

Using Integrated Features on BroadWorks

Introduction

The Yealink IP phones are access devices that use the Session Initiation Protocol (SIP) to communicate with BroadWorks for call control.

This guide describes how to enable the following features on the BroadWorks server and how to configure Yealink IP phones to use these features.

- Busy Lamp Field (BLF) List
- Shared Call Appearance(SCA)
- Feature Key Synchronization
- Automatic Call Distribution (ACD)
- Network Conference
- BroadSoft Phonebook
- BroadSoft Call Log

The features introduced in this guide apply to Yealink SIP-T2xP IP phones running software prior to V70 and Yealink SIP-T3xG/VP530 IP phones running software V70 or former.

Note

The configurations described in this guide take the Yealink SIP-T28P IP phone as an example.

LED Instructions

Line key LED

LED Status	Description
Solid green	The line is active.
Fast flashing green	The line receives an incoming call.
Slow flashing green	The call is placed on hold.
Off	The line is inactive.

Line key LED (configured as BLF List key)

LED Status	Description
Solid green	The monitored user is idle.
Fast flashing green	The monitored user is ringing.
Slow flashing green	The monitored user is busy.
Off	The monitored user does not exist.

Line key LED (configured as shared line key)

LED Status	Description
Solid green	All the shared line parties are idle.
	The shared line is seized.
	Some party receives the ringback.
Slow flashing green	The shared line conversation is placed on private
Slow lidstillig green	hold.
	For multi-party call, all the parties place the shared
	line conversation on hold.
	The shared line receives an incoming call.
Fast flashing green	The shared line is in conversation.
	The shared line conversation is placed on public hold.
Off	The shared line does not exist.

Memory key LED (configured as BLF List key)

LED Status	Description
Solid green	The monitored user is idle.
Flashing red	The monitored user is ringing.
Solid red	The monitored user is busy.

LED Status	Description
Off	The monitored user does not exist.

Memory key LED (configured as shared line key)

LED Status	Description
Solid green	All the parties are idle.
Solid red	The shared line is seized.
Fast flashing green	Some party receives the ringback.
Fast flashing red	The shared line receives an incoming call.
Solid orange	The shared line is in conversation.
Slow flashing orange	The shared line conversation is placed on public hold.
Slow flashing green	The shared line conversation is placed on private hold.
Slow flashing red	For multi-party call, all the parties place the shared line conversation on hold.
Off	The shared line does not exist.

Memory key / Line key LED (configured as ACD key)

LED State	Description
Solid green	The ACD state is available.
Flashing green	The ACD state is unavailable.
Off	Log out the ACD system.

Using Busy Lamp Field (BLF) List

You can use the Busy Lamp Field (BLF) List feature to monitor a list of users defined on BroadWorks. For example, you can create a BLF List URI (e.g.,

BLFList@as.iop1.broadworks.net) to monitor a list of users on the BroadWorks server. The monitored users include a list of user1, user2 and user3. The BLF List keys on the IP phone can present the status of user1, user2 and user3. The key LEDs illuminate either flashing or solid depending on the status of those users. For more BLF List key LED indications, refer to LED Instructions on page 2.

Configuring the BroadWorks Server

To configure the BLF List feature via web user interface:

1. Log in as the group admin.



- 2. Click Profile->Users->Search to display all the existing users.
- 3. Select one of the users (e.g. 2413333607) to configure the BLF List feature.
- 4. Click on Client Applications->Busy Lamp Field.
- 5. Enter the BLF List URI (e.g. 3607_blf) in the List URI field.
- **6.** Select the domain name (e.g. as.iop1.broadworks.net) from the pull-down list followed by **@**.
- 7. Check the Enable Call Park notification checkbox.
- 8. Click **Search** to display all available users.
- Select the desired users from the Available Users list, and click the Add> button to add them to the Monitored Users list.



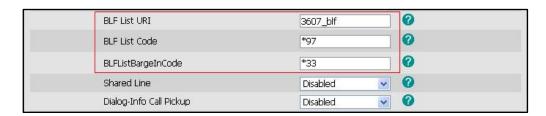
10. Repeat the step 9 to add more users to the Monitored Users list.

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

Configuring the Yealink IP Phone

To configure the BLF List settings via web user interface:

- 1. Click on Account.
- 2. Select the account from the pull-down list of **Account**, which has been configured the BLF List feature on the BroadWorks server.
- 3. Click on Advanced.
- 4. Enter the BLF List URI in the BLF List URI field.
- 5. (Optional.)Enter the pickup code in the **BLF List Code** field.
- 6. (Optional.)Enter the barge-in code in the BLFListBargeInCode field.

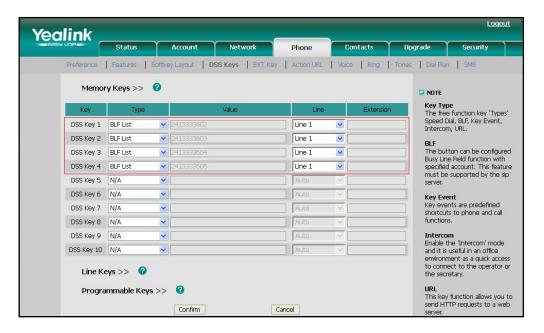


7. Click Confirm to save the change.

To configure the BLF List keys via web user interface:

- 1. Click on Phone->DSS Keys->Memory Keys>> (Line Keys>>).
- 2. Select the desired DSS key.
- 3. Select BLF List from the pull-down list of Type.
- 4. Select the desired line form the pull-down list of Line.
- 5. Click **Confirm** to save the change.
- 6. Repeat steps 2 to 5 to configure more BLF List keys.

After the above configurations, according to the response message from the BroadWorks server, the IP phone will automatically assign the phone number of the BLF List users to the BLF List keys in order.



Using BLF List on the Yealink IP Phone

You can use the BLF List keys in the following ways:

- When the monitored user is idle, press the BLF List key to dial out the phone number.
- When the monitored user is ringing, press the BLF List key to pick up the call directly.
- When there is a conversation on the monitored user, press the BLF List key to barge in and set up a conference call.

To interrupt the conversation of the monitored user:

1. Press the BLF List key.

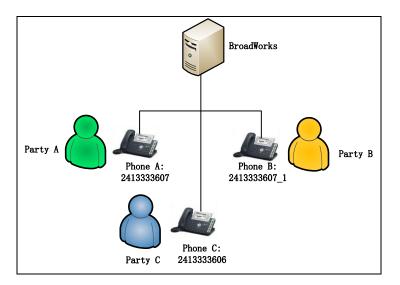
The IP phone dials out the barge-in code followed by the extension of the monitored user, and then you interrupt the call. Each of the three parties can hear the other two parties in the conference.

- 2. Press the **Hold** or the **Cancel** soft key.
- If any party in the conference call presses the **Hold** soft key, two-way voice can be heard between the remaining parties.
- If any party in the conference call presses the **cancel** soft key, the remaining parties are still connected.

Using Shared Call Appearance (SCA)

You can use the Shared Call Appearance (SCA) feature to share an extension which can be registered on two or more IP phones at the same time. An incoming call to that number will cause all phones to ring simultaneously. The incoming call can be answered on one of the phones but not all of them. Calls on the shared line can be placed on hold or barged in.

The following figure shows that Party A and Party B have a shared line and that Party C has a private line. When there is an incoming call on Phone A, both Phone A and Phone B will ring simultaneously.



The following sections show how to configure the BroadWorks server and both phones for this SCA example.

Configuring the BroadWorks Server

To configure the SCA feature via web user interface:

- 1. Log in as the group admin.
- 2. Click Profile->Users->Search to display all the existing users.
- **3.** Select the user 2413333607.

4. Click on Call Control->Shared Call Appearance.

The main SCA parameters are described as follows:

Parameter	Description
Alert all appearances for Click-to-Dial calls	Allows alerting all the locations sharing the call appearance when a location places a call from the CommPilot Call Manager.
Allow Call Retrieve from another location	Allows the calls being put on hold on one station to be retrieved from any other station sharing the call appearance.
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.
Bridge Warning tone	Determines whether to play a warning tone when a shared location barge in on an active call. None: disables the warning tone feature. Barge-in only: enables the warning tone feature.
	Barge-in and repeat every 30 seconds: enables the warning tone feature and the warning tone is repeated periodically every 30 seconds.

The following is an example of setting the SCA parameters:

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

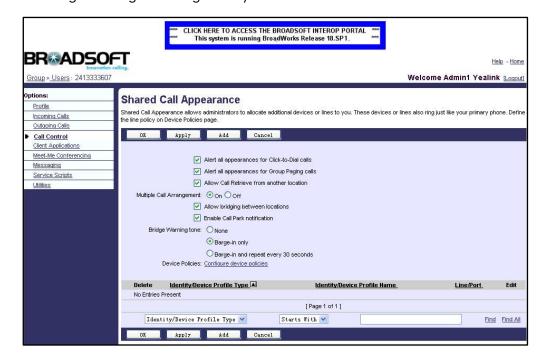
Alert all appearances for Group Paging calls: Selected

Allow Call Retrieve from another location: Selected

Multiple Call Arrangement: On

Allow bridging between locations: Selected

Enable Call Park notification: Selected Bridge Warning tone: Barge-in only



- 5. Click Apply to save the change.
- 6. Click on Add.
- 7. Select the desired device profile name from the pull-down list of Identity/Device Profile Name. Enter the alternate extension (2413333607_1) in the *Line/Port field. Select the domain name (e.g. as.iop1.broadworks.net) from the pull-down list followed by @.

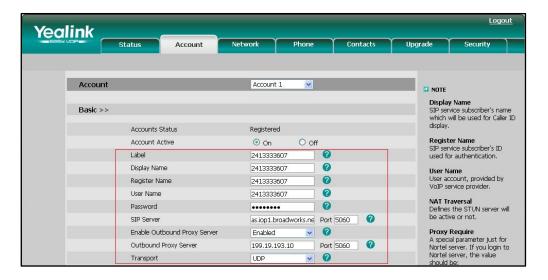


8. Click **OK** to save the change.

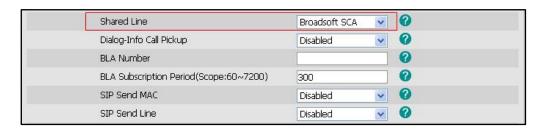
Configuring the Yealink IP Phone

To configure the SCA settings on phone A via web user interface:

1. Register the primary account 2413333607.



2. Click on **Advanced** under the **Account** tab, Select **Broadsoft SCA** from the pull-down list of **Shared Line**.

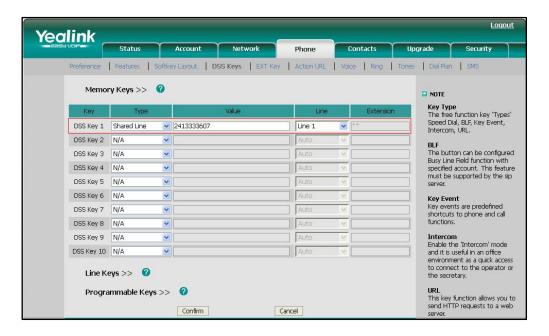


3. Click **Confirm** to save the change.

To configure a shared line key on phone A via web user interface:

- 1. Click on Phone->DSS Keys->Memory Keys>> (Line Keys>>).
- 2. Select the desired DSS key.
- 3. Select **Shared Line** from the pull-down list of **Type**.
- 4. Select the desired line form the pull-down list of Line.

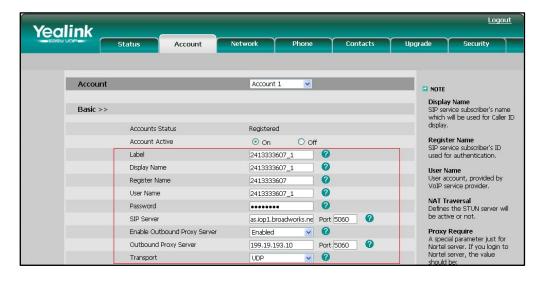
5. Enter the primary account in the Value field.



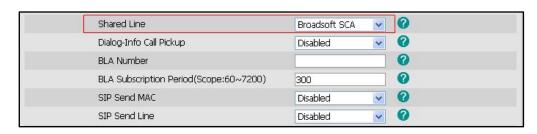
6. Click Confirm to save the change.

To configure the SCA settings on phone B via web user interface:

Register the alternate account 2413333607_1.
 (Enter the primary account 2413333607 in the Register Name field.)



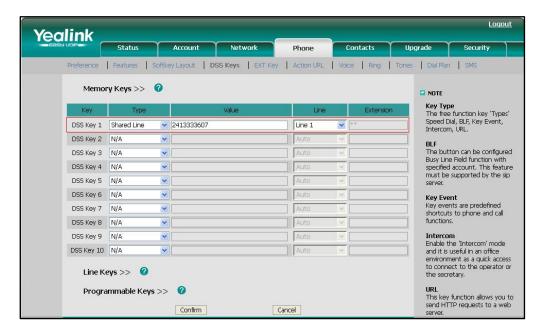
2. Click on **Advanced** under the **Account** tab, Select **Broadsoft SCA** from the pull-down list of **Shared Line**.



3. Click **Confirm** to save the change.

To configure a shared line key on phone B via web user interface:

- 1. Click on Phone->DSS Keys->Memory Keys>> (Line Keys>>).
- 2. Select the desired DSS key.
- 3. Select Shared Line from the pull-down list of Type.
- 4. Select the desired line form the pull-down list of Line.
- 5. Enter the primary account in the Value field.



6. Click Confirm to save the change.

Using SCA on the Yealink IP phone

To place a call on the shared line:

- 1. Press the line key.
- 2. Enter the desired number using the keypad.
- 3. Press (ok), #sss), or the **Send** soft key.

If a shared line is in use on one of the phones, it cannot be used on the other one.

To place a call on public hold:

1. Press , the shared line key or the **Hold** soft key on phone A when party A and party C are talking.



The shared line key LED illuminates flashing when the shared line call is placed on public hold.

To retrieve a call placed on public hold:

You can retrieve the public held call on either phone A or phone B.

To retrieve the call on phone A:

Press the shared line key or the **Resume** soft key.
 The conversation between phone A and phone C is retrieved.

To retrieve the call on phone B:

1. Press the shared line key.

The conversation is established between phone B and phone C, phone A disconnects the call.

To place the call on private hold, you should configure a private hold key in advance:

- Click on Phone->DSS Keys->Memory Keys>> (Line Keys>>).
- Select the desired DSS key.
- 3. Select **Private Hold** from the pull-down list of **Type**.
- 4. Click Confirm to save the change.

To place a call on private hold:

 Press the private hold key on phone A when phone A has an active call on the shared line.



The shared line key LED flashes green when the shared line call is placed on private hold.

To retrieve a call placed on private hold:

The private held call can be only retrieved by the hold party (party A). If party B attempts to retrieve the call by pressing the shared line key, the retrieve will fail and the LCD screen will prompt "Forbidden".

1. Press , the shared line key or the **Resume** soft key on phone A.

To interrupt the active call on the shared line:

When phone A has an active call on the shared line, do the following:

- Press the shared line key on phone B to interrupt the active call of phone A.
 A warning tone may be heard. Party B is now in a conference call with the parties of the active call.
- 2. Press the Hold or the Cancel soft key.
- If any party in the conference call presses the **Hold** soft key, two-way voice can be heard between the remaining parties.
- If party A or party B presses the **Cancel** soft key, the remaining parties are still connected. If the other party (not the shared line party) presses the **Cancel** soft key, the conference call is ended.

For more Line key LED indications, refer to LED Instructions on page 2.

Using Automatic Call Distribution (ACD)

The Automatic Call Distribution (ACD) feature 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 agents. To use this feature, you should configure an ACD key on your IP phone in advance.

After configuring an ACD key on your IP phone, you can press the ACD key to log in the ACD system. After logging in, you are ready to receive calls from the ACD system. You can press the ACD key to show the ACD status. You can also press the **Avail/Unavail** soft key to change the ACD status. The system server monitors the ACD status on your IP phone to decide whether or not to assign the incoming calls. To log out the ACD system, press the **Logout** soft key.

Configuring the BroadWorks Server

To create a call center via web user interface:

1. Log in as the group admin.



- Click Call Center->Call Centers->Add Standard (or Add Premium) to add a Standard (or Premium) call center.
- 3. After creating the call center, go back to **Call Center->Call Centers** and check the **Active** checkbox for the call center.



To assign agents to the call center on the BroadWorks server:

- 1. Log in as the group admin.
- 2. Click on Call Center->Call Centers, browse to the call center created above and click Edit.
- 3. Click on Agents.



- 4. Click Search to display all available agents.
- 5. In the **Available Agents** box, select the desired agent and click **Add>** to assign it to the call canter.



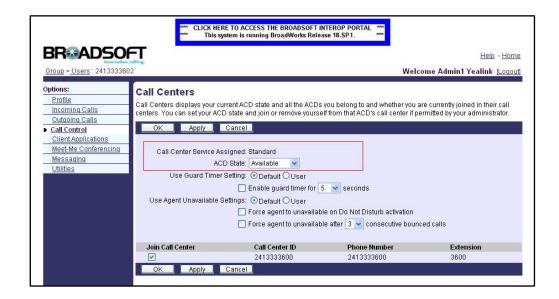
6. Repeat step 5 to assign more agents to the call center.

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

Changing the ACD State on the BroadWorks Server

To configure the ACD state via web user interface:

- 1. Log in as the group admin.
- 2. Click on Users->Search.
- 3. Select one of the call center agents.
- 4. Click on Call Control -> Call Centers.



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

Note

Make sure the Join Call Center is checked.

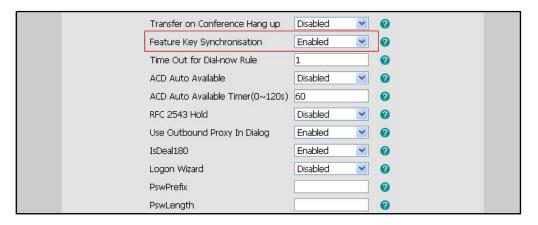
Configuring the Yealink IP Phone

You can enable the Feature Key Synchronisation to synchronize the ACD state with the BroadWorks server.

To configure the Feature Sync via web user interface:

- 1. Log in as the admin.
- 2. Click on Phone->Features.

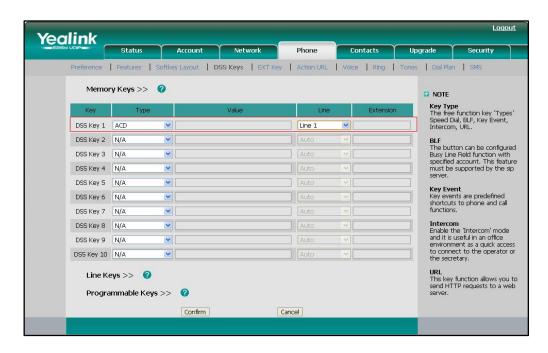
3. Select **Enabled** from the pull-down list of **Feature Key Synchronisation**.



4. Click **Confirm** to save the change.

To configure an ACD key via web user interface:

- 1. Click on Phone->DSS Keys.
- 2. Select ACD from the pull-down list of Type.
- 3. Select the desired line from the pull-down list of Line.



4. Click **Confirm** to save the change.

Note

Make sure the selected line has registered one of the call center agents. It is recommended you configure no more than a single ACD key per IP phone.

Changing the ACD State on the Yealink IP Phone

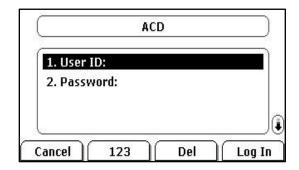
To configure the ACD state via phone user interface:

1. Press the ACD Key.

The phone LCD screen prompts you the following information:

User ID: the user identity used to log in the ACD system.

Password: the password used to log in the ACD system.



- 2. Press the Log In soft key to log in the ACD system.
- 3. Press the Avail / Unavail soft key to change the ACD status.

After logging in the ACD system, the IP phone will synchronize the ACD state with the BroadWorks server. When you set the ACD state to available on the BroadWorks server, the ACD state on the IP phone will change to available and the ACD key illuminates solid green. Conversely, when you set the ACD state to available on the IP phone, the ACD state on the BroadWorks server will change to available.

For more ACD key LED indications, refer to LED Instructions on page 2.

Using Network Conference

You can use the network conference feature to conduct a conference with multiple participants. The maximum number of the participants depends on the limitations of the BroadWorks server.

This feature allows you to perform the following:

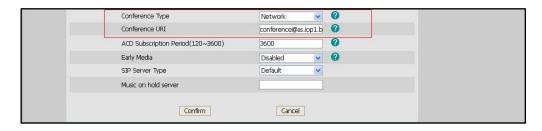
- Join two calls together into a conference call.
- Invite another party into an active conference call.

Configuring the Yealink IP Phone

To configure network conference via web user interface:

- 1. Click on Account.
- 2. Select the desired account from the pull-down list of Account.

 Click on Advanced under the Account tab, Select Network from the pull-down list of Conference Type, and enter the conference URI in the Conference URI field.



Click Confirm to save the change.

Note

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

Using Network Conference on the Yealink IP Phone

To set up a network conference call:

- 1. Place a call to the first party.
- 2. Press or the **Conf** soft key to create a new call.

The active call is placed on hold.

- 3. Enter the number of the second party and press (ok) , (#), or the **Send** soft key.
- **4.** When the second party answers the call, press or the **Conf** soft key to add the second party to the conference.
- 5. Press the **Conf** soft key to create a new call.

The conference is placed on hold.

- 6. Enter the number of the new party and then press (ox), (##wo), or the **Send** soft key.
- 7. When the new party answers the call, press or the **Conf** soft key to add the new party to the conference.
- 8. Repeat steps 5 to 7 to add more parties.

To join two calls together into a conference call:

- 1. Place a call to the first party.
- 2. Press the line key to create a new call.

The active call is placed on hold.

- 3. Enter the number of the second party and press (ok) , (#), or the **Send** soft key.
- **4.** When the second party answers the call, press or the **Conf** soft key to join two calls into a conference call.

To invite another party into an active conference call:

Before the following steps, at least one active conference call must exist on your IP

phone.

- Press the line key to create a new call.
 The conference call is placed on hold.
- 2. Enter the number of the new party and then press (ok) , (#), or the **Send** soft key.
- **3.** When the new party answers the call, press or the **Conf** soft key to add the new party to the conference.

To place the active conference call on hold:

All the parties in the conference call press the Hold soft key.
 If partial parties in the conference call press the Hold soft key, two-way voice can be heard between the remaining parties.

To end the conference call on the IP phone:

The conference initiator presses the Cancel soft key.
 If any other party in the conference call presses the Cancel soft key, the remaining parties are still connected.

Using Phonebook

You can access the BroadSoft directories through your IP phone. You can add contacts from the BroadSoft directories to your local directory. You can also dial a contact from the BroadSoft directories. The BroadSoft directories include the following:

- Enterprise Directory: It contains all the contacts of the same enterprise provisioned
 on the BroadWorks server. Each entry in the directory contains the name of the
 entity with their user ID, extension, group, department, etc. The enterprise directory
 can be viewed by all the users in the enterprise.
- Group Directory: It contains all the contacts of the same group provisioned on the BroadWorks server. Each entry in the directory contains the name of the entity with their user ID, extension, department, etc. The group directory can be viewed by all the users in the group.
- Common Directory: It contains the Enterprise Common Directory and Group Common Directory.
- Personal Directory: It contains a list of personal contacts on the BroadWorks server.
 Each entry in the directory contains the name and phone number. You can add the entries to your personal phone list on the BroadWorks server.

You can configure your IP phone to access up to 6 directory items.

Configuring the BroadWorks Server

To add a user to the Enterprise/Group Directory via web user interface:

- 1. Login in as system admin.
- 2. Click on Profile->Users.
- 3. Click on Add to add the user to the Enterprise/Group Directory.
- 4. Click **Apply** to save the change.

Then the user appears in the Enterprise/Group Directory.

To add an entry to the personal phone list via web user interface:

- 1. Login in as one of the users provisioned on the BroadWorks server.
- 2. Click on Outgoing Calls->Personal Phone List.
- 3. Click on Add.
- 4. Enter the name in the Name field.

5. Enter the extension in the Phone Number field.



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

Then the entry is added to the user's personal phone list.

The user can also import personal phone list entries from an existing comma-delimited text file (file format must be .CSV). To produce a comma-delimited text file, see the instructions for a program such as Microsoft Outlook, Word, or Excel.

To import a comma-delimited text file via web user interface:

- 1. Login in as one of the users provisioned on the BroadWorks server.
- 2. Click on Outgoing Calls->Personal Phone List.
- 3. Click on Import Phone List.
- **4.** Click **Browse** to select the .CSV file from your local system and click on **Open**. The .CSV file must have headings "Name" and "Number".
- 5. Click **Apply** to save the change.

Then the entries in the .CSV file are added to the user's personal phone list.

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

```
"Name", "Number"

"Bob ", "8003"

"Jony ", "8001"

"Jane ", "8005"

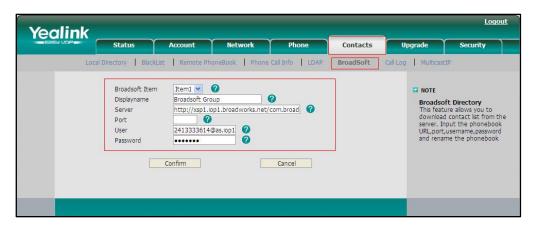
"John ", "8009"
```

Configuring the Yealink IP Phone

To configure the BroadSoft phonebook via web user interface:

- 1. Click on Contacts->BroadSoft.
- 2. Select the desired BroadSoft item from the pull-down list of BroadSoft Item.

3. Enter the parameters: display name, server address, port, username and password in the corresponding fields.



4. Click Confirm to save the change.

The following table lists the corresponding URL used to access the BroadSoft directory of the specific user. The domain name of the BroadWorks server is as.iop1.broadworks.net. The **username** is provisioned on the BroadWorks server.

Directory	URL
Enterprise Directory	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v1.0/
	user/ username @as.iop1.broadworks.net/directories/Enterprise
Group Directory	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v1.0/
	user/ username @as.iop1.broadworks.net/directories/Group
Developed Divertory	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v1.0/
Personal Directory	user/ username @as.iop1.broadworks.net/directories/Personal
Common Directory	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v
	1.0/user/ username @as.iop1.broadworks.net/directories/Ent
	erpriseCommon
	or
	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v
	1.0/user/ username @as.iop1.broadworks.net/directories/Gro
	upCommon

The domain name of BroadWorks server may be different in the different network environment. Contact your BroadSoft reseller for the proper access URL.

Note

The Common Directory is not supported by Yealink IP phones.

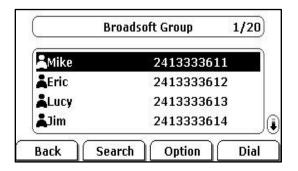
Accessing the Phonebook on the Yealink IP Phone

To access the BroadSoft phonebook via phone user interface:

1. Press Directory->Broadsoft.

2. Select the desired BroadSoft directory, and then press the **Enter** soft key.

The phone connects to load the BroadSoft directory, and then displays the desired contact lists on the LCD screen.



3. Press the **Back** soft key to back to the previous interface.

Using Call Log

You can access the call log of the desired BroadSoft user through your IP phone. The call log contains call information such as remote party identification, time and date. You can check the call log, dial a call, add a contact or delete an entry from the call log list. The BroadSoft call log allows users to view and dial the stored numbers in the following lists: Missed, Received, and Placed.

You can configure your IP phone to access up to 3 call log items.

Configuring the Yealink IP Phone

To configure the BroadSoft call log via web user interface:

- 1. Click on Contacts->Call Log.
- 2. Select the desired call log item from the pull-down list of Calllog Item.
- **3.** Enter the parameters: display name, server address, port, username and password in the corresponding fields.



4. Click Confirm to save the change.

The following table lists the corresponding URL used to access the BroadSoft call log list of the specific user. The domain name of the BroadWorks server is as.iop1.broadworks.net. The **username** is provisioned on the BroadWorks server.

Call Log List	URL
	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v
Missed Lists	1.0/user/ username @as.iop1.broadworks.net/directories/call
	logs/missed
Received Lists	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v
	1.0/user/ username @as.iop1.broadworks.net/directories/call
	logs/received
Placed Lists	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v
	1.0/user/ username @as.iop1.broadworks.net/directories/call
	logs/placed

Call Log List	URL
All Lists	http://xsp1.iop1.broadworks.net/com.broadsoft.xsi-actions/v 1.0/user/ username @as.iop1.broadworks.net/directories/call
	logs/

The domain name of BroadWorks server may be different in the different network environment. Contact your BroadSoft reseller for the proper access URL.

Note

The All Lists contains Missed, Received and Placed Lists. It's not supported by Yealink IP phones.

Accessing the Call Log on the Yealink IP Phone

To access the BroadSoft call log via phone user interface:

- 1. Press Menu->History Type->Network CallLog.
- Select the desired call log menu, and then press the Enter soft key.
 The phone connects to load the BroadSoft call log, and then displays the desired call log list on the LCD screen.



3. Press the **Back** soft key to back to the previous interface.