Yealink

Yealink IP Phones Deployment Guide for Broadsoft UC-One Environment

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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 IP phones for the administrator using the BroadWorks device management interface. In addition, this guide provides the detailed instructions for BroadSoft integrated features. The BroadCloud features are available on the following Yealink IP phones:

- SIP-T58A and CP960 IP phones running UC-One firmware version 80 or later.
- SIP-T48G/S, SIP-T46G/S and SIP-T29G IP phones running UC-One firmware version 81 or later.
- VP59 IP phones running UC-One firmware version 83 or later.
- SIP-T57W and SIP-T54W IP phones running UC-One firmware version 84 or later.

These features require the support from the BroadSoft BroadWorks platform with patches and BroadSoft BroadCloud services. The BroadSoft BroadWorks features are available on the following Yealink IP phones:

- SIP-T58A, CP960 and W52P IP phones running UC-One firmware version 80 or later.
- SIP-T48G/S, SIP-T46G/S, SIP-T42G/S, SIP-T41P/S, SIP-T40P/G, SIP-T29G, SIP-T27G, SIP-T23P/G, SIP-T21(P) E2, SIP-T19(P) E2, W56P, W60P and CP920 IP phones running UC-One firmware version 81 or later.
- VP59, W53P and CP930W-Base IP phones running UC-One firmware version 83 or later.
- SIP-T57W, SIP-T54W, SIP-T53W and SIP-T53 IP phones running UC-One firmware version 84 or later.

These features require the 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 IP 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 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 boot files and configuration files and verify configurations.

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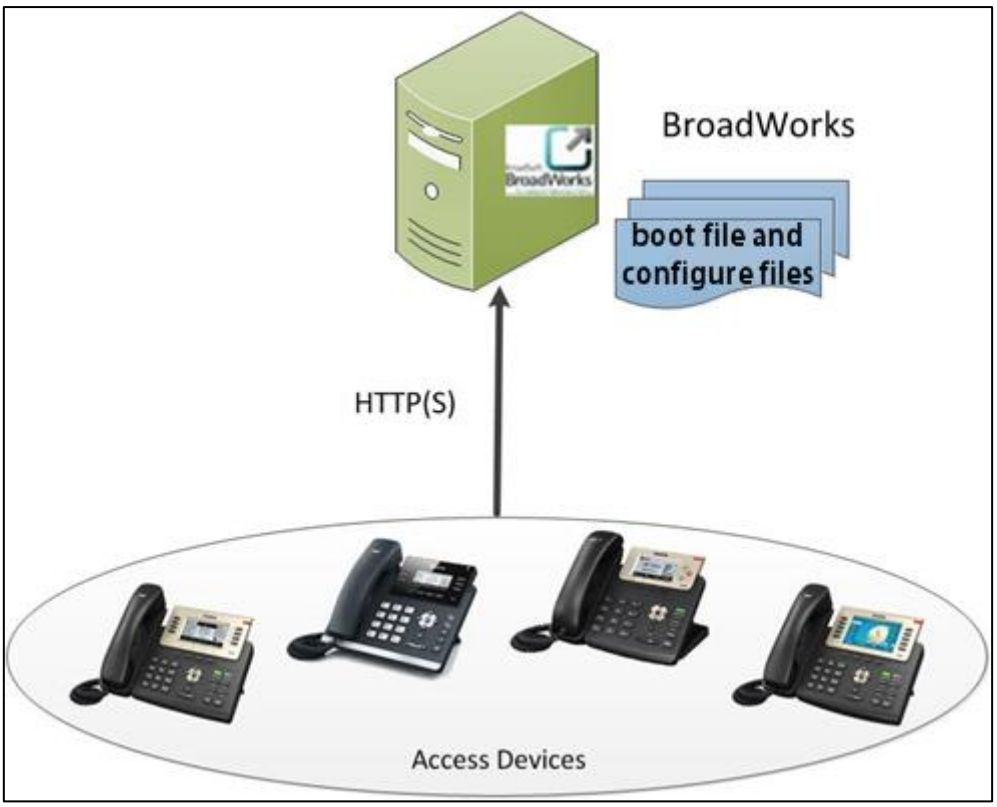
BroadWorks Device Management

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 boot file and configuration files, firmware, and other static files required to deliver services. The administrator can manage and control all aspects of device configuration centrally in the network.



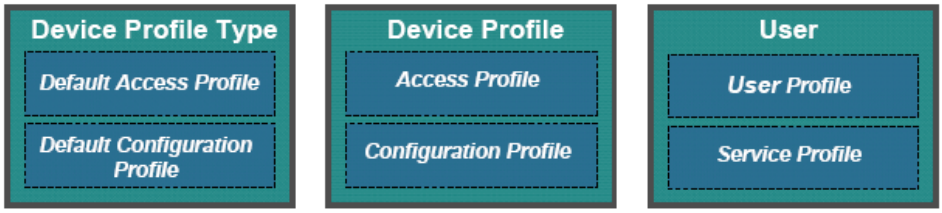
Key Concepts

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

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

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

All of these concepts are modeled directly in the BroadWorks Application Server.



Device Profile Type

The device profile type is the foundation for Device Management. It is a template for device profiles. When a new type of device is added to the network, a corresponding "device profile type" must be defined to model the characteristics of that device. The device profile type defines default (Default Access Profile) and configuration (Default Configuration Profile) settings for all devices in this type. 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.

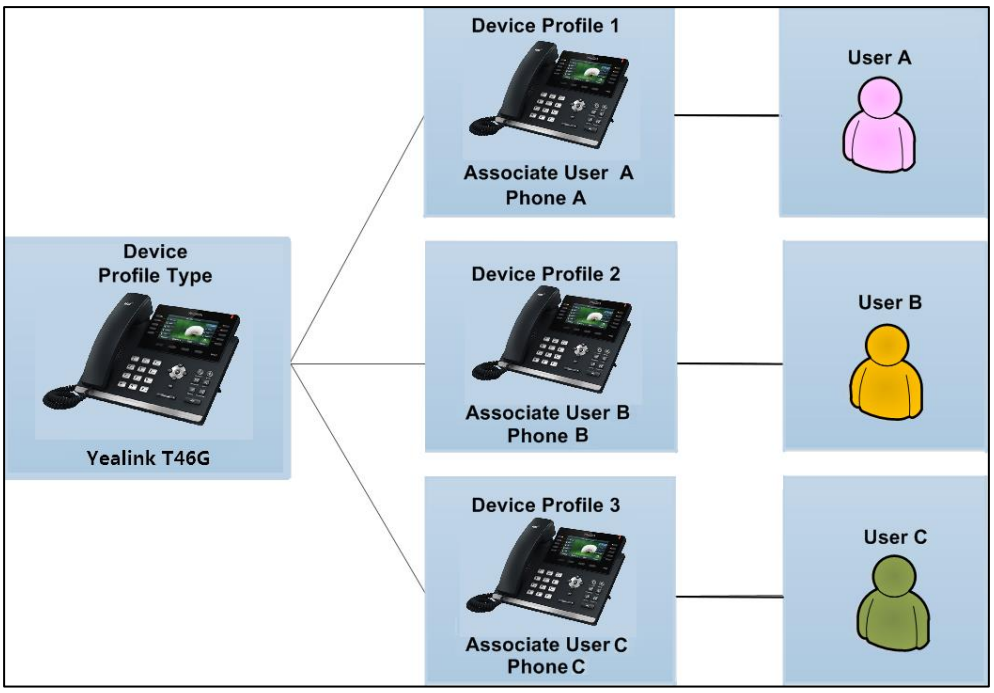
Device Profile

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 (Access Profile and Configuration Profile) 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.

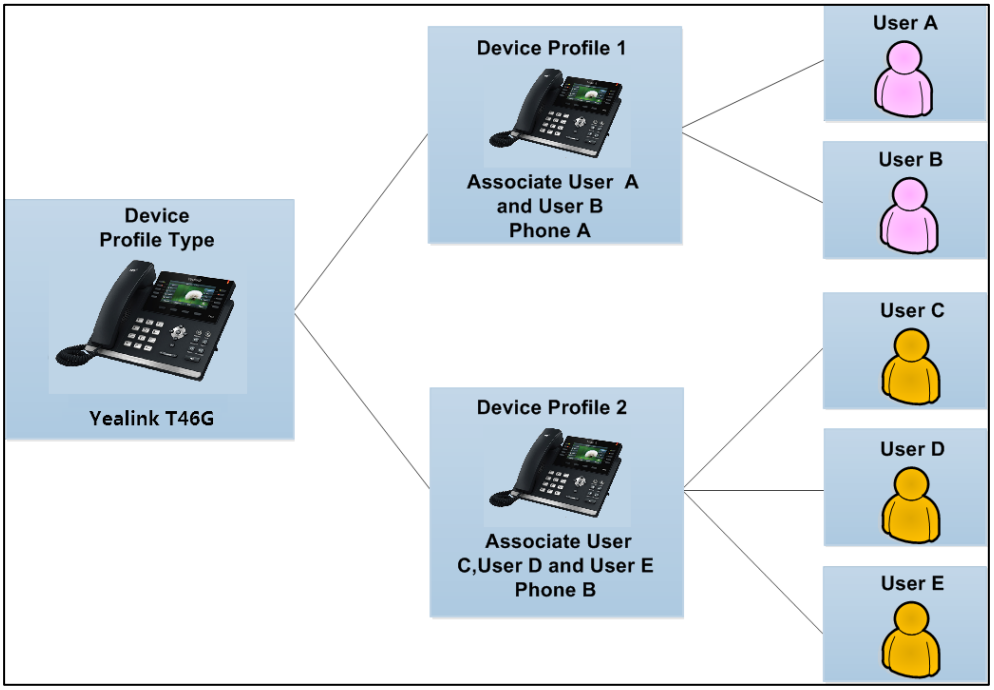
User

The administrator can assign a device profile to one user or multiple users. The number of port attributes in the device profile type allows BroadWorks to control the maximum number of users who can be associated with a given device profile (User Profile and Service Profile). For more information on how to assign the device profile to the user, refer to Assigning the Device Profile to the User.

The following figure shows one user per phone device relationship:



The following figure shows multiple users per phone device relationship:

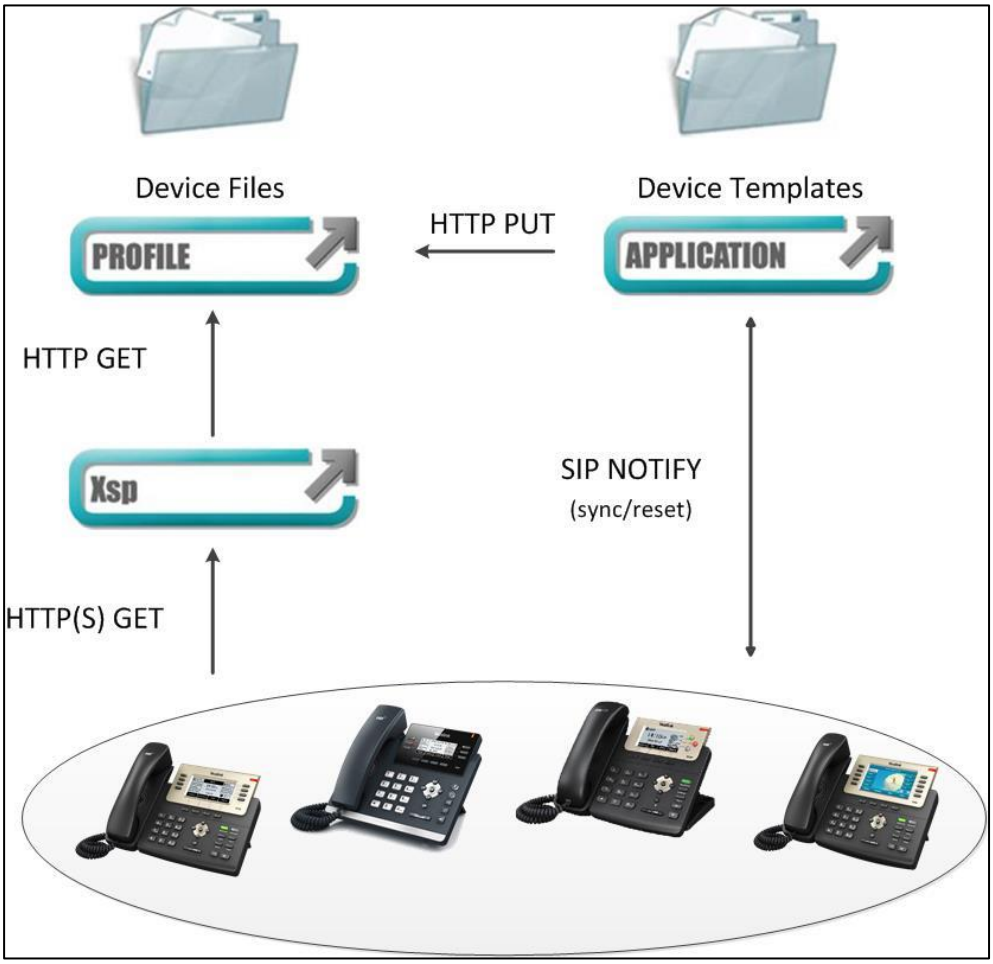


Network Architecture

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.

Customizing BroadWorks Tags

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

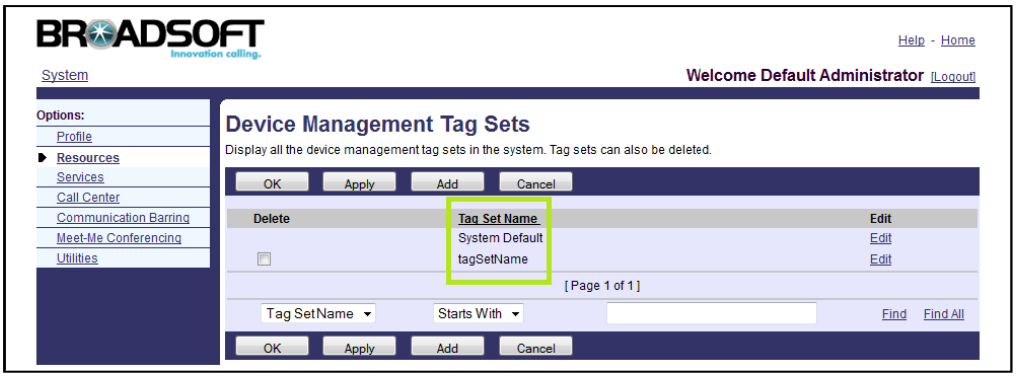
  For more information on dynamic built-in tags, refer to *BroadSoft Device Management Configuration Guide*.

- 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

Procedure

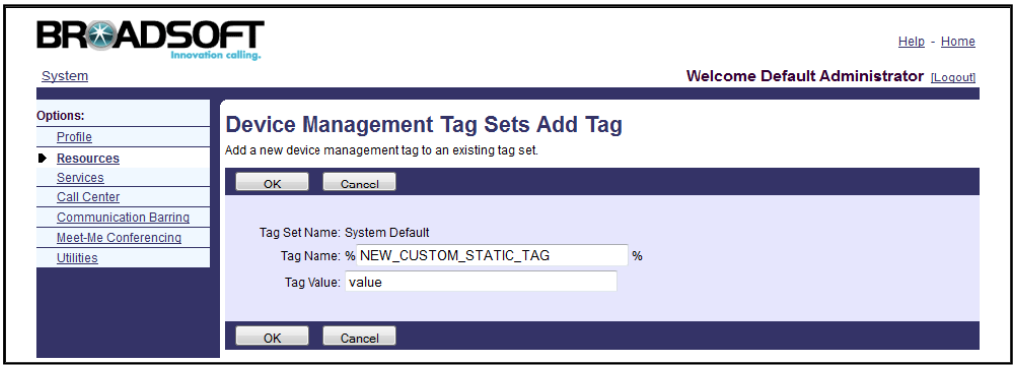
1. Click on **Resources**->**Device Management Tag Sets**.
2. Select the **System Default**.



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

   The tag name must not start with "BW".
5. Enter the desired value in the **Tag Value** field.

   The tag in the configuration template 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 the configuration template 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	The DNS server address

Tag Name	Valid Value	Description
	Example: 199.19.193.12	
%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

Procedure

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., YealinkT46-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 the configuration template files can be replaced by the configured tag value.
7. Click **Apply** to accept the change.
8. Repeat steps 4 to 7 to add more device type specific tags.

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

Tag Name	Valid Value	Description
%LANGUAGEWEB%	English Chinese_S (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones) Chinese_T (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones) French German Italian	The language of the web user interface

Tag Name	Valid Value	Description
	Polish Portuguese Spanish Turkish Russian	
%LANGUAGEGUI%	English Chinese_S (not applicable to W52P/W53P/W56P/W60P/CP930W-Base Phones) Chinese_T (not applicable to W52P/W53P/W56P/W60P/CP930W-Base Phones) French French_CA (not applicable to VP59/SIP-T58A/CP960, W52P/W53P/W56P/W60P/CP930W-Base phones) German Italian Polish Portuguese Portuguese_LA (not applicable to VP59/SIP-T58A/CP960, W52P/W53P/W56P/W60P/CP930W-Base phones) Spanish Spanish_LA (not applicable to VP59/SIP-T58A/CP960, W52P/W53P/W56P/W60P/CP930W-Base phones) Turkish Czech (only applicable to W52P phones) Swedish (only applicable to W52P/W53P/W56P/W60P/CP930W-Base phones) Hebrew (only applicable to W52P phones) Russian	The language of the phone user interface

Tag Name	Valid Value	Description
%*PhoneModel*_FIRMWARE% (e.g., T46_FIRMWARE)	<x.x.x.x>.rom Example: 28.81.193.10.rom	The firmware version
%FEATURE_KEY_SYN%	Boolean	Enables or disables feature key synchronization

Creating the Device Profile Type

Device profile types are the templates for device profiles. They can be created, modified and deleted at the system level. Creating device profile types is a crucial step in the initial planning and deployment. Device profile types should be defined in conjunction with the services being offered to the users. Device profile type can 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 default access profile**: For the aspects related to the signaling and media interoperability with BroadWorks.
- **Defining the default configuration profile**: For the aspects related to the configurations of the device.

Defining the Default Access Profile

When adding a new device profile type to the system, the first step is to define the default access profile. The default 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 default 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 default access profile are encapsulated in the "Standard Options" and the "Advanced Options" fields.

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

Parameter	Value	Description
Identity/Device Profile Type	Yealink T46	
Signaling Address Type	Intelligent Proxy Addressing	
Standard Options		

Parameter	Value	Description
Number of Ports	Limited To 6	Defines the number of users who can be associated with default device profile of a device profile type.
Ringback Tone/Early Media Support	Local Ringback - No Early Media	Determines SDP handing for initial INVITE messages sent to the device.
Authentication	Enabled	Defines whether requests for a device are authenticated.
Registration Capable	Checked	Defines whether a default device profile of this device profile type is allowed to register with the BroadWorks.
RFC3264 Hold	Checked	Defines whether the 3264 hold mechanism is used in the SIP signaling.
Advanced 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 reSync or checkSync.

Defining the Default 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.	Selects the device tag set created in the section Creating

Parameter	Value	Description
	Select the tag set name (e.g., YealinkT46-Tags) from the pull-down list of Use Default System Tag Set and Tag Set.	Device Type Specific Tags.
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.
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.
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.yealink.com	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: YealinkT46	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	3 Config File	Defines the number of configuration files for the

Parameter	Value	Description
		device profile type.
Boot File	y000000000000.boot	References configuration files in the boot file to be acquired by all your phones, and specifies the download sequence of these configuration files.
CPE System File Name	y000000000028.cfg	Specifies the system configuration file name requested by the device.
Device File Format	%BWMACADDRESS%.cfg	Specifies the device file name requested by the device.

Creating a Device Profile Type

Procedure

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

2. Click **Add**.

3. Make the desired change.
4. Click **OK** to accept the change.

Defining Device Profile Type Files

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

System Files

System Boot File

The system boot file is effectual for all phones.

The following table lists the parameters used to define the system boot file:

Parameter	Value	Description
Device Access File Format	y000000000000.boot	Specifies the name of the system boot file.
Repository File Format	y000000000000.boot	Specifies the name of the system boot 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 boot file.
Assign File	Custom	
Authentication Mode	• User Name and Password • MAC-Based	Defines the authentication method.
MAC Address In	Client Certificate	Defines where the MAC address is obtained if using MAC-Based authentication method.
MAC Address Format	Example: MAC Address Format regular expression: .*\(([0-9a-fA-F]{12})\)	Configures a regular expression describing how to extract the MAC address.
Device Access HTTP Authentication	Digest	

System Configuration File

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

- VP59: y000000000091.cfg
- T58A: y000000000058.cfg
- T57W: y000000000097.cfg
- T54W: y000000000096.cfg
- T53W/T53: y000000000095.cfg

- T48S: y000000000065.cfg
- T46S: y000000000066.cfg
- T42S: y000000000067.cfg
- T41S: y000000000068.cfg
- T48G: y000000000035.cfg
- T46G: y000000000028.cfg
- T42G: y000000000029.cfg
- T41P: y000000000036.cfg
- T40P: y000000000054.cfg
- T40G: y000000000076.cfg
- T29G: y000000000046.cfg
- T27G: y000000000069.cfg
- T23P/G: y000000000044.cfg
- T21(P) E2: y000000000052.cfg
- T19(P) E2: y000000000053.cfg
- W52P/W56P: y000000000025.cfg
- W53P/W60P/CP930W-Base: y000000000077.cfg
- CP960: y000000000073.cfg
- CP920: y000000000078.cfg

The following table lists the parameters used to define the system configuration file:

Parameter	Value	Description
Device Access File Format	<system-file-name>.cfg Example: y000000000028.cfg	Specifies the name of the system configuration file.
Repository File Format	<system-file-name>.cfg Example: y000000000028.cfg	Specifies the name of the system file configuration 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 configuration file.
Assign File	Custom	
Authentication Mode	• User Name and Password • MAC-Based	Defines the authentication method.
MAC Address In	Client Certificate	Defines where the MAC address is obtained if

Parameter	Value	Description
		using MAC-Based authentication method.
MAC Address Format	Example: MAC Address Format regular expression: .*\(([0-9a-fA-F]{12})\)	Configures a regular expression describing how to extract the MAC address.
Device Access HTTP Authentication	Digest	

Device-Specific Configuration File

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

<mac-address>.cfg

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

Parameter	Value	Description
Device Access File Format	%BWMACADDRESS%.cfg	Specifies the name of the device-specific configuration file.
Repository File Format	%BWMACADDRESS%.cfg	Specifies the name of the device-specific configuration 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 configuration file.
Assign File	Custom	
Authentication Mode	• User Name and Password • MAC-Based	Defines the authentication method.
MAC Address In	Client Certificate	Defines where the MAC address is obtained if using MAC-Based authentication method.
MAC Address Format	Example: MAC Address Format regular expression: .*\(([0-9a-fA-F]{12})\)	Configures a regular expression describing how to extract the MAC address.

Parameter	Value	Description
Device Access HTTP Authentication	Digest	

Static Files

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

The Yealink IP phones require the following static files:

- <firmware-version>.rom
- Ring.wav (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones)
- 000.GUI.English.lang (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones)
- contact.xml
- AutoDST.xml
- dialplan.xml
- dialnow.xml
- The following table lists the parameters used to define the static file:

Parameter	Value	Description
Device Access File Format	Example: 28.81.193.10.rom	Specifies the name of the static file.
Repository File Format	Example: 28.81.193.10.rom	Specifies the name of the static file stored in the Device Management repository.
File Category	Static	Specifies the type of the file.
File Customization	Allow	Determines whether the static files can be customized.
Assign File	Custom	
Authentication Mode	Not set	The static file is not authenticated.
Device Access HTTP Authentication	Basic	

Defining a Device Profile Type File

Procedure

1. Click on **Resources**->**Identity/Device Profile Types**.
2. Select the desired device profile type (e.g., Yealink-T46G).
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

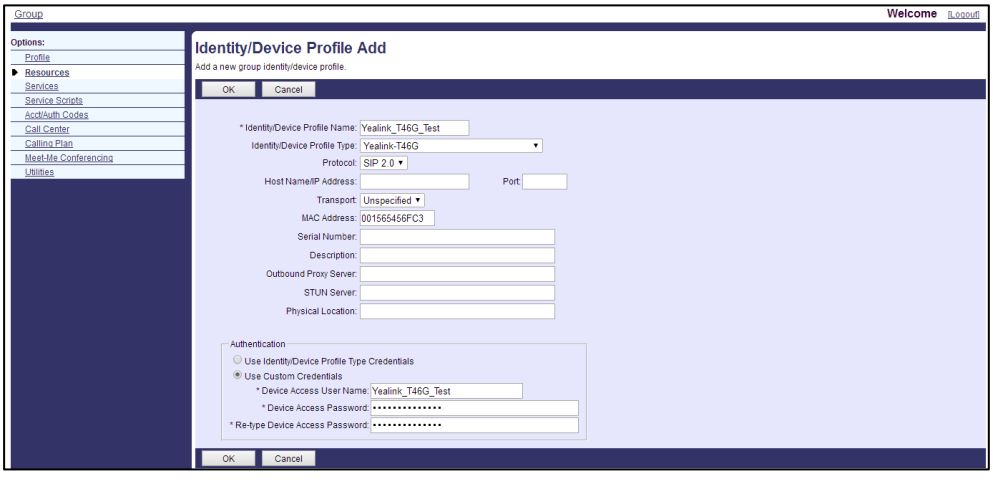
The following sections provide information on how to customize static tags, create the device profile, upload files and so on at the group level.

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 default access and default configuration profiles defined at the type level.

Procedure

1. Click on **Resources**->**Identity/Device Profiles**.
2. Click **Add**.
3. Select the desired device profile type (e.g., Yealink-T46G) from the pull-down list of **Identity/Device Profile Type**.
4. Set the following parameters:



Parameter	Example Value	Description
Identity/Device Profile Name	Yealink_T46G_Test	Defines the device profile name.
MAC Address	001565456FC3	Specifies the MAC address of the device.
Authentication	Use Custom Credentials	Specifies the authentication method.
Device Access User Name	Yealink_T46G_Test	Specifies the user name.
Device Access Password	admin-password	Specifies the password.

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

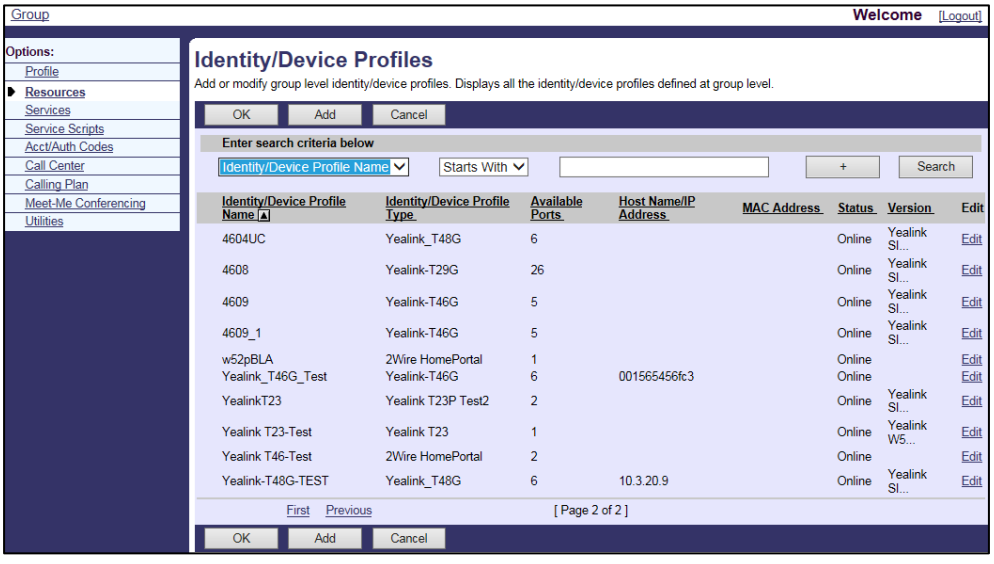
Customizing a Static Tag

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

Adding a Static Tag for the Specific Device Profile

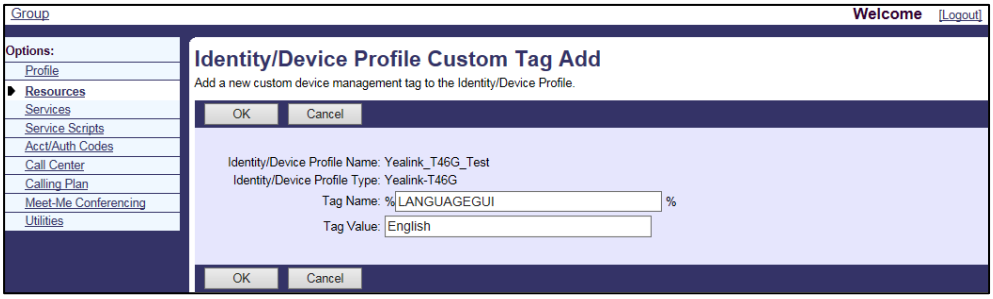
Procedure

1. Click on **Resources**->**Identity/Device Profiles**.
2. Click on **Search** to list all existing device profiles (Click **Next** to turn to the next page).



3. Select the desired device profile (e.g., Yealink_T46G_Test) and then click **Edit**.
4. Click the **Custom Tags** tab.
5. Click **Add** to add a new tag.
6. Enter the desired tag name (e.g., LANGUAGEGUI) in the **Tag Name** field.

7. Enter the desired tag value (e.g., English) in the **Tag Value** field.



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

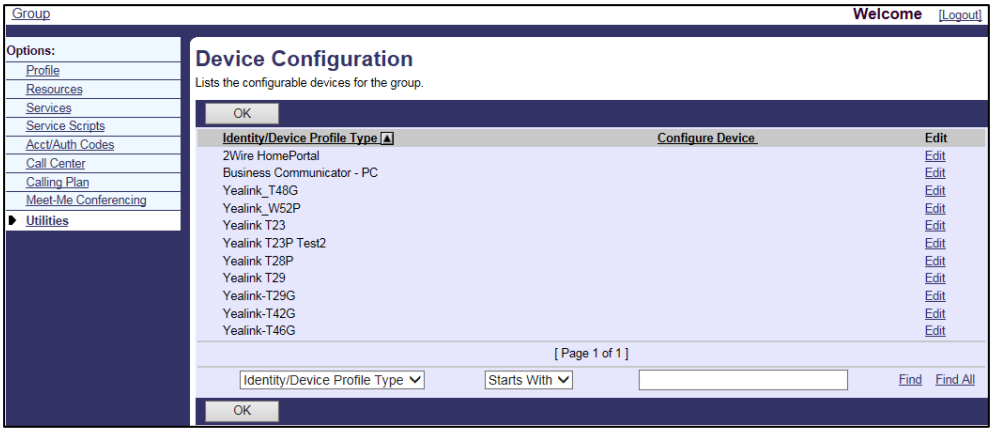
After the above settings, the customized static tag will only be effectual for the device profile (e.g., Yealink_T46G_Test).

Adding a Static Tag for the Specific Device Profile Type

Procedure

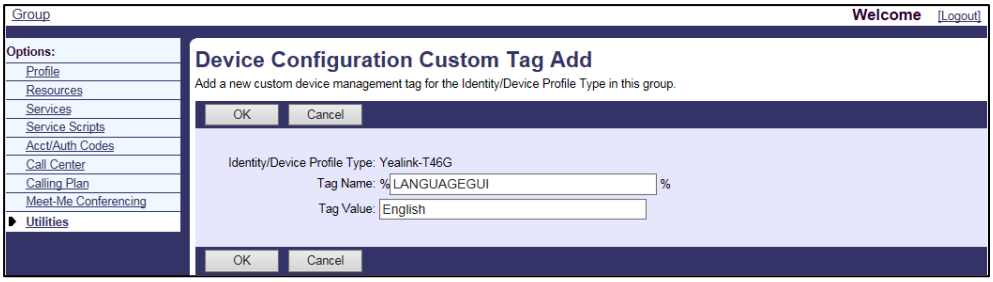
1. Click on **Utilities**->**Device Configuration**.

   The interface lists all existing device profile types.



2. Select the desired device profile type (e.g., Yealink-T46G) and then click **Edit**.
3. Click the **Custom Tags** tab.
4. Click **Add** to add a new tag.
5. Enter the desired tag name (e.g., LANGUAGEGUI) in the **Tag Name** field.

6. Enter the desired tag value (e.g., English) in the **Tag Value** field.



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

After the above settings, the customized static tag will be effectual for the device profile type (e.g., Yealink-T46G). All device profiles associated with this device profile type can also use the customized tag.

Uploading Device Template Files

Yealink provides two types of template configuration files (system and device-specific template configuration files) and a template boot file (system boot file). The boot file is only applicable to the IP phones running new firmware version (new auto provisioning mechanism).

The boot file is a valid BOOT file that can be created or edited. The boot file is first downloaded when you provision the phones. You can reference some configuration files in the boot file to be acquired by all your phones and specify the download sequence of these configuration files. For IP phones (except W53P/W60P/CP930W-Base) running firmware version 83 or later, you can reference some configuration files in the boot file to be acquired by specific groups of phones.

The boot file contains configuration files that will be downloaded by all the IP phones or specific groups of phones.

The following figure shows an example of boot file:

```
#!version:1.0.0.1
#The header above must appear as-is in the first line
include:config <y000000000028.cfg>
include:config <001565456fc3.cfg>
overwrite_mode = 1
specific_model.excluded_mode = 0
```

Before uploading the device template configuration files to BroadWorks, the built-in tags and static tags can be embedded in the configuration template files.

The following table describes system template configuration items that are generally required for SIP-T46G IP phone to work with BroadWorks.

Item	Description
System Template Configuration Items <e.g., y000000000028.cfg>	

Item	Description
static.network.internet_port.type =0	Configures the WAN port to obtain IP address from DHCP server.
local_time.ntp_server1 = %SNTP_SERVER_1% local_time.ntp_server2 = %SNTP_SERVER_2%	Configures the primary and secondary NTP servers. The tags %SNTP_SERVER_1% and %SNTP_SERVER_2% are created on BroadWorks. e.g.,%SNTP_SERVER_1%=time-a.nist.gov and %SNTP_SERVER_2%=time-b.nist.gov
call_waiting.enable = 1 call_waiting.tone = 1	Enables or disables call waiting and call waiting tone. 0 (Disable),1 (Enable)
features.feature_key_sync.enable = %FEATURE_KEY_SYN%	Enables or disables feature key synchronization. 0 (Disable),1 (Enable) The tag %FEATURE_KEY_SYN% is customized on BroadWorks e.g., %FEATURE_KEY_SYN%=1 or %FEATURE_KEY_SYN%=0
static.firmware.url = http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%%T46_FIRMWARE%	Configures the access URL for downloading the firmware. e.g., %BWDEVICEACCESSFQDN%= xsp.yealink.com, %BWDEVICEACCESSPORT%=80, %BWDMSCONTEXT%=dms and %BWDEVICEACCESSURI%=YealinkT46 These tags are dynamic built-in tags, which are predefined by BroadWorks. The tag %T46_FIRMWARE% is customized on BroadWorks. e.g., %T46_FIRMWARE%= 28.81.193.10.rom

The following table describes device-specific template configuration items that are generally required for SIP-T46G IP phone to work with BroadWorks.

Item	Description
Device-specific Template Configuration Items <%BWMACADDRESS%.cfg>	
account.1.enable = %BWLINE-BINARY-1%	Enables or disables the first line. 0 (Disable),1 (Enable) "%BWLINE-BINARY-1%" identifies whether to assign a line port to the first user.
account.1.display_name = %BWCLID-1%	Configures the name to be displayed on the phone for the first line.

Item	Description
	The tag "%BWCLID-1%" will be replaced by the Calling Line ID (CLID) retrieved from the Calling Line ID First and Last Name fields in the first user's profile on BroadWorks.
account.1.user_name = %BWLINEPORT-1%	Configures the user ID for the first line. The tag "%BWLINEPORT-1%" will be replaced by the line/port setting in the first user's address on BroadWorks.
account.1.auth_name = %BWAUTHUSER-1% account.1.password = %BWAUTHPASSWORD-1%	Configures SIP authentication for the first line. If the authentication service is assigned on BroadWorks, the tags "%BWAUTHUSER-1%" and "%BWAUTHPASSWORD-1%" will be replaced by the first user's authentication settings on BroadWorks.
account.1.blf.blf_list_uri = %BWBLF-URI-1%	Configures the BLF List for the first line. The tag "%BWBLF-URI-1%" will be replaced by the Busy Lamp Field (BLF) List URI for the first user. e.g., %BWBLF-URI-1%=sip:myblf@pbx.yealink.com If the BLF List feature is not configured for the first user, this will be left blank.
account.1.shared_line = %BWSHAREDLINE-BINARY-1%	Configures the first line as a private or shared line. 0 (Private),1 (Shared) %BWSHAREDLINE-BINARY-1% indicates whether the first line is shared.
account.1.conf_type = 2 account.1.conf_uri = %BWNETWORK-CONFERENCE-SIPURI-1%	Configures network conference for the first line. "%BWNETWORK-CONFERENCE-SIPURI-1% will be replaced by the network conference SIP URI for the first user. e.g., %BWNETWORK-CONFERENCE-SIPURI-1%=Conference01@pbx.yealink.com

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

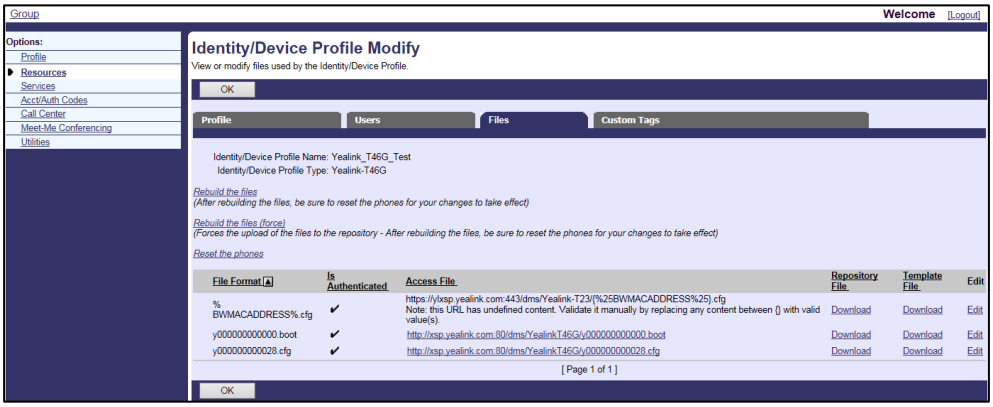
Note Commonly, template boot and configuration files for each phone model have been uploaded by the system administrator. At the group level, you can upload the new template files for the specified phone to override the old template files. For more information on how to define template boot and configuration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

Uploading Device Template Files at the Profile Level

Procedure

1. Click on **Resources**->**Identity/Device Profiles**.
2. Click **Search** to list all existing device profiles.
3. Select the desired device profile (e.g., Yealink_T46G_Test) and then click **Edit**.
4. Click the **Files** tab.

   The interface lists all existing template boot file and configuration files.



5. Select the desired template file (e.g., %BWMACADDRESS%.cfg) and then click **Edit**.
6. Mark the **Custom** radio box in the **Assign File** block.
7. Click **Browse** to upload the desired template file.

8. Click **Apply** to accept the change.
9. Repeat the above steps to upload more template files.

After the above settings, the template boot and configuration files will only be effectual for the device profile (e.g., Yealink_T46G_Test).

Uploading Device Profile Type Template Files at the Group Level

Procedure

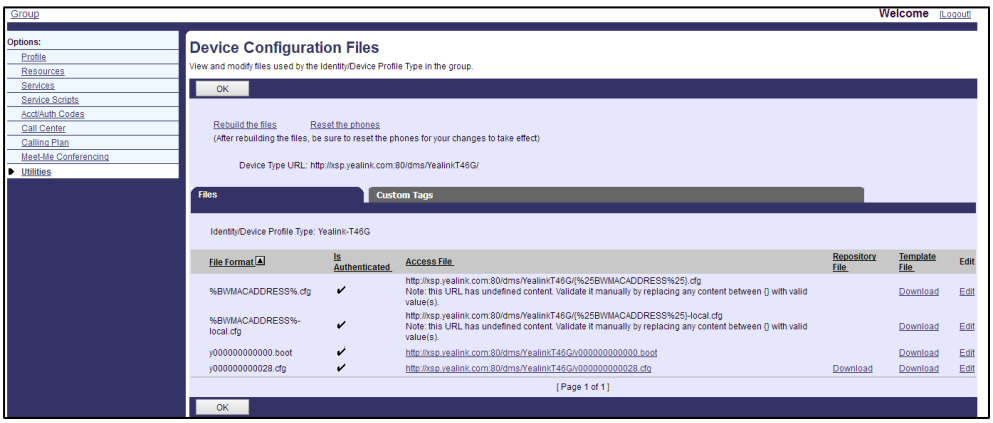
1. Click on **Utilities**->**Device Configuration**.

   The interface lists all existing device profile types.

2. Select the desired device profile type (e.g., Yealink-T46G) and then click **Edit**.

3. Click the **Files** tab.

   The interface lists all existing template boot file and configuration files.



4. Select the desired template file (e.g., y000000000028.cfg) and then click **Edit**.

5. Mark the **Custom** radio box in the **Assign File** block.

6. Click **Browse** to upload the desired template file.

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

8. Repeat the above steps to upload more template files.

After the above settings, the template boot and configuration files will be effectual for the device profile type (e.g., Yealink-T46G). All device profiles associated with this device profile type can download the template boot and configuration files.

Uploading Static Files

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

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.

Uploading Static Files at the Profile Level

Procedure

1. Click on **Resources**->**Identity/Device Profiles**.
2. Click **Search** to list all existing device profiles (Click **Next** to turn to the next page).
3. Select the desired device profile (e.g., Yealink_T46G_Test) and then click **Edit**.
4. Click the **Files** tab.

   The interface lists all existing files.
5. Select the desired static file (e.g., 28.81.193.10.rom) and then click **Edit**.
6. Mark the **Custom** radio box in the **Assign File** block.
7. Click **Browse** to upload the desired static file.
8. Click **Apply** to accept the change.

After the above settings, the static files will only be effectual for the device profile (e.g., Yealink_T46G_Test).

Uploading Static Files at the Group Level

Procedure

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

   The interface lists all existing device profile types.
2. Select the desired device profile type (e.g., Yealink-T46G) and then click **Edit**.
3. Click the **Files** tab.

   The interface lists all existing files.
4. Select the desired static file to edit (e.g., 28.81.193.10.rom).
5. Mark the **Custom** radio box in the **Assign File** block.
6. Click **Browse** to upload the desired static file.
7. Click **Apply** to accept the change.

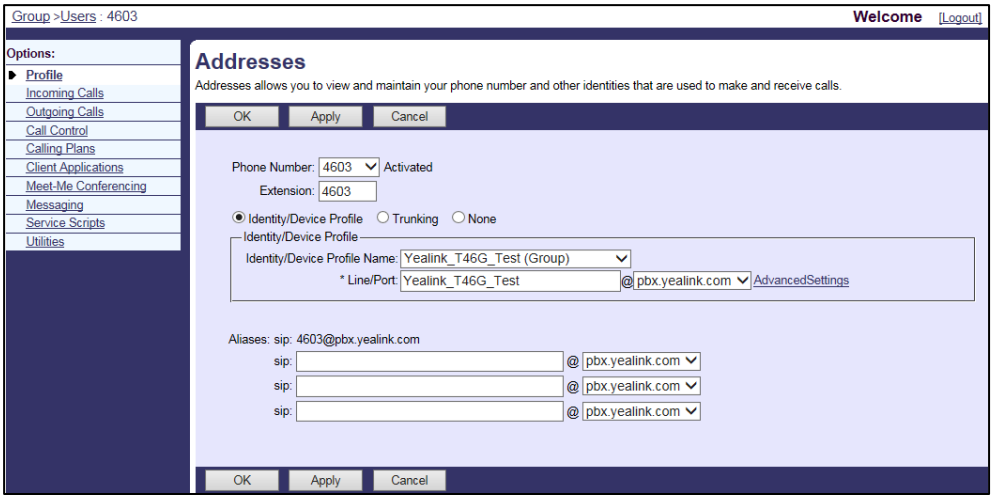
After the above settings, the static files will be effectual for the device profile type (e.g., Yealink-T46G). All device profiles associated with this device profile type can download the static files.

Assigning the Device Profile to the User

Procedure

1. Click on **Profile**->**Users**.
2. Click **Search** to list all existing users.

3. Select the desired user.
4. Click on **Addresses**.
5. Mark the **Identity/Device Profile** radio box.
6. In the **Identity/Device Profile** block, select the created device profile (e.g., Yealink_T46G_Test) from the pull-down list of **Identity/Device Profile Name**.
7. Enter the register's user name in the **Line/Port** field.
8. Select the domain name (e.g., pbx.yealink.com) from the pull-down list after the sign **@**.

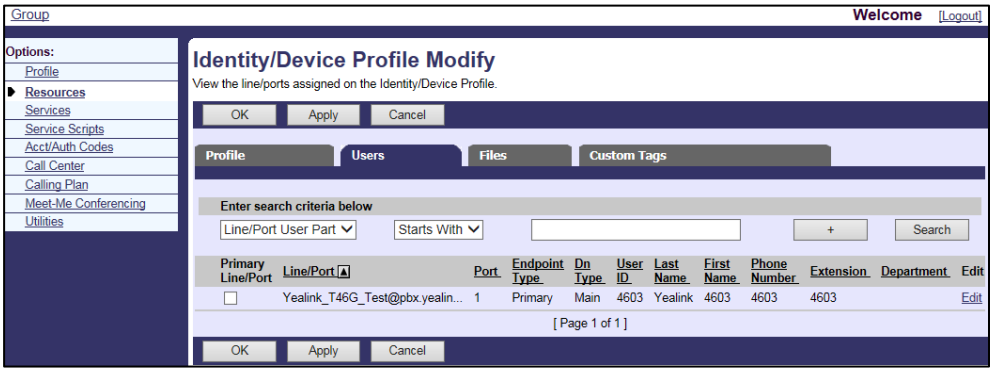


9. Click **Apply** to accept the change.

Checking the Users Assigned the Device Profile

Procedure

1. Click on **Resources**->**Identity/Device Profiles**.
2. Click **Search** to display all existing device profiles (Click **Next** to turn to the next page).
3. Select the desired device profile (e.g., Yealink_T46G_Test) and then 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 4603 has been assigned to the device profile Yealink_T46G_Test).

Configuring BroadSoft Integrated Features

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

- BroadCloud Features
- Xtended Services Interface
- Simultaneous Ring Personal
- Line ID Blocking
- Anonymous Call Rejection
- BroadWorks Anywhere
- Remote Office
- BroadSoft Directory
- BroadSoft Call Log
- Local Call Log
- Call Park
- Group Paging
- Instant Group Call
- Hunt Group
- CommPilot Call Manager
- Authentication
- Authorization/Account Codes
- Call Waiting
- Diversion Inhibitor
- Do Not Disturb
- Call Forward
- Group Night Forwarding
- Alternate Numbers
- Sequential Ring
- Call Transfer
- Feature Key Synchronization
- Network Conference
- Call Pickup
- Calling Line ID Presentation

- Calling Line ID Blocking Override
- Connected Line Identification Presentation
- Connected Line Identification Restriction
- Meet-Me Conferencing
- Busy Lamp Field List
- Shared Call Appearance
- Music/Video on Hold
- Priority Alert
- Voice Messaging/Video Voice Messaging
- Automatic Call Distribution
- Hoteling
- Flexible Seating
- Centralized Call Recording
- Executive and Assistant
- Security Classification
- BroadWorks Mobility
- Call Decline Policy
- Emergency Call
- Silent Alerting

To configure the above features on Yealink IP phones, check whether BroadSoft active feature is enabled (the value of the parameter "bw.enable" is set to 1) and the SIP server type is set to BroadSoft (the value of the parameter "account.X.sip_server_type" is set to 2). Contact Yealink field application engineer for more information.

BroadCloud Features

BroadCloud is an Extensible Messaging and Presence Protocol (XMPP)-based collaboration service. This service can interoperate with Yealink VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G IP phones that support XMPP.

The following shows the available BroadCloud features on the Yealink IP phones:

- **BroadCloud Buddies**: It enables users to share information of buddies with the BroadTouch Business Communicator (BTBC) client application.
- **BroadCloud Favorites**: It enables users to mark buddies as favorites with BroadTouch Business Communicator (BTBC) client application.
- **BroadCloud Presence**: It enables users to share presence information with the BroadTouch Business Communicator (BTBC) client application.

The BroadCloud features require the support from the BroadSoft BroadWorks platform with

patches and BroadSoft BroadCloud services. You must set up the BroadWorks server and BroadCloud services. For more information, refer to http://xchange.broadsoft.com/php/xchange/support.

All BroadCloud information is stored in the cloud and synchronized among all clients (BTBC and IP phones). When a client changes its BroadCloud information, it informs the cloud server of the changes, and then the cloud server notifies all clients.

Configuring Yealink IP Phones

Procedure

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

Parameters	Permitted Values	Default
bw.xmpp.enable	**Boolean**	**0**
Description: Enables or disables UC feature. **0**-Disabled **1**-Enabled **Note**: If you change this parameter, the IP phone will reboot to make the change take effect.		
features.uc_username	**String within 99 characters**	**Blank**
Description: Configures the user name for UC authentication.		
features.uc_password	**String within 32 characters**	**Blank**
Description: Configures the password for UC authentication.		
bw.xmpp.change_presence.enable	**Boolean**	**0**
Description: Enables or disables to change your presence status on the IP phone. **0**-Disabled **1**-Enabled		
bw.xmpp.presence_icon.mode	**Boolean**	**0**

Parameters	Permitted Values	Default
Description: Enables or disables to display presence icon in a new style. **0**-Disabled **1**-Enabled **Note**: For more detail on the presence icon, refer to *Yealink_IP_Phone_Features_Integrated_with_BroadSoft_UC-One_User_Guide*.		
bw.xmpp.change_presence.force_manual.enable	**Boolean**	**1**
Description: Enables or disables to synchronize the presence status to BroadWorks server when you change your presence status manually on the IP phone. **0**-Disabled **1**-Enabled		
phone_setting.dsskey_directory_auto.enable	**Boolean**	**1**
Description: Enables or disables the Auto Favorite feature. **0**-Disabled **1**-Enabled If it is set to 1 (Enabled), the IP phone will download information of favorites from the cloud server and automatically configure UC Favorite keys from the first unused line key (the line key type is configured as N/A or Line). If a line key is used, the IP phone will skip to the next unused line key. **Note:** It works only if "bw.xmpp.enable" is set to 1 (Enabled).		
phone_setting.uc_favorite_sequence_type	**0, 1, 2 or 3**	**0**
Description: Configures the order of UC Favorite keys to be assigned automatically. **0**-linekey->exp1 key->expN key **1**-exp1 key ->expN key ->linekey **2**-linekey page1->page1 from exp1 key to expN key ->page2 from exp1 key to expN key ->...->linekey from page2 to page3 **3**-page1 from exp1 key to expN key ->page2 from exp1 key to expN key ->...->linekey N above is the number of your connected expansion modules. **Note:** It works only if "phone_setting.dsskey_directory_auto.enable" is set to 1 (Enabled). To assign Ext Key, make sure the expansion module has been connected to		

Parameters	Permitted Values	Default
the phone in advance. It is only applicable to SIP-T57W/T54W/T48S/T48G/T46S/T46G/T29G IP phones.		
phone_setting.keytype_sequence	**blf_list, uc_favorite, favorite or a combination of them**	**Blank**
Description: Configures the display order of BLF List, UC Favorite, Favorite keys when two or three types appear simultaneously. If it is left blank, the display order is: BLF List keys->UC Favorite keys->Favorite keys. The IP phone displays the keys with the left-to-right order. For example, "favorite,uc_favorite,blf_list" means the display order is: Favorite keys->UC Favorite keys->BLF List keys. If only one type is configured, the configured type will have the highest priority. For example, "blf_list" means the IP phone preferentially display the BLF List keys, and remaining keys' display order is: UC Favorite keys->Favorite keys (the default order). **Note**: If Auto Linekeys feature is enabled (features.auto_linekeys.enable = 1), the Line keys (the line key type is configured as Line) will be shown first. It is only applicable to SIP-T57W/T54W/T48S/T48G/T46S/T46G/T29G IP phones running firmware version 83 or later.		
features.uc_dir.match_tail_number	**Integer greater than or equal to 0**	**4**
Description: Configures the minimum matched digits of the tail numbers of BroadCloud Buddy. When entered number matches the tail numbers of a buddy in the buddy directory, the IP phone will automatically display the matched results on the LCD screen when placing a call. If it is set to 0, the entered number must exactly match the number of BroadCloud Buddy. If it is set to other values (e.g., 4), the entered number less than 4 digits would not match with the BroadCloud contact. **Example:** If there is a BroadCloud Buddy name "Sunmy" with phone number "785656" and the parameter "features.uc_dir.match_tail_number" is set to "4", "**5656**", "8**5656**" or "78**5656**" would match "Sunmy (785656)". "**656**", "**56**" or "**6**" would not match "Sunmy (785656)".		
directory_setting.bw_uc_buddies.enable	**Boolean**	**0**

Parameters	Permitted Values	Default
Description: It enables or disables the IP phone to automatically search entries from the BroadSoft Buddies directory, and display results on the pre-dialing/dialing screen. **0**-Disabled **1**-Enabled		
directory_setting.bw_uc_buddies.priority	**Integer greater than or equal to 0**	**6**
Description: It configures the search priority of the BroadSoft Buddies directory.		
search_in_dialing.bw_uc_buddies.enable	**Boolean**	**0**
Description: It enables or disables the users to access the BroadSoft Buddies directory by pressing the **Directory**/**Dir** soft key. **0**-Disabled **1**-Enabled		
directory_setting.bw_uc_buddies.priority	**Integer greater than or equal to 0**	**12**
Description: It configures the display priority of the BroadSoft Buddies directory.		

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

bw.xmpp.enable = 1

features.uc_username = abc@demo.bc.im

features.uc_password = a123

bw.xmpp.change_presence.enable = 1

The user can access BroadCloud features using phone menu or pressing DSS keys. The user can change his/her presence status using a My Status key. For more information, refer to *Yealink_IP_Phone_Features_Integrated_with_BroadSoft_UC-One_User_Guide*.

2. Add/Edit DSS key parameters in the configuration template files:

   You can configure a line key as a Network UC Favorites/UC Favorite/Buddies/My Status key.

The "X" is an integer which specifies the sequence number of the line key. For SIP-T57W/T48S/T48G, X = 1-29; for VP59/SIP-T58A/T54W/T46S/T46G/T29G, X = 1-27.

Parameters	Permitted Values
linekey.X.type	**Integer**
Description: Configures the line key type. **62**-Network UC Favorites **63**-UC Favorite (It is configurable only when the parameter "phone_setting.dsskey_directory_auto.enable" is set to 0 (Disabled).) **64**-Buddies **65**-My Status (It is configurable only when the parameter "bw.xmpp.change_presence.enable" is set to 1 (Enabled).)	
linekey.X.line	**Integer from 1 to 16**
Description: Configures the line to apply to UC Favorite key. **1**-Line1 **2**-Line2 **3**-Line3 … **16**-Line16	
linekey.X.label	**String within 99 characters**
Description: (Optional.) Configures the label displayed on the LCD screen for each line key.	

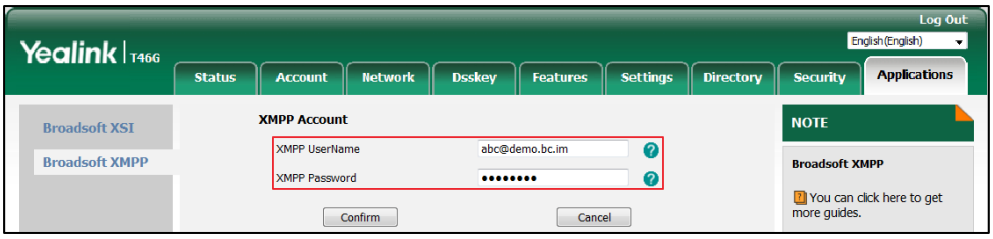
The following shows an example of a Buddies key configuration in a template configuration file (e.g., y000000000028.cfg):

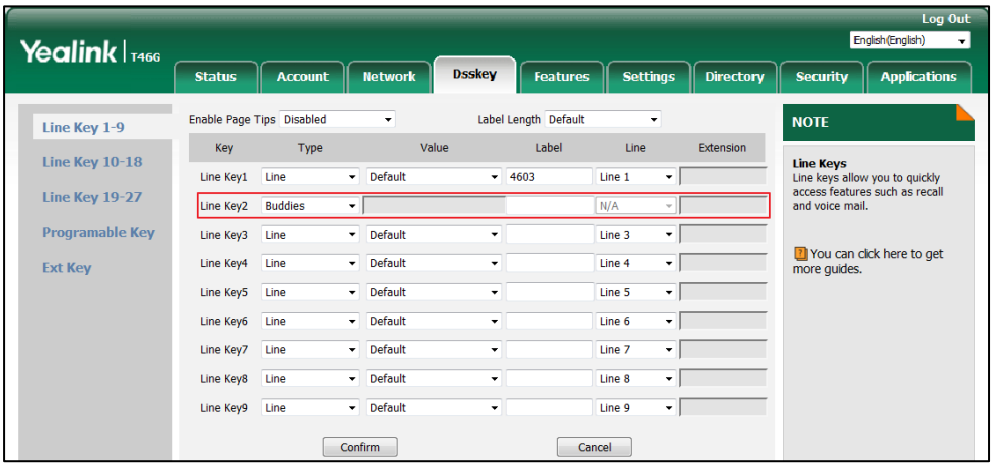
linekey.1.type = 64

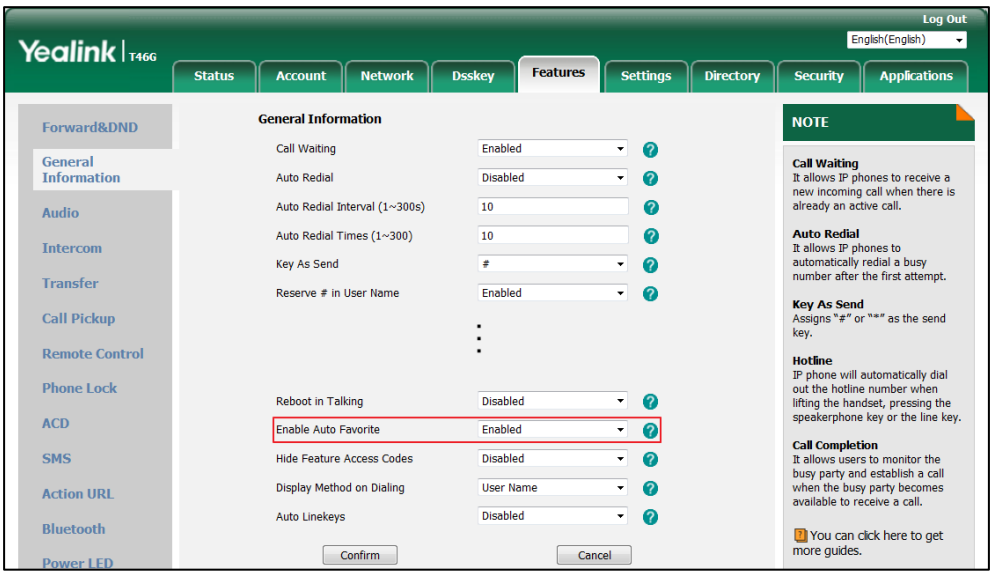
3. Upload template boot and configuration files.

For more information, refer to Uploading Device Template Files.

After successful update, user can find the web user interface of the SIP-T46G IP phone is similar to the ones shown as below:

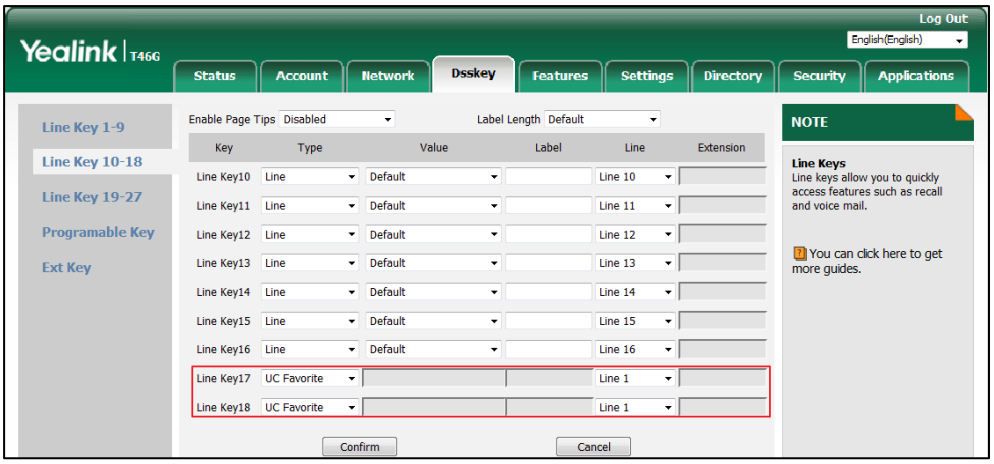






When Auto Favorite feature is enabled, the IP phone will download information of favorites from the cloud server and automatically configure UC Favorite keys from the first unused line key (the line key type is configured as N/A or Line). If a line key is used, the IP phone will skip to the next

unused line key.



Xtended Services Interface (XSI)

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

IP phones interoperating with BroadWorks XSI support the following features:

- Simultaneous Ring Personal (not applicable to W52P/W56P/CP930W-Base phones)
- Line ID Blocking (not applicable to W52P/W56P phones)
- Anonymous Call Rejection (not applicable to W52P/W56P phones)
- BroadWorks Anywhere (not applicable to W52P/W56P/CP930W-Base phones)
- Remote Office (not applicable to W52P/W56P/CP930W-Base phones)
- BroadSoft Directory
- BroadSoft Call Log
- Call Park Feature via XSI Mode (not applicable to W52P phones)
- Call Waiting Feature via XSI Mode
- Voice Messaging/Video Voice Messaging
- Centralized Call Recording (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones)
- Executive and Assistant (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones)
- BroadWorks Mobility (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones)
- Group Night Forwarding (not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones)

- Silent Alerting (not applicable to W52P/W56P/CP930W-Base IP phones)

Note Before configuring the features above, 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 phone can use the main or alternate user ID for XSI authentication.

The Yealink IP phones running new firmware version, 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 phone, which can be obtained through Device Management configuration file. No end user input or manual configuration is required.

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.

To use SIP Credentials for XSI Authentication, ensure that the SIP register name and password of the corresponding user are properly pre-configured on the phone.

Configuring Yealink IP Phones

Procedure

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

The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for W52P/W56P, X=1-5; W53P/W60P/CP930W-Base, X=1-8; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
bw.xsi.enable	**Boolean**	**0**
Description: Enables or disables the Broadsoft XSI feature. **0-**Disabled **1-**Enabled **Note**: If you change this parameter, the IP phone will reboot to make the change take effect. For W52P/W56P Phones, the default value is 1 (Enabled).		
sip.authentication_for_xsi	**Boolean**	**0**
Description: Configures the authentication mechanism for the XSI. **0-**User Login Credentials for XSI Authentication **1-**SIP Credentials for XSI Authentication If it is set to 0 (User Login Credentials for XSI Authentication), the IP phone uses the XSI user ID and password for XSI authentication. If it is set to 1 (SIP Credentials for XSI Authentication), the IP phone uses the XSI user ID, the register name and password of the corresponding SIP account for XSI authentication. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled).		
account.X.xsi.user	**%BWLOGIN-ID-X%**	**Blank**
Description: Configures the user ID for XSI access authentication. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled).		
account.X.xsi.password	**%XSIPASSWORD-X%**	**Blank**
Description: Configures the password for XSI access authentication. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled) and it is required only when the value of the parameter "sip.authentication_for_xsi" is set to 0 (User Login Credentials for XSI Authentication).		
account.X.xsi.host	**%XSP_ADDRESS%**	**Blank**
Description: Configures the IP address of the Xtended Services Platform server for account X. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled).		

Parameters	Permitted Values	Default
account.X.xsi.server_type	**HTTP or HTTPS**	**HTTP**
Description: Configures the access protocol of the Xtended Services Platform server for account X. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled).		
account.X.xsi.port	**Integer from 1 to 65535**	**80**
Description: Configures the port of the Xtended Services Platform server for account X. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled).		

The following shows example configurations for user login credentials for XSI authentication for account 1 in the template configuration file (e.g., %BWMACADDRESS%.cfg):

bw.xsi.enable = 1

sip.authentication_for_xsi = 0

account.1.xsi.user = %BWLOGIN-ID-1%

account.1.xsi.password = %XSIPASSWORD-1%

account.1.xsi.host = %XSP_ADDRESS%

account.1.xsi.server_type = HTTP

account.1.xsi.port = 80

2. Customize the static tags on BroadWorks.

   The following table shows an example:

Tag Name	Value
%BWLOGIN-ID-1%	4602@pbx.yealink.com
%XSIPASSWORD-1%	yealink
%XSP_ADDRESS%	xsp.yealink.com

   For more information, refer to Customizing a Static Tag.

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

3. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

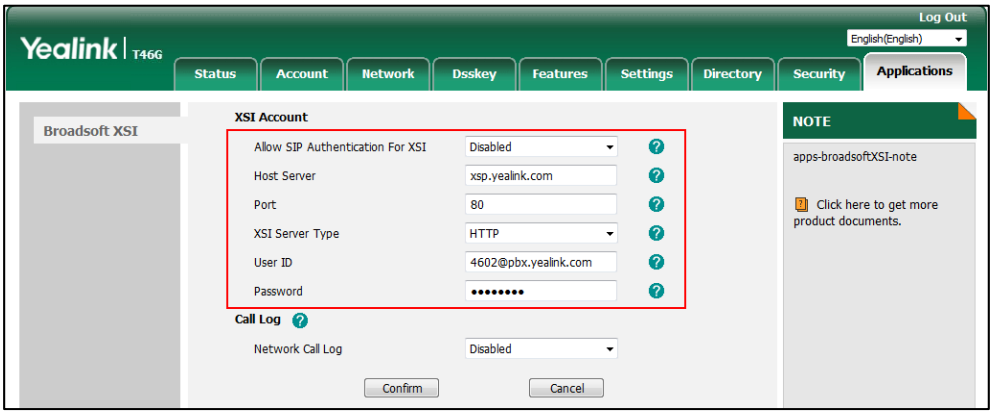
   After the above configurations, the tags in the template file will be replaced by the actual parameter values. An example for the XSI authentication mechanism is shown as below:

   account.1.xsi.user = 4602@pbx.yealink.com

   account.1.xsi.password = yealink

   account.1.xsi.host = xsp.yealink.com

After successful update, user can find the web user interface of the SIP-T46G (running firmware 81 or later) IP phone is similar to the one shown as below if the user selects the XSI authentication mechanism:



The following shows example configurations for SIP credentials for XSI authentication for account 1 in a template configuration file (e.g., %BWMACADDRESS%.cfg):

bw.xsi.enable = 1

sip.authentication_for_xsi = 1

account.1.xsi.user = %BWLOGIN-ID-1%

account.1.auth_name = %BWAUTHUSER-1%

account.1.password = %BWAUTHPASSWORD-1%

account.1.xsi.host = %XSP_ADDRESS%

account.1.xsi.server_type = HTTP

account.1.xsi.port = 80

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:

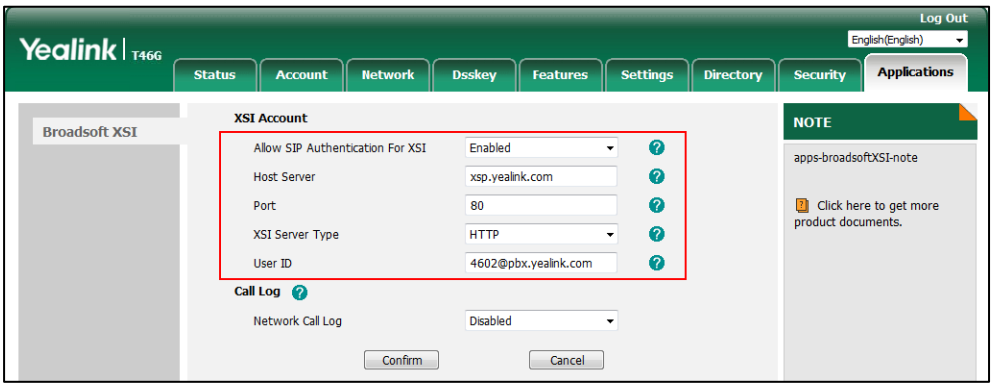
account.1.xsi.user = 4602@pbx.yealink.com

account.1.auth_name = 4602

account.1.password = yealink#1105

account.1.xsi.host = xsp.yealink.com

After successful update, user can find the web user interface of the SIP-T46G (running firmware 81 or later) IP phone is similar to the one shown as below if the user selects the SIP authentication mechanism:



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. This feature is not applicable to W52P/W56P/CP930W-Base phones.

Note Before configuring Simultaneous Ring Personal feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Simultaneous Ring Personal configurations can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

For more information on Simultaneous Ring Personal, refer to *BroadWorks Web Interface Administrator Guide*.

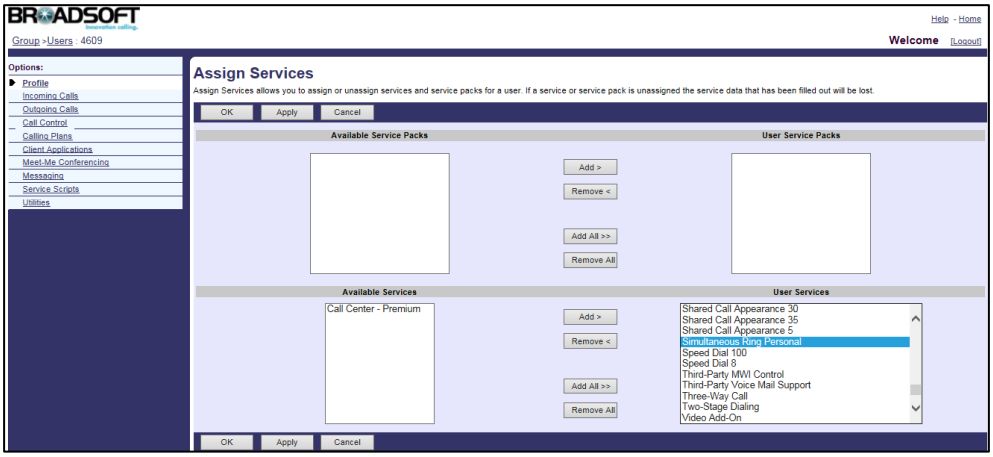
Configuring the BroadSoft Server

Assigning the Simultaneous Ring Personal Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).

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



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

Configuring Simultaneous Ring Personal for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile->Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the Simultaneous Ring Personal service.
5. Click on **Incoming Calls->Simultaneous Ring Personal**.
6. 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.

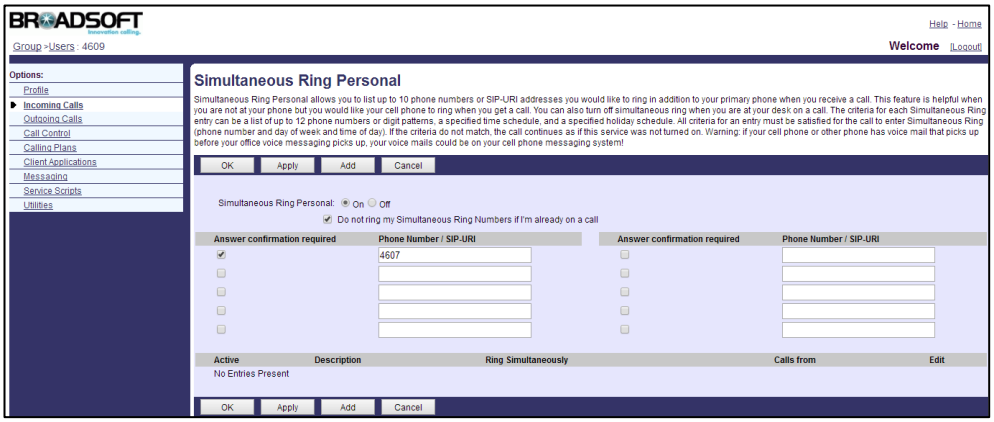
The following shows an example:

Simultaneous Ring Personal: Selected

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

Answer confirmation required: Selected

Phone Number / SIP-URI: 4607



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

Adding a Simultaneous Ring Personal Entry

You can define and activate/deactivate selective criteria entries. The criteria for each Simultaneous Ring entry can be a list of up to 12 phone numbers or digit patterns, a specified time schedule, and a specified holiday schedule.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile->Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the Simultaneous Ring Personal service.
5. Click on **Incoming Calls->Simultaneous Ring Personal**.
6. Click **Add**.
7. Set the parameters of the Simultaneous Ring Personal criteria.

   The following shows an example:

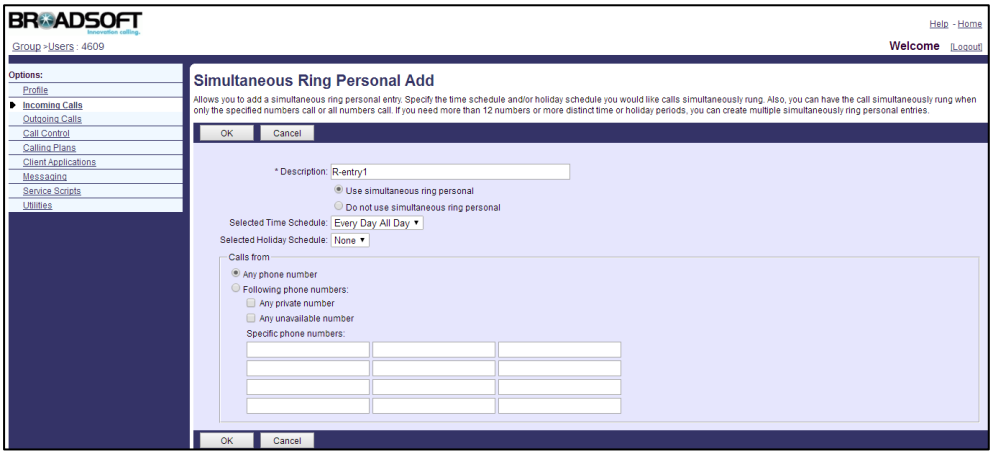
   Description: R-entry1

   Use simultaneous ring personal: Selected

   Selected Time Schedule: Every Day All Day

   Selected Holiday Schedule: None

Calls from: Any phone number



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

Line ID Blocking

Line ID Blocking allows a user to block his identity from showing up when placing a call. When a user with this feature enabled places a call, the BroadWorks sends an INVITE to the callee with From header: From: "Anonymous"<sip:anonymous@anonymous.invalid>. The callee's phone LCD screen presents "anonymous" instead of the caller's identity. This feature does not apply to calls from within a group. This feature is not applicable to W52P/W56P phones.

Note Before configuring Line ID Blocking feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Line ID Blocking configurations can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

For more information on Line ID Blocking, refer to *BroadWorks Web Interface Administrator Guide*.

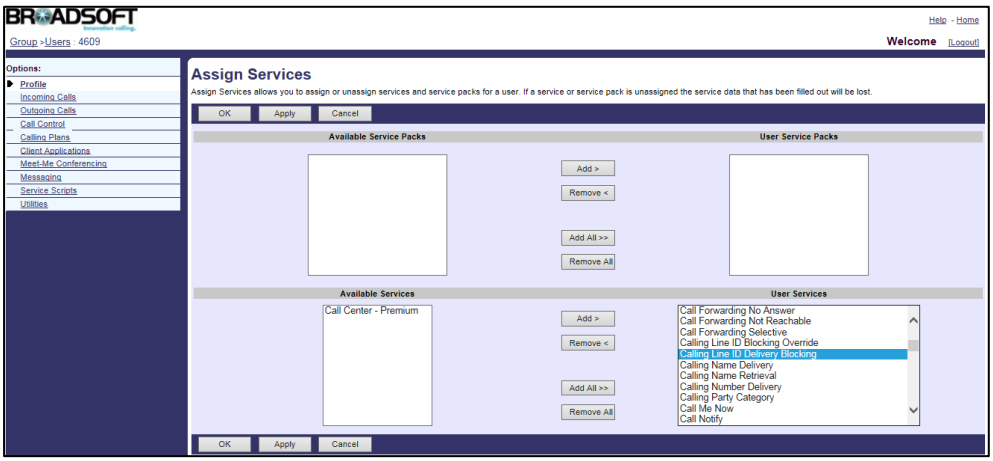
Configuring the BroadSoft Server

Assigning Calling Line ID Delivery Blocking Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).

5. Click on **Assign Services**.
6. In the **Available Services** box, select **Calling Line ID Delivery Blocking** and then click **Add>**.

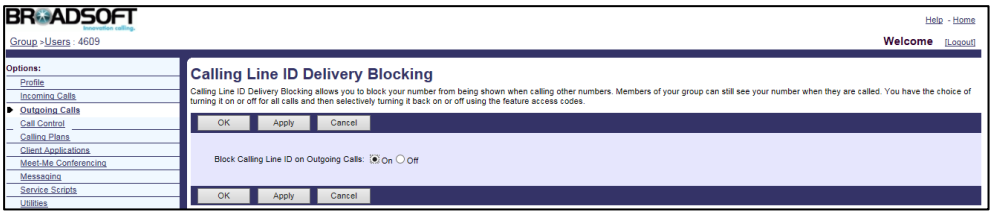


7. Click **Apply** to accept the change.

Activating Line ID Blocking for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the calling line ID delivery blocking service.
5. Click on **Outgoing Calls**->**Line ID Blocking**.
6. Mark the **On** radio box in the **Block Calling Line ID on Outgoing Calls** field.



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

Anonymous Call Rejection

Anonymous Call Rejection allows a user to automatically reject incoming calls from callers who deliberately block their identities (phone number and name) from showing up. This feature is not applicable to W52P/W56P phones.

Note Before configuring Anonymous Call Rejection feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Anonymous Call Rejection configurations can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

For more information on Anonymous Call Rejection, refer to *BroadWorks Web Interface Administrator Guide*.

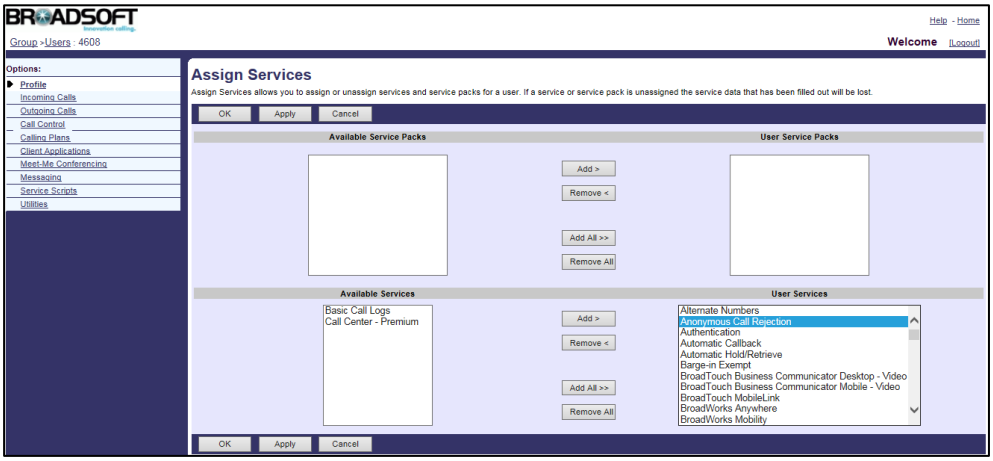
Configuring the BroadSoft Server

Assigning the Anonymous Call Rejection Service to a User

This service does not apply to calls from within a group.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4608).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Anonymous Call Rejection** and then click **Add>**.

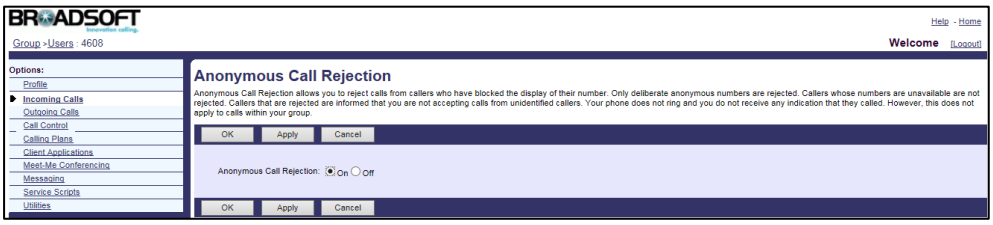


7. Click **Apply** to accept the change.

Activating Anonymous Call Rejection for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4608), who has been assigned the Anonymous Call Rejection service.
5. Click on **Incoming Calls**->**Anonymous Rejection**.
6. Mark the **On** radio box in the **Anonymous Call Rejection** field



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

BroadWorks Anywhere

BroadWorks Anywhere is useful for users demanding the flexibility with their fixed and mobile devices. This feature allows users to designate a single phone number for incoming and outgoing calls, regardless of which phone they are currently using. For example, IP desk phone, mobile phone or home phone. This feature is not applicable to W52P/W56P/CP930W-Base phones.

Note Before configuring the BroadWorks Anywhere feature, make sure that Remote Office (refer to Remote Office) is turned off and the XSI (refer to Xtended Services Interface) has been configured. If the BroadWorks XSI is configured on the IP phone, the BroadWorks Anywhere configurations can be synchronized between the IP phone and the BroadWorks server.

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

Configuring the BroadSoft Server

Creating a BroadWorks Anywhere Portal

The BroadWorks Anywhere portal is a virtual user service that handles incoming calls from the BroadWorks Anywhere locations and prompts users for the destination address. You can create one or more BroadWorks Anywhere portals, each with its own characteristics.

Procedure

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

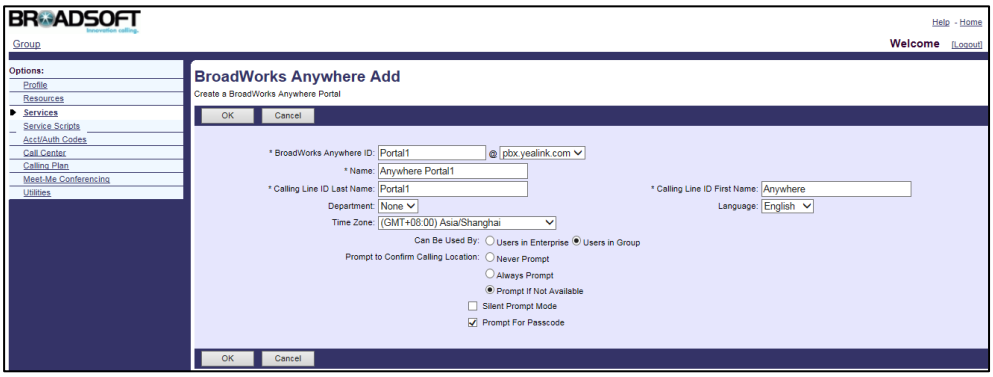
   The following shows an example:

   BroadWorks Anywhere ID: Portal1

   Name: Anywhere Portal1

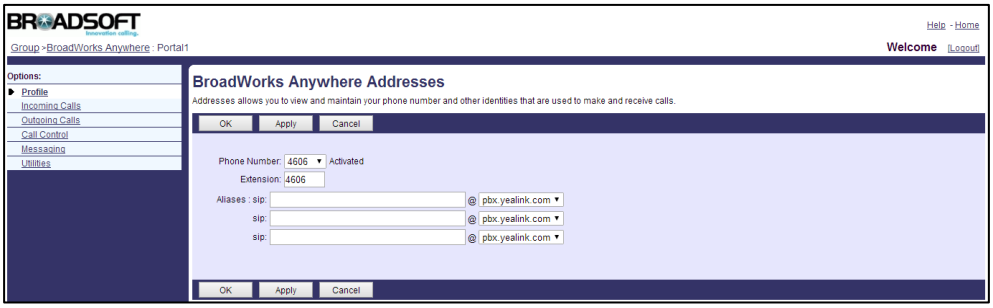
   Calling Line ID Last Name: Portal1

   Calling Line ID First Name: Anywhere



5. Click **OK** to accept the change.
6. Select the anywhere portal added above and then 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.



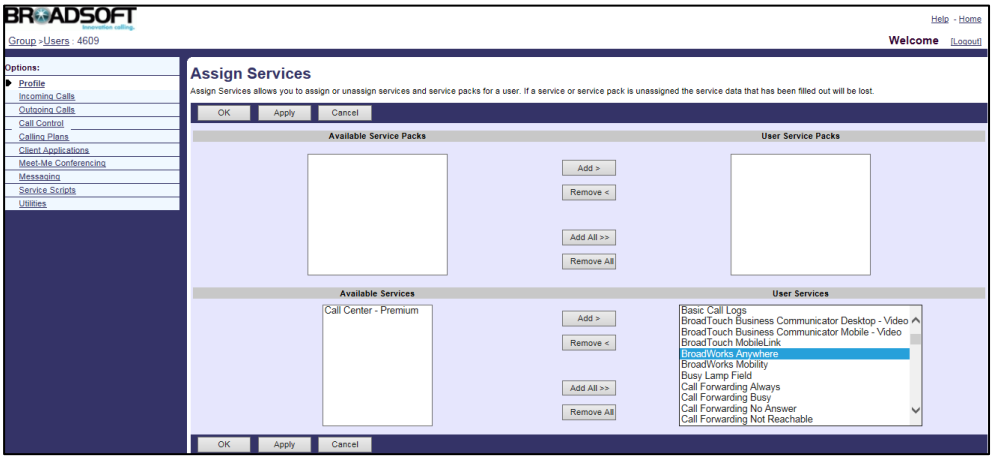
10. Click **Apply** to accept the change.

Assigning the BroadWorks Anywhere Service to a User

The BroadWorks Anywhere service cannot be assigned to virtual users.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **BroadWorks Anywhere** and then click **Add>**.



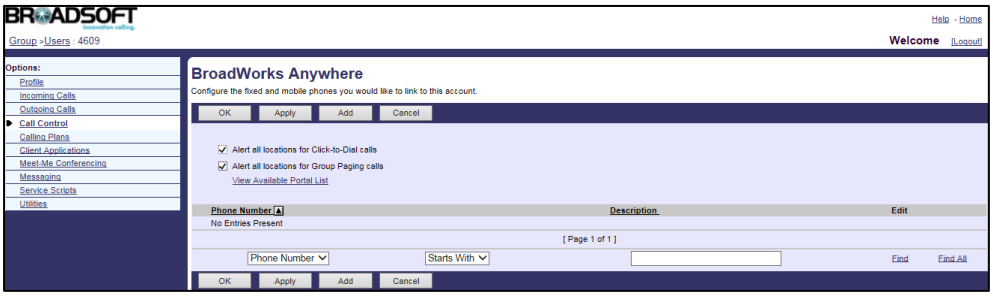
7. Click **Apply** to accept the change.

Specifying BroadWorks Anywhere Locations for a User

Procedure

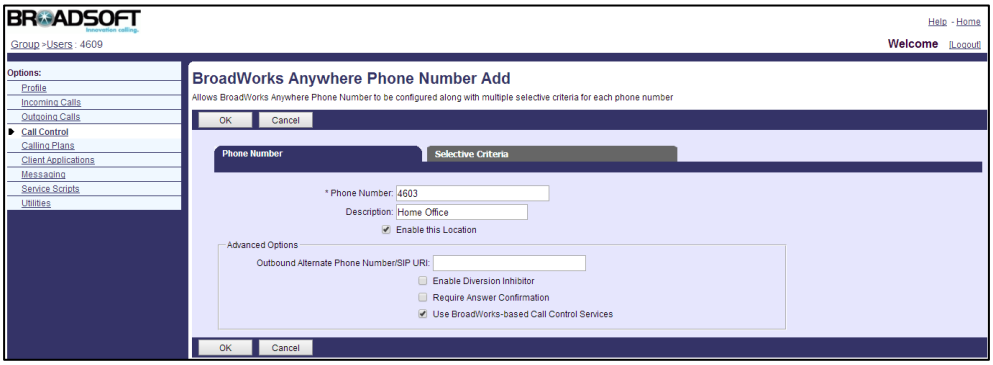
1. Log into the web portal as a group administrator.

2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the BroadWorks Anywhere service.
5. Click on **Call Control**->**BroadWorks Anywhere**.
6. Check the **Alert all locations for Click-to-Dial calls** checkbox.
7. Check the **Alert all locations for Group Paging calls** checkbox.

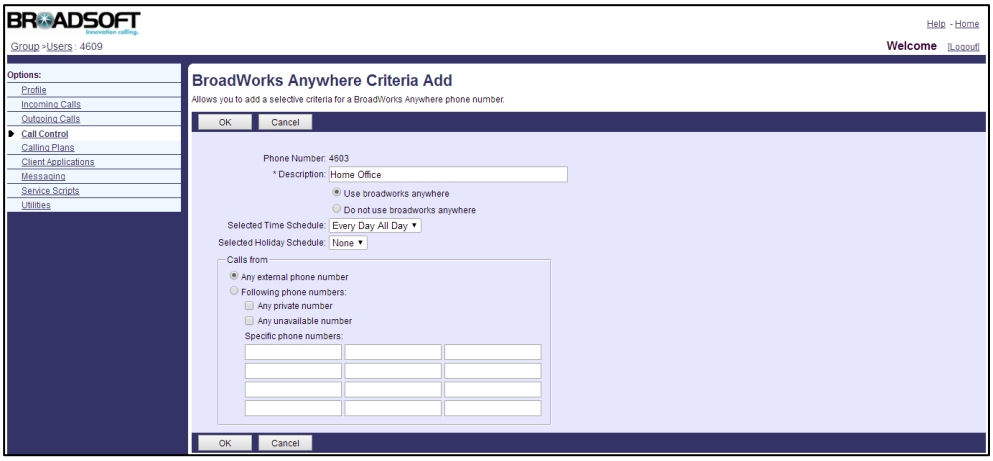


8. Click **Apply** to accept the change.
9. Click **Add** to add a BroadWorks Anywhere location.
10. Enter the phone number (e.g., 4603) in the **Phone Number** field.
11. Enter the description (e.g., Home Office) in the **Description** field.
12. Check the **Enable this Location** checkbox, which enables this location for BroadWorks Anywhere.
13. Configure the advanced options:

- **Outbound Alternate Phone Number/SIP URI**: Enter the phone number/SIP URI in this field and this phone number will ring when the IP phone rings.
- **Enable Diversion Inhibitor**: Checking this checkbox prevents a call from being forwarded to another location if you have call forward activated.
- **Require Answer Confirmation**: Checking this checkbox enables the BroadWorks server to prompt an answer confirmation when a call to this anywhere location is answered by the user.
- **Use BroadWorks-based Call Control Services**: Checking this checkbox enables call control services to be performed by BroadWorks Anywhere location.



14. Click on the **Selective Criteria** tab.
15. Click **Add** to add the criterion for the phone number.



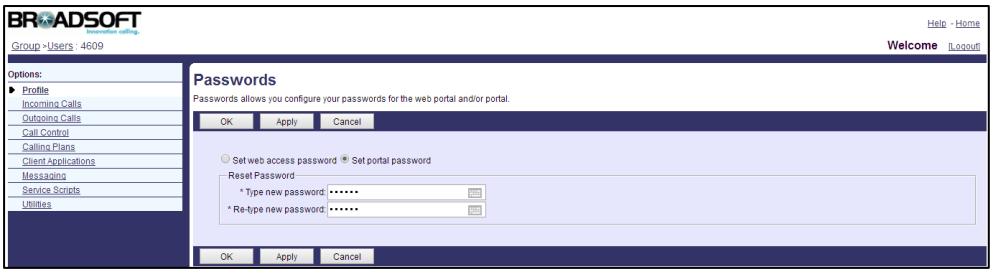
16. Click **OK** to accept the change.
17. Repeat steps 14 to 15 to add more criteria for the phone number.

Changing the Portal Password for BroadWorks Anywhere

This portal password is used for authentication when a user uses BroadWorks Anywhere feature. It is also applied to for BroadWorks Hoteling.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been specified BroadWorks Anywhere locations.
5. Click on **Profile**->**Passwords**.
6. Mark the **Set portal password** radio box.
7. Enter the new password in the **Type new password** field.
8. Re-enter the new password in the **Re-type new password** field.



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

Remote Office

Remote Office is especially useful for telecommuters and mobile workers, as it enables them to use all of their phones' features while working remotely (for example, extension dialing, transfers, conference calls, Outlook Integration, directories and so on). This feature is not applicable to W52P/W56P/CP930W-Base phones.

Note Before configuring Remote Office feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Remote Office configurations can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

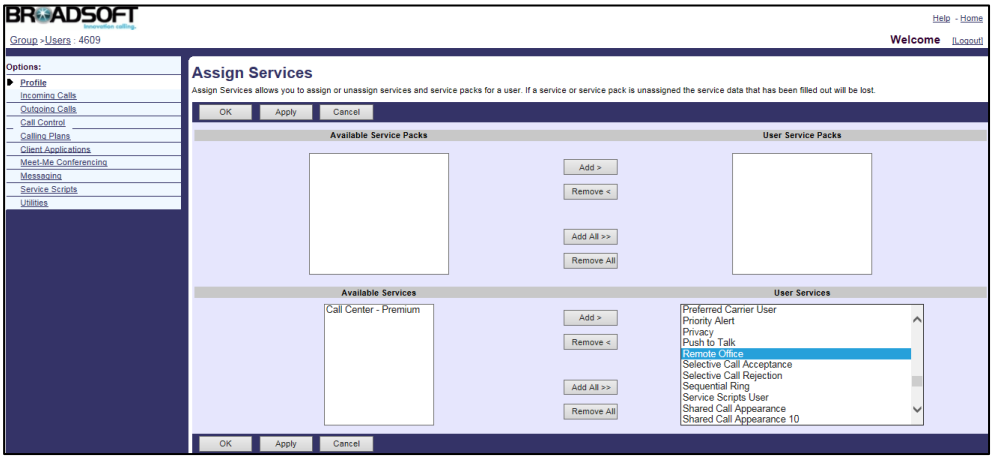
For more information on Remote Office, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Remote Office Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Remote Office** and then click **Add>**.



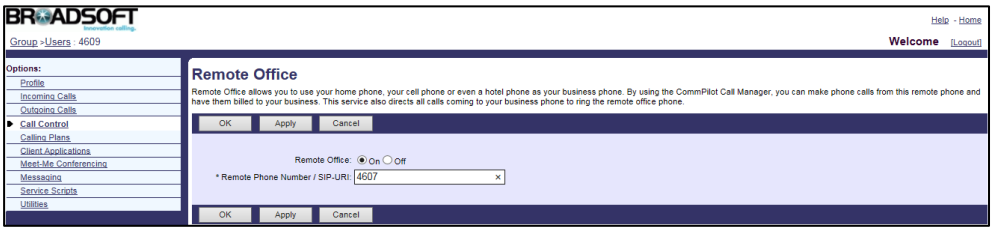
7. Click **Apply** to accept the change.

Configuring Remote Office Feature for the User

You can activate/deactivate the Remote Office feature and assign a remote phone number.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).
5. Click on **Call Control**->**Remote Office**.
6. Mark the **On** radio box in the **Remote Office** field.
7. Enter the remote phone number in the **Remote Phone Number/SIP-URI** field.



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

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 Before configuring BroadSoft Directory feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the BroadSoft Directory can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

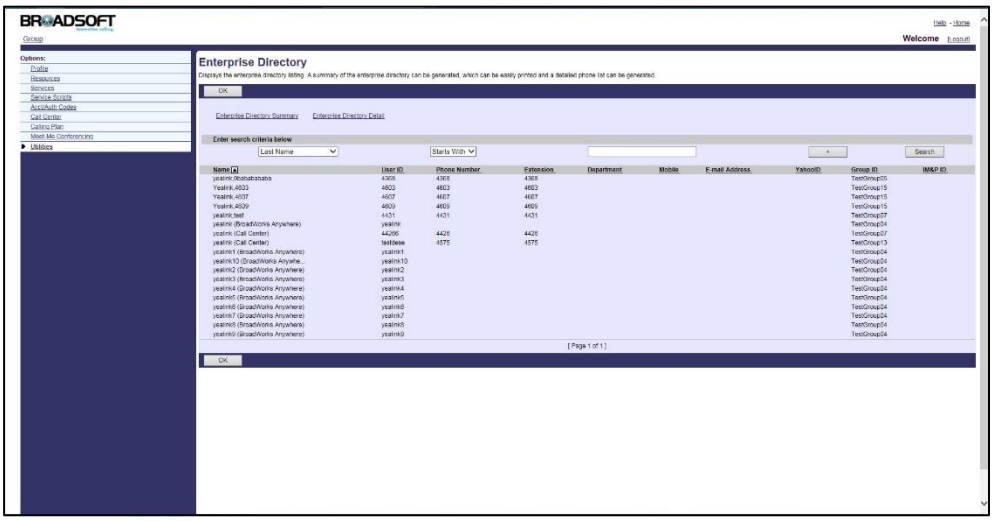
For more information on BroadSoft Directory, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

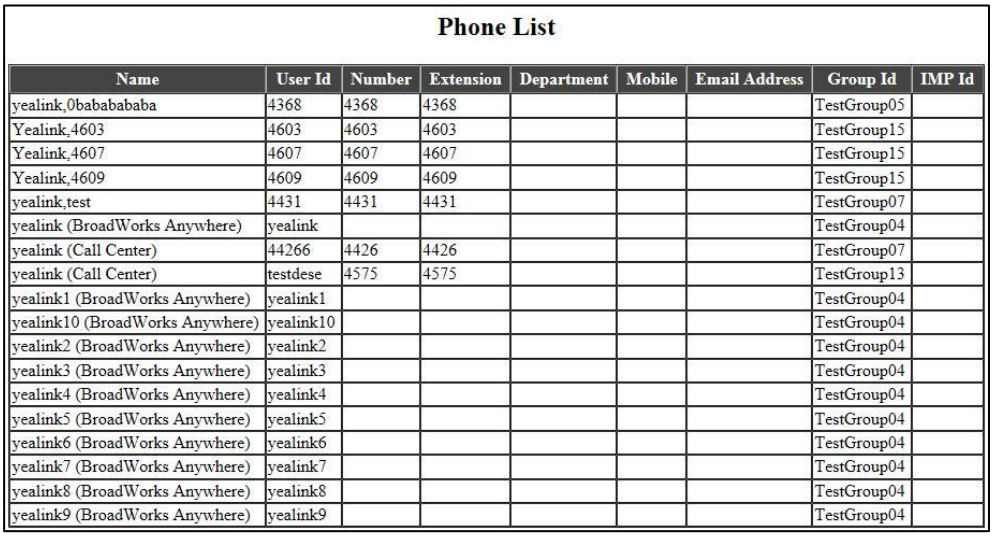
Viewing the Enterprise Directory

Procedure

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



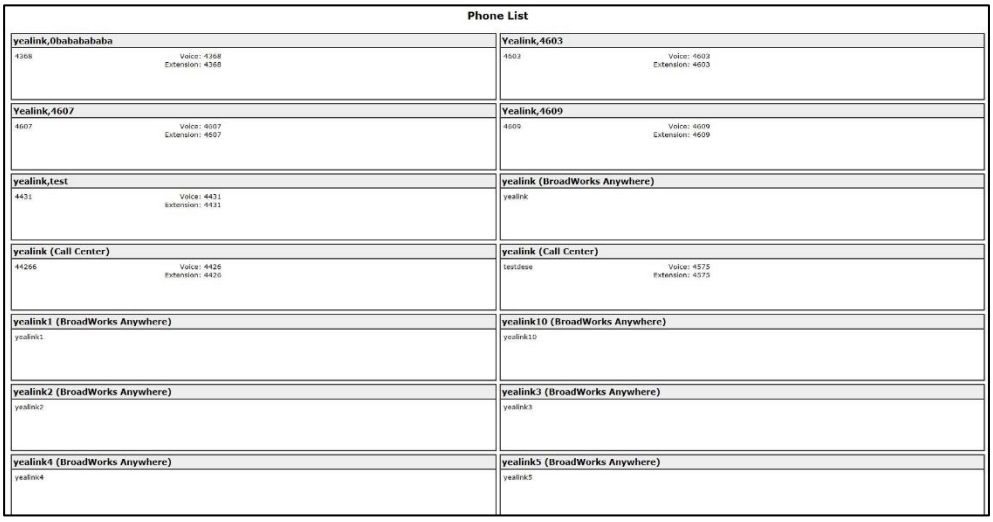
4. To display the summary of enterprise directory, click **Enterprise Directory Summary**. A printable summary page appears in a separate browser window.



Phone List

Name	User Id	Number	Extension	Department	Mobile	Email Address	Group Id	IMP Id
yealink,0bababababa	4368	4368	4368				TestGroup05	
Yealink,4603	4603	4603	4603				TestGroup15	
Yealink,4607	4607	4607	4607				TestGroup15	
Yealink,4609	4609	4609	4609				TestGroup15	
yealink,test	4431	4431	4431				TestGroup07	
yealink (BroadWorks Anywhere)	yealink						TestGroup04	
yealink (Call Center)	44266	4426	4426				TestGroup07	
yealink (Call Center)	testdese	4575	4575				TestGroup13	
yealink1 (BroadWorks Anywhere)	yealink1						TestGroup04	
yealink10 (BroadWorks Anywhere)	yealink10						TestGroup04	
yealink2 (BroadWorks Anywhere)	yealink2						TestGroup04	
yealink3 (BroadWorks Anywhere)	yealink3						TestGroup04	
yealink4 (BroadWorks Anywhere)	yealink4						TestGroup04	
yealink5 (BroadWorks Anywhere)	yealink5						TestGroup04	
yealink6 (BroadWorks Anywhere)	yealink6						TestGroup04	
yealink7 (BroadWorks Anywhere)	yealink7						TestGroup04	
yealink8 (BroadWorks Anywhere)	yealink8						TestGroup04	
yealink9 (BroadWorks Anywhere)	yealink9						TestGroup04	

5. To display the details of enterprise directory, click **Enterprise Directory Detail**. A printable detail page appears in a separate browser window.



Phone List

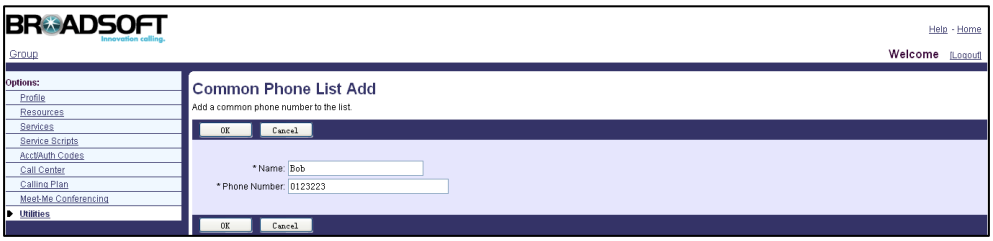
yealink,0bababababa 4368 Voice: 4368 Extension: 4368	**Yealink,4603** 4603 Voice: 4603 Extension: 4603
Yealink,4607 4607 Voice: 4607 Extension: 4607	**Yealink,4609** 4609 Voice: 4609 Extension: 4609
yealink,test 4431 Voice: 4431 Extension: 4431	**yealink (BroadWorks Anywhere)** yealink
yealink (Call Center) 44266 Voice: 4426 Extension: 4426	**yealink (Call Center)** testdese Voice: 4575 Extension: 4575
yealink1 (BroadWorks Anywhere) yealink1	**yealink10 (BroadWorks Anywhere)** yealink10
yealink2 (BroadWorks Anywhere) yealink2	**yealink3 (BroadWorks Anywhere)** yealink3
yealink4 (BroadWorks Anywhere) yealink4	**yealink5 (BroadWorks Anywhere)** yealink5

Adding a Contact to the Group Common Directory

Procedure

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.



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

   Then the contact appears in the group common directory.

Importing a Comma-delimited Text File

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.

Procedure

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.

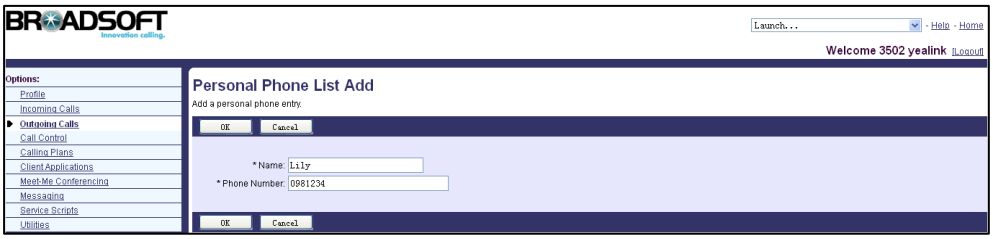
```
"Name","Number"
"Bob","8003"
"Jony","8001"
"Jane","8005"
"John","8009"
```

Adding a Contact to the Personal Directory Manually

You can add contacts to the Personal Directory manually. 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.

Procedure

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



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

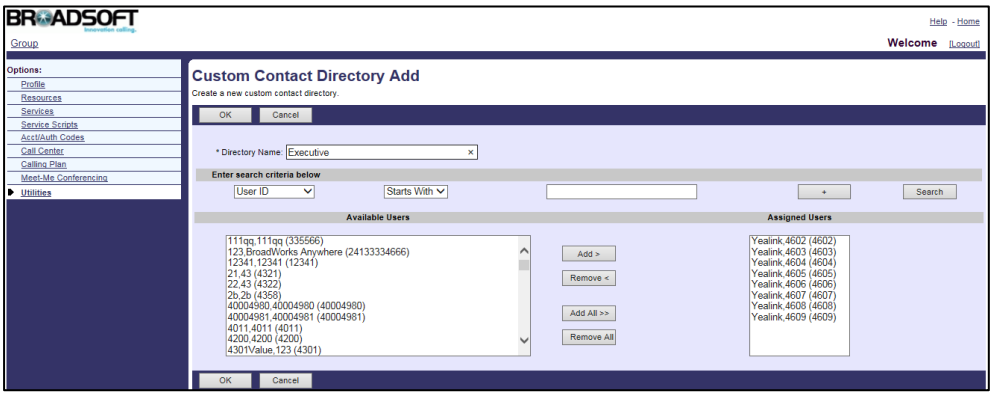
Then the contact appears in the user's personal directory.

Adding a Custom Directory

Procedure

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

7. Repeat the step 6 to add more users.



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

Configuring Yealink IP Phones

Procedure

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

Parameters	Permitted Values	Default
bw.xsi.directory.enable	**Boolean**	**0**
Description: Enables or disables the Broadsoft Directory feature. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled). For W52P/W56P Phones, the default value is 1 (Enabled).		
bw_phonebook.group_enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the group directory. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).		
bw_phonebook.group_displayname	**%BWGROUP-1%**	**Group**
Description: Configures the group directory name displayed on the IP phone. **Note:** It works only if "bw.xsi.directory.enable" and "bw_phonebook.group_enable" are		

Parameters	Permitted Values	Default
set to 1 (Enabled).		
bw_phonebook.group_common_enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the group common directory. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).		
bw_phonebook.group_common_displayname	**String within 99 characters**	**GroupCommon**
Description: Configures the group common directory name displayed on the IP phone. **Note:** It works only if "bw.xsi.directory.enable" and "bw_phonebook.group_common_enable" are set to 1 (Enabled).		
bw_phonebook.enterprise_enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the enterprise directory. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).		
bw_phonebook.enterprise_displayname	**%BWENTERPRISE-1%**	**Enterprise**
Description: Configures the enterprise directory name displayed on the IP phone. **Note:** It works only if "bw.xsi.directory.enable" and "bw_phonebook.enterprise_enable" are set to 1 (Enabled).		
bw_phonebook.enterprise_common_enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the enterprise common directory. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).		
bw_phonebook.enterprise_common_displayname	**String within 99 characters**	**Enterprise Common**

Parameters	Permitted Values	Default
Description: Configures the enterprise common directory name displayed on the IP phone. **Note:** It works only if "bw.xsi.directory.enable" and "bw_phonebook.enterprise_common_enable" are set to 1 (Enabled).		
bw_phonebook.personal_enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the personal directory. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).		
bw_phonebook.personal_displayname	**String within 99 characters**	**Personal**
Description: Configures the personal directory name displayed on the IP phone. **Note:** It works only if "bw.xsi.directory.enable" and "bw_phonebook.personal_enable" are set to 1 (Enabled).		
bw_phonebook.custom	**Boolean**	**0**
Description: Enables or disables custom directory feature. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.xsi.directory.enable" is set to 1 (Enabled).		
directory.update_time_interval	**Integer from 60 to 34560**	**60**
Description: Configures the interval (in minutes) for the IP phone to update the data of the BroadSoft Directory from the BroadSoft server. **Note:** It works only if "bw.xsi.directory.enable" and "bw.xsi.directory.update.enable" are set to 1 (Enabled).		
bw.xsi.directory.alphabetized_by_lastname.enable	**Boolean**	**0**
Description: Specifies the call ID (first name and last name) display method when the phone receives		

Parameters	Permitted Values	Default
an incoming call, places an outgoing call or is during an active call. **0**-First name Last name **1**-Last name, First name **Note**: It is not applicable to CP930W-Base, CP920, VP59, SIP-T58A, CP960, W52P, W53P, W56P and W60P IP phones.		
bw.xsi.directory.update.enable	**Boolean**	**1**
Description: Enables or disables the IP phone to automatically download all contacts in the BroadSoft Directory from the server. **0**-Disabled, the IP phone downloads partial contacts from the server (the maximum of contacts available for viewing at one time is determined by the server), and you can manually download the remaining contacts as needed **1**-Enabled **Note**: It works only if "bw.xsi.directory.enable" is set to 1 (Enabled). It is only applicable to phones (except W53P/W60P/CP930W-Base) running firmware version 83 or later.		
search_in_dialing.bw_directory.enable	**Boolean**	**0**
Description: It enables or disables the IP phone to automatically search entries from the BroadSoft directory, and display the results on the pre-dialing/dialing screen. **0-**Disabled **1**-Enabled **Note:** It is not applicable to W52P and W56P phones.		
search_in_dialing.bw_directory.priority	**Integer greater than or equal to 0**	**5**
Description: It configures the search priority of the BroadSoft directory. **Note:** It is not applicable to W52P and W56P phones.		
directory_setting.bw_directory.enable	**Boolean**	**0**
Description: It enables or disables the users to access the BroadSoft directory by pressing the **Directory/Dir** soft key. **0-**Disabled **1**-Enabled		

Parameters	Permitted Values	Default
Note: It is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
directory_setting.bw_directory.priority	**Integer greater than or equal to 0**	**6**
Description: It configures the display priority of the BroadSoft directory. **Note:** It is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.		

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

bw.xsi.enable = 1

bw.xsi.directory.enable = 1

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

bw_phonebook.custom = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template 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:

   bw_phonebook.group_displayname = Group

   bw_phonebook.enterprise_displayname = Enterprise

After successful update, user can access the BroadSoft Directory by tapping , pressing the **Directory** soft key or pressing **Menu**->**Directory**->**Network Directory** via phone user interface. The following shows an example of network directory list:

For W52P/W53P/W56P/W60P/CP930W-Base phones, you can access the BroadSoft Directory by pressing **OK**->**Directory**->**Network Dir** or **Network Directory** on the handset.

You can also configure BroadSoft Directory via web user interface at the path **Applications**->**Broadsoft XSI**.

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. It also allows users to delete a call log entry or all call log entries from the BroadSoft Call Log lists.

Note Before configuring BroadSoft Call Log feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the BroadSoft Call Log can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

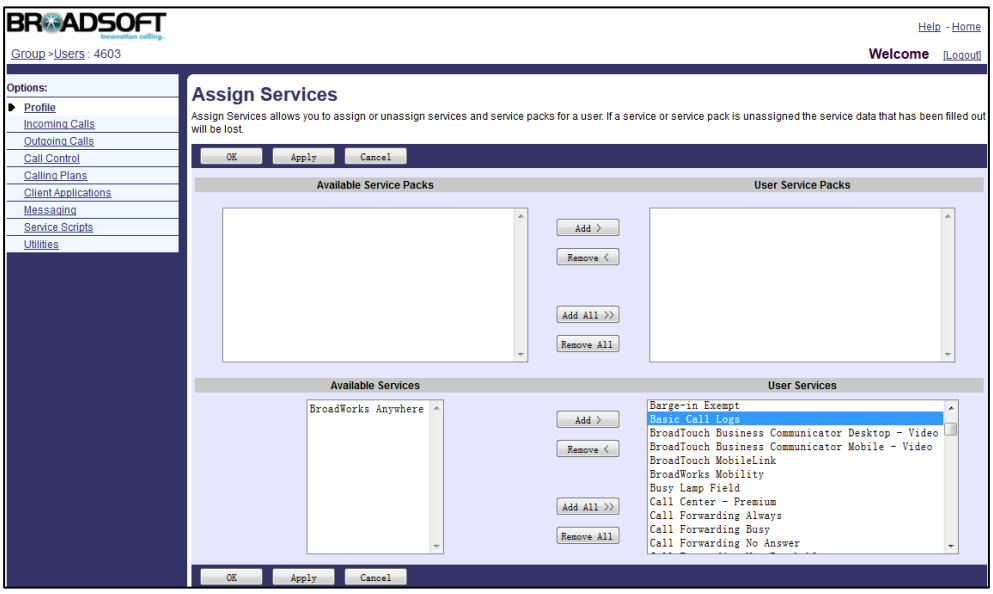
Configuring the BroadSoft Server

Assigning the Call Log Service to a User

Procedure

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

5. Click on **Assign Services**.
6. In the **Available Services** box, select **Basic Call Logs** and then click **Add>**.



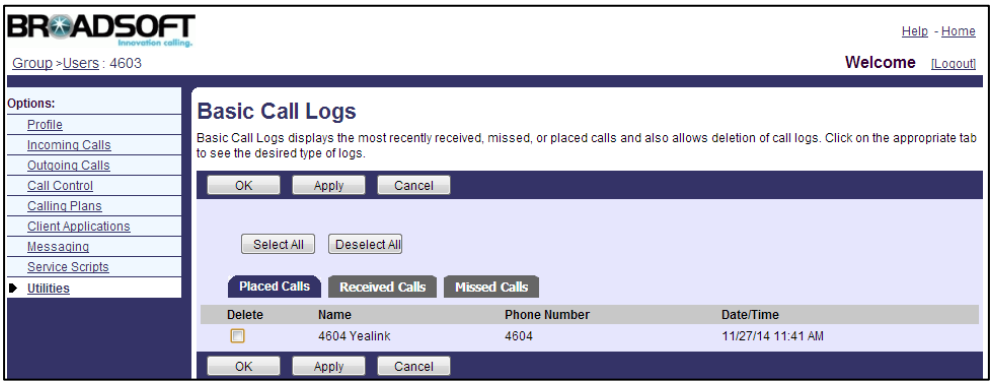
7. Click **Apply** to accept the change.

Viewing the Call Logs

You can view a maximum of 20 of the most recent logs per call type (placed, received, and missed) with Basic Call Log service.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4603).
5. Click on **Utilities**->**Basic Call Logs**.



Configuring Yealink IP Phones

Procedure

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

Parameters	Permitted Values	Default
bw.xsi.call_log.enable	**Boolean**	**0**
Description: Enables or disables the BroadSoft Call Log feature. **0**-Disabled **1**-Enabled		
bw.calllog_and_dir	**Boolean**	**0**
Description: It enables or disables the IP phone to directly enter the Network Calls screen when pressing or tapping the **History** soft key on the idle screen. **0**-Disabled, the IP phone will enter Local Calls screen when pressing or tapping the **History** soft key. **1**-Enabled **Note:** It is not applicable to W53P/W60P/CP930W-Base phones.		
bw.xsi.call_log.delete.enable	**Boolean**	**0**
Description: Enables or disables the user to delete the call log entry from BroadSoft Call Log list on the phone. **0**-Disabled **1**-Enabled, if you delete the BroadSoft call log entry on the phone, the call log entry will be also deleted on the BroadWorks server **Note:** It works only if "bw.xsi.call_log.enable" is set to 1 (Enabled). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.		
bw.xsi.call_log.multiple_accounts.enable	**Boolean**	**0**
Description: Enables or disables the user to view BroadSoft Call Log for multiple accounts. **0**-Disabled, you will directly access the BroadSoft Call Log for the first account by default, and you can only view the BroadSoft call log entry for the first account		

Parameters	Permitted Values	Default
1-Enabled, you are allowed to select a specific account to access the BroadSoft Call Log and view the call log entry **Note:** It works only if "bw.xsi.call_log.enable" is set to 1 (Enabled). It is only applicable to phones (except SIP-T19(P) E2/CP920/CP960/CP930W-Base) running firmware version 83 or later.		

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

bw.xsi.call_log.enable = 1

bw.xsi.call_log.delete.enable = 1

bw.xsi.call_log.multiple_accounts.enable = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

After successful update, user can access the BroadSoft call log list by tapping , pressing the **History** soft key or pressing **Menu**->**History**->**Network Calls** via phone user interface.

The following shows an example of line selection:

The following shows an example of call log list:

For W52P/W53P/W56P/W60P Phones, you can access the BroadSoft call log by pressing **OK**->**Directory**->**Network CallLog** on 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 **Applications**->**Broadsoft XSI**.

Local Call Log

You can back up the local call log of IP phone to BroadWorks. The backup local call log files named <MAC>-calllog.xml, are classified by the MAC address of the IP phone.

It is also useful in flexible seating. When a guest user creates an association with a host, the host device can download the guest's local call log after provisioning. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones. For more information on flexible seating, refer to Flexible Seating.

Configuring Yealink IP Phones

You can configure a backup path where the phone can upload and download the call log. The path can be absolute or relative address, or null. If it is set to null, the phone will back up the call log to the provisioning server. You can also configure the interval to back up the local call log.

Configure Call Log Backup Feature

Procedure

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

Parameters	Permitted Values	Default
static.auto_provision.local_calllog.backup.enable	**Boolean**	**0**
Description: Enables or disables the IP phone to upload the <MAC>-calllog.xml file to the server each time the call logs update, and download the <MAC>-calllog.xml file from the server during auto provisioning. **0**-Disabled **1**-Enabled		
static.auto_provision.local_calllog.backup.path	**String**	**Blank**
Description: Configures a path or URL for the IP phone to upload/download the <MAC>-calllog.xml file. If it is left blank, the IP phone will try to upload/download the <MAC>-calllog.xml file to/from the provisioning server.		

Parameters	Permitted Values	Default
Note: It works only if "auto_provision.local_calllog.backup.enable" is set to 1 (Enabled).		
static.auto_provision.local_calllog.write_delay.terminated	**Integer from 10 to 600**	**60**
Description: Configures the delay time (in seconds) for the IP phone to upload the <MAC>-calllog.xml file each time the call logs update.		

The following shows an example of local call log configurations in a template configuration file (e.g., y000000000028.cfg):

static.auto_provision.local_calllog.backup.enable = 1

static.auto_provision.local_calllog.backup.path = http://10.2.3.123/log

static.auto_provision.local_calllog.write_delay.terminated = 60

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

Call Park

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

IP phones support Call Park Notification using a SUBSCRIBE/NOTIFY mechanism for communicating to the BroadWorks server when a call is parked against the extension of the IP phone. The IP phone provides a visual indicator for the parked call and turns off the indicator after the parked call is retrieved. This feature is not applicable to W52P Phones.

Note Before configuring Call Park feature under XSI mode, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Call Park configurations can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

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

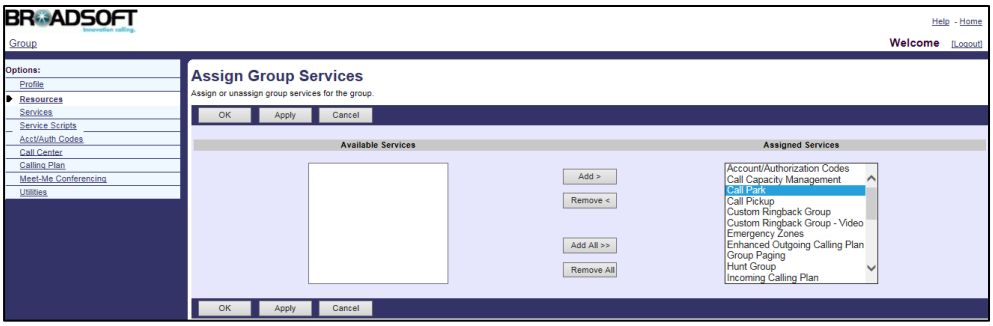
Configuring the BroadSoft Server

Assigning the Call Park Service to the Group

This service allows a user to use Call Park and Group Call Park feature.

Procedure

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



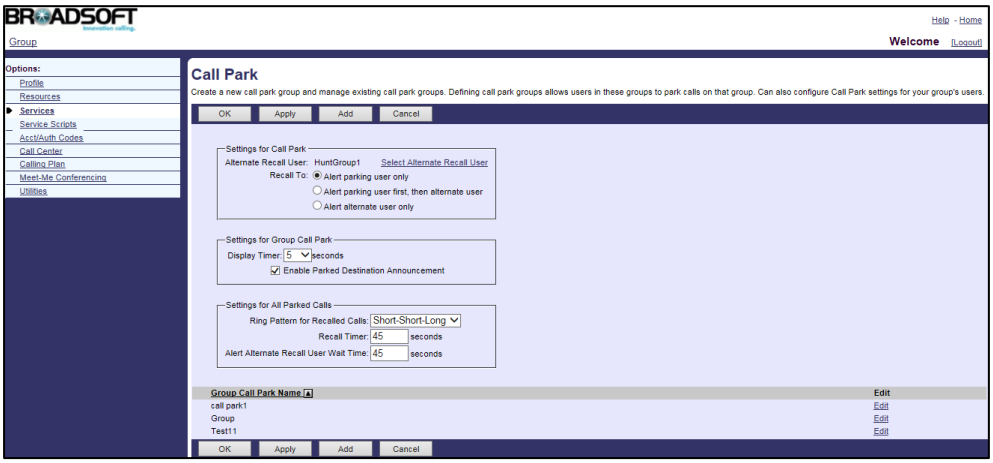
4. Click **Apply** to accept the change.

Configuring the Call Park Feature

You can configure the settings for Call Park, Group Call Park and all parked calls.

Procedure

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



The call park parameters are described as below:

Parameter	Description
Settings for Call Park	Determines which user to be altered if the parked call is not retrieved when the recall timer expires. **Alert parking user only**: Only alerts the user who parked the call. **Alert parking user first**, **then alternate user**: First alerts the user who parked the call, and then alerts the alternate user if the parking user does not answer the recall. **Alert alternate user only**: Only alerts the alternate user. The setting is initially set to **Alert parking user only**. You can only change the setting after you assign an alternate recall user.
Settings for Group Call Park	**Display Timer**: Specifies how long the server waits before automatically releasing the call. It is used to park a call on the call park group. **Enable Parked Destination Announcement**: Determines whether to notify the parking user of the destination extension against which the call has been parked.
Settings for All Parked Calls	**Ring Pattern for Recalled Calls**: Specifies the ring tone for the recall calls, which allows users to distinguish between new and recall calls. **Recall Timer**: Configures the time after which the parked call is recalled. **Alert Alternate Recall User Wait Time**: Configures the time after which the alternate user (if configured) is called.

3. Make the desired change.
4. Click **Apply** to accept the change.

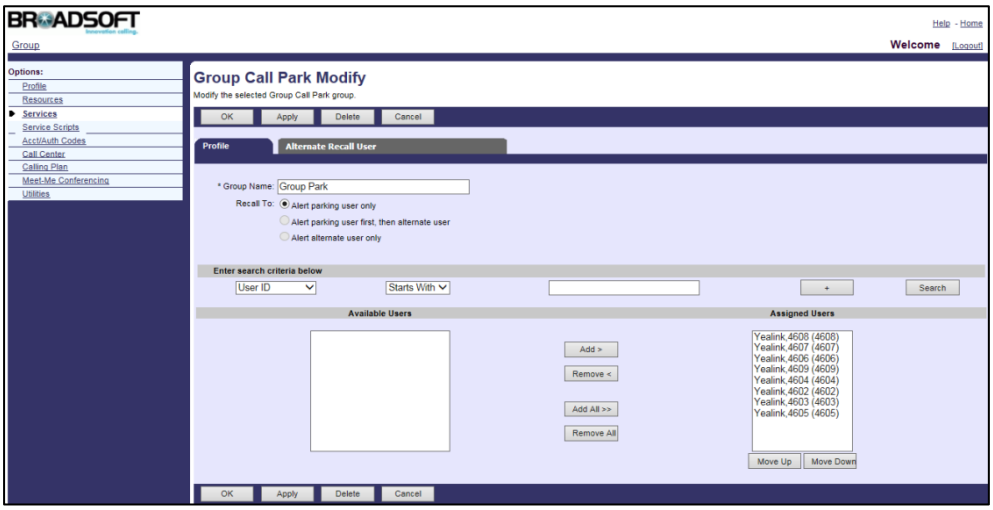
Creating a Call Park Group

You can define a call park group as a subset of the users in the group. The users can park calls to the users in this call park group.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Call Park**.
3. Click **Add**.
4. Enter the desired group name in the **Group Name** field.

5. Click **Search** to display all available users.
6. In the **Available Users** box, select the desired user and then click **Add>** to assign the user to the call park group.
7. Repeat the step 6 to add more users.



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

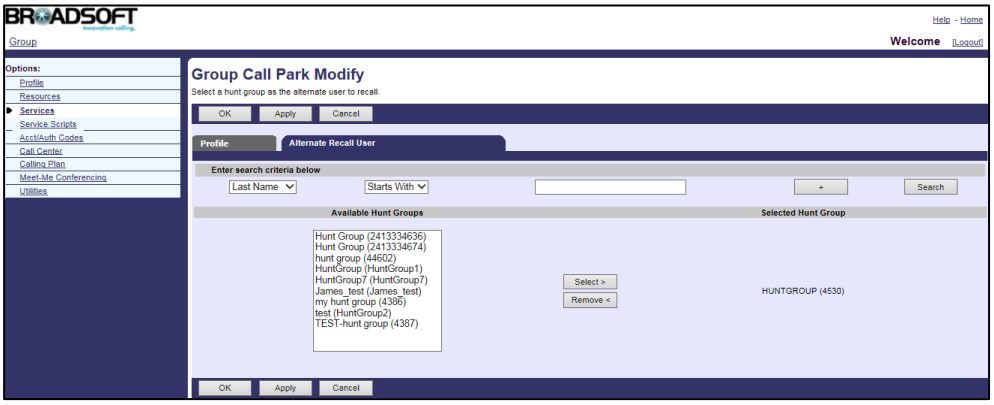
Assigning Alternate Recall Users

You can select a hunt group as the alternate user to recall. Make sure the hunt groups have been created on the BroadWorks server. For more information on how to add a hunt group, refer to Hunt Group.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Call Park**.
3. Select the desired call park group and then click **Edit**.
4. Click on the **Alternate Recall User** tab.
5. Click **Search** to display all available hunt groups.

6. In the **Available Hunt Groups** box, select the desired hunt group and then click **Select>**.



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

Configuring Yealink IP Phones

You can configure Call Park feature on the phone using the FAC mode or the XSI mode. If the XSI mode is used, you need configure XSI feature on the phone in advance. In the XSI mode, Call Park can be performed via the call park soft key successfully when the IP phone passes the XSI authentication. The FAC mode is designated for the user to park a call using the call park soft key when XSI feature is not configured on the phone. Call park key can be used under the FAC mode and XSI mode.

Note If the call park code or park retrieve code has been configured for the call park soft key or the retrieve park soft key in the FAC mode, you don't need to configure the call park code or the park retrieve code for the call park key or the retrieve park key.

Configuring Call Park

Procedure

1. Add/Edit Call Park mode parameter in the configuration template files to decide the Call Park mode:

Parameters	Permitted Values	Default
features.call_park.park_mode	**Boolean**	**0**
Description: Configures the call park mode. **0**-XSI **1**-FAC		

Parameters	Permitted Values	Default
features.call_park.enable	**Boolean**	**0**
Description: Enables or disables the IP phone to display the **Park** soft key during a call. **0**-Disabled **1**-Enabled **Note:** If it is set to 1 (Enabled), the **Retrieve** soft key will also be displayed on the dialing screen.		
features.call_park.group_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to display the **GPark** soft key during a call. **0**-Disabled **1**-Enabled **Note:** If it is set to 1 (Enabled), the **Retrieve** soft key will also be displayed on the dialing screen.		
features.call_park.park_visual_notify_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to display a visible notification when a call is parked against its line. **0**-Disabled **1**-Enabled **Note:** It works only if the value of parameter "account.X.sip_server_type" is set to 2 (BroadSoft).		
features.call_park.park_ring	**Boolean**	**0**
Description: Enables or disables an audio notification when a call is parked against its line. **0**-Disabled **1**-Enabled **Note:** It works only if "account.X.sip_server_type" is set to 2 (BroadSoft) and the value of the parameter "features.call_park.park_visual_notify_enable" is set to 1 (Enabled).		
features.call_park.park_code	**String within 32 characters**	**Blank**

Parameters	Permitted Values	Default
Description: Configures the call park code for the **Park** soft key. This call park code will also apply to the call park key. **Note:** It works only if "features.call_park.park_mode" is set to 1 (FAC).		
features.call_park.group_park_code	**String within 32 characters**	**Blank**
Description: Configures the group call park code for the **GPark** soft key. This group call park code will also apply to the group call park key. **Note:** It works only if "features.call_park.park_mode" is set to 1 (FAC).		
features.call_park.park_retrieve_code	**String within 32 characters**	**Blank**
Description: Configures the retrieve park code for the **Retrieve** soft key. This park retrieve code will also apply to the park retrieve key. **Note:** It works only if "features.call_park.park_mode" is set to 1 (FAC).		
features.call_park.direct_send.enable	**Boolean**	**1**
Description: Enables or disables the IP phone to dial out the call park code/park retrieve code directly when pressing the **Park**/**Retrieve** soft key. **0**-Disabled **1**-Enabled If it is set to 0 (Disabled), the IP phone will enter the pre-dialing screen when pressing the **Park**/**Retrieve** soft key. And you can dial the specific extension manually or press the BLF/BLF List key to park the call to the specific user or retrieve the call parked from the specific user. **Note:** It works only if "features.call_park.park_mode" is set to 1 (FAC) and you have configured the call park code/park retrieve code. It is not applicable to VP59/T58A/CP960/CP920/W53P/W56P/W60P/CP930W-Base IP phones.		

The following shows an example of call park configurations using the XSI mode in a T46G template configuration file (e.g., %BWMACADDRESS%.cfg):

features.call_park.park_mode = 0

features.call_park.enable = 1

features.call_park.group_enable = 1

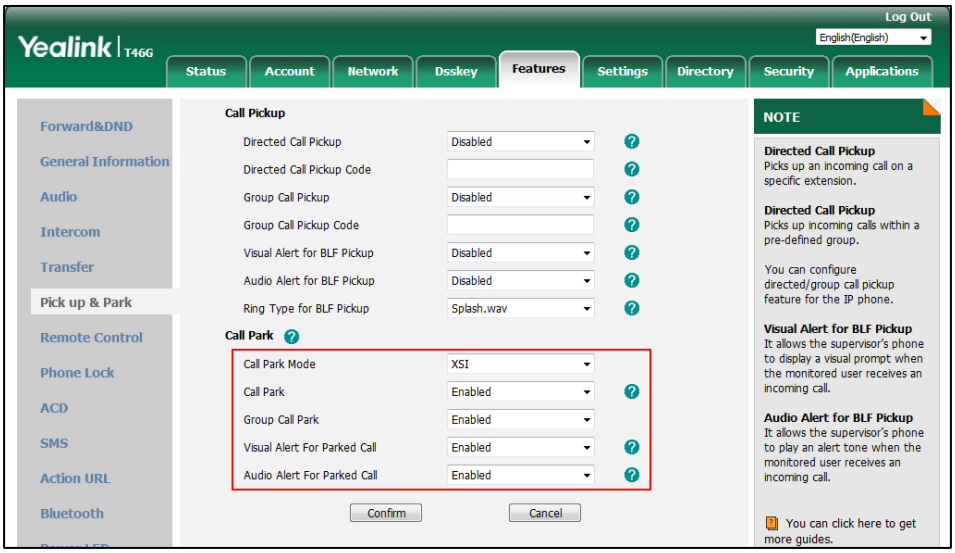
features.call_park.park_visual_notify_enable = 1

features.call_park.park_ring = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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



The following shows an example of call park configurations using the FAC mode in a T46G template configuration file (e.g., %BWMACADDRESS%.cfg):

features.call_park.park_mode = 1

features.call_park.enable = 1

features.call_park.park_code= *68

features.call_park.group_enable = 1

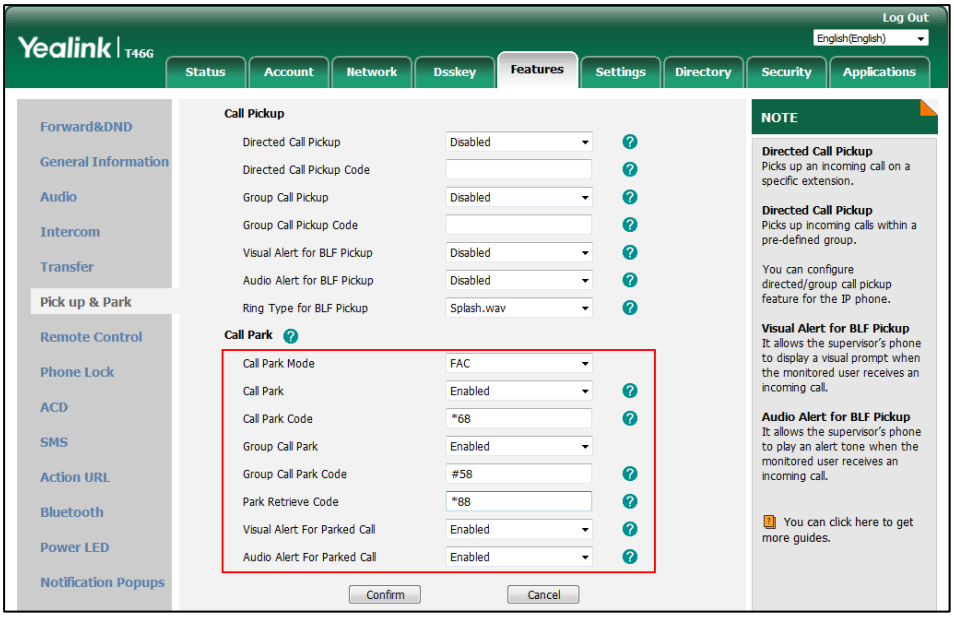
features.call_park.group_park_code= #58

features.call_park.park_retrieve_code = *88

features.call_park.park_visual_notify_enable = 1

features.call_park.park_ring = 1

Upload template boot and configuration files to BroadWorks. After successful update, user can find the web user interface of the IP phone is similar to the one shown as below:



User can park a call using the **Park** soft key or the call park key (refer to Line Keys and Programmable Keys) and retrieve the parked call using the **Retrieve** soft key or the retrieve park key (refer to Line Keys and Programmable Keys). When a call is parked against the extension of the IP phone and the visual alert is enabled, the IP phone LCD screen is similar to the one shown as below:

Call park is also configurable via web user interface at the path **Features**->**Pick up & Park**.

Group Paging

Group Paging allows authorized users (originators) to broadcast one-way audio announcements to a group of users (targets) by dialing a paging group number or extension. Group paging originator is the subscriber who may originate pages for this paging group. Group paging target is the subscriber whom the pages from this group will be sent to. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

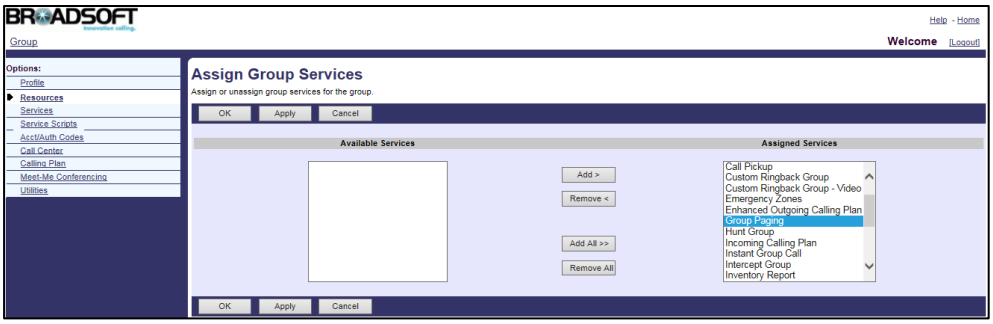
Configuring the BroadSoft Server

Assigning the Group Paging Service to the Group

This is a virtual user service that allows for unidirectional paging to a group of users.

Procedure

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



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

Creating a Paging Group

Paging groups are virtual users and must have the Group Paging service assigned. You need to configure basic information (such as name), phone number and/or extension when creating a group paging group.

Procedure

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

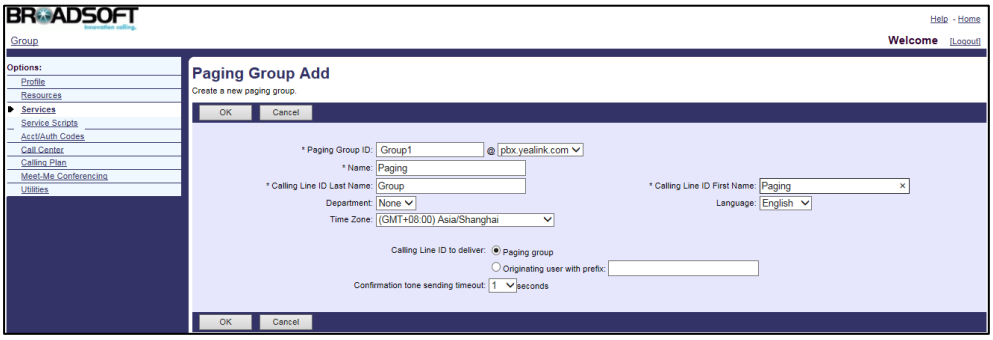
   The following shows an example:

   Paging Group ID: Group1

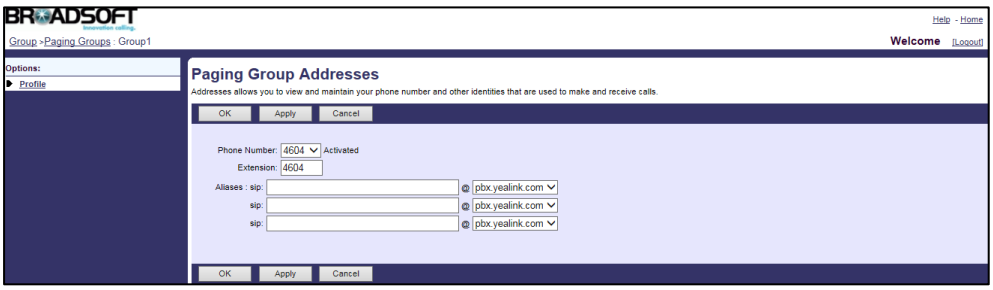
   Name: Paging

   Calling Line ID Last Name: Group

Calling Line ID First Name: Paging



5. Click **OK** to accept the change.
6. Select the paging group added above and then 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.

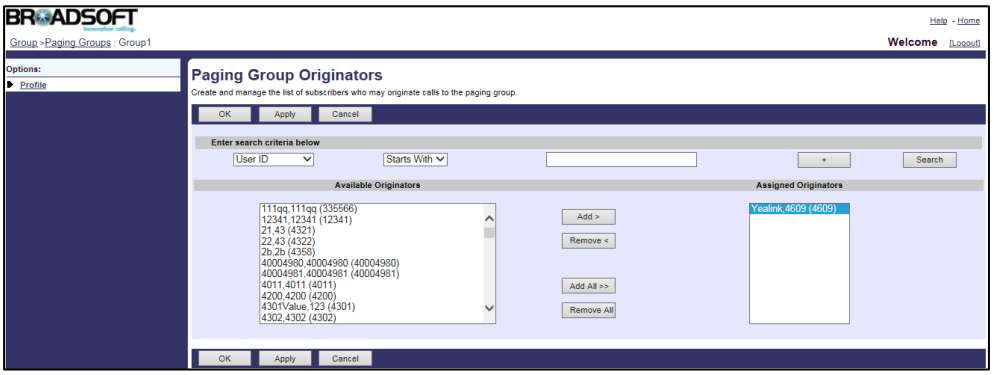
Assigning Originator and Targets for the Paging Group

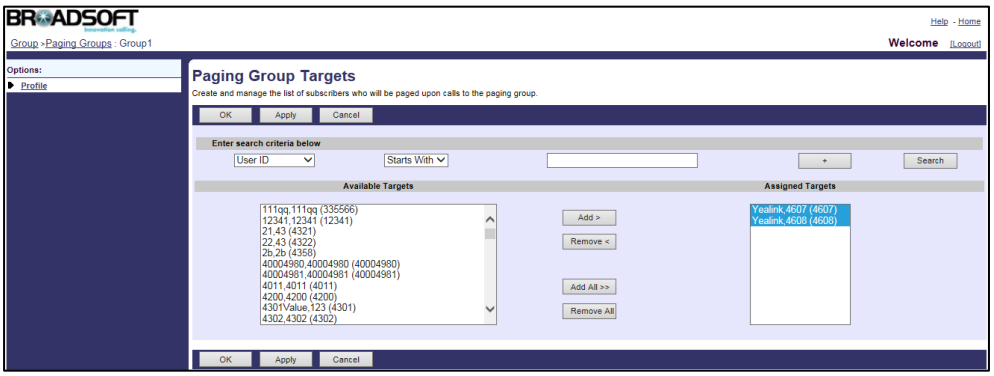
You can assign any user within a group or enterprise to be an originator/target in a paging group. Only the originators are allowed to use the phone number assigned to the paging group. When an originator dials the paging group phone number, all the targets are paged.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Group Paging**.
3. Select the paging group added above and then click **Edit**.
4. Click on **Originators/Targets**.
5. Click **Search** to display all available users.

6. In the **Available Originators/Available Targets** box, select the desired user and then click **Add>**.





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

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

Instant Group Call

Instant Group Call allows you to define a group of user to be alerted simultaneously when a call is made to the group. These members can be part of the same group or external users. Users can 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. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

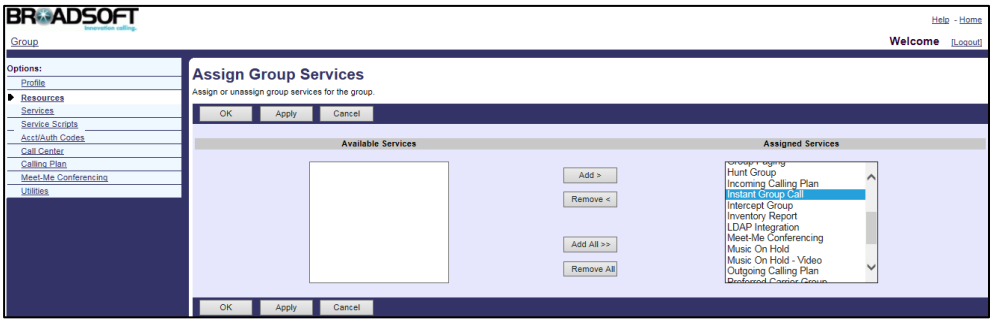
Configuring the BroadSoft Server

Assigning the Instant Group Call Service to the Group

Procedure

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.

Adding an Instant Group Call

You need to configure basic information (such as name), instant group phone number and/or extension when creating an instant group call.

Procedure

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

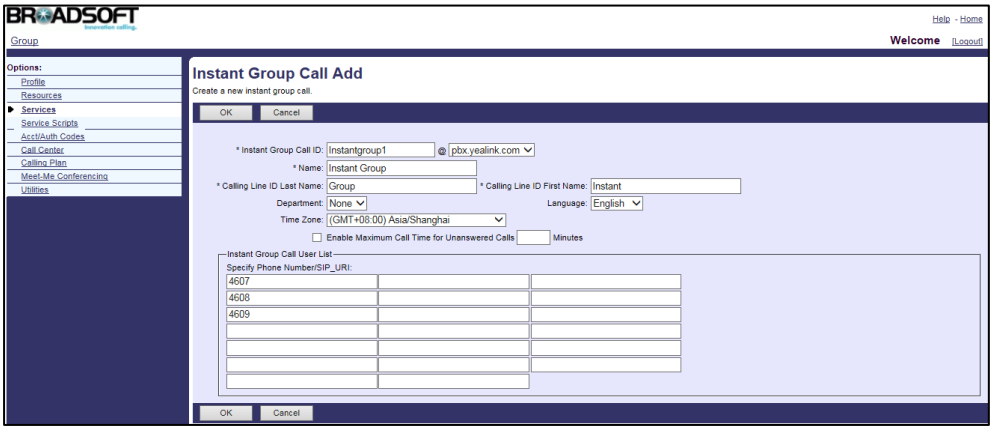
   Calling Line ID Last Name: Group

   Calling Line ID First Name: Instant

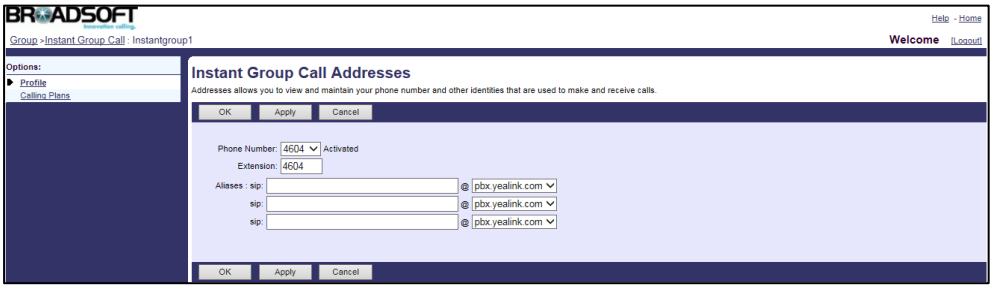
   Instant Group Call User List: 4607

   4608

   4609



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



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

For more information on Instant Group Call, refer to BroadWorks Web Interface Administrator Guide.

Hunt Group

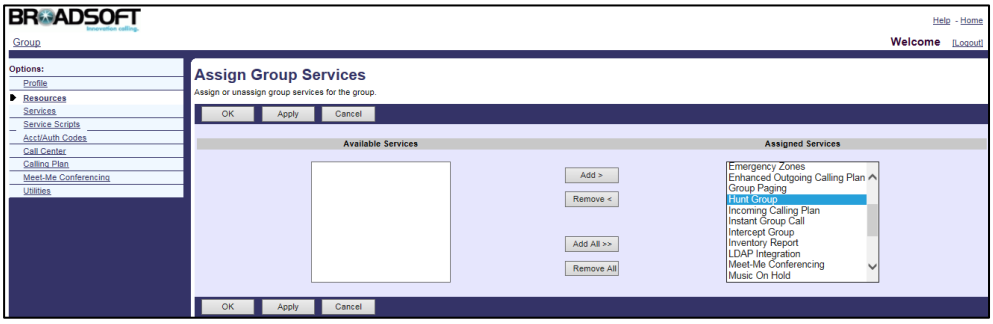
Hunt Group allows incoming calls to a central phone number to be distributed among a group of users according to a hunting policy. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

Configuring the BroadSoft Server

Assigning the Hunt Group Service to the Group

Procedure

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



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

Creating a Hunt Group

Procedure

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

   The following shows an example:

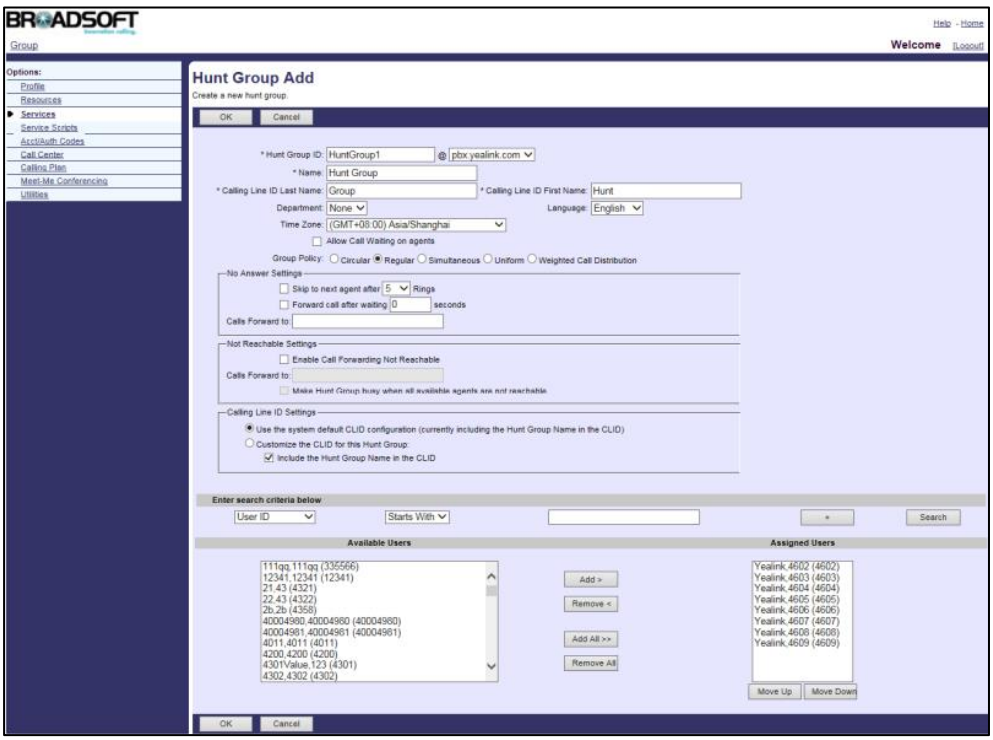
   Hunt Group ID: HuntGroup1

   Name: Hunt Group

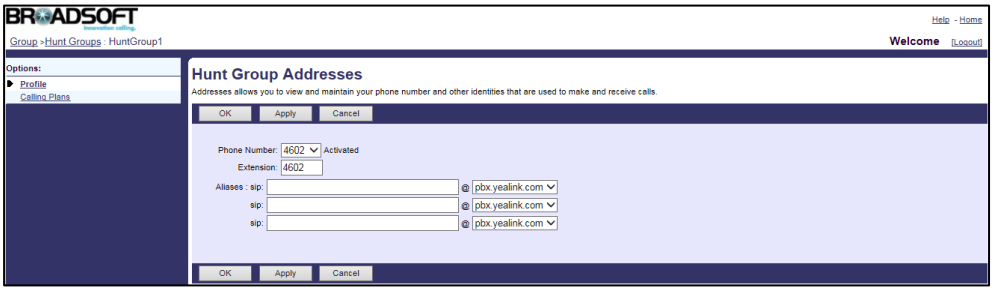
   Calling Line ID Last Name: Group

   Calling Line ID First Name: Hunt
5. Mark the desired radio box in the **Group Policy** field.
   - **Circular**: Sends incoming calls to users according to their position in a list. After a call has been sent to the last user in the list, the next call is sent to the user at the top of the list.
   - **Regular**: Sends incoming calls to the next available user in the hunt group.
   - **Simultaneous**: Sends incoming calls to all users at the same time. The call is connected to the user who answers the call first.
   - **Uniform**: Sends an incoming call to the user who has been idle for the longest time. The user who has answered a call will be moved to the bottom of the call queue.
   - **Weighted Call Distribution**: Sends incoming calls randomly to users according to their relative weight. Users with a higher weight are assigned more incoming calls than users with lower weights.
6. Click **Search** to display all available users.

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



8. Click **OK** to accept the change.
9. Select the hunt group added above and then click **Edit**.
10. Click on **Addresses**.
11. Select the phone number from the pull-down list of **Phone Number**.
12. Enter the extension in the **Extension** field.



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

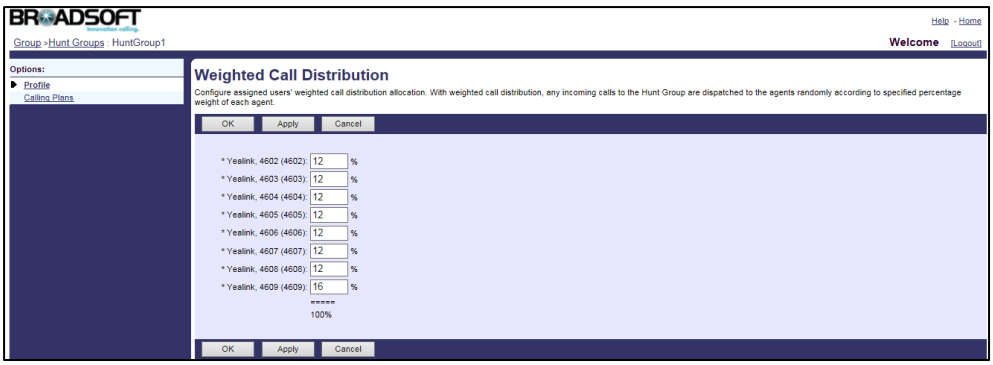
Configuring Weighted Call Distribution

Agents with a higher weight are assigned more incoming calls than agents with lower weights.

Procedure

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

3. Select the hunt group added above and then click **Edit**.
4. Click on **Profile**->**Weighted Call Distribution**. This link appears only if you enabled the weighted call distribution policy for this hunt group.
5. Enter the desired percentage values in the corresponding fields.



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

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

CommPilot Call Manager

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

- Navigation, support, help – Useful links include support (to send an e-mail to the applicable support service), help (to display a context-sensitive help web page), and configure (to jump to the CommPilot Personal web portal).
- User information – Presents the name, phone number, and extension of the user of the CommPilot Call Manager.
- Service link area – Provides status and configuration for commonly used services.
- Call display – Presents the user with information on active calls and allows the user to select calls with the mouse.
- Directories – Provides access to the user directories, including the group and the personal.
- Call History – Provides access to the user call log.
- Settings – Allows the user to configure the CommPilot Call Manager.

This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

Configuring the BroadSoft Server

Logging into the Call Manager

Procedure

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

   The CommPilot Call Manager is shown as below:

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

Initiating, Manipulating and Releasing a Call via the Call Manager

Procedure

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

   The caller's IP phone is alerted first. After the caller answers the incoming call on his IP phone, the callee's IP phone is altered. After the callee answers the incoming call on his phone, the two-way voice is established between two parties.
3. Click **Hold** to place the active call on hold.
4. Click **Answer** to retrieve the held call.
5. Click **End** to release the call.

For more information on CommPilot Call Manager, refer to *BroadWorks Web Interface Administrator Guide*.

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. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

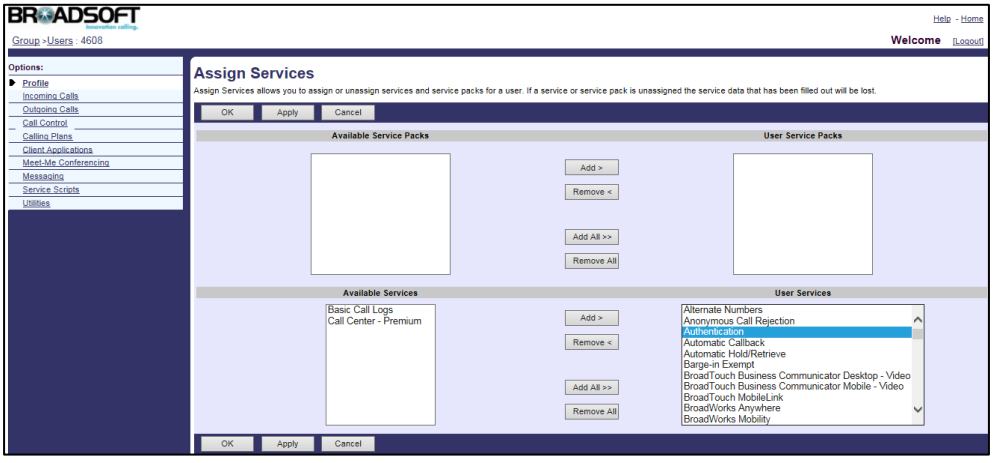
For more information on authentication, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Authentication Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4608).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Authentication** and then click **Add>**.



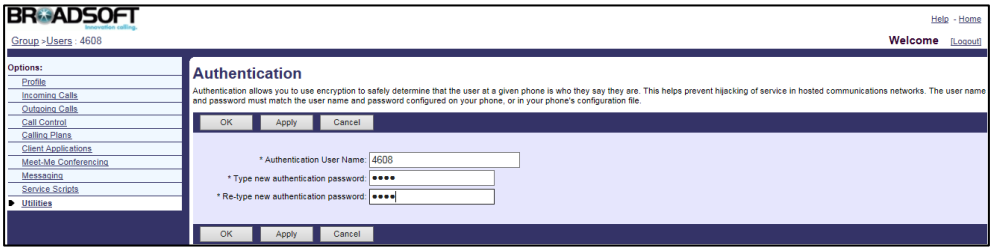
7. Click **Apply** to accept the change.

Configuring the User ID and Password for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.

3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4608), who has been assigned the authentication service.
5. Click on **Utilities**->**Authentication**.
6. Enter the user ID in the **Authentication User Name** field.
7. Enter the password in the **Type new authentication password** and **Re-type new authentication password** fields.



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

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. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

For more information on Authorization/Account Codes, refer to *BroadWorks Web Interface Administrator Guide*.

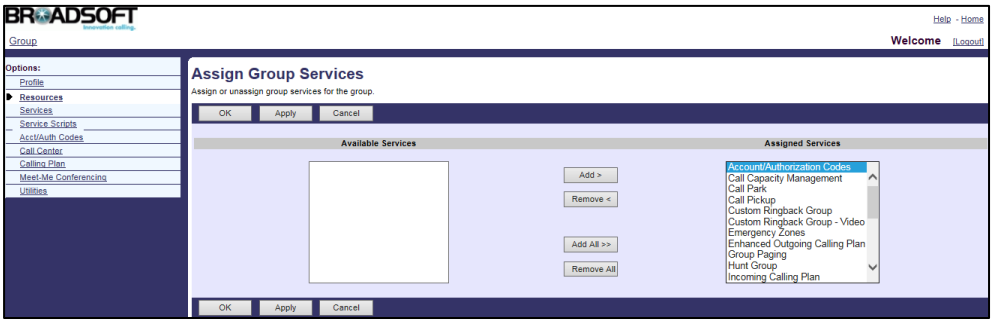
Configuring the BroadSoft Server

Assigning the Account/Authorization Codes Service to the Group

Procedure

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

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



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

Configuring the Type of Code for the Group

Procedure

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

   The following shows an example:

   Type: Authorization Code

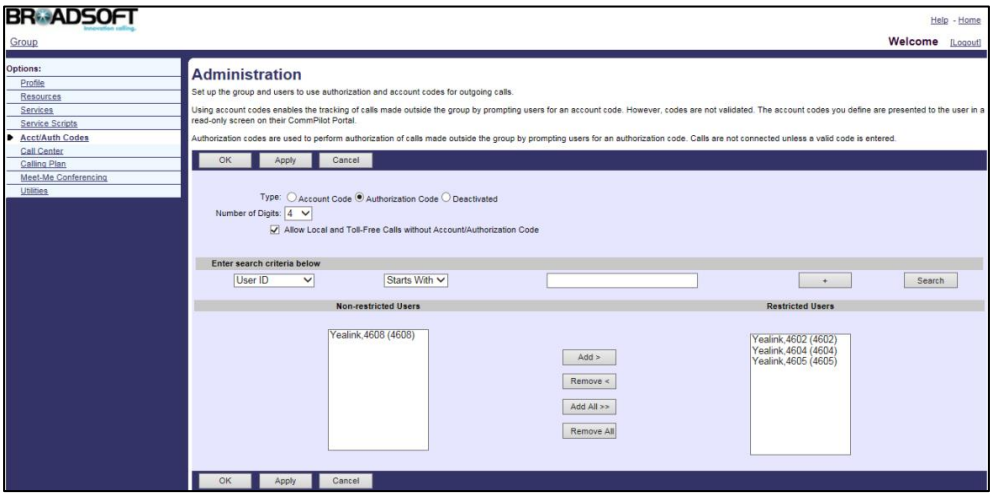
   Number of Digits: 4

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

   Restricted Users: 4602@pbx.yealink.com

   4604@pbx.yealink.com

   4605@pbx.yealink.com

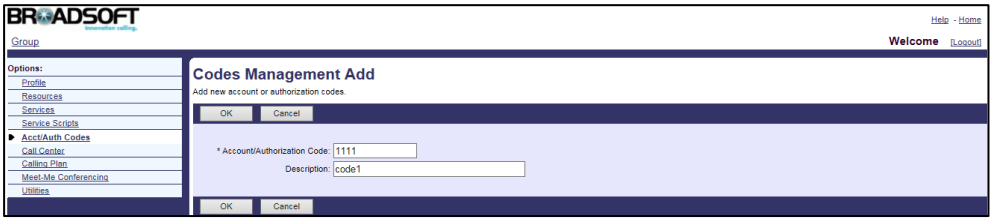


4. Click **Apply** to accept the change.

Configuring the Authentication Codes

Procedure

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.

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.

Note Before configuring Call Waiting feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the call waiting can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

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

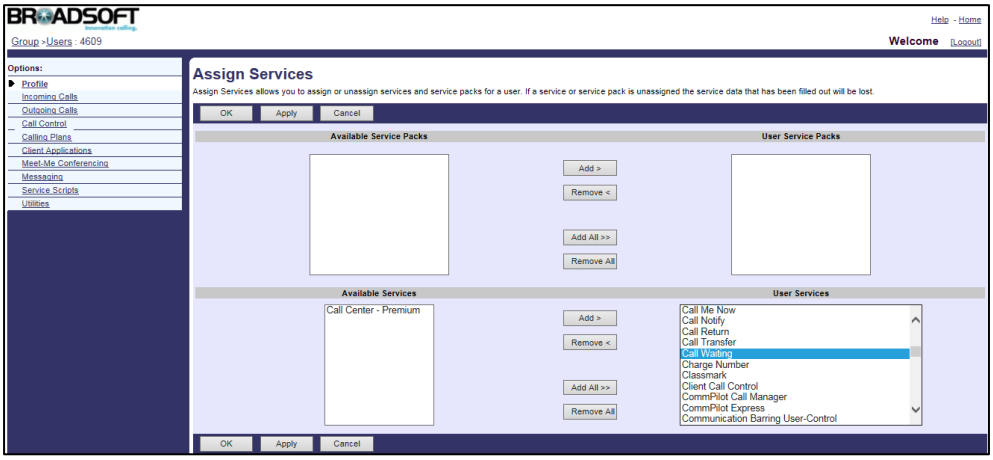
Configuring the BroadSoft Server

Assigning the Call Waiting Service to a User

Procedure

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

4. Select the desired user (e.g., 4609).
5. In the **Available Services** box, select **Call Waiting** and then click **Add>**.

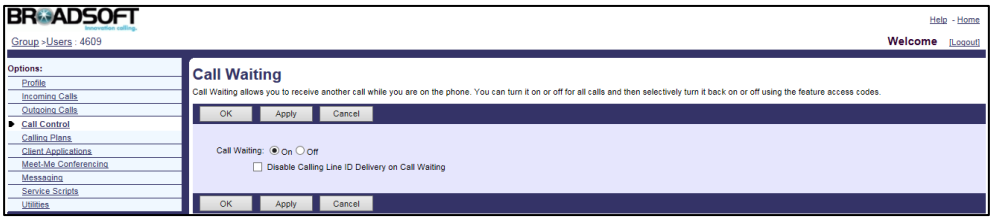


6. Click **Apply** to accept the change.

Activating Call Waiting for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the call waiting service.
5. Click on **Call Control**->**Call Waiting**.
6. Mark the **On** radio box in the **Call Waiting** field.



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

Configuring Yealink IP Phones

Procedure

1. Add/Edit Call Waiting parameters in the configuration template files:

Parameters	Permitted Values	Default
call_waiting.mode	**Boolean**	**0**
Description: Configures the call waiting mode. **0**-Local **1**-XSI If it is set to 1 (XSI), the call waiting status will be synchronized between the IP phone and the BroadWorks server.		
call_waiting.enable	**%CALL_WAITING_BINARY%**	**1**
Description: Enables or disables call waiting. **0**-Disabled **1**-Enabled **Note:** It works only if "call_waiting.mode" is set to 0 (Local).		
call_waiting.tone	**Boolean**	**1**
Description: Enables or disables call waiting tone. **0**-Disabled **1**-Enabled		

   The following shows an example of call waiting configurations in a template configuration file (e.g., y000000000028.cfg):

   call_waiting.mode = 0

   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.

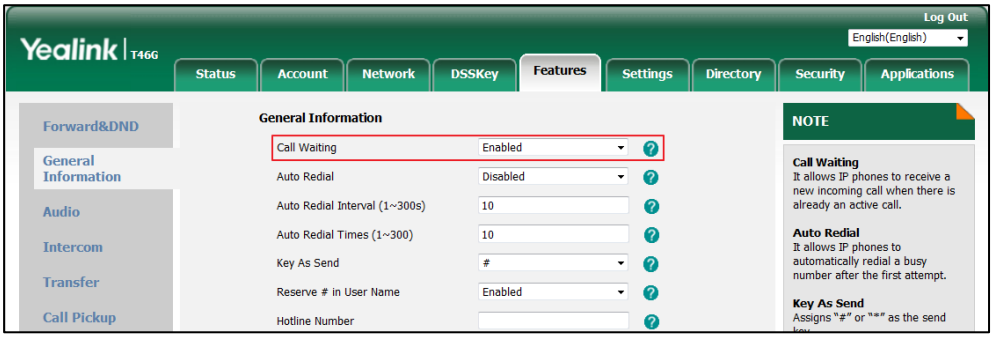
3. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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 shown as 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.

The following services can be inhibited with the Diversion Inhibitor feature access code:

- Call Forwarding Always, Busy, No Answer, and Selective
- Voice Mail (BroadWorks and external)
- Simultaneous Ringing (Personal)
- Sequential Ringing

The following redirection services cannot be inhibited:

- Remote Office
- Hunt Group
- Call Center
- Call Pickup (all variations)

This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

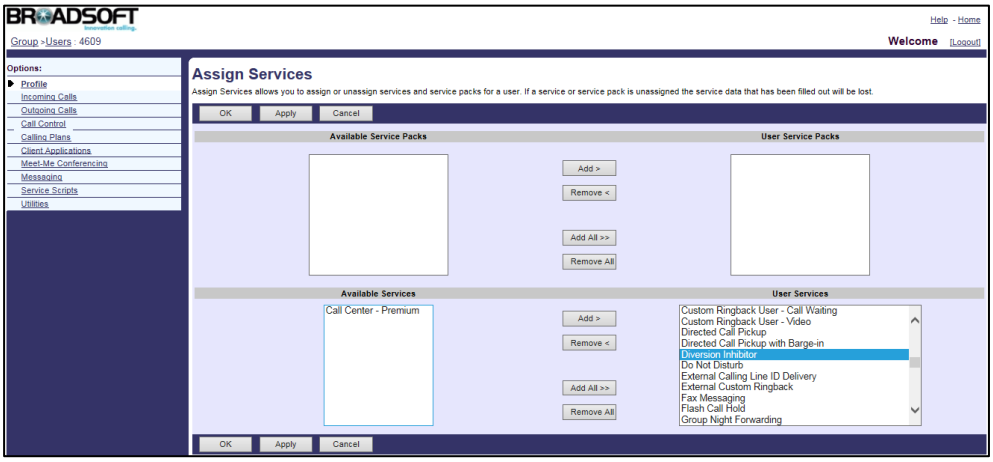
For more information on Diversion Inhibitor, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Diversion Inhibitor Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Diversion Inhibitor** and then click **Add>**.



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

Checking the Diversion Inhibitor FAC

Procedure

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

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

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.

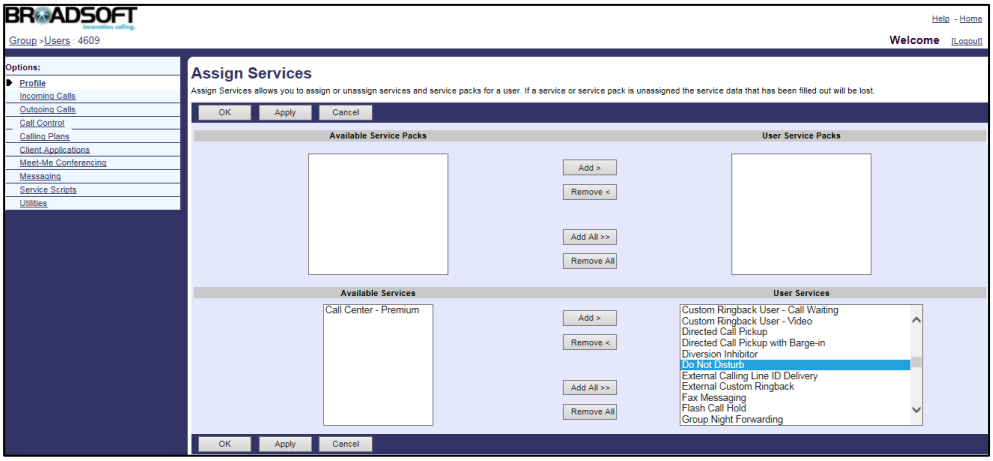
For more information on DND, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the DND Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Do Not Disturb** and then click **Add>**.



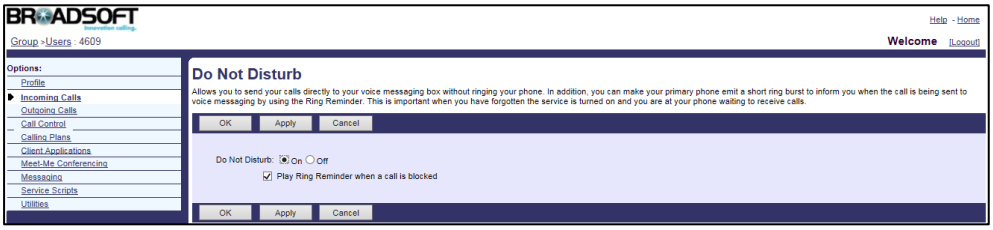
7. Click **Apply** to accept the change.

Activating DND for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the DND service.
5. Click on **Incoming Calls**->**Do Not Disturb**.
6. Mark the **On** radio box in the **Do Not Disturb** field.

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



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

Configuring Yealink IP Phones

You can enable or disable the DND feature. If the DND feature is enabled, the user can directly press the **DND** soft key or the DND key (refer to Line Keys and Programmable Keys) to activate or deactivate DND on the Idle screen. There are two DND modes: Phone (default) and Custom. A user can activate or deactivate DND feature on the IP phone using the **DND** soft key or a DND key.

Procedure

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

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for W52P/W56P, X=1-5; W53P/W60P/CP930W-Base, X=1-8; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2.

   If the user (e.g., 4609) is the second user assigned to the device profile, replace "X" by "2".

Parameters	Permitted Values	Default
features.dnd.allow	**Boolean**	**1**
Description: Enables or disables the DND feature. **0**-Disabled **1**-Enabled **Note:** It is not applicable to VP59/SIP-T58A/CP960, W52P and W56P IP phones.		
features.dnd.feature_key_sync.enable	**Boolean**	**1**
Description: It enables or disables the DND feature synchronization. **0**-Disabled		

Parameters	Permitted Values	Default
1-Enabled, server-based DND is enabled. Server and local phone DND are synchronized. If it is set to 1 (Enabled), a user changes the DND status on BroadWorks, the BroadWorks server notifies the phone of synchronizing the status. Conversely, if the user changes DND status on the phone, the IP phone notifies the BroadWorks server of synchronizing the status. **Note:** It works only if "features.feature_key_sync.enable" is set to 1 (Enabled). It is not applicable to CP920, W52P, W53P, W56P, W60P and CP930W-Base phones.		
account.X.dnd.feature_key_sync.enable	**Boolean**	**Blank**
Description: It enables or disables the DND feature synchronization for account X. **0**-Disabled **1**-Enabled, server-based DND is enabled. Server and local phone DND are synchronized. **Note:** The value configured by this parameter takes precedence over that configured by the parameter "features.dnd.feature_key_sync.enable". It works only if "account.X.feature_key_sync.enable" is set to 1 (Enabled). It is not applicable to VP59/T29G/T41P/T42G/T46G/T48G/T58A/W53P/W60P/CP920/CP960/CP930W-Base phones.		
features.dnd.feature_key_sync.local_processing.enable	**Boolean**	**0**
Description: Enables or disables the local DND when DND is activated on the BroadWorks server. **0**-Disabled **1**-Enabled **Note:** It works only if "features.feature_key_sync.enable" and "features.dnd.feature_key_sync.enable" are set to 1 (Enabled). This feature configured on a per-line basis takes precedence over that configured on a phone basis. It is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
features.dnd_mode	**Integer**	**0**
Description: Configures the mode for the IP phone to handle DND. **0**-Phone, DND is effective for the phone system **1**-Custom, DND can be configured for each or all accounts **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled). It is not applicable to SIP-T19(P) E2/CP960/W52P/W53P/W56P/W60P/CP930W-Base IP phones.		
features.dnd.enable	**Boolean**	**0**

Parameters	Permitted Values	Default
Description: Triggers the DND feature to on or off. **0**-Off **1**-On **Note:** It works only if "features.dnd.allow" is set to 1 (Enabled) and the value of the parameter "features.dnd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones.		
account.X.dnd.enable	**%BWDND-BINARY-X%**	**0**
Description: Triggers the DND feature to on or off for account X. **0**-Disabled **1**-Enabled **Note:** It works only if "features.dnd.allow" is set to 1 (Enabled) and the value of the parameter "features.dnd_mode" is set to 1 (Custom). It is not applicable to CP960 and CP920 IP phones.		
account.X.features.dnd.feature_key_sync.local_processing.enable	**Boolean**	**Blank**
Description: Enables or disables the local DND when DND is activated on the BroadWorks server for account X. **0**-Disabled **1**-Enabled **Note:** It works only if "features.feature_key_sync.enable" and "features.dnd.feature_key_sync.enable" are set to 1 (Enabled). It is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
features.dnd.large_icon.enable	**Boolean**	**0**
Description: Enables or disables the IP phone to display a large DND icon on the idle screen. **0**-Disabled **1**-Enabled **Note**: It works only if "features.dnd.allow" is set to 1 (Enabled). It is not applicable to VP59, SIP-T58A, CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones.		

The following shows an example of DND configurations for account 2 in a template configuration file (e.g., y000000000028.cfg):

features.dnd_mode = 1

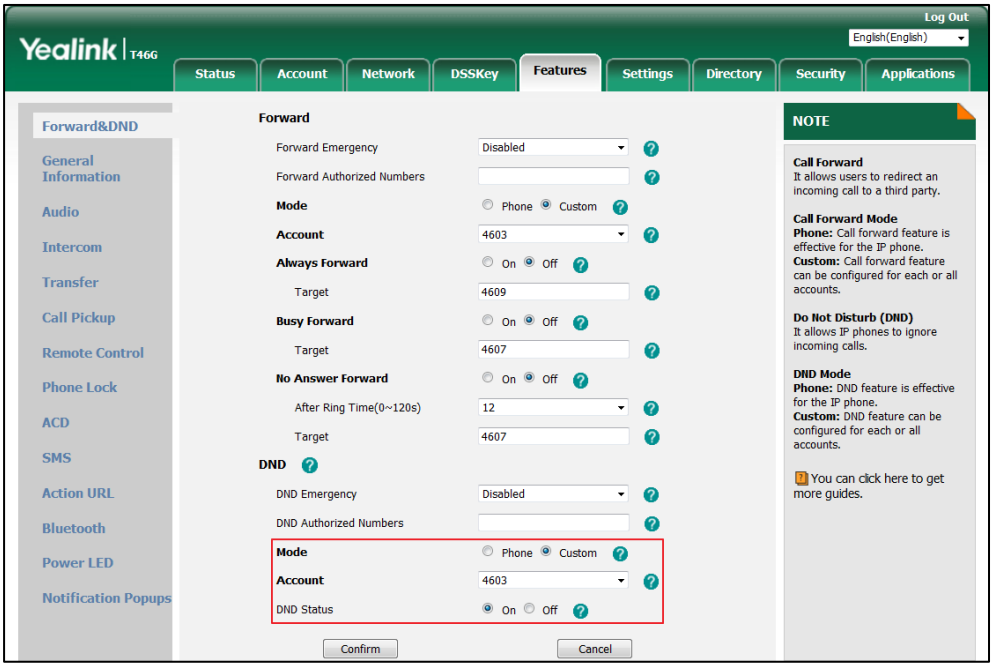
account.2.dnd.enable = %BWDND-BINARY-2%

2. Upload template boot and 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 shown as below:



Call Forward

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

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

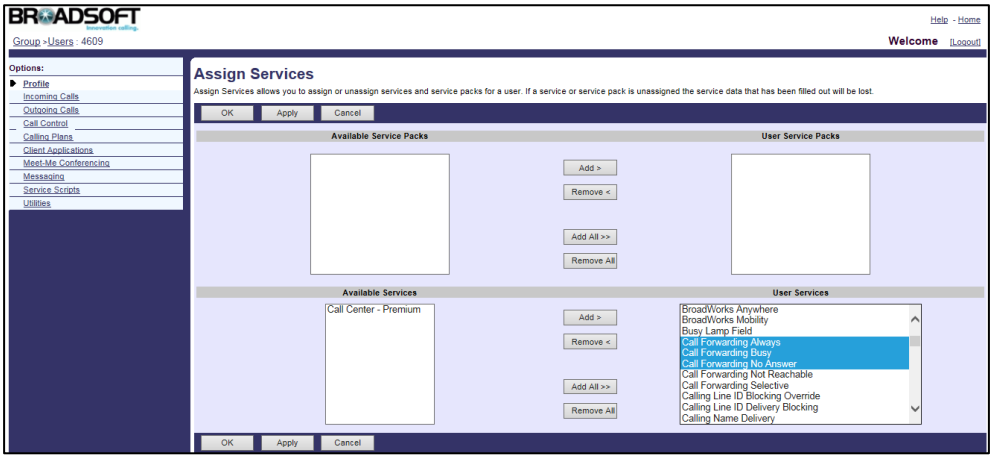
For more information on Call Forward, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Call Forward Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Call Forwarding Always**, **Call Forwarding Busy** and **Call forwarding No Answer** and then click **Add>**.



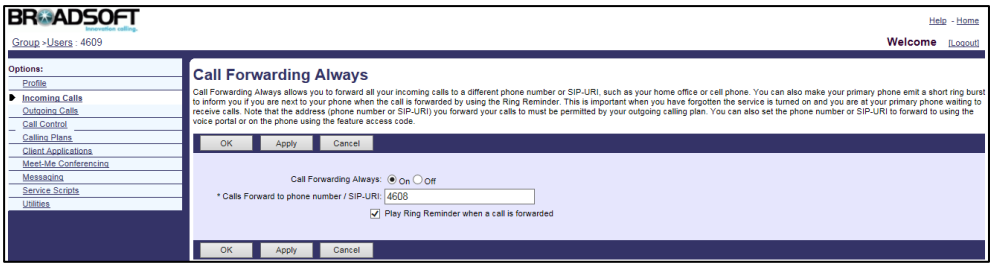
7. Click **Apply** to accept the change.

Configuring Call Forwarding Always for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the call forward service.
5. Click on **Incoming Calls**->**Call Forwarding Always**.
6. Mark the **On** radio box in the **Call Forwarding Always** field.
7. Enter the destination number or SIP-URI in the **Calls Forward to phone number / SIP-URI** field.

8. Check the **Play Ring Reminder when a call is forwarded** checkbox.

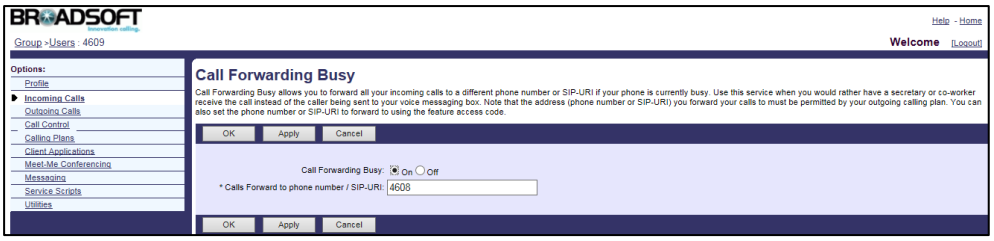


9. Click **Apply** to accept the change.

Configuring Call Forwarding Busy for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the call forward service.
5. Click on **Incoming Calls**->**Call Forwarding Busy**.
6. Mark the **On** radio box in the **Call Forwarding Busy** field.
7. Enter the destination number or SIP-URI in the **Calls Forward to phone number / SIP-URI** field.



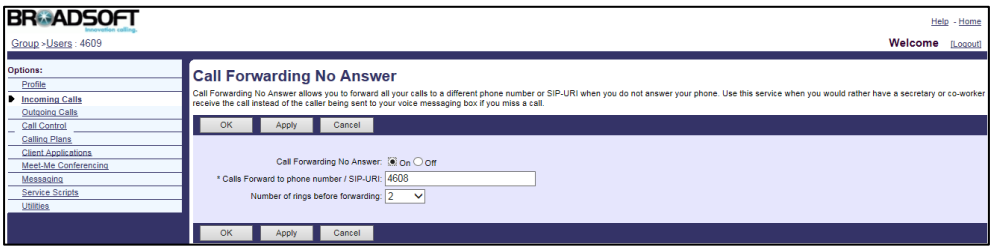
8. Click **Apply** to accept the change.

Configuring Call Forwarding No Answer for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4609), who has been assigned the call forward service.
5. Click on **Incoming Calls**->**Call Forwarding No Answer**.
6. Mark the **On** radio box in the **Call Forwarding No Answer** field.

7. Enter the destination number or SIP-URI in the **Calls Forward to phone number / SIP-URI** field.
8. Select the desired value from the pull-down list of **Number of rings before forwarding**.



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

Configuring Yealink IP Phones

You can enable or disable the Call Forward feature. If the Call Forward feature is enabled, a user will be allowed to activate and deactivate the Call Forward feature. You can also configure a Forward key (refer to Line Keys and Programmable Keys).

There are two call forward modes: Phone (default) and Custom.

Procedure

1. Add/Edit Call Forward parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for W52P/W56P, X=1-5; W53P/W60P/CP930W-Base, X=1-8; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2.

   If the user (e.g., 4609) is the second user assigned to the device profile, replace "X" by "2".

Parameters	Permitted Values	Default
features.fwd.allow	**Boolean**	**1**
Description: Enables or disables the call forward feature. **0**-Disabled **1**-Enabled **Note:** It is not applicable to VP59/T58A/CP960/W52P/W56P IP phones.		
features.forward.feature_key_sync.enable	**Boolean**	**1**
Description: It enables or disables the forward feature synchronization.		

Parameters	Permitted Values	Default
0-Disabled **1**-Enabled, server-based call forward is enabled. Server and local phone call forward are synchronized. **Note:** It works only if "features.feature_key_sync.enable" is set to 1 (Enabled). It is not applicable to W52P, W53P, W56P, W60P and CP930W-Base phones.		
account.X.forward.feature_key_sync.enable	**Boolean**	**Blank**
Description: It enables or disables the forward feature synchronization for account X. **0**-Disabled **1**-Enabled, server-based call forward is enabled. Server and local phone call forward are synchronized. **Note:** The value configured by this parameter takes precedence over that configured by the parameter "features.forward.feature_key_sync.enable". It works only if "account.X.feature_key_sync.enable" is set to 1 (Enabled). It is not applicable to VP59/T29G/T41P/T42G/T46G/T48G/T58A/W53P/W60P/CP920/CP960/CP930W-Base phones.		
features.forward.feature_key_sync.local_processing.enable	**Boolean**	**0**
Description: Enables or disables the local forward when forward is activated on the BroadWorks server. **0**-Disabled **1**-Enabled **Note:** It works only if "features.feature_key_sync.enable" and "features.forward.feature_key_sync.enable" are set to 1 (Enabled). This feature configured on a per-line basis takes precedence over that configured on a phone basis. It is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
features.fwd_mode	**Integer**	**0**
Description: Configures the call forward mode. **0**-Phone, call forward is effective for the phone system **1**-Custom, call forward can be configured for each or all accounts **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled). It is not applicable to CP930W-Base, SIP-T19(P) E2, CP960, W52P, W53P, W56P and W60P IP phones.		

Parameters	Permitted Values	Default
forward.always.enable	**Boolean**	**0**
Description: Triggers the always call forward to on or off on a phone basis. **0**-Off **1**-On **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones.		
forward.always.target	**String within 32 characters**	**Blank**
Description: Configures the destination number of always call forward. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones.		
forward.busy.enable	**Boolean**	**0**
Description: Triggers the busy call forward to on or off on a phone basis. **0**-Off **1**-On **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones.		
forward.busy.target	**String within 32 characters**	**Blank**
Description: Configures the destination number of busy call forward. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones.		

Parameters	Permitted Values	Default
forward.no_answer.enable	**Boolean**	**0**
Description: Triggers the no answer call forward to on or off on a phone basis. **0**-Disabled **1**-Enabled **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones.		
forward.no_answer.target	**String within 32 characters**	**Blank**
Description: Configures the destination number of no answer call forward. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones.		
forward.no_answer.timeout	**Integer from 0 to 20**	**2**
Description: Configures ring times (N) to wait before forwarding incoming calls. The incoming calls will be forwarded when not answered after N*M (M is configurable by "phone_setting.ring_duration") seconds. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 0 (Phone). It is not applicable to W52P/W53P/W56P/W60P/CP930W-Base IP phones. The permitted values are determined by the value of the parameter "features.forward.no_answer.show_ring_times".		
features.forward.no_answer.show_ring_times	**String within 512 characters**	**0,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20**

Parameters	Permitted Values	Default
Description: Configures the permitted values of the ring times (N) to wait before forwarding incoming calls. **Example**: features.forward.no_answer.show_ring_times = 0,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19 **Note:** It works only if "forward.no_answer.enable" or "account.X.timeout_fwd.enable" is set to 1 (Enabled). It is only applicable to phones (except W53P/W60P/CP930W-Base) running firmware version 83 or later.		
phone_setting.ring_duration	**Integer greater than or equal to 0**	**6**
Description: Configures the interval (in seconds) of the ring for no answer forward feature. **Note:** It works only if "forward.no_answer.enable" or "account.X.timeout_fwd.enable" is set to 1 (Enabled). It is only applicable to phones (except W53P/W60P/CP930W-Base) running firmware version 83 or later.		
account.X.features.forward.feature_key_sync.local_processing.enable	**Boolean**	**0**
Description: Enables or disables the local forward for account X when forward is activated on BroadWorks server. **0**-Disabled **1**-Enabled **Note:** It works only if "features.feature_key_sync.enable" and "features.forward.feature_key_sync.enable" are set to 1 (Enabled). It is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
account.X.always_fwd.enable	**%BWCFA-BINARY-X%**	**0**
Description: Triggers the always call forward to on or off for account X. **0**-Disabled **1**-Enabled **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the		

Parameters	Permitted Values	Default
parameter "features.fwd_mode" is set to 1 (Custom). It is not applicable to SIP-T19(P) E2/CP920/CP960 IP phones.		
account.X.always_fwd.target	**String within 32 characters**	**Blank**
Description: Configures the destination number of always call forward for account X. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 1 (Custom). It is not applicable to SIP-T19(P) E2/CP920/CP960 IP phones.		
account.X.busy_fwd.enable	**Boolean**	**0**
Description: Triggers the busy call forward to on or off for account X. **0**-Disabled **1**-Enabled **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 1 (Custom). It is not applicable to SIP-T19(P) E2/CP920/CP960 IP phones.		
account.X.busy_fwd.target	**String within 32 characters**	**Blank**
Description: Configures the destination number of busy call forward for account X. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 1 (Custom). It is not applicable to SIP-T19(P) E2/CP920/CP960 IP phones.		
account.X.timeout_fwd.enable	**Boolean**	**0**
Description: Triggers the no answer call forward to on or off for account X. **0**-Off **1**-On **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the		

Parameters	Permitted Values	Default
parameter "features.fwd_mode" is set to 1 (Custom). It is not applicable to SIP-T19(P) E2/CP920/CP960 IP phones.		
account.X.timeout_fwd.timeout	**Integer from 0 to 20**	**2**
Description: Configures ring times (N) to wait before forwarding incoming calls for account X. The incoming calls will be forwarded when not answered after N*M (M is configurable by "phone_setting.ring_duration") seconds. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 1 (Custom). It is not applicable to SIP-T19(P) E2/CP920/CP960 IP phones. The permitted values are determined by the value of the parameter "features.forward.no_answer.show_ring_times".		
account.X.timeout_fwd.target	**String within 32 characters**	**Blank**
Description: Configures the destination number of no answer call forward for account X. **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled) and the value of the parameter "features.fwd_mode" is set to 1 (Custom). It is not applicable to SIP-T19(P) E2/CP920/CP960 IP phones.		
features.fwd_diversion_enable	**Boolean**	**1**
Description: Enables or disables the IP phone to present the diversion information when the call is forwarded to your IP phone. **0**-Disabled **1**-Enabled **Note:** It works only if "features.fwd.allow" is set to 1 (Enabled).		

The following shows an example of always call forward configurations for account 2 in a template configuration file (e.g., y000000000028.cfg):

features.fwd_mode = 1

account.2.always_fwd.enable = %BWFAC-CFA-BINARY-2%

account.2.always_fwd.target = 4609

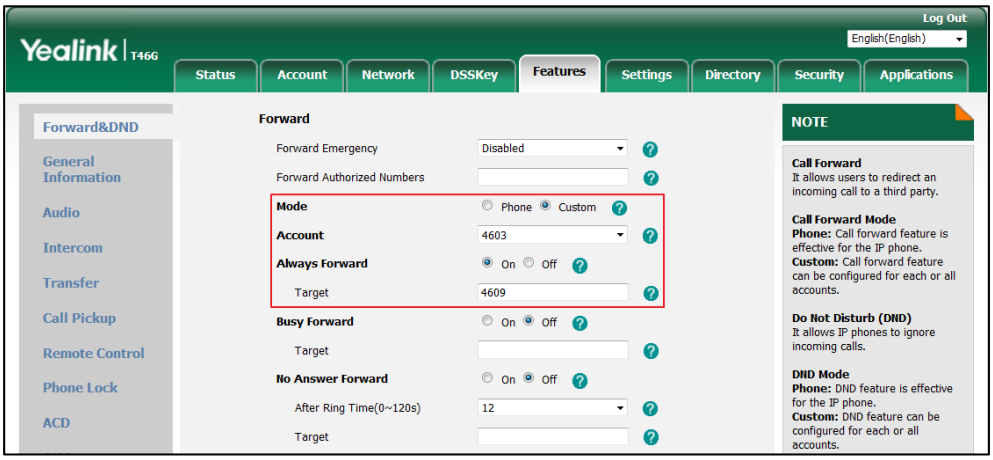
2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

After the above configurations, the tags in the configuration template 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 shown as below:



Group Night Forwarding

Group Night Forwarding provides a quick way of redirecting all calls to a specified destination at off-work time. You can configure the service at the group level and enable or disable the service for individual users. The off-work time is specified when calls should be forwarded, you can configure a time/holiday schedule. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

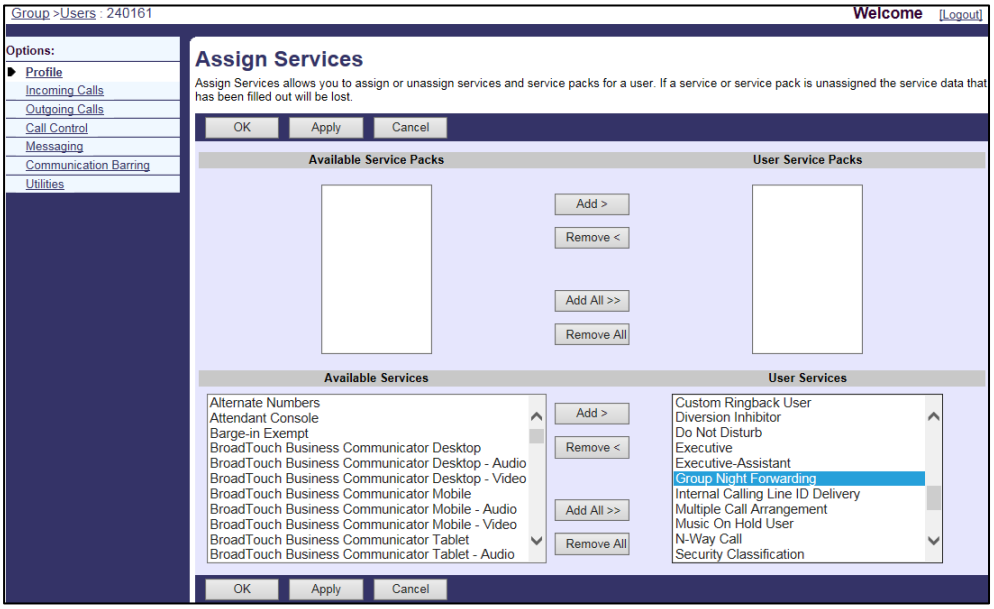
Configuring the BroadSoft Server

Assigning the Group Night Forwarding Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240161).
5. Click on **Assign Services**.

6. In the **Available Services** box, select **Group Night Forwarding** and then click **Add>**.

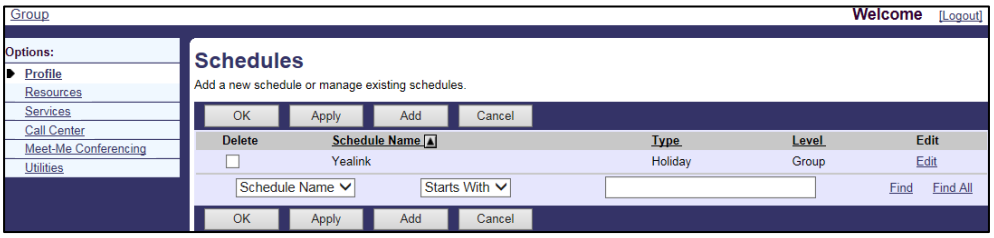


7. Click **Apply** to accept the change.

Configuring a Time/Holiday Schedule

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Schedules**.
3. Click **Add** to add a time/holiday schedule.
4. Enter the schedule name in the **Schedule Name** field.
5. Mark the desired radio box in the **Schedule Type** field.
6. Click **OK** to accept the change.



7. Click **Edit** to configure the schedule details.
8. Click **Add** to add a new event to schedule.
9. Set the following parameters to add a new event.

   Schedule Name: Yealink

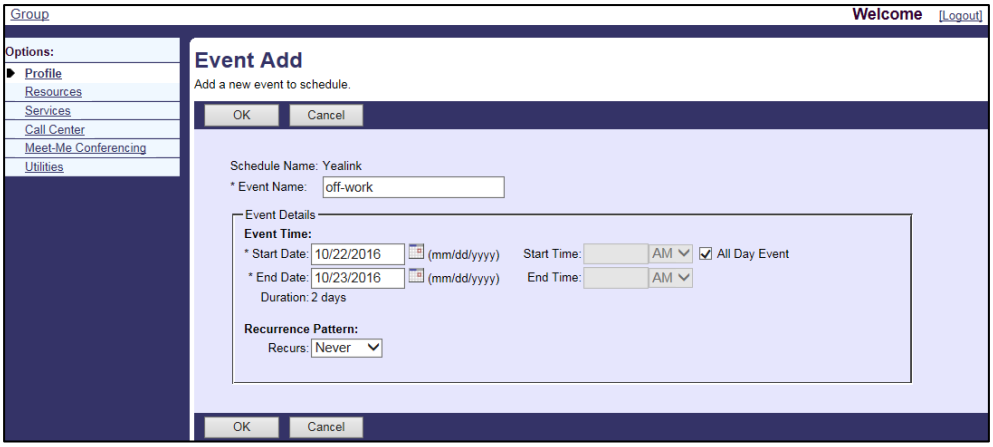
   Event Name: off-work

   Start Date: 10/22/2016

End Date: 10/23/2016

All Day Event: Checked

Recurs: Never



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

Configuring Group Night Forwarding

Procedure

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

2. Click on **Services**->**Group Night Forwarding**.

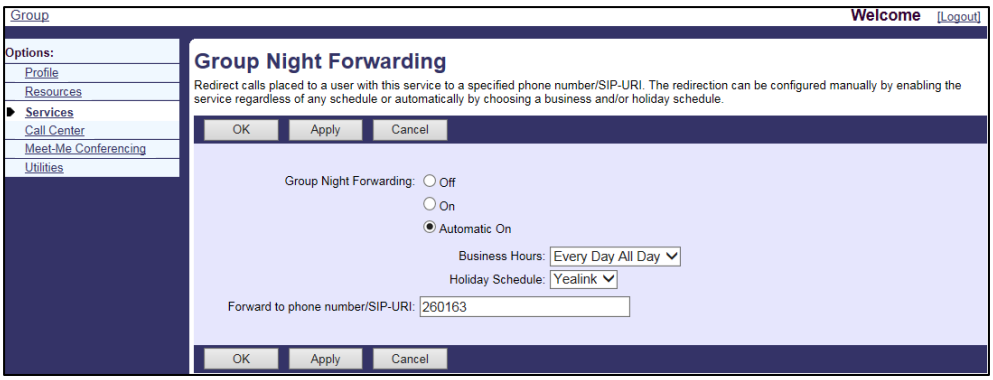
3. Set the parameters of group night forwarding:

Group Night Forwarding: Automatic On

Business Hour: Every Day All Day

Holiday Schedule: Yealink

Forward to Phone number/SIP-URI: 240163

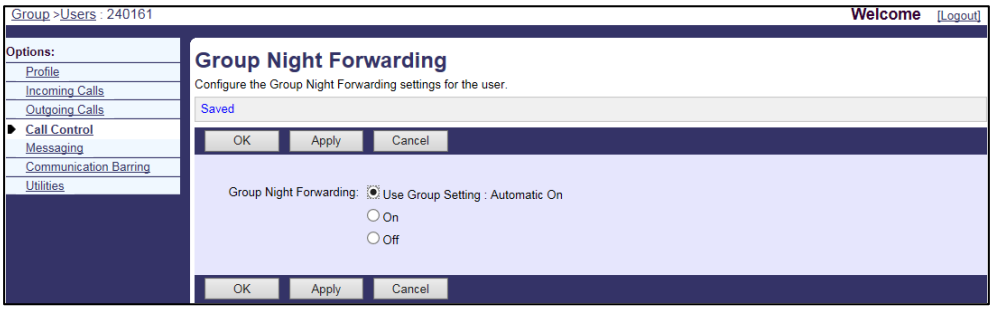


4. Click **Apply** to accept the change.

Configuring the Group Night Forwarding Feature for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240161), who has been assigned the group night forward service.
5. Click on **Call Control**->**Group Night Forwarding**.
6. Mark the **desired** radio box in the **Group Night Forwarding** field.



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

Alternate Numbers

Alternate Numbers allow a user to have up to ten alternate phone numbers or extensions in addition to the main phone number or extension. The user can be reached through any of the phone numbers or extensions. Calls to the main number result in the normal ring pattern. Calls to an alternate number result in a distinctive ring pattern configured for that number. Each alternate phone number or extension can be assigned one of four distinctive ring patterns. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

Normal Ring Pattern

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

Bellcore Tone	Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Bellcore-dr1 (standard)	Ringing	2s On	1800	2000	2200
	Silent	4s Off	3600	4000	4400

Long-Long Ring Pattern

Selecting this pattern results in the following distinctive ring pattern:

Bellcore Tone	Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Bellcore-dr2	Ringing	Long	630	800	1025
	Silent		315	400	525
	Ringing	Long	630	800	1025
	Silent		3475	4000	4400

Short-Long Ring Pattern

Selecting this pattern results in the following distinctive ring pattern:

Bellcore Tone	Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Bellcore-dr3	Ringing	Short	315	400	525
	Silent		145	200	525
	Ringing	Short	315	400	525
	Silent		145	200	525
	Ringing	Long	630	800	1025
	Silent		2975	4000	4400

Short-Long-Short Ring Pattern

Selecting this pattern results in the following distinctive ring pattern:

Bellcore Tone	Ring Pattern	Cadence	Minimum Duration (ms)	Nominal Duration (ms)	Maximum Duration (ms)
Bellcore-dr4	Ringing	Short	200	300	525
	Silent		145	200	525
	Ringing	Long	800	1000	1100
	Silent		145	200	525
	Ringing	Short	200	300	525
	Silent		2975	4000	4400

Note Before configuring Group Night Forwarding feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Group Night Forwarding can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

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

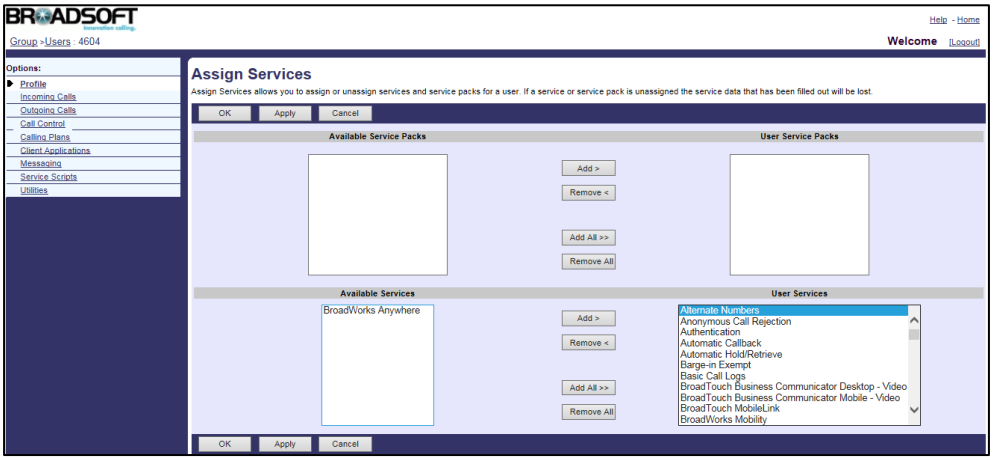
Configuring the BroadSoft Server

Assigning the Alternate Numbers Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.

6. In the **Available Services** box, select **Alternate Numbers** and then click **Add>**.

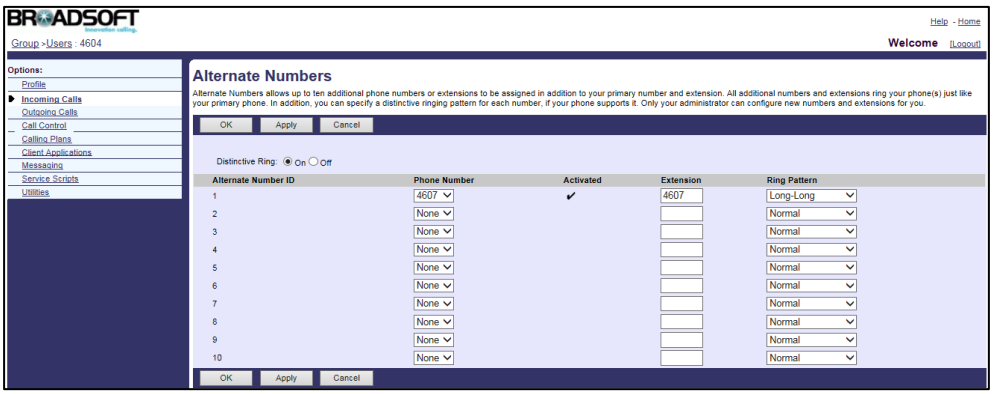


7. Click **Apply** to accept the change.

Assigning Alternate Numbers and Extensions to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile->Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the alternate number service.
5. Click on **Incoming Calls**->**Alternate Numbers**.
6. Mark the **On** radio box in the **Distinctive Ring** field.
7. Select the alternate number from the pull-down list of **Phone Number**.
8. Enter the extension in the **Extension** field.
9. Select the desired ring pattern from the pull-down list of **Ring Pattern**.



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

Configuring Yealink IP Phones

To use Alternate Number, distinctive ring feature should be enabled on the IP phone.

To configure distinctive ring:

1. Add/Edit distinctive ring parameters in the configuration template files:

Parameters	Permitted Values	Default
features.alert_info_tone	**Boolean**	**0**
Description: Enables and disables the IP phone to map the keywords in the Alert-info header to the specified Bellcore ring tones. **0**-Disabled **1**-Enabled		

   The following shows an example of distinctive ring configurations in a template configuration file (e.g., y000000000028.cfg):

   features.alert_info_tone = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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 the sequential ring to prompt the callee to enter a digit to confirm the acceptance of the call.

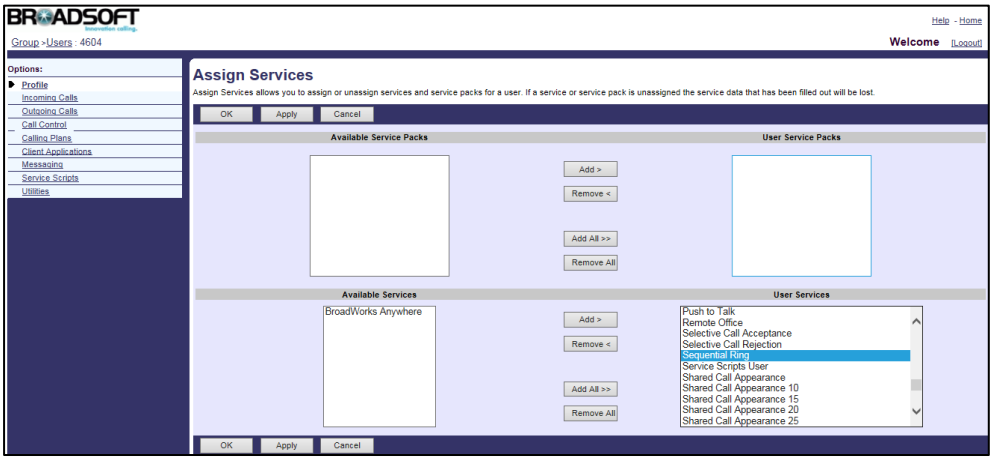
For more information on Sequential Ring, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Sequential Ring Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Sequential Ring** and then click **Add>**.



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

Configuring a Sequential Ring List for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the sequential ring service.
5. Click on **Incoming Calls**->**Sequential Ring**.
6. Click **Add** to add a new sequential ring entry.
7. Set the following parameters to add a sequential ring entry.

   The following shows an example:

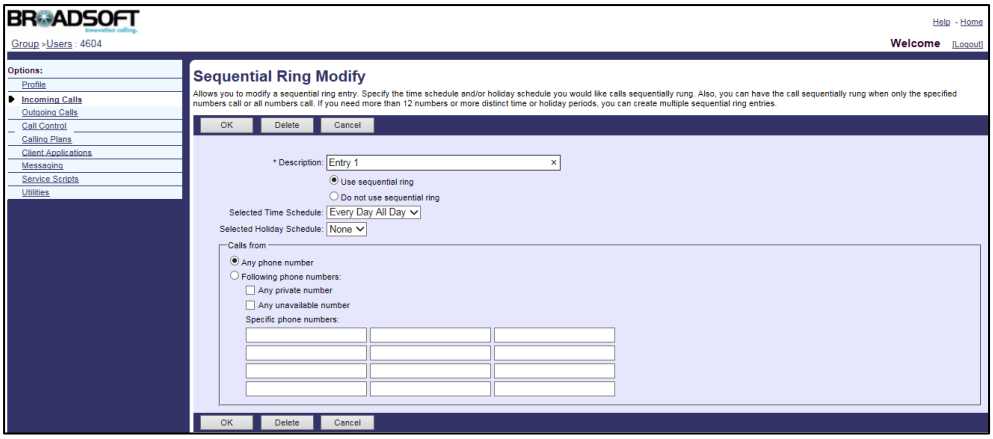
   Description: Entry 1

   Use sequential ring: Selected

Selected Time Schedule: Every Day All Day

Selected Holiday Schedule: None

Calls from: Any phone number



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

9. Configure the following parameters for the 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 a sequential ring to prompt the secondary location to enter a digit to confirm the acceptance of the call

The following shows an example:

Use Base Location first: Selected

Number of rings for Base Location: 3

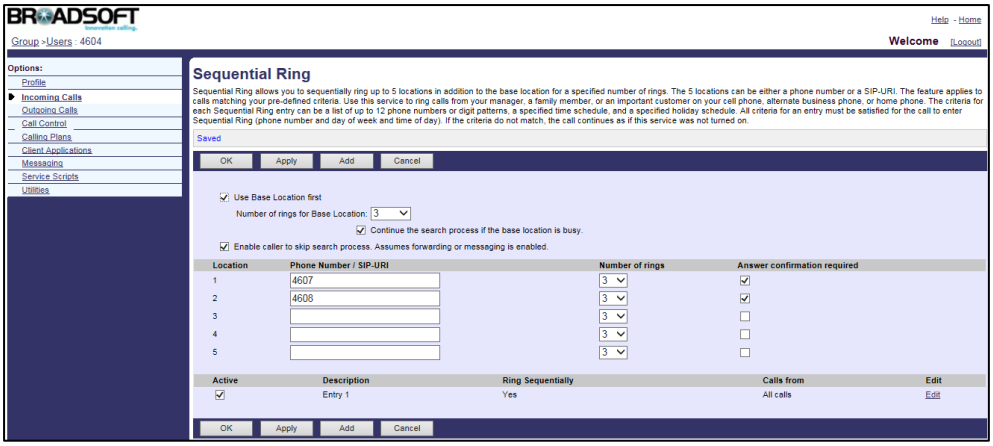
Continue the search process if the base location is busy: Selected

Enable caller to skip search process: Selected

Phone Number / SIP-URI: 4607 4608

Number of rings: 3

Answer confirmation required: Selected



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

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 destination 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 destination 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 destination party has been called by the user, but the destination party has not answered yet before transfer. Attended transfer before answer is implemented by a REFER method.

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.

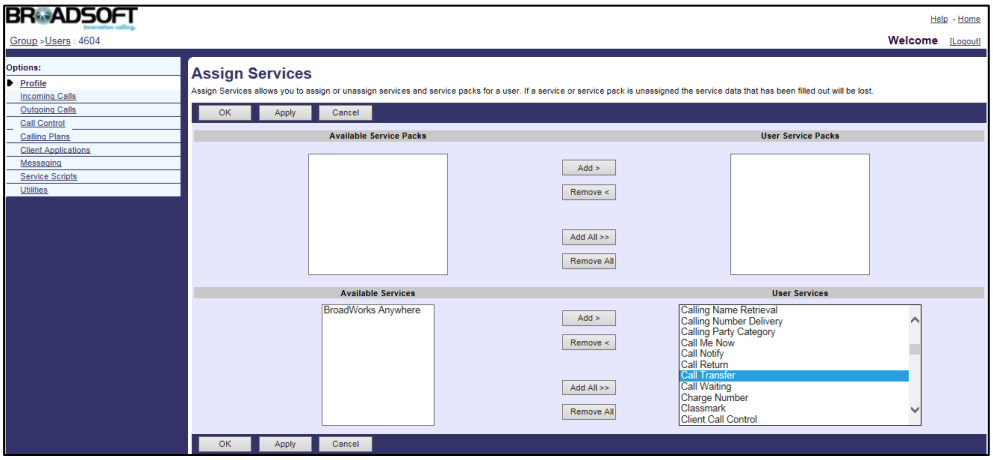
For more information on Call Transfer, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Call Transfer Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Call Transfer** and then click **Add>**.



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

Configuring Call Transfer for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the call transfer service.
5. Click on **Call Control**->**Call Transfer**.

6. Configure the following parameters of call transfer.

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

The following shows an example:

Call Transfer Recall: Selected

Number of rings before recall: 4

Enable Busy Camp On seconds: Selected 120

Use Diversion Inhibitor for Blind Transfer: On

Use Diversion Inhibitor for Consultative Calls: On

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

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:

1. Do Not Disturb
2. Call Forwarding Always (CFA)
3. Call Forwarding Busy (CFB)
4. Call Forwarding No Answer (CFNA)
5. ACD state
6. Centralized Call Recording
7. Executive and Assistant
8. Security Classification

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

Configuring Yealink IP Phones

Procedure

1. Add/Edit Feature Key Synchronization parameters in the configuration template files:

Parameters	Permitted Values	Default
features.feature_key_sync.enable	**%FEATURE_KEY_SYN%**	**0**
Description: It enables or disables to synchronize the feature status between the IP phone and the server. **0**-Disabled **1**-Enabled, the IP phone to send a SUBSCRIBE message with event "as-feature-event" to the server. **Note**: It is not applicable to W52P and W56P IP phones.		
account.X.feature_key_sync.enable	**%FEATURE_KEY_SYN%**	**Blank**
Description: It enables or disables to synchronize the feature status between the IP phone and the		

Parameters	Permitted Values	Default
server for account X. **0**-Disabled **1**-Enabled, the IP phone to send a SUBSCRIBE message with event "as-feature-event" to the server. **Note:** It is not applicable to VP59/T29G/T41P/T42G/T46G/T48G/T58A/W53P/W60P/CP920/CP960/CP930W-Base phones. The value configured by this parameter takes precedence over that configured by the parameter "features.feature_key_sync.enable".		

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.

3. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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

   features.feature_key_sync.enable = 1

Network Conference

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

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

Configuring Yealink IP Phones

Procedure

1. Add/Edit Network Conference parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for W52P/W56P, X=1-5; W53P/W60P/CP930W-Base, X=1-8; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

If the user (e.g., 4604) is the first user assigned to the device profile, replace the "X" by "1".

Parameters	Permitted Values	Default
account.X.conf_type	**Integer**	**0**
Description: Configures the conference type for account X. **0**-Local Conference **2**-Network Conference		
account.X.conf_uri	**%BWNETWORK-CONFERENCE-SIPURI-X%**	**Blank**
Description: Configures the URI of the network conference for account X.		
features.conference.with_previous_call.enable	**Boolean**	**0**
Description: Enables or disables the IP phone to merge two calls into a conference directly by pressing the **Conference** soft key when there are two calls on the phone. **0**-Disabled, you can select to set up a conference with the held party or a new party when pressing the **Conference** soft key during multiple calls. **1**-Enabled **Note**: It is only applicable to phones (not applicable to VP59/SIP-T58A/CP960, W53P/W60P/CP930W-Base) running firmware version 82 or later.		

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 = %BWNETWORK-CONFERENCE-SIPURI-1%

features.conference.with_previous_call.enable = 1

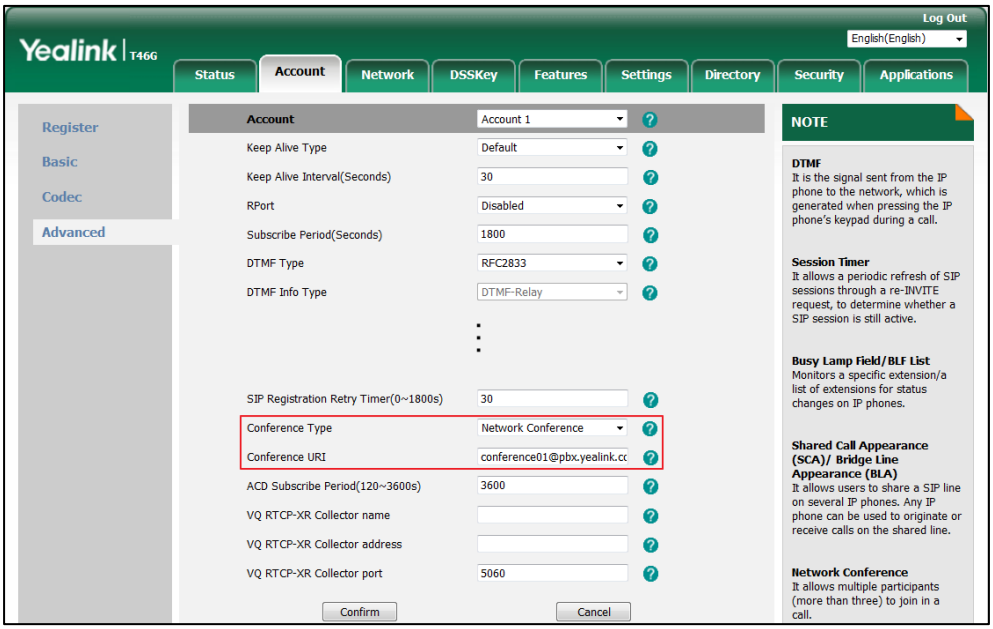
2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

   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:



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 in the same customer group (defined by the system administrator). Group Call Pickup allows users to pick up a ringing call coming to another user of the pre-defined group (defined by group administrator). 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.

This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

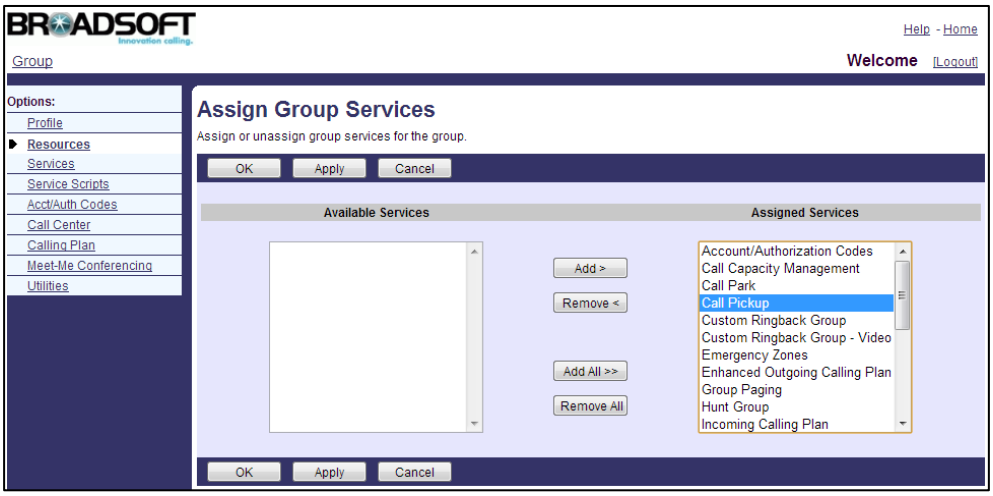
Configuring the BroadSoft Server

Assigning the Call Pickup Service to the Group

Procedure

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>**.



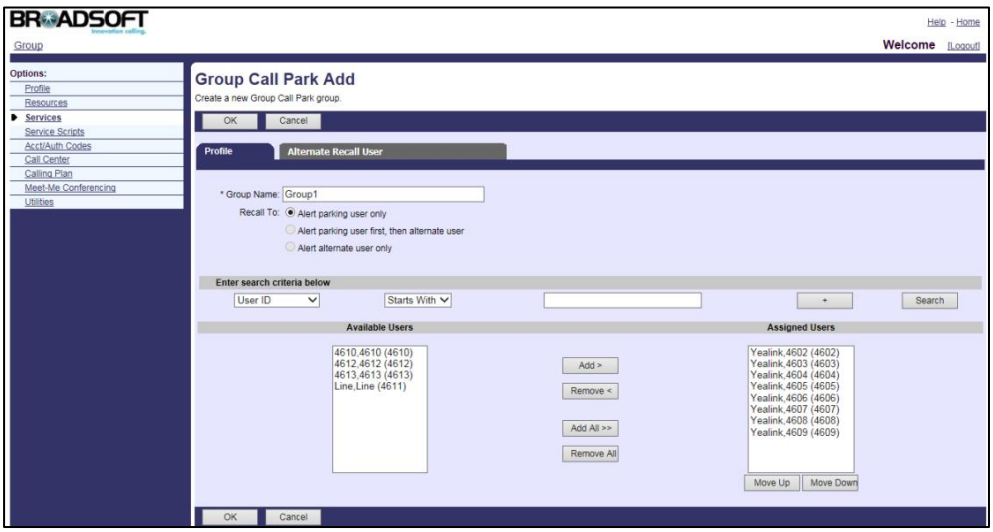
4. Click **Apply** to accept the change.

Adding a Call Pickup Group and Assigning Users to the Call Pickup Group

Procedure

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.

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



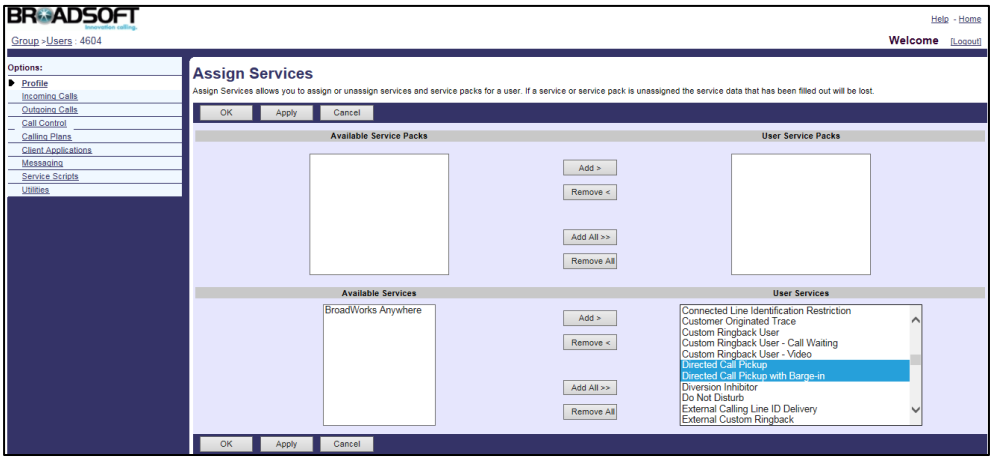
7. Click **OK** to accept the change.
8. Repeat steps 6 to 7 to assign more users to the call pickup group.

Assigning the Directed Call Pickup and Directed Call Pickup with Barge-in Services to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.

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



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

Configuring Directed Call Pickup with Barge-in for a User

You can configure whether a warning tone is given to the picked-up user when a barge-in occurs and whether automatic target selection is enabled.

Procedure

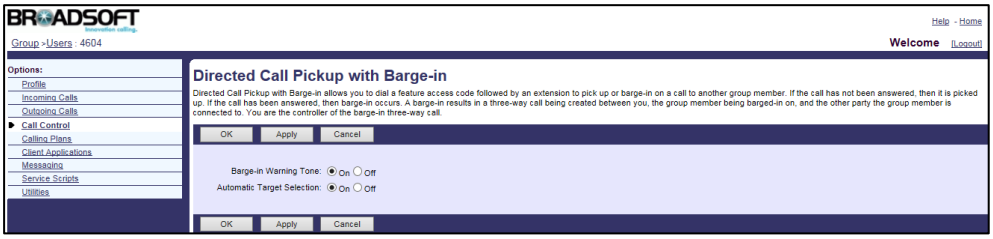
1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the directed call pickup with barge-in service.
5. Click on **Call Control**->**Directed Call Pickup with Barge-in**.
6. Configure the following parameters for directed call pickup with barge-in.

Parameter	Description
Barge-in Warning Tone	Specifies whether a warning tone is played to the picked up user when a barge-in occurs. The default state is “On”.
Automatic Target Selection	Enables or disables the user with DPUBI service to initiate a pickup or barge-in by dialing the DPBUI FAC without an extension. When this option is enabled, the user can initiate a pickup or barge-in by dialing the FAC alone if only one user is active (on a call or ringing). The default state is “Off”.

The following shows an example:

Simultaneous Ring Personal: On

Automatic Target Selection: On

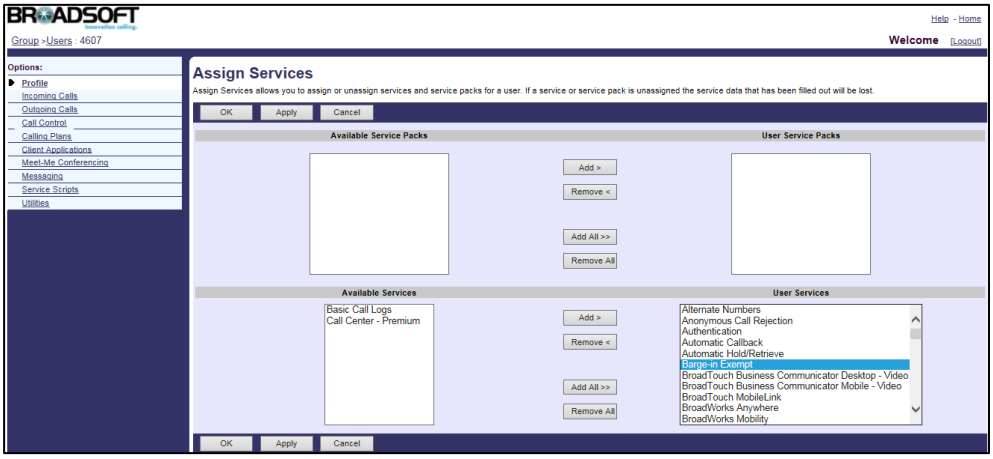


7. Click **Apply** to accept the change.

Assigning the Barge-in Exempt Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4607).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Barge-in Exempt** and then click **Add>**.



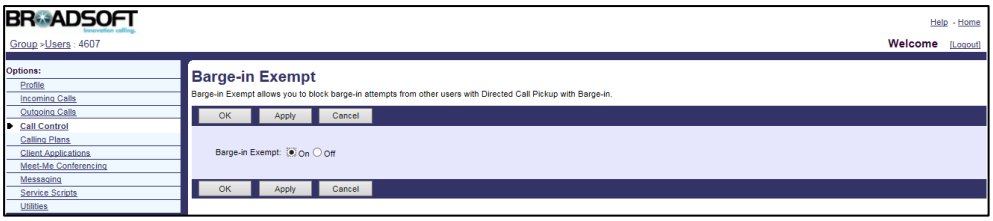
7. Click **Apply** to accept the change.

Activating Barge-in Exempt for a User

Procedure

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

4. Select the desired user (e.g., 4607), who has been assigned the barge-in exempt service.
5. Click on **Call Control**->**Barge-in Exempt**.
6. Mark the **On** radio box in the **Barge-in Exempt** field.



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

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

Configuring Yealink IP Phones

In addition to picking up a call by dialing the FACs, a user can pick up the incoming call using call pickup keys (refer to Line Keys and Programmable Keys) or call pickup soft keys.

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

Configuring Directed Call Pickup

Procedure

1. Add/Edit Directed Call Pickup parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
features.pickup.direct_pickup_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to display the **DPickup** soft key on the dialing screen. **0**-Disabled **1**-Enabled		

Parameters	Permitted Values	Default
features.pickup.direct_pickup_code	**%BWFAC-DIRECTED-CALL-PICKUP-1%**	**Blank**
Description: Configures the Directed Call Pickup FAC (default: *97) on a phone basis.		
account.X.direct_pickup_code	**String within 32 characters**	**Blank**
Description: Configures the Directed Call Pickup FAC (default: *97) on a per-line basis for account X. The Directed Call Pickup FAC configured on a per-line basis takes precedence over that configured on a phone basis. We recommend that you just configure the FAC either on a phone basis or on a per-line basis.		

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

features.pickup.direct_pickup_enable = 1

features.pickup.direct_pickup_code = %BWFAC-DIRECTED-CALL-PICKUP-1%

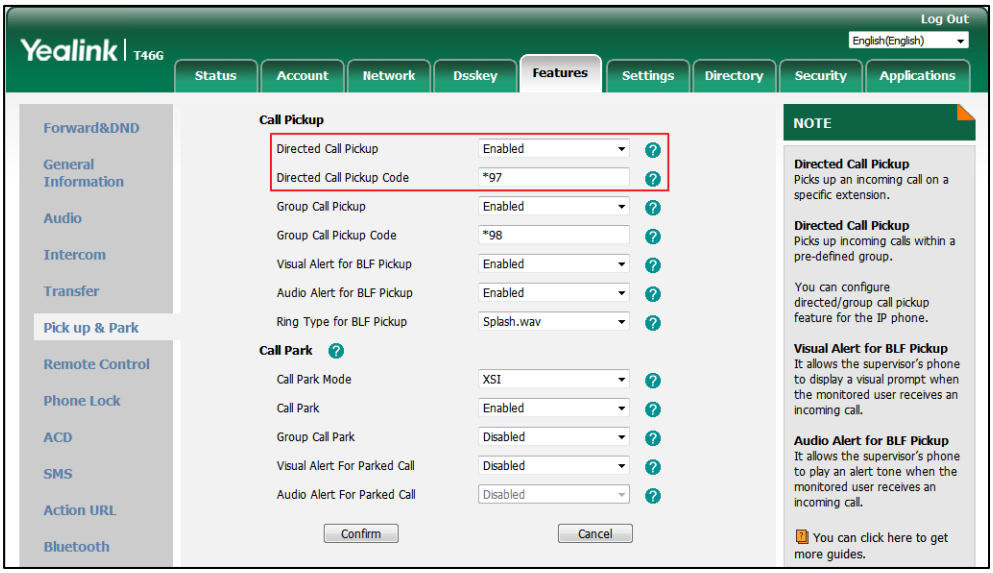
2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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

features.pickup.direct_pickup_code = *97

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



Configuring Group Call Pickup

Procedure

1. Add/Edit Group Call Pickup parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
features.pickup.group_pickup_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to display the **GPickup** soft key on the dialing screen. **0**-Disabled **1**-Enabled		
features.pickup.group_pickup_code	**%BWFAC-CALL-PICKUP-1%**	**Blank**
Description: Configures the Group Call Pickup FAC (default: *98) on a phone basis.		
account.X.group_pickup_code	**String within 32 characters**	**Blank**
Description: Configures the Group Call Pickup FAC (default: *98) on a per-line basis for account X. The Group Call Pickup FAC configured on a per-line basis takes precedence over that configured on a phone basis. We recommend that you just configure the FAC either on a phone basis or on a per-line basis.		

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

   features.pickup.group_pickup_enable = 1

   features.pickup.group_pickup_code = %BWFAC-CALL-PICKUP-1%

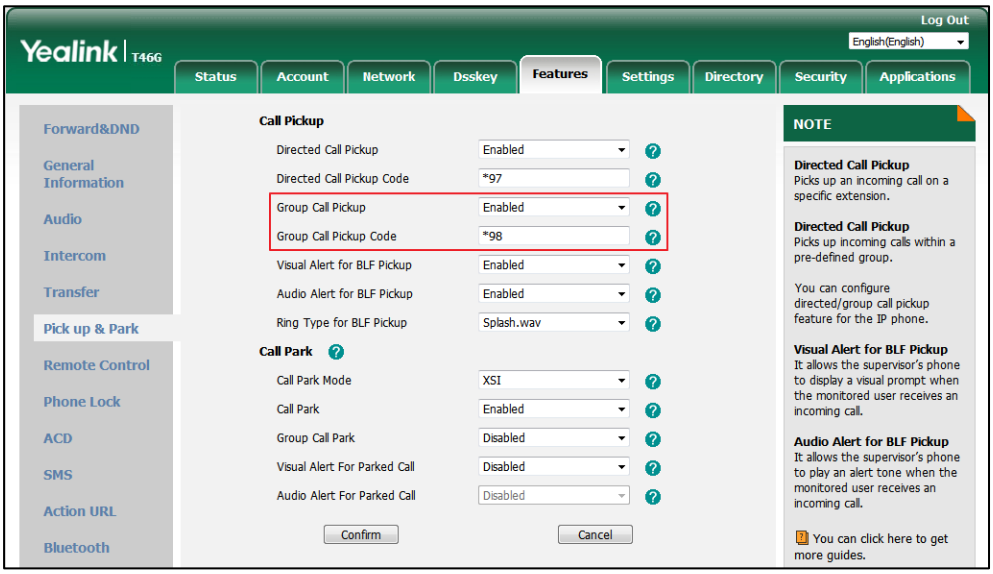
2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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

features.pickup.group_pickup_code = *98

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



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 of 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. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

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

Configuring the BroadSoft Server

You can configure the following for Calling Line ID Presentation:

- Assign the Calling Line ID Delivery service.
- Activate/Deactivate Calling Line ID Presentation feature.
- Assign the Calling Name Delivery service.
- Activate/Deactivate Calling Name Presentation feature.
- Assign the Calling Number Delivery service.
- Activate/Deactivate Calling Number Presentation feature.

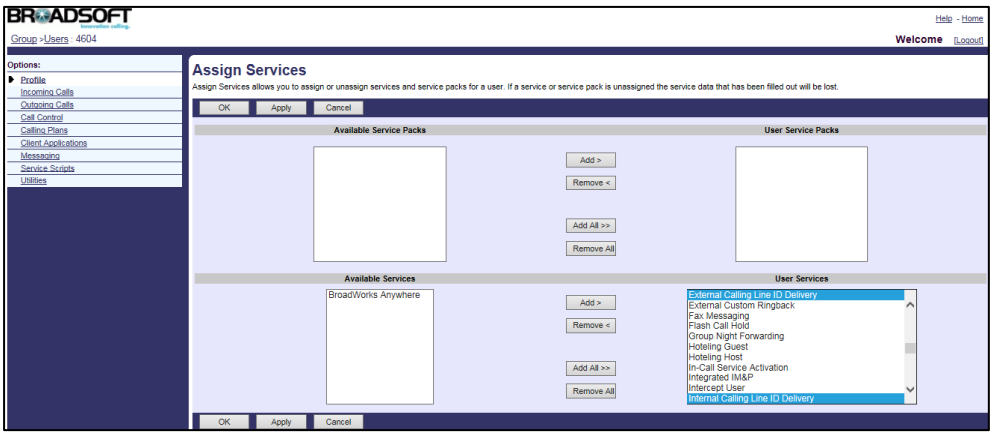
Note The Internal Calling Line ID Delivery and External Calling Line ID Delivery services have precedence over Calling Name/Number Delivery service. If you have either the Internal Calling Line ID Delivery or External Calling Line ID Delivery service assigned, the assignment and configuration of the Calling Name/Number Delivery service has no effect.

Assigning the Calling Line ID Delivery Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.

6. In the **Available Services** box, select **External Calling Line ID Delivery** and **Internal Calling Line ID Delivery**, and then click **Add>**.

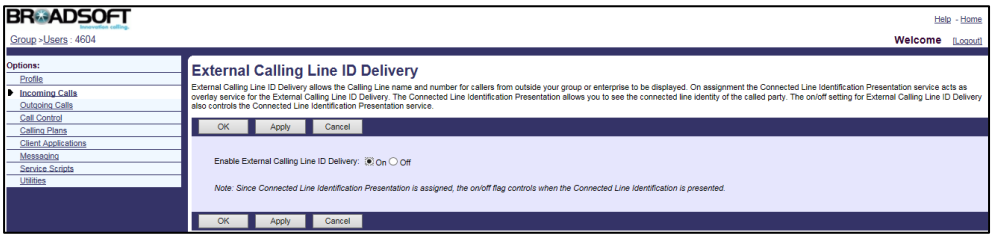


7. Click **Apply** to accept the change.

Activating Calling Line ID Presentation Feature

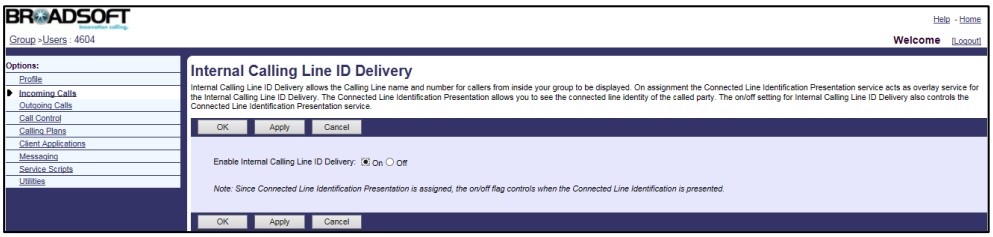
Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the calling line ID delivery service.
5. Click on **Incoming Calls**->**External Calling Line ID Delivery**.
6. Mark the **On** radio box in the **Enable External Calling Line ID Delivery** field.



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

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

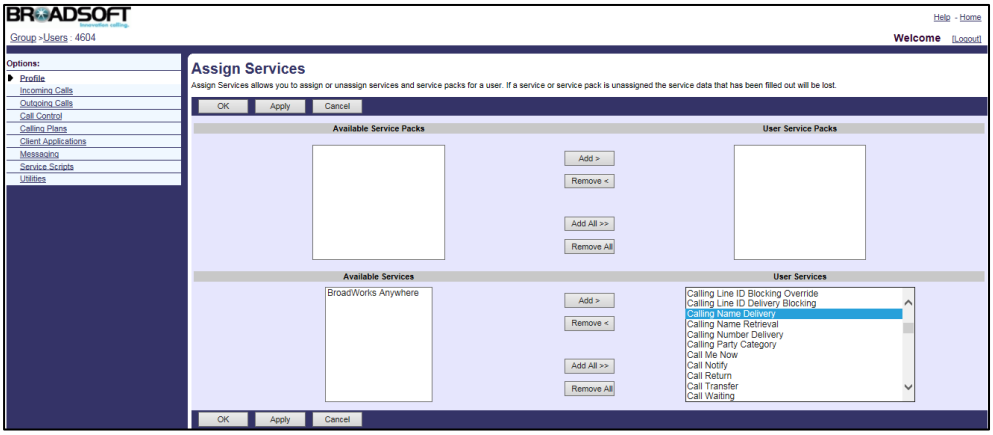


10. Click **Apply** to accept the change.

Assigning the Calling Name Delivery Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Calling Name Delivery** and then click **Add>**.



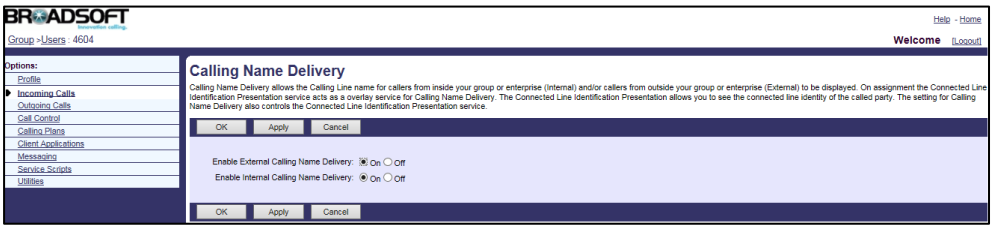
7. Click **Apply** to accept the change.

Activating Calling Name Presentation Feature

Procedure

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

4. Select the desired user (e.g., 4604), who has been assigned the calling name delivery service.
5. Click on **Incoming Calls**->**Calling Name Delivery**.
6. Mark the **On** radio box in the **Enable External Calling Name Delivery** field.
7. Mark the **On** radio box in the **Enable Internal Calling Name Delivery** field.

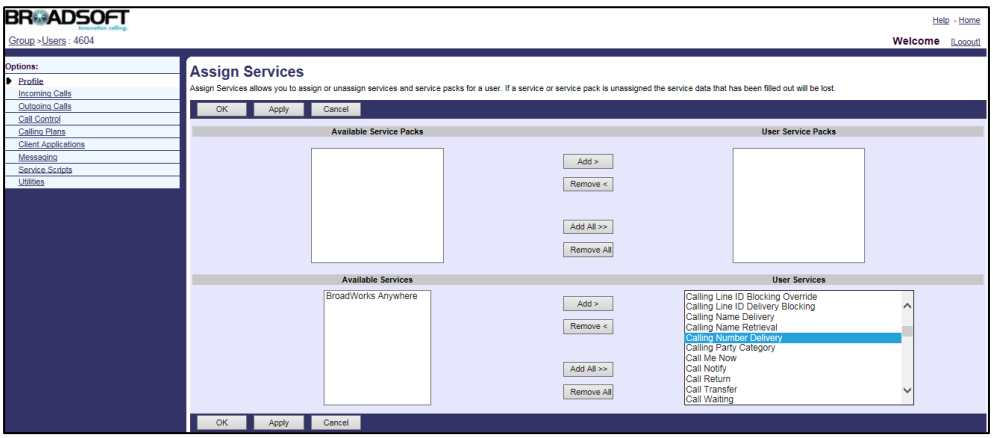


8. Click **Apply** to accept the change.

Assigning the Calling Number Delivery Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Calling Number Delivery** and then click **Add>**.

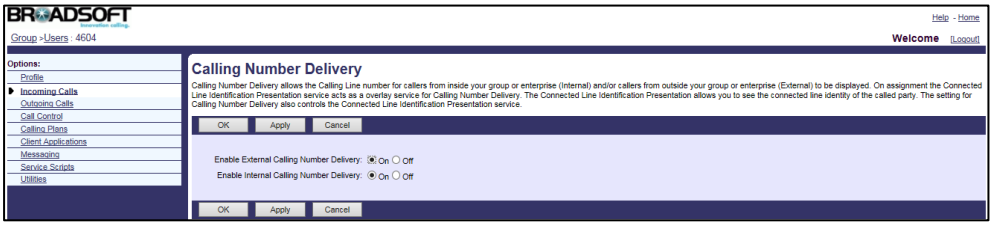


7. Click **Apply** to accept the change.

Activating Calling Number Presentation Feature

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the calling number delivery service.
5. Click on **Incoming Calls**-> **Calling Number Delivery**.
6. Mark the **On** radio box in the **Enable External Calling Number Delivery** field.
7. Mark the **On** radio box in the **Enable Internal Calling Number Delivery** field.



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

Configuring Yealink IP Phones

IP phones support to derive calling line ID from the FROM, P-Preferred-Identity, P-Asserted-Identity and Remote-Party-ID SIP headers in the INVITE request.

Configuring the Calling Line ID Source

Procedure

1. Add/Edit Calling Line ID Source parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
account.X.cid_source	**Integer from 0 to 6**	**0**

Parameters	Permitted Values	Default
Description: 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). **2**-PAI-FROM (Derives the name and number of the caller from the "PAI" header preferentially. If the server does not send the "PAI" header, derives from the "From" header). **3**-RPID-PAI-FROM **4**-PAI-RPID-FROM **5**-RPID-FROM **6**-PREFERENCE If it is set to 6 (PREFERENCE), the IP phone uses the custom priority order for the sources of caller identity information (configured by the parameter "sip.cid_source.preference").		
sip.cid_source.preference	**String**	**Refer to the following content**
Description: Configures the priority order for the sources of caller identity information. The headers can be in any order. **Default values:** P-Preferred-Identity, P-Asserted-Identity, Remote-Party-ID, From **Note**: Yealink IP phones support deriving caller identity from the following SIP headers: From, P-Asserted-Identity (PAI), P-Preferred-Identity and Remote-Party-ID (RPID). It works only if "account.X.cid_source" is set to 6 (PREFERENCE).		

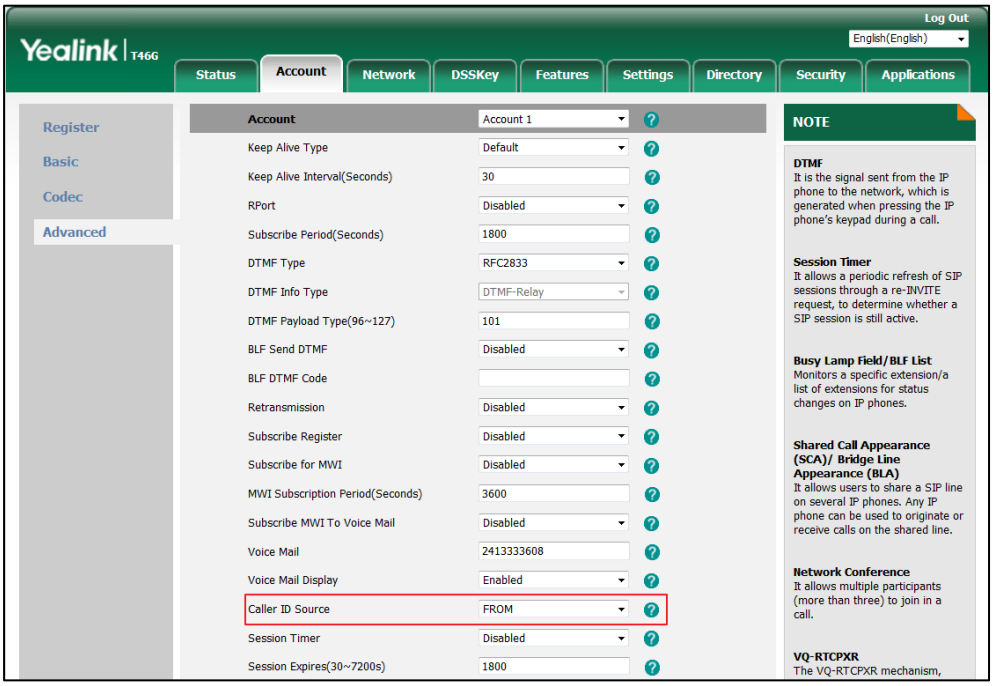
The following shows an example of the calling line ID source configuration in a template configuration file (e.g., %BWMACADDRESS%.cfg):

account.1.cid.source = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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

This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

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

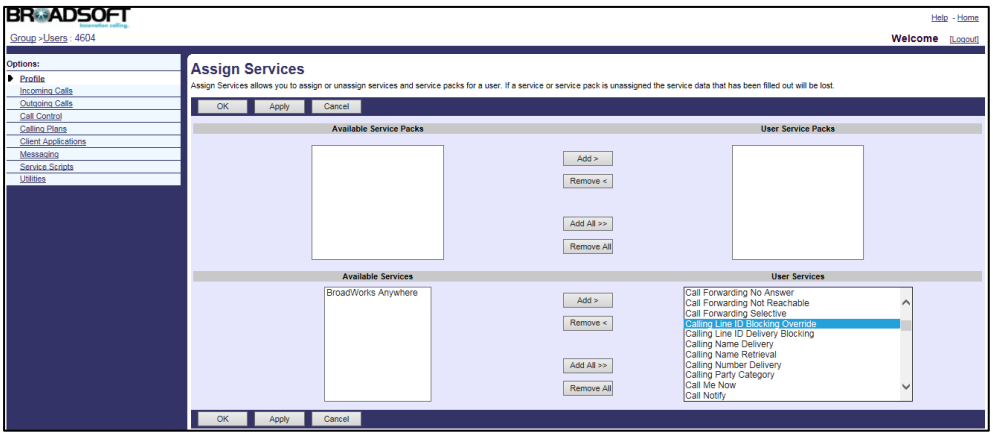
Configuring the BroadSoft Server

Assigning the Calling Line ID Blocking Override Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.

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

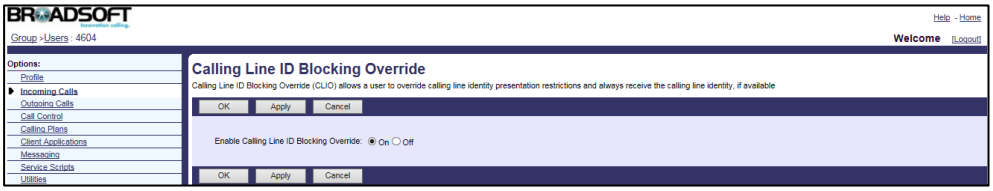


7. Click **Apply** to accept the change.

Activating Calling Line ID Blocking Override Feature

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the calling line ID blocking override service.
5. Click on **Incoming Calls**->**Calling Line ID Blocking Override**.
6. Mark the **On** radio box in the **Enable Calling Line ID Blocking Override** field.



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

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. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

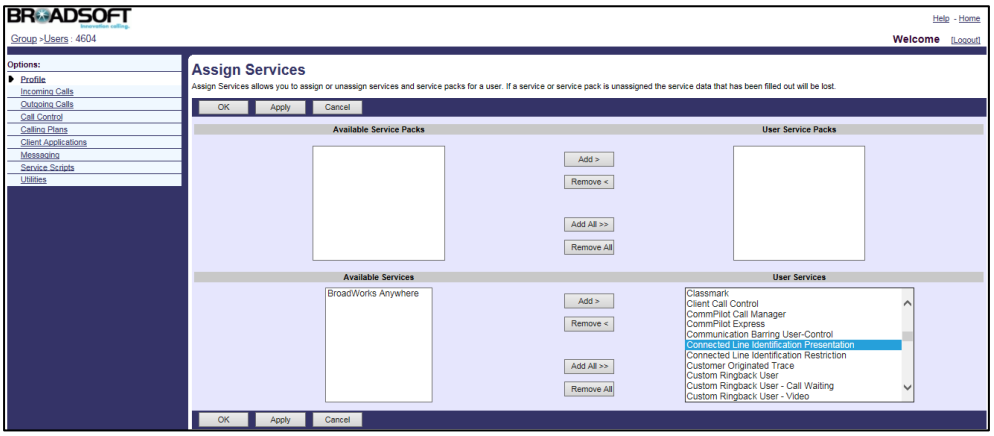
Note Before configuring the COLP feature, make sure the necessary calling line ID delivery service for a call is set to "On" on the BroadWorks server.

Configuring the BroadSoft Server

Assigning the Connected Line Identification Presentation Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Connected Line Identification Presentation** and then click **Add>**.



7. 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.

Configuring the Connected Line Identification Source

Procedure

1. Add/Edit Connected Line Identification Source parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
account.X.cp_source	**Integer from 0 to 2**	**0**
Description: Configures the connected line identification source for account X. **0**-PAI-RPID (Derives the name and number of the callee from the "PAI" header preferentially. If the server does not send the "PAI" header, derives from the "RPID" header). **1**-Dialed Digits **2**-RFC 4916 (Derives the identity of the callee from "From" header in the UPDATE message).		

   The 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 boot and configuration files.

   For more information, refer to Uploading Device Template Files.

Connected Line Identification Restriction

Connected Line Identification Restriction (COLR) allows a user to block his identity from showing up when receiving a call. When placing a call to the user with COLR enabled, the 18x response from BroadWorks to the caller contains a Privacy header set to "id". The caller's phone LCD

screen updates the callee's identity and displays "anonymous". This feature does not apply to calls from within a group. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

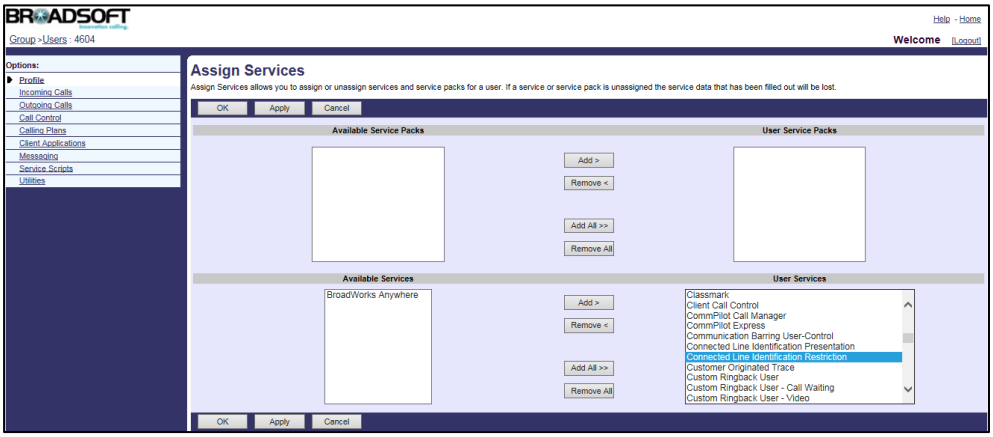
For more information on COLR, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Connected Line Identification Restriction Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Connected Line Identification Restriction** and then click **Add>**.



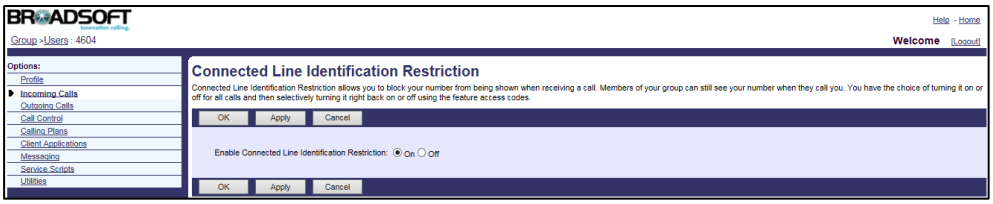
7. Click **Apply** to accept the change.

Activating the Connected Line Identification Restriction Feature

Procedure

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

2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select two he desired user (e.g., 4604).
5. Click on **Incoming Calls**->**Connected Line Identification Restriction**.
6. Mark the **On** radio box in the **Enable Connected Line Identification Restriction** field.



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

Meet-Me Conferencing

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

A group administrator creates a conference bridge and designates BroadWorks users who can host conferences on that bridge. Hosts can create scheduled and reservationless conferences. When a conference is created, there is a moderator PIN generated along with the conference ID. Any participant who joins the conference using the moderator PIN has special privileges for that instance of the conference. Within a conference, moderators can invoke functions such as recording, locking a conference, and inviting a new participant. There can be multiple moderators for an instance of a conference. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

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

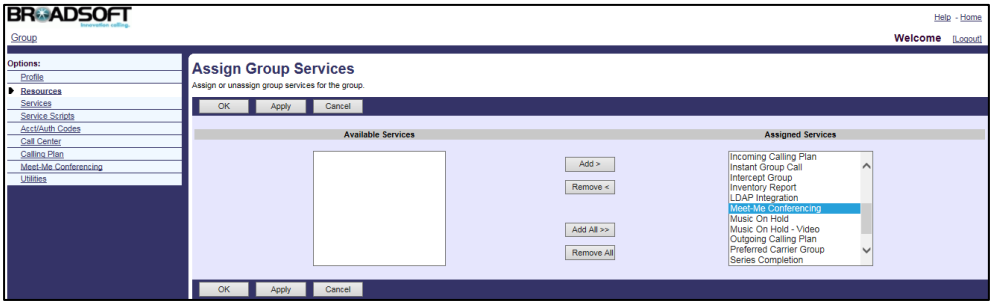
Configuring the BroadSoft Server

Assigning the Meet-Me Conferencing Service to the Group

Procedure

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

3. In the **Available Services** box, select **Meet-Me Conferencing** and then click **Add>**.



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

Adding a Meet-Me Conference Bridge

You can create conference bridges and assign users who can host conferences on those bridges.

Procedure

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

   The following shows an example:

   Conference Bridge ID: Bridgeone

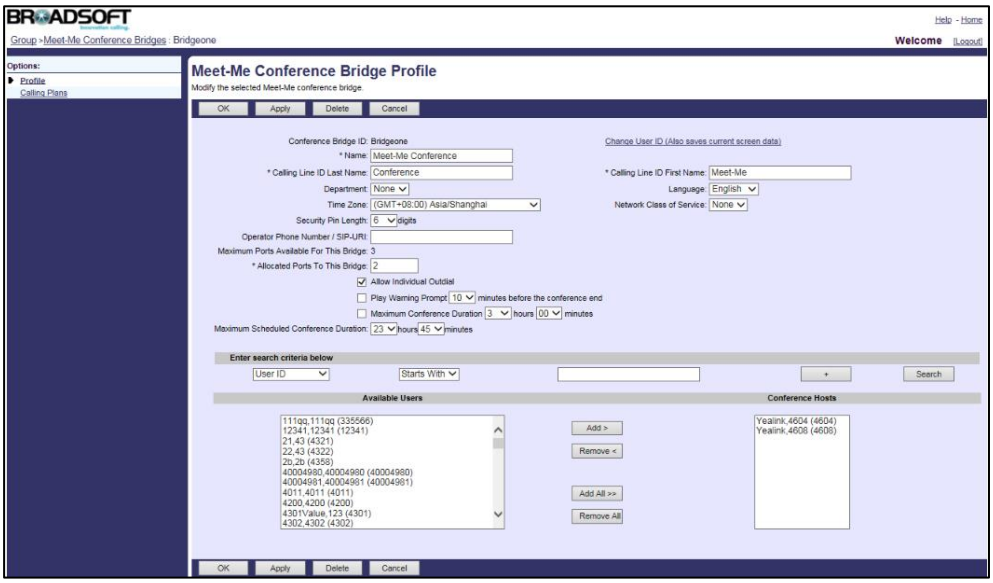
   Name: Meet-Me Conference

   Calling Line ID Last Name: Conference

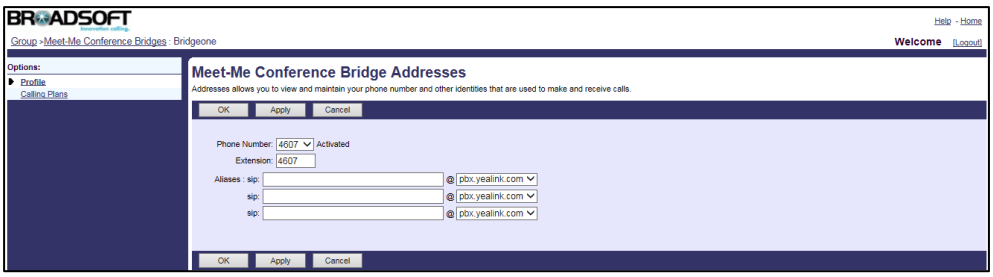
   Calling Line ID First Name: Meet-Me

   Allocated Ports To This Bridge: 2
5. Click **Search** to display all available users.

6. In the **Available Users** box, select the desired user and then click **Add>** to assign the user to the conference bridge.



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



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

Adding a New Conference

You can specify the number of participants the conference may have, how to notify the conference participants and which type of conference you want to create.

Procedure

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

4. Select the desired user (e.g., 4604), who has been assigned to the Meet-Me conference bridge.
5. Click on **Meet-Me Conferencing**->**Conferences**.
6. Click **Add**.
7. Set the Meet-Me conference parameters.

   The main parameters are described as below:

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

   The following shows an example:

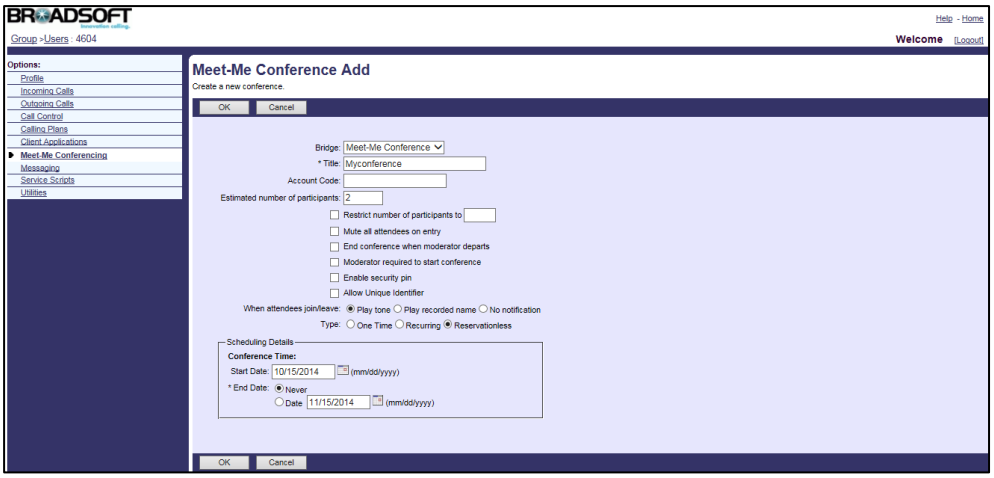
   Title: Myconference

   Estimated number of participants: 2

   Type: Reservationless

   Schedule Start Date: Select today's date

Schedule End Date: Never



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

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

Configuring Yealink IP Phones

When a Meet-Me Conference key is configured on the IP phone, the user can join in the conference by pressing the Meet-Me Conference key directly.

Configuring a Meet-Me Conference Key

Procedure

1. Add/Edit DSS key parameters in the configuration template files:

   You can configure a line key as a Meet-Me conference key (not applicable to SIP-T19(P) E2 and CP920 IP phones).

   The "X" is an integer which specifies the sequence number of the line key. For CP960, X=1-30; for SIP-T57W/T48S/T48G, X=1-29; for VP59/SIP-T58A/T54W/T46S/T46G/T29G, X=1-27; for SIP-T42S/T42G/T41S/T41P, X=1-15; for SIP-T53W/T53/T27G, X=1-21; for SIP-T40P/T40G/T23P/T23G, X=1-3; for SIP-T21(P) E2, X=1-2.

Parameters	Permitted Values
linekey.X.type	**55**
Description: Configures the line key type. **55**-Meet-Me Conference	

Parameters	Permitted Values
linekey.X.line	**Refer to the following content**
Description: Configures the line to apply the Meet-Me conference key. **Permitted Values**: 1 to 16 (For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G) 1 to 12 (For SIP-T53W/T53/T42S/T42G) 1 to 6 (For SIP-T41S/T41P/T27G) 1 to 3 (For SIP-T40P/T40G/T23P/T23G) 1 to 2 (For SIP-T21(P) E2) 1 (For CP960) **1**-Line1 **2**-Line2 **3**-Line3 … **16**-Line16	
linekey.X.value	**String within 99 characters**
Description: Configures the Meet-Me conference bridge number.	
linekey.X.extension	**String within 256 characters**
Description: Configures the conference ID or Moderator PIN followed by the # sign.	
linekey.X.label	**String within 99 characters**
Description: (Optional.) Configures the label displayed on the LCD screen for each line key.	

The following shows an example of Meet-Me conference key (line key) configurations in a template configuration file (e.g., y000000000028.cfg):

linekey.2.type = 55

linekey.2.line = 1

linekey.2.value = 4608

linekey.2.pickup_value = 382855#

You can also configure a programmable key as a Meet-Me conference key.

The "X" is an integer which specifies the sequence number of the programmable key. For SIP-T54W/T48S/T48G/T46S/T46G, X=1-10, 12-14, 17-18; for SIP-T53W/T53/T42S/T42G/T41S/T41P/T40G/T40P, X=1-10, 13, 17-18; for SIP-T29G/T27G, X=1-14, 17-18; for SIP-T23G/T23P/T21(P) E2, X= 1-10, 14, 17-18; for SIP-T19(P) E2, X=1-9, 13, 14, 17-18; for VP59/SIP-T58A/T57W, X=1-4, 12-14, 17; for CP960, X=1-3; for CP920, X=1-6, 9, 13.

Parameters	Permitted Values
programablekey.X.type	**55**
Description: Configures the programmable key type. **55**-Meet-Me Conference	
programablekey.X.line	**Integer from 1 to 16**
Description: Configures the line to apply the Meet-Me conference key. Valid values are: 1 to 16 (For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G) 1 to 12 (For SIP-T53W/T53/T42S/T42G) 1 to 6 (For SIP-T41S/T41P/T27G) 1 to 3 (For SIP-T40P/T40G/T23P/T23G) 1 to 2 (For SIP-T21(P) E2) **1**-Line1 **2**-Line2 **3**-Line3 … **16**-Line16 **Note:** It is not applicable to SIP-T19(P) E2, CP920 IP phones.	
programablekey.X.value	**String within 99 characters**
Description: Configures the Meet-Me conference bridge number.	
programablekey.X.extension	**String within 256 characters**
Description: Configures the conference ID or Moderator PIN followed by the # sign.	
programablekey.X.label (X ranges from 1 to 4)	**String within 99 characters**

Parameters	Permitted Values
Description: (Optional.) Configures the label displayed on the LCD screen for each soft key.	

The following shows an example of the Meet-Me conference key (programmable key) configuration in a template configuration file (e.g., y000000000028.cfg):

programablekey.5.type = 55

programablekey.5.line = 1

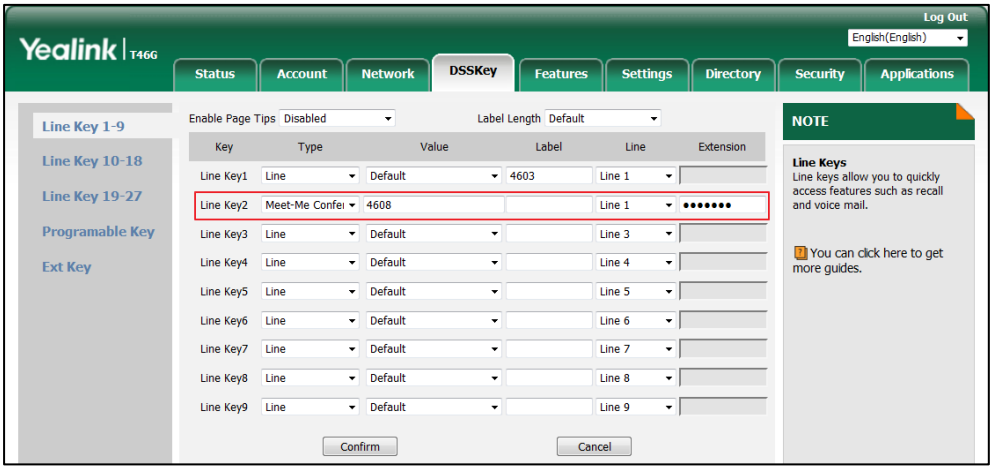
programablekey.5.value = 4608

programablekey.5.pickup_value = 382855#

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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



Busy Lamp Field List

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

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

also long press the BLF list key to view the call information first and then select to pick up the call, barge in the call, or retrieve the parked call.

This feature is not applicable to SIP-T19(P) E2, CP920, W52P, W53P, W56P, W60P and CP930W-Base IP phones.

Note To use barge-in, make sure Barge-In Exempt for the monitored user is set to "Off" on the BroadWorks server. For more information on Barge-In Exempt, refer to Call Pickup.

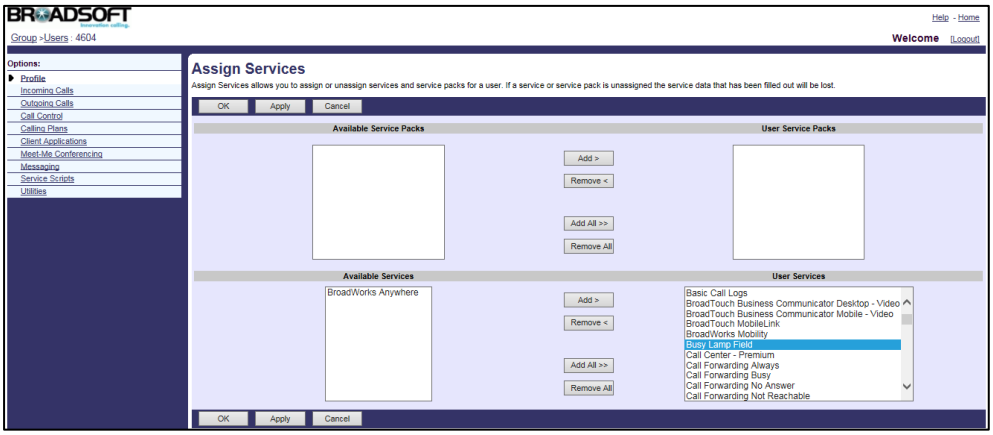
For more information on BLF List, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the BLF Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Busy Lamp Field** and then click **Add>**.



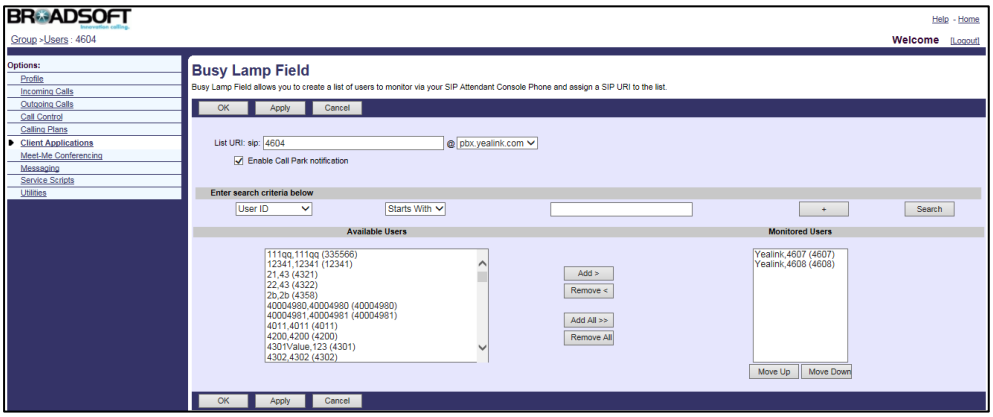
7. Click **Apply** to accept the change.

Configuring BLF List for the User

You can create a list of users to monitor and assign a SIP-URI to the list.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the Busy Lamp Field service.
5. Click on **Client Applications**->**Busy Lamp Field**.
6. Enter the BLF List URI (e.g., 4604) in the **List URI** field.
7. Select the domain name (e.g., pbx.yealink.com) from the pull-down list after the sign **@**.
8. Check the **Enable Call Park notification** checkbox.
9. Click **Search** to display all available users.
10. In the **Available Users** box, select the desired users and then click **Add>**.
11. Repeat the step 10 to add more users to the **Monitored Users** box.



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

Configuring Yealink IP Phones

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

Procedure

1. Add/Edit BLF List parameters in the configuration template files.

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for CP960, X=1.

   If the user (e.g., 4604) is the first user assigned to the device profile, replace the "X" by "1".

Parameters	Permitted Values	Default
phone_setting.auto_blf_list_enable	**Boolean**	**1**

Parameters	Permitted Values	Default
Description: Enables or disables the IP phone to automatically configure the BLF list keys in order. **0**-Disabled **1**-Enabled		
account.X.blf.blf_list_uri	**%BWBLF-URI-X%**	**Blank**
Description: Configures the BLF List URI to monitor the users for account X.		
account.X.blf_list_code	**%BWFAC-DIRECTED-CALL-PICKUP-X%**	**Blank**
Description: Configures the Directed Call Pickup FAC (default: *97) for account X.		
account.X.blf_list_barge_in_code	**%BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-X%**	**Blank**
Description: Configures the Directed Call Pickup with Barge-in FAC (default: *33) for account X.		
account.X.blf_list_call_parked_code	**%BWFAC-CALL-PARK-PRIMARY%**	**Blank**
Description: It configures the call park FAC (default: *68) for account X. **Example:** account.1.blf_list_call_parked_code = *68 **Note:** It is only applicable to phones running firmware version 84 or later.		
account.X.blf_list_call_parked_list	**all or serial number in the BLF list**	**Blank**
Description: It configures the serial numbers of the monitored users in the BLF list where you can park the active call to for account X. This parameter has a higher priority than "transfer.dsskey_deal_type", so that when you press the BLF list key, the phone parks a call other than transferring a call. Multiple serial numbers are separated by commas. **Example:**		

Parameters	Permitted Values	Default
account.1.blf_list_call_parked_list = When you leave it blank, you cannot park an active call to any monitored user. account.1.blf_list_call_parked_list = all You can park the active call to any monitored user. account.1.blf_list_call_parked_list = 1,3,4 You can park the active call to the first, third or fourth monitored user in the BLF list. **Note:** It works only if "account.X.blf_list_call_parked_code" is configured. It is only applicable to phones running firmware version 84 or later.		
account.X.blf_list_retrieve_call_parked_code	**String within 32 characters**	**Blank**
Description: Configures Call Park Retrieve FAC (default: *88) for account X.		
phone_setting.blf_list_sequence_type	**0, 1, 2 or 3**	**0**
Description: Configures the order of BLF list keys to be assigned automatically. **0**-linekey->exp1 key->expN key **1**-exp1 key ->expN key ->linekey **2**-linekey page1->page1 from exp1 key to expN key ->page2 from exp1 key to expN key ->...->linekey from page2 to page3 **3**- page1 from exp1 key to expN key ->page2 from exp1 key to expN key ->...->linekey N above is the number of your connected expansion modules. **Note:** It works only if "phone_setting.auto_blf_list_enable" is set to 1 (Enabled). It is only applicable to VP59/SIP-T58A/T57W/T54W/T53W/T53/T48S/T48G/T46S/T46G/T29G/T27G IP phones.		
features.pickup.blf_visual_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to display a visual alert when the monitored user receives an incoming call. **0**-Disabled **1**-Enabled		
features.pickup.blf_visual.list	**any, monitored phone number or**	**any**

Parameters	Permitted Values	Default
	ListX	
Description: Configures the monitored users who want to enable visual alert for BLF pickup feature. The IP phone displays a visual alert when a monitored user receives an incoming call. Multiple monitored users are separated by commas. **Example:** features.pickup.blf_visual.list = any or leave it blank The IP phone displays a visual alert when any monitored user receives an incoming call. features.pickup.blf_visual.list = 4604,4605 The IP phone displays a visual alert when monitored user 4604 or 4605 receives an incoming call. features.pickup.blf_visual.list = List1 The IP phone displays a visual alert when any user in the List 1 receives an incoming call. ListX stands for the BLF list of account X configured by the parameter "account.X.blf.blf_list_uri". **Note:** It works only if "features.pickup.blf_visual_enable" is set to 1 (Enabled). It is only applicable to phones running firmware version 84 or later.		
features.pickup.blf_audio_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to play an audio alert when the monitored user receives an incoming call. **0**-Disabled **1**-Enabled		
features.pickup.blf_audio.list	**any, monitored phone number or ListX**	**any**
Description: Configures the monitored users who want to enable audio alert for BLF pickup feature. The IP phone plays an audio alert when a monitored user receives an incoming call. Multiple monitored users are separated by commas. **Example:** features.pickup.blf_audio.list = any or leave it blank The IP phone plays an audio alert when any monitored user receives an incoming call. features.pickup.blf_audio.list = 4604,4605		

Parameters	Permitted Values	Default
The IP phone plays an audio alert when monitored user 4604 or 4605 receives an incoming call. features.pickup.blf_audio.list = List1 The IP phone plays an audio alert when any user in the List 1 receives an incoming call. ListX stands for the BLF list of account X configured by the parameter "account.X.blf.blf_list_uri". **Note:** It works only if "features.pickup.blf_audio_enable" is set to 1 (Enabled).It is only applicable to phones running firmware version 84 or later.		
features.blf.ring_type	**Refer to the following content**	**Splash.wav**
Description: Configures a ring tone to play when the monitored user receives an incoming call. **Permitted Values:** Ring1.wav, Ring2.wav, Ring3.wav, Ring4.wav, Ring5.wav, Ring6.wav, Ring7.wav, Ring8.wav, Silent.wav or Splash.wav. **Example:** features.blf.ring_type = Ring1.wav **Note:** It works only if "features.pickup.blf_audio_enable" is set to 1 (Enabled). It is not applicable to VP59/SIP-T58A/CP960 IP phones.		
features.blf_led_mode	**0, 1, 2 or 3**	**0**
Description: Configures BLF LED mode and provides four kinds of definition for the BLF list key LED status. For more information, refer to BLF LED Mode. **Note:** For T58A, it is only applicable to the expansion module EXP50 connected to IP phones. It is not applicable to VP59/CP960 IP phones.		
features.blf.show_callinfo.enable	**0 or 1**	**1**
Description: Enables or disables the IP phone to display the call information by long pressing the BLF/BLF List key. **0**-Disabled **1**-Enabled, when the monitored line is ringing, during a call, or has a parked call, users can long press the BLF/BLF List key to view the call information, and then select to pick up the incoming call, barge in a conference, or retrieve the parked call.		

Parameters	Permitted Values	Default
Note: It is only applicable to phones running firmware version 84 or later.		

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

account.1.blf.blf_list_uri = %BWBLF-URI-1%

account.1.blf_list_code = %BWFAC-DIRECTED-CALL-PICKUP-1%

account.1.blf_list_barge_in_code = %BWFAC-DIRECTED-CALL-PICKUP-WITH-BARGE-IN-1%

account.1.blf_list_retrieve_call_parked_code = *88

phone_setting.blf_list_sequence_type = 0

phone_setting.auto_blf_list_enable = 1

features.pickup.blf_visual_enable = 1

features.pickup.blf_audio_enable = 1

features.blf_led_mode = 1

If the parameter "phone_setting.auto_blf_list_enable" is set to 0, you need to configure the BLF list keys manually. Configure DSS keys to be BLF List keys using the following parameters in the configuration template files (e.g., y000000000028.cfg). The number of BLF List keys to be configured depends on the number of monitored users configured on BroadWorks.

You can configure line keys to be BLF List keys.

The "X" is an integer which specifies the sequence number of the line key. For CP960, X=1-30; for SIP-T57W/T48S/T48G, X=1-29; for VP59/SIP-T58A/T54W/T46S/T46G/T29G, X=1-27; for SIP-T42S/T42G/T41S/T41P, X=1-15; for SIP-T53W/T53/T27G, X=1-21; for SIP-T40P/T40G/T23P/T23G, X=1-3; for SIP-T21(P) E2, X=1-2.

Parameters	Permitted Values
linekey.X.type	**39**
Description: Configures the line key type. **39**-BLF List.	
linekey.X.line	**Refer to the following content**
Description: Configures the line to apply the BLF List key. **Permitted Values**: 1 to 16 (For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G) 1 to 12 (For SIP-T53W/T53/T42S/T42G) 1 to 6 (For SIP-T41S/T41P/T27G)	

Parameters	Permitted Values
1 to 3 (For SIP-T40P/T40G/T23P/T23G) 1 to 2 (For SIP-T21(P) E2) 1 (For CP960) **1**-Line1 **2**-Line2 **3**-Line3 … **16**-Line16	
linekey.X.label	**String within 99 characters**
Description: (Optional.) Configures the label displayed on the LCD screen for each line key.	

The following shows an example of BLF List keys (line keys) configurations in a template configuration file (e.g., y000000000028.cfg):

linekey.2.line = 1

linekey.2.type = 39

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

   After the above configurations, the tags in the template file (e.g., %BWMACADDRESS%.cfg) will be replaced by the actual parameter values. An example is shown as the following:

   account.1.blf.blf_list_uri = 4604@pbx.yealink.com

   account.1.blf_list_code = *97

   account.1.blf_list_barge_in_code= *33

If you select to configure the BLF lists key automatically, after downloading the configuration files, the IP phone will automatically configure the BLF List keys from the first unused DSS key (Line Key->Ext Key (Expansion1->Expansion2…)), according to the response message from the BroadWorks server. When a DSS key is used, the IP phone will skip to the next unused DSS key.

The IP phone LCD screen is similar to the one shown as below:

If you select to configure the BLF list key manually, after downloading the configuration files, the IP phone will configure the line keys according to the configurations in the configuration file.

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

Shared Call Appearance

Shared Call Appearance (SCA) allows users to share a SIP line on several IP phones. Any IP phone can be used to originate or receive calls on the shared line. An incoming call can be presented to multiple phones simultaneously. The incoming call can be answered on any IP phone but not all. A call that is active on one IP phone will be presented visually to other IP phones that share the call appearance. All SCA phones can also be notified about calls being parked/no longer parked against any SCA phone's extension.

IP phones support SCA using a SUBSCRIBE/NOTIFY mechanism as specified in RFC 3265. The events used are:

- "call-info" for call appearance state notification
- "line-seize" for the IP phone to ask to seize the line

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.

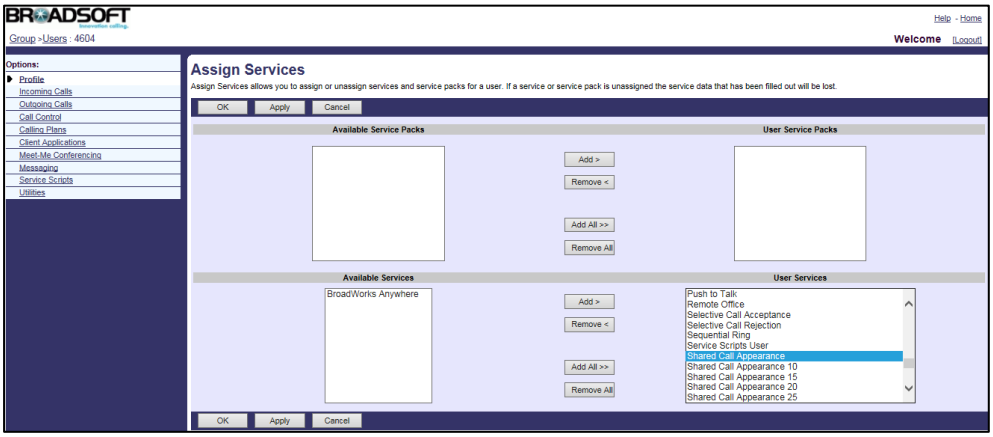
For more information on SCA, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the SCA Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Shared Call Appearance** and then click **Add>**.



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

Configuring SCA for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the Shared Call Appearance service.
5. Click on **Call Control**->**Shared Call Appearance**.

   The main SCA parameters are described as below:

Parameter	Description
Alert all appearances for Click-to-Dial	Allows alerting all the locations sharing the call appearance when a location places a call

Parameter	Description
calls	from the CommPilot Call Manager.
Allow Call Retrieve from another location	Allows the other location sharing the call appearance to retrieve a call by dialing a call retrieve FAC.
Multiple Call Arrangement	Provides the ability for multiple calls to be handled concurrently on different SCA locations for a user.
Allow bridging between locations	Allows SCA locations to barge in on an active call involving another location.
Enable Call Park notification	Alerts all shared call appearance locations when a call is parked against the user's extension.
Bridge Warning tone	Determines whether to play a warning tone when a shared location barges in on an active call. None: disables warning tone feature. Barge-in only: enables the warning tone feature. Barge-in and repeat every 30 seconds: enables the warning tone feature and the warning tone repeats periodically every 30 seconds.

The following shows an example:

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

Alert all appearances for Group Paging calls: Selected

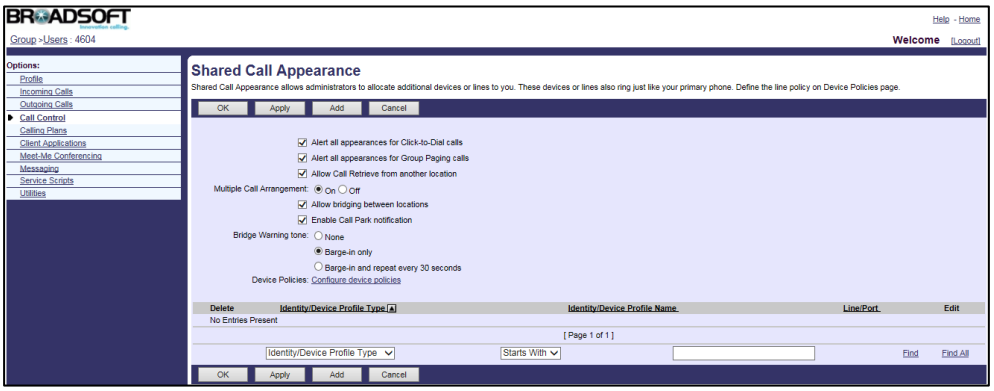
Allow Call Retrieve from another location: Selected

Multiple Call Arrangement: On

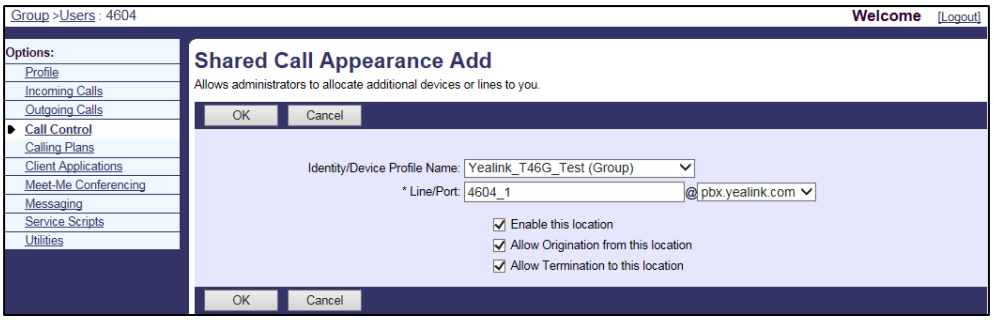
Allow bridging between locations: Selected

Enable Call Park notification: Selected

Bridge Warning tone: Barge-in only



6. Click **Apply** to accept the change.
7. Click **Add**.
8. Select the desired device profile name (e.g., Yealink_T46G_Test) from the pull-down list of **Identity/Device Profile Name**. Make sure the selected device profile has been created, and note this device profile.
9. Enter the alternate phone number (e.g., 4604_1) in the ***Line/Port** field.
10. Select the domain name (e.g., pbx.yealink.com) from the pull-down list after the sign **@**.



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

Note The primary account and the alternate accounts should be assigned to different device profiles.

Configuring Yealink IP Phones

Registering the Primary Account and Configuring SCA on the Primary Phone

Procedure

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

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for W52P/W56P, X=1-5; W53P/W60P/CP930W-Base, X=1-8; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

   If the primary account (e.g., 4604) is the second user assigned to the device profile, replace "X" by "2".

Parameters	Permitted Values	Default
account.X.enable	**%BWLINE-BINARY-X%**	**0**
Description: Enables or disables the line X. **0**-Disabled **1**-Enabled		
account.X.label	**%BWEXTENSION-X%**	**Blank**
Description: Configures the label to be displayed on the phone for account X when the phone is idle.		
account.X.display_name	**%BWCLID-X%**	**Blank**
Description: Configures the name to be displayed on the callee's phone for account X.		
account.X.auth_name	**%BWAUTHUSER-X%**	**Blank**
Description: Configures the authentication ID for account X.		

Parameters	Permitted Values	Default
account.X.password	**%BWAUTHPASSWORD-X%**	**Blank**
Description: Configures the authentication password for account X.		
account.X.user_name	**%BWLINEPORT-X%**	**Blank**
Description: Configures the user ID for account X.		
account.X.sip_server.Y.address (Y ranges from 1 to 2)	**%BWHOST-X%**	**Blank**
Description: Configures the IP address of SIP server Y for account X.		
account.X.sip_server.Y.port (Y ranges from 1 to 2)	**5060**	**5060**
Description: Configures the port of SIP server Y for account X.		
account.X.outbound_proxy_enable	**%USE_SBC_BOOLEAN%**	**0**
Description: Enables or disables the outbound proxy server for account X. **0**-Disabled **1**-Enabled		
account.X.outbound_host	**%SBC_ADDRESS%**	**Blank**
Description: Configures the domain name or the IP address of the outbound proxy server 1 for account X.		
account.X.outbound_port	**%SBC_PORT%**	**5060**
Description: Configures the port of the outbound proxy server 1 for account X.		

Parameters	Permitted Values	Default
account.X.backup_outbound_host	**IP address or domain name**	**Blank**
Description: Configures the IP address or domain name of the outbound proxy server 2 for account X.		
account.X.backup_outbound_port	**Integer from 0 to 65535**	**5060**
Description: Configures the port of the outbound proxy server 2 for account X.		

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

account.2.enable = %BWLINE-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 = %BWLINEPORT-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 the configuration template files:

The "X" in the parameter is an integer which specifies the line number on the phone. If the primary account (e.g., 4604) is the second user assigned to the device profile, replace "X" by "2".

Parameters	Permitted Values	Default
account.X.shared_line	**%BWSHAREDLINE-BINARY-X%**	**0**
Description: Configures the line to be private or shared for account X. **0**- Disabled **1**- Shared Call Appearance		

Parameters	Permitted Values	Default
features.auto_linekeys.enable	**%AUTO_LINEKEYS%**	**0**
Description: Enables or disables the DSS keys to be assigned with Line type automatically. **0**-Disabled **1**-Enabled **Note:** The number of the DSS keys is determined by the value of the parameter "account.X.number_of_linekey". It is not applicable to SIP-T19(P) E2, CP920, CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
account.X.auto_label.enable	**Boolean**	**0**
Description: Enables or disables the Auto Label feature for account X. It is only applicable to the automatically assigned line DSS keys. **0**-Disabled **1**-Enabled If it is set to 0 (Disabled), the label displayed on the LCD screen is determined by the value of the parameter "account.X.label". If it is set to 1 (Enabled), the label displayed on the LCD screen is determined by the value of the parameter "accout.X.auto_label.rule". **Note:** It works only if "features.auto_linekeys.enable" is set to 1 (Enabled). It is not applicable to SIP-T19(P) E2, VP59, SIP-T58A, CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
account.X.auto_label.rule	**String**	**{L}_{1}**
Description: Configures the Auto Label rule for account X. You need to know the following basic regular expression syntax: **{L}**: The value is configured by the parameter "account.X.label". **{N}**: An increasing number from N. For example, abc{1}{5} represents the following labels: abc15, abc26, abc37, and so on. Multiple labels are separated by "|". For example, Yea|Yea|Yea|Tom_{2} means to display "Yea" for first three line keys, and from the fourth one, display label Tom_2, Tom_3, and so on in turn. **Other Characters**: for example, ABC, will display ABC same as what you have configured. **Note:** It works only if "features.auto_linekeys.enable" and		

Parameters	Permitted Values	Default
"account.X.auto_label.enable" are set to 1 (Enabled). It is not applicable to SIP-T19(P) E2, VP59, SIP-T58A, CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
account.X.number_of_linekey	**%NUM_OF_LINEKEYS%**	**1**
Description: Configures the number of DSS keys to be assigned with Line type automatically from the first unused one (unused one means the DSS key is configured as N/A or Line). If a DSS key is used, the IP phone will skip to the next unused DSS key. The order of DSS key assigned automatically is Line Key->Ext Key. **Note**: It works only if "features.auto_linekeys.enable" is set to 1 (Enabled). It is not applicable to SIP-T19(P) E2, CP920, CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
account.X.shared_line_callpull_code	**String within 32 characters**	**Blank**
Description: Configures the shared line call pull FAC (default: *11) for account X. **Note**: It works only if "account.X.shared_line" is set to 1 (Shared line). It is not applicable to CP930W-Base, W52P, W53P, W56P and W60P Phones.		

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

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

features.auto_linekeys.enable = %AUTO_LINEKEYS%

account.2.number_of_linekey = %NUM_OF_LINEKEYS%

account.2.shared_line_callpull_code = *11

3. Customize the static tag on BroadWorks.

The following table shows an example:

Tag Name	Value
%BWLINE-BINARY-2%	1
%BWEXTENSION-2%	4604
%BWCLID-2%	4604 Yealink
%BWAUTHUSER-2%	4604
%BWAUTHPASSWORD-2%	4604
%BWLINEPORT-2%	4604
%BWHOST-2%	pbx.yealink.com

Tag Name	Value
%USE_SBC_BOOLEAN%	1
%SBC_ADDRESS%	10.1.8.11
%AUTO_LINEKEYS%	1
%SBC_PORT%	5060
%BWSHAREDLINE-BINARY-2%	1
%AUTO_LINEKEYS%	1
%NUM_OF_LINEKEYS%	2

For more information, refer to Customizing a Static Tag.

4. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template 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.enable = 1

   account.2.label = 4604

   account.2.display_name = 4604 Yealink

   account.2.auth_name = 4604

   account.2.password = 4604

   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 = 10.1.8.11

   account.2.outbound_port = 5060

   account.2.shared_line = 1

   features.auto_linekeys.enable = 1

   account.2.number_of_linekey = 2

   account.2.shared_line_callpull_code = *11

After successful update, user can find the primary phone LCD screen is similar to the one shown as below:

The first line is private and the second line and the third line are associated with the shared line.

Registering the Alternate Accounts and Configuring SCA on the Alternate Phones

Procedure

1. Add/Edit alternate account parameters in the configuration template 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 = %BWLINE-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 = %BWLINEPORT-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 the configuration template 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%

   features.auto_linekeys.enable = %AUTO_LINEKEYS%

   account.2.number_of_linekey = %NUM_OF_LINEKEYS%

account.2.shared_line_callpull_code = *11

3. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template 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.enable = 1

   account.2.label = 4604

   account.2.display_name = 4604 Yealink

   account.2.auth_name = 4604

   account.2.password = 4604

   account.2.user_name = 4604_1

   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 = 10.1.8.11

   account.2.outbound_port = 5060

   account.2.shared_line = 1

   features.auto_linekeys.enable = 1

   account.2.number_of_linekey = 2

   account.2.shared_line_callpull_code = *11

   After successful update, user can find the alternate IP phone LCD screen is similar to the one shown as below:

   The first line is private and the second line and the third line are associated with the shared line.

4. Repeat steps 1 to 3 to register more alternate accounts and configure SCA on other alternate phones.

Configuring a Private Hold Key

Procedure

1. Add/Edit DSS key parameters in the configuration template files:

   You can configure a line key as a private hold key (not applicable to CP930W-Base, SIP-T19(P) E2, W52P, W53P, W56P and W60P IP phones).

   The "X" is an integer which specifies the sequence number of the line key. For CP960, X=1-30; for SIP-T57W/T48S/T48G, X=1-29; for VP59/SIP-T58A/T54W/T46S/T46G/T29G, X=1-27; for SIP-T42S/T42G/T41S/T41P, X=1-15; for SIP-T53W/T53/T27G, X=1-21; for SIP-T40P/T40G/T23P/T23G, X=1-3; for SIP-T21(P) E2, X=1-2.

Parameters	Permitted Values
linekey.X.type	**20**
Description: Configures the line key type. **20**-Private Hold	
linekey.X.label	**String within 99 characters**
Description: (Optional.) Configures the label displayed on the LCD screen for each line key.	

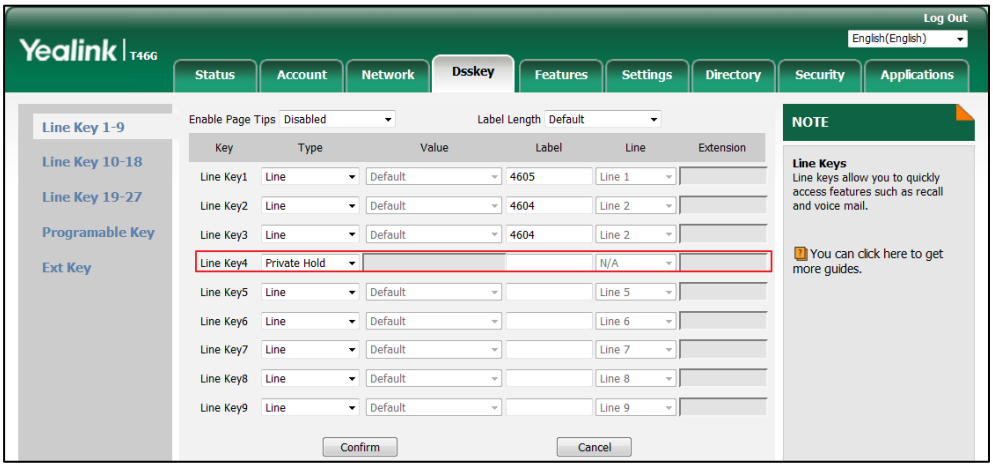
   The following shows an example of private hold key (line key) configurations in a template configuration file (e.g., y000000000028.cfg):

   linekey.4.type = 20

2. Upload the template configuration files.

   For more information, refer to Uploading Device Template Files.

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



Configuring Barge-in Feature

Procedure

1. Add/Edit barge-in parameter in the configuration template files.

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for CP960, X=1.

   If the user (e.g., 4604) is the first user assigned to the device profile, replace the "X" by "1".

Parameter	Permitted Values	Default
account.X.share_line.barge_in.enable	**Boolean**	**1**
Description: Enables or disables the users to interrupt/barge into an active call on the shared line for account X. **0**-Disabled **1**-Enabled **Note:** It is only applicable to phones (except SIP-T19(P) E2/CP920, W53P, W60P and CP930W-Base) running firmware version 83 or later.		

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

   account.1.share_line.barge_in.enable = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

Music/Video on Hold

Music/Video on Hold allows an audio or video source to be played to held parties in various scenarios (Call Park, Call Hold, and Busy Camp On). This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

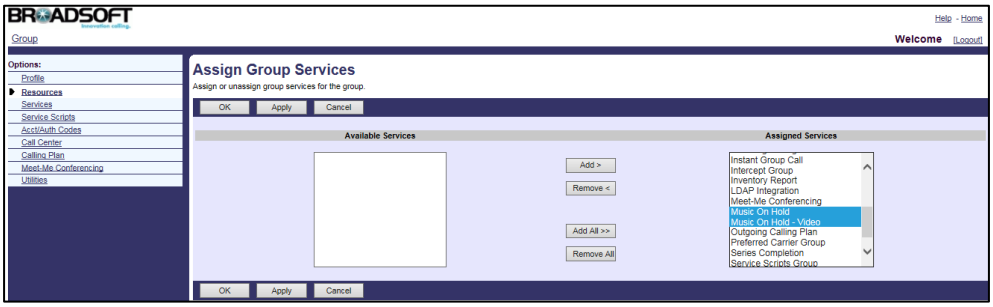
For more information on Music/Video on Hold, refer to *BroadWorks Web Interface Administrator Guide*.

Configuring the BroadSoft Server

Assigning the Music/Video on Hold Service to the Group

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Resources**->**Assign Group Services**.
3. In the **Available Services** box, select **Music On Hold** and **Music On Hold-Video**, and then click **Add>**.



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

Configuring Music/Video on Hold for a Department

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Music/Video On Hold**.
3. Click **Add**.
4. Select the desired department from the pull-down list of **Department**.
5. Configure the Music on/Video on Hold for individual services:
   - **Enable music/video during Call Hold**: Checking this checkbox enables the IP phone to play an audio or video file for held callers.

- **Enable music/video during Call Park**: Checking this checkbox enables the IP phone to play an audio or video file for parked callers.
- **Enable music/video during Busy Camp On**: Checking this checkbox enables the IP phone to play an audio or video file for camped callers.

6. Configure the source of the Music/Video on Hold message to play.
7. Click **Apply** to accept the change.

Modifying Music/Video on Hold for a Group/Department

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Music/Video On Hold**.
3. Select the desired group/department and then click **Edit**.
4. Make the desired change.

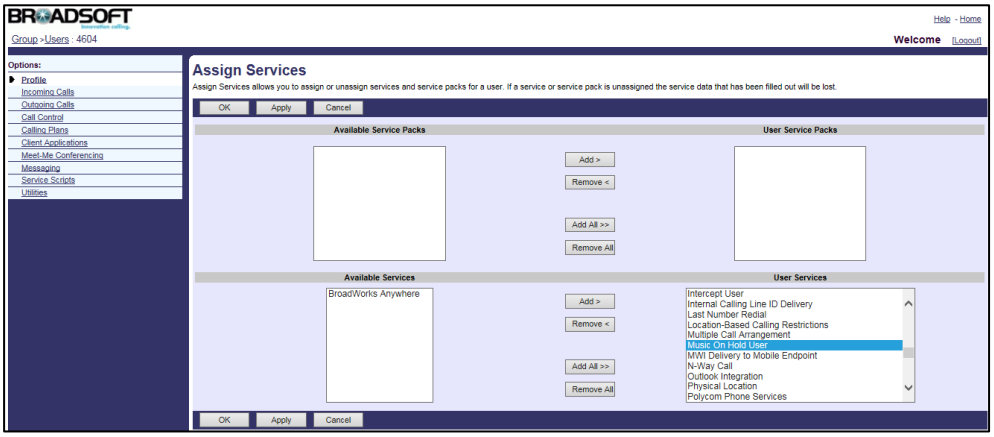
5. Click **Apply** to accept the change.

Assigning the Music/Video on Hold User Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.

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



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

Configuring Music/Video on Hold for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the Music on Hold User service.
5. Click on **Call Control**->**Music/Video On Hold**.
6. Mark the **On** radio box in the **Music On Hold** field.
7. Configure the source of the Music/Video on Hold message to play.

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

Priority Alert

Priority Alert allows users to define criteria to have certain incoming calls trigger distinctive alerting. Criteria can be defined based on the incoming phone numbers or digit patterns, the time schedule, and the holiday schedule. When the incoming call matches the pre-defined

criteria, the BroadWorks server sends an INVITE request to the callee with "Alert-Info" header. The priority alert service can be also assigned to hunt groups and call centers. In this case, the analysis of the incoming call against the set of criteria is done at the hunt group level or the call center level, and then affects the ringing pattern of all agents. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

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

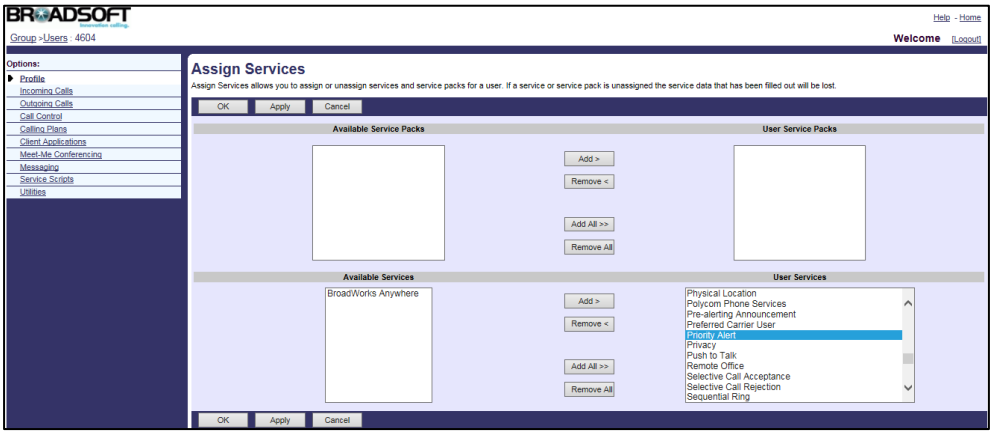
To use priority alert, distinctive ring feature should be enabled on the IP phone. For more information, refer to Alternate Numbers.

Configuring the BroadSoft Server

Assigning the Priority Alert Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Priority Alert** and then click **Add>**.



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

Configuring Priority Alert for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile->Users**.

3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the priority alert service.
5. Click on **Incoming Calls**->**Priority Alert**.
6. Click **Add** to add a new priority alert entry.
7. Set the parameters of priority alert.

   The following shows an example:

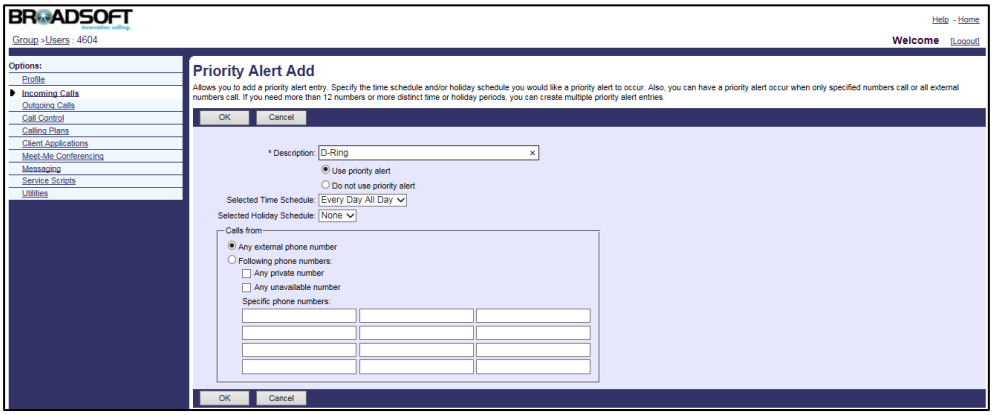
   Description: D-Ring

   Use Priority Alert: Selected

   Select Time Schedule: Every Day All Day

   Select Holiday Schedule: None

   Any external phone number: Selected

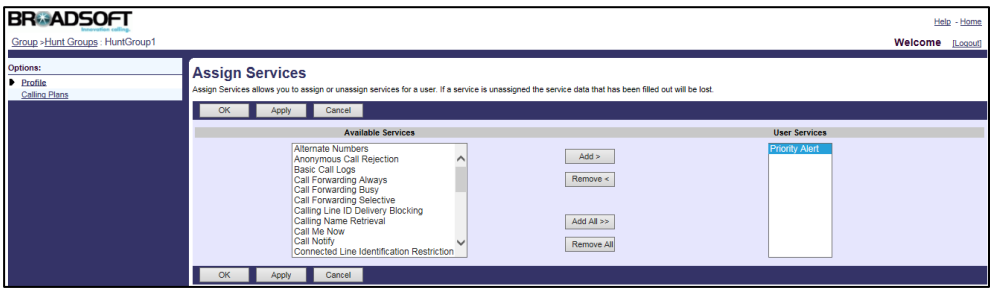


8. Click **OK** to accept the change.

Configuring Priority Alert for a Hunt Group

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Hunt Group**.
3. Select the desired group and then click **Edit**.
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Priority Alert** and then click **Add>**.



6. Click **OK** to accept the change.
7. Click on **Incoming Calls**->**Priority Alert**.
8. Click **Add** to add a new priority alert entry.
9. Set the parameters of priority alert.

   The following shows an example:

   Description: G-ring

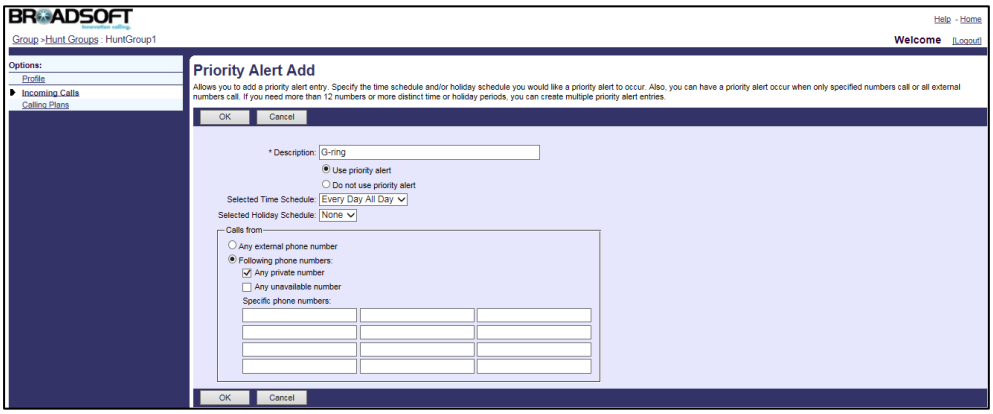
   Use Priority Alert: Selected

   Select Time Schedule: Every Day All Day

   Select Holiday Schedule: None

   Following phone numbers: Selected

   Any private number: Selected

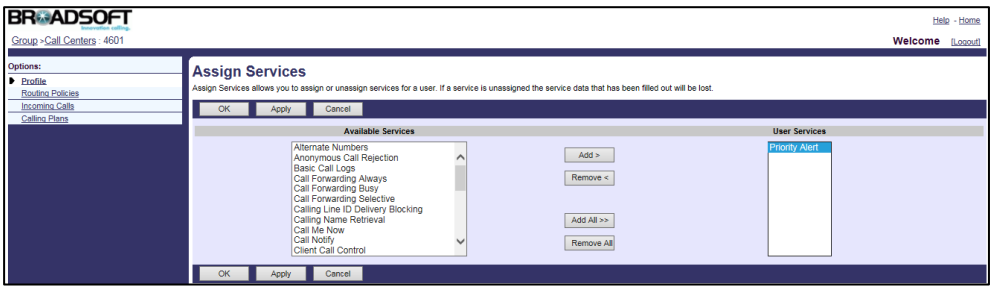


10. Click **OK** to accept the change.

Configuring Priority Alert for Call Center

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Call Centers**.
3. Select the desired call center and then click **Edit**.
4. Click on **Assign Services**.
5. In the **Available Services** box, select **Priority Alert** and then click **Add>**.



6. Click **OK** to accept the change.
7. Click on **Incoming Calls**->**Priority Alert**.
8. Click **Add** to add a new priority alert entry.
9. Set the parameters of priority alert.

   The following shows an example:

   Description: C-ring

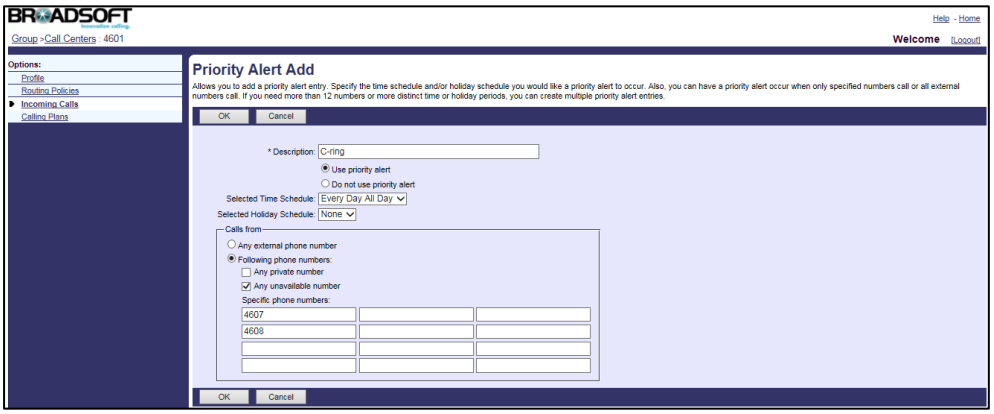
   Use Priority Alert: Selected

   Select Time Schedule: Every Day All Day

   Select Holiday Schedule: None

   Following phone numbers: Selected

   Specific phone numbers: 4607 4608



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

Voice Messaging/Video Voice Messaging

Voice Messaging/Video Voice Messaging service allows users to record voice/video 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 and video voice messaging: Distribution List and Voice Portal Calling. Distribution List allows users to send voice/video messages to the pre-defined list of numbers in bulk. Voice Portal Calling allows users to originate calls from the voice portal.

Visual Voice Mail

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

- Present the users with a list of voice/video mails and download the voice/video mail content by issuing a GET request to the */user/<userid>/VoiceMessagingMessages* Xsi-Actions command.
- Listen/watch the voice/video mails by issuing a GET request to the

voicemessaging/<messageId> Xsi-Actions command.

- Mark voice/video mails as read or unread by issuing a PUT request to the *voicemessaging/<messageId>/markAsRead* (or *markAsUnread*) Xsi-Actions command.
- Delete voice/video mails by issuing a DELETE request to the *voicemessaging/<messageId>* Xsi-Actions command.

Users can have one-touch access to view and manage the voice/video mails.

Note Before configuring visual voice mail feature, make sure that the XSI has been configured. For more information on BroadWorks XSI, refer to Xtended Services Interface.

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

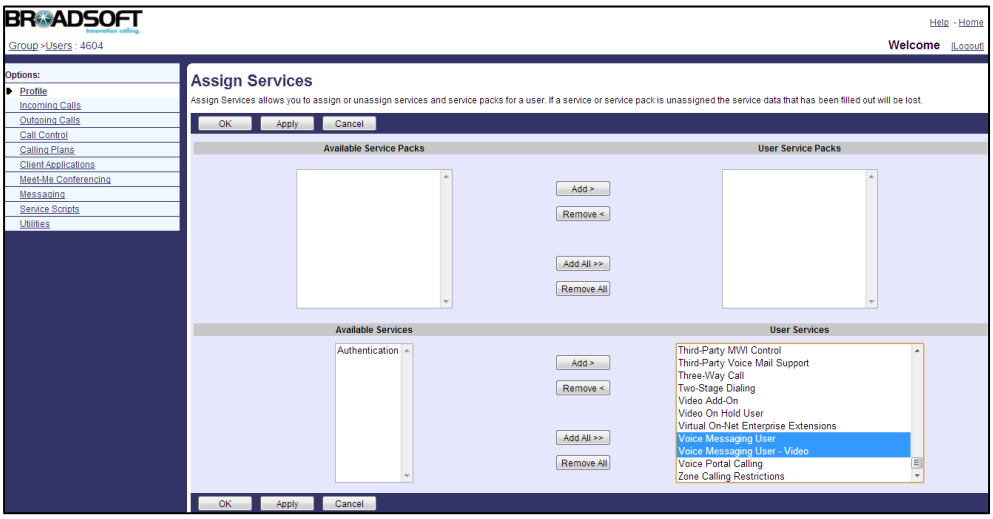
Configuring the BroadSoft Server

Assigning the Voice Messaging or Video Voice Messaging Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.

6. In the **Available** Services box, select **Voice Messaging User** or **Voice Message User - Video** and then click **Add>**.

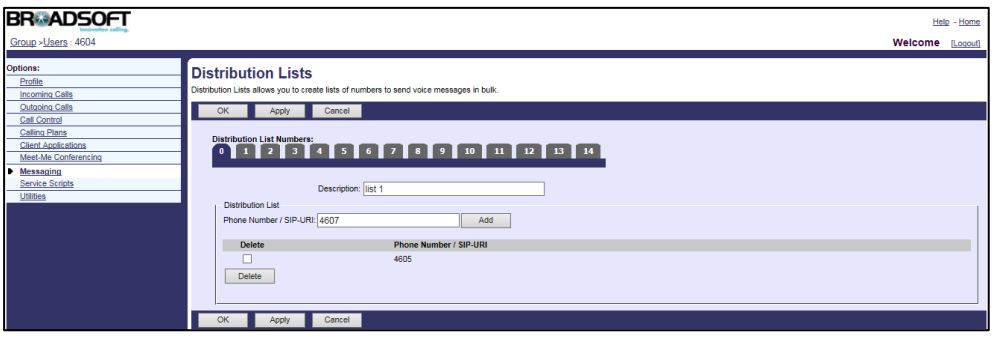


7. Click **Apply** to accept the change.

Defining Distribution Lists to Send Voice Messages

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the voice messaging/video voice messaging service.
5. Click on **Messaging**->**Distribution Lists**.
6. Click the desired distribution list number.
7. Enter the description of the distribution list in the **Description** field.
8. Enter the number or the SIP-URI in the **Phone Number / SIP-URI** field and then click **Add**.



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

Configuring Voice Messaging for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the voice messaging /video voice messaging service.
5. Click on **Messaging**->**Voice Management**.
6. Set the parameters of voice messaging.

   The following shows an example:

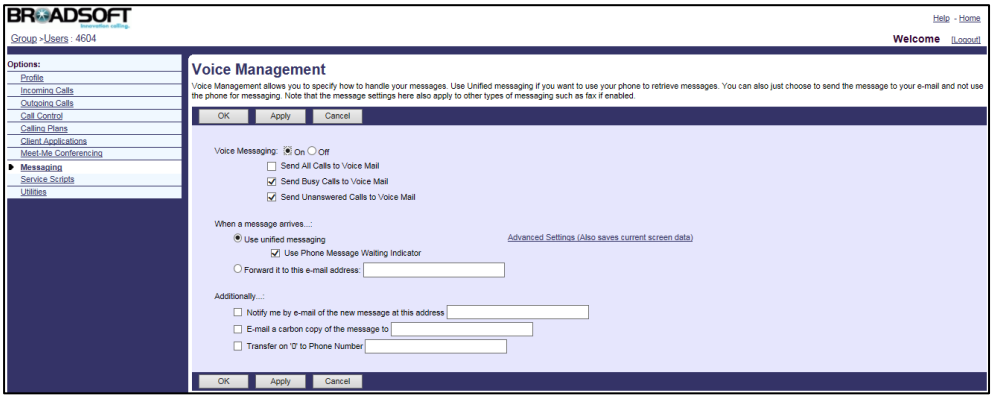
   Voice Messaging: On

   Send Busy Calls to Voice Mail: Selected

   Send Unanswered Calls to Voice Mail: Selected

   Use unified messaging: Selected

   Use Phone Message Waiting Indicator: Selected



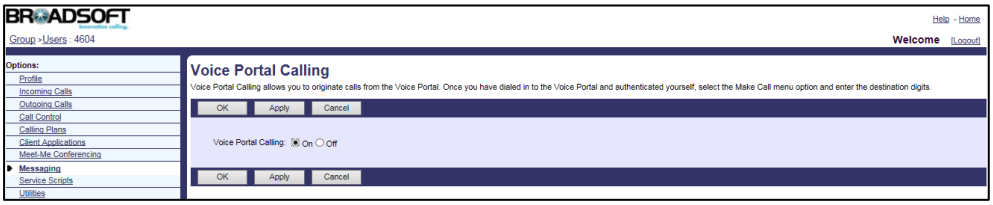
7. Click **Apply** to accept the change.

Configuring Voice Portal Calling for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the voice messaging/video voice messaging service.
5. Click on **Messaging**->**Voice Portal Calling**.

6. Mark the **On** radio box in the **Voice Portal Calling** field.



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

Configuring Yealink IP Phones

Procedure

1. Add/Edit voice messaging parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for W52P/W56P, X=1-5; W53P/W60P/CP930W-Base, X=1-8; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

   If the user (e.g., 4604) is the first user assigned to the device profile, replace "X" by "1".

Parameters	Permitted Values	Default
voice_mail.number.X	**%BWVOICE-PORTAL-NUMBER-X%**	**Blank**
Description: Configures the voice mail number (voice mail access code).		
voice_mail.message_key.mode	**Boolean**	**0**
Description: Enables or disables to enter the View Voice Mail screen by pressing the MESSAGE key when the phone is idle. **0**-Disabled **1**-Enabled If it is set to 0 (Disabled), the IP phone use the voice mail number to access the voice mails. If the voice mail number is not configured, press the MESSAGE key to set voice mail. If the voice mail number is configured, press the MESSAGE key to dial out the voice mail number to access the voice mail portal. If it is set to 1 (Enabled), press the MESSAGE key to enter the View Voice Mail screen. **Note**: It is not applicable to CP960, CP930W-Base, W52P, W53P, W56P and W60P IP		

Parameters	Permitted Values	Default
phones.		
bw.voice_mail.visual.enable	**Boolean**	**0**
Description: Enables or disables the visual voice mail feature. **0**-Disabled **1**-Enabled **Note**: It is not applicable to CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones.		
bw.voice_mail.visual.display_videomail.enable	**Boolean**	**0**
Description: Enables or disables to display the video mails in the Voice Mail list. **0**-Disabled **1**-Enabled **Note:** It works only if "bw.voice_mail.visual.enable" is set to 1 (Enabled). It is not applicable to CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones.		

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%

voice_mail.message_key.mode = 1

bw.voice_mail.visual.enable = 1

bw.voice_mail.visual.display_videomail.enable = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

   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 = 4602

   #The number "4602" is the voice portal number provided on the BroadWorks server.

Automatic Call Distribution

Automatic Call Distribution (ACD) is often used in offices for customer service, such as call center. The ACD system handles incoming calls by automatically queuing and directing calls to available registered IP phone users (agents). The primary benefit of ACD is to reduce customer

waiting time and improve the quality of service. This feature is not applicable to CP920, CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones.

Once ACD is enabled on the IP phone, the user can log into the ACD system by pressing the **Login** soft key. After logging in the ACD system, the ACD system monitors the ACD status on the user's phone and then decides whether to assign an incoming call to it. The user can change the ACD status on the IP phone. You can configure a reason for changing the agent state to unavailable (e.g., on lunch, in the bathroom, taking a coffee break or a personal break).

Hold Reminder

If a call center call has been on hold after the pre-configured time, BroadWorks sends an INVITE with an Alert-Info header with the ring splash cadence to alert the agent. BroadWorks then sends a CANCEL for the ring splash INVITE. The CANCEL request contains a Reason header indicating ring splash which tells the IP phone that the call must not be identified as a missed call. The IP phone does not add the call to the missed calls list. It is not applicable to VP59/SIP-T58A IP phones.

Call Information

When the agent receives an incoming call, the call center call information is shown on the agent's phone LCD screen. Call center call information includes wait time, call center name, call center phone number and number of calls in queue. BroadWorks provides the capability to send additional call center call information via a call center MIME type carried in the INVITE SDP. In order for BroadWorks to send the call center call information in the INVITE SDP, the Support Call Center MIME Type option must be selected on the BroadWorks device profile. It is not applicable to VP59/SIP-T58A IP phones.

Disposition Code

Disposition Code is an additional attribute that enables calls to be identified with promotions, consults and other tags. BroadWorks provides the capability to obtain a call center call disposition code entered by the user via the IP phone. During a call, the disposition code is communicated from the IP phone to BroadWorks by use of an INFO message. During wrap-up, the code is communicated via the INVITE message from the IP phone to BroadWorks. This feature is implemented using the **Disp Code** soft key or a Disp Code key on the IP phone. It is not applicable to VP59/SIP-T58A IP phones.

Customer Originated Trace

Customer Originated Trace is used to trace the origin of an obscene, harassing, or threatening call. BroadWorks provides the capability for the call center agent to invoke a customer originated trace during the call or wrap-up. During a call, the request for customer originated trace is communicated from the IP phone to BroadWorks by use of an INFO message. During wrap-up, the request is communicated via INVITE from the IP phone to BroadWorks. This feature is implemented using the **Trace** soft key or an ACD Trace key on the IP phone. It is not applicable to VP59/SIP-T58A IP phones.

Emergency Escalation

BroadWorks provides the capability for the call center agent to immediately escalate a call to a supervisor by pressing a key on the phone. The supervisor is immediately joined into the call. During a call, the request for emergency escalation is communicated from the IP phone to BroadWorks by use of an INFO message. This feature is implemented using the **Emergency** soft key or an Emergency key on the IP phone. It is not applicable to VP59/SIP-T58A IP phones.

Queue Status Notification

Queue Status Notification enables the agent to view the status of the call center queue on the IP phone. The queue can be in one of the following three states:

- **empty**: Indicates that no calls are currently in the queue.
- **Q'ing**: Indicates that one or more calls are currently in the queue.
- **ALERT**: Indicates that the call queue has reached the maximum number of calls, or that a call has been in the queue for too long. The Power LED Indicator will also flash. The LED will stop flashing once the call queue status returns to empty or Q'ing status.

It is not applicable to VP59/SIP-T58A IP phones.

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

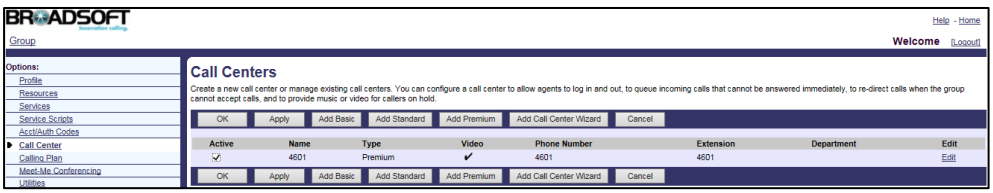
Configuring the BroadSoft Server

Adding a Premium Call Center

BroadWorks Call Center provides three types: Basic, Standard and Premium. You can choose the solution that best suits your needs. The following takes Premium as an example.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Call Centers**->**Add Premium**.
3. After creating the call center, go back to **Call Center**->**Call Centers** and check the **Active** checkbox for the call center.

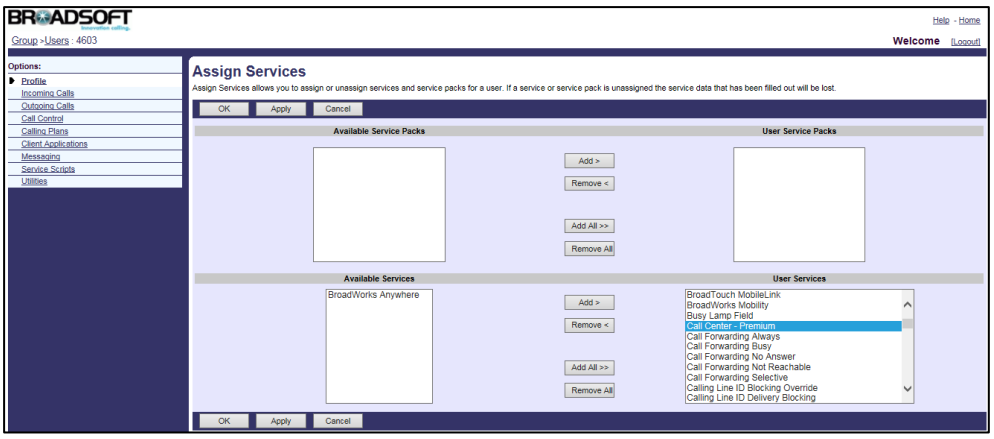


Assigning the Call Center Service to a User

It is a virtual user service that allows users to receive incoming calls from a central phone number.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4603).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Call Center**-**Premium**, and then click **Add>**.



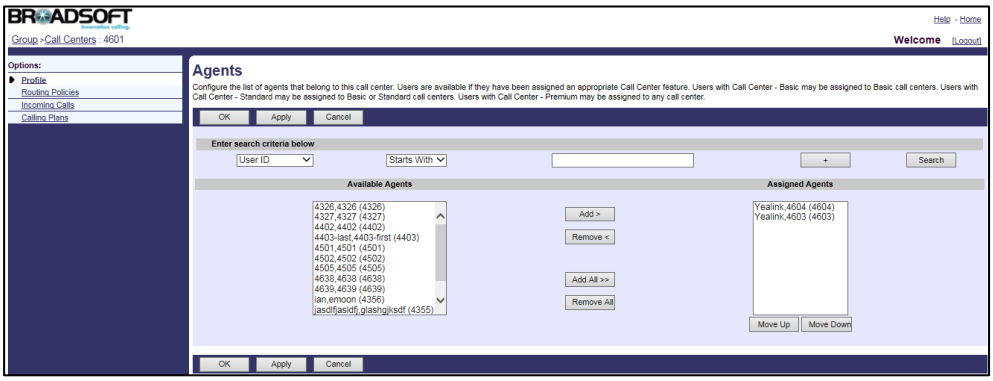
7. Click **Apply** to accept the change.

Assigning Users to the Call Center

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Call Centers**.
3. Select the call center added above and then click **Edit**.
4. Click on **Agents**.
5. Click **Search** to display all available users, who have been assigned the call center service.

6. In the **Available Agents** box, select the desired agent and then click **Add>**.

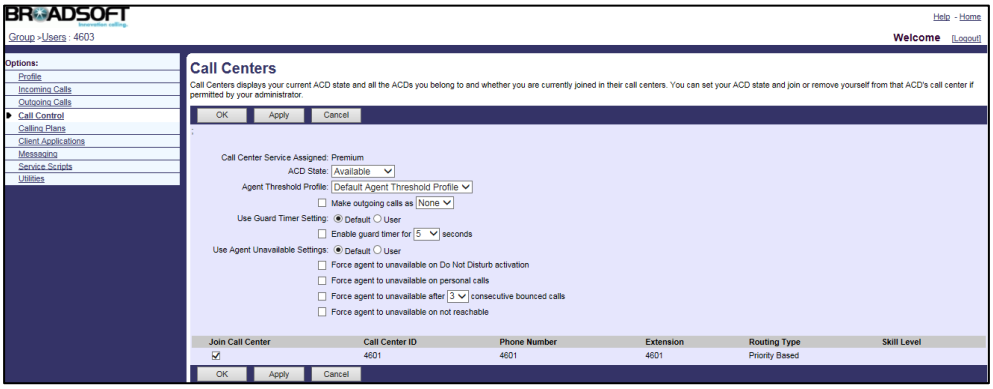


7. Repeat the step 6 to assign more agents to the call center.
8. Click **Apply** to accept the change.

Changing the Agent State

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all available users.
4. Select the desired agent (e.g., 4603).
5. Click on **Call Control** ->**Call Centers**.



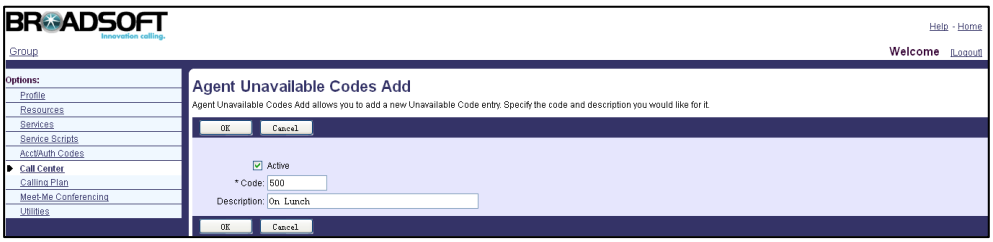
6. Select the desired state from the pull-down list of **ACD State**.
7. Click **Apply** to accept the change.

Note Make sure the **Join Call Center** checkbox is checked.

Configuring Unavailable Codes

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Agent Unavailable Codes**.
3. Check **Enable Agent Unavailable Codes** checkbox.
4. Click **Apply** to accept the change.
5. Click **Add**.
6. Enter the desired unavailable code and unavailable code name in the **Code** and **Description** fields respectively.
7. Check the **Active** checkbox.



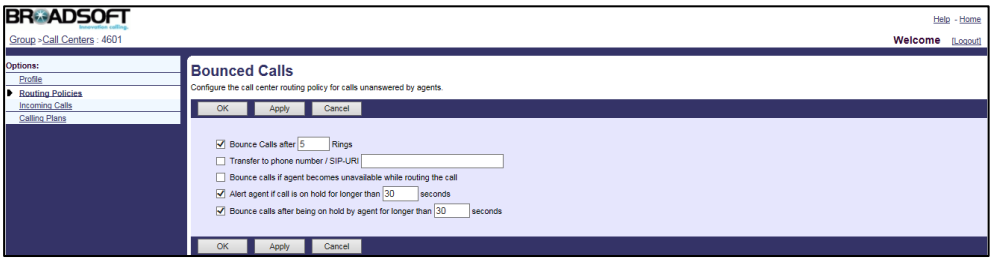
8. Click **OK** to accept the change.
9. Repeat steps 5 to 8 to add more unavailable codes.

Configuring Hold Reminder

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Call Centers**.
3. Select the call center added above and then click **Edit**.
4. Click on **Routing Policies**->**Bounced Calls**.
5. Check the **Alert agent if call is on hold for longer than <number>seconds** checkbox, and enter the amount of time (in seconds) if you want agents to be alerted about long-held calls.

6. Check the **Bounce calls after being on hold by agent for longer than <number> seconds** checkbox, and enter the number of time (in seconds) to bounce calls that are on hold longer than the specified number of seconds.



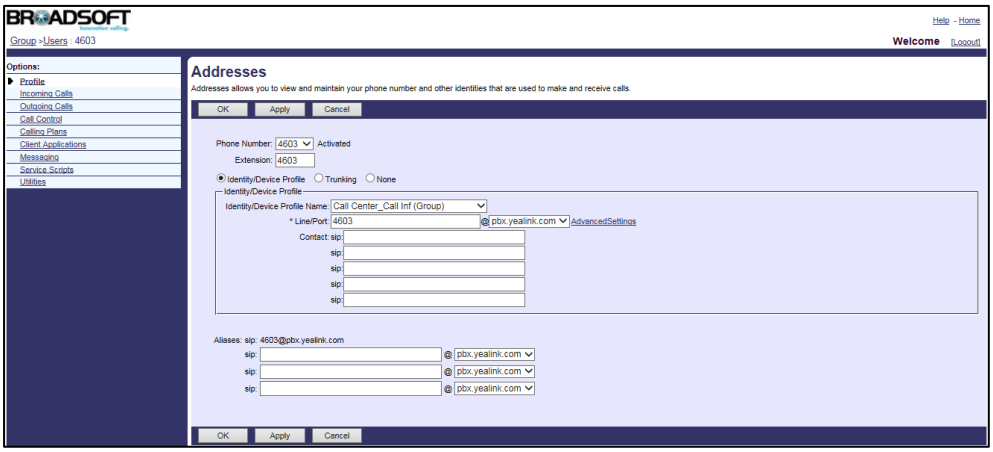
7. Click **Apply** to accept the change.

Configuring Call Information

Procedure

1. Log into the web portal as a group administrator.
2. Create a device profile. Make sure the selected device profile type supports Call Center MIME Type.

3. Assign the call center agent to the device profile. Make sure the selected device profile is the one created above.

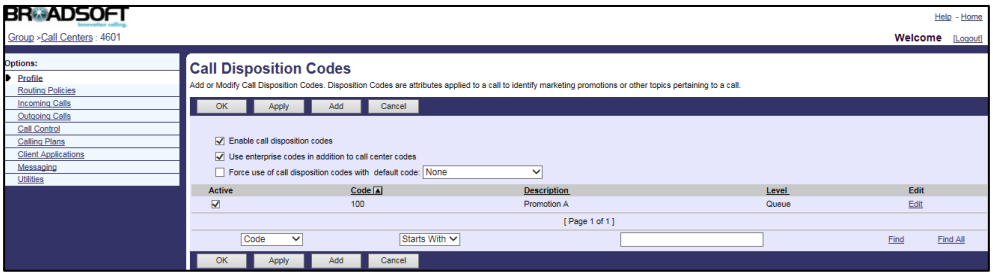


4. Click **Apply** to accept the change.

Configuring Disposition Codes

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Call Centers**.
3. Select the call center added above and then click **Edit**.
4. Click on **Call Disposition Codes**.
5. Check **Enable call disposition codes** checkbox.

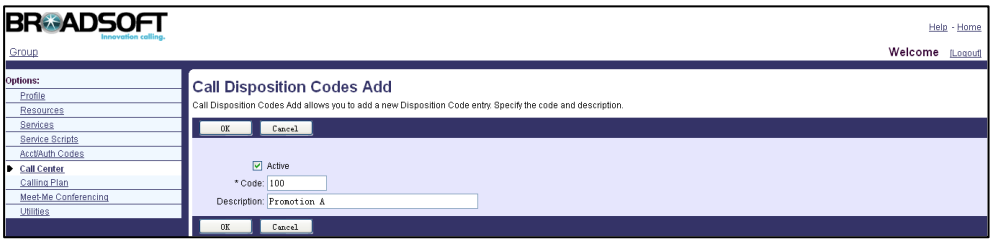


6. Click **Apply** to accept the change.

To configure Disposition Codes:

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Call Disposition Codes**.
3. Click **Add**.
4. Enter the desired disposition code and disposition name in the **Code** and **Description** fields respectively.

5. Check the **Active** checkbox.

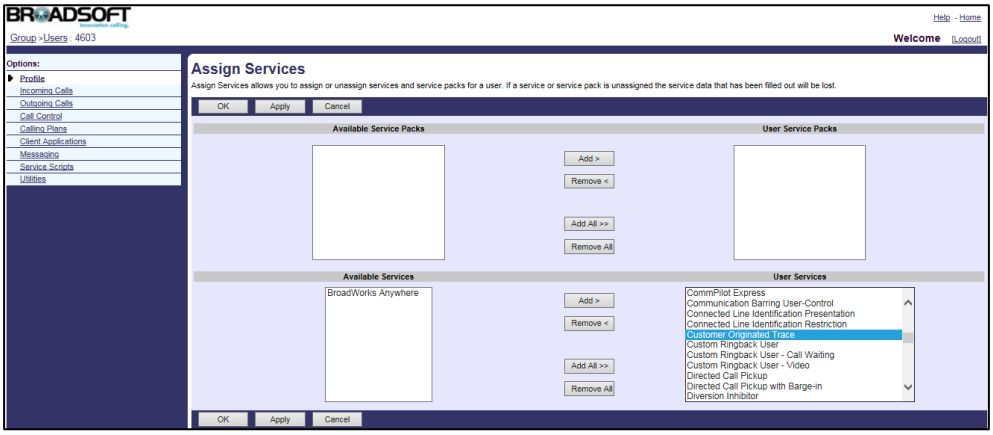


6. Click **OK** to accept the change.
7. Repeat steps 3 to 5 to add more disposition codes.

Configuring Customer Originated Trace for the Agent

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all available users.
4. Select the desired agent (e.g., 4603).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Customer Originated Trace** and then click **Add>**.



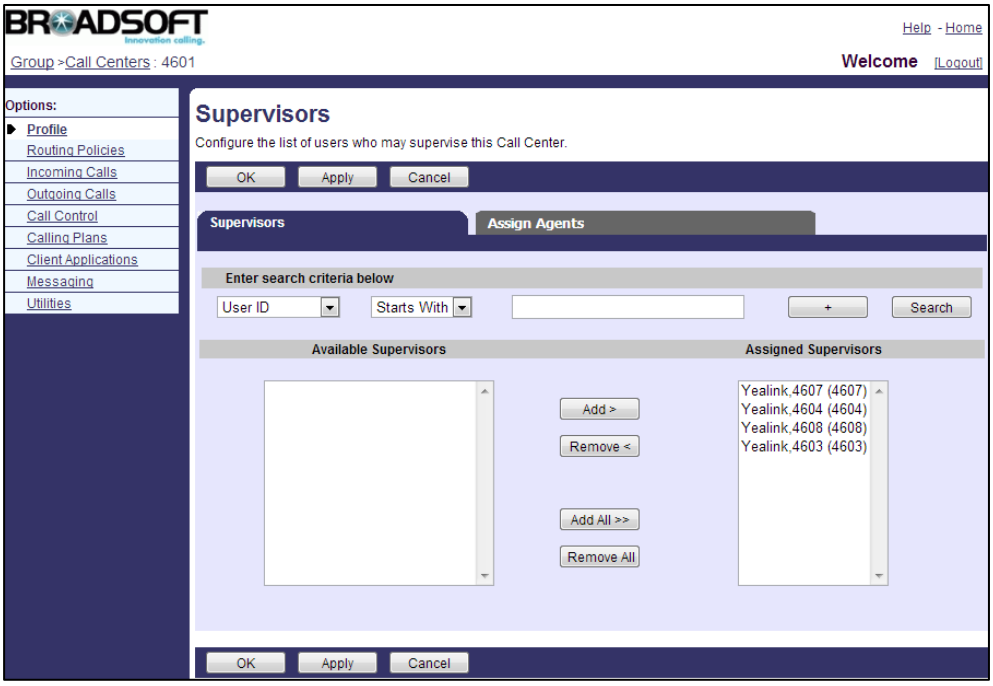
7. Click **Apply** to accept the change.

Assigning Supervisors to the Call Center

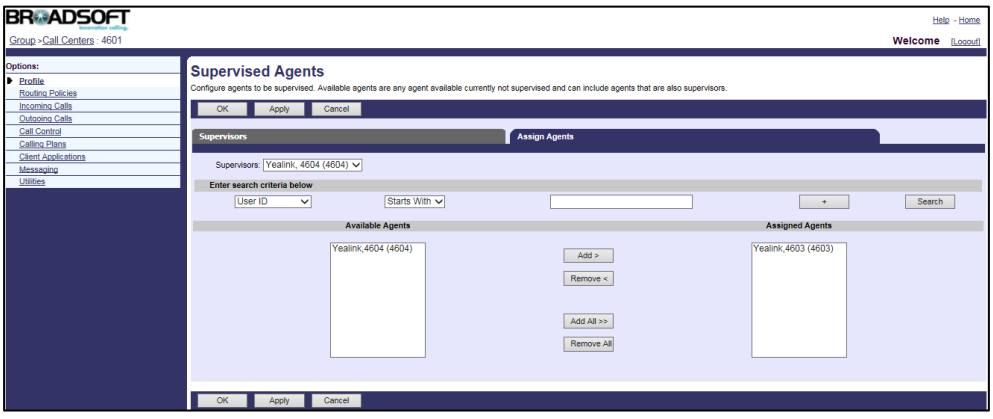
Procedure

1. Log into the web portal as a group administrator.
2. Click on **Call Center**->**Call Centers**.
3. Select the call center added above and then click **Edit**.
4. Click on **Supervisors**.

5. Click **Search** to display all available supervisors.
6. In the **Available Supervisors** box, select the desired supervisor and then click **Add>**.



7. Repeat the step 6 to assign more supervisors to the call center.
8. Click on the **Assign Agents** tab.
9. Select the desired supervisor from the pull-down list of **Supervisors**.
10. Click **Search** to display all available agents for the supervisor.
11. In the **Available Agents** box, select the desired agent and then click **Add>**.



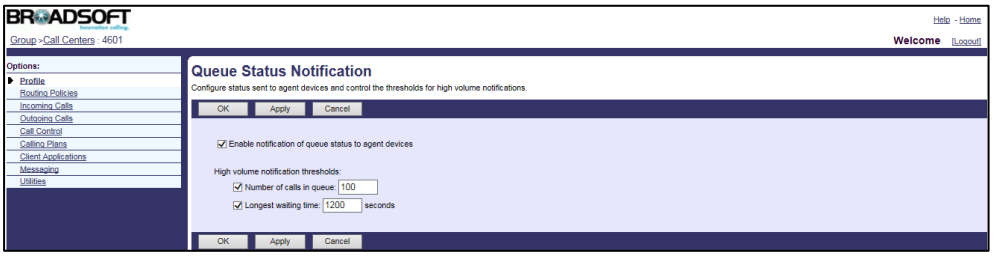
12. Click **Apply** to accept the change.

Configuring Queue Status Notification

Procedure

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

2. Click on **Call Center**->**Call Centers**.
3. Select the call center added above and then click **Edit**.
4. Click on **Queue Status Notification**.
5. Check the Enable notification of queue status to agent devices checkbox.
6. Check the **Number of calls in queue: <number>** checkbox, and enter a threshold on the number of calls in queue.
7. Check **Longest waiting time: <number> seconds** checkbox, and enter a threshold on the longest waiting time.

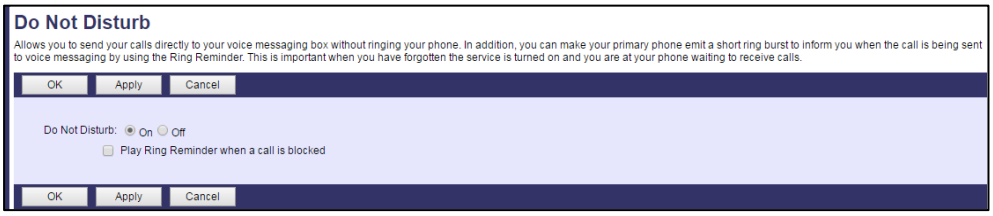


8. Click **Apply** to accept the change.

Configuring DND for Call Center

Procedure

1. Log into the web portal as a group administrator.
2. Click **Call Center**->**Call Centers**.
3. Select the call center added above and then click **Edit**.
4. Click **Incoming Calls**->**Do not Disturb**.
5. Check the **Enable** notification of queue status to agent devices checkbox.
6. In the **Do Not Disturb** field, mark the desired radio box.



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

Configuring Yealink IP Phones

Configuring Automatic Call Distribution Feature

Procedure

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

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920, X=1.

   If the primary account (e.g., 4603) is the first user assigned to the device profile, replace "X" by "1".

Parameters	Permitted Values	Default
account.X.acd.enable	**%ACD_LINE_BINARY%**	**0**
Description: Enables or disables ACD feature for account X. **0**-Disabled **1**-Enabled		
account.X.acd.initial_state	**Integer**	**1**
Description: Configures the initial agent state for account X. **1**-Available **2**-Unavailable		
account.X.acd.available	**Boolean**	**0**
Description: Enables or disables the IP phone to display the **Unavail** and **Avail** soft keys for account X after logging into the ACD system. **0**-Disabled **1**-Enabled		
acd.enable	**0 or 1**	**0**

Parameters	Permitted Values	Default
Description: Enables or disables the IP phone to automatically change the status of the ACD agent to available after the designated time. **0**-Disabled **1**-Enabled **Note:** It works only if "account.X.acd.enable" is set to 1 (Enabled).		
acd.auto_available_timer	**Integer from 0 to 120**	**60**
Description: Configures the interval (in seconds) for the status of the ACD agent to be automatically changed to available. **Note:** It works only if "account.X.acd.enable" and "acd.enable" are set to 1 (Enabled).		
Unavailable Code		
account.X.acd.unavailable_reason_enable	**Boolean**	**0**
Description: Enables or disables unavailable code feature for account X. **0**-Disabled **1**-Enabled		
account.X.reason_code.Y (Y ranges from 1 to 100)	**Integer from 1 to 2147483647**	**blank**
Description: Configures the unavailable code which must match one of the codes configured on BroadWorks for account X. Multiple unavailable codes can be configured starting with Y=1,2,3…100. At most 100 unavailable codes can be configured, and the value of Y must be continuous.		
account.X.reason_code_name.Y (Y ranges from 1 to 100)	**String within 99 characters**	**blank**
Description: Configures the unavailable reason which must match one of the reasons configured on BroadWorks for account X. Multiple unavailable reasons can be configured starting with Y=1,2,3…100. At most 100 unavailable reasons can be configured, and the value of Y must be continuous.		

Parameters	Permitted Values	Default
Call Information		
account.X.call_center.call_info_enable	**Boolean**	**0**
Description: Enables or disables call center call information feature for account X. **0**-Disabled **1**-Enabled **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
account.X.call_center.show_call_info_time	**Integer**	**30**
Description: Configures the interval (in seconds) to specify how long the call center call information displays for account X. **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
Disposition Code		
account.X.call_center.disp_code_enable	**Boolean**	**0**
Description: Enables or disables the disposition code feature for account X. **0**-Disabled **1**-Enabled **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
account.X.bw_disp_code.Y (Y ranges from 1 to 100)	**Integer from 1 to 2147483647**	**Blank**
Description: Configures the disposition code which must match one of the codes configured on BroadWorks for account X. Multiple disposition codes can be configured starting with Y=1,2,3…100. At most 100 disposition codes can be configured, and the value of Y must be continuous. **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
account.X.bw_disp_code_name.Y (Y ranges from 1 to 100)	**String within 99 characters**	**Blank**

Parameters	Permitted Values	Default
Description: Configures the disposition code name which must match one of the names configured on BroadWorks for account X. Multiple disposition code names can be configured starting with Y=1,2,3…100. At most 100 disposition code names can be configured, and the value of Y must be continuous. **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
Customer Originated Trace		
account.X.call_center.trace_enable	**Boolean**	**0**
Description: Enables or disables the customer originated trace feature for account X. **0**-Disabled **1**-Enabled **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
Emergency Escalation		
account.X.call_center.emergency_enable	**Boolean**	**0**
Description: Enables or disables the emergency escalation feature for account X. **0**-Disabled **1**-Enabled **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
account.X.supervisor_info_code.Y (Y ranges from 1 to 100)	**Integer from 1 to 2147483647**	**Blank**
Description: Configures the supervisor number for account X. Multiple supervisor numbers can be configured starting with Y=1,2,3…100. At most 100 supervisor numbers can be configured, and the value of Y must be continuous. **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
account.X.supervisor_info_code_name.Y (Y ranges from 1 to 100)	**String within 99 characters**	**Blank**

Parameters	Permitted Values	Default
Description: Configures the supervisor name for account X. Multiple supervisor names can be configured starting with Y=1,2,3…100. At most 100 supervisor names can be configured, and the value of Y must be continuous. **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
Queue Status Notification		
account.X.call_center.queue_status_enable	**Boolean**	**0**
Description: Enables or disables the queue status notification feature for account X. **0**-Disabled **1**-Enabled **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
account.X.call_center.queue_status_light_enable	**Boolean**	**0**
Description: Enables or disables the power LED indicator to flash when the ACD call queue has reached the maximum number of calls for account X. **0**-Disabled (power LED indicator does not flash) **1**-Enabled (power LED indicator fast flashes (300ms)) **Note**: It is not applicable to VP59/SIP-T58A IP phones.		
features.homescreen_softkey.acd.enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the ACD soft keys such as **Login** or **Logout** on the idle screen. **0**-Disabled **1**-Enabled **Note**: It works only if the value of parameter "account.X.acd.enable" is set to 1 (Enabled). It is only applicable to IP (except VP59/SIP-T58A) phones running firmware version 83 or later.		

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

account.1.acd.enable = %ACD_LINE_BINARY%

account.1.acd.initial_state = 1

account.1.acd.available = 1

account.1.acd.unavailable_reason_enable = 1

account.1.reason_code.1 = 500

account.1.reason_code_name.1 = On Lunch

account.1.call_center.call_info_enable = 1

account.1.call_center.show_call_info_time = 30

account.1.call_center.disp_code_enable = 1

account.1.bw_disp_code.1 = 100

account.1.bw_disp_code_name.1 = Promotion A

account.1.call_center.trace_enable = 1

account.1.call_center.emergency_enable = 1

account.1.supervisor_info_code.1 = 4604

account.1.supervisor_info_code_name.1 = Supervisor A

account.1.call_center.queue_status_enable = 1

account.1.call_center.queue_status_light_enable = 1

2. Add/Edit feature key synchronization parameters in the configuration template files (e.g., y000000000028.cfg):

features.feature_key_sync.enable = 1

3. Add/Edit DSS key parameters in the configuration template files:

You can configure a line key as an ACD key, a Disp Code key, an ACD Trace key or an Emergency key (not applicable to SIP-T19(P) E2 IP phones).

The "X" is an integer which specifies the sequence number of the line key. For SIP-T57W/T48S/T48G, X=1-29; for VP59/SIP-T58A/T54W/T46S/T46G/T29G, X=1-27; for SIP-T42S/T42G/T41S/T41P, X=1-15; for SIP-T53W/T53/T27G, X=1-21; for SIP-T40P/T40G/T23P/T23G, X=1-3; for SIP-T21(P) E2, X=1-2.

Parameters	Permitted Values
linekey.X.type	**Integer**
Description: Configures the line key type. **42-**ACD **58**-ACD Trace (not applicable to VP59/SIP-T58A IP phones) **59**-Disp Code (not applicable to VP59/SIP-T58A IP phones) **60**-Emergency (not applicable to VP59/SIP-T58A IP phones)	
linekey.X.value	**Integer**
Description: Configures the value for the Disp Code key or the Emergency key.	

Parameters	Permitted Values
linekey.X.label	**String within 99 characters**
Description: (Optional.) Configures the label displayed on the LCD screen for each line key.	

The following shows an example of the ACD Trace key (line key) configuration in a template configuration file (e.g., y000000000028.cfg):

linekey.2.type = 58

4. Customize the static tag on BroadWorks. The tag name is %ACD_LINE_BINARY% and the tag value is 1.

   For more information, refer to Customizing a Static Tag.

5. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

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

   account.1.acd.enable = 1

Configuring DND for Call Center

Call center is a virtual account, so if you want to enable the DND feature for it, you can enable the DND feature for the virtual account. As a result, all incoming calls to the call center are rejected automatically.

You can configure XSI for the virtual account to subscribe and synchronize the call center status with the server.

Procedure

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

Parameters	Permitted Values	Default
bw.virtual_user.1.enable	**0 or 1**	**0**
Description: Enables or disables the virtual account for the call center. **0-**Disabled **1-**Enabled **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled). This parameter is only applicable to phones running firmware version 84 or later.		

Parameters	Permitted Values	Default
bw.virtual_user.1.label	**String within 99 characters**	**Blank**
Description: Configures the virtual account label displayed on the phone. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled). This parameter is only applicable to phones running firmware version 84 or later. If you leave it blank, the virtual user name uses VirtualUser1 by default.		
bw.virtual_user.1.xsi.user	**String within 99 characters**	**Blank**
Description: Configures the user ID of virtual account for XSI access authentication. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled). This parameter is only applicable to phones running firmware version 84 or later.		
bw.virtual_user.1.xsi.password	**String within 99 characters**	**Blank**
Description: Configures the password of virtual account for XSI access authentication. **Note**: It works only if "bw.xsi.enable" is set to 1 (Enabled) and it is required only when the value of the parameter "sip.authentication_for_xsi" is set to 0 (User Login Credentials for XSI Authentication). This parameter is only applicable to phones running firmware version 84 or later.		
bw.virtual_user.1.xsi.host	**IP address or domain name**	**Blank**
Description: Configures the IP address of the Xtended Services Platform server for the virtual account. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled). This parameter is only applicable to phones running firmware version 84 or later.		
bw.virtual_user.1.xsi.server_type	**HTTP or HTTPS**	**Blank**
Description: Configures the access protocol of the Xtended Services Platform server for the virtual account. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled). This parameter is only applicable to phones running firmware version 84 or later.		
bw.virtual_user.1.xsi.port	**Integer from 1 to 65535**	**80**

Parameters	Permitted Values	Default
Description: Configures the port of the Xtended Services Platform server for the virtual account. **Note:** It works only if "bw.xsi.enable" is set to 1 (Enabled). This parameter is only applicable to phones running firmware version 84 or later.		
bw.virtual_user.1.xsi.dnd.enable	**0 or 1**	**0**
Description: Enables or disables the user to control the DND status for the virtual account. **0-**Disabled **1-**Enabled, user can toggle DND on or off for the virtual account. **Note**: It works only if "bw.xsi.enable" and "bw.virtual_user.1.enable" are set to 1 (Enabled). This parameter is only applicable to phones running firmware version 84 or later.		

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

bw.virtual_user.1.enable = 1

bw.virtual_user.1.label = VirtualUser1

bw.virtual_user.1.xsi.dnd.enable = 1

bw.virtual_user.1.xsi.user = 4620@pbx.yealink.com

bw.virtual_user.1.xsi.password = 132456

bw.virtual_user.1.xsi.host = xsp.yealink.com

bw.virtual_user.1.xsi.server_type = HTTP

bw.virtual_user.1.xsi.port = 80

2. Upload template boot and configuration files.

Hoteling

Hoteling enables users to use any available host (shared) phone by logging in with user credentials. After logging in, users have access to their own guest profile on the host phone. This is accomplished via a SUBSCRIBE/NOTIFY mechanism with the x-broadworks-hoteling event. Hoteling can be used on a private line only. This feature is not applicable to W52P/W53P/W56P/W60P/CP930W-Base phones.

Configuring the BroadSoft Server

To use Hoteling, you need to first enable Hoteling on the BroadWorks server by creating a host profile and a guest profile. The host profile is the shared phone's default configuration. You can

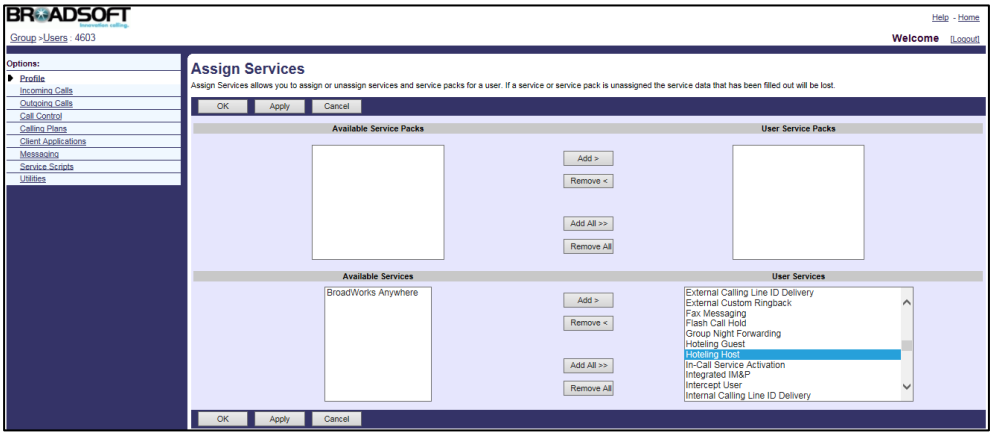
assign guest profiles to users who require hot desking.

Assigning the Hoteling Host Service to a User

This service allows for the designation of a particular user account as a host.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4603).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Hoteling Host** and then click **Add>**.

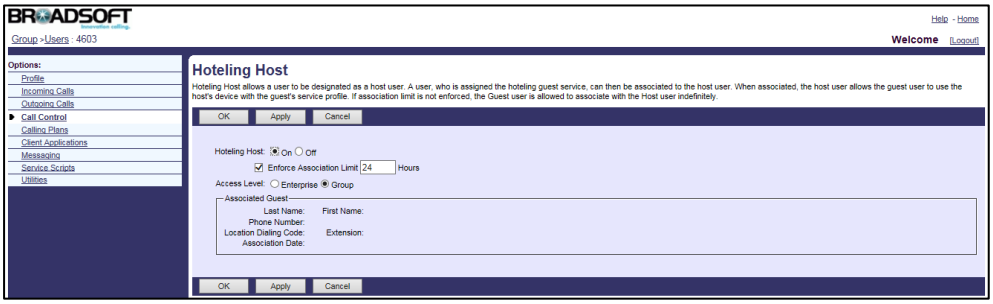


7. Click **Apply** to accept the change.

Configuring a Host Profile for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4603), who has been assigned the hoteling host service.
5. Click on **Call Control**->**Hoteling Host**.
6. Mark the **On** radio box in the **Hoteling Host** field.
7. Check the **Enforce Association Limit <number> Hours** checkbox, and enter the number of hours to use the hoteling guest profile. If unchecked, the hoteling guest is allowed to associate with the hoteling host indefinitely.



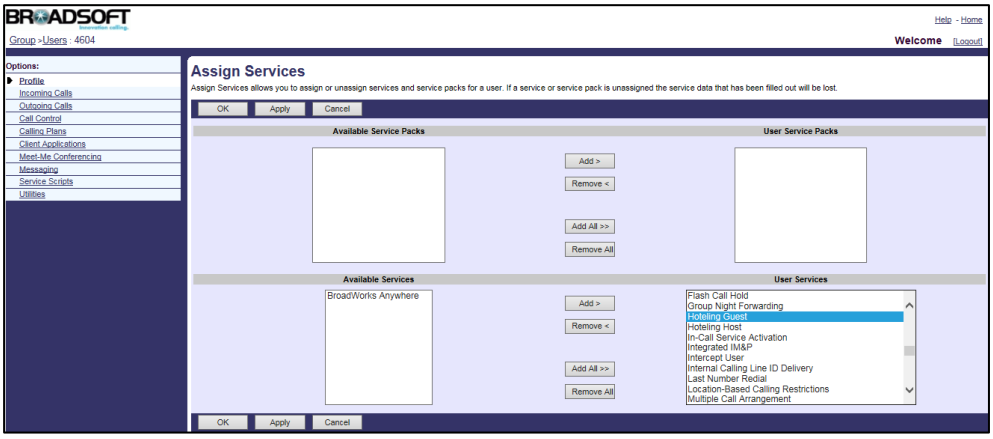
8. Click **Apply** to accept the change.

Assigning the Hoteling Guest Service to a User

This service allows a user to associate their profile with a Hoteling Host account.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604).
5. Click on **Assign Services**.
6. In the **Available Services** box, select **Hoteling Guest** and then click **Add>**.



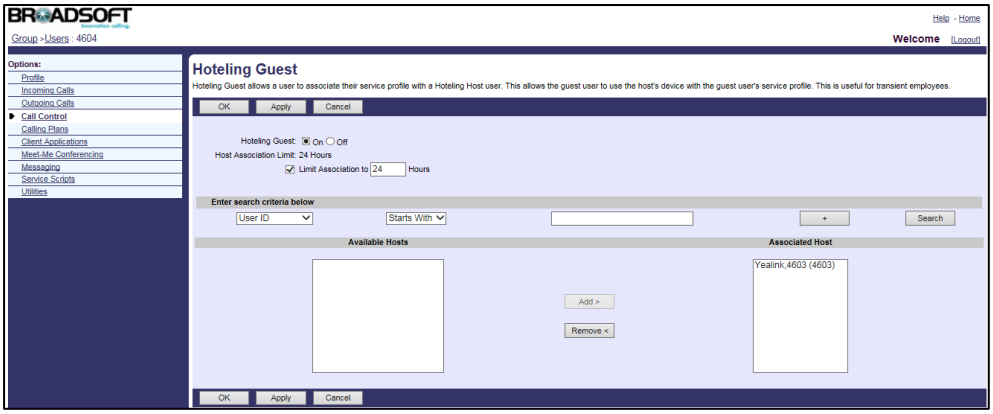
7. Click **Apply** to accept the change.

Configuring a Guest Profile for the User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.

3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4604), who has been assigned the hoteling guest service.
5. Click on **Call Control**->**Hoteling Guest**.
6. Mark the **On** radio box in the **Hoteling Guest** field.
7. Check the **Limit Association to <number> Hours** checkbox, and enter the number of hours to associate with the hoteling host. The number of hours must be equal to or less than the association limit of the hoteling host.
8. Click **Search** to display all available hoteling hosts.
9. In the **Available Hosts** box, select the desired host and then click **Add>**.



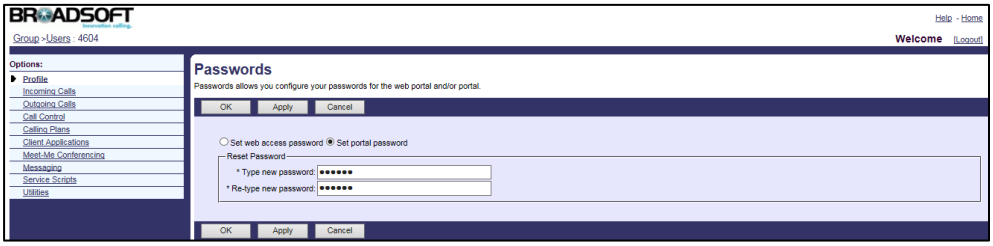
10. Click **Apply** to accept the change.

Changing a Portal Password for Hoteling Guest

This portal password is used for authentication when a user logs into a host phone and access their own guest profile. It is also applying for BroadWorks Anywhere.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the hoteling guest added above and then click **Edit**.
5. Click on **Profile**->**Passwords**.
6. Mark the **Set portal password** radio box.
7. Enter the new password in the **Type new password** field.
8. Re-enter the new password in the **Re-type new password** field.



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

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

Configuring Yealink IP Phones

After setting up Hoteling on the BroadWorks, you need to configure Hoteling on the IP phone.

Procedure

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

The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
account.X.hoteling.enable	**Boolean**	**0**
Description: Enables or disables hoteling feature for account X. **0**-Disabled **1**-Enabled		
account.X.hoteling.auto_login_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to save login credentials automatically for account X when logging into the guest profile. **0**-Disabled **1**-Enabled		
account.X.hoteling.user_id	**String within 99 characters**	**Blank**
Description: Configures the user ID used to log into the guest profile for account X.		

Parameters	Permitted Values	Default
account.X.hoteling.password	**String within 99 characters**	**Blank**
Description: Configures the password used to log into the guest profile for account X.		
features.homescreen_softkey.hoteling.enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the Hoteling soft keys such as **GuestIn** or **GuestOut** on the idle screen. **0**-Disabled **1**-Enabled **Note**: It works only if "account.X.hoteling.enable" is set to 1 (Enabled). It is only applicable to phones (except VP59/SIP-T58A/CP960) running firmware version 83 or later.		
hoteling.authentication_mode	**Boolean**	**0**
Description: Configures the hoteling authentication mode. **0**-The phone uses the hoteling user ID and password as authentication credentials. **1**-The phone uses the provisioning user name and password as authentication credentials, and at the same time provides the hoteling user ID and password in the payload of the message for authentication credentials. **Note**: It works only if "account.X.hoteling.enable" is set to 1 (Enabled). It is only applicable to phones (except VP59/SIP-T58A/CP960) running firmware version 83 or later.		

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

account.1.hoteling.enable = 1

2. Add/Edit DSS key parameters in the configuration template files:

You can configure a line key as a hoteling key (not applicable to SIP-T19(P) E2 IP phones).

The "X" is an integer which specifies the sequence number of the line key. For SIP-T57W/T48S/T48G, X=1-29; for VP59/SIP-T58A/T54W/T46S/T46G/T29G, X=1-27; for SIP-T42S/T42G/T41S/T41P, X=1-15; for SIP-T53W/T53/T27G, X=1-21; for SIP-T40P/T40G/T23P/T23G, X=1-3; for SIP-T21(P) E2, X=1-2.

Parameters	Permitted Values

Parameters	Permitted Values
linekey.X.type	**57**
Description: Configures the line key type. **57**-Hoteling.	
linekey.X.label	**String within 99 characters**
Description: (Optional.) Configures the label displayed on the LCD screen for each line key.	

The following shows an example of the hoteling key (line key) configuration in a template configuration file (e.g., y000000000028.cfg):

linekey.2.type = 57

3. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

After downloading the configuration files, the IP phone with host user registered can be shared to the guest (e.g., 4604), who can log in to and out of the guest profile on the IP phone. Once users have logged into the guest profile, the shared phone acts exactly like their own phone.

Flexible Seating

Flexible Seating allows users with the flexible seating guest enabled to create an association with the host in a group. The host is a virtual subscriber that you can provision a list of hosts with the phone devices. After the association is successful, the host's phone will be provisioned with guest's profile settings and is treated as an alternate device of the guest. The registered account is active on both the user's phone and the host's phone. The guest can lock the host's phone.

This feature is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.

Note Flexible Seating feature has similar functionality to the BroadWorks Hoteling feature. But it uses a different licensing model and allows the device to be provisioned with the guest's profile settings.

Associate and disassociate via phone or web portal is available:

Associate and disassociate via phone

If the host's device supports the Hoteling interface, the guest user can create the host-guest association by logging in to the phone, and terminate the association by logging out of the phone. When logging in, the phone sends a SIP SUBSCRIBE request to the Application Server to

create host-guest association. The request subscribes to the x-broadworks-hoteling event package with a message body that specifies the guest (identified by the guest user ID). When logging out, the phone sends a SIP SUBSCRIBE request to the Application Server to disassociate from the host. The request subscribes to the x-broadworks-hoteling event package with a null guest address in the message body. The Application Server accepts the request and terminates the association. It sends a NOTIFY request to the phone for disassociation confirmation.

Associate and disassociate via web portal

Associating a guest user with a host is done on the Flexible Seating Guest page via the web portal. The system administrator navigates to the Flexible Seating Guest page and selects a host from the list of available hosts. Available hosts are Flexible Seating Host user accounts that are active, not associated with other guest users, have access levels that permit the guest to see the host, and have the same device profile type as the Flexible Seating Guest service's device profile type. Disassociating a guest from a host is accomplished from the same web pages.

After the host-guest association is established, the Application Server sends a reset NOTIFY request that triggers the host device to download the device files provisioned for the Flexible Seating Guest service, the host device is treated as an alternate device of the guest.

Flexible Seating Host/Guest Identity Device Profile

The Flexible Seating Host/Guest service must have identity/device profile. The identity/device profile specifies the guest device files that the host's device download when the guest is associated with a host.

When associating the guest with a host, it is required that the device type of the identity/device profile assigned to the Flexible Seating Guest service matches the device type of the Flexible Seating Host's identity/device profile. For more information, refer to Configuring Device Management on BroadWorks.

It is recommended that a Device Management file configuration template (for example, y000000000000.boot) should not contain any file references that contain device-identifying tags within the dynamic per-device file name. For more information, refer to Uploading Device Template Files.

Flexible Seating Host-Guest Association Time Limit and Association Duration

The Flexible Seating Guest service allows the user to specify the maximum duration of the host-guest association. The maximum duration of the host-guest association can be configured by host and guest. When associating a guest with a host, the host-guest association duration is subject to the restrictions of both the association time limits of host and guest. As the following table enumerates cases shown:

Host		Guest		Association Duration
Enforce Association Limit	Association Limit (0-999)	Enable Association Limit	Association Limit (0-999)	

Host		Guest		Association Duration
Enforce Association Limit	Association Limit (0-999)	Enable Association Limit	Association Limit (0-999)	
ON	a	ON	b	a, if a<=b b, if a>=b
ON	a	OFF		a
OFF		ON	b	b
OFF		OFF		No limit

Unlock Phone PIN Code

A Flexible Seating Guest service allows the user to specify a PIN code for unlocking the phone. When a guest user creates an association with a host, the host device downloads the device files of the guest. If provisioned, this Unlock Phone PIN code is provided to the phone device via the device configuration files. If the Unlock Phone PIN code is set, the host phone can allow the guest user to lock the phone. The host-guest association cannot be disassociated via the phone until the phone is unlocked using the Unlock Phone PIN code.

Configuring the BroadSoft Server

Configuring the Flexible Seating Host

Creating a Virtual Account to be Flexible Seating Host

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Flexible Seating Host**.
3. Click on **Add**.
4. Set the parameters of Flexible Seating host.

   The following shows an example:

   Flexible Seating Host ID: 240028@yealink.com

   Name: 240028

   Calling Line ID Last Name: HostL

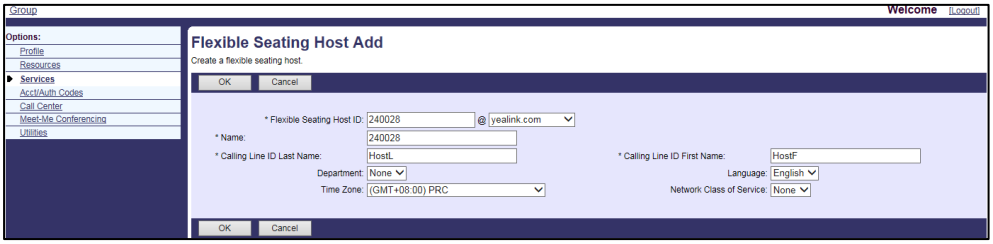
   Calling Line ID First Name: HostF

   Department: None

   Language: English

   Time Zone: (GMT+08:00) PRC

   Network Class of Service: None



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

Configuring the Flexible Seating Host

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Flexible Seating Host**.
3. Click **Search** to display all existing host.
4. Click on the desired host.
5. Click on **Addresses**.
6. Set the parameters of flexible seating host.

   The following shows an example:

   Phone Number: 240028

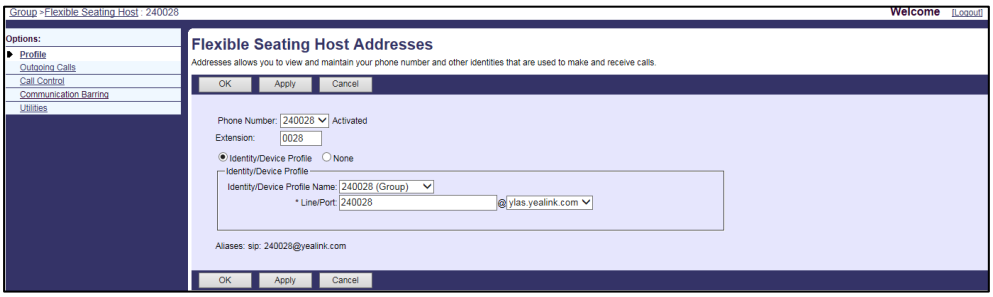
   Extension: 0028

   Identity/Device Profile: Marked

   Identity/Device Profile Name: 240028 (Group)

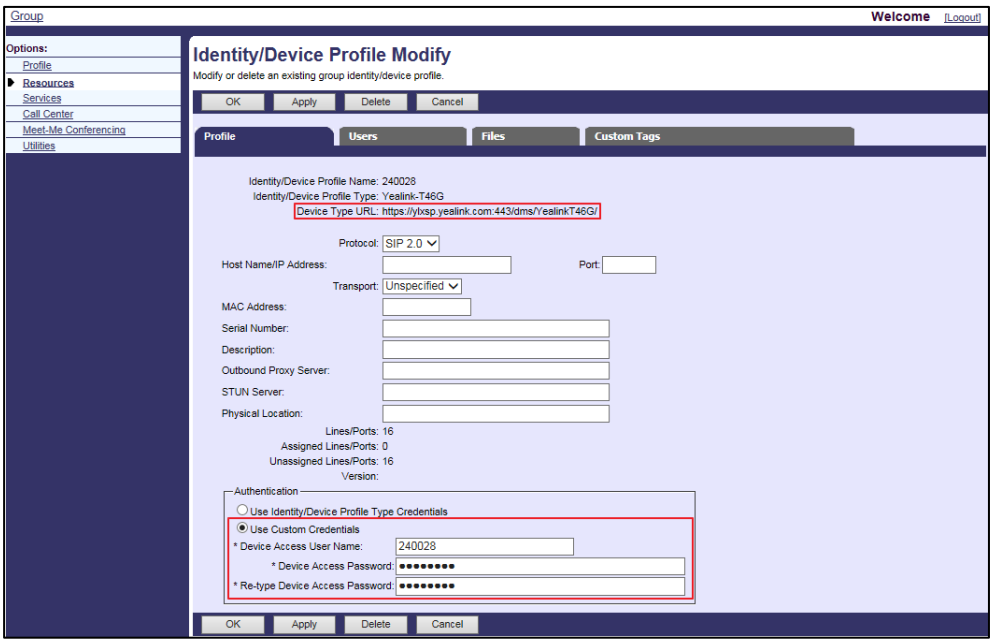
   Line/Port: 240028@ylas.yealink.com

   For more information about Identity/Device Profile, refer to Creating the Device Profile Type.



7. Click **Apply** to accept the change.
8. Click **Configure Identity/Device Profile** to configure the device profile to the host.

9. Copy the device type URL from the **Device Type URL** field. And then remember the device access user name and password.



10. Click **Files** to edit the boot file and configuration files.

    You can download the template configuration file (e.g., %BWMACADDRESS%.cfg) firstly, and then configure the CFG file to make sure ACD and hoteling feature are disabled, and Flexible Seating feature is enabled. Then upload the new %BWMACADDRESS%.cfg file to BroadWorks. For more information, refer to Uploading Device Template Files.

Configuring the Phone for the Host

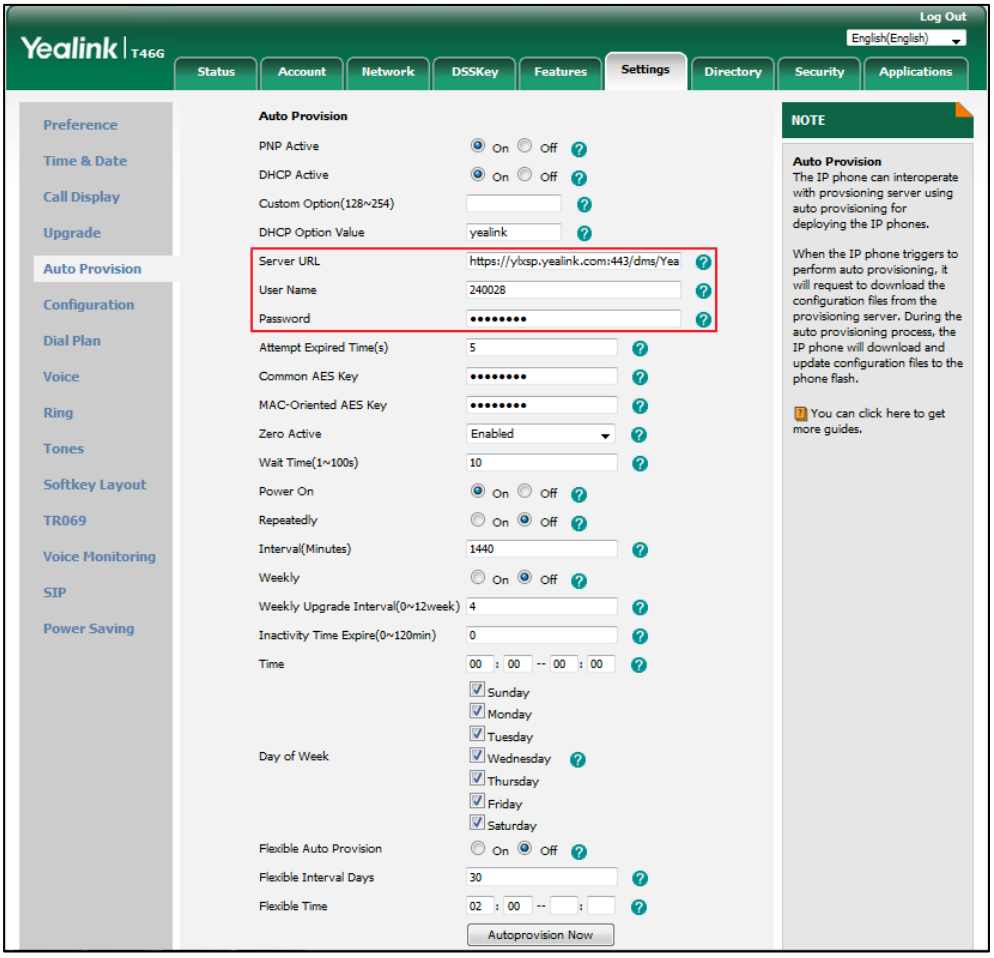
Procedure

1. Log into the web user interface.

   The default administrator user name and password are both “admin” (case-sensitive).

2. Click on **Settings**->**Auto Provision**.
3. Paste **Device Type URL** that you copy in step 9 above in the **Server URL** field.
4. Enter **Device Access User Name** that you remember in step 9 above in the **User Name** field.

5. Enter **Device Access Password** that you remember in step 9 above in the **Password** field.



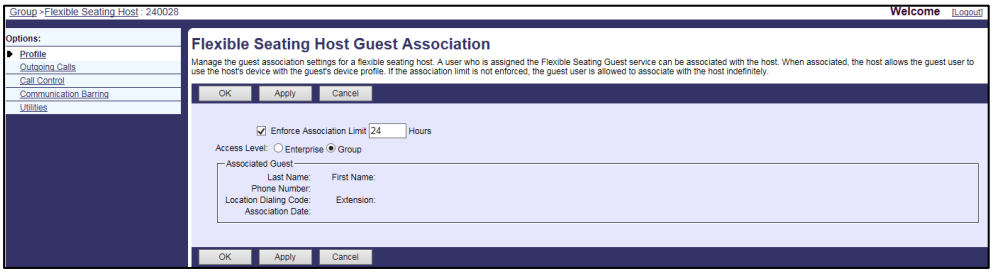
6. Click **Autoprovision Now**.

Configuring the Association Limit Time of Host

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Flexible Seating Host**.
3. Click **Search** to display all existing host.
4. Click on the desired host.
5. Click on **Guest Association**.
6. Check the **Enforce Association Limit <Number> Hours** checkbox, and then configure the limit time for guest.

If the association limit is not enforced, the guest user is allowed to associate with the host indefinitely. The time limit is not allowed until the association is terminated.

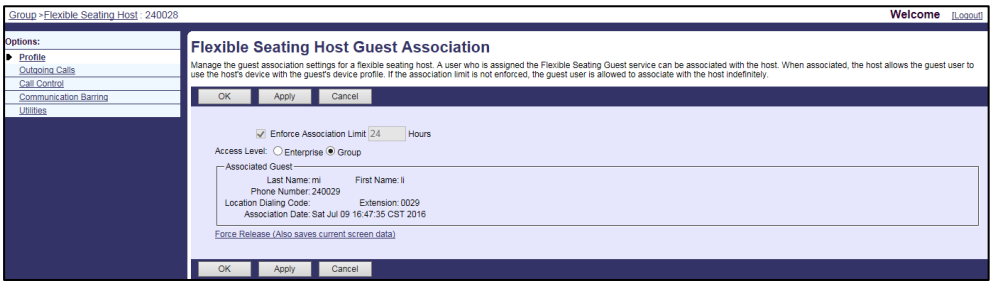


7. Click **Apply** to accept the change.

Viewing the Host-guest Association for a Guest

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Services**->**Flexible Seating Host**.
3. Click **Search** to display all existing host.
4. Click on the desired host.
5. Click on **Guest Association**.



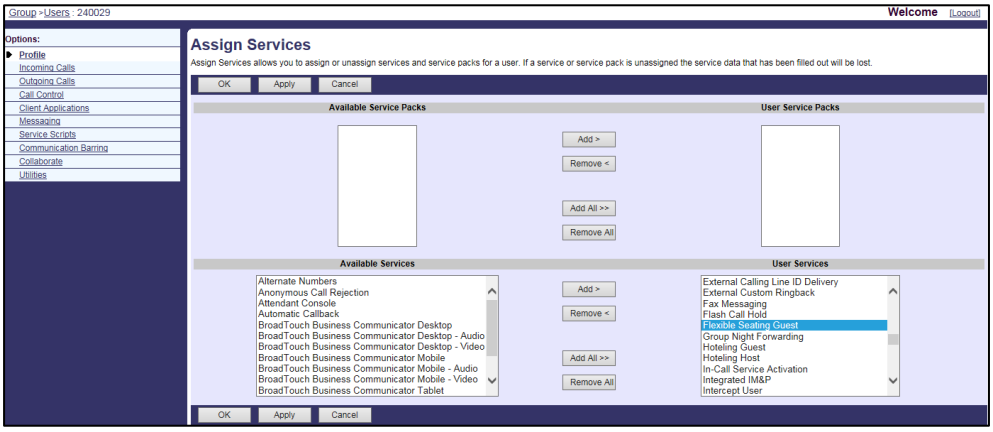
Configuring the Flexible Seating Guest

Assigning the Flexible Seating Guest Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240029).
5. Click on **Assign Services**.

6. In the **Available Service** box, select **Flexible Seating Guest** and then click **Add>**.



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

Configuring the Flexible Seating Guest for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240029).
5. Click on **Call Control**->**Flexible Seating Guest**.
6. Set the parameters of flexible seating guest.

   The following shows an example:

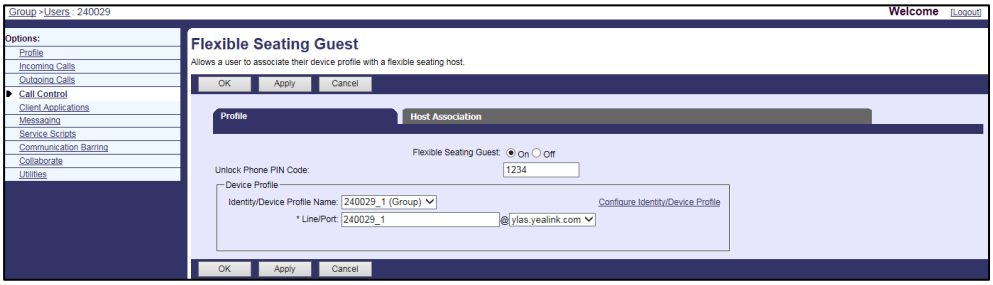
   Flexible Seating Guest: On

   Unlock Phone PIN Code: 1234

   Identity/Device Profile Name: 240029_1 (Group)

   Line/Port: 240029_1@ylas.yealink.com

   For more information about Identity/Device Profile, refer to Creating the Device Profile Type.
7. Click **Apply** to accept the change.



8. Click **Configure Identity/Device Profile** to configure the device profile of the host.
9. Click **Files** to edit the boot file and configuration files.

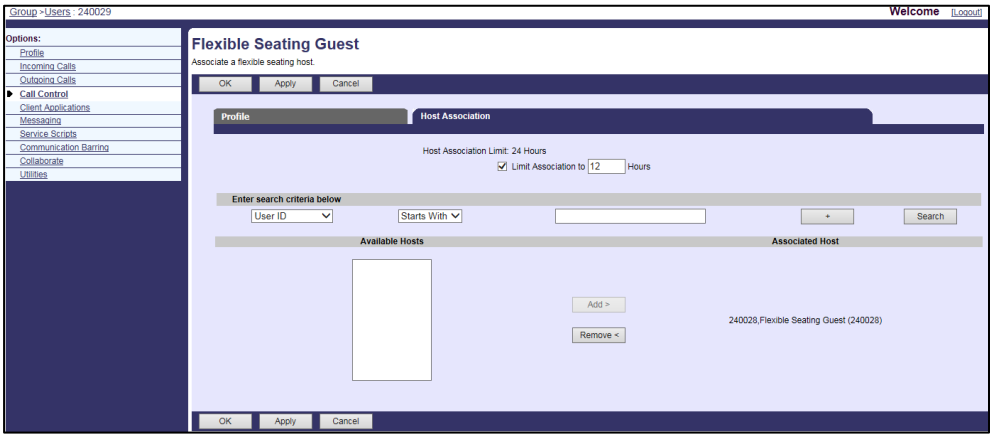
You can download the template configuration file (e.g., %BWMACADDRESS%.cfg) firstly, and then configure the CFG file to make sure flexible seating feature is enabled. Then upload the new %BWMACADDRESS%.cfg file to BroadWorks. For more information, refer to Uploading Device Template Files.

Creating the Host-guest Association

Procedure

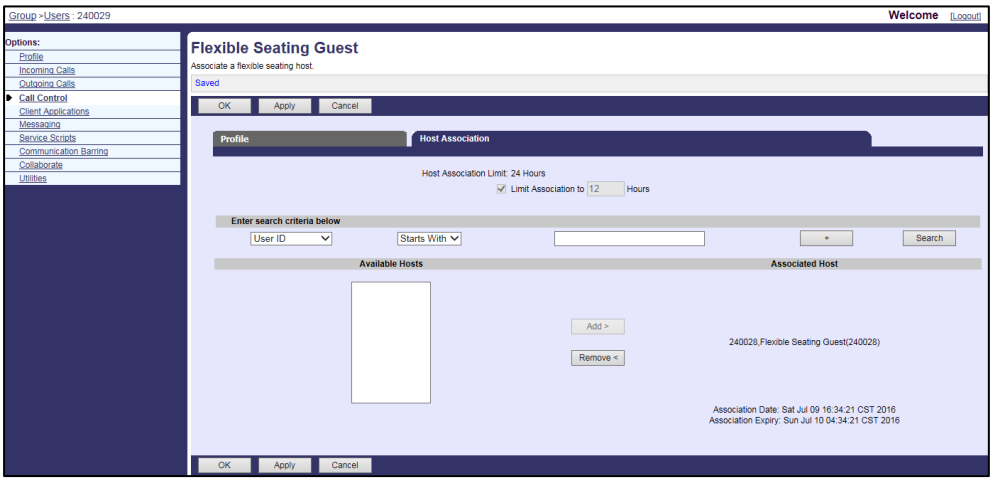
1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240029).
5. Click on **Call Control**->**Flexible Seating Guest**.
6. Click on **Host Association**.
7. (Optional.) Check the **Limit Association to X Hours**, and then configure the limit time for guest.

   The time limit is not allowed until the association is terminated.
8. Click **Search** to search the available hosts.
9. In the **Available Hosts** box, select the desired host and then click **Add>**.



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

The Association Date and Association Expiry display on the screen.



Configuring Yealink IP Phones

Procedure

1. Add/Edit Flexible Seating parameters in the configuration template files:

The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
account.X.hoteling.mode	**%BWHOTELINGMODE-X%**	**0**
Description: Configures the hoteling mode for account X. **0**-Disabled **1**-Hoteling **2**-Flexible Seating Host **3**-Flexible Seating Guest		
account.X.flexible_seating.enable	**Boolean**	**0**
Description: Enables or disables the flexible seating feature for account X.		

Parameters	Permitted Values	Default
0-Disabled **1**-Enabled **Note**: For the host, It works only if "account.X.hoteling.enable" and "account.X.acd.enable" are set to 0 (Disabled).		
account.X.hoteling.pin	**%BWFLEXIBLESEATINGUNLOCKPIN-X%**	**Blank**
Description: Configures the flexible seating PIN for account X.		
account.X.hoteling.auto_login_enable	**Boolean**	**0**
Description: Enables or disables the IP phone to save login credentials automatically for account X when logging into the guest profile. **0**-Disabled **1**-Enabled		
account.X.hoteling.user_id	**String within 99 characters**	**Blank**
Description: Configures the user ID used to log into the guest profile for account X.		
account.X.hoteling.password	**String within 99 characters**	**Blank**
Description: Configures the password used to log into the guest profile for account X.		
auto_provision.server.url	**URL within 511 characters**	**Blank**
Description: Configures the device type URL of the provisioning server for the host.		
auto_provision.server.username	**String within 32 characters**	**Blank**

Parameters	Permitted Values	Default
Description: Configures the device access user name of provisioning server for the host.		
auto_provision.server.password	**String within 32 characters**	**Blank**
Description: Configures the device access password of provisioning server for the host.		
features.homescreen_softkey.hoteling.enable	**Boolean**	**1**
Description: Enables or disables the IP phone to display the Flexible Seating soft keys such as **GuestIn** on the idle screen. **0**-Disabled **1**-Enabled **Note**: It works only if "account.X.flexible_seating.enable" is set to 1 (Enabled). It is only applicable to phones (except VP59/SIP-T58A/CP960) running firmware version 83 or later.		
bw.flexible_seating.remember_password.ldap.enable	**Boolean**	**0**
Description: Enables or disables the IP phone to save and use LDAP directory user credentials when using flexible seating feature. **0**-Disabled **1**-Enabled **Note**: It works only if "account.X.flexible_seating.enable" is set to 1 (Enabled). The IP phone can record up to 100 user credentials. If you disable this feature, all saved user credentials are cleared. It is only applicable to phones running firmware version 84 or later.		

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

account.1.flexible_seating.enable = 1

account.1.hoteling.mode = %BWHOTELINGMODE-1%

auto_provision.server.url = https://ylxsp.yealink.com:443/dms/YealinkT46G/

auto_provision.server.username = 240028

auto_provision.server.password = 123456

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

account.1.flexible_seating.enable = 1

account.1.hoteling.mode = %BWHOTELINGMODE-1%

account.1.hoteling.pin = %BWFLEXIBLESEATINGUNLOCKPIN-1%

account.1.hoteling.auto_login_enable = 1

account.1.hoteling.user_id =240029

account.1.hoteling.password = 123456

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

Centralized Call Recording

BroadWorks provides Centralized Call Recording features to the phones including the abilities to obtain recording status and control the recording. The IP phones send the *record-aware* option tag in the Supported and/or Required header of the INVITE message to indicate support for sending and receiving the SDP attributes "recordpref" and "record", which are used to request recording preferences and to obtain the recording state. This feature is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.

You can configure the recording mode to record all calls, or to selectively record calls that are operated by a user, or to never record calls when a user makes or receives it.

The following call recording modes are supported:

Recording Mode	Recording State	Recording Options
Always	All the calls will be recorded and saved automatically when the call is set up. **Call setup:** The BroadWorks sends a re-INVITE without SDP to set up the recording. The phone responses with 200 OK and offers SDP, and then receives ACK with SDP from BroadWorks contains an "a=record" attribute with the setting "on".	None
Always with Pause/Resume	All the calls will be recorded and saved automatically when the call is set up. The user can pause and resume the recording. **Call setup:** The BroadWorks sends a re-INVITE with SDP contains an "a=record" attribute with the setting "on". The phone response with 200 OK and answer SDP. **Pause recording:** The phone sends a	PauseREC/ResumeREC

Recording Mode	Recording State	Recording Options
	re-INVITE (or UPDATE) SDP contains an "a=recordpref" attribute with setting "pause" to BroadWorks to pause recording, and BroadWorks responds a 200 OK with SDP contains an "a=record" attribute with setting "paused". **Resume Recording:** the phone sends a re-INVITE (or UPDATE) SDP contains an "a=recordpref" attribute with setting "on" to BroadWorks, and BroadWorks responds a 200 OK with SDP contains an "a=record" attribute with setting "on"	
On Demand	All the calls will be recorded, but not be saved automatically when the call is set up. The user can save the recording manually. Once the recording is saved, the user can pause and resume the recording. **Call setup:** The BroadWorks sends a re-INVITE without SDP to set up the recording. The phone responses with 200 OK and offers SDP, and then receives ACK with SDP from BroadWorks contains an "a=record" attribute with the setting "off". **Save recording:** The phone sends re-INVITE (or UPDATE) SDP contains an "a=recordpref" attribute with setting "on", and BroadWorks responds a 200 OK with SDP contains an "a=record" attribute with setting "on". **Pause recording:** The same as Always with Pause/Resume Mode mentioned above. **Resume Recording:** The same as Always with Pause/Resume Mode mentioned above.	StartREC PauseREC/ResumeREC (appears when the recording is saved)
On Demand with User Initiated Start	All the calls are not recorded automatically when the call is set up. The user can start/stop or pause/resume recording during a call manually. **Start recording:** The phone sends a re-INVITE (or UPDATE) SDP contains an "a=recordpref" attribute with setting "on".	StartREC/StopREC PauseREC/ResumeREC (appears when the recording is started)

Recording Mode	Recording State	Recording Options
	The BroadWorks responds a 200 OK with hold SDP, and then sends a re-INVITE SDP contains an "a=record" attribute with setting "on". **Pause recording:** The same as Always with Pause/Resume Mode mention above. **Resume Recording:** The same as Always with Pause/Resume Mode mention above. **Stop recording:** The phone sends re-INVITE (or UPDATE) SDP contains an "a=recordprdf" attribute with setting "off". The BroadWorks responds with a 200 OK with SDP contains an "a=record" attribute with setting "off".	
Never	All the calls are not recorded. The phone intelligently chooses not to supply the record-aware option. The SDP from the BroadWorks does not contain the record attribute.	None

Note Before configuring Centralized Call Recording under XSI mode, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the recording status can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

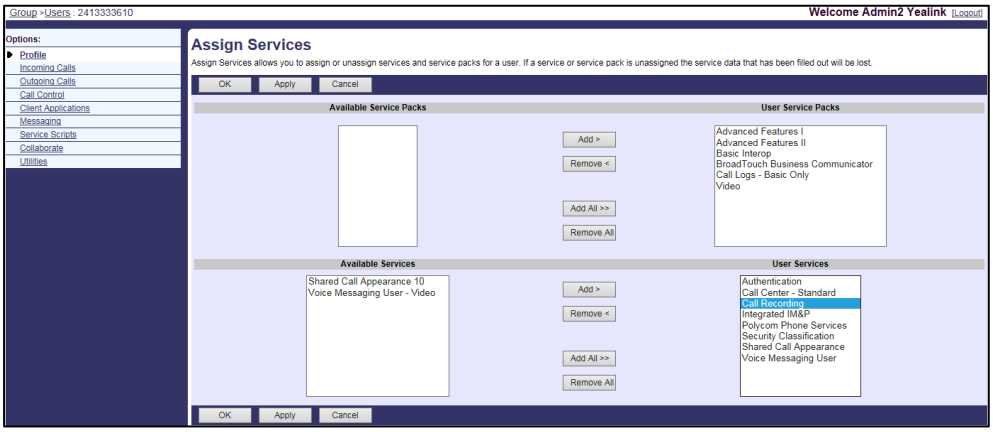
Configuring the BroadSoft Server

Assigning the Centralized Call Recording Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 2413333610).
5. Click on **Assign Services**.

6. In the **Available Services** box, select **Call Recording** and then click **Add>**.



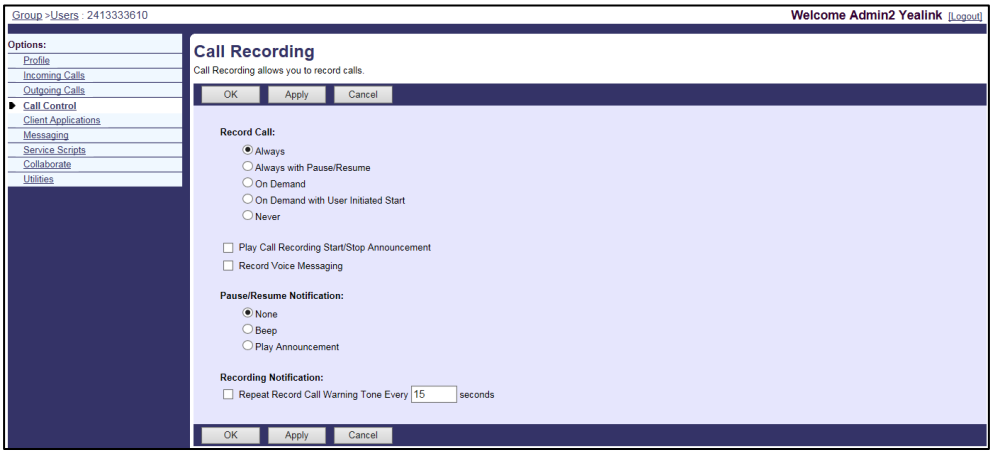
7. Click **Apply** to accept the change.

Configuring Call Recording for a User

You can select a recording mode, specify whether to notify the callers that the call is recorded.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 2413333610).
5. Click on **Call Control**->**Call Recording**.



6. Select the desired recording mode (Always, Always with Pause/Resume, On Demand, On Demand with User Initiated Start or Never) in the Record Call field.
7. Configure the following parameter for recording.

Parameter	Description
Play Call Recording Start/Stop	Enables or disables to play start/stop

Parameter	Description
Announcement	announcement when the recording starts or ends. In the Always, Always with Pause/Resume or On Demand recording mode, the call recording starts automatically when the user makes or receives a call, and the call recording start announcement is played to notify all parties that the call is being recorded.

8. Mark the desired notification when the recording is paused in the **Pause/Resume Notification** field.
9. Check the **Repeat Record Call Warning Tone** checkbox and then enter the time interval in the next field.
10. Click **Apply** to accept the change.

Configuring Yealink IP Phones

Procedure

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

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
account.X.call_recording.enable	**Boolean**	**0**
Description: Enables or disables the centralized call recording feature for account X. **0**-Disabled **1**-Enabled		
bw.call_recording.mode	**Boolean**	**1**
Description: Configures the centralized call recording mode. **0**-XSI **1**-SIP		

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

account.1.call_recording.enable = 1

2. Upload template boot and configuration files.

For more information, refer to Uploading Device Template Files.

Note Before configuring Centralized Call Recording, please make sure the USB recording is disabled (the value of the parameter "features.usb_call_recording.enable" is set to 0).

Executive and Assistant

Executive and Assistant feature provides a new solution for executive/assistant interworking. The executive can filter and screen the incoming calls, and the calls are routed to the assistant. This feature is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.

A user becomes an executive when the Executive service is assigned. The executive can configure the following Executive services:

Executive Service	Description
Assistants	Configure a list of assistants that are assigned to the executive, and set whether or not the assistants can opt in or opt out.
Call Filtering	Specify which incoming calls to be filtered. The executive service filters the calls and routes them to the assistant. The assistant is treated as a network location for the executive, and a SIP INVITE is sent towards the assistant over the network interface. "Diversion" header is added with the "reason" parameter set to "follow-me".
Call Screening	Configure the alert type and specific location for screening. The executive will not be alerted when call screening is disabled by filtering calls. Two alert types are available: **Silent**: The executive's access device locations are alerted with silent alerting by including Alert-Info: <http://127.0.0.1/silent> header in the SIP INVITE. **Ring Splash**: The executive's access device locations are alerted with silent alerting by including Alert-Info: <http://127.0.0.1/Bellcore-dr5> header in the SIP INVITE. Three optional alert locations available: **Mobility Location**: The executive's BroadWorks Mobility (BM) location can only be alerted for screening if it is enabled. It is available when the BroadWorks Mobility service is assigned.

Executive Service	Description
	Anywhere Locations: The executive's BroadWorks Anywhere locations can only be alerted for screening if it is enabled. It is available when the BroadWorks Anywhere service is assigned. Refer to BroadWorks Anywhere for more information. **Call Appearance Locations**: The executive's Shared Call Appearance (SCA) locations can only be alerted for screening if it is enabled. It is available when the Shared Call Appearance (SCA) service is assigned. Refer to Shared Call Appearance for more information. Alert type does not apply to Broadworks Anywhere and Broadworks Mobility location. **Note**: Call screening will not take effect when call filtering is disabled.
Call Alerting	Configure the alerting feature for assigned assistants, call push and rollover action when the filtered call is not answered successfully by an assistant. Once the assistant pushes a call to the executive, the call is released and a SIP BYE is sent to the executive.

A user becomes an assistant when the Executive-Assistant service is assigned. The assistant can then configure the following Executive-Assistant services:

Executive-Assistant Service	Description
Divert	Configure whether to divert the filtered calls, and the address to divert filtered calls to. It is essentially the same as the Call Forwarding Always service except that it only applies to filtered calls.
Opt-in/Opt-out	Configure whether they have opted in or opted out for the assigned executive.
Executive Settings	Access and modify the filtering, screening, and alerting components of the Executive service configuration for the executive.

Note Before configuring Executive and Assistant feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the executive and assistant configurations can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

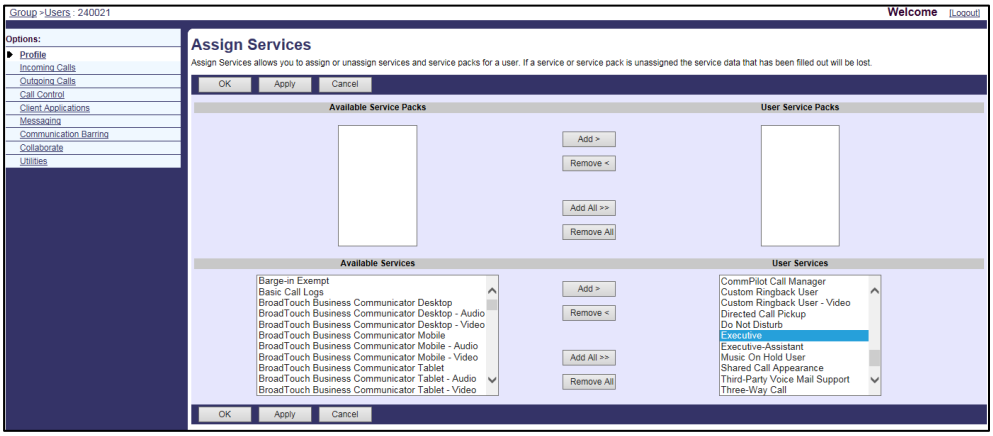
Configuring the BroadSoft Server

Configuring the Executive Feature

Assigning the Executive Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Assign Services**.
6. In the **Available Service** box, select **Executive** and then click **Add>**.



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

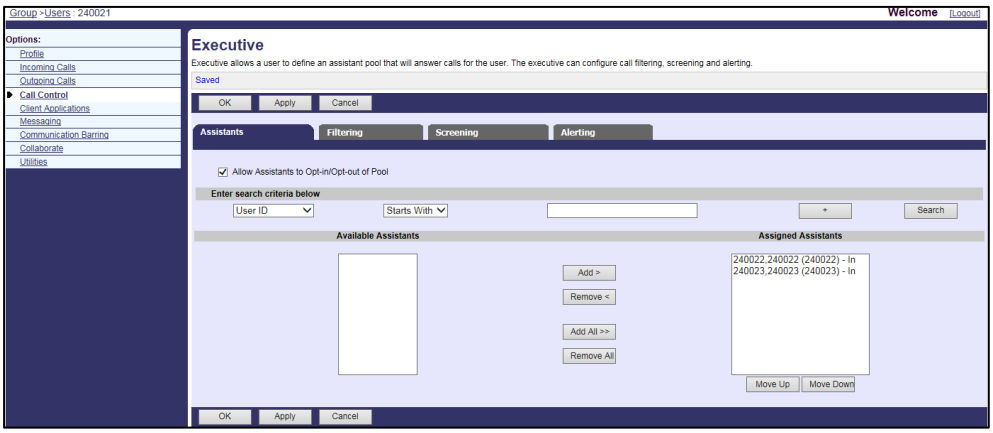
Configuring a List of Assistants for an Executive

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Call Control**->**Executive**.
6. (Optional.) Check the **Allow Assistants to Opt-in/Opt-out of Pool** checkbox.

   If the **Allow Assistants to Opt-in/Opt-out of Pool** is checked, the assistants can opt in or opt out for executive. If the **Allow Assistants to Opt-in/Opt-out of Pool** is unchecked, the status of all assigned assistants is reset to opt in.

7. In the **Available Assistants** box, select the desired user and then click **Add>** to assign the user to the executive.

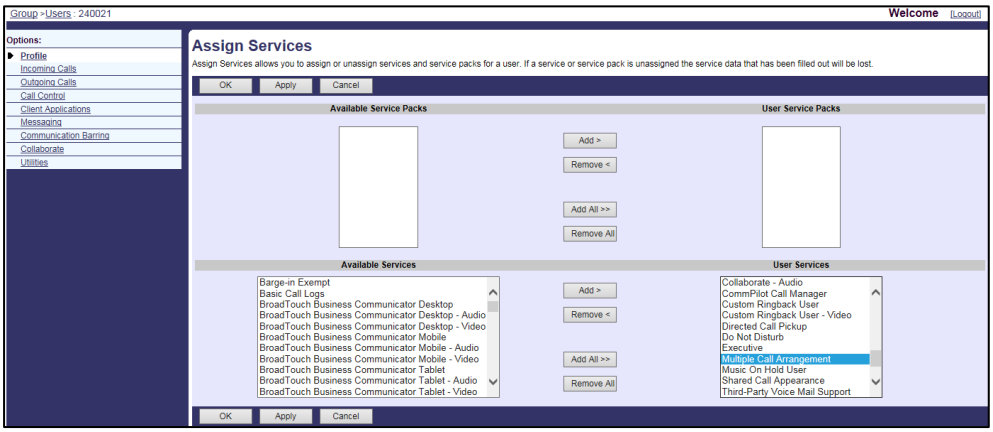


8. Click **Apply** to accept the change.

Assigning Multiple Call Arrangement Service to an Executive

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Assign Services**.
6. In the **Available Service** box, select **Multiple Call Arrangement** and then click **Add>**.



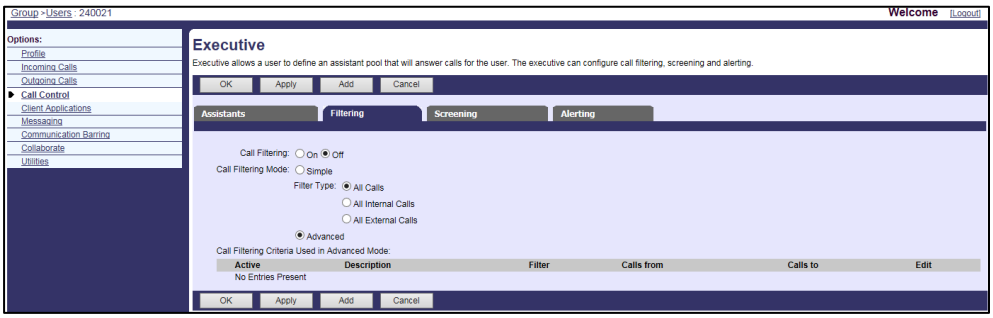
7. Click **Apply** to accept the change.

Configuring the Call Filtering for an Executive

If the Multiple Call Arrangement service is not assigned to an executive, then Executive Call Filtering feature is always disabled.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Call Control**->**Executive**. And then click the **Filtering** tab.
6. Mark the **On** radio box in the **Call Filtering** field.



7. Select the desired filtering mode from the **Call Filtering Mode** field.

   a) If you select the **Simple** mode, you can mark the corresponding radio box from the **Filter Type** field.

   All Calls – The call is always filtered.

   All Internal Calls – The call is filtered if it is an internal call.

   All External Calls – The call is filtered if it is an external call.

   b) If you select the **Advanced** mode, click **Add**, you can add the call filtering criteria used in advanced mode.

   The following shows an example:

   Description: Depart-A

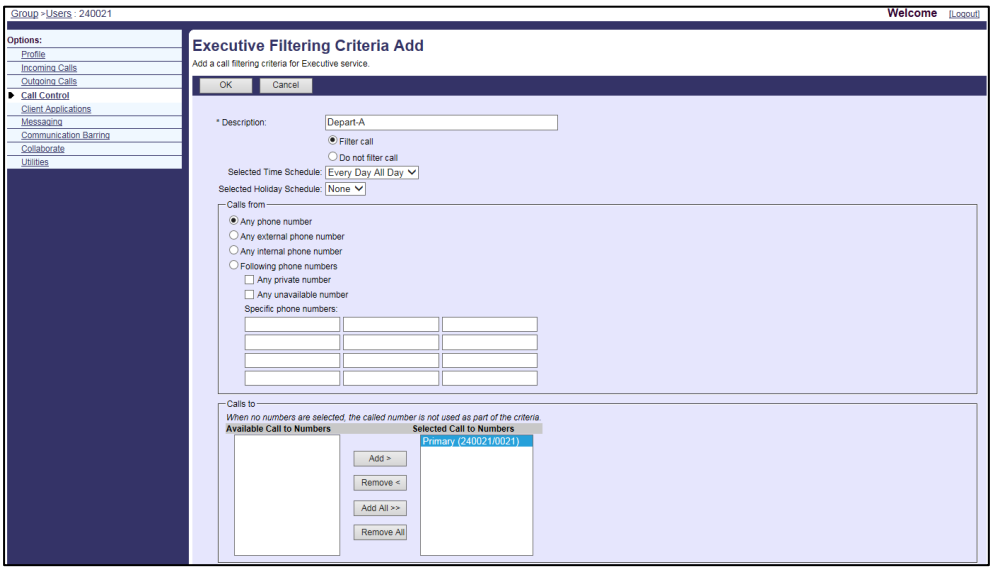
   Filter call: Selected

   Selected Time Schedule: Every Day All Day

   Selected Holiday Schedule: None

   Calls from: Any phone number

Calls to: Primary (240021/0021)



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

Configuring the Call Screening for an Executive

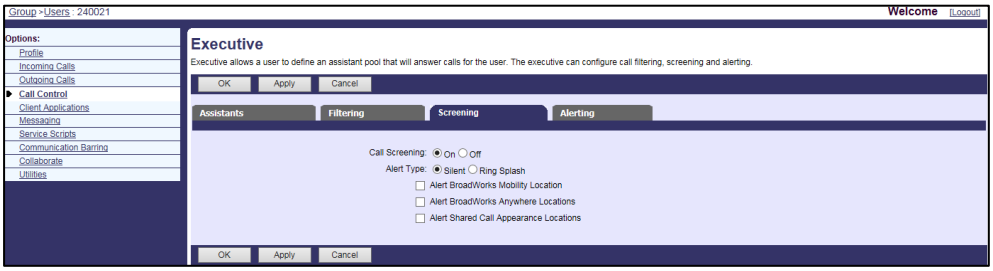
Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Call Control**->**Executive**. And then click the **Screening** tab.
6. Mark the **On** radio box in the **Call Screening** field.
7. Select **Silent** or **Ring Splash** from the **Alert Type** field.

   Alert type does not apply to BroadWorks Anywhere and BroadWorks Mobility location.
8. (Optional.) Check the desired checkbox in the **Alert BroadWorks Mobility Location**, **Alert BroadWorks Anywhere Locations** or **Alert Shared Call Appearance Locations** checkbox field.

They appear when the **BroadWorks Mobility**, **BroadWorks Anywhere** or **Shared Call Appearance (SCA) service** is assigned.

If the checked location does not exist, call screening is essentially disabled and only the assistants are alerted for the filtered call.



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

Configuring the Call Alerting for an Assistant

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Call Control**->**Executive**. And then click the **Alerting** tab.
6. Mark the desired radio box in the **Alerting Mode** field.
   - **Simultaneous**: the opted-in assistants' phones will ring simultaneously.
   - **Sequential:** the opted-in assistants' phones will ring sequentially.

     Select the desired value from the pull-down list of **Advance to Next Assistant After :<number>Rings** field.
7. Mark the desired radio box in the **Alerting Calling Line ID Name** field.

   Select the desired name to use for presentation identity:
   - **Executive Name:** the executive's presentation identity name is used without privacy applied.
   - **Originator Name:** the originator's presentation identity name is used without privacy applied.
   - **Executive-Originator Name:** The originator's presentation identity name is appended to the executive's presentation identity name with a "-" separator between them. The executive's name does not have privacy applied, but the originator's name has privacy applied according to the originator's requested privacy.
   - **Originator-Executive Name:** The executive's presentation identity name is appended to the originator's presentation identity name with a "-" separator between them. The executive's name does not have privacy applied, but the originator's name has privacy applied according to the originator's requested privacy.

- **Custom:** Custom a name to use for presentation identity. The custom name does not have privacy applied.
  - Enter the desired value in the **Alerting Custom Calling Line ID Name** field.
  - (Optional.) Enter the desired value in the **Unicode Alerting Custom Calling Line ID Name** field.

8. Mark the desired radio box in the **Alerting Calling Line ID Number** field.

   Select the desired number to use for presentation identity:

   - **Executive Number:** the executive's presentation identity number is used without privacy applied.
   - **Originator Number:** the originator's presentation identity number is used with privacy applied according to the originator's requested privacy.
   - **Custom:** Custom a number to use for presentation identity. The custom number does not have privacy applied.

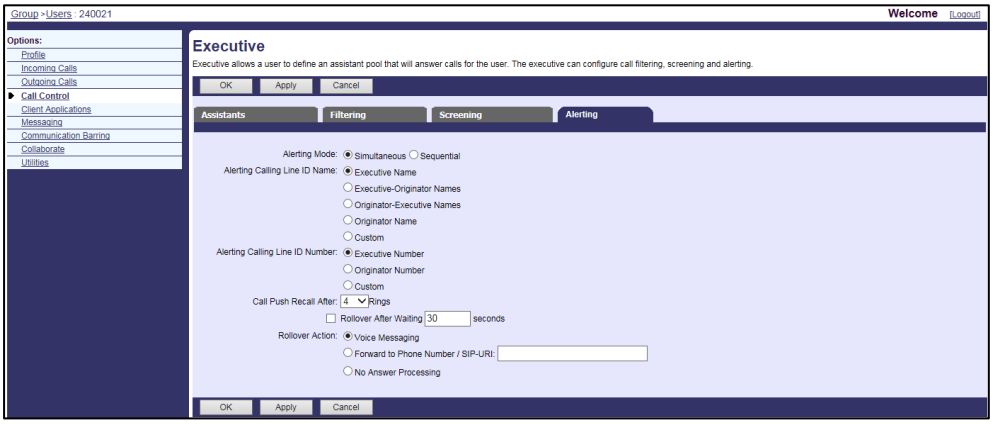
     Enter the desired value in the **Alerting Custom Number** field.

9. Select the desired value from the pull-down list of **Call Push Recall After:<number> Rings.**

   The push call will be recalled to the assistant when the time expires.

10. (Optional.) Check the **Rollover After Waiting:<number> seconds** checkbox. And configure the expired time to trigger the rollover action.

11. Mark the desired radio box in the **Rollover Action** field.



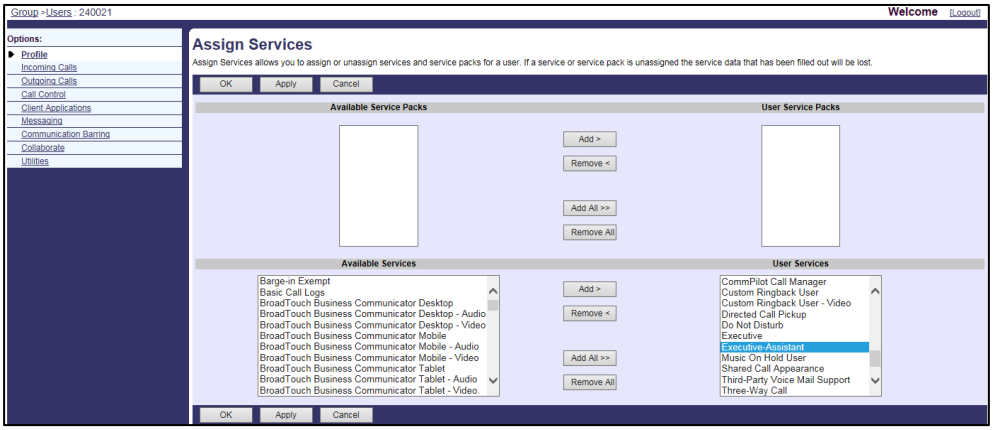
12. Click **Apply** to accept the change.

Configuring the Executive-Assistant Feature

Assigning the Executive-Assistant Service to a User

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.

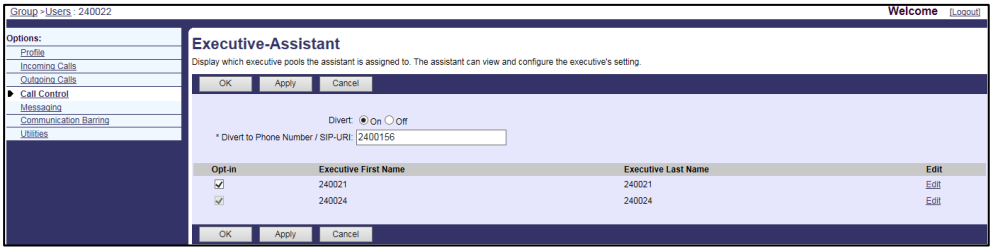
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240022).
5. Click on **Assign Services**.
6. In the **Available Service** box, select **Executive-Assistant** and then click **Add>**.



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

Configuring the Assistant Feature for an Assistant

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click on **Search** to display all existing users.
4. Select the desired user (e.g., 240022).
5. Click on **Call Control**->**Executive-Assistant**.
6. Mark the **On** radio box in the **Divert** field.
7. Enter the phone number or SIP-URI in the **Divert to Phone Number / SIP-URI** field.



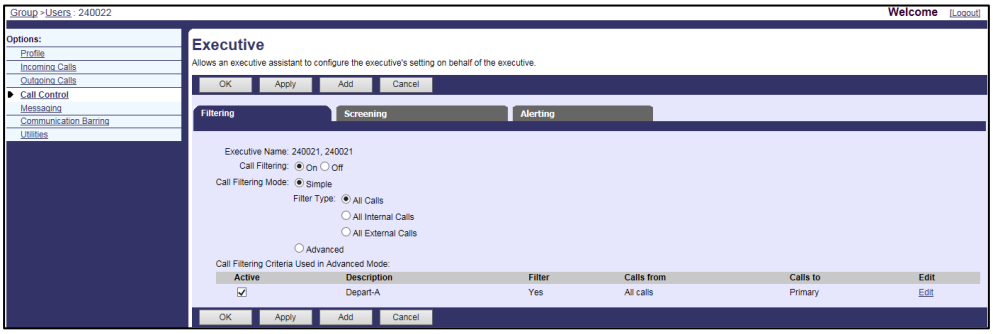
8. In the executive list, check the **Opt-in** checkbox before the desired executive name.

   The **Opt-in** checkbox is checked and non-editable when the executive does not allow an assistant to opt-in/opt-out (refer to Configuring the Executive Feature).

Changing Filtering, Screening or Alerting for an Executive

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

4. Select the desired user (e.g., 240022).
5. Click on **Call Control**->**Executive-Assistant**.
6. Click **Edit** behind the corresponding executive.
7. Click the desired tab to edit.



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

Security Classification

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

When the security classification level is assigned, the BroadWorks sends SIP INFO of this security classification level to the phone and the phone displays it to the user. The user can modify the assigned security classification level to a value lower than their assigned level while in an active call. This is implemented by a SIP SUBSCRIBE from the phone. If this modification affects the current security classification level for the call, then BroadWorks notifies the phone of the new security classification level for the call and the phone displays it to the user.

The BroadWorks provides five security classification levels from low to high: Unclassified<Classified<Restricted<Secret<Top Secret.

This feature is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.

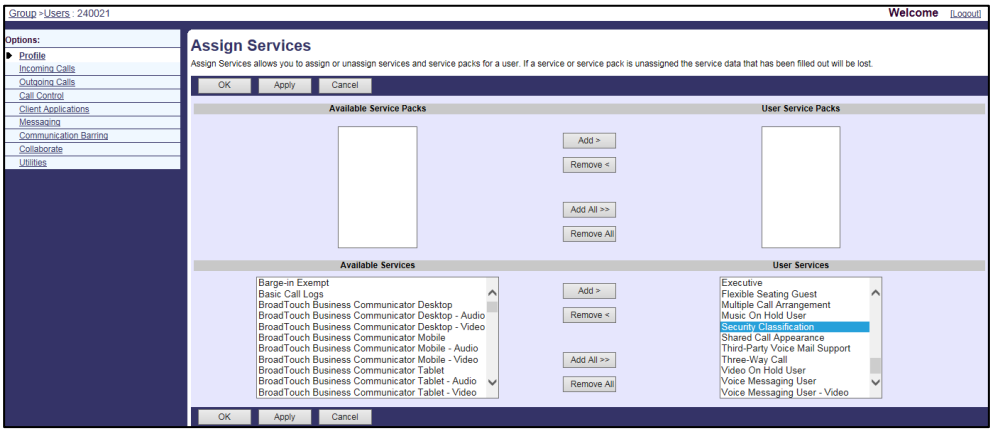
Configuring the BroadSoft Server

Assigning the Security Classification Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Assign Services**.

6. In the **Available Service** box, select **Security Classification** and then click **Add>**.

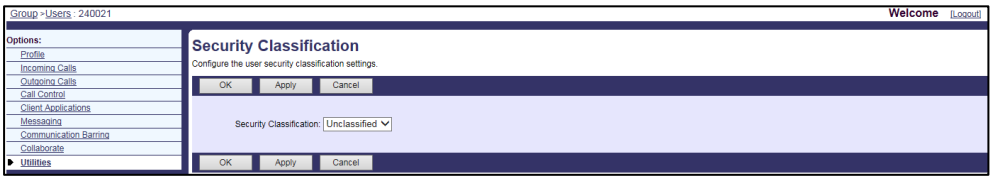


7. Click **Apply** to accept the change.

Assigning Security Classification Levels for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Utilities**->**Security Classification**.
6. Select the desired security level from the pull-down list of **Security Classification**.



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

Configuring Yealink IP Phones

Procedure

1. Add/Edit Security Classification parameters in the configuration template files:

   The “X” in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920/CP960, X=1.

Parameters	Permitted Values	Default
account.X.security_classification.enable	**Boolean**	**0**
Description: Enables or disables security classification feature for account X. **0**-Disabled **1**-Enabled		

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

account.1.security_classification.enable = 1

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

BroadWorks Mobility

BroadWorks Mobility is a flexible solution that extends the BroadWorks Centrex features transparently to the mobile network. It enables a BroadWorks user to use a mobile device to use BroadWorks enhanced services.

This feature is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.

Note Before configuring Broadworks Mobility feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Broadworks mobility personal configurations can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

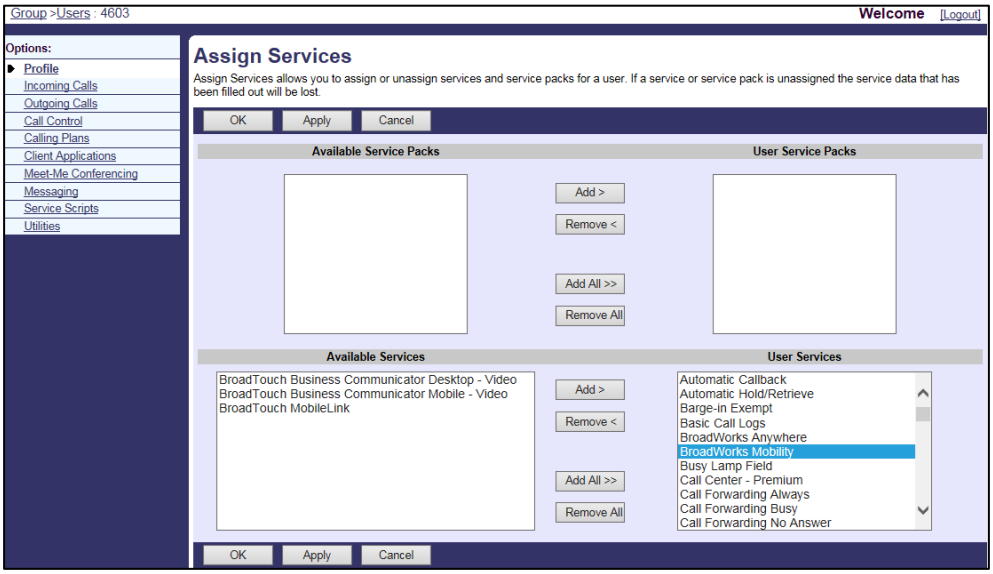
Configuring the BroadSoft Server

Assigning BroadWorks Mobility Service to a User

Procedure

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

6. In the **Available Service** box, select **Broadworks Mobility** and then click **Add>**.



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

Configuring Broadworks Mobility Feature for a User

You can activate/deactivate Broadworks Mobility, assign mobile phone numbers and other custom settings for the mobile device.

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 4603).
5. Click on **Call Control**->**Broadworks Mobility**.
6. Mark **On** radio box in the **Broadworks Mobility** field.
7. Mark the desired radio box in the **Phone to Ring** field.
8. Enter your mobile number in the **Mobile Number** field.
9. Configure the following parameters for mobility feature.

Parameter	Description
Alert for Click-to-Dial calls	Specifies whether to alert the mobile location when the primary location receives an incoming call.
Alert for Group Paging calls	Specifies whether to alert the mobile location when the primary location receives a group paging call.
Enable Diversion Inhibitor	Specifies whether the mobile location to diver

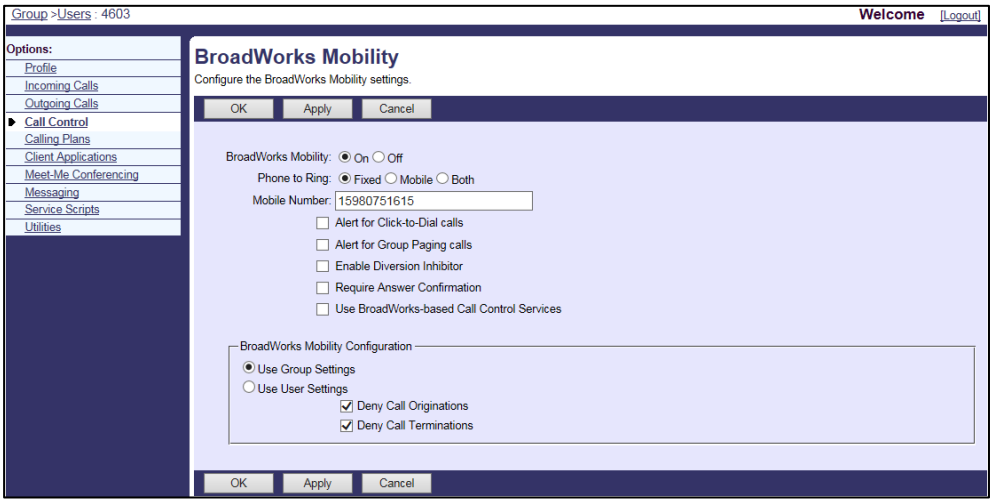
Parameter	Description
	a call of primary location.
Require Answer Confirmation	Specifies whether to prompt the user to enter a confirmation digit before completing the mobile call answered by the use.
Use Broadworks-based Call Control Services	Specifies whether call control is performed by BroadWorks and not by the mobile device.

10. Set the parameters of Broadworks mobility in the **Broadworks Mobility Configuration** block.

Use Group Settings: Marked

Deny Call Originations: Checked

Deny Call Terminations: Checked



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

Call Decline Policy

Call Decline Policy allows the user to terminate ringing at all Shared Call Appearance (SCA), Flexible Seating Guest, and BroadWorks Mobility locations in addition to the primary location. When one device sends a SIP "486 Busy" response, the call receives "Busy" treatment. If a response other than a "486 Busy" (such as 403 or 603) response is received, the call is not declined and the remaining device continues to ring/alert. If Call Forwarding Busy or Voice Messaging services are configured, then the call is redirected to one of these services.

This policy does not apply to the following scenarios:

- Automatic Callback
- Call Transfer Recall
- Automatic Hold/Retrieve Recall
- Call Park Recall
- Executive-Assistant Call Push Recall

When a location declines the call in the context of these scenarios, the other locations continue to be alerted. This policy does not apply to the Executive service when the executive is configured to screen calls. Refer to Executive and Assistant for more information.

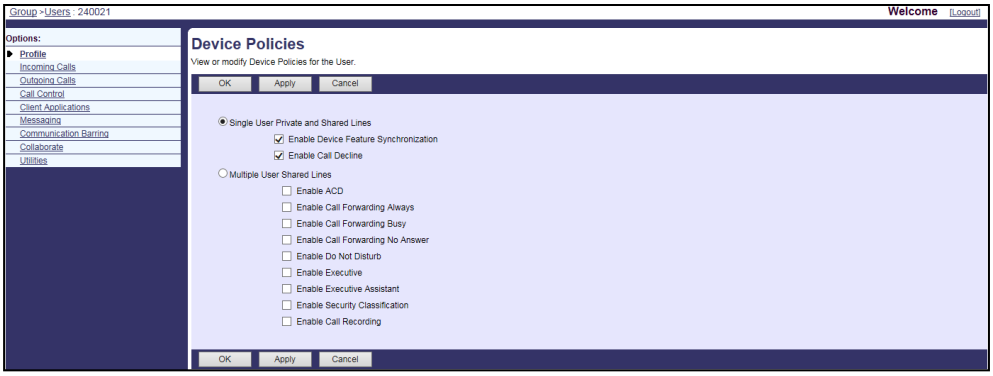
This feature is not applicable to CP930W-Base, CP960, W52P, W53P, W56P and W60P IP phones.

Configuring the BroadSoft Server

Assigning the Call Decline Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240021).
5. Click on **Device Polices**.
6. In the **Single User Private and Shared Lines** block, check the **Enable Call Decline** checkbox.



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

Configuring Yealink IP Phones

Procedure

1. Add/Edit Call Decline parameters in the configuration template files:

   The "X" in the parameter is an integer which specifies the line number on the IP phone. For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G, X=1-16; for SIP-T53W/T53/T42S/T42G, X=1-12; for SIP-T41S/T41P/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2/CP920, X=1.

Parameters	Permitted Values	Default
features.call_decline.enable	**Boolean**	**0**
Description: Enables or disables call decline feature. **0**-Disabled **1**-Enabled		
account.X.features.call_decline.enable	**%BWDFS-CALL-DECLINE-BINARY-X%**	**Blank**
Description: Enables or disables call decline feature for account X. **0**-Disabled **1**-Enabled		

2. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template Files.

Emergency Call

In North America, emergency calling has distinct functionality allowing the operator to identify and communicate with a calling party making an emergency call. Yealink IP phone supports emergency dial plan and E911 (Enhanced 911).

Emergency dialplan allows users to dial the emergency telephone number (emergency services number) at any time when the IP phone is powered on and has been connected to the network. It is available even if your phone keypad is locked or no SIP account is registered.

This feature is not applicable to CP930W-Base, W52P, W53P, W56P and W60P IP phones.

Emergency Location Identification Number (ELIN)

The IP Phones support Link Layer Discovery Protocol for Media Endpoint Devices (LLDP-MED). LLDP-MED allows the phone to use the location information, Emergency Location Identification Number (ELIN), sent by the switch, as a caller ID for making emergency calls. The outbound identity used in the P-Asserted-Identity (PAI) header of the SIP INVITE request is taken from the network using an LLDP-MED Emergency Location Identifier Number (ELIN). You can customize the outbound identity. The custom outbound identity will be used if the phone fails to get the LLDP-MED ELIN value.

The following is an example of the PAI header:

P-asserted-identity: <sip: **1234567890**@abc.com > (where 1234567890 is the custom outbound identity.)

P-Access-Network-Info (PANI)

When placing an emergency call, the MAC address of the phone/connected switch should be added in the P-Access-Network-Info (PANI) header of the INVITE message. It helps the aid agency to immediately identify the caller's location, improving rescue efficiency.

The following is an example of the PANI header:

P-Access-Network-Info: IEEE-802.3; eth-location="**00:15:65:74:b1:6e**" (where 00156574B16E is the phone's MAC address.)

E911 (Enhanced 911) is a location technology that enables the called party to identify the geographical location of the calling party. For example, if a caller makes an emergency call to E911, the feature extracts the caller's information for the police department to immediately identify the caller's location.

HTTP-Enabled Location Delivery (HELD)

The IP Phones support HTTP-Enabled Location Delivery (HELD) to request their location from a Location Information Server (LIS).

Firstly, the IP phone sends a Location Request message to LIS upon power on or IP change. Then the LIS replies a Location Response message with a Location URI to your IP phone. The IP phone stores the location URI for use in PDIF-LO.

When a user dials an emergency number (911), the IP phone will send an INVITE request to a gateway with PIDF-LO including the previously provided location URI.

The following is an example of location information sent in INVITE request message:

Geolocation:<https://anywhere.redskytech.com/e911Anywhere/heldref?zhangzl&companyId=yealink-e911&deviceId=10.10.117.26>,<Mac=00:15:65:45:16:BB>,<https://www.yealink.com/>
Geolocation-Routing: yes
This feature is not applicable to VP59/T58A/CP960 IP phones.

Network Hold and Operator Ring-back For Emergency Calls

Emergency Originator Actions

An emergency originator is defined as the BroadWorks user who initiates an emergency call. When a user originates an emergency call, both the *Resource-Priority: emgr.0* and *Priority: emergency* headers are presented in the initial INVITE. When emergency originator hangs up, the IP phone sends a re-INVITE with a=inactive in the SDP to the emergency operator, instead of sending a BYE to terminate the call. This is interpreted by the server as a call-on-hold request.

Emergency Operator Actions

An emergency operator is defined as the person who answers an emergency call. Whenever a call-on-hold request is received from the emergency originator for an emergency call that was initiated with an INVITE *Resource-Priority: emgr.0* and *Priority: emergency* headers, the

emergency operator can initiate an event to ring the originator back via a **Hold**/**Resume** soft key or play a howler tone towards the emergency originator.
The originating phone will be preferentially ringing upon receiving the re-INVITE from the operator, regardless of the call state (for example, DND/call forward feature is activated). The ring tone is played continuously until the emergency originator answers or the server releases. The originator cannot reject this ring-back call.

Configuring Yealink IP Phones

Procedure

1. Add/Edit Emergency Call parameters in the configuration template files:

Parameters	Permitted Values	Default
dialplan.emergency.asserted_id_source	**ELIN, CUSTOM or HELD**	**ELIN**
Description: Configures the precedence of source of emergency outbound identities when placing an emergency call. If it is set to ELIN, the outbound identity used in the P-Asserted-Identity (PAI) header of the SIP INVITE request is taken from the network using an LLDP-MED Emergency Location Identifier Number (ELIN). The custom outbound identity configured by "dialplan.emergency.custom_asserted_id" will be used if the phone fails to get the LLDP-MED ELIN value. If it is set to CUSTOM, the custom outbound identity configured by "dialplan.emergency.custom_asserted_id" will be used; if the value of the parameter "dialplan.emergency.custom_asserted_id" is left blank, the LLDP-MED ELIN value will be used. If it is set to GENBAND (not applicable to VP59/T58A/CP960 IP phones), the GENBAND E911 feature is enabled, the location ID will be added to the INVITE and REGISTER SIP messages. If it is set to HELD (not applicable to VP59/T58A/CP960 IP phones), the IP phone will use the HELD protocol to retrieve location information from the Location Information Server. **Note**: If the obtained LLDP-MED ELIN value is blank and no custom outbound identity, the PAI header will not be included in the SIP INVITE request. HELD is only applicable to phones running firmware V82 or later.		
dialplan.emergency.held.server_url	**String**	**Blank**
Description: Configures the Location Information Server URL for the IP phone to send HELD location request.		

Parameters	Permitted Values	Default
Note: It works only if "dialplan.emergency.asserted_id_source" is set to HELD. It is applicable to IP phones (except VP59/T58A/CP960) running firmware V82 or later.		
dialplan.emergency.held.request_type	**SIMPLE or REDSKY**	**SIMPLE**
Description: Configures the type of the location request message. If it is set to SIMPLE, the IP phone will send the location request message defined in RFC5985. If it is set to REDSKY, the IP phone will send the location request message defined by REDSKY. **Note:** It works only if "dialplan.emergency.asserted_id_source" is set to HELD. It is applicable to IP phones (except VP59/T58A/CP960) running firmware version 82 or later.		
dialplan.emergency.held.request_element.X.name (X ranges from 1 to 255)	**String**	**Blank**
Description: Configures the custom element name to be sent in a location request message. For example: dialplan.emergency.held.request_element.1.name = mac dialplan.emergency.held.request_element.2.name = companyID dialplan.emergency.held.request_element.3.name = nai The value of X must be continuous. **Note:** It works only if "dialplan.emergency.asserted_id_source" is set to HELD. It is applicable to IP phones (except VP59/T58A/CP960) running firmware version 82 or later.		
dialplan.emergency.held.request_element.X.value (X ranges from 1 to 255)	**String**	**Blank**
Description: Configures the custom element value to be sent in a location request message. For example: dialplan.emergency.held.request_element.1.value = 001565B38ECB dialplan.emergency.held.request_element.2.value = 6f2f2d50-c385-4b72-b84a-ce0ca3a77cb7 dialplan.emergency.held.request_element.3.value = 8611@pbx.yealink.com The value of X must be continuous. **Note:** It works only if "dialplan.emergency.asserted_id_source" is set to HELD. It is applicable		

Parameters	Permitted Values	Default
to IP phones (except VP59/T58A/CP960) running firmware version 82 or later.		
dialplan.emergency.custom_asserted_id	**10-25 digits, SIP URI, or TEL URI**	**Blank**
Description: Configures the custom outbound identity when placing an emergency call. If using a TEL URI (for example, tel:+16045558000), the full URI is included in the P-Asserted-Identity (PAI) header (for example, <tel:+16045558000>). If using a SIP URI (for example, sip:1234567890123@abc.com), the full URI is included in the P-Asserted-Identity (PAI) header and the address will be replaced by the emergency server (for example, <sip:1234567890123@emergency.com>). If using a 10-25 digit number (for example, 1234567890), the SIP URI constructed from the number and SIP server (for example, abc.com) is included in the P-Asserted-Identity (PAI) header (for example, <sip:1234567890@abc.com>). **Note:** It works only if "dialplan.emergency.asserted_id_source" is not set to HELD.		
dialplan.emergency.server.X.address (X ranges from 1 to 3)	**IP address or domain name**	**Blank**
Description: Configures the IP address or domain name of the emergency server X to be used for routing calls. **Note**: If the account information has been configured (no matter whether the account registration succeeds or fails), the emergency calls will be dialed using the following priority: SIP server>emergency server; if not, the emergency server will be used. It works only if "dialplan.emergency.asserted_id_source" is not set to HELD.		
dialplan.emergency.server.X.port (X ranges from 1 to 3)	**Integer from 1 to 65535**	**5060**
Description: Configures the port of emergency server X to be used for routing calls. **Note:** It works only if "dialplan.emergency.asserted_id_source" is not set to HELD.		
dialplan.emergency.server.X.transport_type (X ranges from 1 to 3)	**0, 1, 2 or 3**	**0**
Description: Configures the transport protocol the IP phone uses to communicate with the emergency server X. **0**-UDP		

Parameters	Permitted Values	Default
1-TCP **2**-TLS **3**-DNS-NAPTR **Note:** It works only if "dialplan.emergency.asserted_id_source" is not set to HELD.		
dialplan.emergency.X.value (X ranges from 1 to 255)	**number or SIP URI**	**Refer to the following content**
Description: Configures the emergency number to use on your IP phone so a caller can contact emergency services in the local area when required. **Default**: When X = 1, the default value is 911; When X = 2-255, the default value is Blank. **Note:** It works only if "dialplan.emergency.asserted_id_source" is not set to HELD.		
dialplan.emergency.X.server_priority (X ranges from 1 to 255)	**a combination of digits 1, 2 and 3**	**1, 2, 3**
Description: Configures the priority for the emergency servers to be used. Multiple values are separated by commas. The servers to be used in the order listed (left to right). The IP phone tries to make emergency calls using the emergency server with higher priority, and then with lower priority. The IP phone tries to send the INVITE request to each emergency server for three times. **Example**: dialplan.emergency.1.server_priority = 2, 1, 3 It means the emergency calls will be dialed using the following priority: emergency server 2>emergency server 1>emergency server 3. The IP phone tries to send the INVITE request to each emergency server for three times. **Note**: If the account information has been configured (no matter whether the account registration succeeds or fails), the emergency calls will be dialed using the following priority: SIP server>emergency server; if not, the emergency server will be used. It works only if "dialplan.emergency.asserted_id_source" is not set to HELD.		
bw.emergency_calling.enable	**Boolean**	**0**

Parameters	Permitted Values	Default
Description: Enables or disables BroadWorks Emergency Calling feature. **0**-Disabled **1**-Enabled, the IP phone supports network hold and operator ring-back for emergency calls. **Note:** It is only applicable to phones running firmware version 83 or later.		
account.X.reg_with_pani_header.enable[1]	**Boolean**	**0**
Description: Enables or disables the IP phone to carry the PANI header in the REGISTER request message for account X. **0**-Disabled **1**-Enabled **Note**: It is only applicable to phones running firmware version 83 or later.		
account.X.invite_with_pani_header.enable[1]	**Boolean**	**0**
Description: Enables or disables the IP phone to carry the PANI header in the INVITE request message. **0**-Disabled **1**-Enabled The PANI header format is: P-Access-Network-Info:IEEE-802.3; eth-location=<*MAC Address Of The Phone*>; local-time-zone="0800" **Note**: It is only applicable to phones running firmware version 83 or later.		

[1] X is the account ID. For SIP-T57W/T54W/T48G/T48S/T46G/T46S/T29G, X=1-16; for SIP-T53W/T53/T42G/T42S, X=1-12; for SIP-T41P/T41S/T27G, X=1-6; for SIP-T40P/T40G/T23P/T23G, X=1-3; for SIP-T21(P) E2, X=1-2; for SIP-T19(P) E2, X=1.

The following shows an example of the emergency call configuration in a template configuration file (e.g., y000000000028.cfg):

```
dialplan.emergency.asserted_id_source = ELIN
dialplan.emergency.1.value= 311
dialplan.emergency.server.1.address = 10.200.108.48
dialplan.emergency.custom_asserted_id = tel:+16045558000
bw.emergency_calling.enable = 1
```

2. Upload template boot and configuration files.

For more information, refer to Uploading Device Template Files.

Silent Alerting

When an incoming call arrives, the BroadWorks server sends INVITE to the phone with Alert-Info:<http://127.0.0.1/silent>. Then the IP phone automatically plays the silent ring tone (Silent.wav).

This feature is not applicable to CP930W-Base, W52P and W56P IP phones.

The Silent Alerting feature is applicable to the following accounts:

- Primary
- Hoteling Guest
- Flexible Seating Guest
- Shared Call Appearance

Note Before configuring Silent Alerting feature, make sure that the XSI has been configured. If the BroadWorks XSI is configured on the IP phone, the Silent Alerting can be synchronized between the IP phone and the BroadWorks server. For more information on BroadWorks XSI, refer to Xtended Services Interface.

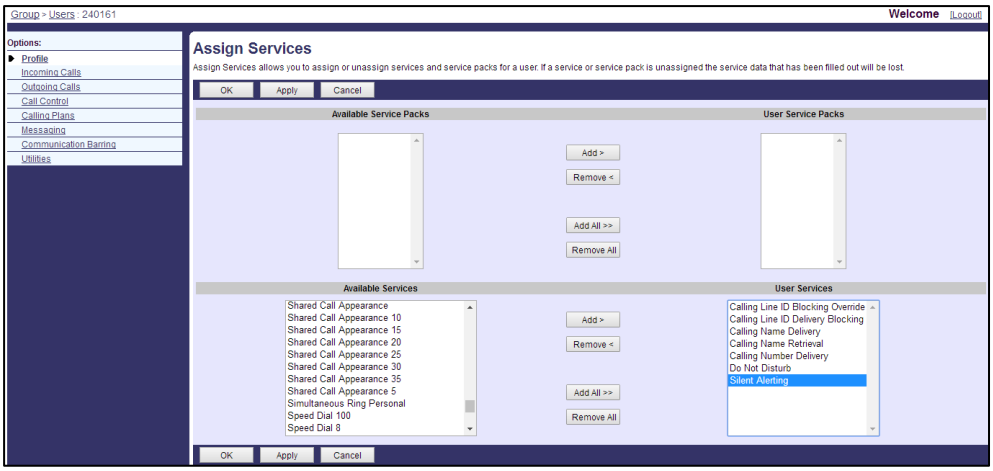
Configuring the BroadSoft Server

Assigning the Silent Alerting Service to a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240161).
5. Click on **Assign Services**.

6. In the **Available Service** box, select **Silent Alerting** and then click **Add>**.

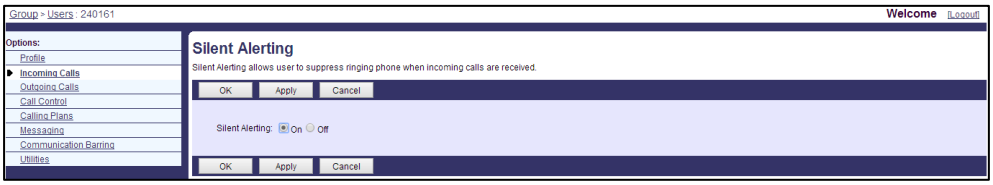


7. Click **Apply** to accept the change.

Configuring the Silent Alerting Feature for a User

Procedure

1. Log into the web portal as a group administrator.
2. Click on **Profile**->**Users**.
3. Click **Search** to display all existing users.
4. Select the desired user (e.g., 240161).
5. Click on **Incoming Calls**->**Silent Alerting**.
6. Mark the **On** radio box in the **Silent Alerting** field.



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

Upgrading Firmware

Procedure

1. Add/Edit firmware URL in the configuration template files (e.g., y000000000028.cfg):

   static.firmware.url = http://%BWDEVICEACCESSFQDN%:%BWDEVICEACCESSPORT%/%BWDMSCONTEXT%/%BWDEVICEACCESSURI%%T46_FIRMWARE%

2. Customize the static tag on BroadWorks. The tag name is %T46_FIRMWARE% and the tag value is the firmware version (e.g., 28.81.193.10.rom).

   For more information, refer to Customizing a Static Tag.

3. Upload the firmware (e.g., 28.81.193.10.rom).

   For more information, refer to Uploading Static Files.

4. Upload template boot and configuration files.

   For more information, refer to Uploading Device Template 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:

   static.firmware.url = http://xsp.yealink.com:80/dms/YealinkT46/28.81.193.10.rom

   You can also upgrade the firmware via web user interface at the path Settings->Upgrade. For more information on how to upgrade the firmware, refer to the latest Administrator Guide for your phone on Yealink Technical Support.

Downloading and Verifying Configurations

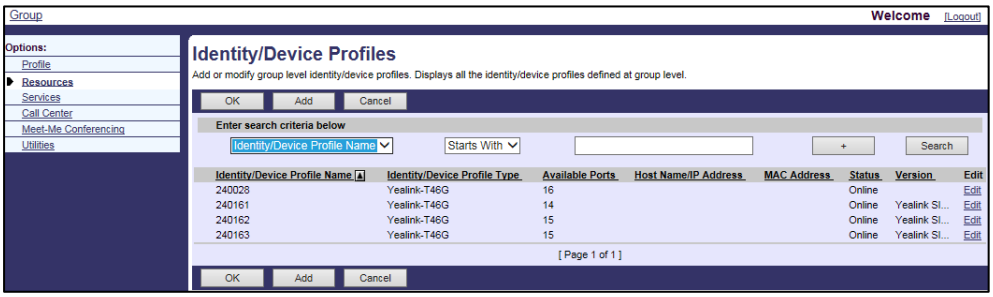
Downloading Boot and Configuration Files

Once obtaining the access URL, the phone will connect to the BroadWorks server and download boot file and configuration files. You should check the BroadWorks server settings and configure Yealink IP phones in advance.

Checking the BroadWorks Server Settings

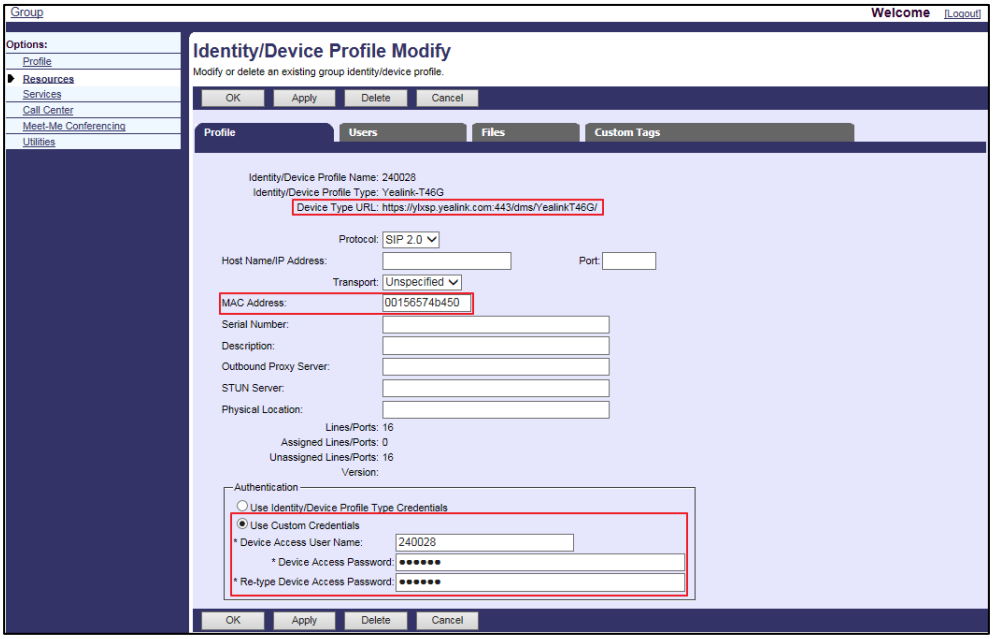
Procedure

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).



4. Select the desired device profile to edit.
5. Click on the **Profile** tab.

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

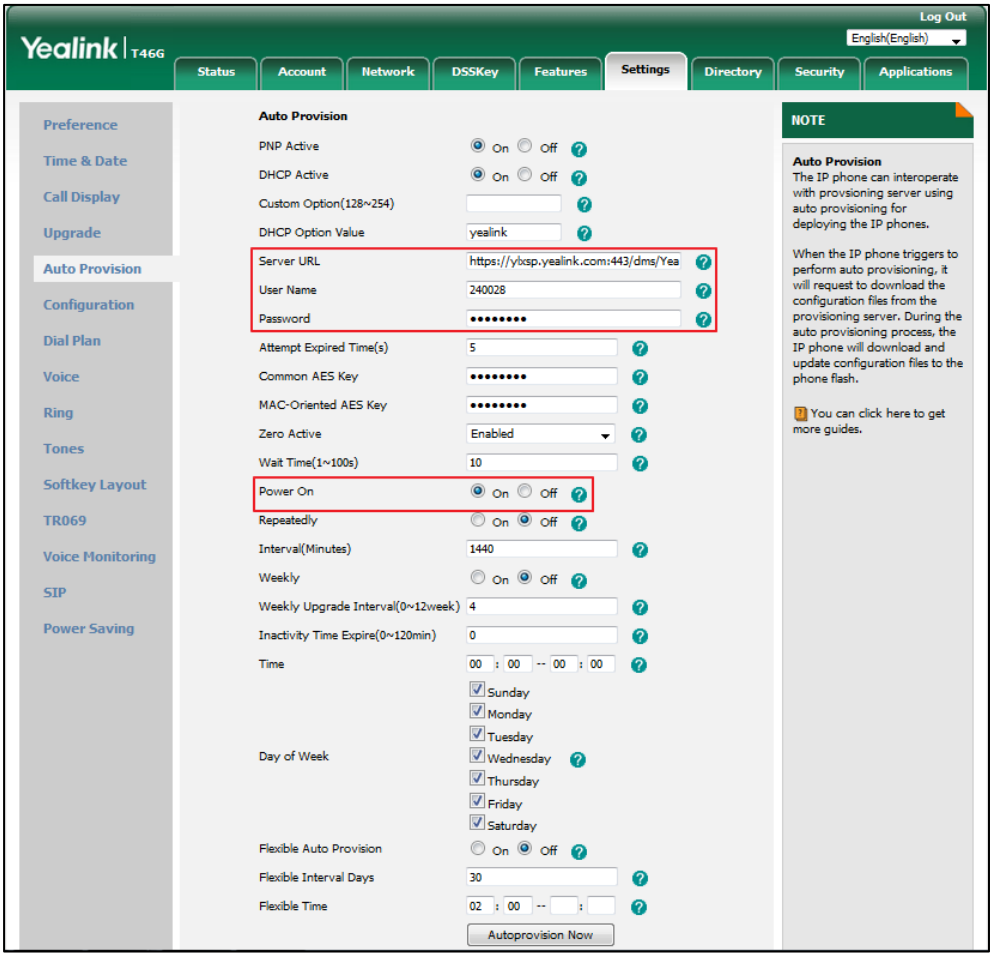


Configuring the IP Phone via Web User Interface

Procedure

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

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



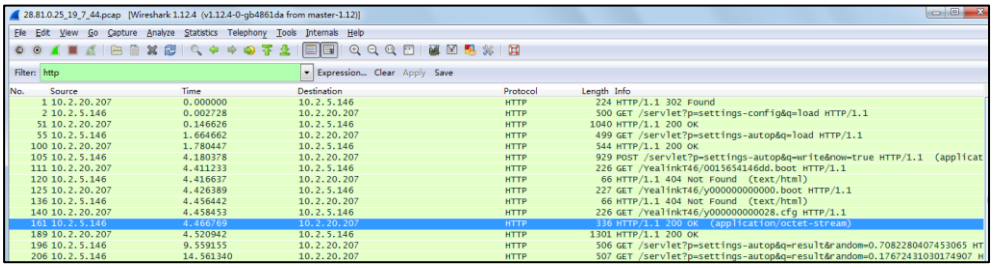
6. Click **Confirm** to save the setting.

   After the above configurations, reboot the IP phone. The IP phone will try to download the boot file and configuration files from the BroadWorks server.

Verifying Configurations

After auto provisioning, the IP phone reboots in some cases. You can verify the configurations via phone user interface or web user interface of the phone. During the auto provisioning process, you can monitor the downloading request and response message by a WinPcap tool.

Example: Yealink SIP-T46G IP phone downloads the boot file and configuration files by HTTP.



Troubleshooting

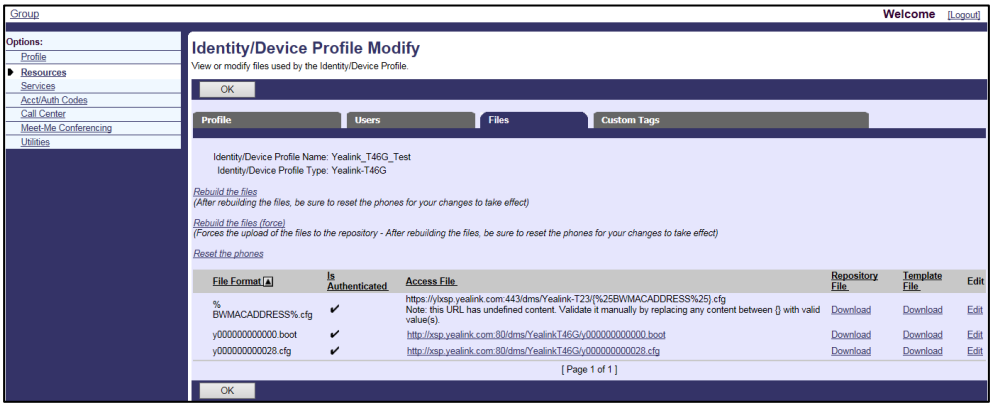
This chapter provides general troubleshooting information to help to solve the problems you might encounter when you deploy Yealink IP phones in the BroadWorks environment.

Why does the phone fail to download configuration files using BroadWorks Device Management?

1. Ensure that the provisioning URL, user name and password configured on the phone are correct.
2. Ensure that the MAC address of the phone is configured when creating a device profile.
3. If the phone is triggered to download configuration files via a SIP NOTIFY request with event check-sync or resync, ensure the account configured on the phone is correct in addition to the above configurations.

How to view the configuration files on the BroadSoft server?

1. Click on **Resources**->**Identity/Device Profiles**.
2. Click on **Search** to list all existing device profiles.
3. Select the desired device profile (e.g., Yealink_T46G_Test) and then click **Edit**.
4. Click the **Files** tab.



5. Click the access file URL to view the desired configuration file.

   If you want to view the device-specific file, ensure that the MAC address of the phone is configured under the **Profile** tab.

Why can't the tags in the template configuration file be replaced by the actual parameter values?

1. Check if the tag a is static tag or dynamic built-in tag.
   - If the tag is a static tag, ensure that the tag names configured on the phone and server are the same.

- If the tag is a dynamic built-in tag, ensure that the tag is correct. You don't need to make any configuration on the BroadSoft server.

Appendix

BLF LED Mode

BLF LED Mode provides four kinds of definition for the BLF list key LED status. The following table lists the LED statuses of the BLF list key when BLF LED Mode is set to 0, 1, 2 or 3 respectively (not applicable to SIP-T19(P) E2, CP920, CP960, CP930W-Base, W52P, W53P, W56P and W60P IP phones).

Line key LED (configured as a BLF List key and BLF LED Mode is set to 0)

LED Status	Description
Solid green	The monitored user is idle.
Fast-flashing red (200ms)	The monitored user receives an incoming call.
Solid red	The monitored user is dialing. The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slow-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user does not exist.

Line key LED (configured as a BLF List key and BLF LED Mode is set to 1)

LED Status	Description
Fast-flashing red (200ms)	The monitored user receives an incoming call.
Solid red	The monitored user is dialing. The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slow-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user is idle. The monitored user does not exist.

Line key LED (configured as a BLF List key and BLF LED Mode is set to 2)

LED Status	Description
Fast-flashing red (200ms)	The monitored user receives an incoming call.
Solid red	The monitored user is dialing.

LED Status	Description
	The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slow-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user is idle. The monitored user does not exist.

Line key LED (configured as a BLF List key and BLF LED Mode is set to 3)

LED Status	Description
Fast-flashing green (200ms)	The monitored user receives an incoming call.
Solid red	The monitored user is dialing. The monitored user is talking. The monitored user's conversation is placed on hold (This LED status requires server support).
Slow-flashing red (1s)	The call is parked against the monitored user's phone number.
Off	The monitored user is idle. The monitored user does not exist.

Line Keys and Programmable Keys

You can assign predefined functionalities to line keys and programmable keys. Line keys and programmable keys allow you to quickly access features such as call transfer and call forward. The line key can indicate the monitored status when the line keys are assigned with particular features, such as BLF List.

The following table lists the number of DSS keys you can configure for each phone model:

Phone Model	Line Key	Programmable Key
CP960	30	3
VP59/SIP-T58A	27	8
SIP-T57W	29	8
SIP-T54W	27	15
SIP-T53W/T53	21	13
SIP-T48G/S	29	15
SIP-T46G/S	27	15

Phone Model	Line Key	Programmable Key
SIP-T42G/S	15	13
SIP-T41P/S	15	13
SIP-T40P/G	3	13
SIP-T29G	27	16
SIP-T27G	21	16
SIP-T23P/G	3	13
SIP-T21(P) E2	2	13
SIP-T19(P) E2	/	13
CP920	/	8

Configuring a Line Key

You can configure line key to access the features for more convenience. The parameters of the line keys are detailed in the following:

The "X" is an integer which specifies the sequence number of the line key. For CP960, X=1-30; for SIP-T57W/T48S/T48G, X=1-29; for VP59/SIP-T58A/T54W/T46S/T46G/T29G, X=1-27; for SIP-T42S/T42G/T41S/T41P, X=1-15; for SIP-T53W/T53/T27G, X=1-21; for SIP-T40P/T40G/T23P/T23G, X=1-3; for SIP-T21(P) E2, X=1-2.

Parameters	Permitted Values	Default
linekey.X.type	**Integer**	**Refer to the following content**
Description: Configures the line key type. **2**-Forward **5**-DND **9**-Direct Pickup **10**-Call Park **20**-Private Hold **23**-Group Pickup **39**-BLF List **42-**ACD **55**-Meet-Me Conference **56**-Retrieve Park		

Parameters	Permitted Values	Default
58-ACD Trace **59**-Disp Code **60**-Emergency **62**-Network UC Favorites **63**-UC Favorite (if Auto Favorite feature is disabled, you need to configure UC Favorite keys manually, and then the downloaded information of favorites will be applied to these keys) **64**-Buddies **65**-My Status (It is configurable only when the parameter "bw.xmpp.change_presence.enable" is set to 1 (Enabled).) **Note:** Network UC Favorites, UC Favorite, Buddies and My Status are only applicable to VP59/SIP-T58A/T57W/T54W/T48G/T48S/T46G/T46S/T29G IP phones.		
linekey.X.line	**Refer to the following content**	**Refer to the following content**
Description: Configures the line to apply the line key. **Permitted Values**: 1 to 16 (For VP59/SIP-T58A/T57W/T54W/T48S/T48G/T46S/T46G/T29G) 1 to 12 (For SIP-T53W/T53/T42S/T42G) 1 to 6 (For SIP-T41S/T41P/T27G) 1 to 3 (For SIP-T40P/T40G/T23P/T23G) 1 to 2 (For SIP-T21(P) E2) 1 (For CP960) **1**-Line1 **2**-Line2 **3**-Line3 … **16**-Line16 When X=1, the default value is 1. When X=2, the default value is 2. When X=3, the default value is 3. …. When X=16, the default value is 16.		
linekey.X.extension	**String within 256 characters**	**Blank**

Parameters	Permitted Values	Default
Description: Configures the conference ID or Moderator PIN followed by the # sign.		
linekey.X.label	**String within 99 characters**	**Blank**
Description: (Optional.) Configures the label displayed on the LCD screen for each line key.		

Configuring a Programmable Key

You can configure programmable key to access the features for more convenience. The parameters of the programmable keys are detailed in the following:

The "X" is an integer which specifies the sequence number of the programmable key. For SIP-T54W/T48S/T48G/T46S/T46G, X=1-10, 12-14, 17-18; for SIP-T53W/T53/T42S/T42G/T41S/T41P/T40G/T40P, X=1-10, 13, 17-18; for SIP-T29G/T27G, X=1-14, 17-18; for SIP-T23G/T23P/T21(P) E2, X= 1-10, 14, 17-18; for SIP-T19(P) E2, X=1-9, 13, 14, 17-18; for VP59/SIP-T58A/T57W, X=1-4, 12-14, 17; for CP960, X=1-3.

Parameters	Permitted Values	Default
programablekey.X.type	**Integer**	**Refer to the following content**
Description: Configures the programmable key type. **5**-DND **9**-Direct Pickup **23**-Group Pickup **55**-Meet-Me Conference **64**-Buddies **65**-My Status (It is configurable only when the parameter "bw.xmpp.change_presence.enable" is set to 1 (Enabled).) **For CP960 IP phones:** When X=1, the default value is 308 (Dial) When X=2, the default value is 29 (Directory) When X=3, the default value is 309 (Bluetooth) **For VP59/SIP-T58A/T57W IP phones:** When X=1, the default value is 0 (NA). When X=2, the default value is 0 (NA).		

Parameters	Permitted Values	Default
When X=3, the default value is 0 (NA). When X=4, the default value is 0 (NA). When X=12, the default value is 0 (NA). When X=13, the default value is 0 (NA). When X=14, the default value is 2 (Forward). When X=17, the default value is 0 (NA). **For SIP-T54W/T48S/T48G/T46S/T46G IP phones:** When X=1, the default value is 28 (History). When X=2, the default value is 61 (Directory). When X=3, the default value is 5 (DND). When X=4, the default value is 30 (Menu). When X=5, the default value is 28 (History). When X=6, the default value is 61 (Directory). When X=7, the default value is 51 (Switch Account Up). When X=8, the default value is 52 (Switch Account Down). When X=9, the default value is 33 (Status). When X=10/12/13, the default value is 0 (NA). When X=14, the default value is 2 (Forward). When X=17/18, the default value is 0 (NA). **For SIP-T53W/T53/T42S/T42G/T41S/T41P/T40P/T40G IP phones:** When X=1, the default value is 28 (History). When X=2, the default value is 61 (Directory). When X=3, the default value is 5 (DND). When X=4, the default value is 30 (Menu). When X=5, the default value is 28 (History). When X=6, the default value is 61 (Directory). When X=7, the default value is 51 (Switch Account Up). When X=8, the default value is 52 (Switch Account Down). When X=9, the default value is 33 (Status). When X=10/13/17/18, the default value is 0 (NA). **For SIP-T29G/T27G IP phones**: When X=1, the default value is 28 (History). When X=2, the default value is 61 (Directory). When X=3, the default value is 5 (DND). When X=4, the default value is 30 (Menu).		

Parameters	Permitted Values	Default
When X=5, the default value is 28 (History). When X=6, the default value is 61 (Directory). When X=7, the default value is 51 (Switch Account Up). When X=8, the default value is 52 (Switch Account Down). When X=9, the default value is 33 (Status). When X=10/11/12/13, the default value is 0 (NA). When X=14, the default value is 2 (Forward). When X=17/18, the default value is 0 (NA). **For SIP-T23P/T23G/T21(P) E2 IP phones:** When X=1, the default value is 28 (History). When X=2, the default value is 61 (Directory). When X=3, the default value is 5 (DND). When X=4, the default value is 30 (Menu). When X=5, the default value is 28 (History). When X=6, the default value is 61 (Directory). When X=7, the default value is 51 (Switch Account Up). When X=8, the default value is 52 (Switch Account Down). When X=9, the default value is 33 (Status). When X=10, the default value is 0 (NA). When X=14, the default value is 2 (Forward). When X=17/18, the default value is 0 (NA). **For SIP-T19(P) E2 IP phones:** When X=1, the default value is 28 (History). When X=2, the default value is 61 (Directory). When X=3, the default value is 5 (DND). When X=4, the default value is 30 (Menu). When X=5, the default value is 28 (History). When X=6, the default value is 61 (Directory). When X=7, the default value is 0 (NA). When X=8, the default value is 0 (NA). When X=9, the default value is 33 (Status). When X=13, the default value is 0 (NA). When X=14, the default value is 2 (Forward). When X=17/18, the default value is 0 (NA).		
programablekey.X.extension	**String within 256 characters**	**Blank**

Parameters	Permitted Values	Default
Description: Configures the conference ID or Moderator PIN followed by the # sign.		
programablekey.X.label	**String within 99 characters**	**Blank**
Description: (Optional.) Configures the label displayed on the LCD screen for each soft key.		