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 Broadworks DMS web application which has been predefined.
Device Access URI	<device-type-name> Example: Yealink_W52P	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	y00000000025.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 'Identity/Device Profile Type Add' configuration window in the BroadWorks administration interface. The window is titled 'Identity/Device Profile Type Add' and includes a sub-header 'Add a new identity/device profile type.' Below the title are 'OK' and 'Cancel' buttons. The main configuration area is divided into several sections:

- 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 an empty 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:
 - Static Registration Capable:
 - E164 Capable:
 - Trusted:
 - Authenticate REFER:
 - RFC3264 Hold:
 - Video Capable:
 - Use History Info Header:
- Advanced Options:**
 - Route Advance:
 - Wireless Integration:
 - PBX Integration:
 - Add P-Called-Party-ID:
 - Auto Configuration Soft Client:
 - Requies BroadWorks Call Waiting Tone:
 - Advice of Charge Capable:
 - Support Emergency Disconnect Control:
 - Enable Monitoring:
 - 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:
 - Forwarding Override:
 - Conference Device:
 - Mobility Manager Device:
 - Music On Hold Device:
 - Requires BroadWorks Digit Collection:
 - Requires MWI Subscription:
 - Support Call Center MIME Type:
 - Support Identity In UPDATE and Re-INVITE:
- Device Configuration Options:** Radio buttons for 'Not Supported' (selected), 'Device Management', and 'Legacy'.

At the bottom of the window 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 the W52P IP DECT phone: y000000000025.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: y000000000025.cfg	Specifies the name of the system file.
Repository File Format	<system-file-name>.cfg Example: y000000000025.cfg	Specifies the name of the system file stored in 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 in 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. Tags cannot be added to the static files. The following lists the static files required for the W52P IP DECT phone:

- <firmware-version>.rom
- contactData.xml
- AutoDST.xml
- dialplan.xml
- ca.crt
- ca.pem
- blacklist.xml

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

Parameter	Value	Description
Device Access File Format	<file-name>.cfg Example: 25.73.0.1.rom	Specifies the name of the static file.
Repository File Format	<file-name>.cfg Example: 25.73.0.1.rom	Specifies the name of the static file stored in the Device

Parameter	Value	Description
		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	
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_W52P).
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.

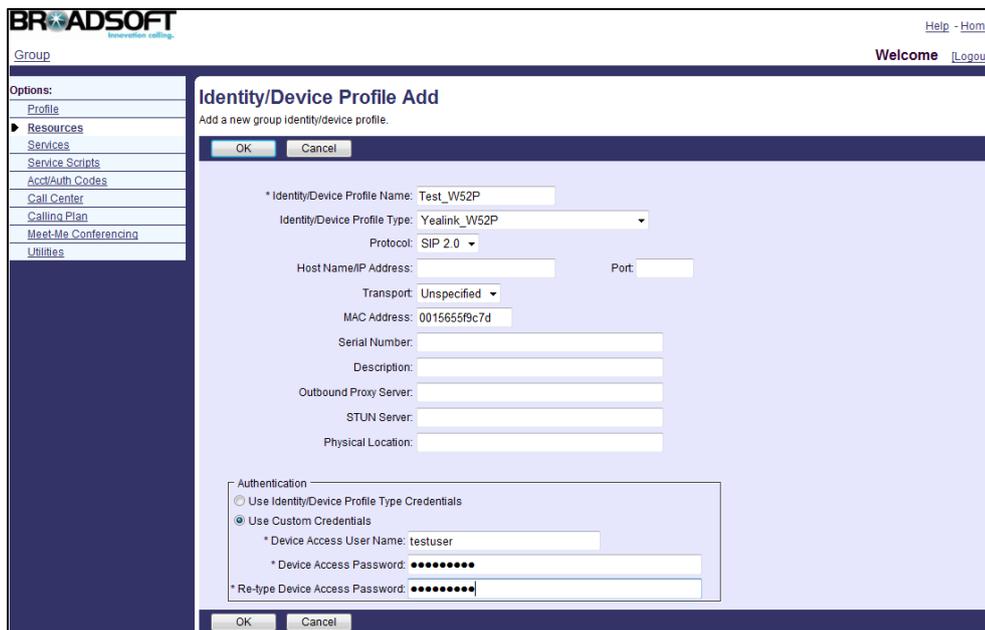
Creating the BroadWorks Device Profile

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 device profile 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_W52P) from the pull-down list of **Identity/Device Profile Type**.



4. Set the following parameters:

Parameter	Example Value	Description
Identity/Device Profile Name	Test_W52P	Defines the device profile name.
MAC Address	0015655f9c7d	Specifies the MAC address of the device.
Authentication	Use Custom Credentials	Specifies the authentication method.
Device Access User Name	testuser	Specifies the user name.
Device Access Password	Admin123.	Specifies the password.

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

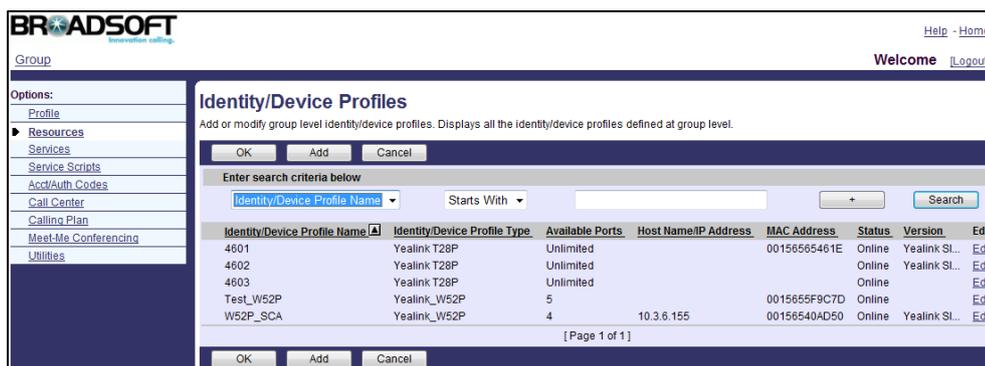
Customizing a Static Tag

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.

You can click **Next** to turn to the next page.



2. Select the desired device profile (e.g., Test_W52P) 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., LANGUAGEWEB) 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 only be effectual for the device profile (e.g., Test_W52P).

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

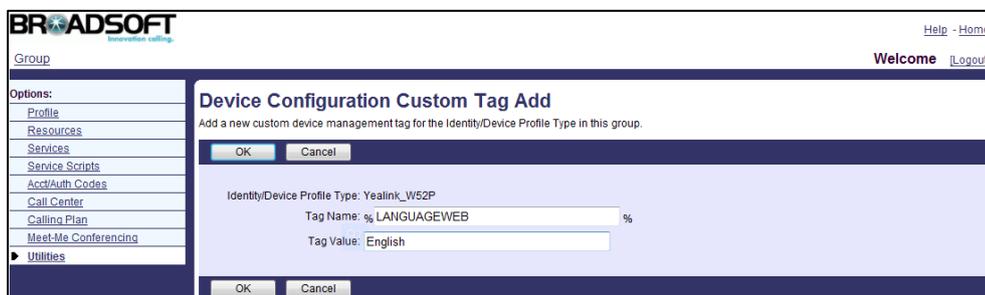
1. Click on **Utilities->Device Configuration**.

The interface lists all existing device profile types.



2. Select the desired device profile type (e.g., Yealink_W52P).
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 effectual for the device profile type (e.g., Yealink_W52P). 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 template configuration files.

The following table describes system template configuration items that are generally required for the W52P IP DECT phone to work with BroadWorks.

Item	Description
System Template Configuration Items <e.g., y00000000025.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 pre-created on BroadWorks. e.g., %SNTP_SERVER_1%=time-a.nist.gov and %SNTP_SERVER_2%=time-b.nist.gov
call_waiting.enable = %CALL_WAITING_BINARY%	Enables or disables call waiting. 0 (Disable),1 (Enable) The tag % CALL_WAITING_BINARY % is pre-created on BroadWorks. e.g., %CALL_WAITING_BINARY%=1 or %CALL_WAITING_BINARY%=0

Item	Description
bw.feature_key_sync = %FEATURE_KEY_SYN%	Enables or disables feature key synchronization. 0 (Disable),1 (Enable) The tag %FEATURE_KEY_SYN% is pre-created on BroadWorks. e.g., %FEATURE_KEY_SYN%=1 or %FEATURE_KEY_SYN%=0
firmware.url = http://%BWDEVICEACCESSFQDN %:%BWDEVICEACCESSPORT%/ % BWDMSCONTEXT%/ %BWDEVICE ACCESSURI% %FIRMWARE_VERSI ON%	Configures the access URL for downloading the firmware. e.g., %BWDEVICEACCESSFQDN%= xsp.iop1.broadworks.net, %BWDEVICEACCESSPORT%=80, %BWDMSCONTEXT%=dms and %BWDEVICEACCESSURI%=Yealink_W52 P These tags are dynamic built-in tags, which are predefined by BroadWorks. The tag %FIRMWARE_VERSION% is pre-created on BroadWorks. e.g., %FIRMWARE_VERSION%=25.73.0.1 0.rom

The following table describes device-specific template configuration items that are generally required for the W52P IP DECT phone to work with BroadWorks.

Item	Description
Device-specific Template Configuration Items <%BWMACADDRESS%.cfg>	
account.1.enable = %BWLIN-BINARY-1%	Enables or disables the first line. 0 (Disable),1 (Enable) "%BWLIN-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 = %BWLINPORT-1%	Configures the user ID for the first line. The tag "%BWLINPORT-1%" will be replaced by the line/port setting in the first user's address on BroadWorks.

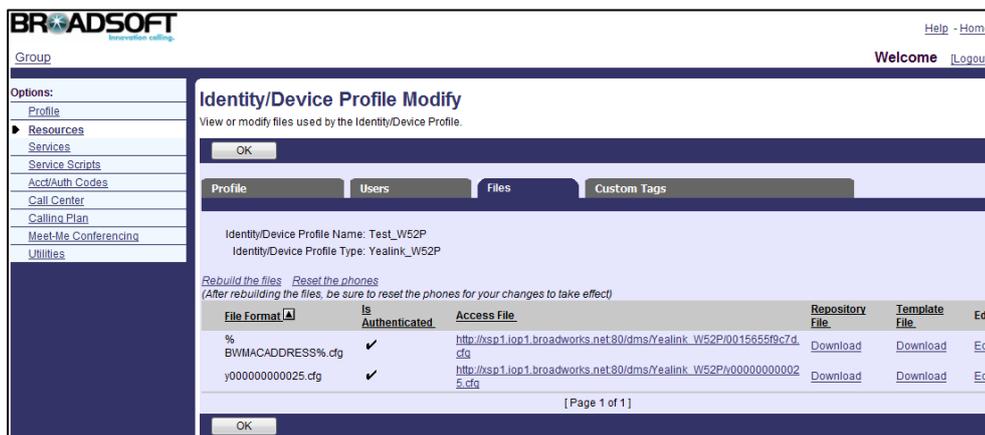
Item	Description
account.1.auth_name = %BWAUTHUSER-1% account.1.password = %BWAUTHPASSWORD-1%	Configures SIP authentication for the first line. If the authentication service is assigned on BroadWorks, the tags “%BWAUTHUSER-1%” and “%BWAUTHPASSWORD-1%” will be replaced by the first user’s authentication settings on BroadWorks.
account.1.shared_line = %BWSHAREDLINE-BINARY-1%	Configures the first line as a private or shared line. 0 (Private), 1 (Shared) %BWSHAREDLINE-BINARY-1% indicates whether the first line is shared.

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., Test_W52P) 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 **Apply** to accept the change.

After the above settings, template configuration files will only be effectual for the device profile (e.g., Test_W52P).

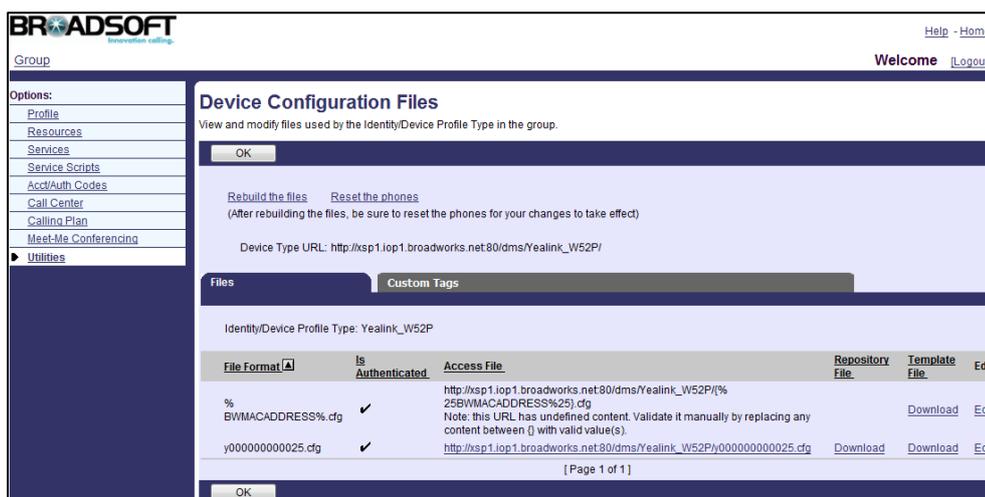
To upload device profile type template configuration files at the group level:

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

The interface lists all existing device profile types.

- Select the desired device profile type (e.g., Yealink_W52P) and click **Edit**.
- Click the **Files** tab.

The interface lists all existing template configuration files.



- Select the desired template configuration file (e.g., y000000000025.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, template configuration files will be effectual for the device profile type (e.g., Yealink_W52P). All device profiles associated with this device profile type can download the configuration files.

Note

Commonly, template configuration files for each phone model have been uploaded by the system administrator. At the group level, you can upload the new template configuration files for the specified phone to override the old template configuration files. For more information on how to define template configuration files, refer to [Defining Device Profile Type Files](#) on page 12.

Uploading Static Files

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

To upload static 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., Test_W52P) and click **Edit**.
3. Click the **Files** tab.
The interface lists all existing files.
4. Select the desired static file (e.g., 25.73.0.1.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., Test_W52P).

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_W52P) and click **Edit**.
3. Click the **Files** tab.
The interface lists all static files.
4. Select the desired static file to edit (e.g., 25.73.0.1.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_W52P). All device profiles associated with this device profile type can

download the static files.

Note

Commonly, static files for each phone model have been uploaded by the system administrator. At the group level, you can upload the new static files for the specified phone to override the old static files. For more information on how to define static files, refer to [Defining Device Profile Type Files](#) on page 12.

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., Test_W52P) 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., pbx.yealink.com) from the pull-down list after the sign @.

The screenshot shows the 'Addresses' configuration page in the BroadSoft web interface. The page title is 'Addresses' and it includes a sub-header: 'Addresses allows you to view and maintain your phone number and other identities that are used to make and receive calls.' The page contains several input fields and radio buttons:

- Phone Number:** 4602 (dropdown menu), **Activated** (checkbox)
- Extension:** 4602 (text input)
- Identity/Device Profile:** Radio buttons for **Identity/Device Profile** (selected), **Trunking**, and **None**.
- Identity/Device Profile Name:** Test_W52P (Group) (dropdown menu)
- *Line/Port:** 4602 (text input), @ pbx.yealink.com (dropdown menu), [AdvancedSettings](#) (link)
- Aliases:** sip: 4602@pbx.yealink.com (text input), followed by three rows of sip: []@ pbx.yealink.com (text input and dropdown menu)

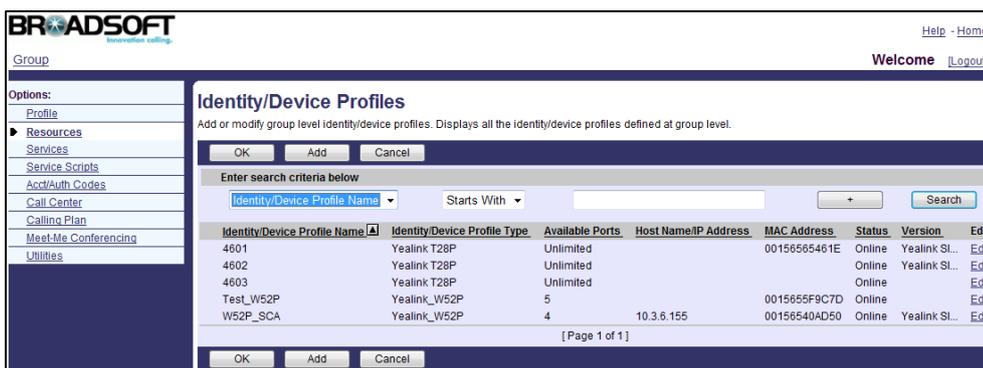
The interface includes 'OK', 'Apply', and 'Cancel' buttons at the top and bottom of the main content area.

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

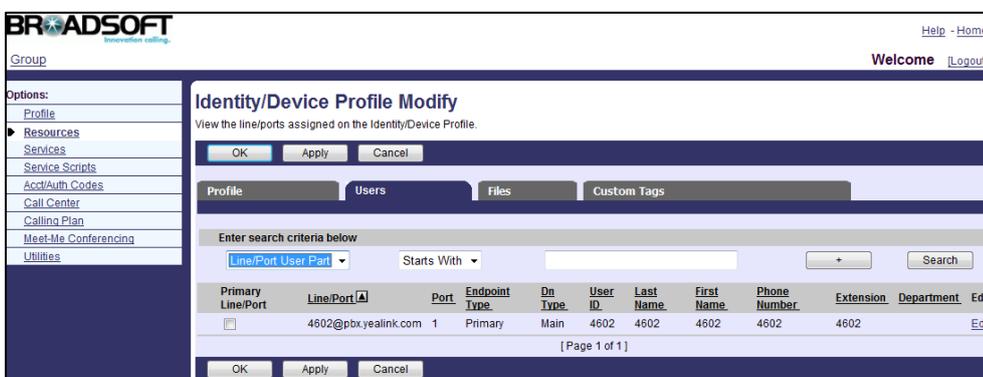
To check the users assigned the device profile:

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

You can click **Next** to turn to the next page.



3. Select the desired device profile (e.g., Test_W52P) and click **Edit**.
4. Click the **Users** tab.
5. Click **Search** to display all users assigned to the device profile.



As shown in the above figure, only the user 4602 has been assigned to the device profile Test_W52P.

Configuring BroadSoft UC-One Integrated Features

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

- [Extended Services Interface](#)
- [Simultaneous Ring Personal](#)
- [Line ID Blocking](#)
- [Anonymous Call Rejection](#)
- [BroadSoft Directory](#)
- [BroadSoft Call Log](#)
- [Hunt Group](#)
- [Call Park](#)
- [Instant Group Call](#)
- [Authentication](#)
- [Authorization/Account Codes](#)
- [Call Waiting](#)
- [Diversion Inhibitor](#)
- [Do Not Disturb](#)
- [Call Forward](#)
- [Alternate Numbers](#)
- [Sequential Ring](#)
- [Call Transfer](#)
- [Feature Key Synchronization](#)
- [Call Pickup](#)
- [Network Conference](#)
- [Calling Line ID Presentation](#)
- [Calling Line ID Blocking Override](#)
- [Connected Line Identification Presentation](#)
- [Connected Line Identification Restriction](#)
- [Shared Call Appearance](#)
- [Music on Hold](#)

- [Voice Messaging](#)

To configure the above features on Yealink W52P IP DECT phones, check whether the IP phone is running UC-one firmware version (x.x.193.x). If the IP phone is running a neutral firmware, you need to upgrade the phone firmware to the UC-One firmware version in advance. Contact Yealink field application engineer for the UC-one firmware or download it online:

http://www.yealink.com/SupportDownloadfiles_detail.aspx?CatId=308&flag=142.

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 log lists, directories and end-user service configurations. IP phones interoperate with BroadWorks XSI using HTTP messages.

IP phones implement BroadWorks XSI to access the following XSI features:

- BroadSoft Directory
- BroadSoft Call Log

Note

Before accessing the BroadSoft directory and call log, make sure that the authentication information for XSI access has been properly configured on IP phones.

For the IP phone to access XSI features, the Xtended Services Platform (XSP) must first authenticate the XSI user. The IP phones running firmware version 73 or later support two XSI authentication methods:

- **User Login Credentials for XSI Authentication:** the IP phone uses the XSI user login credentials (web portal login user ID and password) for XSI authentication. If no custom tag is configured for the XSI user password, the XSI user password will be not available from the Device Management configuration file. In this case, the end user needs to manually configure it on the IP phone or enter the password in the login screen.
- **SIP Credentials for XSI Authentication:** As of BroadWorks release 20.0, the IP phone can use the XSI user ID along with SIP authentication credentials for XSI authentication. SIP authentication credentials are the register name and password of the SIP account registered on the first line of the phone, which can be obtained through Device Management configuration file. No end user input or manual configuration is required. This method is not applicable to IP phones with firmware version prior to 73.

You can configure the authentication method the phone uses for XSI access. For more information on how to configure the phone, refer to the following section.

Note

The lock state of SIP credentials is not taken into account for the SIP credentials for XSI authentication scheme. For example, the IP phone can be locked out for signaling but can still use its locked SIP credentials for XSI authentication and to be authenticated successfully.

The IP phone only supports to use the register name and password of the first account on the phone for the SIP credentials for XSI authentication scheme. To use this authentication scheme, ensure that the SIP register name and password of the corresponding user are properly pre-configured on the first line of the phone.

Configuring Yealink IP Phones

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

To configure the XSI using template configuration files:

1. Add/Edit XSI parameters in template configuration files:

Parameter	Description	Value
sip.authentication_for_xsi	Configures the authentication method the IP phone uses for XSI access. 0- User Login Credentials for XSI Authentication 1-SIP Credentials for XSI Authentication The default value is 0.	0 or 1
xsi.user	Configures the XSI user ID for XSI access authentication. The default value is blank.	%BWLOGIN-ID-1%
xsi.host	Configures the access URL of the Xtended Services Platform server. The default value is blank.	%XSP_ADDRESS%
xsi.password	Configures the password for XSI authentication. The default value is blank. Note: It is required only when the value of the parameter "sip.authentication_for_xsi" is set to 0.	%XSIPASSWORD-1 %
xsi.port	Configures the port of the Xtended Services Platform	Integer from 1 to 65535

Parameter	Description	Value
	(XSP) server. The default value is 80.	
xsi.server_type	Configures the access protocol of the Xtended Services Platform (XSP) server. The default value is http.	http or https

The following shows example configurations for user login credentials for XSI authentication in the template configuration file (e.g., y000000000025.cfg):

```

sip.authentication_for_xsi = 0
xsi.user = %BWLOGIN-ID-1%
xsi.host = %XSP_ADDRESS%
xsi.password = %XSIPASSWORD-1%
xsi.port = 80
xsi.server_type = http

```

2. Customize the static tags on BroadWorks.

The following table shows an example:

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

For more information, refer to [Customizing a Static Tag](#) on page 15.

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

3. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

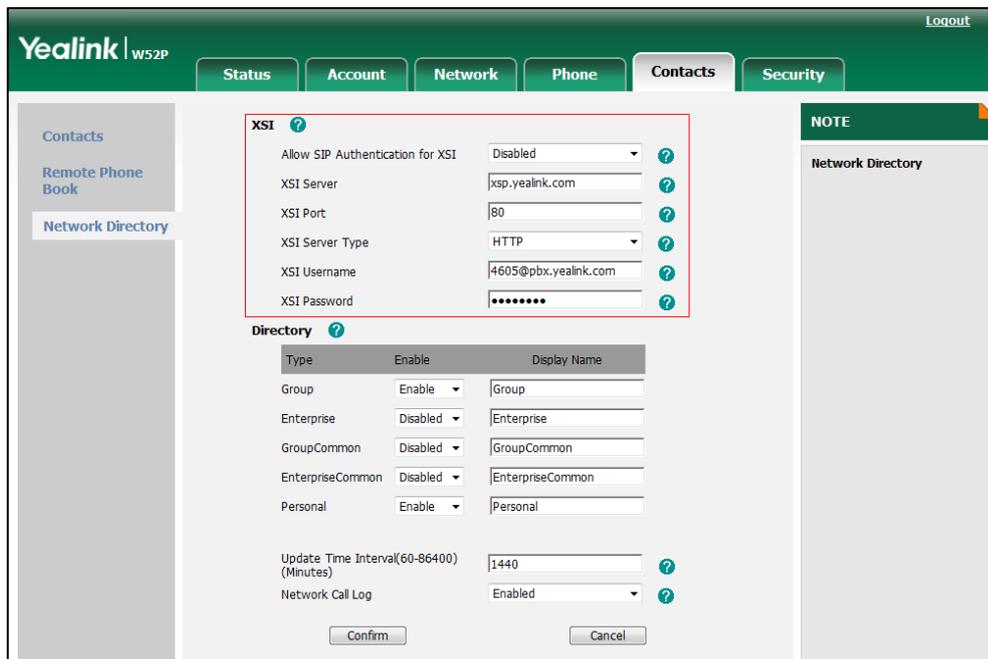
After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example is shown as below:

```

sip.authentication_for_xsi = 0
xsi.user = 4605@pbx.yealink.com
xsi.host = xsp.yealink.com
xsi.password = yealink
xsi.port = 80
xsi.server_type = http

```

After successful update, user can find the web user interface of the IP phone is similar to the one as shown below:



The following shows example configurations for SIP credentials for XSI authentication in the template configuration file (e.g., y000000000025.cfg):

```

sip.authentication_for_xsi = 1
xsi.user = %BWLOGIN-ID-1%
xsi.host = %XSP_ADDRESS%
xsi.port = 80
xsi.server_type = http
account.1.user_name = %BWLINPORT-1%
account.1.password = %BWAUTHPASSWORD-1%

```

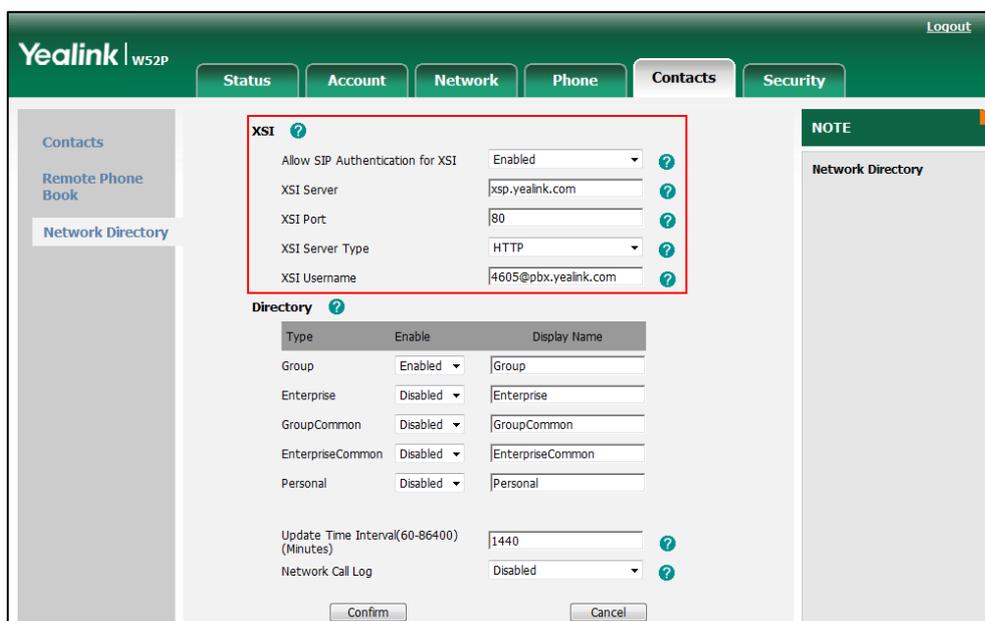
After editing the configuration file, upload it to BroadWorks. The tags in the template file will be replaced by the actual parameter values. An example is shown as below:

```

sip.authentication_for_xsi = 1
xsi.user = 4605@pbx.yealink.com
xsi.host = xsp.yealink.com
xsi.port = 80
xsi.server_type = http
account.1.user_name = 4605
account.1.password = yealink1105

```

After successful update, user can find the web user interface of the IP phone is similar to the one as shown below:



Simultaneous Ring Personal

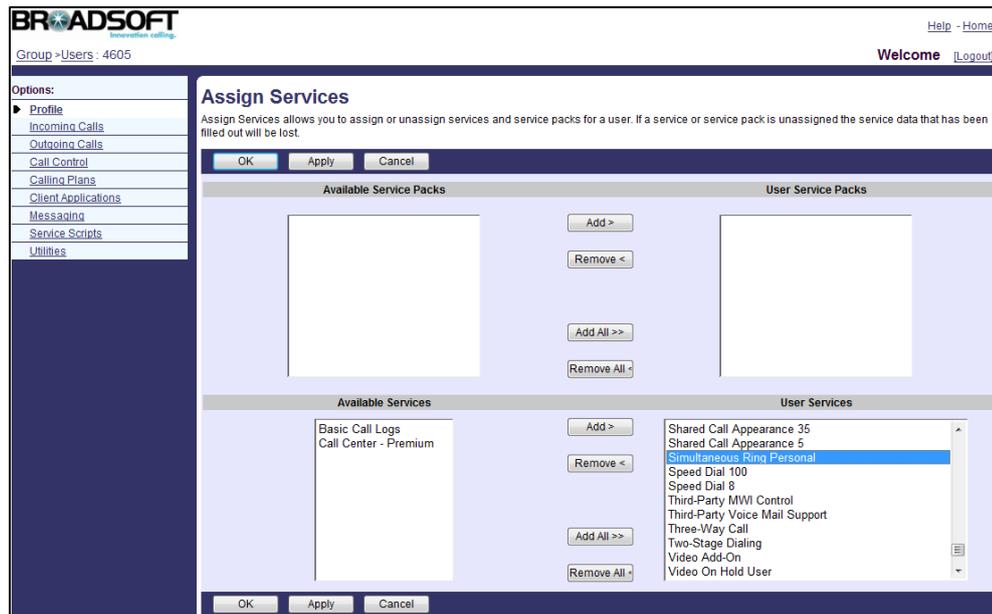
Simultaneous ring personal allows a user to have up to 10 secondary locations to be alerted simultaneously in addition to the user’s primary location, when receiving an incoming call that matches the pre-defined criteria. The call is connected to the user who answers the call first. The enhancement,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

Configuring the BroadSoft Server

To assign the simultaneous ring personal service to a user:

1. Log into 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., 4605).
4. Click on **Assign Services**.

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



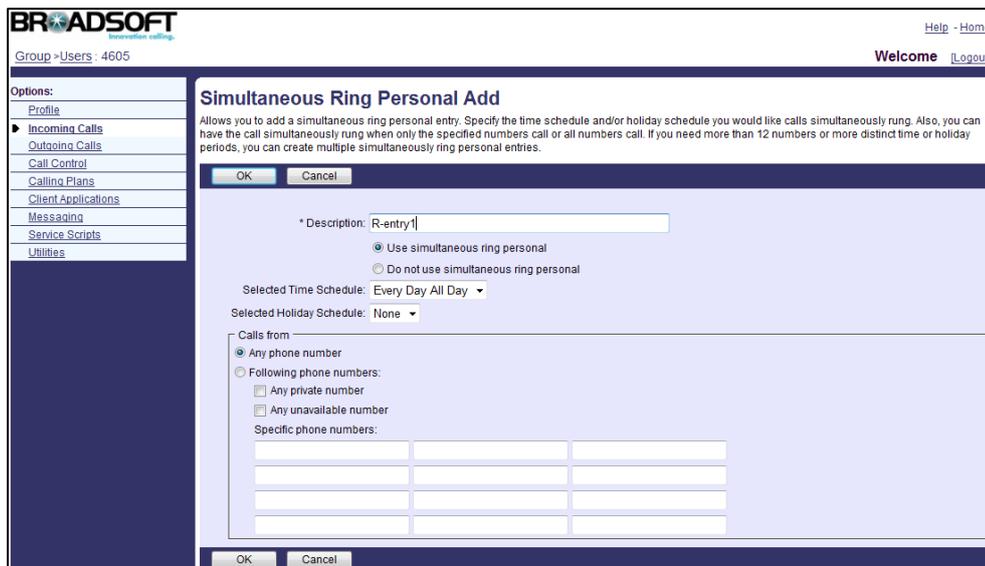
- Click **Apply** to accept the change.

To configure simultaneous ring personal for a user:

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605), who has been assigned the simultaneous ring personal service.
- Click on **Incoming Calls->Simultaneous Ring Personal**.
- Click **Add** to add a new simultaneous ring personal entry.
- 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



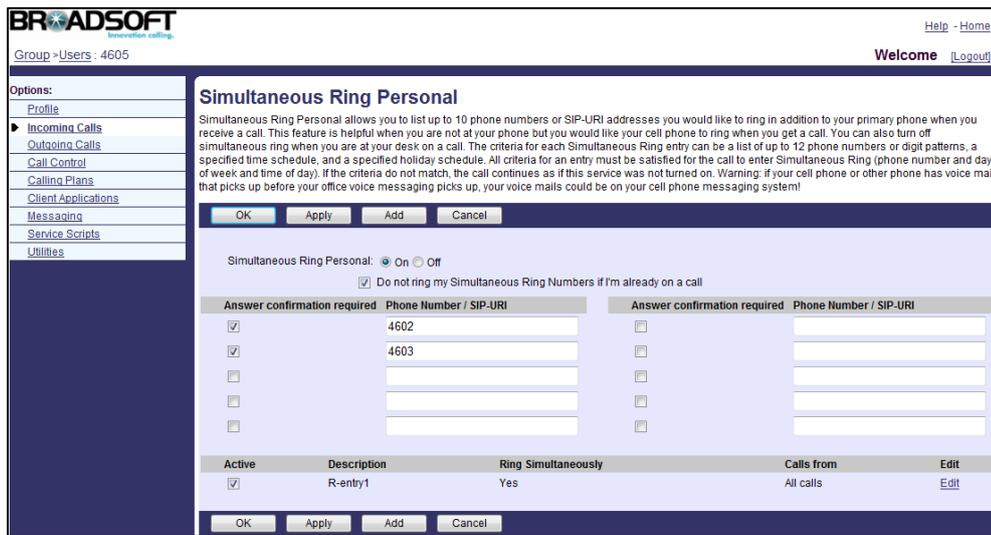
7. Click **OK** to accept the change.
8. Configure the following parameters for simultaneous ring personal.

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: 4602 4603



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

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

Line ID Blocking

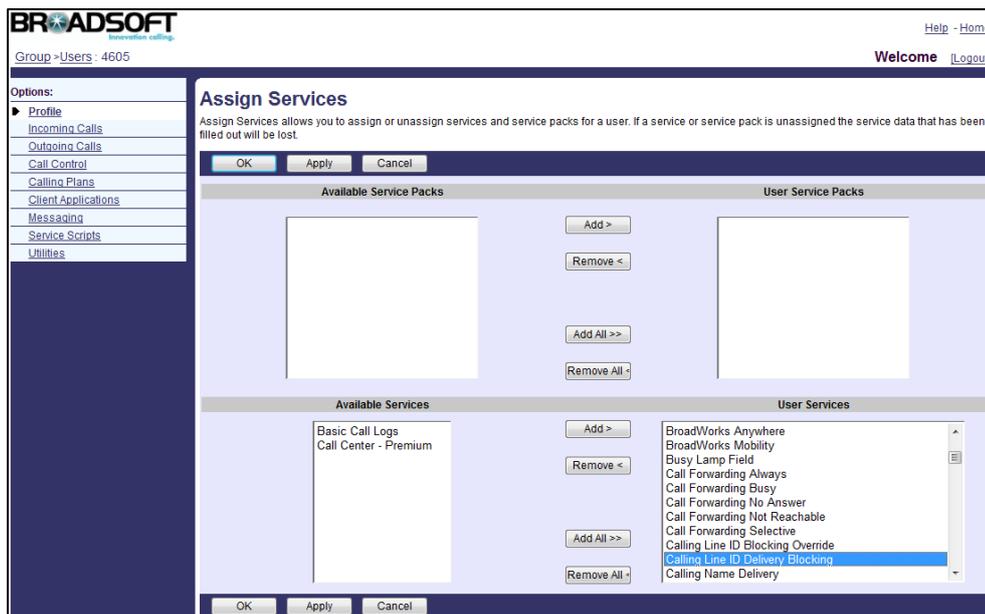
Line ID blocking allows a user to block his identity from showing up when placing a call. When a user uses with this feature enabled places a call, the BroadWorks sends an INVITE to the callee with From header: From: "Anonymous" <sip:anonymous@anonymous.invalid>. The callee's phone LCD screen presents "anonymous" instead of the caller's identity. This feature does not apply to calls between the same group users.

Configuring the BroadSoft Server

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

1. Log into 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., 4605).
4. Click on **Assign Services**.

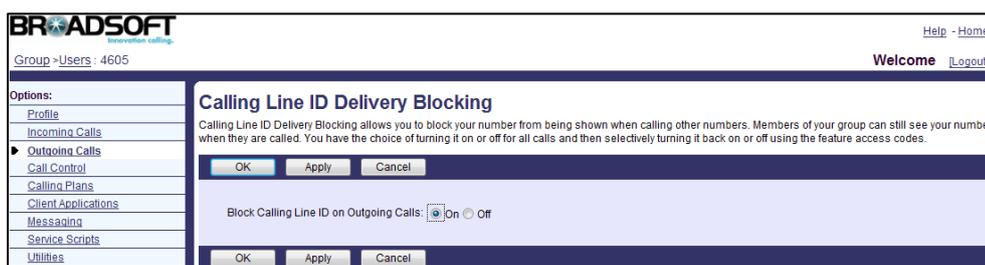
- In the **Available Services** box, select **Calling Line ID Delivery Blocking** and then click **Add>**.



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

To configure line ID blocking for the user:

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605), who has been assigned the calling line ID delivery blocking service.
- Click on **Outgoing Calls->Line ID Blocking**.
- Mark the **On** radio box in the **Block Calling Line ID on Outgoing Call** field.



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

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

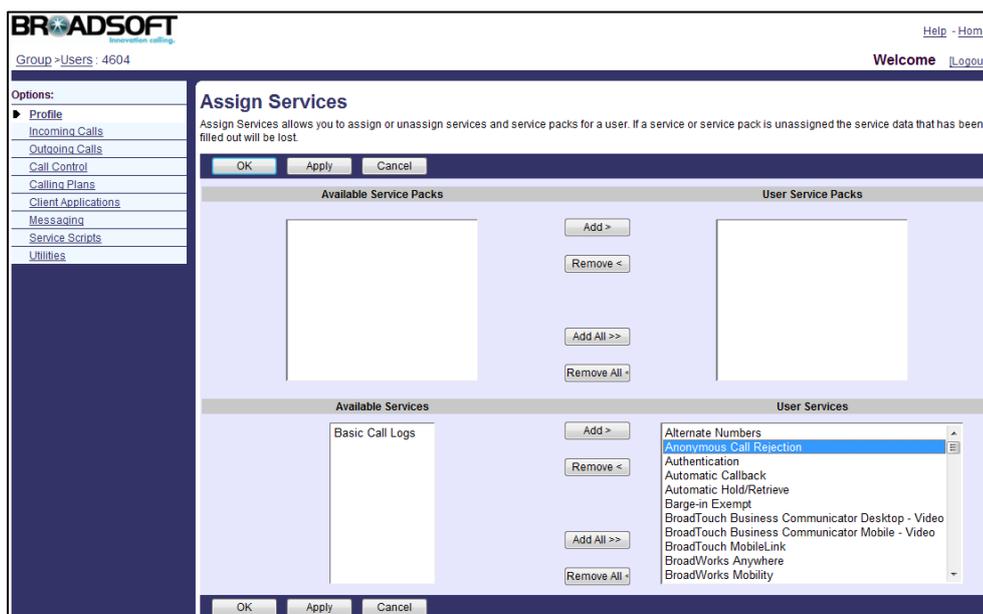
Anonymous Call Rejection

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 between the same group users.

Configuring the BroadSoft Server

To assign the anonymous call rejection service to a user:

1. Log into 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., 4604).
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 into 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., 4604), 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.

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

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.

Note W52P IP DECT phones do not support to display the custom directory.

Configuring the BroadSoft Server

To view the group directory:

1. Log into the web portal as a group administrator.
2. Click on **Utilities->Group Directory**.
3. Click **Search** to display a list of all users in the group.

Name	User ID	Phone Number	Extension	Department	Mobile	Email Address	YahooID	IM&P 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					

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

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 Group 1 (Group Paging)	1234567	+44-2413333501	3501				
Paging Group 2 (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				

5. To display the details of group directory, click **Group Directory Detail**.

A printable detail page appears in a separate browser window.

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	

To add a contact to the group common directory:

1. Log into the web portal as a group administrator.
2. Click on **Utilities->Common Phone List**.
3. Click **Add**.
4. Enter the name in the **Name** field.
5. Enter the phone number in the **Phone Number** field.

The screenshot shows the BroadSoft web portal interface. At the top left is the BroadSoft logo with the tagline 'Innovation calling.'. At the top right are links for 'Help - Home' and 'Welcome [Logout]'. Below the logo is a navigation menu with 'Group' selected. The main content area is titled 'Common Phone List Add' and contains the instruction 'Add a common phone number to the list.' Below this instruction are two buttons: 'OK' and 'Cancel'. The form has two input fields: '* Name: Bob' and '* Phone Number: 4606'. At the bottom of the form area are two more buttons: 'OK' and 'Cancel'.

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

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, refer to the instructions for a program such as TXT.

To import a comma-delimited text file:

1. Log into the web portal as a group administrator.
2. Click on **Utilities->Common Phone List**.
3. Click on **Import Phone List**.
4. Click **Browse** to locate the CSV file from your local system.

The first line of the CSV file must define two columns "Name" and "Number".



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

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

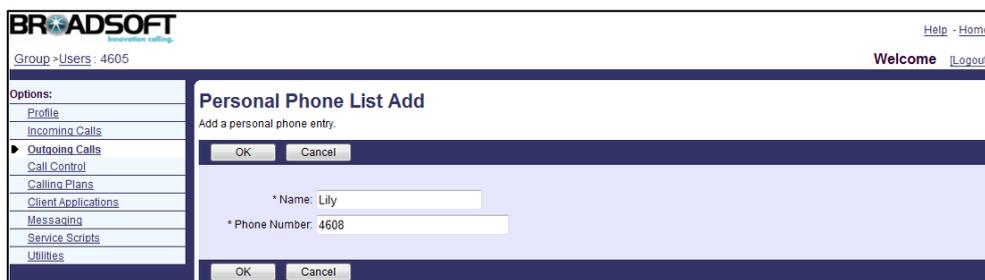
The following shows an example of the contacts in an import list created in a text file before the file is converted to a CSV file. Each value in an import list created in a text file must enclose in quotation marks and separate by a comma.

```
"Name", "Number"
"Jane", "8003"
"JonY", "8001"
"Jane", "8005"
"John", "8009"
```

To add a contact to the personal directory:

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



6. 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.

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

Configuring Yealink IP Phones

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

To configure the BroadSoft directory using template configuration files:

1. Add/Edit BroadSoft directory parameters in template configuration files:

Parameter	Description	Valid Value
bw_phonebook.group_enable	Enables or disables the IP phone to display the group directory. 0 -Disabled 1 -Enabled The default value is 1.	Boolean
bw_phonebook.group_displayname	Configures the group directory name displayed on the LCD screen of the handset. The default value is Group.	%BWGROUP-1%
bw_phonebook.group_common_enable	Enables or disables the IP phone to display the group common directory. 0 -Disabled 1 -Enabled The default value is 1.	Boolean
bw_phonebook.group_common	Configures the group	String within 99

Parameter	Description	Valid Value
n_displayname	common directory name displayed on the LCD screen of the handset. The default value is GroupCommon.	characters
bw_phonebook.enterprise_enable	Enables or disables the IP phone to display the enterprise directory. 0 -Disabled 1 -Enabled The default value is 1.	Boolean
bw_phonebook.enterprise_displayname	Configures the enterprise directory name displayed on the LCD screen of the handset. The default value is Enterprise.	%BWENTERPRISE-1 %
bw_phonebook.enterprise_common_enable	Enables or disables the IP phone to display the enterprise common directory. 0 -Disabled 1 -Enabled The default value is 1.	Boolean
bw_phonebook.enterprise_common_displayname	Configures the enterprise common directory name displayed on the LCD screen of the handset. The default value is EnterpriseCommon.	String within 99 characters
bw_phonebook.personal_enable	Enables or disables the IP phone to display the personal directory. 0 -Disabled 1 -Enabled The default value is 1.	Boolean
bw_phonebook.personal_displayname	Configures the personal directory name displayed on the LCD screen of the handset. The default value is Personal.	String within 99 characters

Parameter	Description	Valid Value
directory.update_time_interval	Configures the interval (in minutes) for the IP phone to update the data of the BroadSoft directory from the BroadSoft server. The default value is 1440.	Integer from 60 to 86400

The following shows an example of BroadSoft directory configurations in a template file (e.g., %BWMACADDRESS%.cfg):

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

2. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

After the above configurations, the tags in the template configuration 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 successful update, user can access the BroadSoft directory by pressing the **OK->Directory->Network Dir** via the handset. 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 **Contacts->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 Yealink IP Phones

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

To configure the BroadSoft call log using template configuration files:

1. Add/Edit BroadSoft call log parameters in template configuration files:

Parameter	Description	Valid Value
bw_phonebook.call_log_enable	Enables or disables 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 in a template configuration file (e.g., %BWMACADDRESS%.cfg):

```
bw_phonebook.call_log_enable = 1
```

2. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

After successful update, user can access the BroadSoft call log list by pressing the **History** soft key via the handset. 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 **Contacts->Network Directory**.

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 BroadSoft Server

To assign the hunt group service to the group:

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

- In the **Available Services** box, select **Hunt Group** and click **Add**>.



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

To add a hunt group:

- Log into the web portal as a group administrator.
- Click on **Services->Hunt Group**.
- Click **Add**.
- 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

- Mark the desired radio box in the **Group Policy** field.
 - Circular:** Incoming calls hunt through users in the order they appear in the list, starting with the user following the last user to receive a call. When the search reaches the end of the list, it loops back to the top and continues until it has tried all users.
 - Regular:** Incoming calls hunt through users in the order they appear in the list, starting from the top one each time.
 - Simultaneous:** Incoming calls alert all users at the same time. The call is connected to the user who answers the call first.
 - Uniform:** Incoming calls hunt through all users in order, starting with the user who most recently answered a call.
 - Weighted Call Distribution:** Incoming calls are assigned to idle user based on percentages you assign to the user. Users with a higher weight will be assigned more incoming calls than users with lower weights.
- Click **Search** to display all available users.

- In the **Available Users** box, select the desired user and click **Add>** to assign it to the hunt group.

Hunt Group Add
Create a new hunt group.

OK Cancel

* Hunt Group ID: @ pbx.yealink.com

* Name:

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

Department: Language:

Time Zone:

Allow Call Waiting on agents

Group Policy: Circular Regular Simultaneous Uniform Weighted Call Distribution

No Answer Settings

Skip to next agent after Rings

Forward call after waiting 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

Available Users	Assigned Users
<ul style="list-style-type: none"> 12341,12341 (12341) 2413334621,2413334621 (2413334621) 2413334622,2413334622 (2413334622) 2413334623,2413334623 (2413334623) 2413334624,2413334624 (2413334624) 4301,4301 (4301) 4304,4304 (4304) 	<ul style="list-style-type: none"> 4302,4302 (4302) 4303,4303 (4303) 4305,4305 (4305)

- Click **OK** to accept the change.
- Select the hunt group added above and click **Edit**.
- Click on **Addresses**.
- Select the phone number from the **Phone Number** field.
- Enter the extension in the **Extension** field.

Hunt 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: Activated

Extension:

Aliases : sip: @ pbx.yealink.com

sip: @ pbx.yealink.com

sip: @ pbx.yealink.com

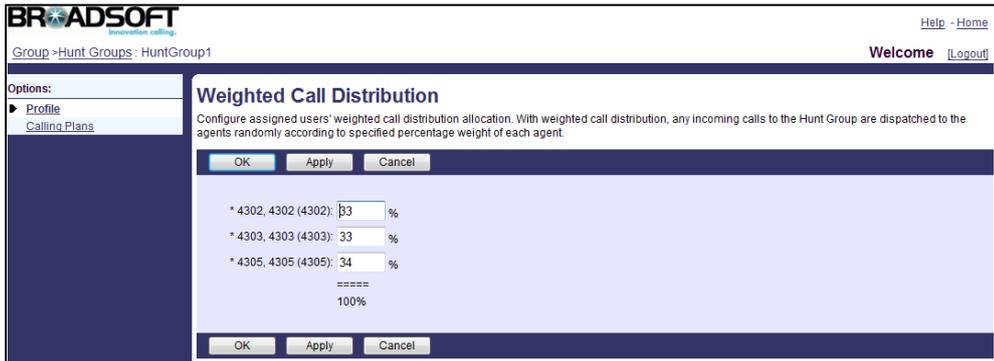
OK Apply Cancel

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

To configure weighted call distribution:

You can configure this feature only if you mark the radio box of **Weighted Call Distribution** in the **Group policy** field when adding the hunt group.

1. Log into 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**.
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*.

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.

W52P IP DECT phones only support to park a call and retrieve the parked call by dialing the FAC (feature access code).

Configuring the BroadSoft Server

To assign the call park service to the group:

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

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



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

To add a call park group:

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

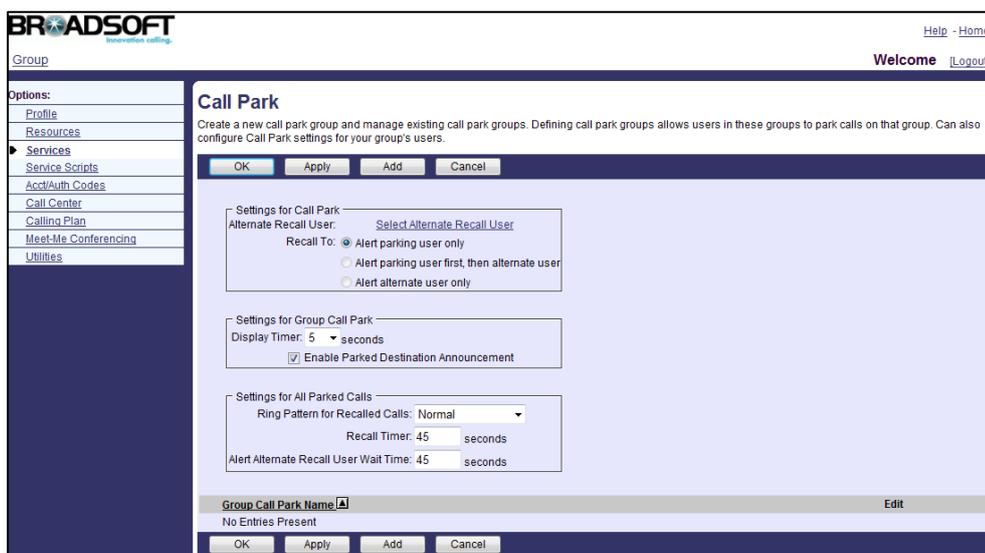
The call park parameters are described as below:

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>

Parameter	Description
	<p>Recall Timer: Configures the time after which the parked call is recalled.</p> <p>Alert Alternate Recall User Wait Time: Configures the time after which the alternate user is called (if configured).</p>

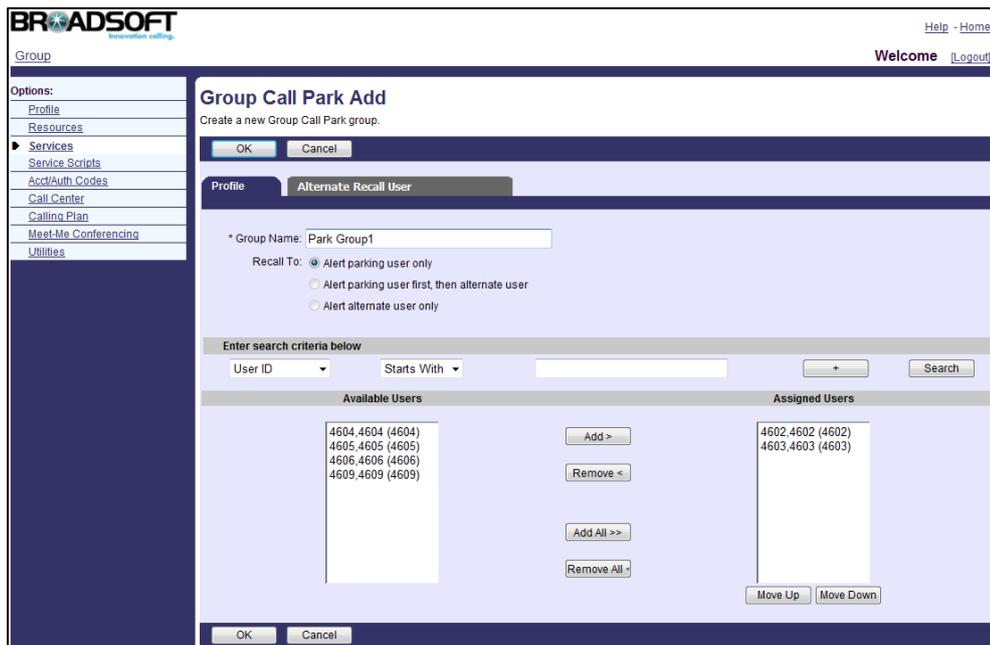
3. Make the desired change.

If you want alert alternate user, you need to first click **Select Alternate Recall User** to select the desired hunt group when adding call park group.



4. Click **Add**.
5. Enter the desired group name in the **Group Name** field.
6. Click **Search** to display all available users.
7. 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.

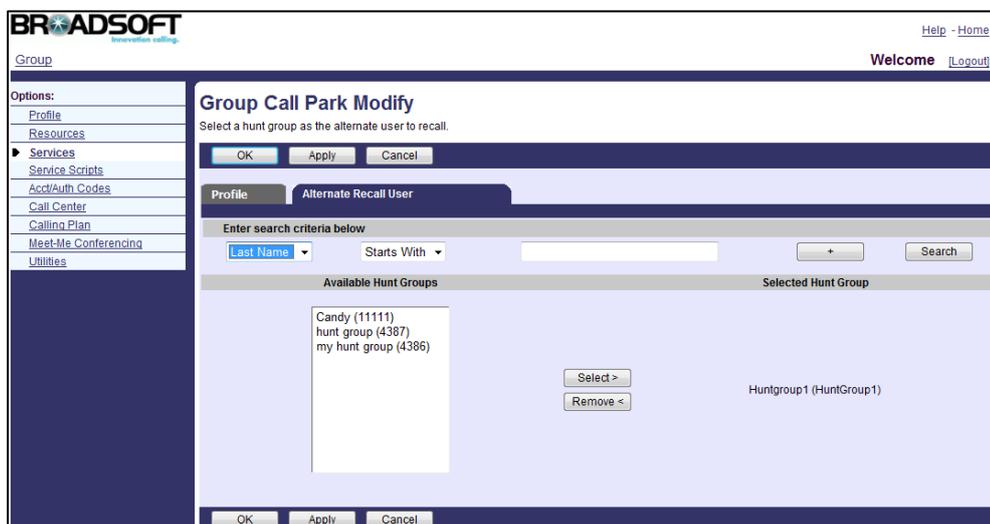


- Click **Apply** to accept the change.

To assign alternate recall users for the call park group:

- Log into the web portal as a group administrator.
- Click on **Services->Call Park**.
- Select the desired call park group and click **Edit**.
- Click on the **Alternate Recall User** tab.
- Click **Search** to display all available hunt groups.
- In the **Available Hunt Groups** box, select the desired hunt group, and then click **Select>**.

Make sure at least one hunt group has been pre-configured on the BroadWorks server.



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

To check the Call Park and Call Park Retrieve FACs:

1. Log into the web portal as a group administrator.
2. Click on **Utilities->Feature Access Codes**.
3. Check the Call Park and Call Park Retrieve FACs.
4. Select the desired FAC used by marking the desired radio box (**Service Provider FAC codes** or **Group FAC codes**).

If **Group FAC codes** is selected, administrator can modify the code in the **Main (Required)** field or enter an alternate code in the **Alternate (Optional)** field.

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

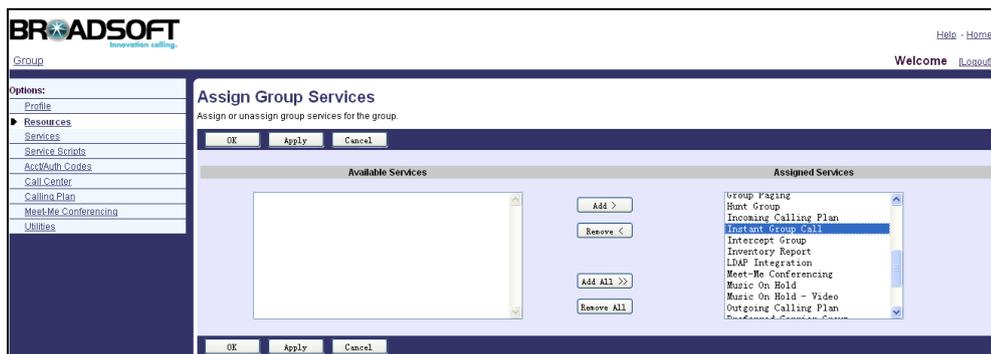
Instant Group Call

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 BroadSoft Server

To assign the instant group call service to the group:

1. Log into 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 into 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: 4602
 4603
 4605

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*

Authentication

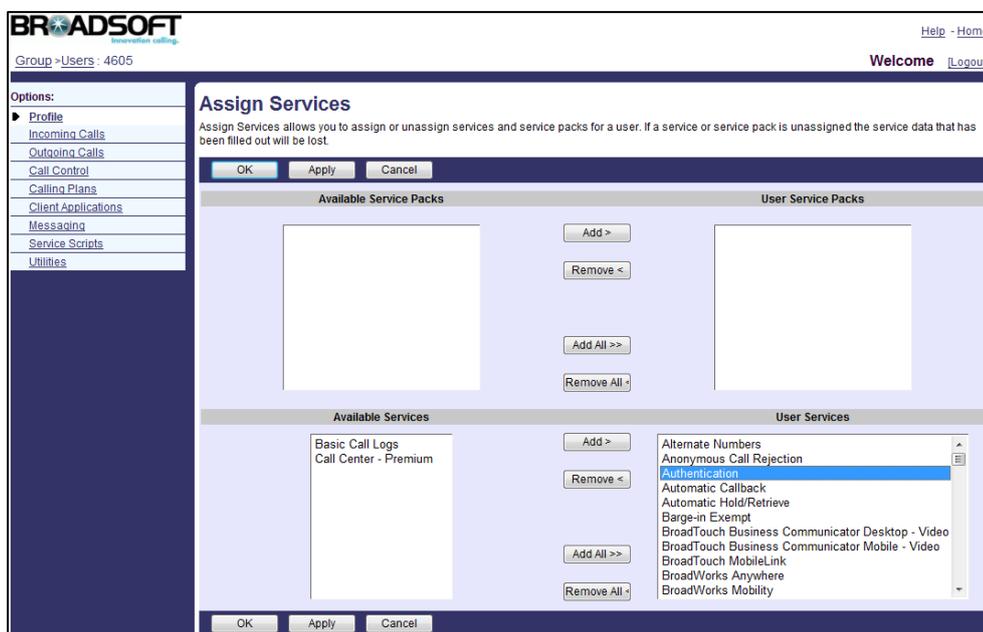
Authentication provides authentication of sessions for SIP IP phones to prevent unauthorized access to the system. Authentication is performed on registrations (SIP REGISTERs), redirections (SIP REFERs) as well as incoming calls (SIP INVITEs). Standard MD5 digest authentication is used.

Configuring the BroadSoft 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 into 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., 4605).
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 into 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., 4605), 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.

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

Authorization/Account Codes

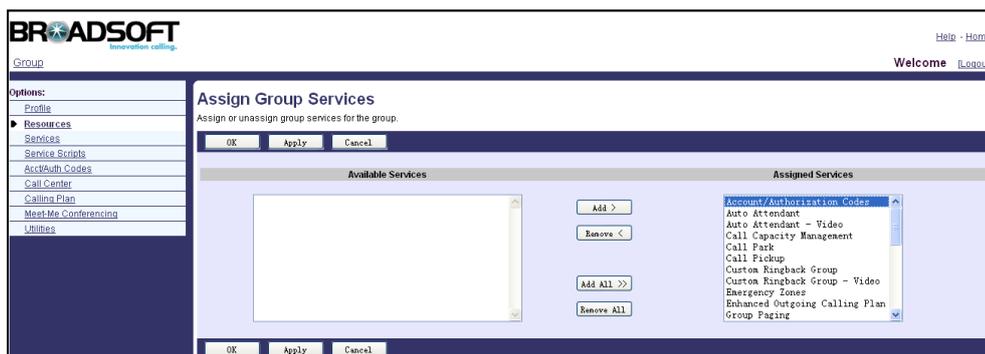
Authorization/Account codes allow users to use authorization and account codes for outgoing calls. Authorization code allows authorization of calls made outside the group by prompting users for an authorization code. Calls are not connected unless a valid code is entered. Account code allows tracking 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 BroadSoft Server

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

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

- In the **Available Services** box, select **Authorization/Account Codes** and then click **Add>**.



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

To configure the type of code for the group:

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

The following shows an example:

Type: Authorization Code

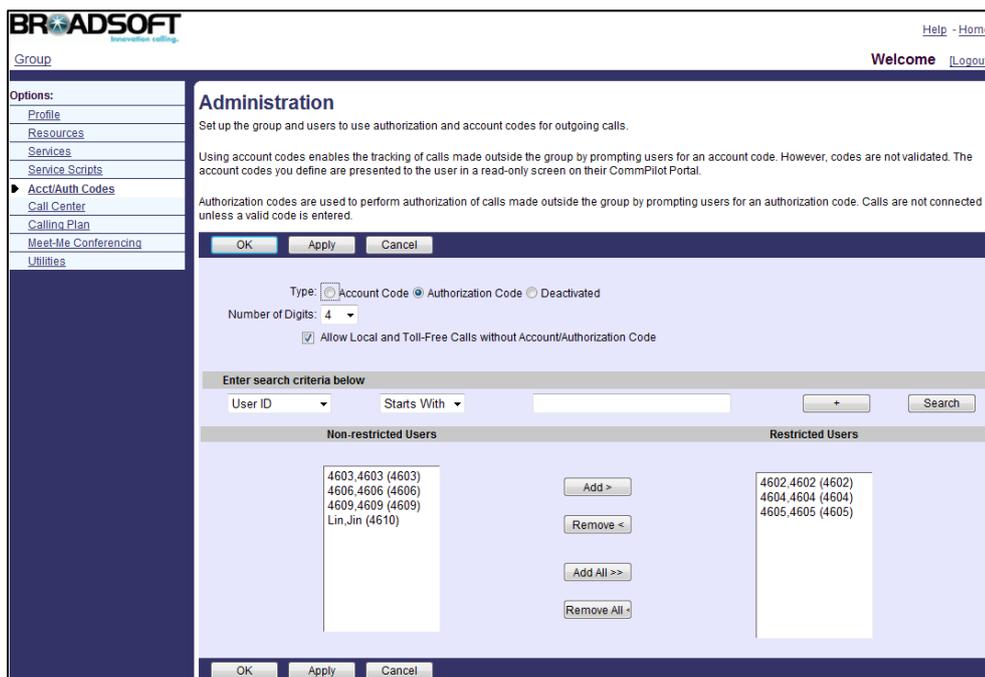
Number of Digits: 4

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

Restricted Users: 4602

4604

4605



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

To configure the authentication code:

1. Log into 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

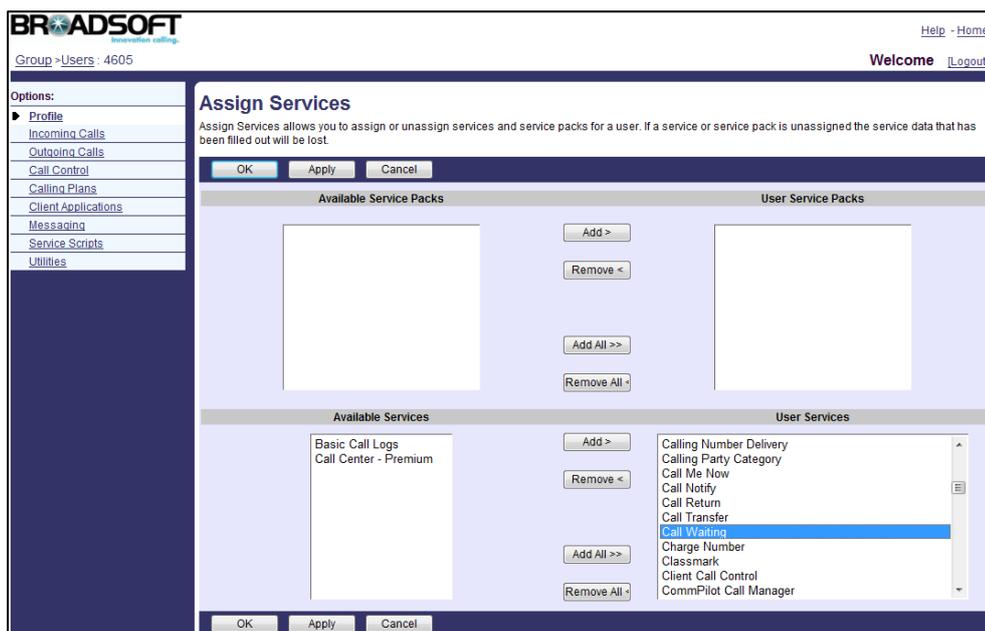
Call waiting allows users to receive another call while already engaged in a call. Call waiting tone enables the IP phone to play a short tone when receiving another incoming call during a call. Call waiting tone works only if call waiting is enabled.

Configuring the BroadSoft Server

To assign the call waiting service to a user:

1. Log into 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., 4605).

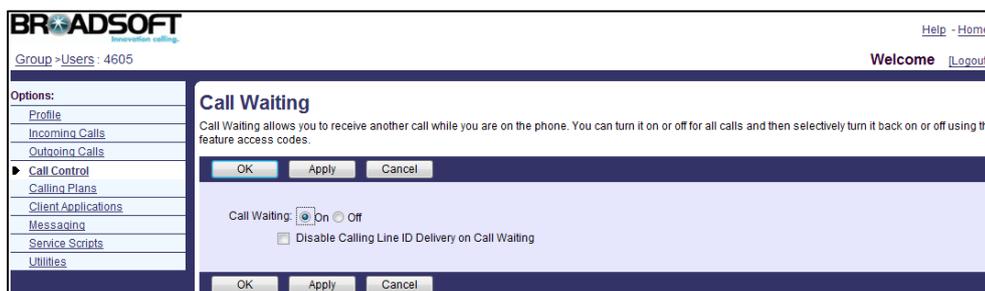
- In the **Available Services** box, select **Call Waiting** and then click **Add>**.



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

To configure call waiting for the user:

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605), who has been assigned the call waiting service.
- Click on **Call Control->Call Waiting**.
- Mark the **On** radio box in the **Call Waiting** field.



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

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

Configuring Yealink IP Phones

Call waiting and call waiting tone are configurable using template configuration files, via web user interface or phone user interface.

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

1. Add/Edit call waiting and call waiting tone parameters in template configuration files:

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

The following shows an example of call waiting configurations in a template configuration file (e.g., y000000000025.cfg):

```
call_waiting.enable = %CALL_WAITING_BINARY%
call_waiting.tone = 1
```

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

For more information, refer to [Customizing a Static Tag](#) on page 15.

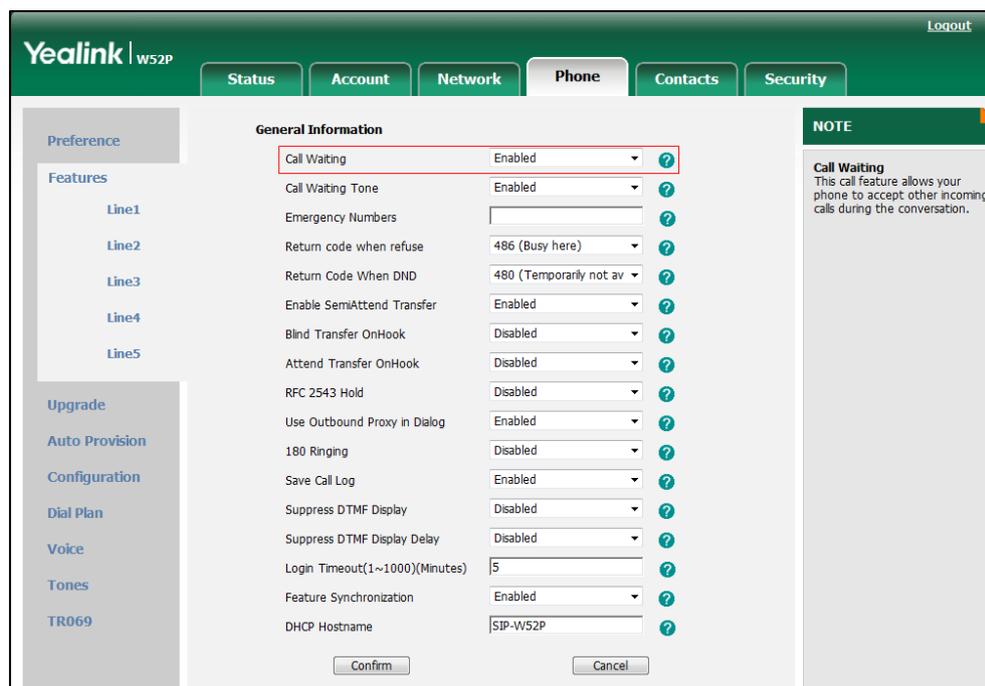
3. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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
```

After successful update, user can find the web user interface of the IP phone is similar to the one as shown below:



Diversion Inhibitor

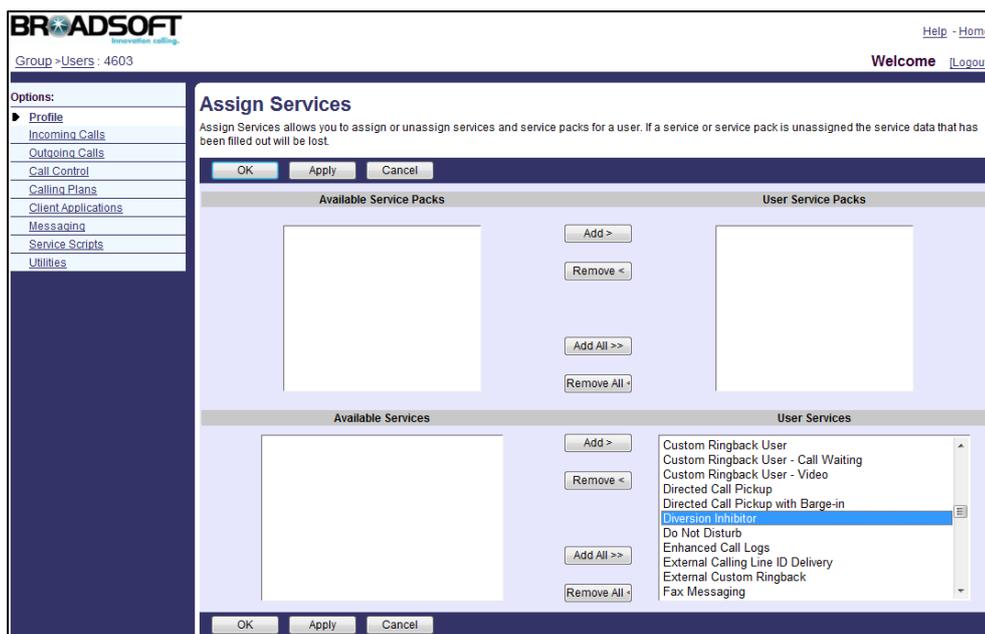
Diversion inhibitor prevents calls from being redirected by the callee. When receiving the INVITE message sent by BroadWorks with “diversion-inhibited” in the diversion or history-info header, the callee is forbidden to forward the call even if call forward is enabled on the callee’s phone. The user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

Configuring the BroadSoft Server

To assign the diversion inhibitor service to a user:

1. Log into 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., 4603).
4. Click on **Assign Services**.

- In the **Available Services** box, select **Diversion Inhibitor** and then click **Add>**.



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

To check the Diversion Inhibitor FAC:

- Log into the web portal as a group administrator.
- Click on **Utilities->Feature Access Codes**.
- Check the Diversion Inhibitor FAC.
- You can select the desired FAC used by marking the desired radio box (**Service Provider FAC codes** or **Group FAC codes**).

If **Group FAC codes** is selected, 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

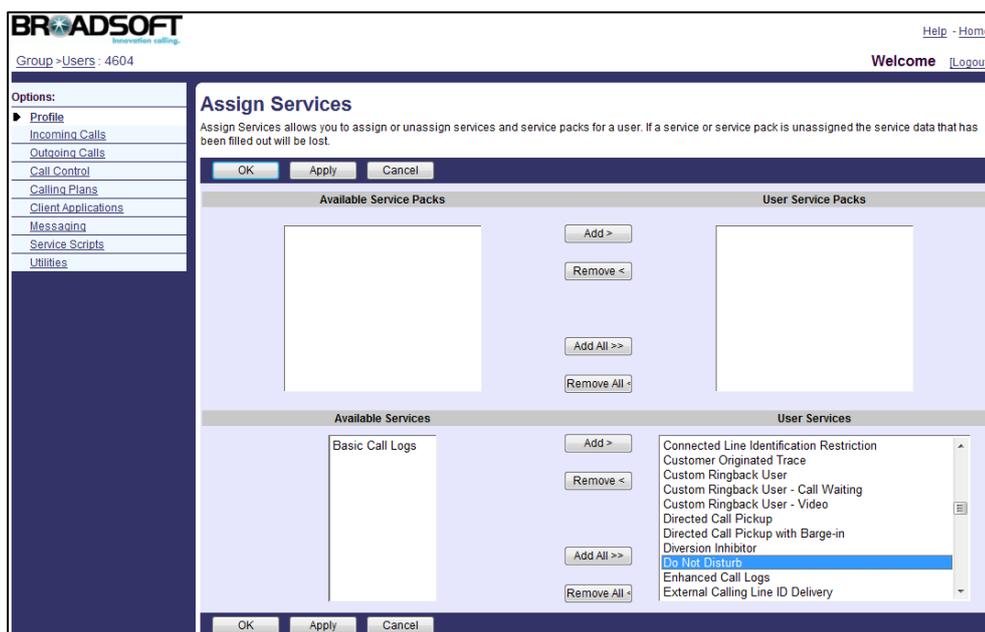
Do Not Disturb (DND) allows all incoming calls to be rejected automatically. The BroadWorks server provides an option to play a ring splash reminder on the IP phone when the incoming call is rejected.

Configuring the BroadSoft Server

To assign the DND service to a user:

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

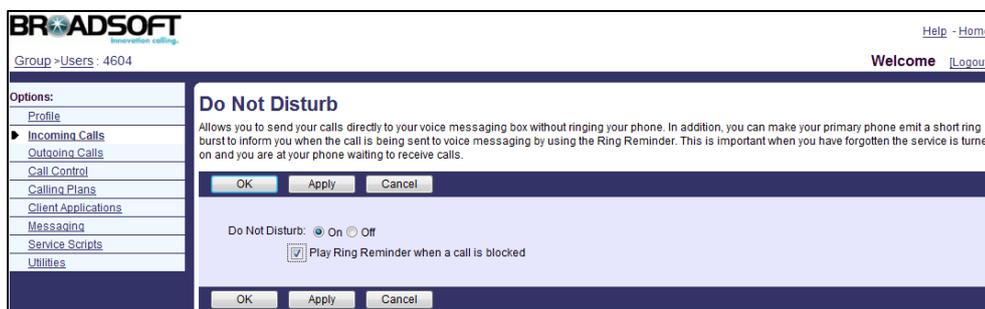
3. Select the desired user (e.g., 4604).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Do Not Disturb** and then click **Add>**.



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

To configure DND for the user:

1. Log into 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., 4604), 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.

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

Configuring Yealink IP Phones

The DND mode is configurable using the configuration files or via web user interface.

To configure DND using template configuration files:

1. Add/Edit DND parameters in 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., 4604) is the second user assigned to the device profile, replace "X" by "2".

Parameter	Description	Value
account.X.dnd.enable	Enables or disables DND on a per-account basis for account X. 0 -Disabled 1 -Enabled It takes effect only if the parameter "features.dnd_mode" is set to 1. The default value is 0.	%BWDND-BINARY-X%

The following shows an example of DND configurations for account 2 in a template configuration file (e.g., %BWMACADDRESS%.cfg):

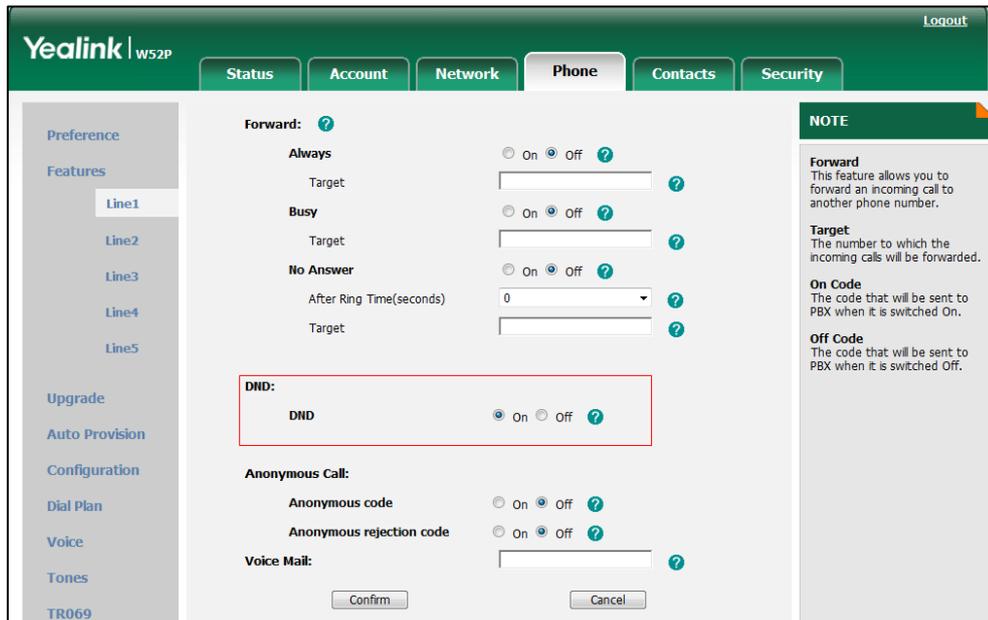
```
account.2.dnd.enable = %BWDND-BINARY-2%
```

2. Upload 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
```

After successful update, user can find the web user interface of the IP phone is similar to the one as shown 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:

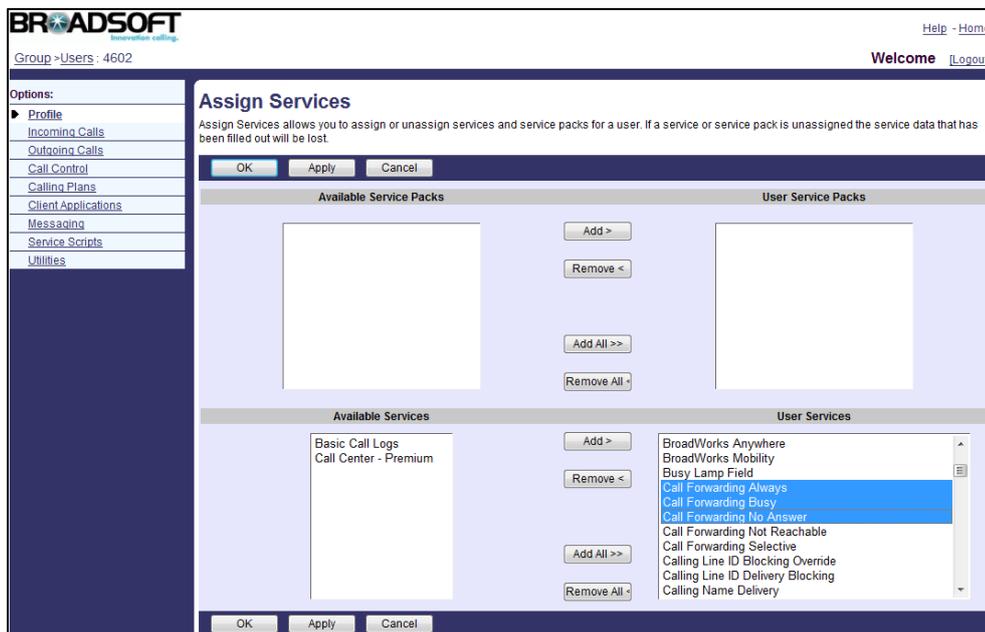
- **Call Forwarding Always:** Incoming calls are immediately forwarded.
- **Call Forwarding Busy:** Incoming calls are immediately forwarded if the IP phone is busy.
- **Call Forwarding No Answer:** Incoming calls are forwarded if not answered after a period of time.

Configuring the BroadSoft Server

To assign the call forward service to a user:

1. Log into 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., 4602).
4. Click on **Assign Services**.

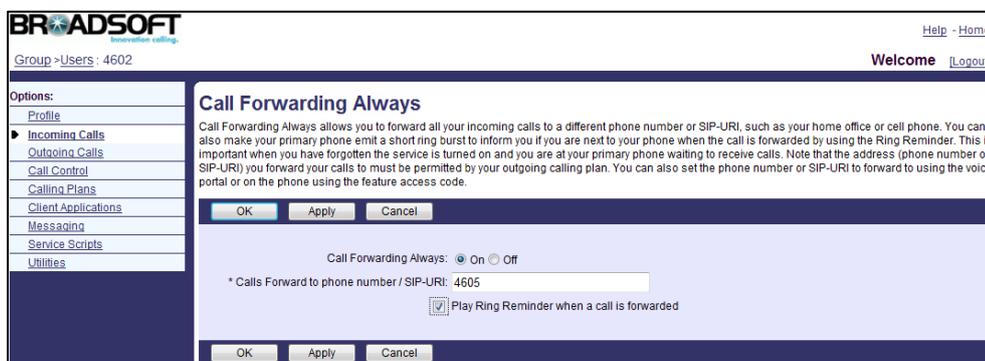
- In the **Available Services** box, select **Call Forwarding Always**, **Call Forwarding Busy** and **Call forwarding No Answer** and then click **Add>**.



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

To configure call forwarding always for a user:

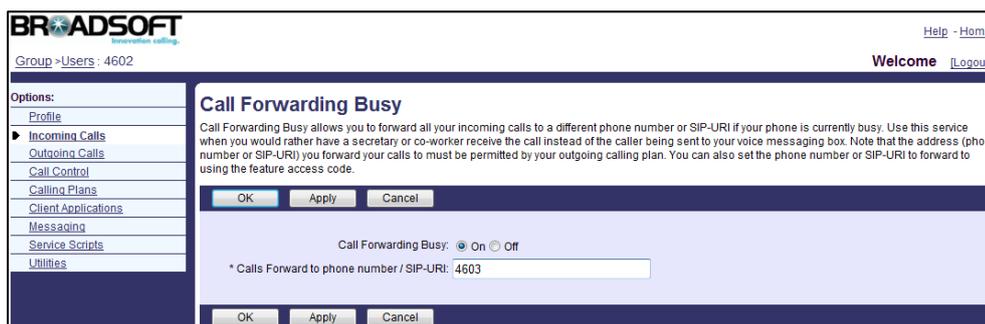
- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4602), who has been assigned the call forward service.
- Click on **Incoming Calls->Call Forwarding Always**.
- Mark the **On** radio box in the **Call Forwarding Always** field.
- Enter the destination number or SIP-URI in the **Calls Forward to phone number / SIP-URI** field.
- Check the **Play Ring Reminder when a call is forwarded** checkbox.



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

To configure call forwarding busy for a user:

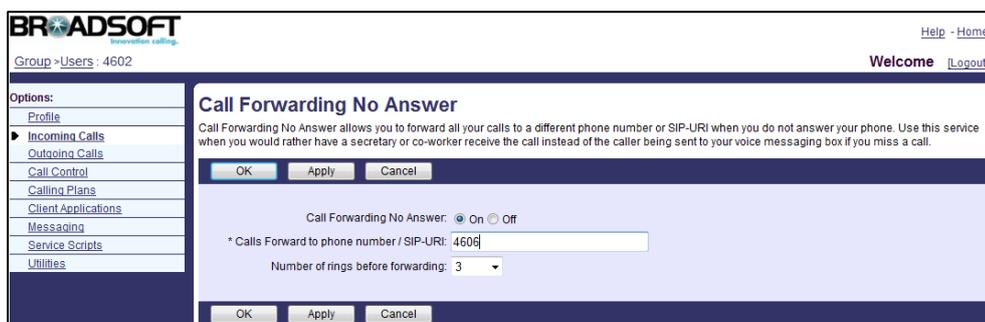
1. Log into the web portal as a group administrator.
2. Click on **Profile->Users->Search** to display all existing users.
3. Select the desired user (e.g., 4602), who has been assigned the call forward service.
4. Click on **Incoming Calls->Call Forwarding Busy**.
5. Mark the **On** radio box in the **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.

To configure call forwarding No Answer for a user:

1. Log into 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., 4602), 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.

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

Configuring 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 phone user interface.

To configure call forward using template configuration files:

1. Add/Edit call forward parameters in 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., 4602) is the second user assigned to the device profile, replace "X" by "2".

Parameter	Description	Value
account.X.always_fwd.enable	Enables or disables always call forward on a per-account basis for account X. 0-Disabled 1-Enabled It takes effect only if the parameter "features.fwd_mode" is set to 1.	Boolean
account.X.always_fwd.target	Configures the destination number of always call forward for account X. It takes effect only if the parameter "features.fwd_mode" is set to 1. The default value is blank.	String within 32 characters
account.X.busy_fwd.enable	Enables or disables busy call forward on a per-account basis for account X. 0-Disabled 1-Enabled It takes effect only if the parameter "features.fwd_mode" is set to 1. The default value is 0.	Boolean

Parameter	Description	Value
account.X.busy_fwd.target	Configures the destination number of busy call forward for account X. It takes effect only if the parameter "features.fwd_mode" is set to 1. The default value is blank.	String within 32 characters
account.X.timeout_fwd.enable	Enables or disables no answer call forward on a per-account basis for account X. 0-Disabled 1-Enabled It takes effect only if the parameter "features.fwd_mode" is set to 1. The default value is 0.	Boolean
account.X.timeout_fwd.timeout	Configures ring times (N) to wait before forwarding incoming calls for account X Incoming calls are forwarded when not answered after N*6 seconds. It takes effect only if the parameter "features.fwd_mode" is set to 1. The default value is 2.	Integer from 0 to 20
account.X.timeout_fwd.target	Configures the destination number of no answer call forward for account X. It takes effect only if the parameter "features.fwd_mode" is set to 1. The default value is blank.	String within 32 characters
features.fwd_diversion_enable	Enables or disables the IP phone to present the diversion information when the call is forwarded to your IP	Boolean

Parameter	Description	Value
	phone. 0-Disabled 1-Enabled The default value is 1.	

The following shows an example of always call forward configurations for account 2 in a template configuration file (e.g., %BWMACADDRESS%.cfg):

```
account.2.always_fwd.enable = %BWFAC-CFA- BINARY-2%
account.2.always_fwd.target = 4606
```

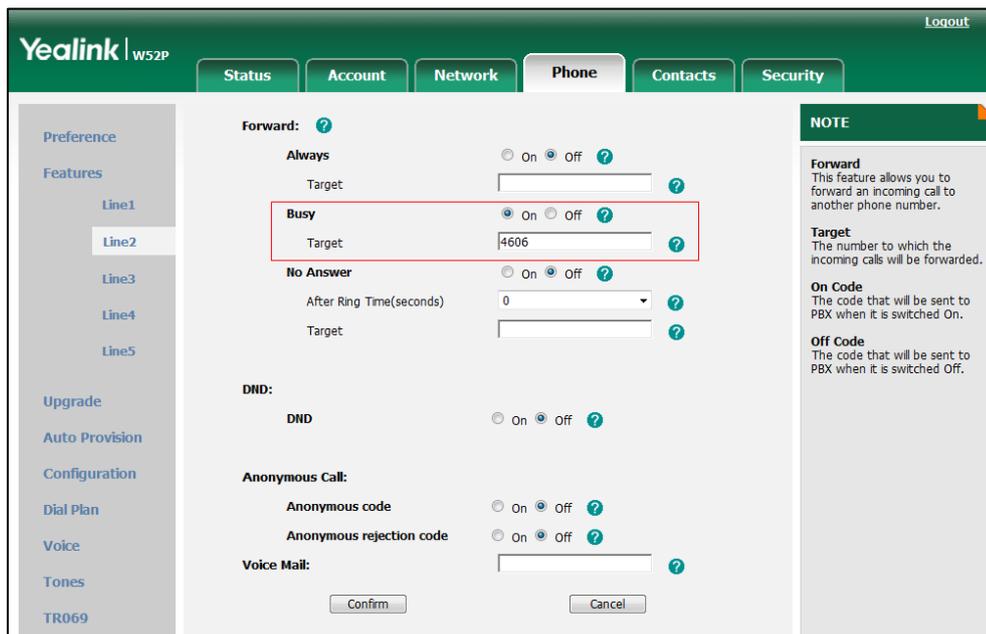
2. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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

```
account.2.always_fwd.enable = 1
```

After successful update, user can find the web user interface of the IP phone is similar to the one as shown below:



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. One of four distinctive ring patterns can be assigned to

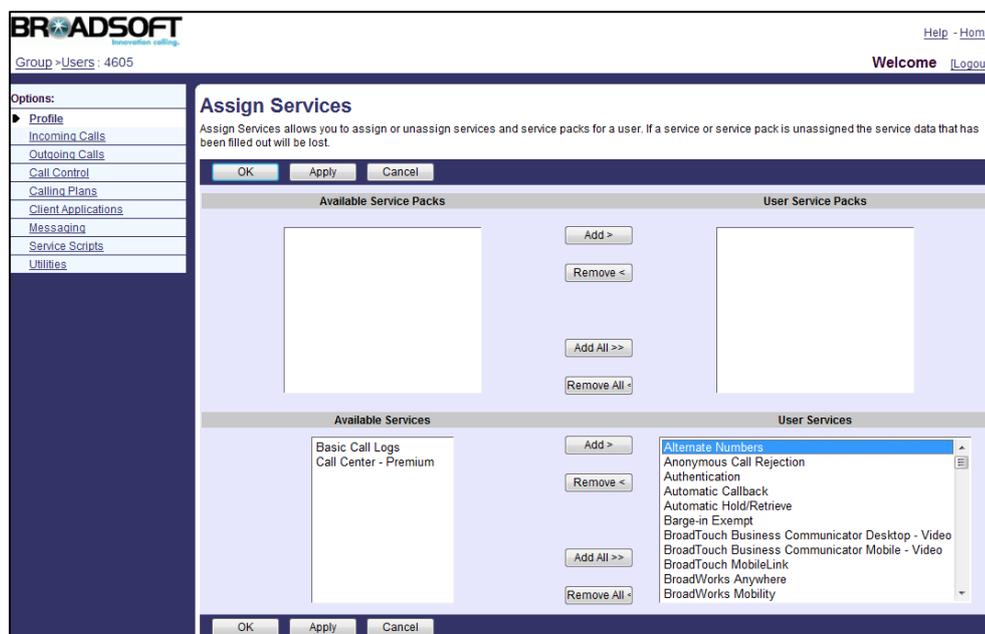
each alternate phone number or extension.

Note W52P IP DECT phones do not support to play distinctive ring pattern for the alternate number.

Configuring the BroadSoft Server

To assign the alternate numbers service to a user:

1. Log into 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., 4605).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Alternate Numbers** and then click **Add>**.

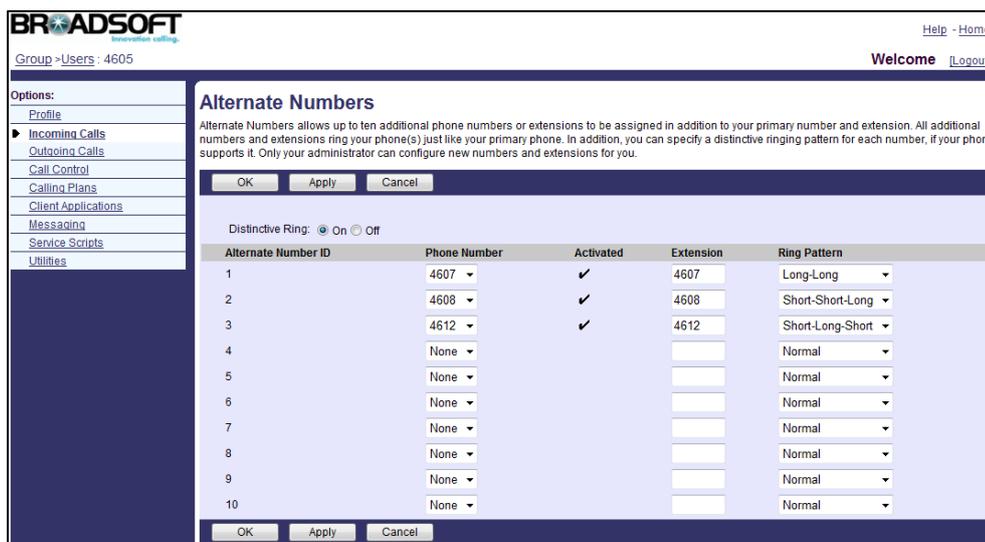


6. Click **Apply** to accept the change.

To assign alternate numbers and extensions to a user:

1. Log into 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., 4605), who has been assigned the alternate number service.
4. Click on **Incoming Calls->Alternate Numbers**.
5. Mark the **On** radio box in the **Distinctive Ring** field.
6. Select the alternate number from the pull-down list of **Phone Number**.

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



8. Repeat steps 6 to 7 to assign more alternate numbers to the user.

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

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

Sequential Ring

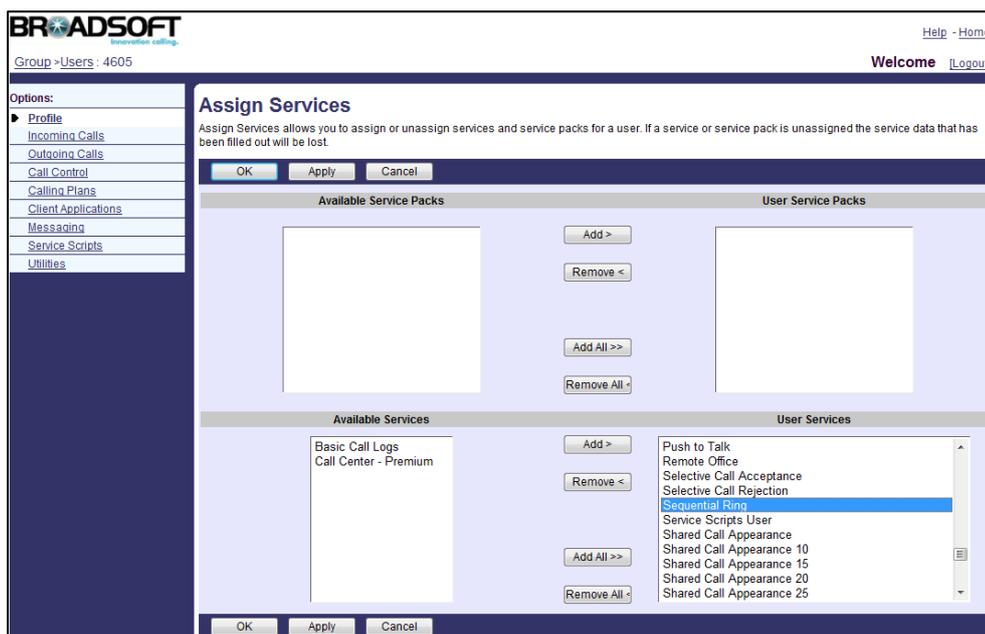
Sequential ring allows a user to have up to five secondary locations, which are alerted sequentially upon receiving an incoming call that matches a set of criteria. Each secondary location can be either a phone number or SIP-URI. This service attempts to call the user by ringing the phone numbers or 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 BroadSoft Server

To assign the sequential ring service to a user:

1. Log into 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., 4605).
4. Click on **Assign Services**.

- In the **Available Services** box, select **Sequential Ring** and then click **Add>**.



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

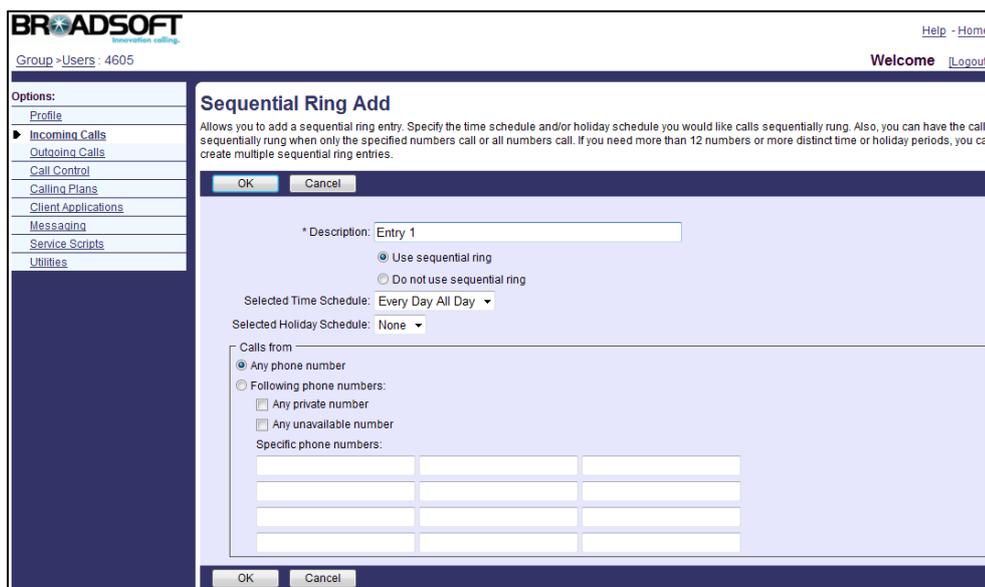
To configure a sequential ring list for a user:

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605), who has been assigned the sequential ring service.
- Click on **Incoming Calls->Sequential Ring**.
- 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



- 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

Parameter	Description
	confirm the acceptance of the call

The following shows an example:

Use Base Location first: Selected

Number of rings for Base Location: 3

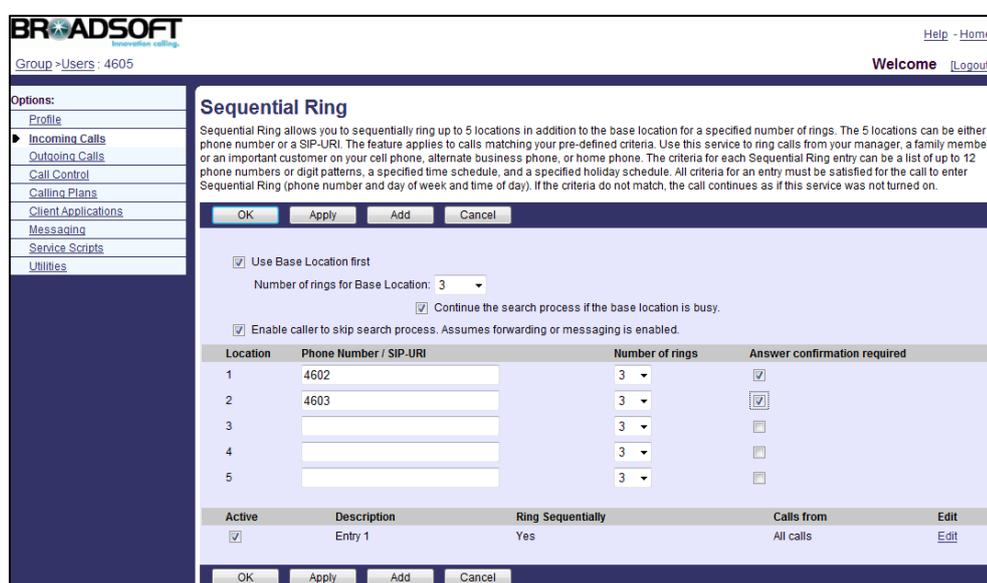
Continue the search process if the base location is busy: Selected

Enable caller to skip search process: Selected

Phone Number / SIP-URI: 4602 4603

Number of rings: 3

Answer confirmation required: Selected



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

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 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.

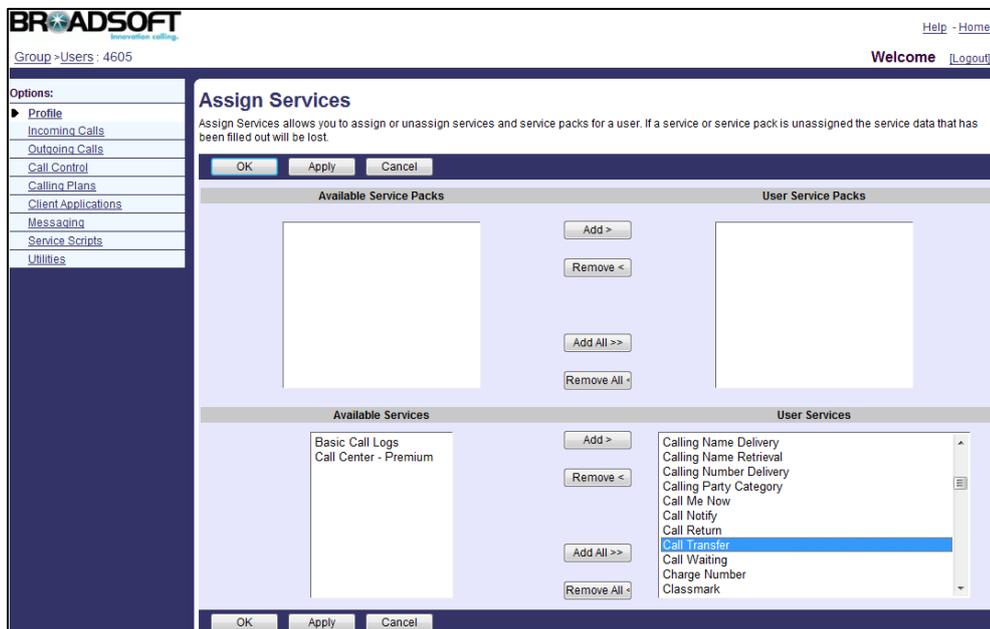
- **Attended Transfer Before Answer:** Transfer a call after hearing the ringback tone. The transfer-to party has been called by the user, but the transfer-to party has not answered yet before transfer. Attended transfer before answer is implemented by a REFER method with Replaces in the REFER-TO header.

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 BroadSoft Server

To assign the call transfer service to a user:

1. Log into 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., 4605).
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 into 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., 4605), 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	<p>This option allows a transferred call to be reconnected to the transferring party if it reaches a failure or no-answer condition after transfer.</p> <p>Enables or disables Call Transfer Recall.</p>
Number of rings before recall	<p>Specifies the number of rings before Call Transfer Recall is automatically triggered.</p>
Enable Busy Camp On seconds	<p>This option allows users to camp the call against a busy destination and recall the transferring user after the specified time.</p> <p>Enables or disables Busy Camp On and specifies the time after which the transferring user should be recalled.</p>
Use Diversion Inhibitor for Blind Transfer	<p>This option allows users to prevent blind transferred calls from being redirected.</p> <p>Enables or disables the use of diversion inhibitor for blind transferred calls.</p>
Use Diversion Inhibitor for Consultative Calls	<p>This option allows users to prevent attended transferred calls from being redirected.</p> <p>Enables or disables the use of diversion inhibitor for calls transferred with consultation.</p>

The following shows an example:

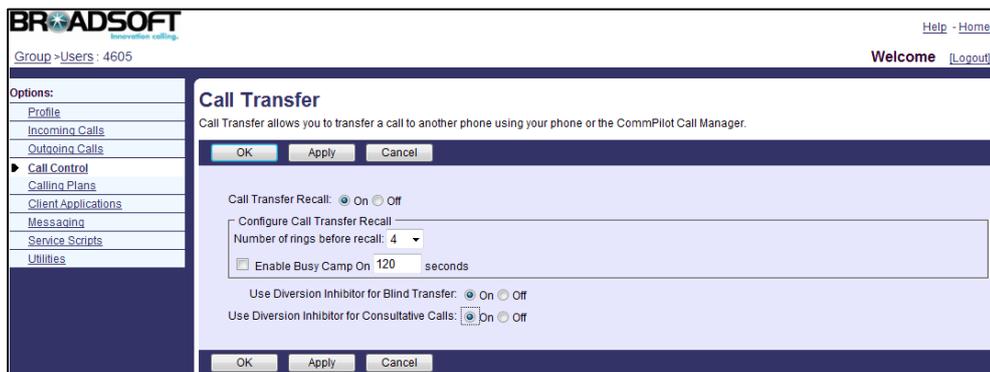
Call Transfer Recall: Selected

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.

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 the BroadWorks server:

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

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

Configuring Yealink IP Phones

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

To configure feature key synchronization using template configuration files:

1. Add/Edit feature key synchronization parameters in template configuration files:

Parameter	Description	Value
bw.feature_key_sync	Enables or disables feature key synchronization. 0-Disabled 1-Enabled The default value is 1.	%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 15.

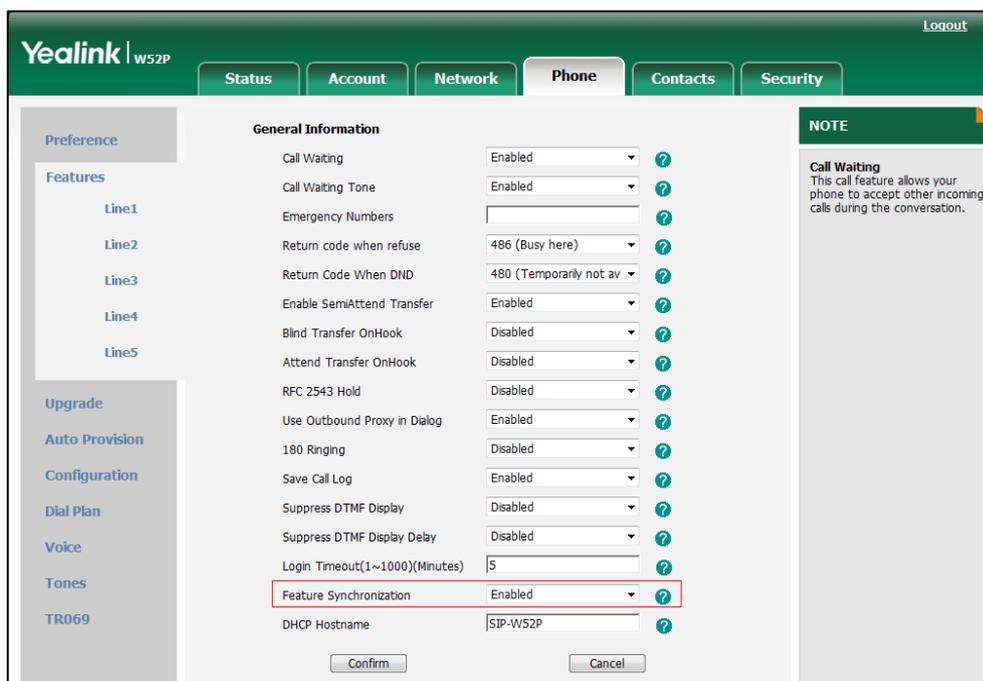
3. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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 successful update, user can find the web user interface of the IP phone is similar to the one as shown below:



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 an incoming call within a pre-defined group. W52P IP DECT phones only support to pick up a call by dialing the FAC (feature access code).

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 BroadSoft Server

To assign the call pickup service to the group:

1. Log into 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>**.

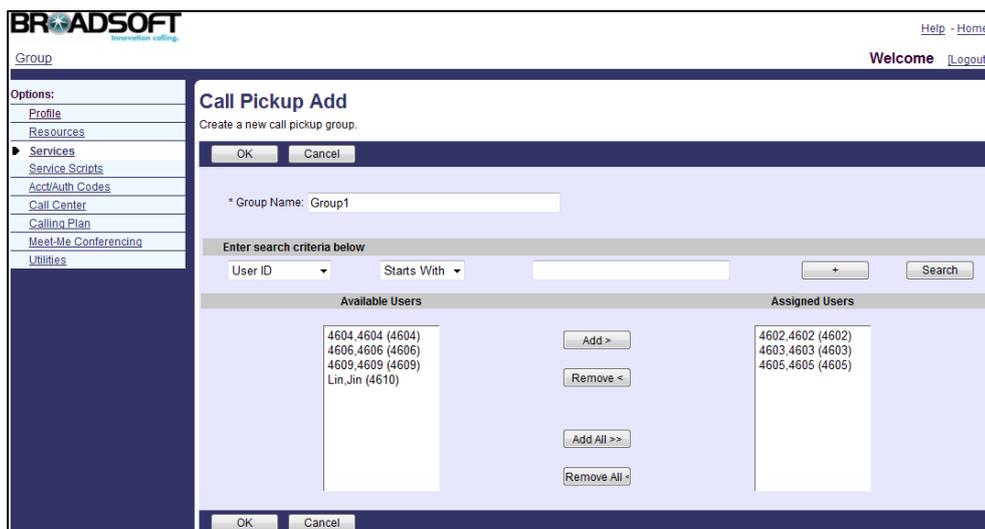


4. Click **Apply** to accept the change.

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

1. Log into 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.

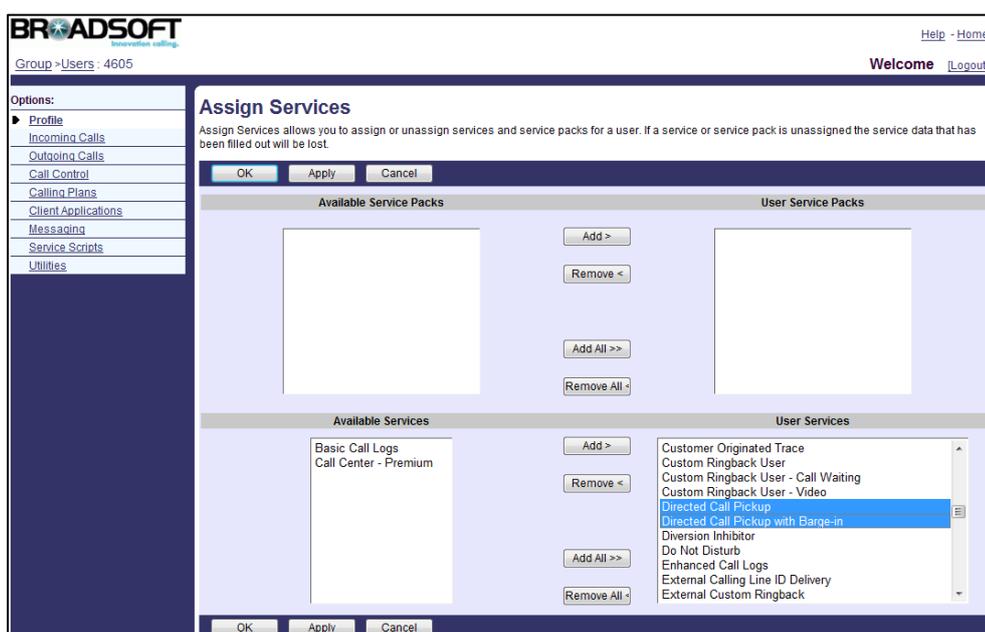
- In the **Available Users** box, select the desired user and then click **Add>** to assign the user to the call pickup group.



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

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605).
- Click on **Assign Services**.
- In the **Available Services** box, select **Directed Call Pickup** and **Directed Call Pickup with Barge-in**, and then click **Add>**.



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

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

1. Log into 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., 4605), who has been assigned the directed call pickup with barge-in service.
4. Click on **Call Control->Directed Call Pickup with Barge-in**.
5. Configure the following parameters for directed call pickup with barge-in.

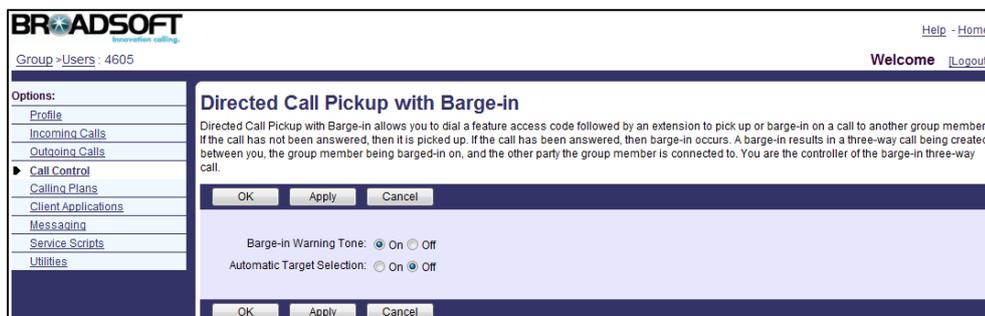
Parameter	Description
Barge-in Warning Tone	<p>Specifies whether a warning tone is played to the picked up user when a barge-in occurs.</p> <p>The default state is "On".</p>
Automatic Target Selection	<p>Enables or disables the user with DPUBI service to initiate a pickup or barge-in by dialing the DPBUI FAC without an extension.</p> <p>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).</p> <p>The default state is "Off".</p>
Silent Monitoring Warning Tone	<p>Silent monitoring is the ability for a supervisor to listen into calls being handled by their agents.</p> <p>This option specifies whether to play a warning tone to inform the agents that they are being monitored.</p> <p>The default state is "Off".</p>

The following shows an example:

Simultaneous Ring Personal: On

Automatic Target Selection: On

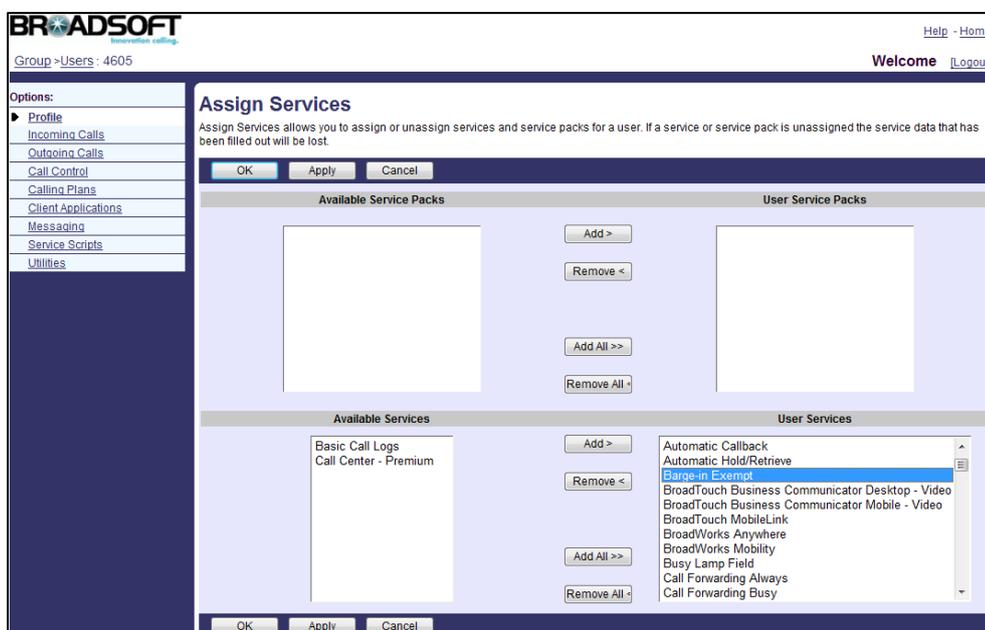
Silent Monitoring Warning Tone: On



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

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

1. Log into 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., 4605).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Barge-in Exempt** and then click **Add>**.



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

To configure barge-in exempt for a user:

1. Log into 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., 4605), who has been assigned the barge-in exempt service.
4. Click on **Call Control->Barge-in Exempt**.
5. Mark the **On** radio box in the **Barge-in Exempt** field.



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

To check the Call Pickup, Directed Call Pickup and Directed Call Pickup with Barge-in FACs:

1. Log into the web portal as a group administrator.
2. Click on **Utilities->Feature Access Codes**.
3. Check the Call Pickup, Directed Call Pickup and Directed Call Pickup with Barge-in FACs.
4. Select the desired FAC used by marking the desired radio box (**Service Provider FAC codes** or **Group FAC codes**).

If **Group FAC codes** is selected, administrator can modify the code in the **Main (Required)** field or enter an alternate code in the **Alternate (Optional)** field.

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

Network Conference

Network conference allows a user to conduct a conference with more than three participants. The maximum number 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 Yealink IP Phones

To use network conference, you need to configure the conference type and conference URI on IP phones in advance. Network conference is configurable using template configuration files or web user interface.

To configure network conference using template configuration files:

1. Add/Edit network conference parameters in 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., 2413333505) is the first user assigned to the device profile, replace the “x” by “1”.

Parameter	Description	Value
account.X.conf_type	Configures the conference type for account X. 0 -Local Conference 2 -Network Conference The default value is 0.	Integer
account.X.conf_uri	Configures the URI of the network conference for account X. The default value is blank.	%BWNWORK-C ONFERENCE-SIPU RI-X%

The following shows an example of network conference configurations in a template configuration file (e.g., %BWMACADDRESS%.cfg):

```
account.1.conf_type = 2
```

```
account.1.conf_uri = %BWNWORK-CONFERENCE-SIPURI-1%
```

2. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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 = Conference01@pbx.yealink.com
```

After successful update, user can find the web user interface of the IP phone is similar to the one shown as below:

The screenshot displays the Yealink W52P web user interface. The top navigation bar includes 'Status', 'Account', 'Network', 'Phone', 'Contacts', and 'Security'. The 'Account' tab is active, showing configuration for 'Account1'. The 'Advanced' section is expanded, revealing various SIP parameters. A red box highlights the 'Conference Type' field, which is set to 'Network Conference', and the 'Conference URI' field, which is set to 'Conference01@pbx.yealink.'. Other visible parameters include 'Keep Alive Type' (Default), 'UDP Keep Alive Interval' (30), 'Local SIP Port' (5062), 'RPort' (Disabled), and several SIP Session Timers. A 'NOTE' section on the right states: 'Advanced: The Advanced parameters for administrator.' At the bottom, there are 'Confirm' and 'Cancel' buttons.

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

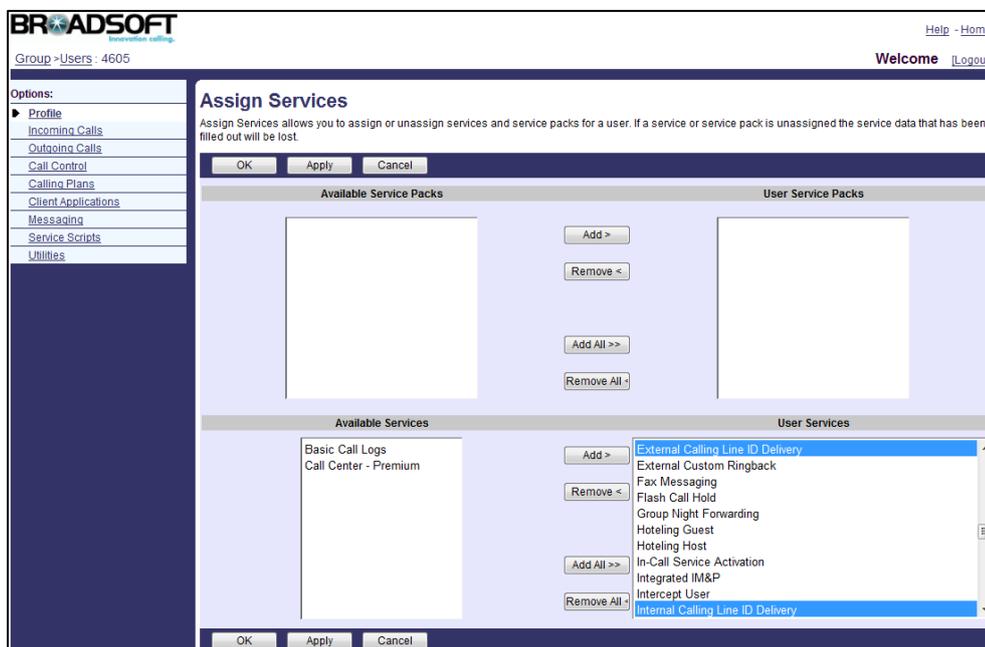
call. The BroadWorks server provides external calling number delivery and internal calling number delivery services. External calling number delivery allows the number for callers from outside your group or enterprise to be displayed. Internal calling number delivery allows the number for callers from inside your group to be displayed.

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.

Configuring the BroadSoft Server

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

1. Log into 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., 4605).
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>**.

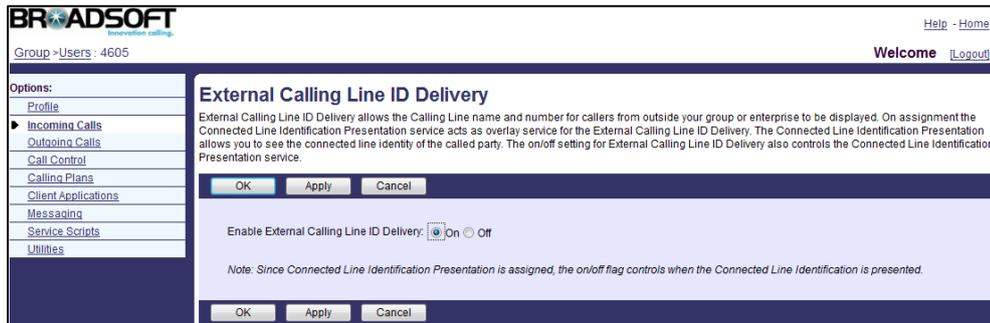


6. Click **Apply** to accept the change.

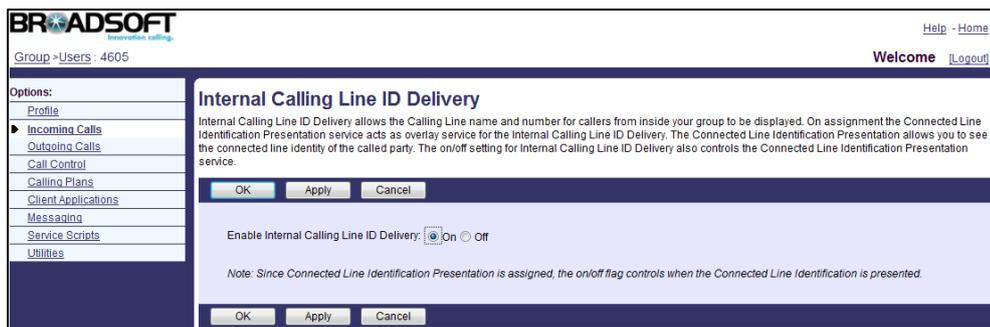
To configure calling line ID presentation for the user:

1. Log into 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., 4605) 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.

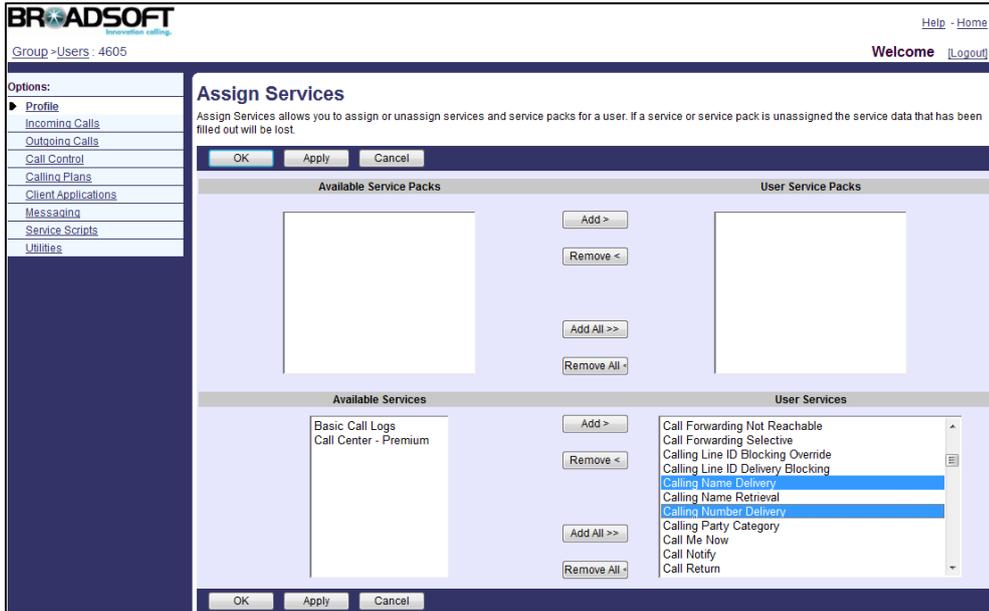


9. Click **Apply** to accept the change.

To assign the calling name delivery and calling number delivery services to a user:

1. Log into 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., 4605).
4. Click on **Assign Services**.

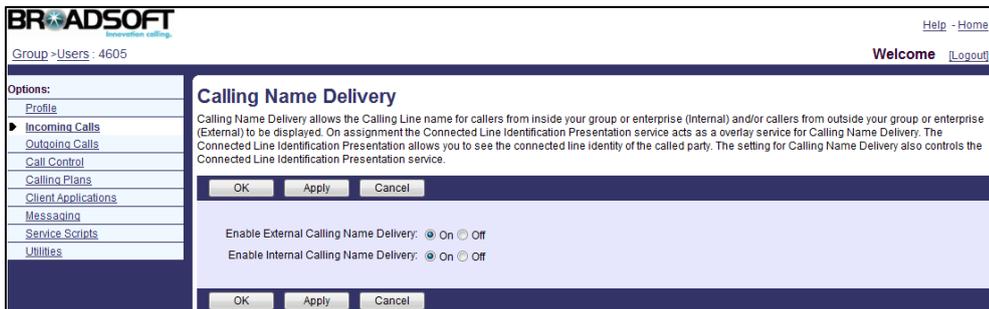
- In the **Available Services** box, select **Calling Name Delivery** and **Calling Number Delivery**, and then click **Add>**.



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

To configure calling name presentation for the user:

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605), who has been assigned the calling name delivery service.
- Click on **Incoming Calls->Calling Name Delivery**.
- 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.

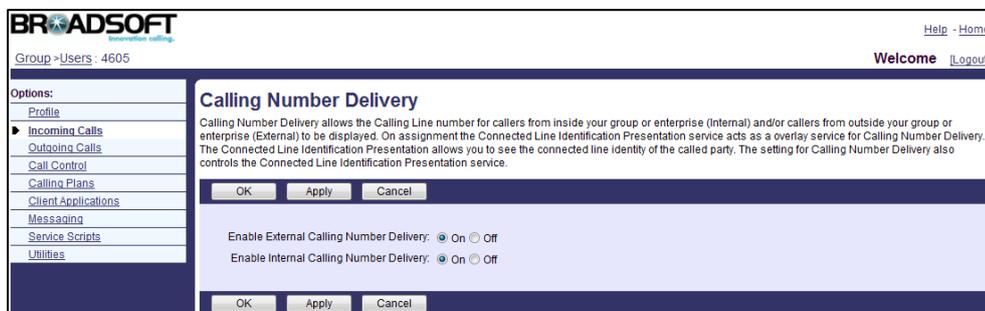


- Click **Apply** to accept the change.

To configure calling number presentation for the user:

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

3. Select the desired user (e.g., 4605), who has been assigned the calling number delivery service.
4. Click on **Incoming Calls->Calling Number Delivery**.
5. Mark the **On** radio box in the **Enable External Calling Number Delivery** field.
6. Mark the **On** radio box in the **Enable Internal Calling Number Delivery** field.



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

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

Configuring Yealink IP Phones

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

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

1. Add/Edit calling line ID source parameters in template configuration files:

The “X” in the parameter is an integer which specifies the line number on the IP phone. X ranges from 1 to 5.

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

Parameter	Description	Valid Value
	The default value is 0.	

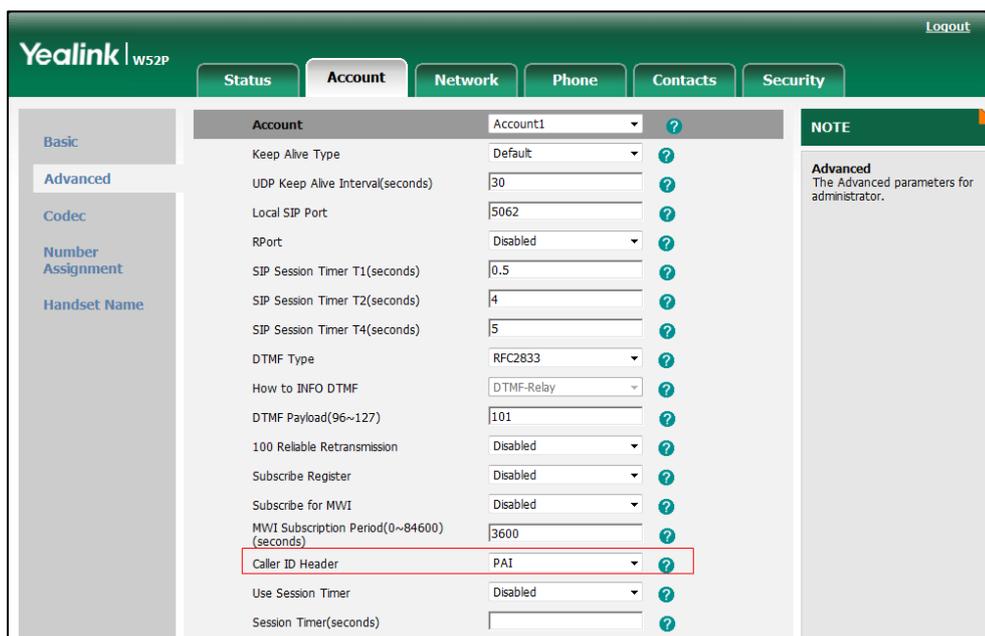
The following shows an example of the calling line ID source configuration in a template configuration file (e.g., %BWMACADDRESS%.cfg):

account.1.cid.source = 1

2. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

After successful update, user can find the web user interface of the IP phone is similar to the one as shown below:



Calling Line ID Blocking Override

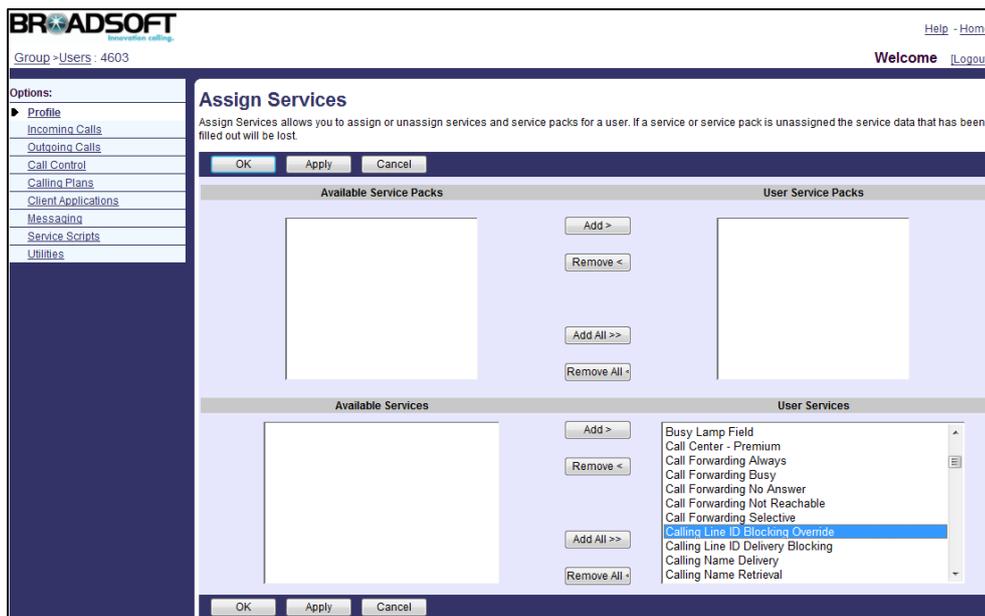
Calling Line ID Blocking Override allows the IP phone to always display the caller’s identity, regardless of whether it is blocked by the caller.

Configuring the BroadSoft Server

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

1. Log into 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., 4603).
4. Click on **Assign Services**.

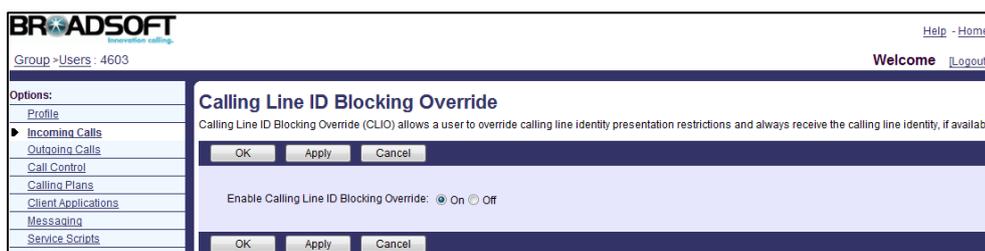
- In the **Available Services** box, select **Calling Line ID Blocking Override** and then click **Add>**.



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

To configure calling line ID blocking override for the user:

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4603), 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.

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

Connected Line Identification Presentation

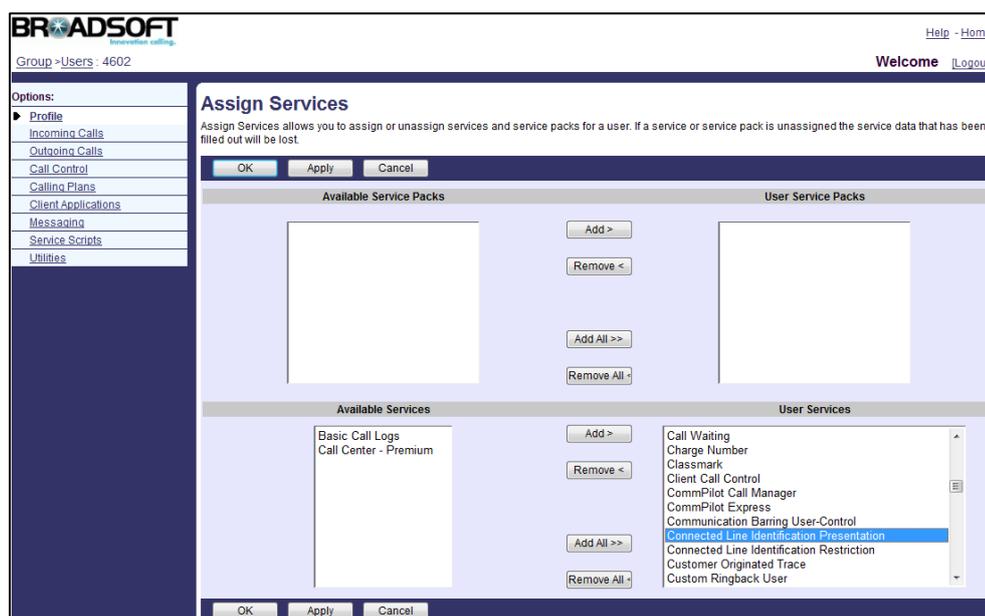
Connected Line Identification Presentation (COLP) allows the IP phone to display the callee's identity specified for outgoing calls. The callee's identity consists of the calling line ID last name, calling line ID first name and phone number.

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 BroadSoft Server

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

1. Log into 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., 4602).
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.

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

Configuring 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 template configuration files.

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

1. Add/Edit connected line identification source parameters in template configuration files:

The "X" in the parameter is an integer which specifies the line number on the IP phone. X ranges from 1 to 5.

Parameter	Description	Valid Value
account.X.cp_source	<p>Configures the connected line identification source for account X.</p> <p>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, it will derive from the "RPID" header).</p> <p>1-Dialed Digits (Preferentially displays the dialed digits on the caller's phone).</p> <p>2-RFC4916 (Derives the name and number of the callee from "From" header in the Update message).</p> <p>When the RFC 4916 is enabled on the IP phone, the caller sends the SIP request message which contains the from-change tag in the Supported header. The caller then receives an UPDATE message from the callee, and displays the identity in the From header.</p> <p>The default value is 0.</p>	Integer from 0 to 2

The following shows an example of the connected line identification source configuration in a template configuration file (e.g., %BWMACADDRESS%.cfg):

account.1.cp.source = 2

2. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

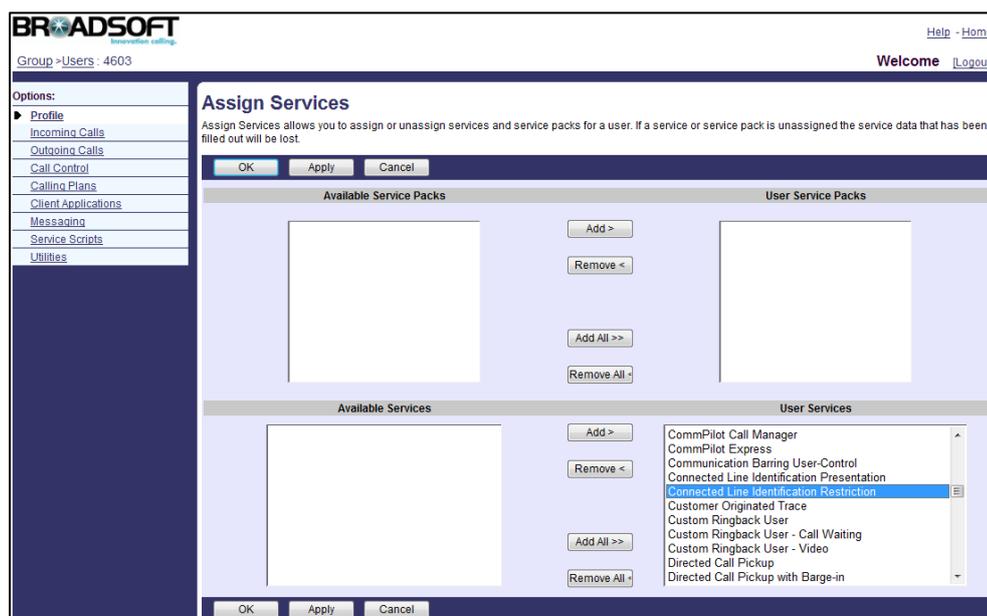
Connected Line Identification Restriction

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 between the same group users.

Configuring the BroadSoft Server

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

1. Log into 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., 4603).
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 into 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., 4603).
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.

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

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

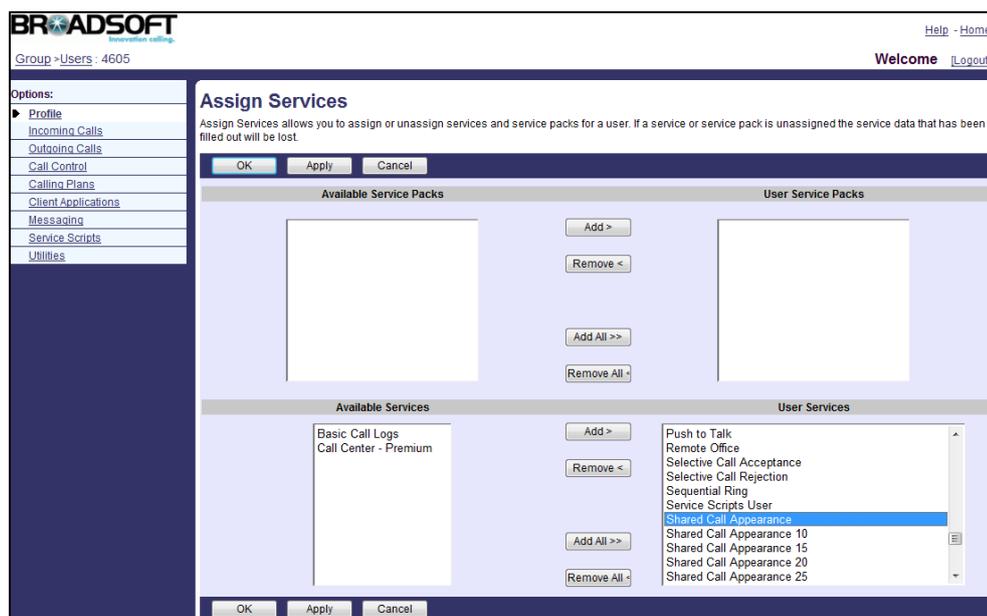
SCA feature also has private hold capability. When putting a shared line call on private hold, the user can retrieve it on the hold phone only. Retrieve attempts on other phones are rejected.

Configuring the BroadSoft Server

To assign the SCA service to a user:

1. Log into 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., 4605).
4. Click on **Assign Services**.

- 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 into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605), 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

Parameter	Description
	the user's extension.
Bridge Warning tone	<p>Determines whether to play a warning tone when a shared location barges in on an active call.</p> <p>None: disables warning tone feature.</p> <p>Barge-in only: enables the warning tone feature.</p> <p>Barge-in and repeat every 30 seconds: enables warning tone feature and the warning tone is repeated periodically every 30 seconds.</p>

The following shows an example:

Alert all appearances for Click-to-Dial calls: Selected

Alert all appearances for Group Paging calls: Selected

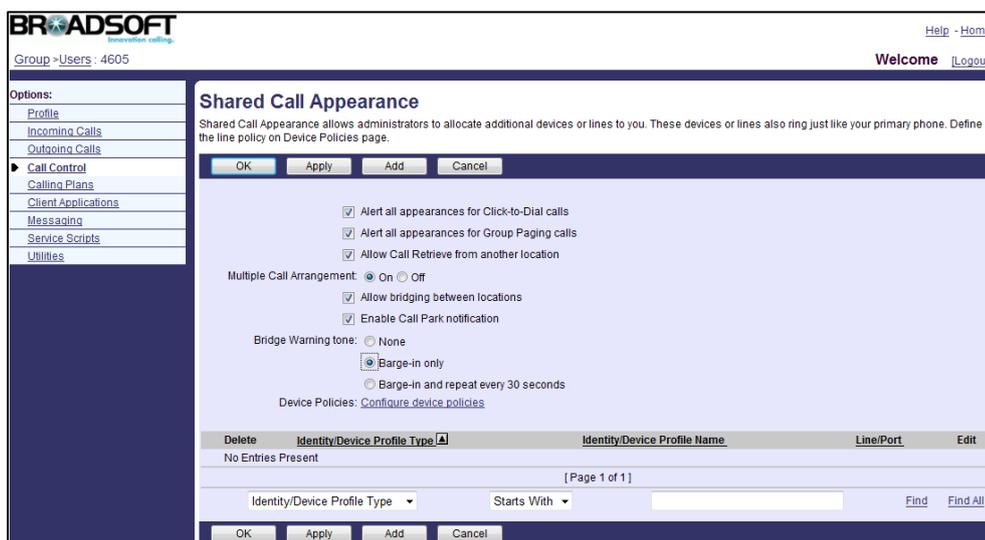
Allow Call Retrieve from another location: Selected

Multiple Call Arrangement: On

Allow bridging between locations: Selected

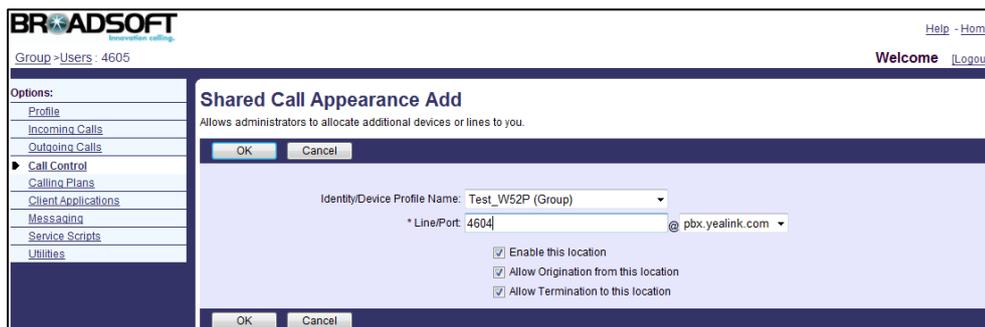
Enable Call Park notification: Selected

Bridge Warning tone: Barge-in only



5. Click **Apply** to accept the change.
6. Click **Add**.
7. Select the desired device profile name (e.g., Test_W52P) from the pull-down list of **Identity/Device Profile Name**. Make sure the selected device profile has been created and note this device profile.
8. Enter the alternate phone number (e.g., 4604) in the ***Line/Port** field.

9. Select the domain name (e.g., pbx.yealink.com) from the pull-down list after the sign @.



10. Click **OK** to accept the change.
11. Repeat steps 6 to 10 to configure more alternate locations.

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

Configuring Yealink IP Phones

SCA is configurable using template configuration files or via web user interface.

To register the primary account and configure SCA on the primary phone using template configuration files:

1. Add/Edit primary account parameters in template configuration files:
 The “X” in the parameter is an integer which specifies the line number on the IP phone. If the primary account (e.g., 4605) is the third user assigned to the device profile, replace “X” by “3”.

Parameter	Description	Value
account.X.enable	Enables or disables the line X. 0 -Disabled 1 -Enabled The default value is 0.	%BWLIN-BINARY-X%
account.X.label	Configures the label to be displayed on the phone for account X when the phone is idle. The default value is blank.	%BWEXTENSION-X%
account.X.display_name	Configures the name to be displayed on the callee’s phone for account X. The default value is blank.	%BWCLID-X%
account.X.auth_name	Configures authentication ID for account X.	%BWAUTHUSER-X%

Parameter	Description	Value
	The default value is blank.	
account.X.password	Configures authentication password for account X. The default value is blank.	%BWAUTHPASSWORD-X%
account.X.user_name	Configures the user ID for account X. The default value is blank.	%BWLINERPORT-X%
account.X.sip_server.Y.address	Configures the IP address of SIP server Y for account X. Y ranges from 1 to 2. The default value is blank.	%BWHOST-X%
account.X.sip_server.Y.port	Configures the port of SIP server Y for account X. Y ranges from 1 to 2. The default value is 5060.	5060
account.X.outbound_proxy_enable	Enables or disables the outbound proxy server for account X. 0 -Disabled 1 -Enabled The default value is 0.	%USE_SBC_BOOLEAN%
account.X.outbound_host	Configures the outbound proxy server address for account X. The default value is blank.	%SBC_ADDRESS%
account.X.outbound_port	Configures the outbound proxy server port for account X. The default value is 5060.	%SBC_PORT%

2. Add/Edit SCA parameters in template configuration files:

The "X" in the parameter is an integer which specifies the line number on the phone. If the primary account (e.g., 4605) is the third user assigned to the device profile, replace "X" by "3".

Parameter	Description	Value
account.X.shared_line	Enables or disables BroadSoft shared call appearance feature. 0 -Disabled 1 -BroadSoft_SCA The default value is 0.	%BWSHAREDLINE-BINARY-X%

The following shows an example of the SCA configuration in a template configuration file (e.g., %BWMACADDRESS%.cfg):

```
account.3.shared_line = %BWSHAREDLINE-BINARY-3%
```

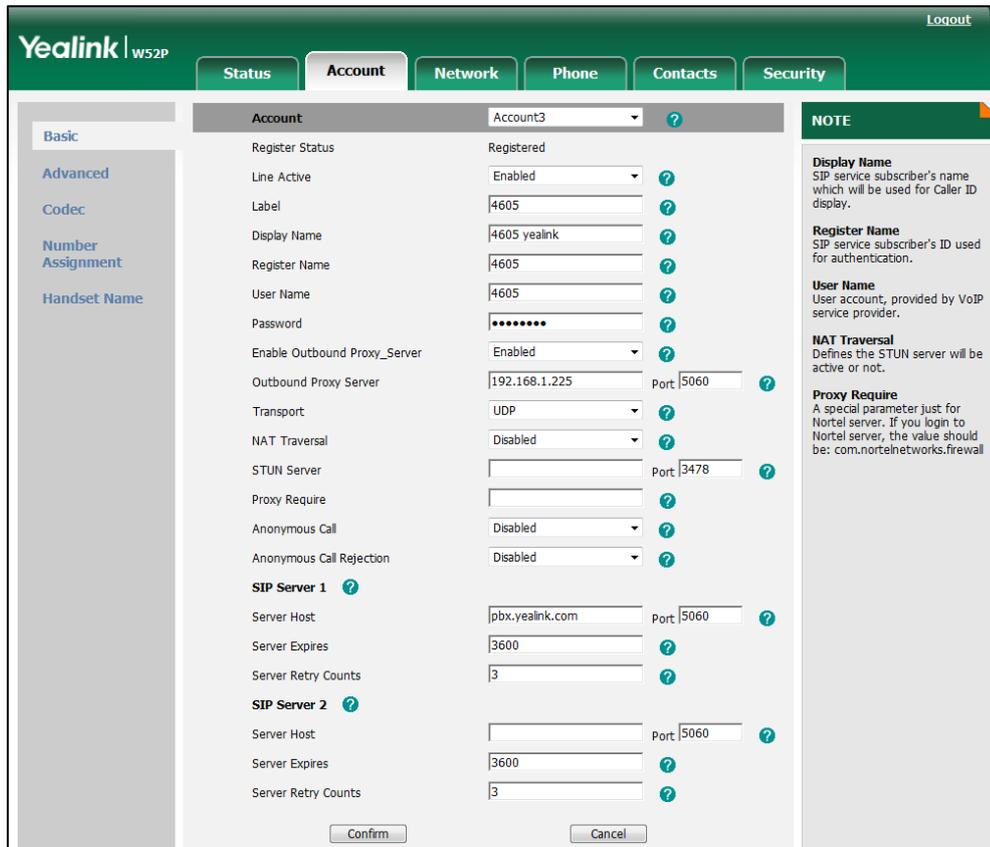
3. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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.3.enable = 1
account.3.label = 4605
account.3.display_name = 4605 yealink
account.3.auth_name = 4605
account.3.password = yealink
account.3.user_name = 4605
account.3.sip_server.1.address= pbx.yealink.com
account.3.sip_server.1.port= 5060
account.3.outbound_proxy_enable = 1
account.3.outbound_host = 192.168.1.225
account.3.outbound_port = 5060
account.3.shared_line = 1
```

After successful update, user can find the third line of the phone is registered the account 4605 as shown below:



To register the alternate accounts and configure SCA on the alternate phones using template configuration files:

1. Add/Edit the alternate account parameters in template configuration files:

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.2.enable = %BWLIN-BINARY-2%
account.2.label = %BWEXTENSION-2%
account.2.display_name = %BWCLID-2%
account.2.auth_name = %BWAUTHUSER-2%
account.2.password = %BWAUTHPASSWORD-2%
account.2.user_name = %BWLINPORT-2%
account.2.sip_server.1.address= %BWHOST-2%
account.2.sip_server.1.port= 5060

account.2.outbound_proxy_enable = %USE_SBC_BOOLEAN%
account.2.outbound_host = %SBC_ADDRESS%
account.2.outbound_port = %SBC_PORT%
    
```

2. Add/Edit SCA parameters in template configuration files:

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.2.shared_line = %BWSHAREDLINE-BINARY-2%
```

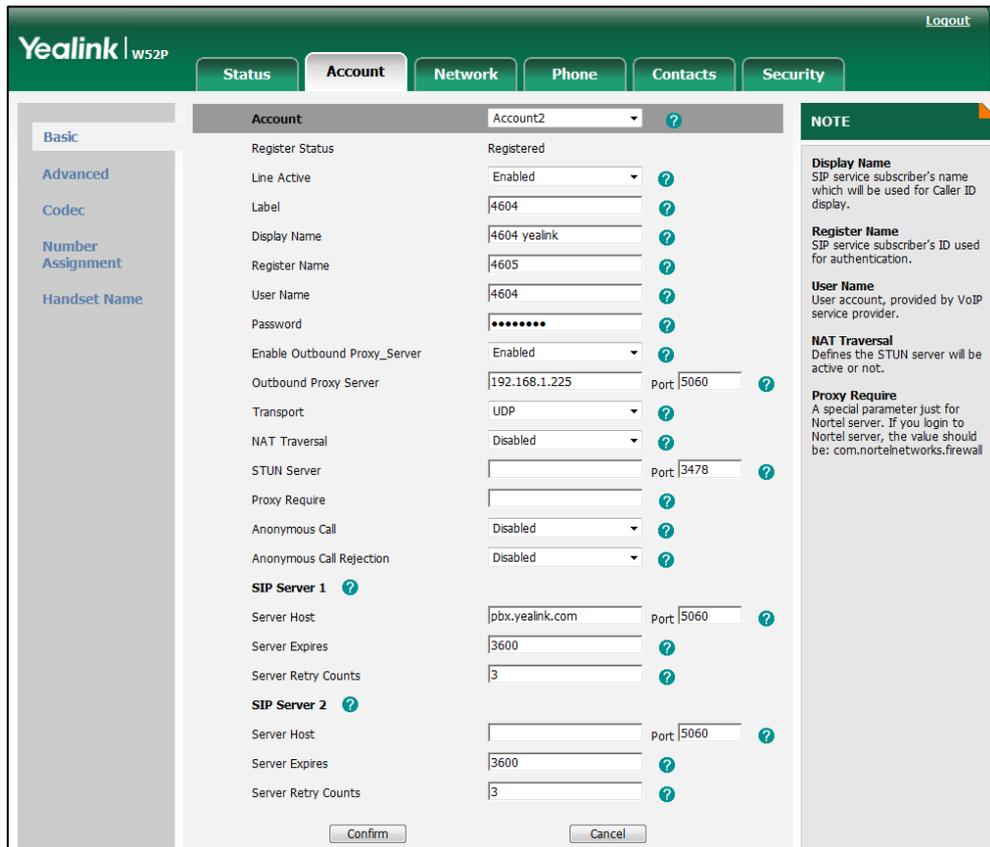
3. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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 = 4604
account.2.display_name = 4604 yealink
account.2.auth_name = 4605
account.2.password = yealink
account.2.user_name = 4604
account.2.sip_server.1.address= pbx.yealink.com
account.2.sip_server.1.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 successful update, user can find the second line of the alternate IP phone is registered with account 4604 as shown below:



SCA feature is configurable via web user interface at the path **Account->Advanced**.

Music on Hold

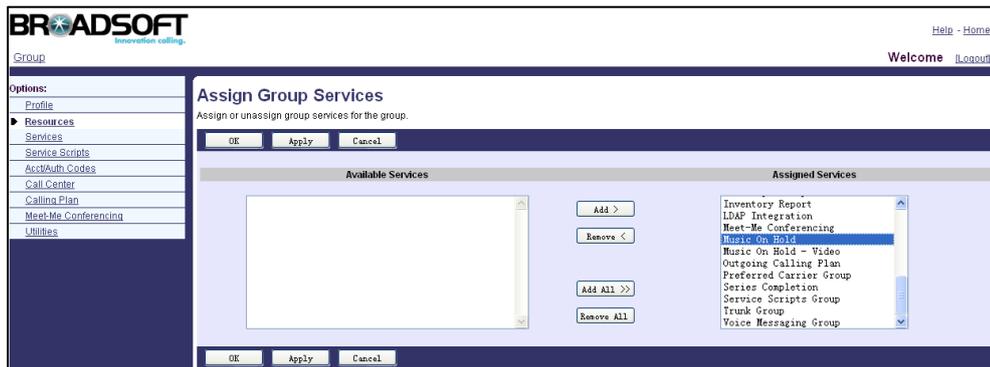
Music on Hold allows an audio source to be played to held parties in various scenarios (Call Park, Call Hold, and Busy Camp On). W52P IP DECT phones do not support to play a video source.

Configuring the BroadSoft Server

To assign the Music on Hold service to the group:

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

- In the **Available Services** box, select **Music On Hold**, and then click **Add>**.



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

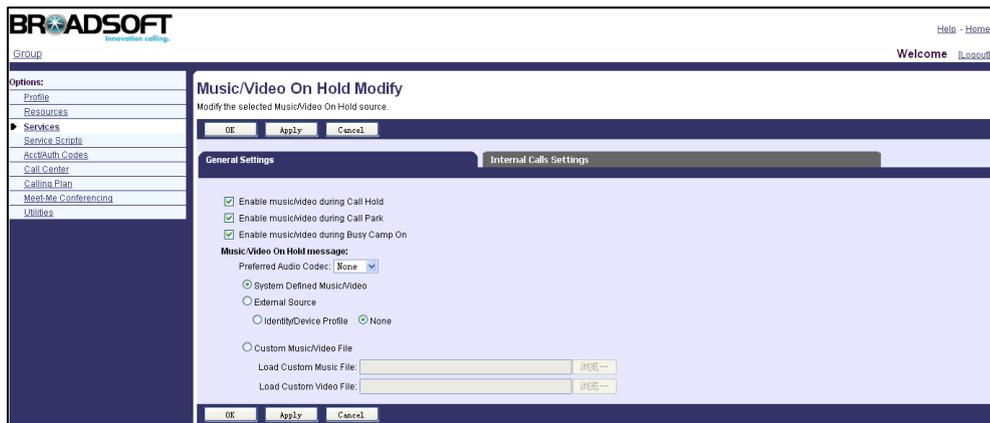
To configure Music on Hold for a department:

- Log into the web portal as a group administrator.
- Click on **Services->Music/Video On Hold**.
- Click **Add**.
- Select the desired department from the pull-down list of **Department**.
- Configure the Music on/Video on Hold for individual services:
 - Enable music/video during Call Hold:** Checking this checkbox enables the IP phone to play an audio for held callers.
 - Enable music/video during Call Park:** Checking this checkbox enables the IP phone to play an audio for parked callers.
 - Enable music/video during Busy Camp On:** Checking this checkbox enables the IP phone to play an audio for camped callers.
- Configure the source of the Music/Video on Hold message to play.
 - System Defined Music/Video:** Marking this radio box enables the IP phone to play the system defined music.
 - External Source:** Marking this radio box enables the IP phone to play the external audio source. An identity/device needs to be configured.
 - Custom Music/Video File:** Marking this radio box enables the IP phone to play the custom music file. A custom music file needs to be loaded to the system.
- Click **Apply** to accept the change.

To modify Music on Hold for a group/department:

- Log into the web portal as a group administrator.
- Click on **Services->Music/Video On Hold**.
- Select the desired group/department and click **Edit**.

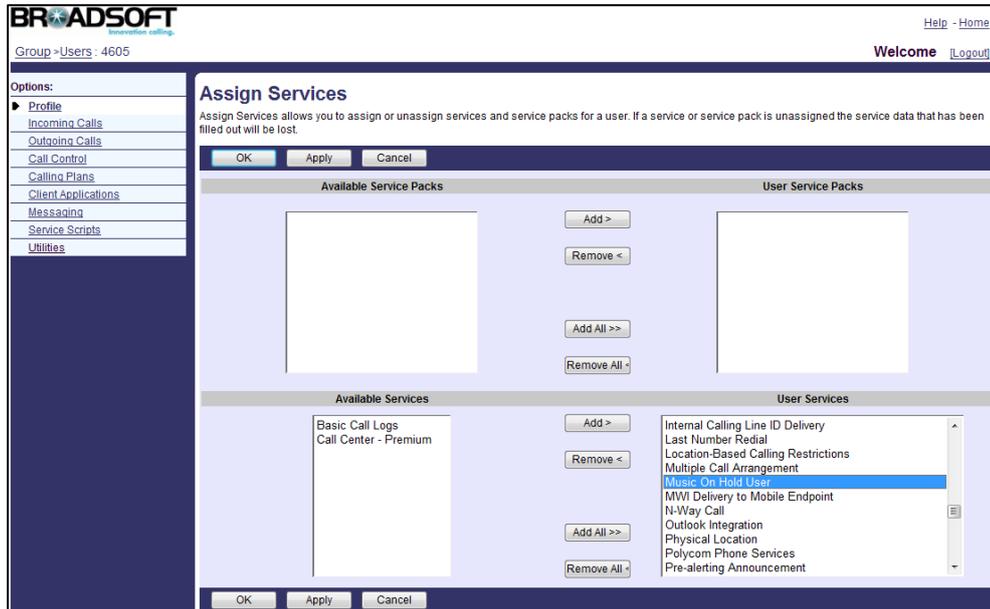
4. Make the desired change.



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

To assign the Music on Hold User service to a user:

1. Log into 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., 4605).
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Music On Hold User** and then click **Add>**.

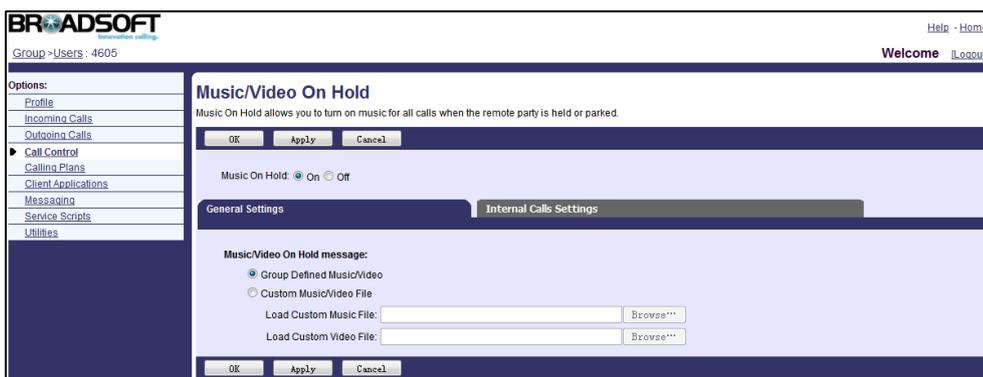


6. Click **Apply** to accept the change.

To configure Music on Hold for the user:

1. Log into 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., 4605), 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.
 - **Group Defined Music/Video:** Marking this radio box enables the IP phone to play the group defined music.
 - **Custom Music/Video File:** Marking this radio box enables the IP phone to play the user custom audio source. A custom music file needs to be loaded to the system.



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

For more information on Music/Video on Hold, refer to *BroadWorks Web Interface Administrator Guide*.

Voice Messaging

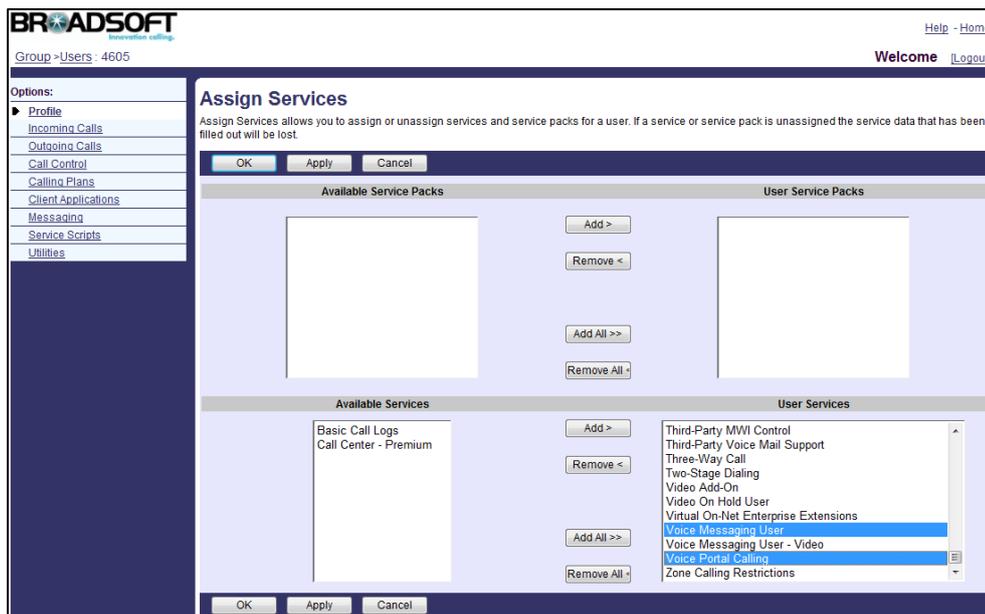
Voice messaging service allows users to record messages from callers for calls that are not answered within a specified number of rings, or for calls that receive a busy condition. BroadWorks also provides two options for voice messaging: Distribution List and Voice Portal Calling. Distribution List 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 BroadSoft Server

To assign the voice messaging and voice portal calling services to a user:

1. Log into 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., 4605).
4. Click on **Assign Services**.

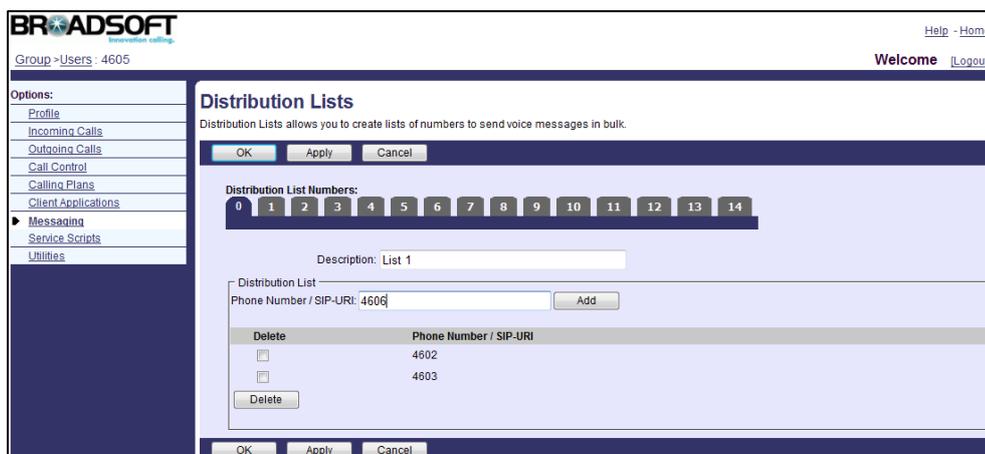
- In the **Available Services** box, select **Voice Messaging User** and **Voice Portal Calling**, and then click **Add>**.



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

To add a distribution list for the user:

- Log into the web portal as a group administrator.
- Click on **Profile->Users->Search** to display all existing users.
- Select the desired user (e.g., 4605), who has been assigned the voice messaging service.
- Click on **Messaging->Distribution Lists**.
- Click the desired distribution list number.
- 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**.



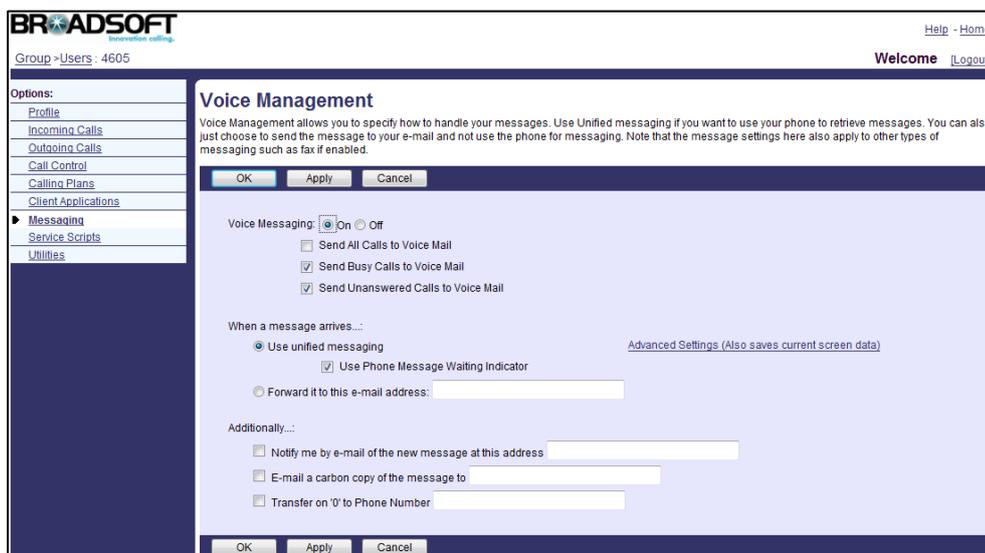
- Repeat the step 7 to add more numbers.
- Click **Apply** to accept the change.

To configure voice messaging for the user:

1. Log into 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., 4605), who has been assigned the voice messaging service.
4. Click on **Messaging->Voice Management**.
5. 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

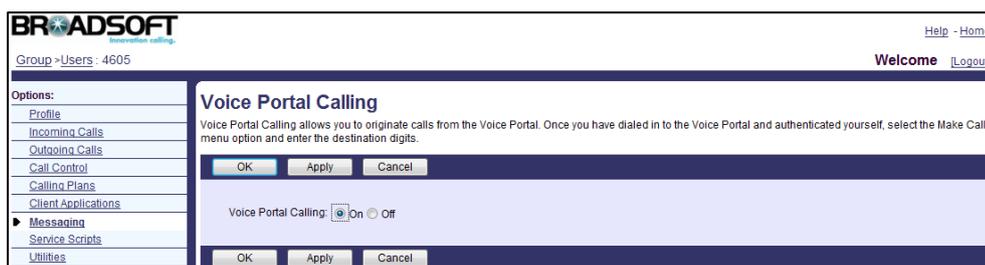


6. Click **Apply** to accept the change.

To configure voice portal calling for the user:

1. Log into 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., 4605), 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.

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

Configuring Yealink IP Phones

Voice messaging is configurable using template configuration files.

To configure voice messaging using template configuration files:

1. Add/Edit voice messaging parameters in 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., 4605) is the first user assigned to the device profile, replace “X” by “1”.

Parameter	Description	Value
voice_mail.number.X	Configures the voice number for account X. The default value is blank.	%BWVOICE-PORTAL-NUMBER-X%

The following shows an example of the voice messaging configuration in a template configuration file (e.g., %BWMACADDRESS%.cfg):

```
voice_mail.number.1 = %BWVOICE-PORTAL-NUMBER-1%
```

2. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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.
```


Upgrading Firmware

To upgrade firmware using template configuration files:

1. Add/Edit firmware URL in template configuration files (e.g., y000000000025.cfg):
firmware.url=http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%%FIRMWARE_VERSION%
2. Customize the static tag on BroadWorks. The tag name is %FIRMWARE_VERSION% and the tag value is the firmware version (e.g., 25.73.0.1.rom).
For more information, refer to [Customizing a Static Tag](#) on page 15.
3. Upload the firmware (e.g., 25.73.0.1.rom).
For more information, refer to [Uploading Static Files](#) on page 21.
4. Upload template configuration files.

For more information, refer to [Uploading Device Template Configuration Files](#) on page 17.

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://xsp.iop1.broadworks.net:80/dms/Yealink_W52P/25.73.0.1.rom
```

You can also upgrade the firmware via web user interface at the path **Phone->Upgrade**.

For more information on how to upgrade the firmware, refer to *Yealink_W52P_IP_DECT_Phones_Auto_Provisioning_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 IP phones in advance.

To check the BroadWorks server settings:

1. Log into 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).

The screenshot shows the BroadSoft web portal interface. On the left is a navigation menu with options like Profile, Resources, Services, etc. The main content area is titled 'Identity/Device Profiles' and contains a search bar and a table of profiles. The table has the following data:

Identity/Device Profile Name	Identity/Device Profile Type	Available Ports	Host Name/IP Address	MAC Address	Status	Version	Edit
4601	Yealink T28P	Unlimited		00156565461E	Online	Yealink SL...	Edit
4602	Yealink T28P	Unlimited			Online	Yealink SL...	Edit
4603	Yealink T28P	Unlimited			Online	Yealink SL...	Edit
Test_W52P	Yealink_W52P	5	10.3.6.155	0015655F9C7D	Online	Yealink SL...	Edit
W52P_SCA	Yealink_W52P	4		00156540AD50	Online	Yealink SL...	Edit

4. Select the desired device profile (e.g., Test_W52P) to edit.
5. Click on the **Profile** tab.

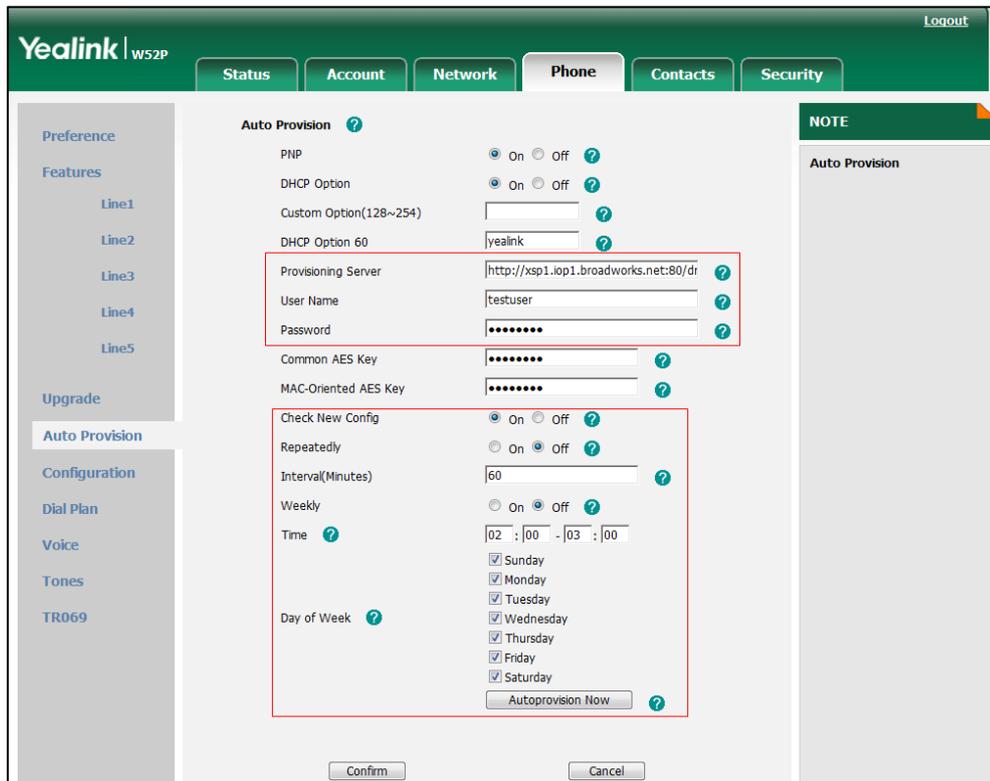
6. Check the parameters: URL, MAC address, user name and password in the corresponding fields.

The screenshot displays the 'Identity/Device Profile Modify' page in the BroadSoft web interface. The page title is 'Identity/Device Profile Modify' with a subtitle 'Modify or delete an existing group identity/device profile.' The interface includes a left-hand navigation menu with options like Profile, Resources, Services, Service Scripts, Acct/Auth Codes, Call Center, Calling Plan, Meet-Me Conferencing, and Utilities. The main content area shows the configuration for a profile named 'Test_LW52P' of type 'Yealink_W52P'. Key fields include 'Device Type URL' (http://sp1.10p1.broadworks.net:80/dms/Yealink_W52P/), 'Protocol' (SIP 2.0), 'Host Name/IP Address', 'Port', 'Transport' (Unspecified), 'MAC Address' (0015655F9C7D), 'Serial Number', 'Description', 'Outbound Proxy Server', 'STUN Server', and 'Physical Location'. Below these are statistics for 'Lines/Ports' (Assigned: 1, Unassigned: 4) and 'Authentication' settings (Use Custom Credentials, Device Access User Name: testuser, Device Access Password). Buttons for 'OK', 'Apply', 'Delete', and 'Cancel' are visible at the top and bottom of the form.

To configure the IP phone via web user interface:

1. Log into the web user interface as an administrator.
2. Click on **Phone->Auto Provision**.
3. Enter the URL, user name and password in the corresponding fields.

4. Mark the **On** radio box in the **Power On** field.



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

After the above 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: The W52P IP DECT phone downloads configuration files by HTTP

Time	Source	Destination	Protocol	Info
44.902918000	10.3.6.103	10.1.8.16	HTTP	GET /dms/Yealink_w52p/y000000000025.cfg HTTP/1.1
44.914558000	10.1.8.16	10.3.6.103	HTTP	HTTP/1.1 401 Unauthorized
44.938439000	10.3.6.103	10.1.8.16	HTTP	GET /dms/Yealink_w52p/y000000000025.cfg HTTP/1.1
45.054135000	10.1.8.16	10.3.6.103	HTTP	HTTP/1.1 200 OK (text/plain)
45.734782000	10.3.6.103	10.1.8.16	HTTP	GET /dms/Yealink_w52p/0015655f9c7d.cfg HTTP/1.1
45.744243000	10.1.8.16	10.3.6.103	HTTP	HTTP/1.1 401 Unauthorized
45.759333000	10.3.6.103	10.1.8.16	HTTP	GET /dms/Yealink_w52p/0015655f9c7d.cfg HTTP/1.1
45.951109000	10.1.8.16	10.3.6.103	HTTP	HTTP/1.1 200 OK (text/plain)

Troubleshooting

This chapter provides general troubleshooting information to help to solve the problems you might encounter when you deploy Yealink W52P IP DECT phones in the BroadWorks environment.

Why does the phone fail to download configuration files of the specified device profile?

Do the following:

1. Ensure that the configuration of the device profile is correct.
2. Check the way of download configuration files:
 - If the phone downloads configuration files via auto provisioning, ensure that the URL, user name and password configured on the phone are correct.
 - If the phone downloads configuration files via remote restart (BroadWorks sends a NOTIFY request to the phone to restart), ensure that the phone's MAC address is configured for the Device Profile.

Why can't I view the device-specific file?

Ensure that the MAC address of the phone is configured when creating a Device Profile.