Using Genesys ACD on Yealink IP Phones

Introduction

This guide introduces how to configure the Automatic Call Distribution (ACD) feature on the Genesys server. In addition, it introduces how to configure and use ACD on the Yealink IP phones.

This guide applies to the following Yealink IP phones:

- SIP-T54S, SIP-T52S, SIP-T48S, SIP-T46S, SIP-T42S, SIP-T41S, SIP-T40G, SIP-T27G and CP920 IP phones running firmware version 81 or later

Icon Instructions

The line icons and the corresponding agent statuses are listed as below:

<table>
<thead>
<tr>
<th>Line Icon</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Icon" /></td>
<td>Logout</td>
</tr>
<tr>
<td><img src="image" alt="Icon" /></td>
<td>Login, Available</td>
</tr>
<tr>
<td><img src="image" alt="Icon" /></td>
<td>Login, Unavailable</td>
</tr>
<tr>
<td><img src="image" alt="Icon" /></td>
<td>ACW (after call work)</td>
</tr>
</tbody>
</table>
LED Instructions

**Line key LED** (configured as an ACD key, not applicable to SIP-T19(P) E2 IP phones)

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid green</td>
<td>The ACD state is available.</td>
</tr>
<tr>
<td>Slow flashing green</td>
<td>The ACD state is unavailable.</td>
</tr>
<tr>
<td>Solid red</td>
<td>The ACD state is ACW (after call work).</td>
</tr>
<tr>
<td>Off</td>
<td>Log out of the ACD system.</td>
</tr>
</tbody>
</table>

Using Automatic Call Distribution

Yealink IP phones support ACD feature on the Genesys server. With this feature enabled on the Genesys server, ACD handles incoming calls by automatically queuing and directing calls to available personnel. The caller is placed in a simple queue, where each call is answered in order. The Genesys server plays music to the caller while waiting. When an agent logged into the queue becomes available, the Genesys server automatically connects the caller to this agent.

Configuring the Genesys Server

To configure the ACD feature on the Genesys server, you need to do the following steps:

- Create a DN
- Create an ACD queue
- Create a place
- Associate the place with the DN
- Create an agent login
- Create a person
- Associate the agent with the person
- Assign the person to an agent group

To create a DN on the Genesys server:

1. Double click the Start Configuration Manager application.
2. Double click **Configuration** -> **Resource** -> **Switches** to open these folders.
3. Select the desired switch.
4. Right click on **DNs**, and then select **New** -> **DN**.
5. In the New DN properties dialog box, specify the following properties:
1) On the **General** tab, enter the phone number in the **Number** field, and select **Extension** from the pull-down list of **Type**.

![General Tab Screenshot]

2) On the **Annex** tab, create a TServer section.

![Annex Tab Screenshot]
a) Specify one of the following options:

**subscribe-presence**: Set this option to publish. It means that the Genesys server can map the agent state from a PUBLISH SIP request sent by a IP phone.

**enable-agentlogin-subscribe**: Set this option true. It means that the Genesys server can log in or log out an agent in response to SIP SUBSCRIBE requests and can also change the availability state for an agent in response to NOTIFY requests.
Using Genesys ACD on Yealink IP Phones

b) Create a password for the DN.

6. Click OK to accept the change.

Note
The two options (subscribe-presence and enable-agentlogin-subscribe) are not compatible with each other. You can configure one of them for a DN only.

Before creating an ACD queue on the Genesys server, you should make sure that the routing point DN has been provided on the Genesys server. For more information, contact your Genesys administrator.

To create an ACD queue on the Genesys server:

1. Double click the Start Configuration Manager application.
2. Double click Configuration -> Resource -> Switches to open these folders.
3. Select the desired switch.
4. Right click on DNs, and then select New -> DN.
5. In the New DN properties dialog box, specify the following properties:
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1) On the General tab, enter the ACD queue number in the Number field, select ACD Queue from the pull-down list of Type, and enter the desired routing point number in the Association field.

2) Click OK to accept the change.

To create a place on the Genesys server:

1. Double click the Start Configuration Manager application.
3. Right click on Places, and then select New -> Place.
4. In the New Place properties dialog box, specify the following properties:
   1) On the General tab, enter the name in the Name field.
5. Click **OK** to accept the change.

**To associate the place with the DN:**

1. Double click the Start Configuration Manager application.
2. Double click **Configuration** -> **Resource** -> **Switches** to open these folders.
3. Select the desired switch.
4. Double click **DNs** to open the folder.
5. Right click on the desired DN, select **Copy**.
6. Double click **Places** to open the folder.
7. Select the desired place, right click in the right blank area, and select **paste**.
8. Click **OK** to accept the change.

**To create an agent login on the Genesys server:**

1. Double click the Start Configuration Manager application.
2. Double click **Configuration** -> **Resource** -> **Switches** to open these folders.
3. Select the desired switch.
4. Right click on **Agent Logins**, and then select **New** -> **Agent Login**.
5. In the New Agent Login properties dialog box, specify the following properties:
   
   1) On the **General** tab, enter the agent login ID in the **Code** field.

   ![New Agent Login properties dialog box](image)

   **Note**  
   When the DN option is set to “subscribe-presence=publish”, the agent login ID must be the same as the DN configured on the Genesys server.
2) On the **Advanced** tab, enter the password in the **Enter Password** field and re-enter the password in the **Re-enter Password** field.
3) On the Annex tab, create a TServer section and configure the following options:
   wrap-up-time: 0

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

**To create a person on the Genesys server:**

1. Double click the Start Configuration Manager application.
2. Double click **Configuration** -> **Resource** -> **Persons** to open these folders.
3. Right click on **Persons**, and then select **New** -> **Person**.
4. In the New Person properties dialog box, specify the following properties:
   1) On the **General** tab, enter the employee ID in the **Employee ID** field, and enter the
username in the **User Name** field.

2) Enter the desired password in the **Enter Password** field.

3) Re-enter the desired password in the **Re-enter Password** field.

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

**To associate the agent with the person on the Genesys server:**

1. Double click the Start Configuration Manager application.

2. Double click **Configuration** -> **Resource** -> **Persons** to open these folders.

3. Select the desired person.

4. On the **Agent Info** tab, click **Add ID** to add an agent.

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

A person can be associated with more than one agent.

Before assigning the person to an agent group on the Genesys server, you should make sure that the agent group has been provided on the Genesys server. For more information, contact your Genesys administrator.

**To assign the person to an agent group on the Genesys server:**

1. Double click the Start Configuration Manager application.

2. Double click **Configuration** -> **Resource** -> **Persons** to open these folders.

3. Right click on the desired person, select **Copy**.

4. Double click **Agent Groups** to open the folder.

5. Select the desired agent group, right click in the right blank area, and select **paste**.

6. Click **OK** to accept the change.
Changing the ACD state on the Interaction Workspace

This section provides instructions on how to change the ACD state on the Interaction Workspace for Windows. You can ask the distributor or Yealink FAE for Interaction Workspace software and install it following the setup wizard.

To change the ACD state on the Interaction Workspace:

1. To start the Interaction Workspace application.

   The login window is shown as below:

   ![Interaction Workspace Login Window](image)

   2. Enter the desired username and user password in the corresponding fields.
3. Click Log In.
4. Enter the desired place in the Place field and then select the desired queue from the pull-down list of Queue.

5. Click OK to log in the system.
6. Click the green status sign to display a pull-down list and then select the desired agent state.

Configuring the Yealink IP Phones

When configuring the Yealink IP phone, the second soft key is assigned the ACD feature by default. The ACD agent can log in and log out through the use of the soft keys or ACD key. You can configure the ACD feature for the IP phone using the configuration files or locally.

Configuring an ACD Key

You can configure an ACD key via web user interface or configuration files. It is not applicable to SIP-T19(P) E2/CP860/CP920 IP phones.
To configure an ACD key using configuration files:

1. Add/Edit ACD key parameters in the configuration file.

The following table shows the information of parameters:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Permitted Values</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>linekey.X.type/ expansion_module.X.key.Y.type</td>
<td>42</td>
<td>Refer to the following content</td>
</tr>
</tbody>
</table>

**Description:**

Configures a DSS key to be an ACD key on the IP phone.

The digit 42 stands for the key type ACD.

For line keys (Line key is not applicable to SIP-T19(P) E2/CP860/CP860 IP phones):

- X ranges from 1 to 29 (for SIP-T48G/S)
- X ranges from 1 to 27 (for SIP-SIP-T54S/T46G/T46S/T29G)
- X ranges from 1 to 15 (for SIP-T42G/T42S/T41P/T41S)
- X ranges from 1 to 21 (for SIP-T52S/T27P/T27G)
- X ranges from 1 to 3 (for SIP-T40P/T40G/T23P/T23G)
- X ranges from 1 to 2 (for SIP-T21(P) E2)

For ext keys (Ext key is only applicable to the SIP-T54S/T52S/T48G/T48S/T46S/T46G/T29G/T27P/T27G IP phones):

- **For SIP-T54S/T52S:**
  - X ranges from 1 to 3, Y ranges from 1 to 60.

- **For SIP-T48G/T48S/T46S/T46G:**
  - X ranges from 1 to 6, Y ranges from 1 to 40.

- **For SIP-T29G/T27P/T27G:**
  - X ranges from 1 to 6, Y ranges from 1 to 20, 22 to 40 (Ext key 21 cannot be configured).

**Example:**

linekey.2.type = 42

**Default:**

For line keys:

- **For SIP-T48G/S IP phones:**
  - The default value of the line key 1-16 is 15, and the default value of the line key 17-29 is 0.

- **For SIP-T54S/T46G/T46S/T29G IP phones:**
  - The default value of the line key 1-16 is 15, and the default value of the line key 17-27 is 0.

- **For SIP-T52S IP phones:**
<table>
<thead>
<tr>
<th>Parameters</th>
<th>Permitted Values</th>
<th>Default</th>
</tr>
</thead>
</table>
| The default value of the line key 1-12 is 15, and the default value of the line key 13-21 is 0. **For SIP-T42G/S IP phones:** The default value of the line key 1-12 is 15, and the default value of the line key 13-15 is 0. **For SIP-T41P/S IP phones:** The default value of the line key 1-6 is 15, and the default value of the line key 7-15 is 0. **For SIP-T27P/G IP phones:** The default value of the line key 1-6 is 15, and the default value of the line key 7-21 is 0. **For SIP-T40P/T40G/T23P/T23G/T21(P) E2 IP phones:** The default value is 15. **For ext keys:** **For SIP-T54S/T52S IP phones:** When Y = 1 to 60, the default value is 0 (NA). **For SIP-T48G/T48S/T46G/T46S IP phones:** When Y = 1 to 40, the default value is 0 (NA). **For SIP-T29G/T27P/T27G IP phones:** When Y = 1, 21, the default value is 37 (Switch). When Y = 2 to 20, 22 to 40, the default value is 0 (NA). **Note:** It is not applicable to SIP-T19(P) E2/CP860/CP920 IP phones. **Web User Interface:** Dsskey->Line Key->Type

```
linekey.X.label/expansion_module.X.key.Y.label String within 99 characters Blank
```

**Description:**
(Optional.) Configures the label displayed on the LCD screen for each DSS key. For line keys (Line key is not applicable to SIP-T19(P) E2/CP860/CP920 IP phones):

- X ranges from 1 to 29 (for SIP-T48G/S)
- X ranges from 1 to 27 (for SIP-T54S/T46G/T46S/T29G)
- X ranges from 1 to 15 (for SIP-T42G/T42S/T41P/T41S)
- X ranges from 1 to 21 (for SIP-T52S/T27P/T27G)
- X ranges from 1 to 3 (for SIP-T40P/T40G/T23P/T23G)
- X ranges from 1 to 2 (for SIP-T21(P) E2)
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<table>
<thead>
<tr>
<th>Parameters</th>
<th>Permitted Values</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>For ext keys (Ext key is only applicable to the SIP-T54S/T52S/T48G/T48S/T46G/T46S/T29G/T27P/T27G IP phones):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>For SIP-T54S/T52S:</strong></td>
<td>X ranges from 1 to 3, Y ranges from 1 to 60.</td>
<td></td>
</tr>
<tr>
<td><strong>For SIP-T48G/T48E/T46G/T46S:</strong></td>
<td>X ranges from 1 to 6, Y ranges from 1 to 40.</td>
<td></td>
</tr>
<tr>
<td><strong>For SIP-T29G/T27P/T27G:</strong></td>
<td>X ranges from 1 to 6, Y ranges from 1 to 20, 22 to 40 (Ext key 21 cannot be configured).</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> It is not applicable to SIP-T19(P) E2/CP860/CP920 IP phones.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Web User Interface:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsskey -&gt; Line Key -&gt; Label</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following shows an example of configuring an ACD key using configuration files:

```
linekey.2.type = 42
```

2. Upload the configuration file to the root directory of the provisioning server and perform auto provisioning to configure the Yealink IP phones.

For more information on auto provisioning, refer to Yealink_SIP-T2 Series_T19(P) E2_T4 Series_CP860_IP_Phone_Auto_Provisioning_Guide_V80.

Yealink IP phones running firmware version 81 or later support a new boot file for auto provisioning. For more information, refer to Yealink SIP IP Phones Auto Provisioning Guide V81.

To configure an ACD key via web user interface:

1. Click on Dsskey -> Line Key.
2. In the desired DSS key field, select ACD from the pull-down list of Type.
3. (Optional.) Enter the string that will appear on the LCD screen in the Label field.
4. Click Confirm to accept the change.
Configuring ACD Feature

To configure the ACD feature using configuration files:

1. Add/Edit the ACD parameters in the configuration file.
   X stands for the serial number of the account.
   
   SIP-T54S/T48G/T48S/T46G/T46S/T29G: X ranges from 1 to 16.
   SIP-T52S/T42G/T42S: X ranges from 1 to 12.
   SIP-T41P/T41S/T27P/T27G: X ranges from 1 to 6.
   SIP-T40P/T40G/T23P/T23G: X ranges from 1 to 3.
   SIP-T21(P) E2: X ranges from 1 to 2.
   SIP-T19(P) E2/CP860/CP920: X is equal to 1.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Permitted Values</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>account.X.sip_server_type</td>
<td>0, 2, 8 or 10</td>
<td>0</td>
</tr>
</tbody>
</table>

   Description:
   Configures the type of the SIP server for account X.
   
   0-Default
   2-BroadSoft
   8-Genesys
   10-Genesys Advanced

   Web User Interface:
   Account->Advanced->SIP Server Type

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Permitted Values</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>account.X.acd.enable</td>
<td>0 or 1</td>
<td>0</td>
</tr>
</tbody>
</table>

   Description:
   Enables or disables ACD feature for account X.
   
   0-Disabled
   1-Enabled

   Web User Interface:
   None

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Permitted Values</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>account.X.acd.available</td>
<td>0 or 1</td>
<td>0</td>
</tr>
</tbody>
</table>

   Description:
   Enables or disables the IP phone to display the available and unavailable soft keys for account X after the IP phone logs into the ACD system.
   
   0-Disabled
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<table>
<thead>
<tr>
<th>Parameters</th>
<th>Permitted Values</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Enabled</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Web User Interface:**

None

The following shows an example of ACD parameters for account 1 in the configuration file:

account.1.sip_server_type = 10
account.1.acd.enable = 1
account.1.acd.available = 1

2. Upload the configuration file to the root directory of the provisioning server and perform auto provisioning to configure the Yealink IP phones.

For more information on auto provisioning, refer to [Yealink SIP T2 Series_T19(P) E2_T4 Series_CP860_IP_Phones_Auto_Provisioning_Guide_V80](#).

Yealink IP phones running firmware version 81 or later support a new boot file for auto provisioning. For more information, refer to [Yealink SIP IP Phones Auto Provisioning Guide V81](#).

**To configure the ACD feature via web user interface:**

1. Click on **Account -> Advanced**.
2. Select the desired value from the pull-down list of **SIP Server Type**.
   - If you select **Genesys**, the phone only supports the one-way sys synchronization the ACD state with the Genesys server. The ACD state on the server could not synchronize to the phone. The DN registered on the phone should have been configured the option "subscribe-presence=publish".
   - If you select **Genesys Advanced**, the phone supports two-way synchronization the ACD state with the Genesys server. The DN registered on the phone should have been configured the option "enable-agentlogin-subscribe=true".
3. Click **Confirm** to accept the change.

**Note**

Make sure that the **SIP Server Type** is configured as **Genesys** or **Genesys Advanced** for the Genesys Environment.

The following figure shows the phone idle screen after the above configurations (take SIP-T23G IP phone as example).
Using ACD on the Yealink IP Phones

If you enable the ACD feature on the IP phone, you will be able to:

- Login and logout as an agent
- Change your agent state to available or unavailable

The following takes a SIP-T23G IP phone running firmware version 81 as an example.

Logging into the ACD System

To log into the ACD system:

1. Press the Login soft key/ACD key when the phone is idle (ACD key is not applicable to SIP-T19(P) E2/CP860/CP920 IP phones).

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

   **Password**: the password used to log in the ACD queue.

   ![ACD login screen]

   **Note** If the **SIP Server Type** is configured as **Genesys** on the IP phone, the agent login ID entered in the **User ID** field should be the same as the DN registered on the IP phone.

2. Press the Login soft key.

   The phone will verify the login credentials with the Genesys server. After successful verification, the phone will display the agent login ID.

   The line icon changes to 📞. The **Unavail** and **Logout** soft keys appear. The server begins distributing calls to the IP phone.

Logging out of the ACD System

To log out of the ACD system, you can do one of the following:

- Press the Logout soft key when the phone is idle.

- Press the ACD key when the phone is idle. (not applicable to SIP-T19(P) E2/CP860/CP920 IP...
phones)

Select **SignOut** and then press the **Save** soft key.

![ACD State](image)

The line icon changes to 📪 and the **Login** soft key appears.

---

**Changing or Refreshing the ACD Agent Status**

When the agent has logged into the ACD system successfully, you can change the agent status by pressing the **Avail/Unavail** soft key. If the agent status is available, the server will begin to distribute incoming calls to your IP phone. If the agent status is unavailable, the server will not distribute incoming calls to your IP phone.

**To change the ACD agent status:**

If the current agent status is available, do one of the following:

- Press the **Unavail** soft key.
- Press the ACD key when the phone is idle. (not applicable to SIP-T19(P) E2/CP860/CP920 IP phones)

  Select **Unavailable** and then press the **Save** soft key.

The agent status changes to unavailable and the line icon changes to 📪 and x.

If the current agent status is unavailable, do one of the following:

- Press the **Avail** soft key.
- Press the ACD key when the phone is idle. (not applicable to SIP-T19(P) E2/CP860/CP920 IP phones)

  Select **Available** and then press the **Save** soft key.

The agent status changes to available and the line icon changes to 📧.

If the current agent status is ACW (after call work), do one of the following:

- Press the **Avail** soft key.
- Press the ACD key when the phone is idle. (not applicable to SIP-T19(P) E2/CP860/CP920 IP phones)
phones)

Select Available and then press the Save soft key.
The agent status changes to available and the line icon changes to ☑️.

- Press the ACD key when the phone is idle. (not applicable to SIP-T19(P) E2/CP860/CP920 IP phones)
  Select Unavailable and then press the Save soft key.
The agent status changes to unavailable and the line icon changes to ☑️ and x.

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