Voice Client

Version 9.x

Workcloud Communication

ZEBRA

Administrator Guide

For Cisco CUCM

MN-003590-29EN Rev A

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2025/06/04

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Contents

Revision History

Changes to the original guide are listed below:

Change	Date	Description
-01 Rev A	5/2019	Initial release.
-02 Rev A	5/2019	Fix the initial release of the guide.
-03 Rev A	7/2019	Updates to custom ringtone and audio prompt file formats. Update to Home Screen Dashboard section. Add EC30 screenshots.
-04EN Rev A	12/2019	Updates to WFC Voice screenshots, Contacts section, and Logging chapter.
-05EN Rev A	3/2020	Update the Voice Commands section in Using the Client chapter.
-06EN Rev A	3/2020	Add OPUS to the codecs priority list and update the call transfer instructions.
-07EN Rev A	6/2020	Updates to Using the Client > Profile Manager section. Update sections related to the three-line menu.
-08EN Rev A	7/2020	Update to Voice Commands and new Sign Out feature added.
-09EN Rev A	11/2020	Changes to WFC Voice licensing information.
-10EN Rev A	3/2021	Updates for release of WFC Voice 9.0.20307.
-11EN Rev A	6/20/21	Added BlueParrot support.
-12EN Rev A	10/18/21	Added Emergency Dialer, Prevent Full Screen for Incoming Calls, updated licensing information, and language support.
-13EN Rev A	12/14/21	Added information about the screen orientation setting.
-14EN Rev A	3/2022	ET5X support. Choosing a theme and option to show only WFC Voice contacts in the app added to settings. Incoming calls display as notifications when WFC Voice is in the background.
-15EN Rev A	6/2022	Updated voicemail message, configuration to disable favorites and scrolling of contacts, hiding dashboard footer, handling one-time Google prompt message after adding the contacts, and keeping the WFC Voice Signed in after rebooting the device.
-16EN Rev A	9/2022	Prefix Dial String and Disable the Reload menu are added.
-17EN Rev A (v9.0.22309)	01/2023	Added Clear Call History on Sign-out and Supported Headsets .
-18EN Rev A (v9.0.22405)	03/2023	Updated Contact Presence Icons, Footer Configurable, BluSkye Bluetooth RSM, and Perform 45 headsets.

Revision History

Change	Date	Description
-19EN Rev A (v9.0.22405)	05/2023	Added Imprivata Mobile Device Access (MDA) Support, VPN Settings, and updated the Wi-Fi Preferred Settings.
-20EN REV A (v9.0.22405)	07/2023	Added Voice Audio Focus Enhancement, Secure RTP Feature for Standard Clients, and removed Mobility DNA license note.
-21EN Rev A (v9.0.22405)	10/2023	Added Mute Ringtone, Configuring Default Home Screen, and Enabling or disabling Update License.
-22EN Rev A (v9.0.23306)	01/2024	Added Set Call History Filter to All After Signout, Pinboard Integration-Intents/APIs to Share Call Data, updated Installing the APK Manually and Mute Ringtone.
-23EN Rev A (v9.0.23406)	03/2024	Added Show Only Voice Group, updated Imrivata MDM, Migrate Premium to Standard License, and rebranded WFC and Workforce Connect as Zebra and Workcloud Communication.
-24EN Rev A (v9.0.24102)	07/2024	Added data collection, and Call Feedback.
-25EN Rev A (v9.0.24205)	09/2024	Added Restart Thread Configuration, Emergency Number Support, and Reload Voice Client IP Address Change.
-26EN Rev A (v9.0.24208)	09/2024	Added Configuring the Reload/Change button.
-27EN Rev A (v9.0.24304)	12/2024	Added Configuration Restart Thread, Emergency Number Support, Reload the Voice Client on IP Address Change, VVDN BT DONGLE Headset, and removed Monitoring Real-Time User Productization.
-28EN Rev A (v9.0.24403)	03/2025	Updated Emergency Number Support, Data Collection, Enabling RXLogger, and Setting Show Only Voice Group.
-29EN Rev A (v9.0.25103)	05/2025	Update Device Setup and setting Line Ringtone.

About This Guide

This manual describes how to install, configure, and use Zebra Workcloud Communication Voice Client (Zebra Voice) on a Cisco CUCM network.

Cisco has certified Zebra Enterprise Voice version 9.0.24107 as compatible with version 15 of CUCM.

Devices running Android 11 must use Zebra Voice version 9.0.2103xx or later.

WARNING: The Zebra Voice supports using secure protocols, such as HTTPS, and cleartext network traffic, such as cleartext HTTP. Zebra strongly recommends that customers use secure protocols, such as HTTPS, to access their data. Zebra always uses the secure protocol HTTPS to communicate with the Zebra Extension Manager or the Zebra Provisioning Manager. If customers elect to use cleartext network traffic, the customer assumes the risk of exposing data on the network.

IMPORTANT: Please contact your administrator or Zebra Support to use Zebra Voice.

NOTE: Screens, icons, and options may differ on each device. Those in this guide are samples and can differ from actual screens.

Zebra Voice Client 9.x for Android supports the following languages:

- Czech
- Dutch
- English
- French (Canada)
- French (France)
- German
- Italian
- Hungarian
- Polish
- Russian
- Slovak
- Spanish (Spain)
- Swedish

PBX Integration Statement

Cisco CUCM configuration references in this document are based on Cisco CUCM version 8.6 and above.

Generally, Cisco configuration elements are maintained in subsequent releases. However, this cannot be guaranteed. The reader is advised to consult the Cisco CUCM configuration guide for releases above 8.6 and use it with this documentation.

NOTE: Zebra Voice requires a minimum Cisco CUCM version of 8.6.

Notational Conventions

The conventions are used in this document:

- Bold text is used to highlight the following:
  - Dialog box, window and screen names
  - Drop-down list and list box names
  - Check box and radio button names
  - Icons on a screen
  - Key names on a keypad
  - Button names on a screen.
- Bullets (•) indicate:
  - Action items
  - Lists of alternatives
  - Lists of required steps that are not necessarily sequential.
  - Sequential lists (e.g., those that describe step-by-step procedures) appear as numbered lists.

Service Information

If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: www.zebra.com/support.

When contacting support, please have the following information available:

- Serial number of the unit
- Model number or product name
- Software type and version number.

Zebra responds to calls by email, telephone or fax within the time limits set forth in support agreements.

If your problem cannot be solved by Zebra Customer Support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty.

If you purchased your Zebra business product from a Zebra business partner, contact that business partner for support.

Configuring Basic CUCM

This section contains general instructions to configure the Basic CUCM PBX.

Basic CUCM allows configuration of one phone line with a maximum of two calls per line. For more information on features available in Basic CUCM, see Using the Client on page 141.

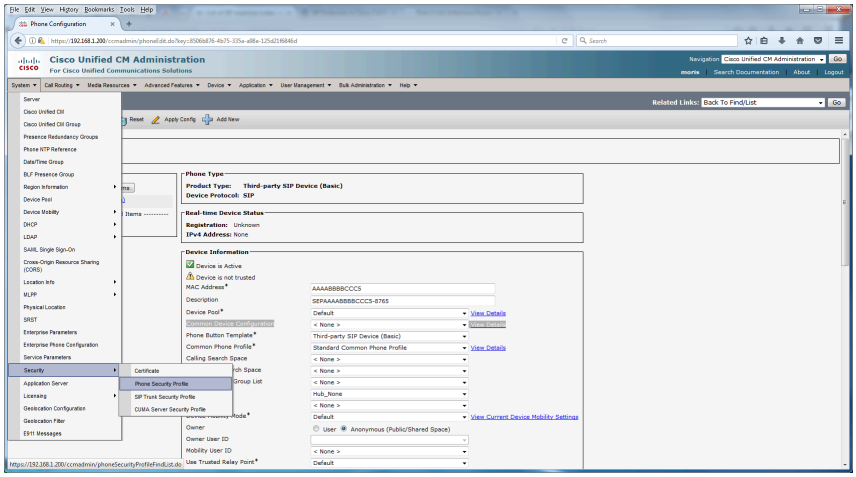
1. Create SIP Security Profile.
2. Create End User.
3. Create Phone Endpoint.
4. Assign DN to Endpoint.

Creating SIP Security Profile

To create an optional SIP security profile with digest authentication:

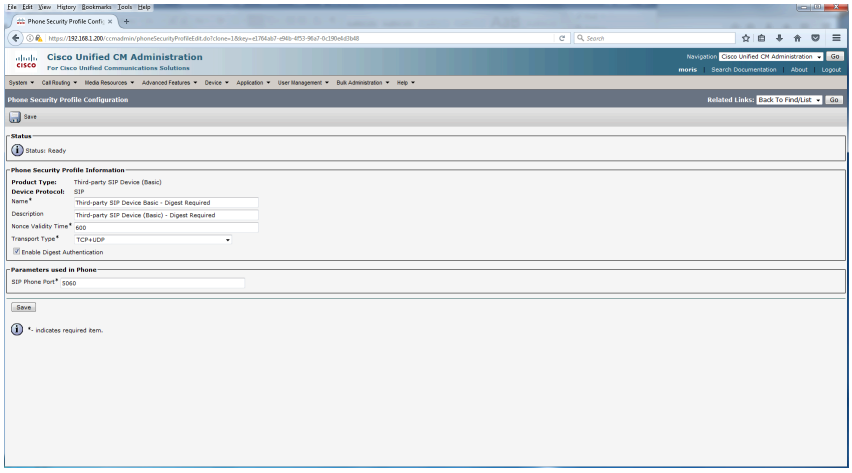
If digest authentication is not required, skip to .

1. Select **System** > **Security** > **Phone Security Profile**.



2. Scroll to the bottom of the list and select **Third-party SIP Device Basic - Standard SIP Non-Secure Profile**.

3. Select **Copy**.



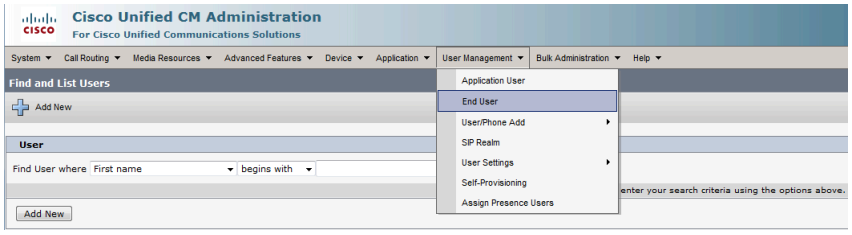
4. Change the name of the profile to **Third-party SIP Device Basic - Digest Required**.
5. Select the checkbox next to **Enable Digest Authentication** to enable.
6. Select **Save**.

Creating an End User in Basic CUCM

To create an End User:

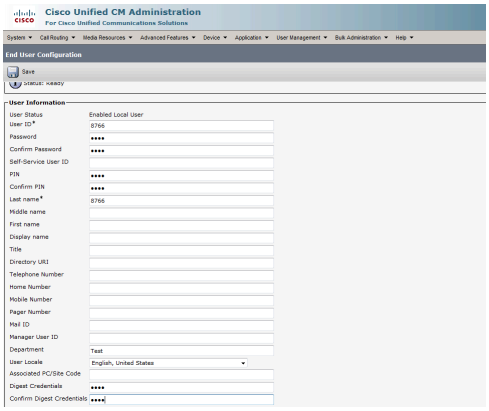
1. Select **User Management** > **End User**.

Figure 1 User Management Menu



2. Select **Add New**.

3. Enter the following:
   - `User ID`
   - `Password`
   - `Confirm Password`
   - `PIN`
   - `Confirm PIN`
   - `Last Name`
   - `First Name`
   - `Telephone Number`
   - `Department`
   - `User Locale`
   - `Digest Credentials`
   - `Confirm Digest Credentials`.

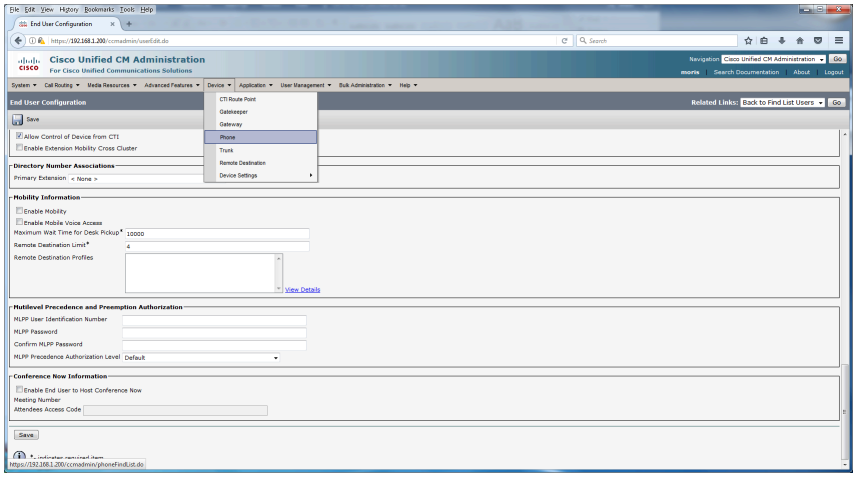


4. Scroll to the bottom of the screen.
5. Select **Save**.

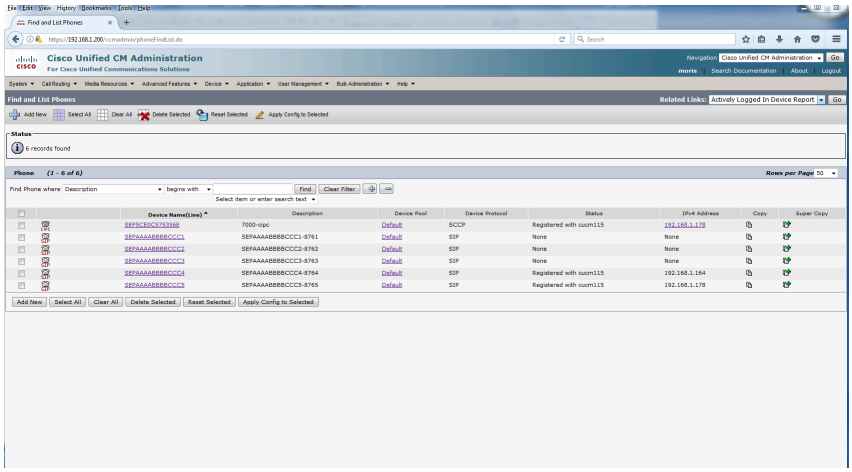
Creating Phone Endpoint in Basic CUCM

To map the End User to the Phone Endpoint:

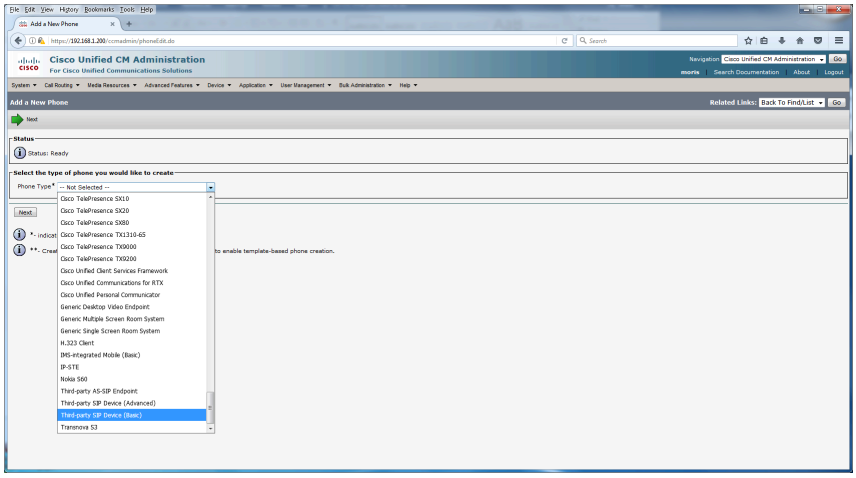
1. Select **Device** > **Phone**.



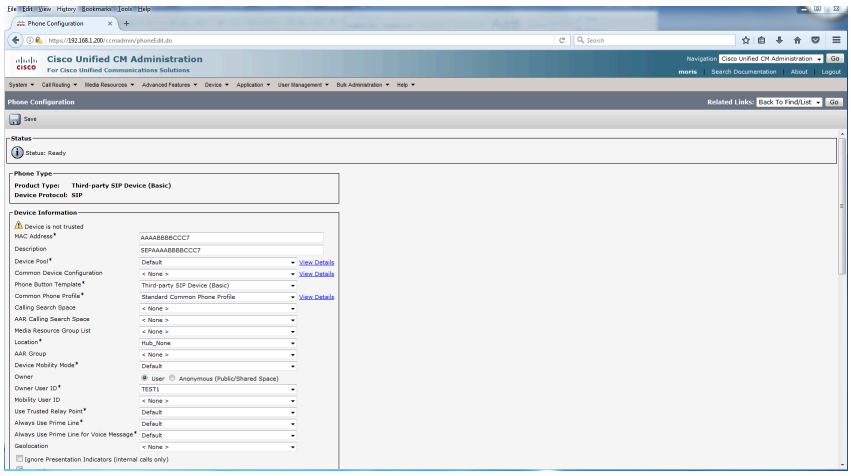
2. Select **Add New**.



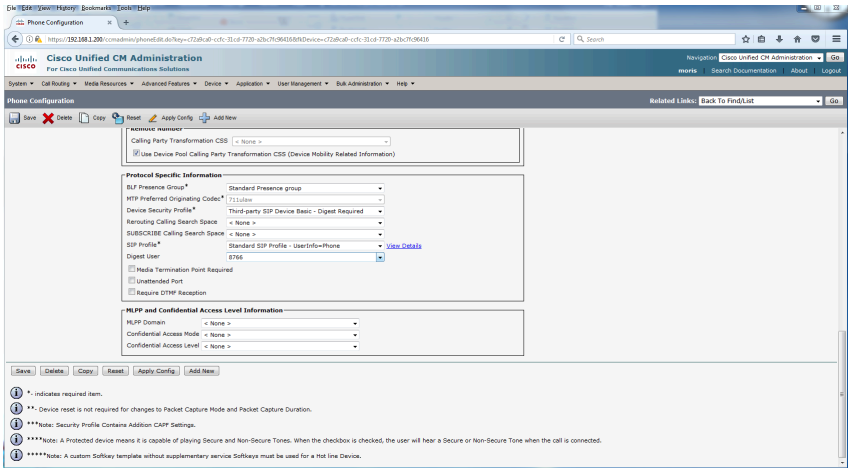
3. Select **Phone Type Third Party SIP (Basic)**.



4. For **Device Information**, complete fields as needed.



5. For **Protocol Specific Information**, enter information from Creating SIP Security Profile on page 16.



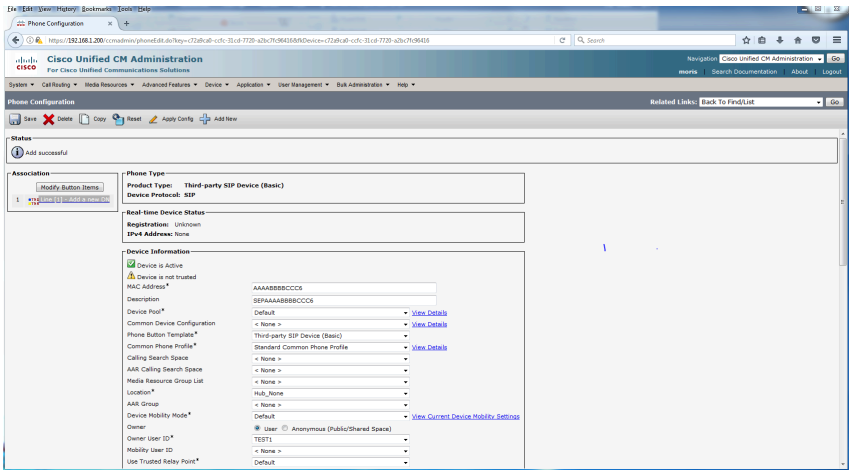
6. Select **Save**.

7. Select **Apply Config**.

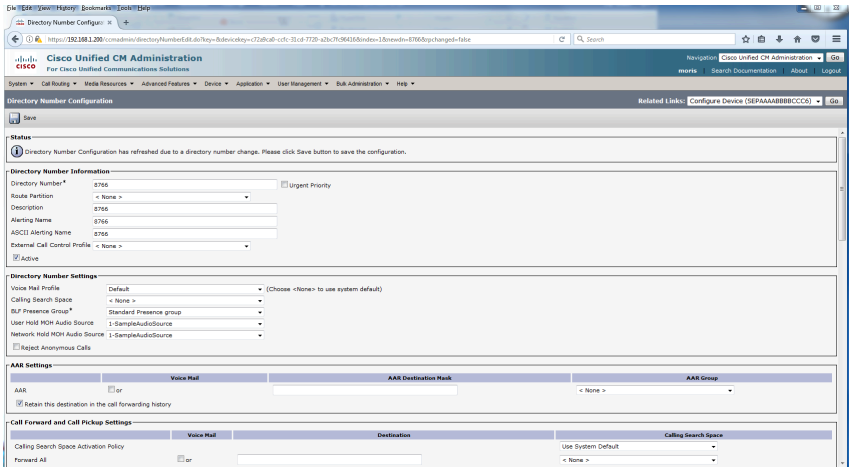
Assigning Directory Number to Endpoint in Basic CUCM

To assign a new Directory Number (DN) to an endpoint:

1. Select **Add a new DN**.



2. For **Directory Number Information**, complete fields as needed.
3. For **Directory Number Settings**, complete fields as needed.



4. Scroll to the bottom of the screen.
5. Select **Save**.

Configuring Premium CUCM

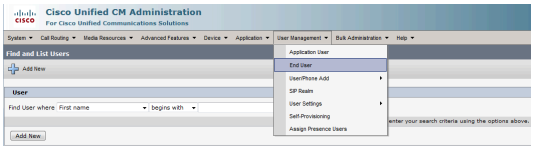
This section contains general instructions to configure the Premium CUCM PBX.

1. Create End User.
2. Create Phone Endpoint.
3. Assign DN to Endpoint.

Creating an End User in Premium CUCM

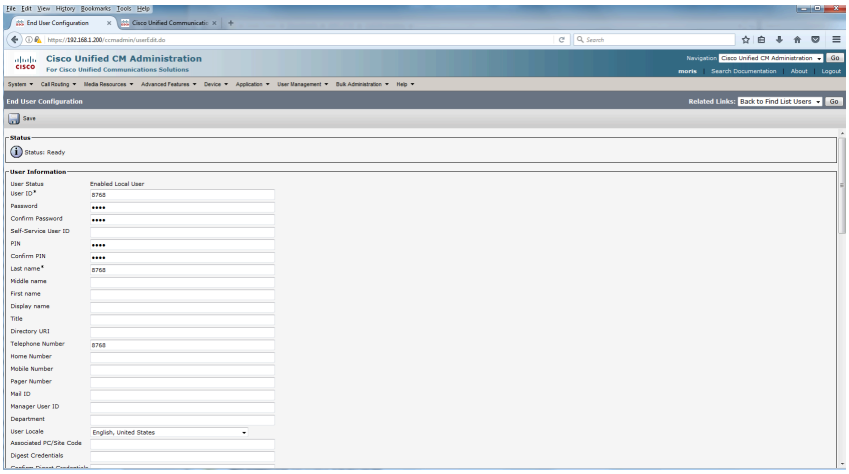
To create an End User:

1. Select **User Management** > **End User**.



2. Select **Add New**.

3. Enter the following:
   - User ID
   - Password
   - Confirm Password
   - PIN
   - Confirm PIN
   - Last Name
   - First Name
   - Telephone Number
   - Department
   - User Locale.

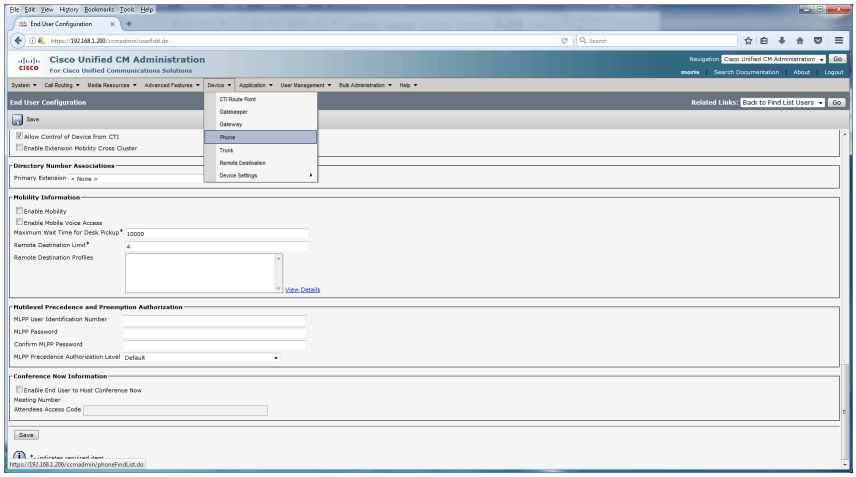


4. Scroll to the bottom of the screen.
5. Select **Save**.

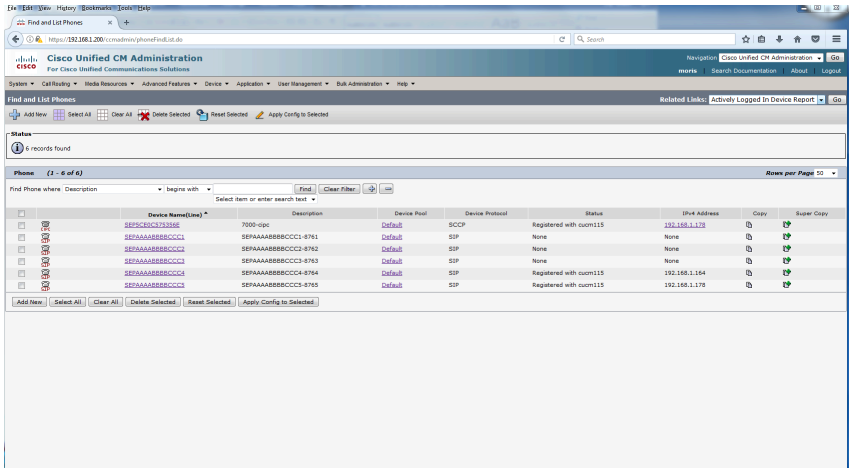
Creating a Phone Endpoint in Premium CUCM

To map the End User to the Phone Endpoint:

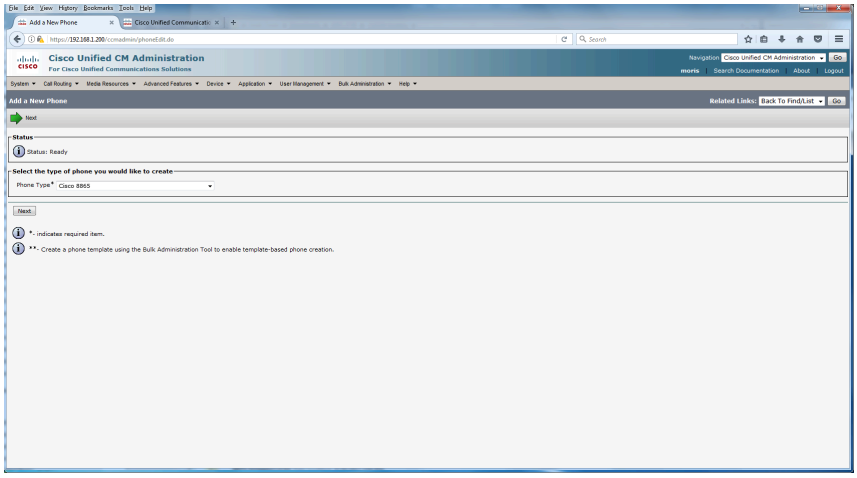
1. Select **Device** > **Phone**.



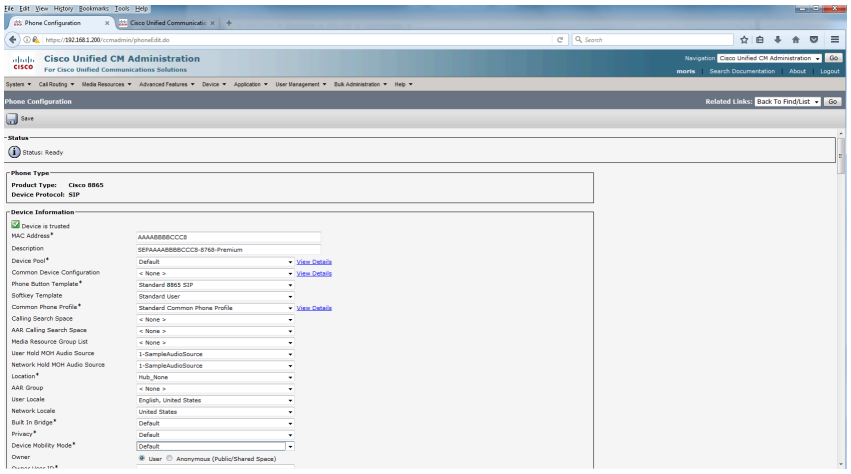
2. Select **Add New**.



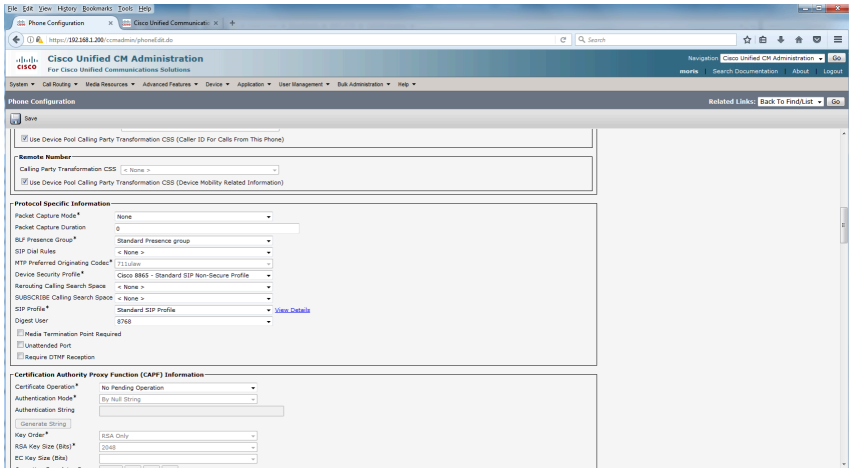
3. Select **Phone Type 8865**.



4. For **Device Information**, complete fields as needed.



5. For **Protocol Specific Information**, complete fields as needed.



6. Select **Save**.

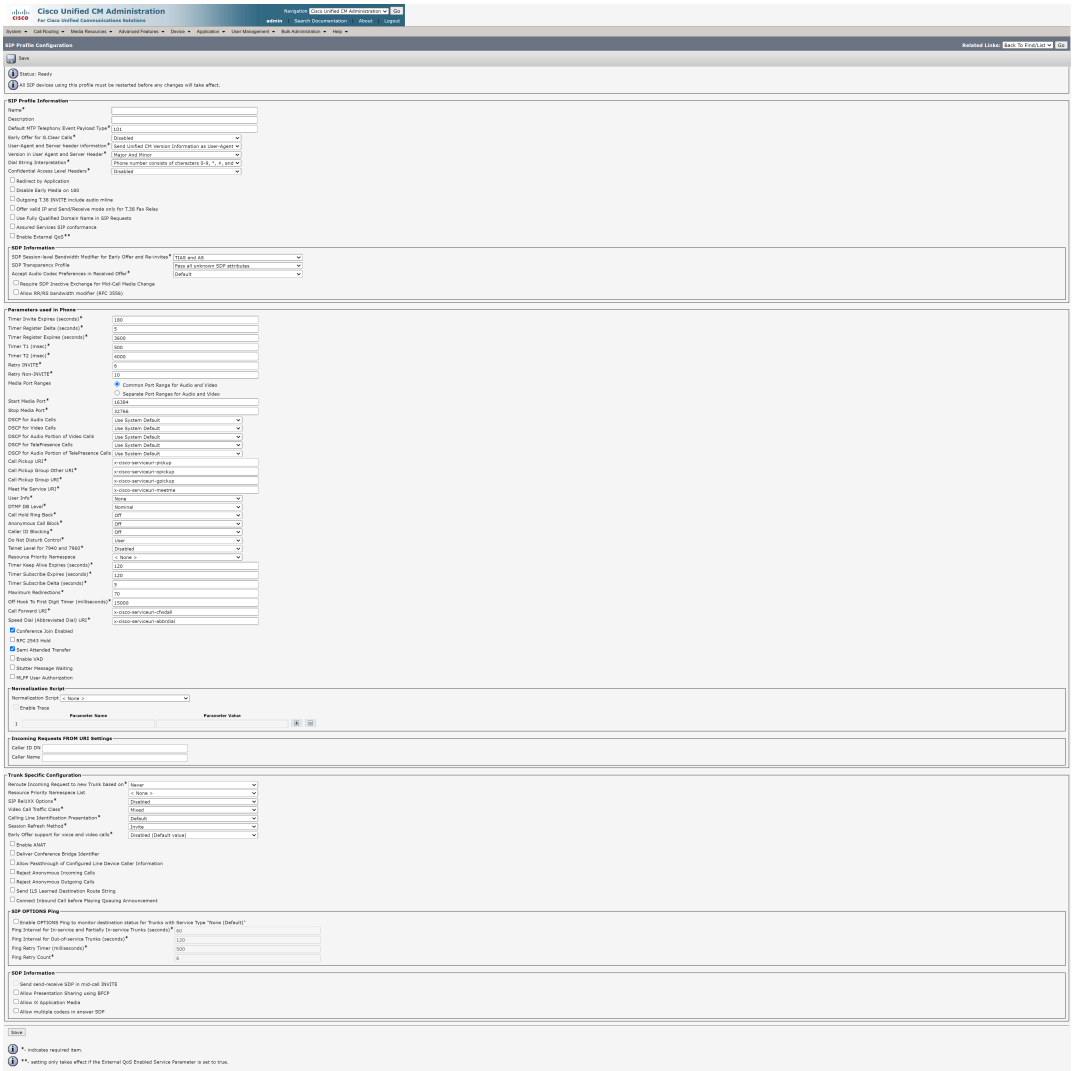
7. Select **Apply Config**.

Creating SIP Profile

To create an SIP profile are as follows:

1. Login to **CISCO CUCM** server.
2. Click **Device** , select **Device settings** and then click **SIP Profile**.

   The **SIP Profile Configuration** screen appears.



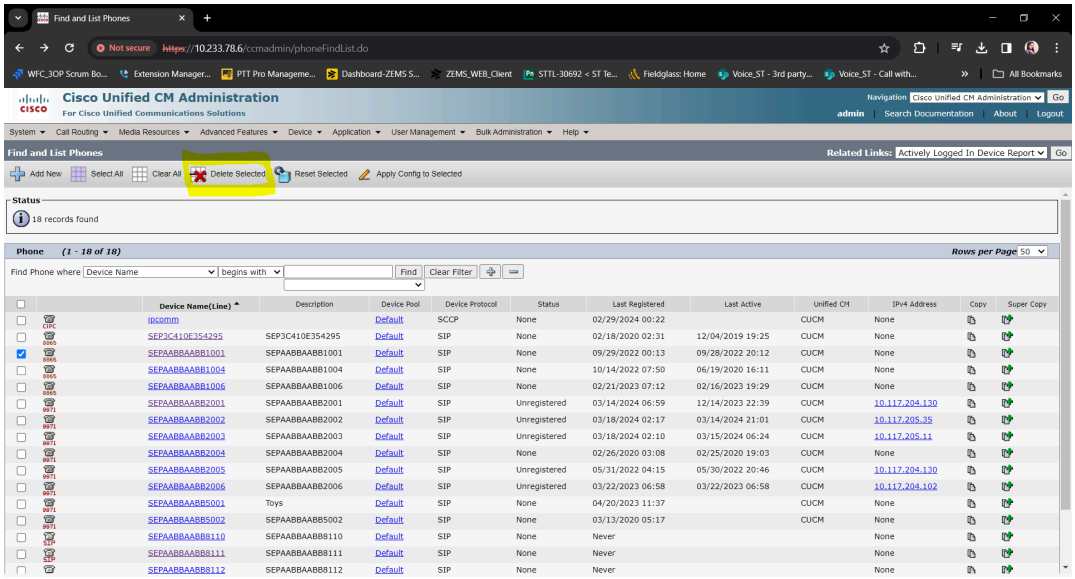
3. Provide all the required information.
4. Click **Save**.

Deleting the CUCM Premium Extension

The CUCM premium extension can be deleted using the CUCM server.

Follow the steps:

1. Log in to **CUCM** server.
2. Click **Device** and Select **Phone**.
3. Select the checkbox of the Premium CUCM extension that you want to delete.
4. Click **Delete Selected**.

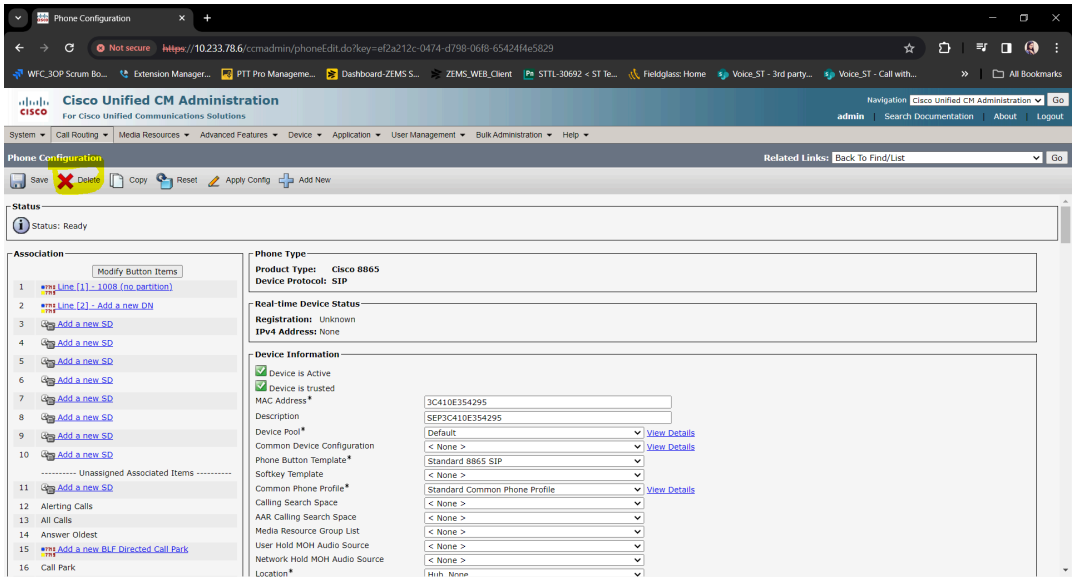


The selected Premium CUCM extension is deleted.

Assigning Directory Number to Endpoint in Premium CUCM

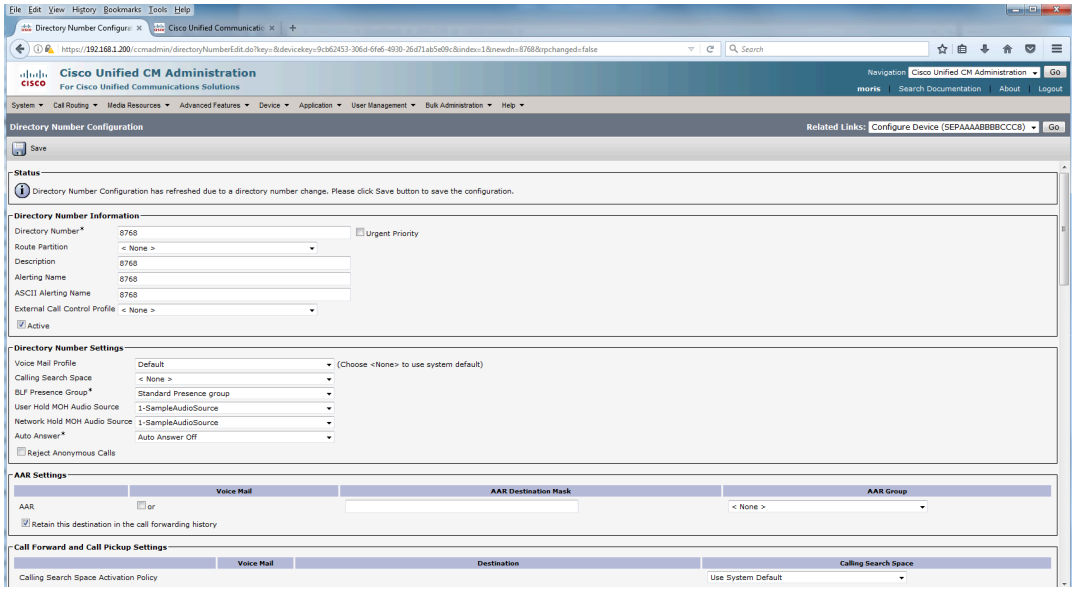
To assign a new Directory Number (DN) to an endpoint:

1. Select **Add a new DN**.



2. For **Directory Number Information**, complete fields as needed.

3. For **Directory Number Settings**, complete fields as needed.



4. Scroll to the bottom of the screen.
5. Select **Save**.

Configuring the Client

Learn how to install, activate, and configure the Zebra Workcloud Communication Voice Client (Zebra Voice).

Determine Deployment Readiness

Assess the suitability of your Wireless Local Area Network (WLAN) for voice traffic, using the Best Practices Guide: Deploying VoWLAN Over Aruba Wireless Networks, Deploying VoWLAN Over Cisco Wireless Networks or Deploying VoWLAN Over WiNG5 Wireless Networks.

WARNING: If your WLAN is unsuitable for voice traffic, Zebra Voice will perform on a best-effort basis. Contact the Zebra Software Support Desk for more information.

Connect Android Wireless Device to Network

Connect the Android wireless device to the network. Zebra Voice supports cellular data connection in case of unavailability of a WiFi network.

Use the Android wireless settings on your device to connect to a network. See device instructions for more information. If you need assistance, contact Zebra Support.

Zebra Voice for Android includes support for the following device types:

- Enterprise Mobile devices
- Consumer Smartphone devices (evaluation only)

Install Zebra Voice

This section describes the methods for installing Zebra Voice Client.

NOTE: When upgrading from Zebra Voice version 8.2.x to version 9.x, download and install the new APK as described below. During activation, use your Zebra Voice version 9.x activation key(s).

There are two ways to install Zebra Voice:

- USB tether or web server - This section describes using a USB tether or web server to manually install the Zebra Voice Android Package Kit (APK).
- Mobile Device Manager (MDM) - For information on installing the Zebra Voice Client APK using an MDM, refer to the Workcloud Communication Voice Client Configuration Guide for Mobile Device Managers.

Download and Install Board Support Package (BSP) Operating System

For instructions please refer to the Zebra support at www.zebra.com/support and login using your partner login for latest BSP and integration instructions. If you need assistance, contact Zebra Support at www.zebra.com/support.

Installing the Zebra Voice APK

Download the APK from the Zebra Licensing End User Portal.

1. From a web browser, go to the Zebra Licensing End User Portal.

   To access the Zebra Licensing End User Portal, follow the instructions in the Software Entitlement email from Zebra. Portal access requires registration at Zebra.com and authorization as a portal user by Zebra Support.
2. From the Zebra Licensing End User Portal, download the latest Zebra Voice APK file.

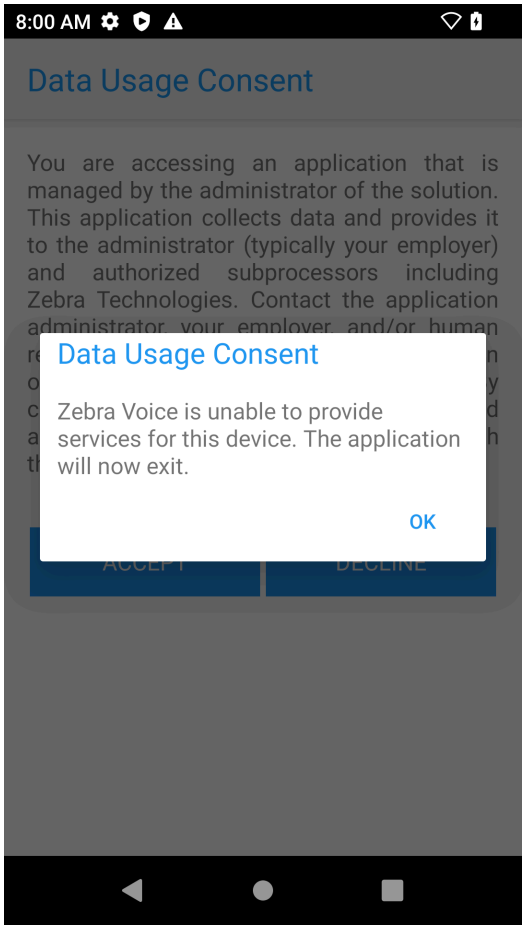
Installing the APK Manually

Install the APK manually using a USB tether or from a web server.

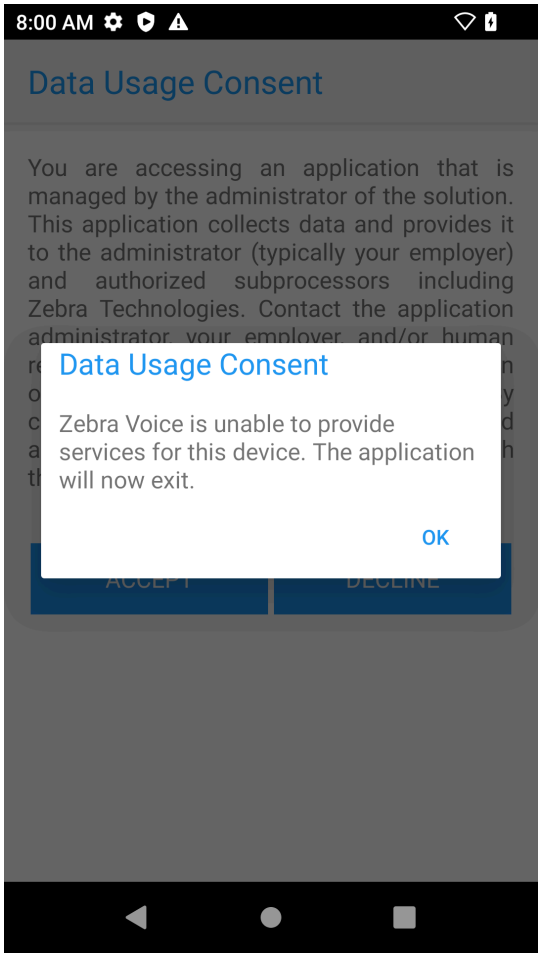
1. Save the APK file to the root directory of the target device using one of the following methods:
   - USB tether
   - Web server download (if your network supports this option)
2. On the Android device, go to the Apps list and open the file browser.
3. Navigate to the APK file.
4. Run and install the APK file.
5. Check that Zebra Voice is available on the Apps Screen.

6. After the user opens the Zebra Voice application, accept the Data Consent Agreement.

   This newly introduced Data Consent page provides two buttons for the user to perform actions, as shown in the following screenshot.



- **Accept** - If the user clicks the **Accept** button means the user agrees to the above information provided as part of the Data Consent page, and the user wants to continue with application uses.
- **Decline** If the user clicks the **Decline** button means the user does not want to share the information with the Zebra Voice Client and does not want to continue further with the application, as clicking on Decline quits the application after showing the dialog box, as shown in the following screenshot.



7. Grant the following permissions :
   a. Record Audio
   b. Access Photos and Media
   c. Read Contacts
   d. Make and Manage Phone calls
   e. Display over other apps
   f. Allow the app to always run in the background

The Zebra Voice icon should be visible in the list of available applications.

Installing the APK Using ADB Commands

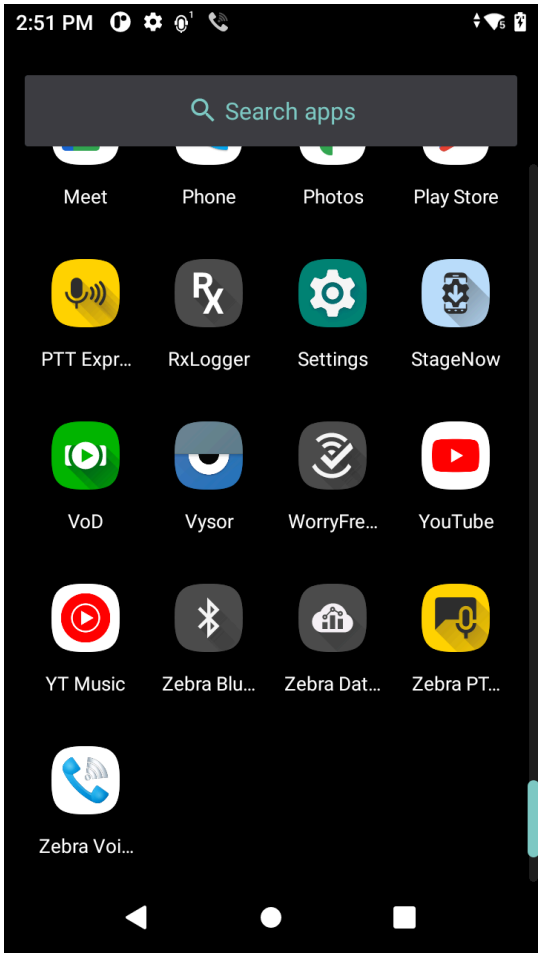
To install the APK using an Android Debug Bridge (ADB) connection, open a command prompt and send the following ADB commands to the device:

```
adb install -g <apk_file_name>
adb shell dumpsys deviceidle whitelist +com.symbol.wfc.voice
adb shell appops set com.symbol.wfc.voice SYSTEM_ALERT_WINDOW allow
```

Where <apk_file_name> is the name of the Zebra Voice APK file.

Creating a Shortcut for Zebra Voice

1. Create a shortcut for Zebra Voice on the Home screen for quick access.



Number	Item
1	Zebra Voice Icon

2. Drag the Zebra Voice Icon to the Home screen.
3. Drop the icon on the Home screen.

Opening Zebra Voice

Open Zebra Voice from the Home screen or Apps screen.

- To open Zebra Voice, use one of the following methods:
  - Touch the Zebra Voice icon on the Home screen.
  - Touch on the Zebra Voice icon on the Apps screen.
- If using Zebra Voice version 9.0.20306 or later, the Home dashboard displays.

- For versions of Zebra Voice earlier than 9.0.20306, the **App Activation** screen displays.
- Zebra Voice Client does not claim supporting Split Screen functionality.

Configure Default Home Screen

This feature allows users to change the default landing screen of the Zebra Voice Client.

The Zebra Voice Client version must be 9.0.232xx or later to support this feature.

The values in the following table can be in any order of 0, 1, 2, 3; each number represents the fragment index inside the Zebra Voice Client.

The details of the value associated with the fragment are as follows:

Value	Fragment Name
0	Dashboard (Default)
1	Dialpad
2	Recent
3	Contact

The settings can be configured through:

- XML
- Extension Manager Environment
- Profile Manager Environment

XML example of configuring default landing screen.

```
<WFConnect>
<Profile>
<default_screen>0</default_screen>
</Profile>
...
</WFConnect>
```

Set the Default Screen via Intent

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es default_screen 1
```

NOTE:

- The default value TAG is set to 0.
- Values must be in the range of 0 to 3, and any other value is set to 0 as a default value for this configuration.
- After the call ends, the user should navigate to the configured default screen.
- Landscape mode devices do not support this TAG.

Activate Zebra Voice

When Zebra Voice starts for the first time, the **App Activation** screen appears.

CAUTION: Before activating Zebra Voice, ensure the time is set correctly on the device. Changing the time on the device after activating Zebra Voice may cause licensing to fail.

A valid license is required for each PBX. The licensing method varies depending on your version of Zebra Voice.

- Zebra Voice 9.0.20306 or later is activated automatically when using Extension Manager to configure the client.
- When not using Extension Manager, Zebra Voice 9.0.20306 or later is activated using Zebra's token (a string consisting of numbers and letters). You can also request a QR code containing the token by contacting Zebra Support. You must configure the desired PBX types before activation.

NOTE: For Zebra Voice 9.0.20306 or later, you must configure the desired PBX types before activation. Zebra Voice 9.0.212xx and later remain in a Waiting for Configuration state until the PBX types are configured.

- Versions of Zebra Voice earlier than 9.0.20306 are always activated using an activation ID.

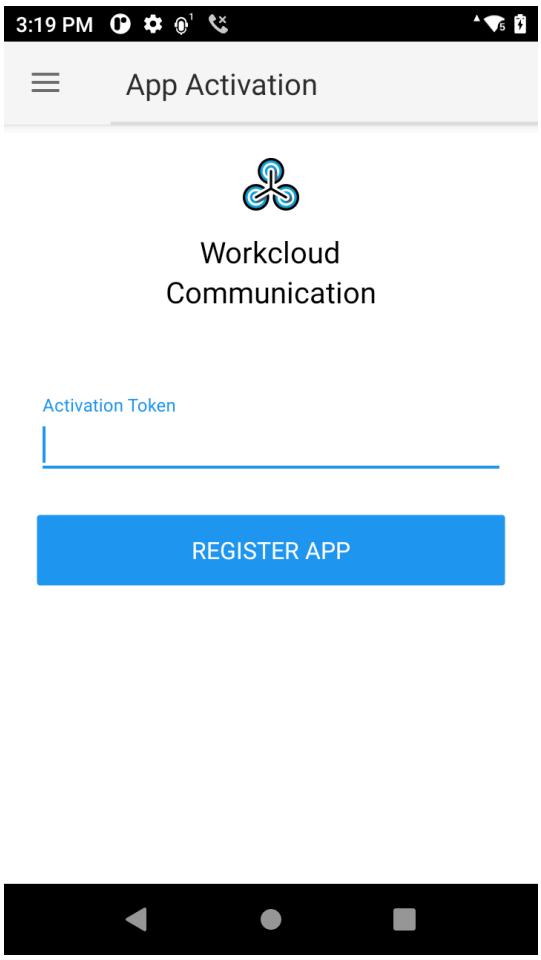
Activation IDs and tokens can be sent to the device manually, using a Mobile Device Manager (MDM) intent, or by uploading an XML configuration file with a USB tether.

NOTE: For versions of Zebra Voice earlier than 9.0.20306, when activating a device that does not have direct access to the license source, use a proxy server. See Proxy Server Configuration on page 195.

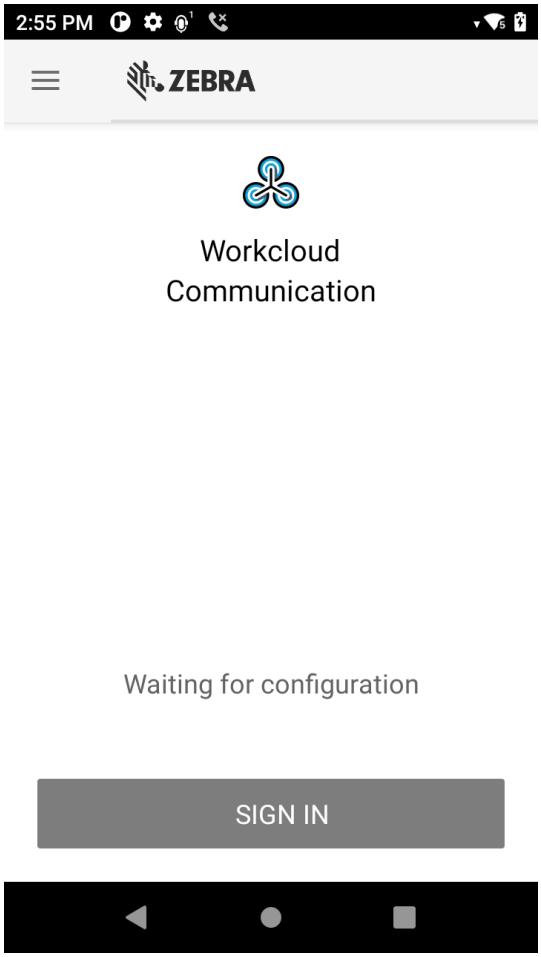
Activating Manually

Activate Zebra Voice by entering your token or activation ID(s).

1. Open Zebra Voice to display the activation screen.



2. If you see the **Waiting for Configuration** screen, you must configure the PBX type(s).



   a) Touch ☰ > **Settings**.

   b) Enter the settings password.

      The default password is `zamboni`.

   c) Touch **Connection Parameters**

   d) Select a PBX configuration.

      The default configuration is **PBX#1 Configuration**

   e) Touch **PBX#1 Type** and select your PBX.

   f) Touch Back until you return to the **App Activation** screen.

3. In the text field, enter your activation ID(s) separated by commas or your token.

   Licenses are acquired from the default licensing source.

4. To enter a device alias (versions of Zebra Voice earlier than 9.0.20306), touch the **toggle button** and, in the **device alias** field, enter a name to identify the device on the license source.

5. Touch **Register App**.

   The **Home** screen appears.

Activate with an MDM

Configuring Zebra Voice using an MDM requires a deployment package and the Zebra Voice configuration file. The configuration file `WFConnect.xml` stores all the Zebra Voice configuration parameters, including licensing information, as key and value pairs. For a complete list of parameters, see XML Tags on page 167.

Define the licensing information using the following XML tags:

- license_key - For versions of Zebra Voice earlier than 9.0.20306, this contains one or more Zebra Voice activation IDs separated by commas. For Zebra Voice 9.0.20306 or later, this contains the token.

  Activation ID Example:

  ```
  <license_key>abcd-1234-ab12-cd34-5678-efgh-ef56-gh78</license_key>
  ```

  Token Example:

  ```
  <license_key>myToken</license_key>
  ```

- license_source - URL of a license source server (optional). Not used in Zebra Voice 9.0.20306 or later.

  When license_source is not defined, the Zebra Voice Client uses the default license source. Do not change the license_source parameter unless instructed to by Zebra Support.

- license_alias - Identifies the device on the license source. (Optional). Not used in Zebra Voice 9.0.20306 or later.

Activate Using MDM Deployment

During runtime, Zebra Voice listens for `wfc.voice.ACTION_UPDATE_CONFIG` intent. When Zebra Voice receives the intent from an MDM, the configuration file uses `WFConnect.xml` to update the Zebra Voice configuration parameters. Use a single intent to update multiple configuration parameters by including multiple element and value pairs.

For Zebra Voice 9.0.20306 or later, you can also send just the token to Zebra Voice using the following intent. This intent sends the token without requiring you to configure it in the XML file.

```
adb shell am start -a android.intent.action.VIEW -d "wfcvp://<token>"
```

For detailed information on MDM deployment, refer to the Workcloud Communication Voice Client Configuration Guide for Mobile Device Managers.

Activating with a USB Tether

Send the `WFConnect.xml` configuration file to the device using a USB tether and Android Debug Bridge (ADB) connection.

NOTE: It is not recommended to install the `WFConnect.xml` file using a USB tether because it can cause permission issues on the device.

1. Install the Zebra Voice APK. See Download and Install Board Support Package (BSP) Operating System on page 30.

2. Copy the `WFConnect.xml` file to the WFConnect directory.
   - For A11 and above, use following path to copy Zebra Voice configuration XML file:

     ```
     /enterprise/device/settings/WFConnect/
     ```

   - For A10 and below, use following path:

     ```
     /sdcard/WFConnect
     ```

3. Open a command prompt and send the following adb command to the device:

```
adb shell am start -a "wfc.voice.ACTION_NEW_CONFIG" --es "profile_uri" "/
WFConnect/WFConnect.xml"
```

Update License

The method for updating licenses varies depending on your version of the Zebra Voice.

- For Zebra Voice 9.0.20306 or later, contact your Zebra administrator.
- For earlier than Zebra Voice 9.0.20306, refer to the Workcloud Communication Voice Client Administration Guide for Licensing.
- For Zebra Voice 9.0.20306 or later, once a new token is provided to you, you can update it using an MDM or enter it on the Zebra Voice **App Activate** screen. To update using the Zebra Voice GUI, touch ☰ > **About** > **Update License** > **Register App**.
- For Zebra Voice 9.0.24106 or later, the license renewal is checked internally before prompting the user about the license expiry details. If a license has been renewed, it is updated automatically.

See Also

Activate Using MDM Deployment

Enable or Disable Update License Control

This feature allows users to change the visibility of the **Update License** button present on the **About** page.

Enabling Update License Control

NOTE: Available in Zebra Voice 9.0.232xx or later.

The settings can be configured through:

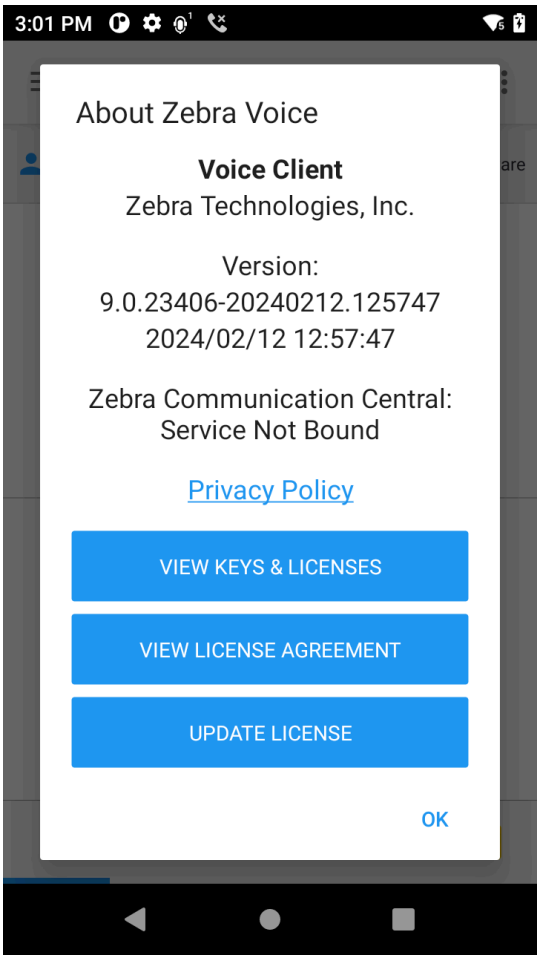
- XML
- Extension Manager Environment
- Profile Manager Environment

XML example of displaying Update License.

```
```

```
<WFConnect>
<Profile>
   <show_update_license_button>true</show_update_license_button>
</Profile>
...
</WFConnect>
```

Setting path: **Voice dashboard** > **Hamburger Menu** > **About**.



Disabling Update License Control

The settings can be configured through:

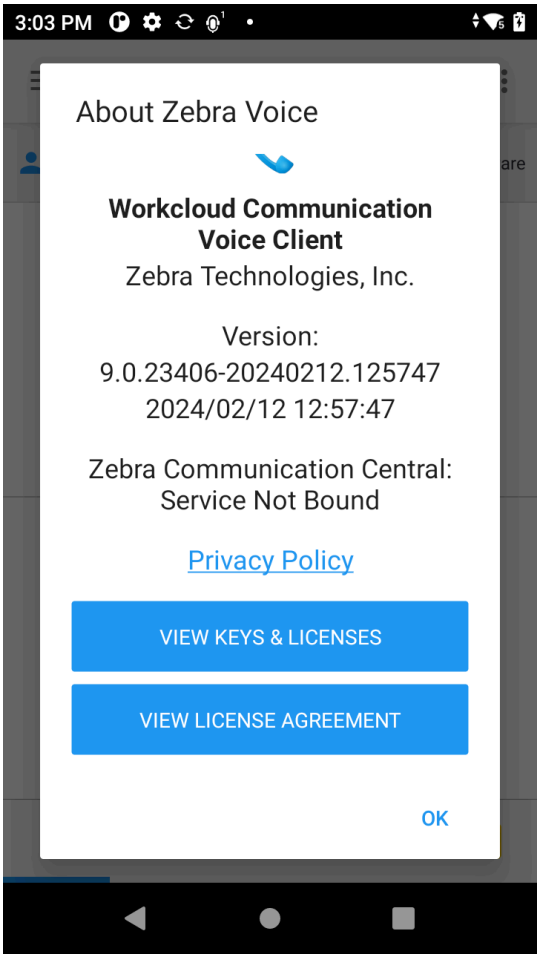
- XML
- Extension Manager Environment
- Profile Manager Environment

XML example of displaying Update License.

```
<WFConnect>
<Profile>
   <show_update_license_button>false</show_update_license_button>
```

```
</Profile>
...
</WFConnect>
```

Setting path: **Voice dashboard** > **Hamburger Menu** > **About**.



Hide or Show via Intent

To show the update license control via intent:

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es
 show_update_license_button "true"
```

To hide the update license control via intent:

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es
 show_update_license_button "false"
```

Configure Zebra Voice

Configure Zebra Voice using the Graphical User Interface (GUI), an MDM, a USB Tether, or Zebra Profile Manager.

NOTE: It is not recommended to install the `WFConnect.xml` file using a USB tether because it can cause permission issues on the device.

Configuring with Zebra Voice GUI

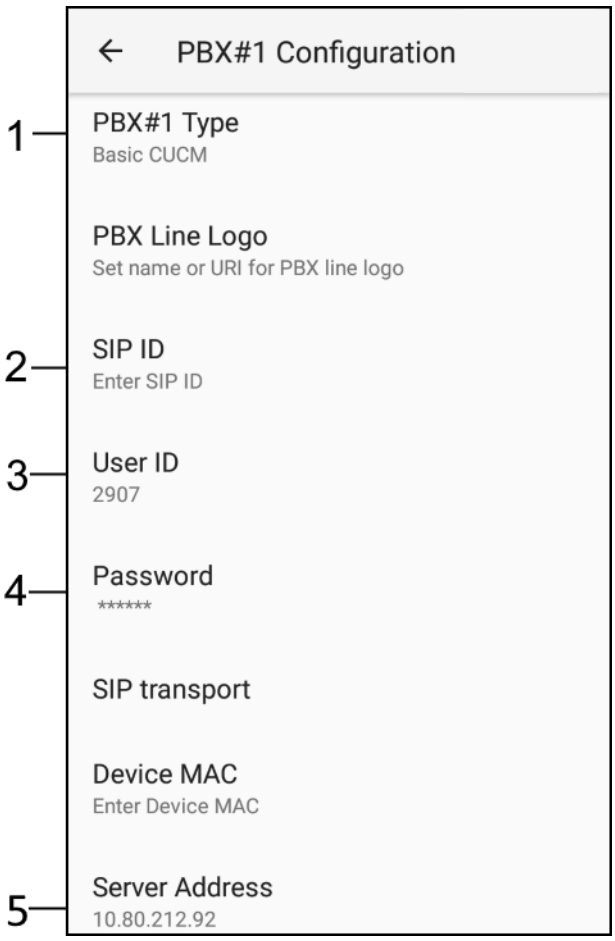
Configure Zebra Voice on the device using the Zebra Voice GUI.

NOTE: For information on optional configuration settings, see XML Tags on page 167.

1. Touch ☰ > **Settings**.
2. Enter the settings password. The default password is: `zamboni`.
3. Touch **Connection Parameters**.
4. Select a PBX configuration. The default configuration is: **PBX#1 Configuration**.

   For information on configuring additional PBX types, see Configuring Multiple PBX Types on page 66.

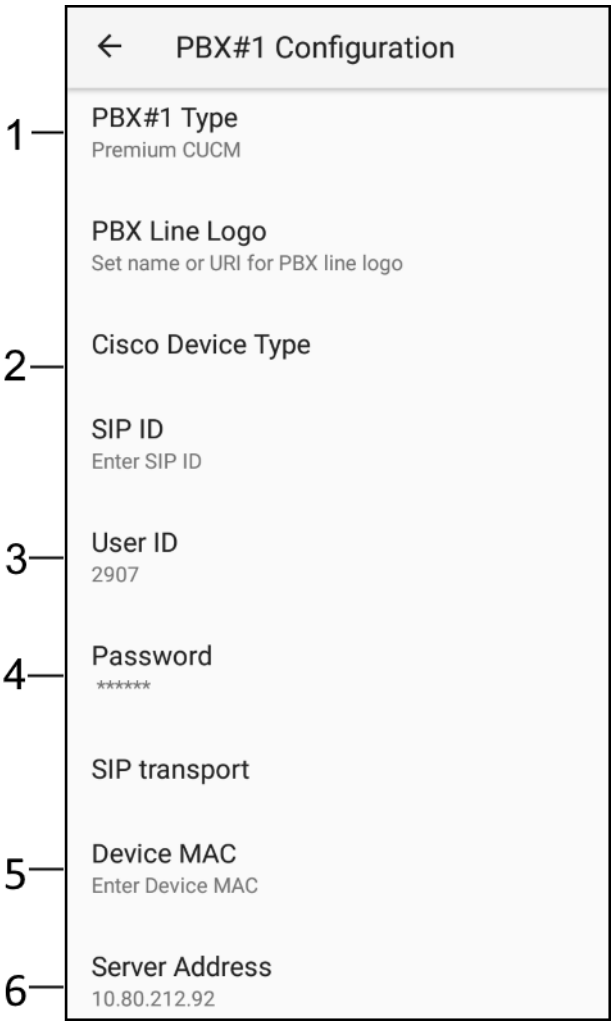
5. Enter the following information for Basic CUCM:
   a) Touch **PBX#1 Type** and select Basic CUCM.
   b) Touch **SIP ID** and enter the `Phone Directory Number`.
   c) Touch **User ID** and enter the `Digest User` (optional).
   d) Touch **Password** and enter the `Digest Password` (optional).
   e) Enter the PBX `Server Address`.



Number	Item
1	PBX Type
2	SIP ID
3	User ID (optional)
4	Password (optional)
5	Server Address

The optional parameters Server Address2 and Server Address 3 are secondary addresses, used if the primary server address is not reachable.

6. Enter the following information for CUCM Premium.
   a) Touch **PBX#1 Type** and select Premium CUCM.
   b) Ensure **Device Type** is Cisco 8865.
   c) In the **User ID** field, enter the Digest User (optional).
   d) In the **Password** field, enter the Digest Password (optional).
   e) Enter the **MAC Address**. See Device Identification on page 51 for more information on MAC addresses.
   f) Enter the PBX **Server Address**.



Number	Item
1	PBX Type
2	CISCO Device Type
3	User ID (optional)
4	Password (optional)
5	MAC Address

Number	Item
6	Server Address

The optional parameters Server Address2 and Server Address 3 are secondary addresses, used if the primary server address is not reachable.

7. Touch the back button three times to return to the Zebra Voice home screen.

A confirmation that the configuration has been saved to `WFConnect.xml` displays.

Configure Using an MDM

Configuring Zebra Voice using an MDM requires a deployment package and the Zebra Voice configuration file. The configuration file `WFConnect.xml` stores all the Zebra Voice configuration parameters, including licensing information, as key and value pairs. For detailed information on the XML configuration file, see Settings on page 61.

Define the licensing information using the following XML tags:

- license_key - For versions of Zebra Voice earlier than 9.0.20306, this contains one or more Zebra Voice activation IDs separated by commas. For Zebra Voice 9.0.20306 or later, this contains the token.

  Activation ID Example:

  ```
  <license_key>abcd-1234-ab12-cd34-5678-efgh-ef56-gh78</license_key>
  ```

  Token Example:

  ```
  <license_key>myToken</license_key>
  ```

- license_source - URL of a license source server (optional). Not used in Zebra Voice 9.0.20306 or later.

  When license_source is not defined, the Zebra Voice Client uses the default license source. Do not change the license_source parameter unless instructed to by Zebra Support.

- license_alias - Identifies the device on the license source. (Optional). Not used in Zebra Voice 9.0.20306 or later.

Configure Using MDM Deployment

During runtime, Zebra Voice listens for `wfc.voice.ACTION_UPDATE_CONFIG` intent. When Zebra Voice receives the intent from an MDM, the configuration file uses `WFConnect.xml` to update the Zebra Voice configuration parameters. Use a single intent to update multiple configuration parameters by including multiple element and value pairs.

For detailed information on MDM deployment, refer to the Workcloud Communication Voice Client 8.x Configuration Guide for Mobile Device Managers.

Configuring with a USB Tether

Use an Android Debug Bridge (ADB) connection to send the `WFConnect.xml` configuration file to the device using a USB tether.

NOTE: because it can cause permission issues on the device.

1. Install the Zebra Voice APK. See Download and Install Board Support Package (BSP) Operating System on page 30.
2. Copy the `WFConnect.xml` file to the WFConnect directory.
3. Open a command prompt and send the following adb command to the device:

```
adb shell am start -a "wfc.voice.ACTION_NEW_CONFIG" --es "profile_uri" "/
WFConnect/WFConnect.xml"
```

Updating a Specific Parameter

- To update a specific parameter in the `WFConnect.xml` configuration file using ADB, open a command prompt and send an ADB command to the device in the following format:

```
$ adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es element value
```

For a list of possible elements and values, see XML Tags on page 167.

Configuring with Zebra Profile Manager

Consider the following when configuring Zebra Voice using the Zebra Profile Manager:

- The Zebra Profile Manager can set or overwrite all settings in the `WFConnect.xml` configuration file.
- Some Zebra Voice settings are grayed out.
- The `layout_location` setting can be used to set an XML button configuration file.

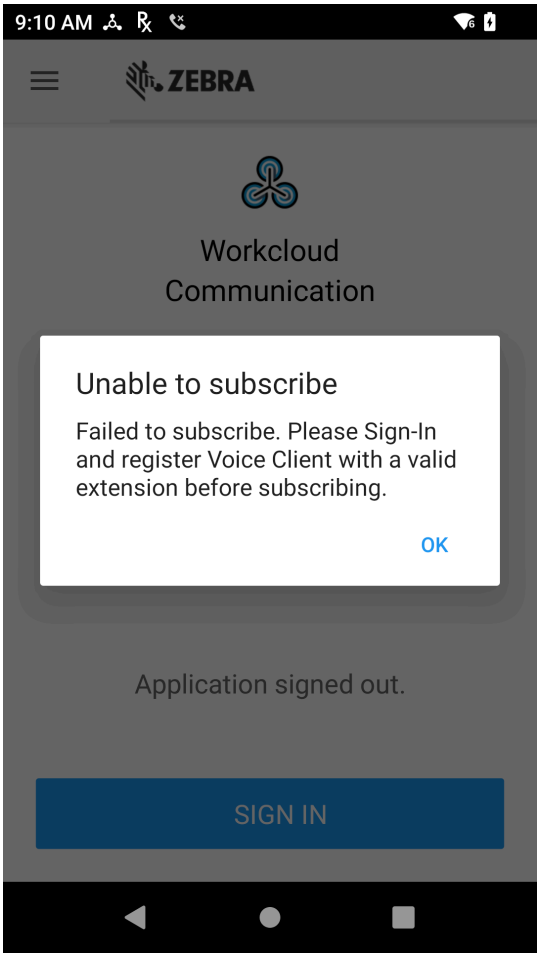
To configure Zebra Voice using Zebra Profile Manager:

- Log in to the Zebra Profile Manager and navigate to Zebra Voice settings.

  Settings available in the Zebra Profile Manager match the parameters in the `WFConnect.xml` configuration file. For a list of XML tags, see XML Tags on page 167.

Subscribe a Department via Intent

For Zebra Voice versions 9.0.242xx and later, when the Zebra Voice Client is signed out and a subscribe Intent is sent, the Voice Client displays the message in the foreground as shown in the following screenshot:



Once you sign in, you must execute the following intent to subscribe:

ADB Command Example

```
adb shell am start -a wfc.voice.SUBSCRIBE --es subscriptions "GAMES"
```

What Headsets Do PTT Pro for Android and Zebra Voice Support?

PTT Pro for Android and Zebra Voice support wired and wireless (Bluetooth) headsets.

IMPORTANT: Bluetooth headsets with a PTT button require that you install Zebra Communication Central. Refer to the Zebra Workcloud Communication Central Installation and Configuration Guide for information about Zebra Communication Central.

Table 1 Headsets Validated with PTT Pro for Android and Zebra Voice.

Model	Wired or Wireless Type	Audio Pass-Through Only	Supports PTT Button	Supports Voice Commands	Headset Type
AINA APTT	Wireless (Bluetooth)	Yes	Yes	No	Bluetooth SPP

Table 1 Headsets Validated with PTT Pro for Android and Zebra Voice. (Continued)

Model	Wired or Wireless Type	Audio Pass-Through Only	Supports PTT Button	Supports Voice Commands	Headset Type
AINA APTT2	Wireless (Bluetooth)	Yes	Yes	No	Bluetooth SPP
Blue Ant Q3	Wireless (Bluetooth)	Yes	No	No	
BluSkye Bluetooth RSM	Wireless (Bluetooth)	Yes	Yes	Yes [a]	Zebra Communication Central
Jabra BlueParrott • Perform 45 • Perform 75 • C300-XT • C400-XT • B350-XT (204260) • B450-XT • B550-XT • B650-XT • S650-XT • M300-XT	Wireless (Bluetooth and Bluetooth Low Energy)	Yes	Yes	Yes	Zebra Communication Central
Jabra BT 2080	Wireless (Bluetooth)	Yes	No	No	
JBL Clip2	Wireless (Bluetooth)	Yes	No	No	
Motorola Elite Silver 2	Wireless (Bluetooth)	Yes	No	No	
Re-Fuel	Wireless (Bluetooth)	Yes	No	No	
Savox BTH-101	Wireless (Bluetooth)	Yes	Yes	No	Bluetooth SPP
Savox BTR-155 (K551051)	Wireless (Bluetooth)	Yes	Yes	No	Bluetooth SPP
Savox RSM-30 Supported on Android 8 and below	Wired	Yes	Yes	No	Two Pulse
VVDN BT Dongle (Model THDC_BTDG_A1)	Wireless (Bluetooth)	Yes	Yes	Yes	Zebra Communication Central
VXi VR11/VR12	Wired	Yes	No	No	None
Zebra ADP-USBC-35MM1-01	Wired USBC to 3.5mm adapter	Yes	Yes	Yes	None
Zebra HDST-USBC-PTT1-01	Wired USB-C	Yes	Yes	Yes	None

Table 1 Headsets Validated with PTT Pro for Android and Zebra Voice. (Continued)

Model	Wired or Wireless Type	Audio Pass-Through Only	Supports PTT Button	Supports Voice Commands	Headset Type
Zebra HDST-35MM-PTT1-01	Wired	Yes	Yes	Yes	None
Zebra HDST-25MM-PTVP-01	Wired	Yes	Yes	Yes	None
Zebra HDST-35MM-PTVP-01	Wired	Yes	Yes	Yes	None
Zebra HS2100	Wired	Yes	No	No	None
Zebra HS3100	Wireless (Bluetooth)	Yes	No	No	None

[a] Zebra Communication Central is required to use voice commands and manage calls with the PTT button.

Dynamic Configuration

The Zebra Voice configuration file defines the operational environment of the SIP client running on Zebra mobile Android devices. It has various elements that define the network location of the PBX and, for each device, unique operational aspects affecting the user experience. Creating this file manually and distributing this file for each device on an enterprise-wide scale introduces significant administrative overhead.

Dynamic configuration:

- Reduces the administrative effort of preparing Zebra Voice for enterprise operation.
- Provides a flexible delivery environment for the customized configuration.
- Provides a method for shared device use without manually reloading the configuration.
- Provides backward compatibility for existing customers.

Rather than manually creating a unique configuration for each device, this approach dynamically configures Zebra Voice using an XML variable file. File delivery can be manual, by an MDM, or automatic through existing network services.

Dynamic Configuration Overview

Properly configuring the following elements allows Zebra Voice to register to the PBX.

- Providing a new XML tag that triggers dynamic configuration.
- Building a multi-user variable file to build user-specific configurations for Zebra Voice.
- Re-synchronizing Zebra Voice with the variable file regularly.
- Using DHCP resources to provide auto installation for the file.

General Device Use Cases

Typical use cases where dynamic configuration may be useful.

- A unique user is typically a supervisor or manager with a device with a more advanced feature set that is not shared with any other user. This extension may be shared with that person’s desk phone.
- A shared device is typically for line workers or department staff that use a phone representing a functional area, as opposed to a specific person. The device has a basic feature and may also be uniform, sharing common elements (e.g.; button configurations) across all shared devices.

Device Start-Up

How Zebra Voice obtains the suitable runtime configuration:

- Initialized out-of-the-box configuration (no configuration)
- A rebooted device previously configured
- A device reassigned to a new extension/user
- After the device reboots, the Voice Client automatically comes to the foreground on Android devices running A14 or later. This feature is supported from Voice Client V9.0.25103 or later.

Device Identification

This section describes how the system identifies each mobile device.

The Cisco environment identifies each mobile device by a unique MAC address. This can be the literal interpretation of the mobile device MAC address or a pseudo-MAC character string.

- Literal MAC - Using an Android API, the Zebra Voice Client interrogates and inserts the mobile device's MAC address into the Zebra Voice Client configuration. Replacing the mobile device requires the Administrator to modify the configuration. The replacement device then has the same configuration as the previous device.
- Pseudo MAC - The 12-character MAC string is a simple unit identifier in the PBX. The device can be replaced without Administration intervention. The pseudo-MAC does not represent the actual device MAC address. To place a replacement device into service, set the Zebra XML configuration to match the existing string defined in the PBX.

For more information about Zebra and Non-Zebra device identification mechanisms, refer to Device IDs in the Zebra Ecosystem section of the Workcloud Communication Provisioning Manager Customer Administrator Guide.

Profile Configuration

For Zebra Voice to connect to a PBX, the Profile section of the `WFConnect.xml` file must contain XML tags that the device uses.

The Profile XML tags are used to:

- Establish a link to the PBX
- Identify itself to the PBX
- Retrieve the correct privileges and settings.

NOTE: Any Zebra Voice configuration file element can be replaced with a variable.

Connection Attributes

The profile section requires:

- An IP address in the sip_remhost field to target the appropriate PBX.
- A literal or pseudo-MAC address in the sip_mac field to identify the device to the PBX.

NOTE: If the MAC address is left blank the device uses the device's physical MAC address.

When using a pseudo MAC address, the PBX device configuration remains static and the MAC address of the device is changed to match the desired profile. The field can be populated with a 12-character hex string resembling a MAC address.

The sip_userid and sip_userpass provide access to the PBX as shown in the following example:

```
<Profile>
   ...
   <profile_type>CUCM</profile_type>
   <display>true</display>
   <profname>CUCM-2808</profname>
   <prof_password></prof_password>
   <sip_userid>2808</sip_userid>
   <sip_userpass>123456</sip_userpass>
   <prof_description>Test-2808</prof_description>
   <sip_mac></sip_mac>
   <sip_remhost>10.80.212.44</sip_remhost>
   ...
</Profile>
```

Enable Using Dynamic Configuration

Information on enabling dynamic configuration and working with the `wfcvariable.xml` file.

Enabling Dynamic Configuration

The var_location tag enables dynamic configuration and reduces the entire profile section of the `WFConnect.xml` file to one line.

```
<WFConnect>
<Profile>
   <var_location>file:///WFConnect/wfcvariable.xml</var_location>
</Profile>
```

NOTE: location is for demonstration purposes. The actual file location may vary.

You can also set var_location in the Zebra Voice Client by going to ☰ > **Settings** > **Shared Profiles URI**.

When Zebra Voice initializes and parses the XML file, this tag instructs the device to retrieve the wfcvariable.xml file from the stated location. The location can be:

- A local file on the mobile device
  - Provisioned by an MDM
  - Side loaded manually
- A URL

wfcvariable.xml File

This file collects and organizes XML tags to populate the run-time WFConnect.xml file. Tags that are not declared use default values. The Users tag supports and organizes multiple users. The users' section is displayed as a list on the Zebra Voice sign-in screen. When the display tag for an entry is set to true, users can select a profile from the list.

When the display tag is false, the profname and prof_password tags are used. These tags are used for user authentication when selecting a hidden profile for a dedicated user. For a shared extension, these tags are rarely used.

Users can each be a complete and unique configuration, or they can re-use components, such as the following buttons example.

```
<Users>
   <Entry>
   <profile_type>CUCM</profile_type>
      <display>false</display>
      <profname>Manager</profname>
      <prof_password>abc123</prof_password>
      <dept>Mgmt-1</dept>
      <sip_mac>aaaabbbbccc1</sip_mac>
      <sip_remhost>192.168.10.50</sip_remhost>
      <layout_location>file:///WFConnect/buttons_1001.xml</layout_location>
   </Entry>
   <Entry>
      <profile_type>CUCM</profile_type>
      <display>true</display>
      <profname>1002</profname>
      <dept>Pharmacy</dept>
      <sip_mac>aaaabbbbccc2</sip_mac>
      <sip_remhost>192.168.10.50</sip_remhost>
      <layout_location>file:///WFConnect/buttons_1002.xml</layout_location>1
   </Entry>
   <Entry>
      <profile_type>CUCM</profile_type>
      <display>true</display>
      <profname>1003</profname>
      <dept>Grocery</dept>
      <sip_mac>aaaabbbbccc3</sip_mac>
      <sip_remhost>192.168.10.50</sip_remhost>
      <layout_location>file:///WFConnect/buttons_1002.xml</layout_location>
   </Entry>
   <Entry>
      <profile_type>CUCM</profile_type>
      <display>false</display>
      <profname>1050</profname>
      <prof_password>jsz935</prof_password>
      <dept>GM</dept>
      <sip_remhost>192.168.10.49</sip_remhost>
      <sip_userid>George</sip_userid>
      <sip_userpass>xyz123</sip_userpass>
      <layout_location>http://user.server/wfcbutton4.xml</layout_location>
   </Entry>
```

```
</Users>
```

XML File Location

The previous example shows the `wfcvariable.xml` variable file resident on the device. The variable file can also reside on a centrally accessible server that the client can access. This provides service to all devices in the enterprise and central administrative control.

The var_location element specifies whether Zebra Voice looks for the XML file on the device (a local file) or at a network location, for example:

- Local - `file:///WFConnect/wfcvariable.xml`
- HTTP - `http://10.5.90.10/wfcvariable.xml`
- HTTPS - `https://10.5.90.10/wfcvariable.xml`
- TFTP - `tftp://10.5.90.10/wfcvariable.xml`

This provides options for deploying the configuration files. For example, an enterprise using an MDM may supply both the Profile section and the variable file to the device and have a central location for the variable file.

DHCP Option 150

Zebra Voice also supports DHCP Option 150 for retrieving the `wfcvariable.xml file`. If the var_location tag is not specified in the `WFConnect.xml` configuration, the client attempts to download the `wfcvariable.xml` file from the TFTP server specified in the Option 150 string.

Configuration Resynchronization

Synchronizing dynamic configuration ensures that devices always have the most current configuration available from the network server or MDM.

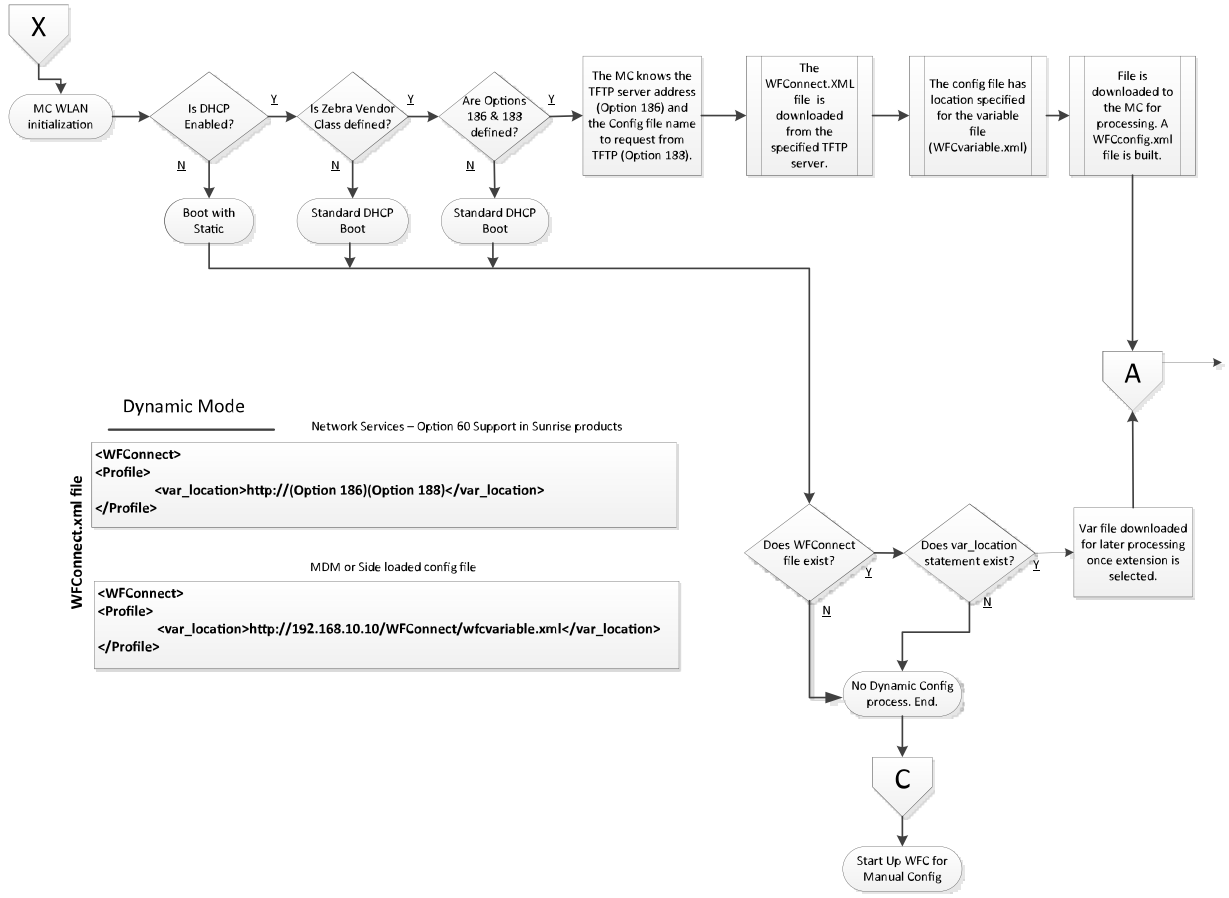
For example, when a user logs in to an extension, the configuration files may change. The new configuration files are available when the user logs off from the current session, and the Zebra service re-processes the variable files.

NOTE: The system administrator must ensure that updates are posted to the correct location available to Zebra Voice.

Dynamic Configuration Start-Up - Server Side

This section describes the steps Zebra Voice follows on the server side to download dynamic configuration during initialization.

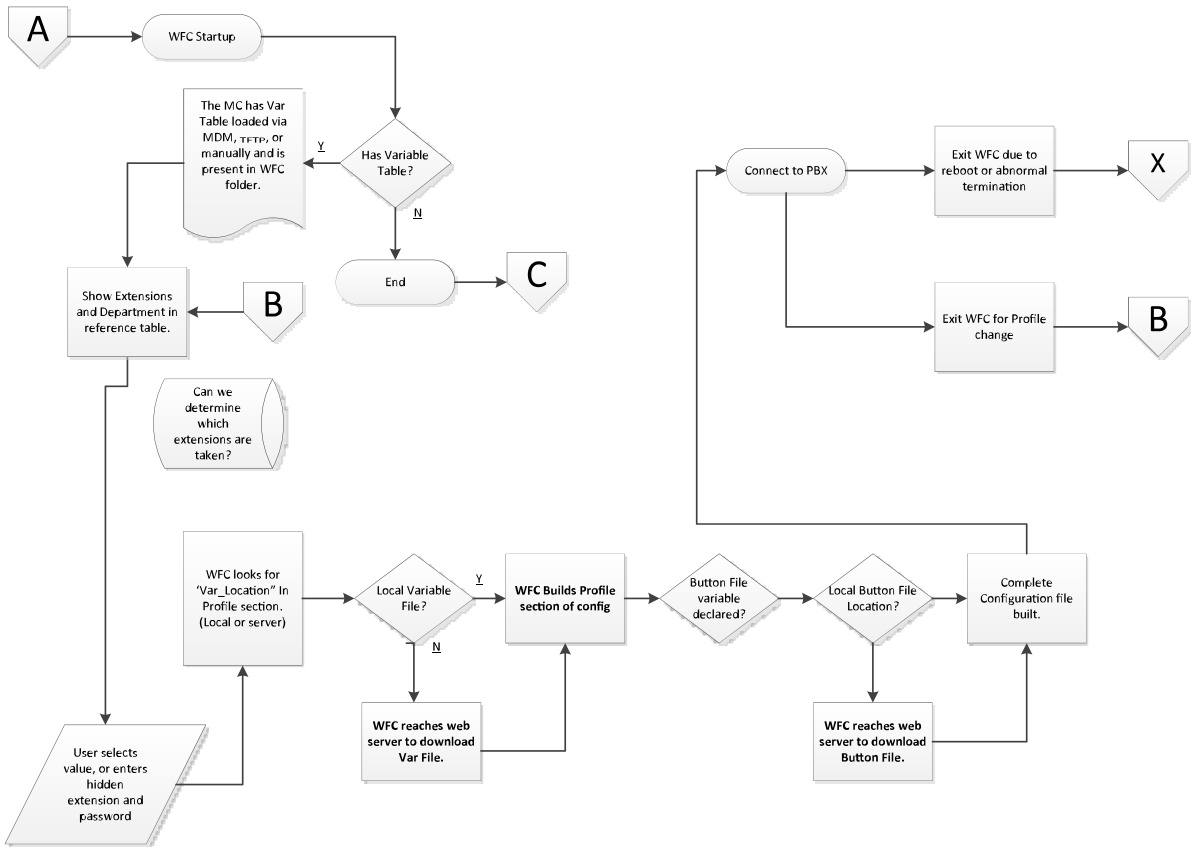
Figure 2 Dynamic Configuration Start-Up Process



Dynamic Configuration Start-Up - Client Side

This section describes the steps Zebra Voice follows on the client side to download dynamic configuration during initialization.

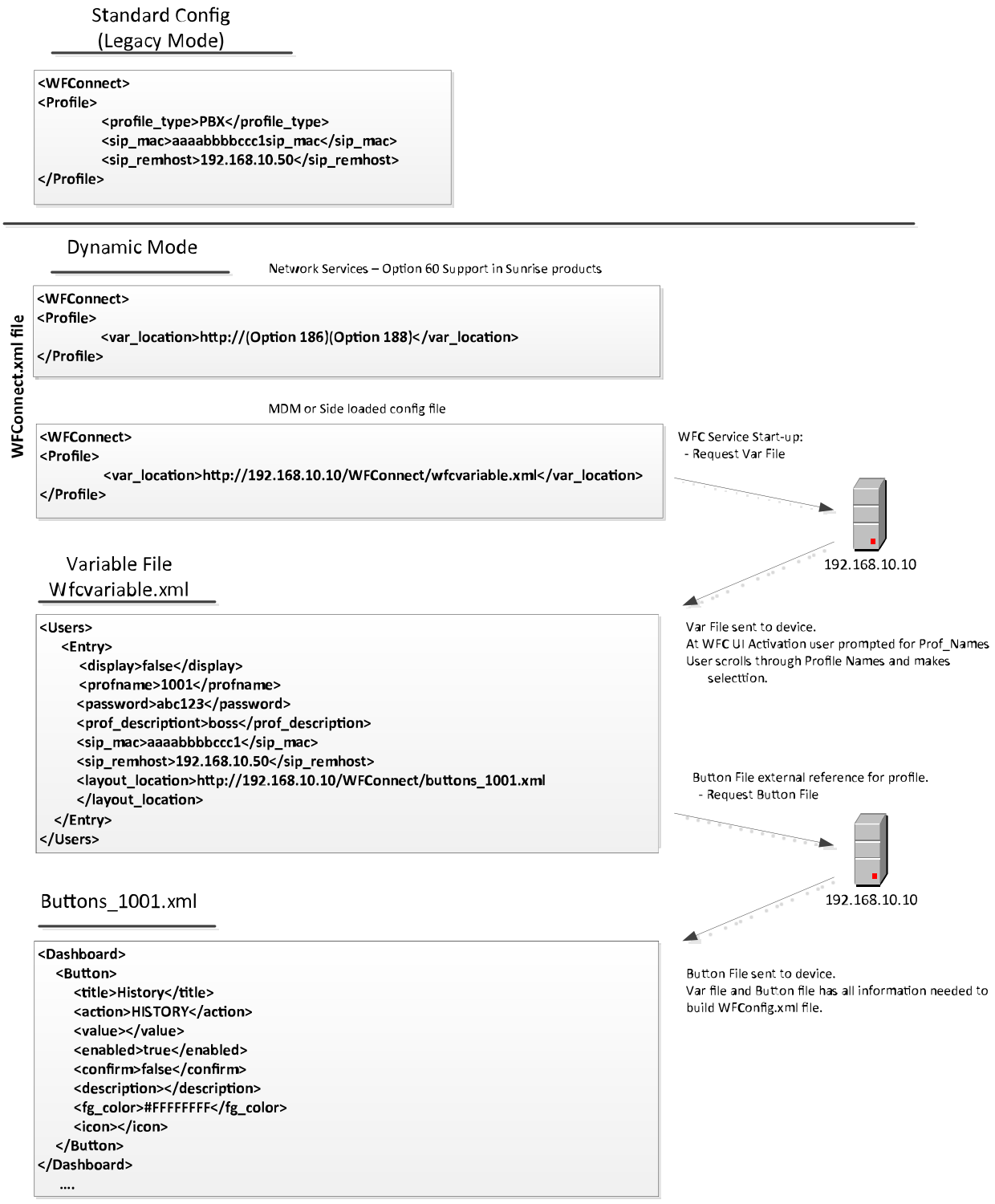
Figure 3 Dynamic Configuration Start-Up Process - Continued



XML File Examples

This section describes the standard profile and how Zebra Voice can retrieve a Dynamic Workcloud Configuration XML file. Options include local XML and TFTP downloaded XML configuration.

Figure 4 XML Files Example



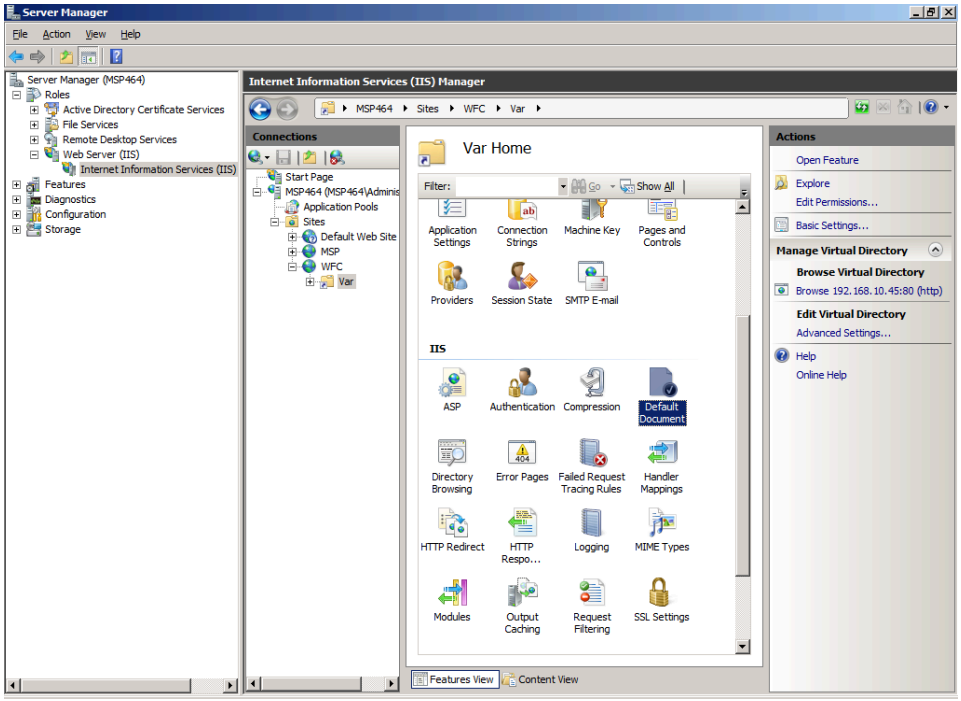
Testing Remote Dynamic Configuration

A test environment can use any remote server supporting web services.

To set up a lab system:

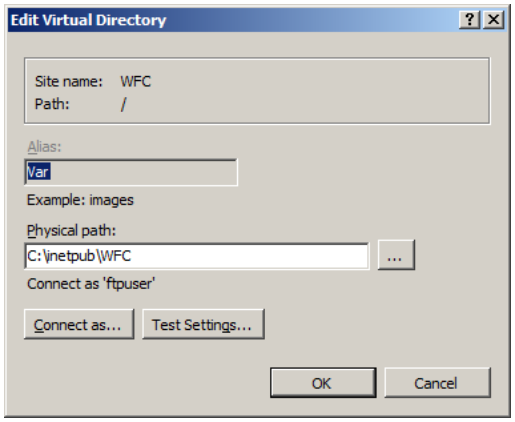
1. Ensure the server is running IIS to support Web services.
2. Establish a Zebra Voice website.
3. Create the website and add a virtual folder.
4. Open the Default Documents properties.

Figure 5 Server Manager



5. Set the folder for the Zebra Voice configuration file repository.

Figure 6 Edit Virtual Directory



6. Test the settings to verify the system and the default user can access the files.
7. To test the accessibility of the files, point your browser to the web site.
8. After determining access to the files, modify the XML files accordingly:
   a) An example of remote access in `WFConnect.xml` is:

```
<Profile>
   <var_location>http://192.168.10.45/var/wfcvariable.xml
   </var_location>
</Profile>
```

   b) An example of remote access in the `wfcvariable.xml` is:

```
<layout_location>http://192.168.10.45/var/buttons_5002.xml
                              </layout_location>
```

A remote server allows consistency of delivery to the remote device. Logging on and off the device synchronizes changes to the device. Each login retrieves the existing XML file targeted for that device.

Settings

Use Zebra Voice settings to configure and customize Zebra Voice.

Accessing Settings

Access Zebra Voice settings from the menu.

1. Launch **Zebra Voice**.
   - Touch ☰.
   - Or, swipe right from the left side of the screen.
2. Touch **Settings**.

   The password dialog box appears.
3. Enter a password (default: zamboni).
4. Touch **Enter**. The password is preserved until the app quits.

Exit, Reload, or Sign Out

Exit, reload, or sign out of Zebra Voice using the Zebra Voice UI.

Exiting Zebra Voice

Exit Zebra Voice from inside the app or using ADB, an MDM, or a third-party app.

- Choose one of the following methods for exiting the Zebra Voice app.
  - Go to **Settings** >**Stop Service** > **Yes**.
  - Initiate the action using ADB, an MDM, or a third-party app.

Reloading Zebra Voice

Reload Zebra Voice through the GUI, ADB, an MDM, or a third-party app.

- Choose one of the following methods for reloading the Zebra Voice app.
  - Touch ☰ > **Reload**.
  - Initiate the action using ADB, an MDM, or a third-party app.

Signing Out of Zebra Voice

Sign Out of Zebra Voice from inside the app or using ADB, an MDM, or a third-party app. This option is unavailable when using Profile Manager or Extension Manager to manage Zebra Voice.

- Choose one of the following methods for signing out of the Zebra Voice app.
  - Touch ☰ > **Sign Out**.
  - Initiate the action using ADB, an MDM, or a third-party app.

Disabling Sign Out

Configure the **Sign Out** option using XML or Extension Manager. This option is not available when using Profile Manager to manage Zebra Voice.

NOTE: The **Sign Out** option is enabled by default.

- Disable the **Sign Out** option by setting the `disable_menu_sign_out` parameter to `true` in the XML configuration file.

  If the `disable_menu_sign_out` parameter is not set or set to `false`, the **Sign Out** option is available from the three-line menu.

  If the `disable_menu_sign_out` parameter is set to `true`, the **Sign Out** option is not available from the three-line menu.

XML example of Disable Menu Sign Out.

```
<WFConnect>
<Profile>
   <disable_menu_sign_out>true</disable_menu_sign_out>
</Profile>
...
</WFConnect>
```

Profile Settings

Creating, editing, loading and saving a settings profile.

The Zebra Voice profile is an XML file that contains all the settings for the current Zebra Voice session.

Creating a Profile

When saving a new profile, a new XML file is created in the WFConnect folder.

1. Go to **Settings**.
2. Touch the menu button, then **Create new profile**.
3. Touch **Save current profile**.
4. Enter a file name for the new profile.
5. Touch **Save**. The file is saved in the WFConnect folder.

6. Touch the **Back** button to return to the Zebra Voice home screen.

Changing a Profile Name

Change the name of the current profile.

1. Go to **Settings**.
2. Touch **Profile name**.
3. Enter a file name for the new profile.
4. Touch **OK**. The file name in the WFConnect folder is updated.
5. Touch the **Back** button to return to the Zebra Voice home screen.

Setting the Shared Profiles URI

Set the URI of a shared profile on a remote or local server.

1. Copy the profile from the WFConnect folder using a USB tether.
2. Move the profile to a remote or local server.

   Supported protocols are file, http, https, and tftp.
3. From Zebra Voice, go to **Settings**.
4. Touch **Shared Profiles URI**.
5. Enter the URI of the shared profile.
6. Touch **OK**.
7. Touch the **Back** button to return to the Zebra Voice home screen.

Shared Profiles URI is tagged as var_location in the XML configuration file.

```
<WFConnect>
<Profile>
   <var_location>file:///WFConnect/wfcvariable.xml</var_location>
</Profile>
```

Load New Profile

For Zebra Voice versions 9.0.213xx and later, profiles are saved to the device in `/enterprise/device/settings/WFConnect/`. Devices running earlier versions of Android can load profiles previously saved to the WFConnect folder or the SD card.

Loading a New Profile Using the GUI

Load a new profile using the Zebra Voice Graphical User Interface (GUI).

1. Go to **Settings**.
2. Touch **Load new profile**. The **Select Profile File** dialog box appears.
3. Select a profile file name.
4. Touch the **Back** button or **Refresh** button to load a new profile.

Loading a New Profile Using XML

Load a new profile using the XML configuration file.

- Update the Profile tag in the XML configuration file.

```
<WFConnect>
<Profile>
   <profname>WFConnect.xml</profname>
</Profile>
```

Loading a Profile Using ADB Commands

Load a profile using an Android Debug Bridge (ADB) connection.

- Open a command prompt and send the following ADB command to the device:

```
$ adb shell am start -a wfc.voice.ACTION_NEW_CONFIG --es profile_uri
 <configuration_file>
```

Where `<configuration_file>` is the URI of the new XML configuration file.

Save Current Profile

to replace an existing XML file.

1. Go to **Settings**.
2. Touch **Save current profile**. The current profile name appears.
3. Touch **Save**. The file is saved in the WFConnect folder.
4. Touch the **Publish to Extension Manager** option to save the current profile to the Extension Manager.
5. Provide the Extension Manager Administrator username and password and then touch **Save** to publish the current profile to the Extension Manager.

   The saved profile is found under the Profiles section in Extension Manager.
6. Touch the **Back** button to return to the Zebra Voice home screen.

Edit a Profile Using XML

To edit a saved profile using XML, copy the new profile from the WFConnect folder using a USB tether.

VPN Settings

Voice Client supports the VPN environment through the value defined in the VPN configuration variable as shown below:

- 0 - VPN Preferred
- 1 - Use VPN Only

The settings can be configured using the Extension Manager or XML, and the XML example of setting VPN configuration follows:

```
<WFConnect>
     ...
      <Profile>
          <vpn_configuration>0</vpn_configuration>
      </Profile>
      ...
</WFConnect>
```

NOTE: Active call session is ended whenever there is a change in the VPN connection state.

Configuring VPN Preferred

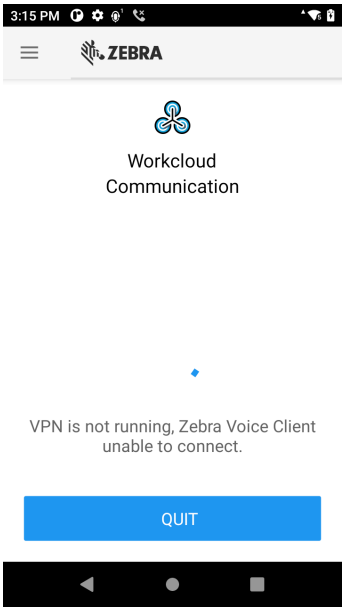
When Voice Client starts and VPN is not connected, the variable vpn_configuration is either not set or set to 0. The Voice Client launches the app and routes everything through the Wi-Fi network if the VPN is disconnected.

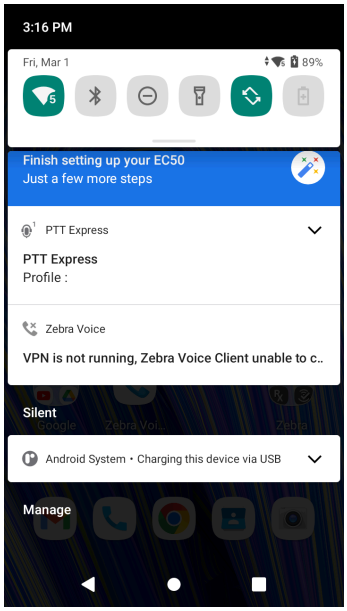
The Voice Client constantly monitors the VPN status. If VPN is connected, Voice Client re-routes everything through the VPN network, and If VPN is disconnected, Voice Client re-routes everything through the Wi-Fi network.

Configuring VPN Usage Only

When vpn_configuration is set to 1, the Voice Client routes everything via the VPN network. The important points related to VPN usage only follow:

- If the VPN is in a disconnected state and the Voice Client is brought to the foreground, the Voice Client notifies in the notification bar, and the message is displayed as shown in the screenshots below:





- Voice Client cannot be used if the VPN is in a disconnected state.

- When the VPN is in a connected state and if the Voice Client was already loaded with the profile and registered with the PBX:
  - In such cases, the Voice Client is de-registered with the PBX whenever the VPN is disconnected.
- The Voice Client always monitors the VPN status.
- Depending on the configuration provided at the Voice Client and Extension Manager end, Voice Client is registered or re-registered with the PBX when the VPN has connected.

Connection Parameters

Configuring up to four PBX types.

Users can make and receive a call using any configured PBX type. This section describes configuring up to three additional PBX types using the Zebra Voice GUI or WFConnect.xml file.

To configure the default PBX (PBX#1 Configuration) see Configure Zebra Voice on page 42.

Configuring Multiple PBX Types

Set the configuration parameters for additional PBX types using the GUI or XML.

IMPORTANT: When configuring multiple PBXs, ensure the server IP address and credentials point to the correct PBX call server as indicated by the profile type. For example, the CUCM profile must be configured with the IP address and credentials of a CUCM call manager.

In the GUI, PBXs are referred to as PBX Type, while in the XML, they are tagged as <profile_type>.

1. Go to **Settings**.
2. Touch **Connection Parameters**.
3. Touch **PBX#2 Configuration**.
4. Touch **PBX#2 Type**.
5. Select the PBX type that is the same as the target PBX call server.
6. Enter the configuration information.

   Refer to the Getting Started chapter of the Zebra Voice Client Administrator Guide for the desired PBX type.
7. Touch the **Back** button to return to the Connection Parameters screen.
8. Repeat steps 5 through 7 for up to two more PBX types (optional).
9. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring multiple PBX types.

```
<WFConnect>
<Profile>
   <profile_type>Licensed PBX One</profile_type>
   <sip_userid>1001</sip_userid>
   <sip_userpass>1234</sip_userpass>
   <sip_localport>5060</sip_localport>
   <sip_remhost>10.5.97.99</sip_remhost>
   <sip_remport>5060</sip_remport>
```

```
   <sip_transport>UDP</sip_transport>
   <sip_realm>10.16.2.111</sip_realm>
   <profile2_type>Licensed PBX Two
   </profile2_type>
   <sip2_userid>1002</sip2_userid>
   <sip2_userpass>1234</sip2_userpass>
   <sip2_device_type>8865</sip2_device_type>
   <sip2_mac>00-11-22-33-44-55</sip2_mac>
   <sip2_localport>5060</sip2_localport>
   <sip2_remhost>10.5.97.99</sip2_remhost>
   <sip2_remport>5060</sip2_remport>
   <sip2_transport>UDP</sip2_transport>
   <sip2_realm>10.16.2.111</sip2_realm>
</Profile>
...
</WFConnect>
```

Color Theme

Choose a theme to select a custom color scheme for the Zebra Voice Client header, buttons, and other UI elements.

Choosing a Theme

Choose a theme using the GUI, XML, Extension Manager, or Profile Manager.

NOTE: Available in Zebra Voice 9.0.214xx or later.

1. In Settings, select **Choose Theme**.
2. Select a color using one of the following methods.
   - Touch a color on the color wheel.
   - Touch the hexadecimal digits to manually enter a value in Alpha Red Green Blue (ARGB) format. For example, #FFFFFFFF is the color white.

NOTE: Make sure to prefix # in the Hex color. For example, If you have RGB color, write as #FF.

   - Touch **DEFAULT** to return to the default theme.
3. Touch **SET**.

The theme changes to the chosen color. Depending on how light or dark the theme color is, the color of some text and icons may also change.

XML example of choosing a theme.

```
<WFConnect>
<Profile>
   <base_theme>#FFFF0059</base_theme>
</Profile>
...
```

```
</WFConnect>
```

Audio Settings

Configuring advanced audio settings.

CAUTION: Changing the default audio settings may have adverse results. Do not modify these settings unless directed to do so by Zebra Technical Support.

This section provides detailed information on configuring advanced audio settings. Use the Zebra Voice GUI or WFConnect.xml file to customize the Profile section. Both methods are discussed with each Function description.

Accessing Audio Settings

Access the advanced audio settings.

1. Go to **Settings**.
2. Touch **Advanced Settings** > **Audio Settings**.

Audio Codecs Priorities

Available audio Codecs priorities.

NOTE: Only select audio Codecs available in the PBX.

Field Type	Description	XML
OPUS	When selected, assigns preference priority for OPUS Voice codec negotiations between PBX and Zebra Voice.	`<codec_opus_priority>1 </codec_opus_priority>`
G.711 u-Law	When selected, assigns preference priority for G.711 u-LAW Voice codec negotiations between PBX and Zebra Voice.	`<codec_ulaw_priority>2 </codec_ulaw_priority>`
G.711 A-Law	When selected, assigns preference priority for G.711 A-Law Voice codec negotiations between PBX and Zebra Voice.	`<codec_alaw_priority>3 </codec_alaw_priority>`
G.722	When selected, assigns preference priority for G.722 Voice codec negotiations between PBX and Zebra Voice.	`<codec_g722_priority>4 </codec_g722_priority>`
G.729	When selected, assigns preference priority for G.729 Voice codec negotiations between PBX and Zebra Voice.	`<codec_g729_priority>5 </codec_g729_priority>`

Field Type	Description	XML
GSM	When selected, assigns preference priority for GSM Voice codec negotiations between PBX and Zebra Voice.	`<codec_gsm_priority>6 </codec_gsm_priority>`
L16	When selected, assigns preference priority for L16 Voice codec negotiations between PBX and Zebra Voice.	`<codec_l16_priority>7 </ codec_l16_priority>`
L16_32	When selected, assigns preference priority for L16_32 Voice codec negotiations between PBX and Zebra Voice.	`<codec_l16_32_priority>8 </codec_l16_32_priority>`

Setting Audio Codecs Priorities

Set the audio Codecs priorities using the GUI or XML.

1. In **Audio Settings**, select **Audio Codecs Priorities**.
2. Select the Codec preference (default order preferred). See table for descriptions.
3. Touch **Back** button to return to the Zebra Voice Home screen.

XML example of setting the audio Codecs priorities.

```
<WFConnect>
<Profile>
   <codec_ulaw_priority>1</codec_ulaw_priority>
</Profile>
...
</WFConnect>
```

Jitter Buffer

Setting Jitter Buffer initial delay and maximum size settings.

Setting Jitter Initial Delay

Set the Jitter Initial Delay using the GUI or XML.

1. In **Audio Settings**, slide the **Jitter Initial Delay** slider (default 60 msec).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting the Jitter Initial Delay.

```
<WFConnect>
<Profile>
   <jitter_min>60</jitter_min>
</Profile>
```

```
...
</WFConnect>
```

Setting Jitter Buffer Max Buffer Size

Set the maximum Jitter Buffer size using the GUI or XML.

1. In **Audio Settings**, slide the **Jitter Buffer Size** slider (default 250 msec).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting the maximum Jitter Buffer size.

```
<WFConnect>
<Profile>
   <jitter_max>250</jitter_max>
</Profile>
...
</WFConnect>
```

RTP Parameters

Set the RTP payload size, first port, and last port.

Setting Real-Time Transport Protocol (RTP) Parameters - Payload Size

Set the RTP Payload size using the GUI or XML.

1. In **Audio Settings**, select **RTP payload size**.
2. Select the **RTP payload size** from the dialog box (default 20 ms).
3. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of RTP Payload size.

```
<WFConnect>
<Profile>
   <sip_rtp_ptime>20</sip_rtp_ptime>
</Profile>
...
</WFConnect>
```

Setting First Real-Time Transport Protocol (RTP) Port

Set the First RTP Port using the GUI or XML.

1. In **Audio Settings**, select **First RTP port**.
2. Enter the `First RTP port number`(default 50000).
3. Select **OK**.
4. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of First RTP Port.

```
<WFConnect>
<Profile>
   <sip_rtp_port1>50000</sip_rtp_port1>
</Profile>
...
</WFConnect>
```

Setting Last Real-Time Transport Protocol (RTP) Port

Select the Last RTP Port using the GUI or XML.

1. In **Audio Settings**, select **Last RTP Port**.
2. Enter the `Last RTP port` number (default 50025).
3. Select **OK**.
4. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of Last RTP Port.

```
<WFConnect>
<Profile>
   <sip_rtp_port2>50025</sip_rtp_port2>
</Profile>
...
</WFConnect>
```

Setting Secure Real-Time Protocol for Standard Client

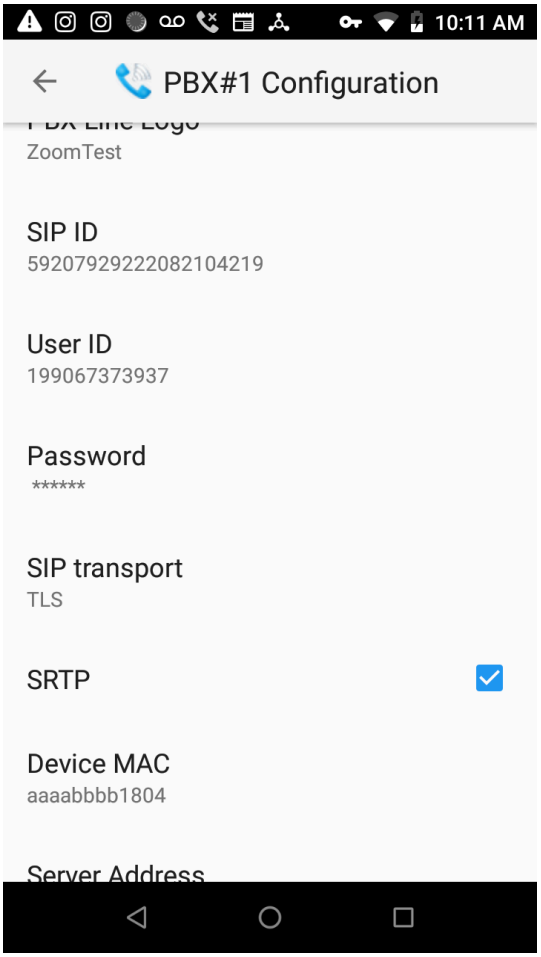
Secure Real-Time Protocol (SRTP) the Voice Client uses to secure ongoing calls. SRTP is used to secure the audio packet transmission during the ongoing call session. Voice Client has introduced a new setting/parameter inside the Voice Client: SRTP.

SRTP Configuration

SRTP is configured using Voice Client, Extension Manager, Provisioning Manager, and Profile Manager.

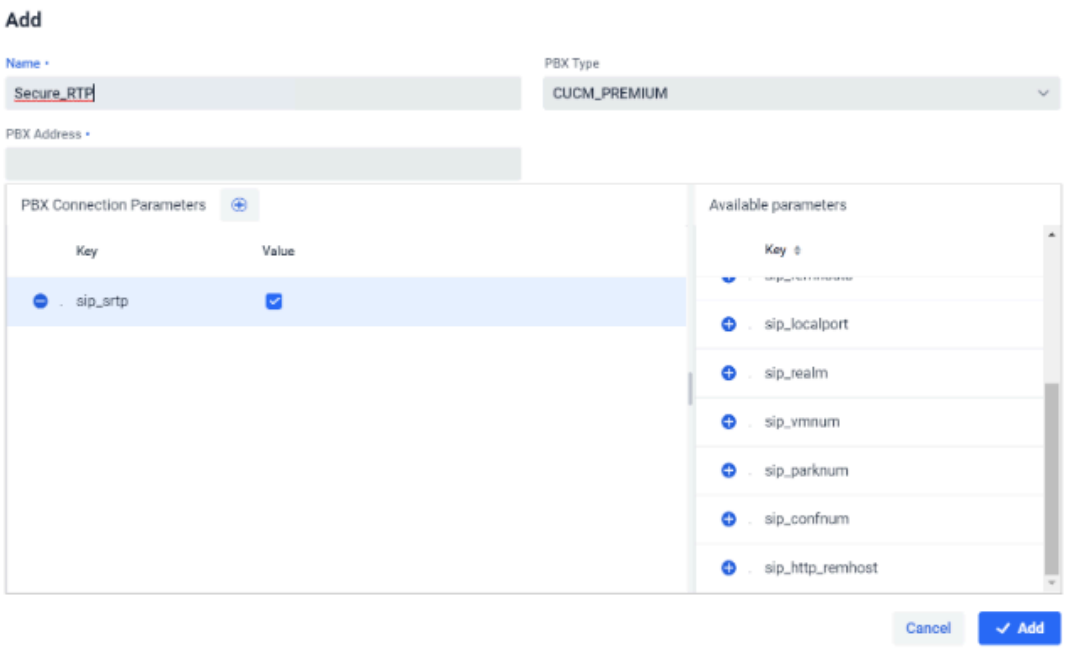
SRTP Configuration in Voice Client

- Select **Settings** > **Connection Parameters** > **PBX Configuration** > **SRTP**.



SRTP Configuration from Extension Manager

SRTP can also be configured from the EXM by setting `sip_srtp` params from the EXM portal by navigating to **Configuration** > **PBXes**.



Similarly, the SRTP can be configured from the Provisioning Manager and Profile Manager environment.

Possible Values of SRTP

- sip_srtp: if the value checkbox is checked (true), the audio packets are encrypted before sending from one end to another end during the ongoing call session.
- sip_srtp: if the value checkbox is unchecked (false), the audio packets are not encrypted before sending from one end to another end during the ongoing call session.

XML Example of SRTP Configuration

```
<WFConnect>
     ...
      <Profile>
          <sip_srtp>true</sip_srtp>
      </Profile>

      <Profile>
          <sip2_srtp>true</sip2_srtp>
      </Profile>

      <Profile>
          <sip3_srtp>true</sip3_srtp>
      </Profile>

      <Profile>
          <sip4_srtp>true</sip4_srtp>
      </Profile>
      ...
</WFConnect>
```

Configuration Scenarios for Voice Client and PBX Server

The following table depicts the behavior of different scenarios depending on the setting applied inside the Voice Client and PBX Server with reference to SRTP.

Scenarios	Device A	PBX Server	Device B	Result
When SRTP Disabled	No	No	No	The call session continues till it is not ended.
	No	No	Yes	The call session should be ended and should not be continued.
	Yes	No	No	The call session should be ended and should not be continued.
	Yes	No	Yes	The call session should be ended and should not be continued.
When SRTP enabled	No	Yes	No	The call session continues if the PBX server allows both SRTP and RTP. The call session ends if the PBX server only allows SRTP.
	No	Yes	No	The call session continues if the PBX server allows both SRTP and RTP. The call session ends if the PBX server only allows SRTP.
	Yes	Yes	No	The call session continues if the PBX server allows both SRTP and RTP. The call session ends if the PBX server only allows SRTP.
	Yes	Yes	Yes	The call session continues only if the PBX server allows SRTP.

UI Settings

Controlling the appearance and functionality of Zebra Voice.

Use the GUI to configure the User Interface. Settings made in the GUI are saved to the XML file. The GUI settings and the XML file drive the Zebra Voice look and functionality. Alternatively, edit the XML file, `WFConnect.xml` to make the same GUI settings. The saved `WFConnect.xml` file can be modified and used to configure other devices.

The `WFConnect.xml` file must be stored on the device in the WFCconnect folder. The application uses the default parameter values if this file does not exist. The Zebra Voice XML configuration file has the following sections, which must be present in the file and the following order:

- Profile section
- Dashboard section
- Call buttons section.

IMPORTANT: All these sections must be present in the XML file, and they must be in the order listed above.

Accessing UI Settings

Access UI settings from the Zebra Voice app.

1. Go to **Settings**.
2. Touch **Advanced Settings** > **UI Settings**.

Configuring File Sections

This section includes descriptions of the different parts of the Zebra Voice GUI.

Profile Section

The Profile section contains all the global settings.

This section only requires a few basic items to begin using the Zebra Voice on a PBX.

- SIP (Literal or Pseudo) MAC Address <sip_mac>
- SIP Remote Host (PBX Server Address) <sip_remhost>

Unless specified, the Profile section of Zebra Voice uses the default settings for Audio Settings, Call Settings, Miscellaneous Settings, Logging, and Optional Services (This is a suggested best practice). Use the Zebra Voice GUI or WFConnect.xml file to customize the Profile section. Both methods are discussed with each Function description.

See XML Example - Profile on page 187 for a profile section example.

Dashboard Section

The Home Screen Dashboard section defines the buttons in the dashboard area of the screen and their layout on the Zebra Voice screen.

The Dashboard displays functions and features specific to the end user. A maximum of 12 buttons can be displayed on the screen; additional buttons are accessed by scrolling up and down. Use the Zebra Voice GUI or WFConnect.xml file to customize the Dashboard. Both methods are discussed with each Function description.

See XML Example - Dashboard on page 189 for a dashboard section example.

Call Buttons Section

The Call Buttons section defines the buttons in the call buttons area of the screen and their layout on the Zebra Voice screen.

In-Call displays the available function and action of call buttons that can be accessed during a call. While on a call, the user may wish to perform one of the following:

- Add Call
- Home
- Hold
- Resume
- Park
- Transfer

- Conference
- Complete
- End Call.

See XML Example - Call Buttons on page 192 for a call button section example.

Headless Mode

For detailed information on Headless Mode, refer to the Zebra Voice Programmer Guide.

Background Logo

Choose a background logo from the icon library or the WFConnect folder using the GUI or XML.

Choosing a Logo from the Icon Library

Choose a background logo from the icon library using the GUI or XML.

1. In **UI Settings**, select **Background Logo**.
2. From the **LIBRARY** tab, select the new background. A yellow box appears around the selected background.
3. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of choosing a background logo.

```
<WFConnect>
<Profile>
   <background_logo>logo</background_logo>
</Profile>
...
</WFConnect>
```

Creating a Custom Background Logo

The user can create a custom background and transfer it to the device.

1. Connect the device to a host computer using a USB cable.
2. From the host computer, copy the icon file to the WFConnect folder on device.

Choosing a Custom Logo

Choose a custom background logo from the WFConnect folder using the GUI or XML.

1. In UI Settings, select Background Logo.
2. From the **SDCARD** tab, select the new background. A yellow box appears around the selected background.
3. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of choosing a custom background logo.

```
<WFConnect>
<Profile>
   <background_logo>custom_logo.png</background_logo>
</Profile>
...
</WFConnect>
```

Graphical User Interface Design Tool

Use the GUI Design Tool to customize the Dashboard and In-Call screen within Zebra Voice.

Configure each to fit the specific needs of the customer. The appearance of Zebra Voice is configured using the GUI or by directly modifying the `WFConnect.xml` file. Details on specific XML settings and the construct of the XML configuration file are discussed in more detail later in this guide.

Accessing the GUI Design Tool

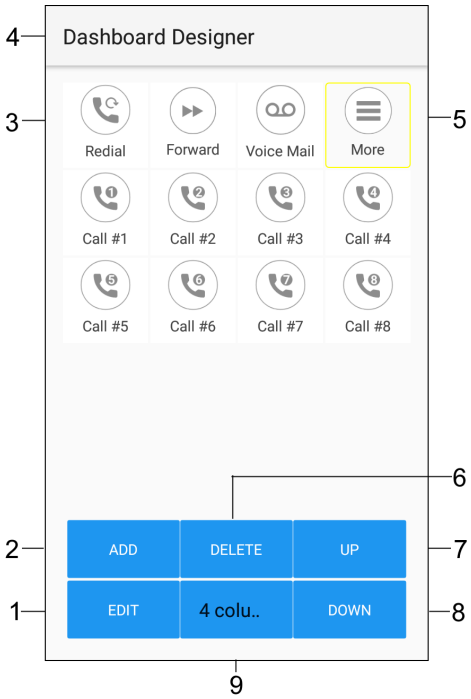
Access the GUI Design Tool from the Zebra Voice app.

1. Go to **Settings**.
2. **Touch Advanced Settings** > **UI Settings**.
3. Select **Edit Dashboard** or **Edit In-Call Button**.

UI Settings GUI Design Tool

This section describes the buttons available for each area.

Figure 7 GUI Design Tool - Dashboard

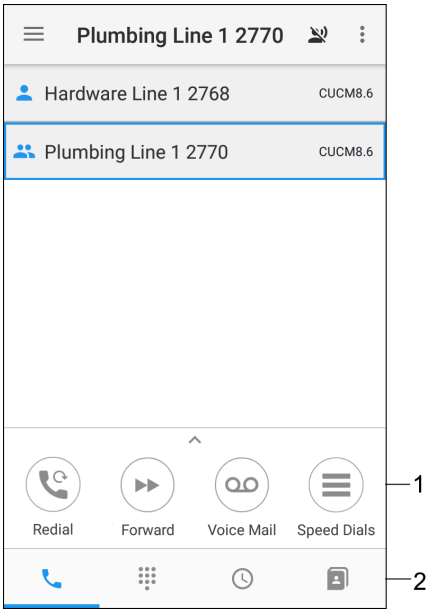


Number	Item
1	Touch Edit to edit the button configuration.
2	Touch Add to add a button.
3	Buttons available change based on if the selected area to configure is Dashboard or In-Call.
4	Header Label changes based on if the selected area to configure is Dashboard Designer or In-Call Designer.
5	Touch a button to edit. A yellow boarder appears indicating the button to be configured.
6	Touch Delete to remove selected button.
7	Touch Up to move the button to the left in the list.
8	Touch Down to move the button right in the list.
9	Touch column toggle to switch between three or four columns (Dashboard design only)

Home Screen Buttons

Configure the dashboard buttons and the footer buttons on the **Home** screen.

Figure 8 Home Screen Dashboard

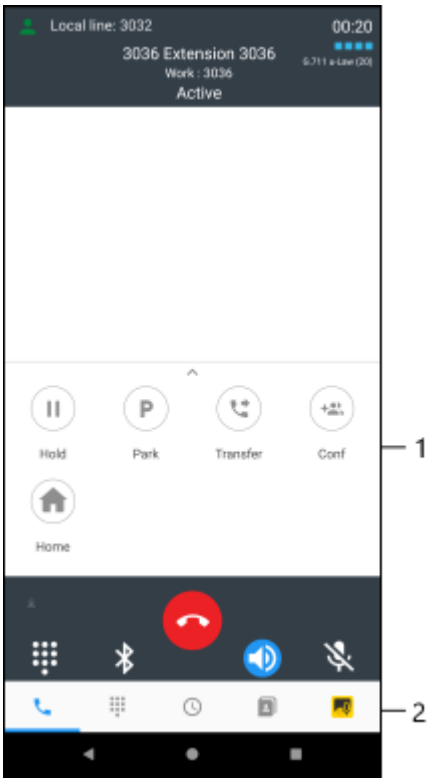


Number	Item
1	Dashboard Buttons
2	Footer Buttons

In-Call Buttons

Configure the buttons on the In-Call dashboard.

Figure 9 In-Call Dashboard



Number	Item
1	In-Call Dashboard Buttons (Configurable)
2	In-Call Footer (Configurable)

Buttons Settings

The following sections describes each button that can be placed on the UI. Each section lists the Designer Tool procedure and corresponding XML configuration.

Configuring the Call Button

Configure the Call button using the GUI or XML.

is the ability to make a telephone call to a specific number or location using a prefix. The administrator identifies a target by its extension (phone number) and enters this into the Value field along with the prefix. The user can then use this function to initiate a call to the preset destination.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.

4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **CALL** from the **Select Action** menu.
6. If the dialed number has a prefix, in the **Value** field, enter the prefix number.
7. In the **Title** field, enter `Call`.
8. In the **Description** field, enter a short description of the button function.
9. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
10. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
11. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
12. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Call button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Call</title>
      <action>CALL</action>
      <value>9</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Make a call</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Dial Button

Configure the Dial button using the GUI or XML.

Dial is the ability to dial a specified extension or number to initiate a telephone call. A caller identifies a target by its extension (phone number) and originates the call.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **DIAL** from the **Select Action** menu.
6. In the **Title** field, enter `Dial`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select the Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.

11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Dial button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Dial</title>
      <action>DIAL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Dial a number or extension</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Start App

Configure the Start App button sing the GUI.

Start Application defines a button to launch another application on the device. When the button is pressed, Zebra Voice minimizes running in the background, and the defined application launches. For example, a button can be placed in the Dashboard to open an email application.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **START_APP**.
6. Touch **Select App Package** and select the application from the **Select App Package** menu.
7. In the **Title** field, enter the application name.
8. In the **Description** field, enter a short description of the button function.
9. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
10. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
11. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
12. Touch the **Back** button to return to the Zebra Voice home screen.

Opening the music application example is shown in the following XML example.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Email</title>
```

```
      <action>START_APP</action>
      <value>com.android.email</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Open email application</description>
      <icon>email.png</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Log Marker

Configure the Log Marker using the GUI or XML.

Log Marker creates a time stamp in the logs. If you experience any issues with Zebra Voice functionality, the time stamp focuses on troubleshooting of the device to the time the issue occurred for more rapid resolution.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **LOG_MARKER** from the **Select Action** menu.
6. In the **Title** field, enter `Log Marker`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Log Marker.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Log Marker</title>
      <action>LOG_MARKER</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Create time stamp</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring Speed Dial 0-9

Configure the Speed Dial button using the GUI or XML.

Speed Dial places a telephone call to a preset number/extension. Set up to 10 speed dial buttons on the dashboard through the GUI interface.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **SPEED_DIALx** from the **Select Action** menu.
6. In the **Value** field, enter the extension.
7. In the **Title** field, enter `Speed Dial` (#).
8. In the **Description** field, enter a short description of the button function.
9. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
10. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
11. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
12. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Speed Dial button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Speed Dial #1</title>
      <action>SPEED_DIAL1</action>
      <value>5133</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Speed dial #1</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Redial Button

Configure the Redial button using the GUI or XML.

Redial places a telephone call to the most recent call location.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.

4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **REDIAL**.
6. In the **Title** field, enter `Redial`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Redial button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Redial</title>
      <action>REDIAL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Dial the last number called</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Suspend Mode Button

Configure the Suspend Mode button using the GUI or XML.

Suspend Mode blocks all incoming or outgoing calls.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **SUSPEND_MODE**.
6. In the **Title** field, enter `Suspend Mode`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Suspend Mode button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Suspend Mode</title>
      <action>SUSPEND_MODE</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Block all incoming calls</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
<Dashboard> or <CallButtons>
```

Configuring the History Button

Configure the History button using the GUI or XML.

History lists recently called numbers and incoming calls, including missed calls.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **HISTORY**.
6. In the **Title** field, enter `History`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the History button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>History</title>
      <action>HISTORY</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Display recently called numbers and incoming calls</
description>
```

```
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Contacts Button

Configure the Contacts button using the GUI or XML.

The Contacts button dials a new number by selecting an existing contact. Add and store contacts locally on the device.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **CONTACTS**.
6. In the **Title** field, enter `Contacts`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Contacts button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Contacts</title>
      <action>CONTACTS</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Display contacts </description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Favorites Button

Configure the Favorites button using the GUI or XML.

The Favorites button dials a new number by selecting a contact that is set as a favorite. Set contacts as favorites locally on the device.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **FAVORITES**.
6. In the **Title** field, enter `Favorites`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Favorites button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Favorites</title>
      <action>FAVORITES</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Display favorites </description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Voicemail Button

Configure the Voicemail button using the GUI or XML.

The Voicemail button dials a number configured on the PBX to access Voicemail messages.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).

5. Touch **Action** and select **VOICEMAIL**.
6. In the **Value** field, enter the Voicemail Pilot number.
7. In the **Title** field, enter `Voicemail`.
8. In the **Description** field, enter a short description of the button function.
9. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
10. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
11. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
12. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the Voicemail button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Voicemail</title>
      <action>VOICEMAIL</action>
      <value>9999</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Voicemail messages</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Do Not Disturb Button

Configure the DND button using the GUI or XML.

DND is enabled/disabled using a Feature Access Code (FAC).

Access the Do Not Disturb (DND) feature directly on the phone. Use a Feature Access Code (FAC) to enable or disable this feature. Enabling DND suspends all personal calls targeted to the extension and sends the call immediately to the defined Coverage Path. DND also removes the extension from consideration during any Coverage Answer Group, Simultaneous Ringing, and Hunt Group call. This feature is the PBX-based implementation of an endpoint device. **Call Ignore** feature.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **DO_NOT_DISTURB**.
6. In the **Value** field, enter the FAC for the Do Not Disturb feature.
7. In the **Title** field, enter `DND`.
8. In the `Description` field, enter a short description of the button function.

9. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
10. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
11. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
12. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of configuring the DND button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>DND</title>
      <action>DO_NOT_DISTURB</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Ignore incoming calls</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Add Call Button

Configure the Add Call button using the GUI or XML.

During an active call the Add Call button can dial a preset number. If there is no number in the Value field, it opens the dialer. The current call is placed on hold while the new call is initiated. When the new call connects, you can Transfer, Conference, or End the second call and resume the first call.

NOTE: Only available on the In-Call screen only.

1. In UI Settings, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **ADD_CALL**.
6. In the **Title** field, enter `Add Call`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Add Call button.

```
<CallButtons>
...
   <Button>
      <title>Add Call</title>
      <action>ADD_CALL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Add a call by opening the dialer </description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</CallButtons>
```

Configuring the Home Button

Configure the Home button using the GUI or XML.

During an active call the Home button invokes the Dashboard to provide access to Dashboard functions.

NOTE: Only available on the In-Call screen.

1. In UI Settings, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **HOME**.
6. In the **Title** field, enter `Home`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Home button.

```
<CallButtons>
...
   <Button>
      <title>Home</title>
      <action>HOME</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Return to the Home Dashboard</description>
```

```
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</CallButtons>
```

Configuring the Hold Button

Configure the Hold button using the GUI or XML.

Call Hold politely suspends an active call while you tend to other business or place an additional call using an additional Call Appearance. During call hold, you can switch between the active and held calls at any time.

NOTE: Only available on the In-Call screen.

1. In UI Settings, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **HOLD**.
6. In the **Title** field, enter `Hold`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Hold button.

```
<CallButtons>
...
   <Button>
      <title>Hold</title>
      <action>HOLD</action>
      <value></value>
      <enabled>false</enabled>
      <confirm>false</confirm>
      <description>Place call on hold</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</CallButtons>
```

Configuring the Resume Button

Configure the Resume button using the GUI or XML.

During an active call touch the **Resume** button ▶ to access the current call on hold.

NOTE: Only available on the In-Call screen.

1. In UI Settings, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **RESUME**.
6. In the **Title** field, enter `Resume`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Resume button.

```
<CallButtons>
...
   <Button>
      <title>Resume</title>
      <action>RESUME</action>
      <value></value>
      <enabled>false</enabled>
      <confirm>false</confirm>
      <description>Resume an active call</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</CallButtons>
```

Configuring the Transfer Button

Configure the Transfer button using the GUI or XML.

Transfer transfers an active call to a third party. While Call Forwarding must be preconfigured, Call Transfer allows making such call exchanges in real-time with an active call.

NOTE: Only available on the In-Call screen.

1. In UI Settings, select **Edit In-Call** > **Add**.

2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **TRANSFER**.
6. In the **Title** field, enter `Transfer`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Transfer button.

```
<CallButtons>
...
   <Button>
      <title>Transfer</title>
      <action>TRANSFER</action>
      <value></value>
      <enabled>false</enabled>
      <confirm>false</confirm>
      <description>Transfer a call </description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</CallButtons>
```

Configuring the Conference Button

Configure the Conference button using the GUI or XML.

Conference joins two separate calls for collaboration between each party on the line at the same time. Use a Feature Access Code (FAC) to enable or disable this feature.

NOTE: Only available on the In-Call screen.

1. In **UI Settings**, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **CONFERENCE**.
6. In the **Title** field, enter `Conference`.
7. In the **Description** field, enter a short description of the button function.

8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Conference button.

```
<CallButtons>
                ...
                <Button>
                <title>Conf</title>
                <action>CONFERENCE</action>
                <value></value>
                <enabled>false</enabled>
                <confirm>false</confirm>
                <description>Start a conference call</description>
                <bg_color>#FF001425</bg_color>
                <fg_color>#FFFFFFFF</fg_color>
                <icon>Default</icon>
                </Button>
                ...
                </CallButtons>
```

Configuring the Complete Button

Configure the Complete button using the GUI or XML.

This internal type is used for call transfer or conference scenarios.

NOTE: Only available on the In-Call screen.

1. In UI Settings, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **COMPLETE**.
6. In the **Title** field, enter `Complete`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Complete button.

```
<CallButtons>
```

```
...
   <Button>
      <title>Complete</title>
      <action>COMPLETE</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>End a call transfer or conference call</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</CallButtons>
```

Configuring the End Call Button

Configure the End Call button using the GUI or XML.

This function ends a call in any state. It is pushed back from Zebra Voice to the PBX.

The End Call button on the in-call dashboard replaces the default End Call button.

NOTE: Only available on the In-Call screen.

1. In UI Settings, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **END_CALL**.
6. In the **Title** field, enter `End Call`.
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the End Call button.

```
<CallButtons>
...
   <Button>
      <title>End Call</title>
      <action>END_CALL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
```

```
      <description>End a call </description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>Default</icon>
   </Button>
...
</CallButtons>
```

Configuring the Default List Button

Use the GUI to create the Default List button. This only creates a button. Edit the XML file to customize the list.

By default, List displays the speed dial list 0-9. Alternatively, configure the List button to open a menu built from other Zebra Voice buttons.

NOTE: Only available on the In-Call screen.

1. In UI Settings, select **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **LIST**.
6. In the **Title** field, enter `List`.
7. In the **Description** field, enter a short description of the button function.

   The List button description appears at the top of the List popup dialog.
8. Touch **Icon** and select an icon from the **Select Icon** menu. See Icons on page 103.
9. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
10. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
11. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the List button.

```
<Dashboard>
                ...
                <Button>
                <title>List</title>
                <action>LIST</action>
                <value></value>
                <enabled>true</enabled>
                <confirm>false</confirm>
                <description>Department extensions </description>
                <bg_color>#FF001425</bg_color>
                <fg_color>#FFFFFFFF</fg_color>
                <icon>Default</icon>
                </Button>
                ...
```

```
                </Dashboard>
```

Configuring the List Buttons Using XML

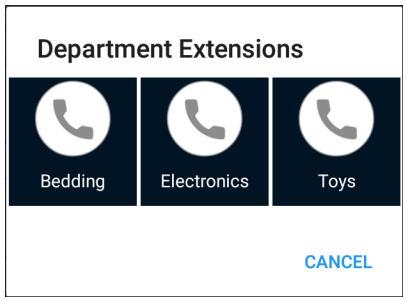
List buttons are configured using XML.

- Use the XML configuration file to configure the list buttons.

  The List button contains each sub button before the closing </Button> element. The List button description appears at the top of the List popup dialog. The sub button description appears as a comment under the button title, identifying which action is performed.

XML example of a list with three custom buttons (Bedding, Electronics, and Toys).

Figure 10 List Button Example




```
<Dashboard> or <CallButtons>
...
  <Button>
     <title>List</title>
     <action>LIST</action>
     <value></value>
     <enabled>true</enabled>
     <confirm>false</confirm>
     <description>Department Extensions </description>
     <bg_color>#FF001425</bg_color>
     <fg_color>#FFFFFFFF</fg_color>
     <icon>Default</icon>
        <Button>
           <title>Bedding</title>
           <action>CALL</action>
           <value>1111</value>
           <enabled>true</enabled>
           <confirm>false</confirm>
           <description>Bedding Department</description>
           <bg_color>#FF001425</bg_color>
           <fg_color>#FFFFFFFF</fg_color>
           <icon></icon>
        </Button>
        <Button>
           <title>Electronics</title>
           <action>CALL</action>
           <value>1122</value>
```

```
            <enabled>true</enabled>
            <confirm>false</confirm>
            <description>Electronics Department</description>
            <bg_color>#FF001425</bg_color>
            <fg_color>#FFFFFFFF</fg_color>
            <icon></icon>
         </Button>
         <Button>
            <title>Toys</title>
            <action>CALL</action>
            <value>1133</value>
            <enabled>true</enabled>
            <confirm>false</confirm>
            <description>Toys Department</description>
            <bg_color>#FF001425</bg_color>
            <fg_color>#FFFFFFFF</fg_color>
            <icon></icon>
         </Button>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Blank Button

Configure the Blank button using the GUI or XML.

Blank provides a space between buttons for a more customized look and feel. If touched, the Blank button does not act.

1. In UI Settings, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **BLANK**.
6. In the **Title** field, enter `Blank`.
7. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Blank button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Blank</title>
      <action>BLANK</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Empty space</description>
      <icon></icon>
   </Button>
```

```
...
</Dashboard> or </CallButtons>
```

Configuring the Reload Button

Configure the Reload button using the GUI or XML.

Reload allows users to sign out and automatically go back into Zebra Voice.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **SIGNOUT_CHANGE**.
6. Ensure the **Value** field is empty.
7. In the **Title** field, enter `Sign Out`.
8. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Reload button.

```
<Dashboard> or <CallButtons>
...
 <Button>
    <title>Sign Out</title>
    <action>SIGNOUT_CHANGE</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon></icon>
    <scale>CENTER_INSIDE</scale>
 </Button>
...
</Dashboard> or </CallButtons>
```

This action can also be initiated using ADB, an MDM, or a third-party app. For example, in ADB, you can use the following command:

```
$ adb shell am broadcast -a wfc.voice.SIGN_OUT
```

Configuring the Reload/Change Button

A new configuration has been introduced to function **Reload**/**Change** button as the **Reload** button under the Hamburger menu.

The new configuration parameters that must be applied to the Voice Client. The `change_button_behave_as_reload` parameter can be configured through EXM and XML.

Example of change_button_behave_as_reload follows:

```
<WFConnect>
   <Profile>
      . .
<change_button_behave_as_reload>false</change_button_behave_as_reload>
       ..
  </Profile>
  ...
</WFConnect>
```

NOTE:

- This setting is just applied when the Voice Client is launched first time or launched after clearing the Voice Client cache.
- Next time onwards, it makes the **Reload/Change** button functions as the **Reload** button that is present under the Hamburger menu if the above setting is configured as true.
- To change the setting, one must push the setting with the new value through EXM/XML.

Configuring the Sign-Out Button

Configure the Sign Out button using the GUI or XML.

Sign Out allows a user to sign out of Zebera Voice.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **SIGNOUT_CHANGE**.
6. In the **Value** field, enter `0`.
7. In the **Title** field, enter `Sign Out`.
8. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Sign Out button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Sign Out</title>
      <action>SIGNOUT_CHANGE</action>
      <value>0</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
      <scale>CENTER_INSIDE</scale>
   </Button>
```

```
...
</Dashboard> or </CallButtons>
```

This action can also be initiated using ADB, an MDM, or a third-party app. For example, in ADB, you can use the following command:

```
$ adb shell am broadcast -a wfc.voice.SIGN_OUT --es change 0
```

Configuring the Ringtone Button

Configure the Ringtone button using the GUI or XML.

Ringtone allows a user to set the default Zebra Voice ringtone.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **RINGTONE**.
6. In the **Title** field, enter `Ringtone`.
7. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Ringtone button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Ringtone</title>
      <action>RINGTONE</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
      <scale>CENTER_INSIDE</scale>
   </Button>
...
</Dashboard> or </CallButtons>
```

Configuring the Add Department Button

Configure the Add Department button using the GUI or XML.

NOTE: This feature requires Profile Manager.

Add Department reloads Zebra Voice and then displays a list of all available department extensions. If an extension was previously configured using a URI, it is automatically selected. Users can register with multiple extensions.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.

2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **SIGNOUT_CHANGE**.
6. In the **Value** field, enter 3.
7. In the **Title** field, enter `Add Department`.
8. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Add Department button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Add Department</title>
      <action>SIGNOUT_CHANGE</action>
      <value>3</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
      <scale>CENTER_INSIDE</scale>
   </Button>
...
</Dashboard> or </CallButtons>
```

This action can also be initiated using ADB, an MDM, or a third-party app. For example, in ADB, you can use the following command:

```
$ adb shell am broadcast -a wfc.voice.SIGN_OUT --es change 3
```

Configuring the Change Department Button

Configure the Change Department button using the GUI or XML.

NOTE: This feature requires Profile Manager.

Change Department reloads Zebra Voice and then displays a list of all available extensions. Previously configured extensions are automatically selected.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. Touch **Action** and select **SIGNOUT_CHANGE**.
6. In the **Value** field, enter 1.
7. In the **Title** field, enter `Change Department`.

8. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of the Change Department button.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Change Department</title>
      <action>SIGNOUT_CHANGE</action>
      <value>1</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
      <scale>CENTER_INSIDE</scale>
   </Button>
...
</Dashboard> or </CallButtons>
```

This action can also be initiated using ADB, an MDM, or a third-party app. For example, in ADB, you can use the following command:

```
$ adb shell am broadcast -a wfc.voice.SIGN_OUT --es change 1
```

Icons

Choose an icon from the library, use a custom icon, and change icon size and position.

Choosing a Button from the Icon Library

Choose a button from the icon library using the GUI or XML.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
5. In the **Description** field, enter a short description of the button function.
6. Touch **Icon.**The **Select Icon** menu is displayed.
7. From the **Library** tab, select an icon.
8. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
9. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
10. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of choosing a button from the icon library.

```
<Dashboard> or <CallButtons>
...
```

```
   <Button>
      <title>Dial</title>
      <action>DIAL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Dial button from library</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>ic_dialpad</icon>
   </Button>
...
<Dashboard> or <CallButtons>
```

Choosing a Custom Icon

Create custom icons and transfer them to the WFConnect folder on the device. Choose a custom icon using the GUI or XML.

Icons must be 128 pixels by 128 pixels and in PNG format.

1. Connect the device to a host computer using a USB cable.
2. From the host computer, copy the icon file to the **WFConnect** folder on the device.
3. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
4. Select the new button. A yellow box appears around the selected button.
5. Touch **Edit**.
6. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).
7. In the **Description** field, enter a short description of the button function.
8. Touch **Icon.**The **Select Icon**menu displays.
9. From the **SDCARD** tab, select an icon.
10. Touch **BG** to set the background color. See Setting Button Background Color on page 105.
11. Touch **FG** to set the foreground text color. See Setting Button Text Color on page 106.
12. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of choosing a custom icon.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <title>Dial</title>
      <action>DIAL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description>Custom dial button</description>
      <bg_color>#FF001425</bg_color>
      <fg_color>#FFFFFFFF</fg_color>
      <icon>dialbtn.png</icon>
```

```
   </Button>
...
<Dashboard> or <CallButtons>
```

Setting the Icon Scale Type

Set the scale type for an icon using the GUI or XML.

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. In the **Scale** field, select a scale type.
   - CENTER_INSIDE - Position the image in the center area above the title. The image size is equal to or less than the size of the button. This is the default scale type.
   - SCALE_CENTER - Scale the image in the center to fill the area above the title. Maintain the aspect ratio of the image.
   - FILL_CENTER - Scale in the center to fill button size (no padding) and maintain the aspect ratio. The title is at the top of the image in the center.
   - FILL_XY - Scale to fill button size (no padding) in both directions. Does not maintain aspect ratio. The title is at the top of the image in the center.
5. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of setting the scale type for an icon.

```
<Dashboard> or <CallButtons>
...
   <Button>
      <action>DIAL</action>
      <title>Title</title>
      <value></value>
      <icon>conference</icon>
      <scale>SCALE_CENTER</scale>
   </Button>
...
<Dashboard> or <CallButtons>
```

Button Color

Customize the background color and text color for a button.

Setting Button Background Color

Set the Button Background Color using the GUI or XML.

Use Button Background Color to set the color of individual buttons. Setting a background color overrides the Global Button Background Color. The default background color is white (#FFFFFFFF).

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.

2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Touch the **BG** button.
5. Select a color and touch **Set**.
6. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of setting the Button Background Color.

```
<Button>
   <bg_color>#FFFFFFFF</bg_color>
</Button>
```

Setting Button Text Color

Set the Button Text Color using the GUI or XML.

Use Button Text Color to set the color of individual buttons. Setting a text color overrides the Global Button Text Color. The default text color is dark gray(#FF4A4A4A).

1. In **UI Settings**, select **Edit Dashboard** or **Edit In-Call** > **Add**.
2. Select the new button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. Touch the **FG** button.
5. Select a color and touch **Set**.
6. Touch the **Back** button to return to the Zebra Voice home screen.

XML example of setting the Button Text Color.

```
<Button>
   <fg_color>#FF4A4A4A</fg_color>
</Button>
```

Global Button Color Settings

Use Global Button Background Color to set the color of all buttons on the dashboard. The button color can be overridden by the individual Button Background Color. The default background color is white (#FFFFFFFF).

Setting Global Button Background Color

Set the Button Background Color using the GUI or XML.

1. In **UI Settings**, select **Buttons Background Color**.
2. Select a color from the color wheel for the button background or enter RGB color in hex format.
3. Touch **Set**.
4. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting the Button background color.

```
<WFConnect>
<Profile>
   <gbg_color>#FFFFFFFF</gbg_color>
</Profile>
...
</WFConnect>
```

Setting Global Button Text Color

Set the Button Text Color using the GUI or XML.

Use Global Button Text Color to set the color of all buttons on the dashboard. The button color can be overridden by the individual Button text Color. The default text color is dark gray (#FF4A4A4A).

1. In **UI Settings**, select **Buttons text color**.
2. Select a color from the color wheel for the button text or enter RGB color in hex format.
3. Touch **Set**.
4. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting the Button Text Color.

```
<WFConnect>
<Profile>
   <gfg_color>#FF4A4A4A</gfg_color>
</Profile>
...
</WFConnect>
```

Resetting Colors to Default

Reapply the factory default button colors.

1. In **UI Settings**, select **Reset colors to default**.
2. Touch the **Back** button to return to the Zebra Voice home screen.

Restoring Buttons

Reapply the factory default buttons and their layout.

1. In **UI Settings**, select **Restore buttons**.
2. Touch the **Back** button to return to the Zebra Voice home screen.

Data Collection

The Zebra Voice Client v9.0.24102 collects data on the usage and performance of Workcloud Communication to ensure product quality is delivered to our customers. To disable the data collection in the customer environment, you can set the following parameter:

```
<WFConnect>
   <Ptofile>
    ..
     <enableGA>0</enableGA>
    ..
   </Profile>
    ...
</WFConnect>
```

ADB Commands Example

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es enableGA 0
```

```
adb shell am start -a android.intent.action.VIEW -d "wfcvp-uat://<token>"
com.symbol.wfc.voice
```

Call Settings

Configuring advanced call settings.

This section provides detailed information on configuring advanced call settings.

Accessing Call Settings

Access the Call setting using the GUI.

1. Go to Settings.
2. Touch **Advanced Settings** > **Call Settings**.

Setting the Call Waiting Volume

Set the Call Waiting Volume setting using the GUI or XML.

1. In Call Settings, slide the **Call Waiting Volume** slider (default 80).
2. Touch **Back** to return to the Zebra Voice home screen.

XML example of setting the Call Waiting volume.

```
<WFConnect>
<Profile>
```

```
   <callwaiting_volume>80</callwaiting_volume>
</Profile>
...
</WFConnect>
```

Setting the Call Waiting Interval

Set the Call Waiting Interval setting using the GUI or XML.

1. In Call Settings, slide the **Call Waiting Interval** slider (default 2000).
2. Touch **Back** to return to the Zebra Voice home screen.

XML example of setting the Call Waiting Interval.

```
<WFConnect>
<Profile>
   <callwaiting_interval>2000</callwaiting_interval>
</Profile>
...
</WFConnect>
```

Ringer OFF In Charger

Enable Ringer OFF in Charger to disable the ringer while the device is charging.

Setting Ringer OFF In Charger

Set the Ringer OFF In Charger using the GUI or XML.

1. In Call Settings, select the check box next to **Ringer OFF in Charger** to enable this (the default is Disabled).
2. Touch **Back** to return to the Zebra Voice home screen.

XML example of Ringer OFF In Charger.

```
<WFConnect>
<Profile>
   <ringer_off_in_charger>true</ringer_off_in_charger>
</Profile>
...
</WFConnect>
```

Speaker mode

Zebra Voice allows users to disable speaker mode for all call sessions. If set, the speaker button is disabled on the **In-call** screen.

Setting Speaker Mode

Set Speaker mode using the GUI or XML.

1. In Call Settings, select the check box next to **Disable Speaker Mode** to enable this (the default is Disabled).
2. Touch **Back** to return to the Zebra Voice home screen.

XML example of setting Speaker mode.

```
<WFConnect>
<Profile>
   <disable_speaker>false</disable_speaker>
</Profile>
...
</WFConnect>
```

Speaker on Table

Enable Speaker Mode to answer all incoming calls in speaker mode when the device is placed on a horizontal surface, such as a desk.

Setting Speaker on Table

Set the Speaker on the Table using the GUI or XML.

1. In Call Settings, select the check box next to **Speaker on table** to enable this (the default is Disabled).
2. Touch **Back** to return to the Zebra Voice home screen.

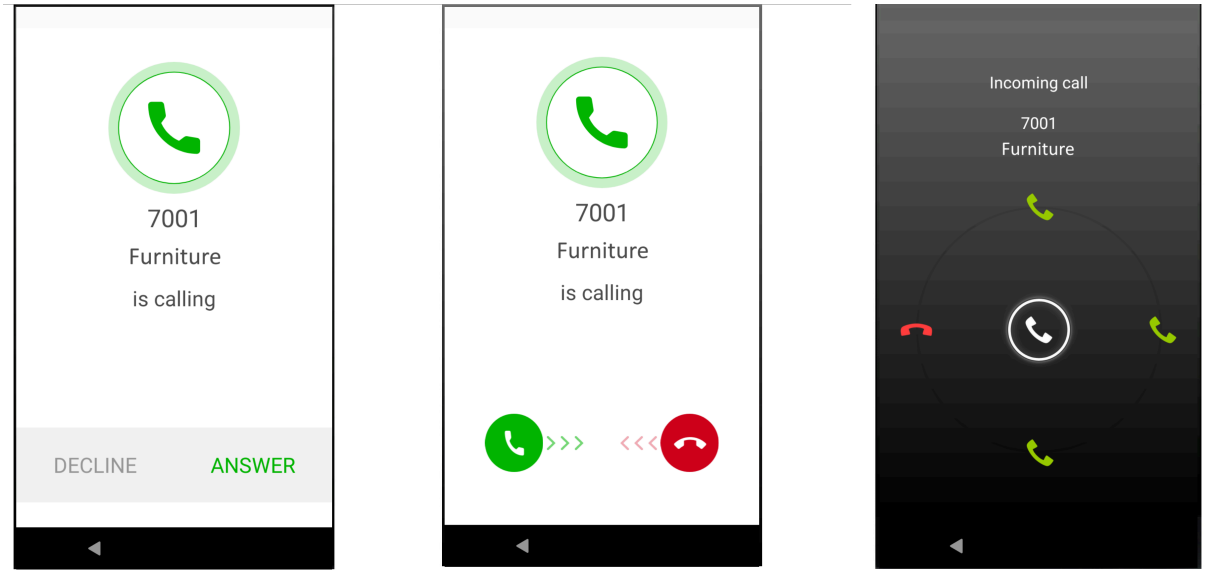
XML example of setting speaker on table.

```
<WFConnect>
<Profile>
   <speaker_on_horizontal>false</speaker_on_horizontal>
</Profile>
...
</WFConnect>
```

Call Accept Style

There are various call accept styles on the incoming call screen, such as simple accept and reject buttons, a slider (Gingerbread Android), and Glow Pad buttons (JellyBean Android).

Figure 11 Call Accept Buttons



Number	Item
1	Accept-Reject Buttons - The operator touches one of two buttons to accept or reject an incoming call.
2	Sliding Tab - The operator swipes one of two buttons across the screen to accept or reject an incoming call.
3	Glow Pad - The operator touches a handset symbol to accept or reject an incoming call.

Configuring the Glow Pad Buttons

Configure the Glow Pad buttons using the GUI or XML.

1. In Call Settings, select **Call Accept Style**.
2. Select **Sliding Tab (GB)**, **Accept/Reject Buttons**, or **Glow Pad (JB)**.
3. Touch **Back** button to return to the Zebra Voice home screen.

XML examples of configuring the Glow Pad button.

Sliding Tab (Gingerbread)

```
<Profile>
   <incall_widget>incall_gb</incall_widget>
</Profile>
```

Accept-Reject Buttons

```
<Profile>
   <incall_widget>incall_buttons</incall_widget>
</Profile>
```

Glow Pad Buttons (Jellybean)

```
<Profile>
   <incall_widget>incall_buttons</incall_widget>
</Profile>
```

Setting Auto Answer Mode

Enable Auto Answer Mode to auto-answer all incoming calls using the GUI or XML.

1. In Call Settings, select the check box next to **Auto Answer Mode** to enable (Default: disabled).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting Auto Answer mode.

```
<WFConnect>
<Profile>
   <sip_auto_answer>true</sip_auto_answer>
</Profile>
...
</WFConnect>
```

Incoming Call Voice Announcer

Enable the Incoming Call Voice Announcer to announce the number or username of an incoming call.

Setting Incoming Call Voice Announcer

Set the Incoming Call Voice Announcer using the GUI or XML.

1. In Call Settings, select the check box next to **Incoming Call Voice Announcer** to enable this (Default: disabled).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting Incoming Call Voice Announcer.

```
<WFConnect>
<Profile>
   <voice_announcer_check>true</voice_announcer_check>
</Profile>
...
</WFConnect>
```

Incoming Call Full-Screen

Enable Incoming Call Full Screen to allow the full-screen display of incoming calls when the device screen is on and Zebra Voice is running in the background.

NOTE: Available in Zebra Voice 9.0.213xx and later.

When connected to a Workstation Connect cradle or hub in desktop mode, this feature is ignored.

Enable or disable Incoming Call Full Screen using XML or Extension Manager. By default, this feature is disabled (false).

```
<WFConnect>
<Profile>
  <incoming_call_full_screen>true</incoming_call_full_screen>
</Profile>
...
</WFConnect>
```

Call Rating Feedback

The Zebra Voice Client provides the features of Call Rating Feedback data analytics at the end of the voice call. The Administrator must configure the configuration parameter `show_call_quality_feedback` in the XML Tags.

The call rating can be configured using the Profile Manager or Provisioning Manager environment.

NOTE:

- Call feedback quality is part of data collection. Go to Data Collection on page 108.
- Call feedback quality is prompted to the user after every 7 days.
- A prompt is displayed only after the call has ended. It does not matter whether the call has been missed, rejected, or actually ended.
- If provided feedback is <=3, then the user gets one more extra field to provide feedback
  - There is no restriction; the user can enter any number of characters in the feedback field. However, at any given time, only two lines are displayed in the feedback input field.

Know Issues

- The Call Rating screen is not displayed if the Imprivata is used.
- The Call Rating screen disappears after a new call appears,

Voice Command

Use Voice Command to call contacts and dial numbers using voice commands. Press the Push to Talk (PTT) button to initiate a call using voice commands.

Setting Voice Command

Enable or disable Voice Command using the GUI or XML

NOTE: If PTT Pro and Zebra Voice are installed on the device, both apps must have Voice Commands enabled or disabled. Setting Voice Commands to enable in one app and disable in another may cause unexpected behavior when using Voice Commands.

1. In Call Settings, select the check box next to **Voice Command** to enable this (Default: disabled).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting Voice Command.

```
<WFConnect>
<Profile>
   <voice_command_check>true</voice_command_check>
</Profile>
...
</WFConnect>
```

Voice Command Confirmation

Enable Voice Command Confirmation to confirm all voice commands before calling contacts or dialing numbers. This option requires that Voice Command is enabled.

Setting Voice Command Confirmation

Enable or disable Voice Command Confirmation using the GUI or XML.

1. In Call Settings, select the check box next to **Voice Command Confirmation** to enable this (Default: disabled).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting Voice Command Confirmation.

```
<WFConnect>
<Profile>
   <voice_command_interrogative>true</voice_command_interrogative>
</Profile>
...
</WFConnect>
```

No Audio Cutoff

Use No Audio Cutoff to disconnect a call when no audio is detected for a set interval.

Setting No Audio Cutoff

Enable or disable No Audio Cutoff using the GUI or XML

1. In Call Settings, select **No Audio Cutoff**.
2. Select a time interval (Default: 30 seconds).
3. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting No Audio Cutoff.

```
<WFConnect>
<Profile>
   <no_audio_cutoff>30</no_audio_cutoff>
</Profile>
...
</WFConnect>
```

Audio Prompt File

Use Audio Prompt File to select a custom WAV audio file to play when an incoming call is accepted.

Selecting an Audio Prompt File

Transfer a custom WAV audio file to the device.

1. Save a custom WAV audio file using the following settings: 8 kHz sample rate, Mono, 16-bit, PCM format.
2. Connect the device to a host computer using a USB cable.
3. From the host computer, copy the WAV file to the `WFConnect` folder on the device.
4. In Call Settings, select **Audio Prompt File**.
5. Select an audio file.
6. Touch **Back** button to return to the Zebra Voice home screen.

XML example of selecting an Audio Prompt file.

```
<WFConnect>
<Profile>
   <prompt_file>chewy_roar.wav</prompt_file>
</Profile>
...
</WFConnect>
```

MOH Enabled

Music on Hold (MOH) Enabled plays a WAV audio file when a user is placed on hold. This feature is only used when PBX music on hold is disabled or not available. When this feature is enabled, the app plays music on hold file to another party as soon as an active call is placed on hold/suspended.

Setting MOH Enabled

Enable or disable MOH Enabled using the GUI or XML.

1. In Call Settings, select the check box next to **MOH Enabled** to enable this (Default: disabled).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of MOH Enabled.

```
<WFConnect>
<Profile>
   <moh_enabled>true</moh_enabled>
</Profile>
...
</WFConnect>
```

MOH File

Use the Music on Hold (MOH) File to select a custom WAV audio file to play when a user is placed on hold. The supported WAV file format is 8000 sample rate, PCM, 16-bit, mono. If this parameter is not set, the app uses the default music on hold file.

Selecting a MOH File

Before selecting a custom WAV audio file, save the file to the device.

1. Connect the device to a host computer using a USB cable.
2. From the host computer, copy the WAV file to the `WFConnect` folder on the device.
3. In Call Settings, select **MOH File** (requires MOH Enabled).
4. Select an audio file.
5. Touch **Back** button to return to the Zebra Voice home screen.

XML example of selecting a MOH File

```
<WFConnect>
<Profile>
   <moh_file>opusno1.wav</moh_file>
</Profile>
...
</WFConnect>
```

Paging Extension

Paging Extension silences incoming calls from the specified paging extension.

Setting Paging Extension

Silence incoming calls from a paging extension using the GUI or XML.

1. In Call Settings, select **Paging extension**.
2. Enter the paging extension to silence.
3. Touch **OK**.
4. Touch **Back** button to return to the Zebra Voice home screen.

XML example of selecting an Audio Prompt file.

```
<WFConnect>
<Profile>
   <paging_ext>12345678<paging_ext>
</Profile>
...
</WFConnect>
```

Prefix Dial String

Zebra Voice allows users to add a Prefix Dial String to a 10-digit number when an outbound call is made. if the Prefix Dial String equals "+1", then 8475551212 is dialed as +18475551212.

Setting the Prefix Dial String

NOTE:

- Currently, the prefix is added to 10-digit numbers only to support dial plans in North America.
- Available in Zebra Voice 9.0.222xx or later.

Prefix the Dial String using the GUI or XML.

1. In Call Settings, select **Prefix Dial String**.
2. Enter the Prefix Dial String as +1.
3. Touch **OK**.
4. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting the Prefix Dial String.

```
<WFConnect>
    <Profile>
      <prefix_dial_string>+1<prefix_dial_string>
    </Profile>
...
```

```
</WFConnect>
```

Ringtones

Configuring Zebra Voice ringtones.

Configure advanced ringtone settings using the GUI or XML.

Accessing Ringtone Settings

Access Ringtone settings using the GUI.

1. Go to Settings.
2. Touch **Advanced Settings** > **Ringtones**.

Line Ringtones

Line Ringtones configures a unique ring tone per line. Custom ringtones are available if preloaded on the device. Supported audio formats for custom ringtones are OGG, MP3, and WAV.

NOTE: MP3 and WAV formats are not supported on some earlier releases of Zebra Voice.

Setting Line Ringtones

Set Line Ringtones using the GUI or XML

1. In **Ringtones**, select **Line Ringtones**.
2. Select a line for which to configure the ringtone.
3. To select the default ringtone, touch **Default**.
4. To select an Android ringtone:
   a) Touch **Android Ringtones.**
   b) Select a ringtone.
   c) Touch **OK.**
5. To select a ringtone from the Library:
   a) Touch **WFCVoice Library.**
   b) Select a ringtone.
6. To select a ringtone on the device:
   a) Touch **Custom Ringtones.**
   b) Select a ringtone.
7. Touch **Back** to return to the Zebra Voice home screen.

XML example of setting Line Ringtones.

```
<WFConnect>
<Profile>
```

```
  <ringtone_line1></ringtone_line1>
  <ringtone_line2>UK_Phone</ringtone_line2>
  <ringtone_line3>michelle_ringtone.ogg</ringtone_line3>
  <ringtone_line4></ringtone_line4>
  <ringtone_line5></ringtone_line5>
  <ringtone_line6></ringtone_line6>
</Profile>
...
</WFConnect>
```

Mute Ringtone

The ringtone of incoming calls can be muted by pressing the Volume Up/Down Key and the Power Key; by default, both keys are available for a customer.

The following table describes different scenarios for muting the Voice Incoming Call by pressing the Power and Volume Key.

Scenarios	Device Power Key (Mute Vibration and Ringtone)	Device Volume UP/ DOWN(Mute Ringtone Only)	Remarks
The application is in the foreground.	Yes	Yes	
The application is in the background.	Yes	Yes	The Voice Incoming Call ringtone is not muted through the **Volume UP** key when the device volume is already at the maximum level.
The device is locked.	Yes	Yes	
An incoming call notification is swiped in the background.	No	Yes	The voice incoming call ringtone is automatically muted if the previous incoming call notification is pushed to the background.

NOTE:

During Incoming Voice Calls, pressing the Volume Key does not mute the incoming call ringtone if the device's incoming call is set to Vibrate Mode and the Voice application runs in the background.

When you mute an incoming call by pressing the Power button, the call notification moves to the background.

By pressing the Blueparrot headset key, you can also mute the incoming call.

Miscellaneous Settings

Locating help files and editing the settings password.

This section provides information on the location of help files, flexible TLS, and editing the settings password.

Accessing Miscellaneous Settings

Access Ringtone settings using the GUI.

1. Go to Settings.
2. Touch **Advanced Settings** > **Miscellaneous Settings**.

Sign Out in Charger

. Enable this option to automatically sign out of Zebra Voice when the device begins charging.

NOTE: Sign Out in Charger is unavailable in Zebra Voice when using Profile Manager. To enable Sign Out in Charger when using Profile Manager, enable it using Zebra Profile Client.

Setting Sign Out in Charger

Set Sign OUT in Charger using the GUI or XML.

1. In Miscellaneous Settings, select the check box next to **Sign OUT in Charger** to enable this (Default: disable).
2. Touch **Back** button to return to the Zebra Voice home screen.

Using XML

```
<WFConnect>
<Profile>
   <sign_out_in_charger>true</sign_out_in_charger>
</Profile>
...
</WFConnect>
```

Keep Signed In After Reboot

. Enable this option to automatically sign in to Zebra Voice with the same extension used before the reboot.

NOTE:

- Signs-in after the after-reboot feature is not available in Zebra Voice when using Profile Manager or when not using Extension Manager.
- Keeps the device signed in after reboot setting using the GUI, XML, or Extension Manager.
- Available in Zebra Voice 9.0.221xx or later.

1. In Miscellaneous Settings, select the check box next to Keep signed in after reboot to enable this (Default: disabled).
2. Touch the Back button to return to the Zebra Voice home screen.

   Using XML

```
<WFConnect>
<Profile>
```

```
 <keep_sign_in_after_reboot>true</keep_sign_in_after_reboot>
</Profile>
...
</WFConnect>
```

Flexible TLS

By default, all remote hosts are trusted for SIP connections. Disable this option to use Android certificates for TLS/SSL connections.

Setting Flexible TLS

Set the Flexible TLS using the GUI or XML.

1. In Miscellaneous Settings, select the check box next to **Flexible TLS** to disable this (Default: enable).
2. Touch **Back** button to return to the Zebra Voice home screen.

Using XML

```
<WFConnect>
<Profile>
   <flex_tls>false</flex_tls>
</Profile>
...
</WFConnect>
```

WiFi Preferred

By default, Zebra Voice connects to an available WiFi network. This setting only applies after the network state changes or when the client is restarted. Disable this option to use the device's default network.

Setting Wi-Fi Preferred

Zebra Voice Client does not support Wi-Fi Preferred Setting from version 9.0.22410 and 9.0.23104 or later.

If you are using the Zebra Voice Client earlier version up to 9.0.22409, 9.0.23101, 9.0.23102, and 9.0.23103, you can configure the following setting for Wi-Fi Preferred using the GUI or XML:

1. In Miscellaneous Settings, select the checkbox next to **Preferred** to disable this (Default: enable).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting Wi-Fi Preferred.

```
<WFConnect>
<Profile>
   <wifi_preferred>true</wifi_preferred>
</Profile>
...
</WFConnect>
```

Help URL

The location of the on-device help file.

Setting Help URL

Set the Help URL using the GUI or XML.

1. In Miscellaneous Settings, select **Help URL**.
2. Set HELP URL location.
3. Touch **OK**.
4. Touch **Back** button to get back to the Zebra Voice home screen.

XML example of setting the Help URL.

```
<WFConnect>
<Profile>
   <help_url>file:///WFConnect/help.html</help_url>
</Profile>
...
</WFConnect>
```

Settings Password

Zebra Voice uses a password to access the settings.

NOTE: Once the password is changed, if it is forgotten, the only recovery method is to reload a new client with a new xml file. The password cannot be set in the XML file.

Changing the Settings Password

Change the settings password using the GUI.

1. In Miscellaneous Settings, select **Settings password**.
2. Enter the current password.
3. Enter the new password and confirm.
4. Touch **Enter**.
5. Touch **Back** button to get back to the Zebra Voice home screen.

Additional Profile URI

Set the URI of a buttons layout file saved as an XML file on a remote or local server.

Setting Additional Profile URI

Set the Additional Profile URI using the GUI or XML.

1. In Miscellaneous Settings, select **Additional Profile URI**.
2. Set the additional profile URI location.

3. Touch **OK**.
4. Touch **Back** button to get back to the Zebra Voice home screen.

Example XML of setting Additional Profile URI.

```
<WFConnect>
<Profile>
   <layout_location>file:///WFConnect/buttons-layout.xml
   </layout_location>
</Profile>...
</WFConnect>
```

Show Extension Name

NOTE: Requires Profile Manager.

By default, extensions are displayed in the Zebra Voice dashboard header line and are listed as just the extension number. Use Show Extension Name to display extensions using both the extension number and the description set in the PBX.

Setting Show Extension Name

Set the Show Extension Name using the GUI or XML.

1. In Miscellaneous Settings, select the check box next to **Show Extension Name** to enable this (Default: disable).
2. Touch **Back** button to return to the Zebra Voice home screen.

XML example of setting the Show Extension Name.

```
<WFConnect>
<Profile>
   <show_extension_name>true</show_extension_name>
</Profile>
...
</WFConnect>
```

Contacts URL

The URL of a contacts list saved as a CSV file on a remote or local server. For information on creating a contacts list see Creating a Contacts List on page 125.

Setting Contacts URL

Set the Contacts URL using the GUI or XML.

1. In Miscellaneous Settings, select **Contacts URL**.
2. Set the contact's URL location.
3. Touch **OK**.

4. Touch **Back** button to get back to the Zebra Voice home screen.

XML example of setting Contacts URL.

```
<WFConnect>
<Profile>
   <contacts_url>file:///WFConnect/contacts.csv</contacts_url>
</Profile>
...
</WFConnect>
```

Sync Contacts

Use Sync Contacts to import a contacts list saved as a CSV file.

Creating a Contacts List

Create a contacts list using a spreadsheet program.

1. From the host computer, use a spreadsheet program to create a list of contacts where the first row contains the following fields:

contactId	group	firstName	lastName	cellNumber	officeNumber	homeNumber	photo

2. Enter contact information as needed. For example:

contactId	group	firstName	lastName	cellNumber	officeNumber	homeNumber	photo
1	kitchen	John	Smith	516-555-1234	2001	516-555-1235	file:///wfconnect/john.jpg
2	hardware	Jane	Doe	516-555-1236	2002	516-555-1237	file:///wfconnect/jane.jpg

3. Save the spreadsheet as a CSV file.

Editing the Voice Contact List

The settings can be configured using the following environment:

- Extension Manager
- Profile Manager
- Provisioning Manager

To enable the Voice Contacts Editing feature, set the edit_voice_contact parameter to true in the XML configuration file.

Available in Zebra Voice 9.0.242xx or later.

The default value is false.

```

```

```
<WFConnect>
 <Profile>
        . .
          <edit_voice_contact>true</edit_voice_contact>
         ..
 </Profile>
     ...
</WFConnect>
```

ADB Commands Example

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es edit_voice_contact
 false
```

NOTE: This feature applies only to the Voice contacts, not the local ones.

Syncing Contacts

Sync contacts using the GUI.

1. From the host computer, copy the CSV file to the WFConnect folder on the device.
2. From Zebra Voice, select **Settings** > **Advanced Setting** > **Miscellaneous Settings**.
3. Select **Sync Contacts**. A confirmation that the contacts have been updated is displayed.

Screen Orientation

Use the screen orientation setting to switch between landscape and portrait modes in Zebra Voice. By default, screen orientation is set to landscape on ET5X tablets.

NOTE: Screen orientation is only available for ET5X tablets.

When connected to a Workstation Connect cradle or hub in desktop mode, this feature is ignored.

Setting Screen Orientation

Set screen orientation to landscape or portrait mode using XML or Extension Manager.

- Select the screen orientation by setting the `screen_orientation` parameter to `landscape` or `portrait` in the XML configuration file.
- Exit and then restart the app.

XML example of setting Screen Orientation.

```
<WFConnect>
    <Profile>
        <screen_orientation>landscape</screen_orientation>
    </Profile>
    ...
</WFConnect>
```

See Also

Exiting Zebra Voice

Show Only Voice Contact

By default, Zebra Voice displays native Android and Zebra Voice contacts in the app. Only Zebra Voice contacts are displayed in the Zebra Voice client when this option is enabled.

Setting Show Only Voice Contact

Display or hide native Android contacts using XML, Extension Manager, or Profile Manager.

- Show all contacts by setting `show_only_voice_contact` to false.

  This is the default value.
- Show only Zebra Voice contacts by setting `show_only_voice_contact` to true.

```
<WFConnect>
    <Profile>
        <show_only_voice_contact>true</show_only_voice_contact>
    </Profile>
    ...
</WFConnect>
```

Show Only Voice Group

This feature renders the contact as an individual contact or a combined same-group contact and displays them as a group inside the Zebra Voice Client.

Setting Show Only Voice Group

The settings can be configured using XML, Extension Manager, Provisioning Manager, or Profile Manager.

- Show Contact Fragment loads all contacts in an individual Contact manner if the value is false.
- Show Contact Fragment loads all contacts in an individual group manner if the value is true.
- Default Value: false

```
<WFConnect>
  <Profile>
       . .
          <showGroup>false</showGroup>
        ..
   </Profile>
     ...
</WFConnect>
```

ADB Commands Example

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es showGroup false
```

```
adb shell am start -a android.intent.action.VIEW -d "wfcvp-uat://<token>
" com.symbol.wfc.voice
```

Disable Favorites

This feature allows users to enable or disable favorite features inside the contact fragment.

Disabling Favorites

Disable favorites using XML, Extension Manager, and Profile Manager.

- To disable favorites, set the `remove_favorite` tag to `true` in the XML configuration file.

```
<WFConnect>
<Profile>
   <remove_favorite>true</remove_favorite>
</Profile>
...
</WFConnect>
```

Disable the Contact Scrolling

This feature allows users to enable or disable the scrolling of contact names inside the contact view when the contact name does not fit within the screen.

Disabling the Contact Scrolling

Disable contact scrolling using XML, Extension Manager, and Profile Manager. If the contact's name does not fit within the screen, then ellipses (...) are displayed at the end of the contact's name. Click the eclipse to see the remaining contact name.

NOTE: Available in Zebra Voice 9.0.221xx or later.

- To disable the scrolling of contacts, set the `horizontal_contact_scrolling` tag to `false` in the XML configuration file.

```
<WFConnect>
<Profile>
   <horizontal_contact_scrolling>false</horizontal_contact_scrolling>
</Profile>
...
</WFConnect>
```

By default, the scrolling of contact is in the disabled state.

Hide the Dashboard Footer

This feature allows users to show or hide the footer in the Zebra Voice Client dashboard fragment. Refer to In-Call Buttons on page 79.

Figure 12 Hide Dashboard Footer

Hiding the Dashboard Footer

Hide the dashboard footer using XML, Extension Manager, and Profile Manager.

NOTE: Available in Zebra Voice 9.0.221xx or later.

- To hide the dashboard footer, set the `hide_dashboard_footer` tag to `true` in the XML configuration file.

```
<WFConnect>
<Profile>
   <hide_dashboard_footer>true</hide_dashboard_footer>
</Profile>
...
</WFConnect>
```

By default, the footer is visible inside the **Dashboard**.

Arrange Dashboard Footer Icons

This feature allows users to arrange the position of In-Call buttons i.e., **Bluetooth**, **Dial pad**, **Mute**, and **Speaker**.

Arranging Dashboard Footer Icons

Arrange Dashboard footer icons using XML, Extension Manager, and Profile Manager.

- To arrange footer icons, set `inCallFooterOrder` tag value as 0,1,2,3 or in any order in the XML configuration file. For the value attached to icons, refer to XML Tags on page 167

```
<WFConnect>
     ...
      <Profile>
          <inCallFooterOrder>0,1,2,3</inCallFooterOrder>
      </Profile>
      ...
</WFConnect>
```

Disable the Reload Menu Option

This feature allows users to disable the Reload Menu Option.

Disabling the Reload Menu Option

Disable the Reload Menu option by setting the `disable_menu_reload` parameter to `true` in the XML configuration file or the Extension Manager. If the `disable_menu_reload` parameter is not set or set to false, the Reload Menu option is available from the three-line(Hamburger) menu. With the Profile Manager environment, **Reload** menu option is not available.

NOTE: Available in Zebra Voice 9.0.222xx or later.

- To disable the Reload Menu option, set the `disable_menu_reload` parameter to `true` in the XML configuration file.

```
<WFConnect>
<Profile>
   <disable_menu_reload>true</disable_menu_reload>
</Profile>
```

```
...
</WFConnect>
```

Restart Thread Configuration

When the Voice Client detects that the phone service (thread) is not active, it automatically initiates the phone service.

The Zebra Voice Client version must be 9.0.24301 or later to support this feature.

Voice Client restarts the phone service application in the following scenarios:

- During Incoming Call
- During Outgoing Call
- During Polling - For further details on polling, refer to the Setting Polling Mechanism section.

If the phone service (thread) is inactive, the system displays the following text message, and the Voice Client restarts the same extension within 3 to 5 seconds.

Error occurred. Restarting the app.

Setting the Polling Mechanism

A polling mechanism has been implemented to routinely verify if the phone service (thread) is operational. The following are the new configuration parameters applied to the Voice Client for this polling process:

The Zebra Voice Client version must be 9.0.24301 or later to support this feature.

Parameter Name	Description	Value
`check_phone_service_running`	This parameter is used to activate polling, which checks if the phone service is operational.	True: False: Default: false
`check_phone_service_running_interval`	This parameter is used to define the interval at which polling occurs	Between 60 seconds to 24 hours. Value needs to be entered in seconds. Default 300 seconds

XML example of setting the parameters.

```
<WFConnect>
...
<Profile>
..
<check_phone_service_running>false</check_phone_service_running>
<check_phone_service_running_interval>300</
check_phone_service_running_interval>
..
</Profile>
...
</WFConnect>
```

Emergency Number Support

Voice Client includes a new configuration feature that allows the administrator to configure emergency number details. Whenever an emergency number is dialed from the Voice Client application, the Voice Client sends an intent to the third-party application, which is registered with the following intent details.

The Zebra Voice Client version must be 9.0.24301 or later to support this feature.

Table 2 Intents Details

Name	Description
Action	`android.intent.action.SEND`
Category	`android.intent.category.DEFAULT`
Package	Broadcasts Receiver app package name.
Class	Broadcasts Receiver app Class name.
Extra 0	
Type	Integer
Name	`dialed_emergency_number`
Value	Returns the emergency number details dialed by the Voice Client. **NOTE:** This extra feature is available starting with version 9.0.24403 and later.

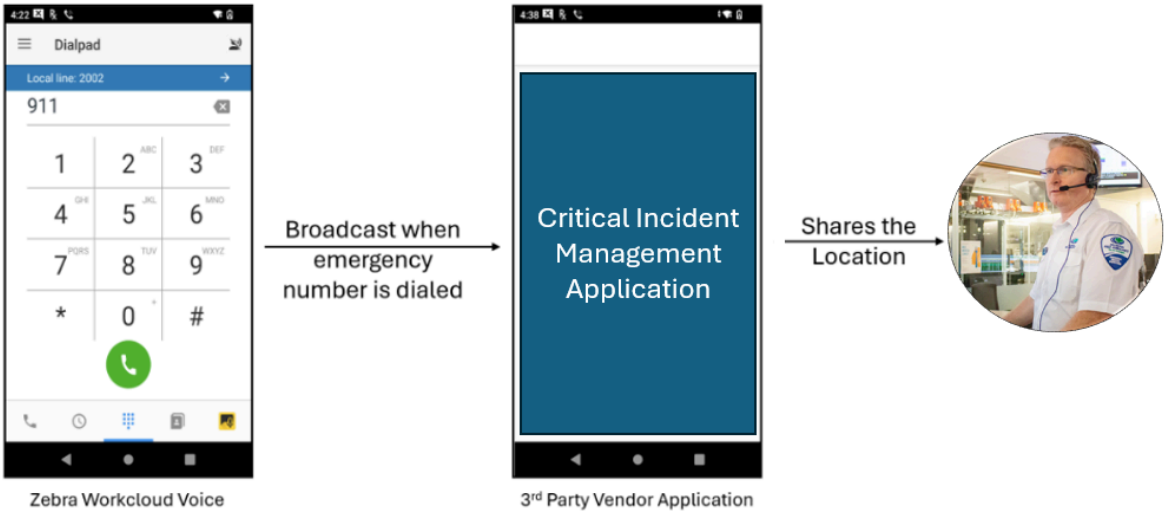
Setting the Emergency Support Number

To accomplish this feature, three new configurations of Voice Client V9.0.24301 or later have been introduced, and those are not configured through the user interface.

Configuration String	Description	Type	Configuration Value
emergency_numbers	Configures one or multiple emergency numbers.	String	Emergency numbers are followed by commas. Default: empty
emergency_package_name	Configures the package name associated with broadcast intent.	String	A valid package name Default: empty
emergency_class_name	Configures the class name associated with Broadcast Intent.	String	A valid broadcast receiver class name. Default: empty

Configuration String	Description	Type	Configuration Value
dial_emergency_number	Either make a call and send or broadcast or only send a broadcast.		True: Initiates a call to the emergency number and activates a broadcast to the third-party service/ application. False: Initiates a broadcast to the third-party service/ application. Default: true NOTE: The new configuration for dial_emergency_number is available from version 9.0.24403 and later.

A key use case of supporting the emergency number feature is to enable the transmission of a device's location information to emergency services during an emergency call. This can be achieved by utilizing the intent feature mentioned earlier alongside a third-party service, such as a Critical Incident Management Application, as illustrated in the following diagram.



As shown in the following example, one must configure the parameters with valid information to use this feature through PVM, EXM, and XML.

```
<WFConnect>
...
<Profile>

. .
<emergency_numbers>911,8911,9911</emergency_numbers>
<emergency_package_name>package_name</emergency_package_name>
<emergency_class_name>class_name</emergency_class_name>
```

```
<dial_emergency_number >true</dial_emergency_number>
..

</Profile>
...
</WFConnect>
```

ADB Command example to configure a single emergency number.

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es emergency_numbers
 XYZ --es emergency_package_name PACKAGE_XYZ --es  emergency_class_name
 CLASS_NAME_XYZ --ez dial_emergency_number true
```

ADB Command example to configure multiple emergency numbers.

```
adb shell am start -a wfc.voice.ACTION_UPDATE_CONFIG --es emergency_numbers
 XYZ,ABC --es emergency_package_name PACKAGE_XYZ --es  emergency_class_name
 CLASS_NAME_XYZ --ez dial_emergency_number true
```

ADB Command example to pass token using intent.

```
adb shell am start -a android.intent.action.VIEW -d "wfcvp-uat://<token>"
 com.symbol.wfc.voice
```

NOTE:

- Multiple numbers can be configured as emergency numbers.
- The `emergency_numbers` and `emergency_package_name` are mandatory parameters to configure.

Reloading the Voice Client on IP Address Change

Whenever a device is moved from one store to another, and its IP Address changes, the Voice Client detects the changes and reloads the application if it has a valid registered extension.

Setting the IP Address Reload on Change

The settings can be configured through **Extension Manager** environment.

The value can be either true or false. The default value is false.

- True: Voice Client is reloaded.
- False: Voice Client works as earlier.

XML example of configuring the `auto_reload_when_ip_changes`.

```
<WFConnect>
...
 <Profile>
 ..
<auto_reload_when_ip_changes>false</auto_reload_when_ip_changes>
 ..
 </Profile>
 ...
</WFConnect>
```

Logging

This chapter describes the process used to capture and collect Zebra Voice log files and Fusion log files. The Log Marker feature records the date and time of an event into a log file. Log files are used to assist in troubleshooting the Zebra Voice environment during run-time operations.

NOTE: For accurate logging, check that the device date and time are set correctly.

Accessing Logging Settings

Access the Logging settings using the Zebra Voice GUI.

1. Launch **Zebra Voice**.
2. Touch ☰ > **Settings**. The password dialog box appears.
3. Enter a password (default: zamboni).
4. Touch **Enter**. The password is preserved until the app quits.
5. Select **Advanced Settings** > **Logging**.

Logging Level

Available logging levels are:

- LogCat disabled - Logging is disabled.
- Error - Low level application error - not critical
- Warning - Feedback from application operation and function
- Info - High level / user interaction and call information
- Debug - Captures information for developer troubleshooting
- Verbose - Captures all information for developer troubleshooting.

Setting Logging Level

Set the logging level using the GUI or XML.

1. In **Logging**, select **Logging level**.
2. Choose a level for Logging. Default level “Error” is suggested.

3. Touch **Back** button to get back to the Zebra Voice home screen.

XML example of setting logging level.

```
<WFConnect>
<Profile>
   <log_level>Error</log_level>
</Profile>
...
</WFConnect>
```

Logging Types

There are several types of logging within Zebra Voice and the native Android OS.

Setting Logging to File

Log information is written to a file on the device. Enable or disable Logging to File using the GUI or XML.

1. In **Logging**, select **Logging to File**.
2. Touch the box to enable Logging to File. The file is saved in the WFConnect folder.
3. Touch **Back** button to get back to the Zebra Voice home screen.

XML example of setting Logging to File.

```
<WFConnect>
<Profile>
   <log_console>false</log_console>
</Profile>
...
</WFConnect>
```

Setting SIPCLF Logging

Log information is written to a Session Initiation Protocol Common Log Format (SIPCLF) file. Enable or disable SIPCLF Logging using the GUI or XML.

NOTE:

- On Android 11 and later, logs are available in the folder `/sdcard/Android/data/com.symbol.wfc.voice/files/`
- On Android 10 and below, logs are available in the folder `/sdcard/WFConnect/`

1. In **Logging**, select **SIPCLF Logging**.
2. Touch the box to enable SIPCLF Logging. The file is saved in the WFConnect folder.
3. Touch **Back** button to get back to the Zebra Voice home screen.

XML example of setting SIPCLF Logging.

```
<WFConnect>
<Profile>
   <log_sipclf>false</log_sipclf>
</Profile>
...
</WFConnect>
```

Log Files

Two types of log files can be collected:

- Workcloud Communication Logs
- Fusion Logs

Workcloud Communication Logs

Zebra Voice has the following logging methods:

- Android LogCat - LogCat provides a mechanism for collecting and viewing system and application messages. By default, Zebra Voice automatically logs all messages into LogCat at the VERBOSE level. When Logging to File is enabled, Zebra Voice logs all messages in the WFConnect folder.
- Session Initiation Protocol Common Log Format (SIPCLF) - All received and sent SIP messages are in CLF format as a single text line. Special software is required to read this file format. This logging method is disabled by default.

  SIPCLF files can be found in the following location: `/WFConnect/WFConnect_<device_id>_<timestamp>.clf`

Fusion Logs

The native Android operating system provides an advanced logging feature. Fusion Logs collect unencrypted data, including Real-time Transport Protocol data. The data is imported to third party software for network troubleshooting and protocol analysis. The captured data is output to a .pcap file and an event log.

Collecting LogCat with RxLogger

The RxLogger tool integrates into the operating system and collects Zebra Voice log files. There is no need to set the log level inside Zebra Voice. When Rxlogger logging starts, Zebra Voice is notified via a plugin to enable VERBOSE LogCat and SIPCLF logging. By default, SIPCLF is disabled.

Enabling RXLogger

Zebra Voice logging is automatically enabled when RxLogger logging is enabled. The LogCat file is saved to the location specified in the RXLogger configuration.

When RxLogger starts, it overwrites the setting level to VERBOSE. When using RxLogger, Zebra Voice logging is disabled, and all logging is posted through RxLogger.

Whenever RXLogger is started or stopped, the Voice Client enables or disables verbose logs for log collection. This ensures that the Voice Client automatically collects logs without manual intervention.

Users can customize Zebra Voice logging in the RxLogger configurations.

LogCat sets the VERBOSE level in Zebra Voice.

- Touch **Start** to enable logging.
- Touch **Stop** to disable logging.

Debug Log Markers

Log markers are used to mark specific locations in the LogCat file, identifying when an event occurs. The Log Marker feature can be used as many times as necessary. The follow example displays a Log Marker entry in LogCat.

```
08-24 16:59:09.953: E/UI(4587): ------------------------------------------
08-24 16:59:09.953: E/UI(4587): <<<MARKER>>>
08-24 16:59:09.953: E/UI(4587): <<< optional description >>>
08-24 16:59:09.953: E/UI(4587): ------------------------------------------
```

Adding a Log Marker for Debugging

Add a Log Marker from the Zebra Voice main screen.

1. Touch ⋮ > **Add Log Marker**.
2. Enter an optional description.
3. Click **SET**.

Configure the Log Marker

. To provide access elsewhere in the client, create a customized button. For example, when troubleshooting in-call errors, a Log Marker button is added to the In-Call buttons.

To configure a custom Log Marker button, see Configuring the Log Marker on page 82.

NOTE: When a custom Log Marker button is used, the optional description is unavailable.

Enable Fusion Logs

Fusion Logs are enabled in Wi-Fi settings.

Enabling Fusion Logs In Android 6.1 or 7.1.2

1. From the Android Home screen, touch **All Apps** > **Settings** > **Wi-Fi**.
2. Touch the menu button.
3. Touch **Advanced**.
4. In the Logging section, touch **Advanced Logging**.
5. Ensure the **Enable Logging** check box is selected. The user can only change the log file location when Advanced Logging is disabled.

Fusion Logs are now set. Run Zebra Voice. When events occur, they are captured in the location set in Advanced Logging.

NOTE: Powering off the device deletes the collected fusion logs.

Enabling Fusion Logs In Android 8.1

1. From the Android Home screen, swipe up and touch **Settings** > **Network & Internet** > **Wi-Fi**.
2. Touch **Wi-Fi preferences** > **Advanced** > **Additional Settings**.
3. In the Logging section, touch **Advanced Logging**.
4. Ensure the **Enable Logging** check box is selected. The user can only change the log file location when Advanced Logging is disabled.

Fusion Logs are now set. Run Zebra Voice. When events occur, they are captured in the location set in Advanced Logging.

NOTE: Powering off the device deletes the collected fusion logs.

Capturing the Logs

Capture the Zebra Voice logs to a device.

Accurate logging is necessary for effective troubleshooting. Check that the device date and time are set correctly.

NOTE: It is recommended that inaccurate log files be deleted and recaptured.

1. Connect the device to the host computer using a USB cable.
2. Copy log files to the computer.
3. Ensure log files were set up correctly and captured relevant data.
4. Identify Log Marker events by date and time stamps.

Using the Client

Zebra Voice improves the effectiveness of communications within an organization, providing enterprise voice communications across multiple media types on unified mobile devices.

With Zebra Voice, you can:

- Use a rich selection of features on configured wireless devices
- Seamlessly communicate with co-workers or take an outside call from a customer or vendor
- Use the device most appropriate and convenient for each situation.

NOTE: This guide covers default button icons, which the system administrator can modify.

Home Screen Dashboard

Examples of the Home screen dashboard.

NOTE: If multiple PBXs are configured, the PBX type for each appears on the right.

Figure 13 Home Screen Dashboard

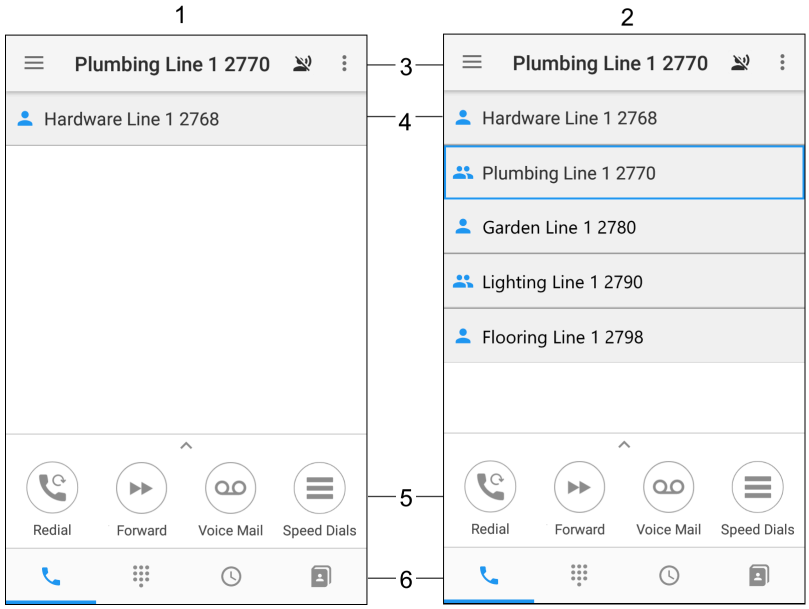
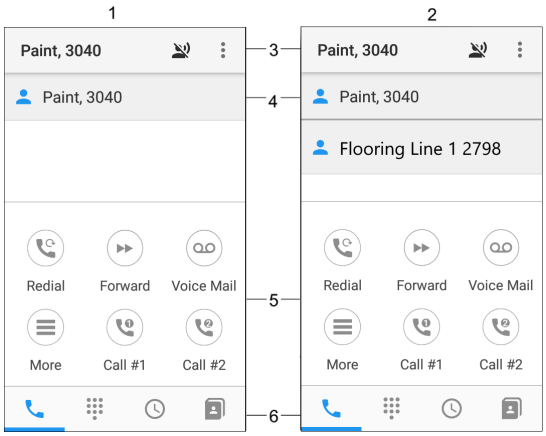


Figure 14 EC30 Home Screen Dashboard



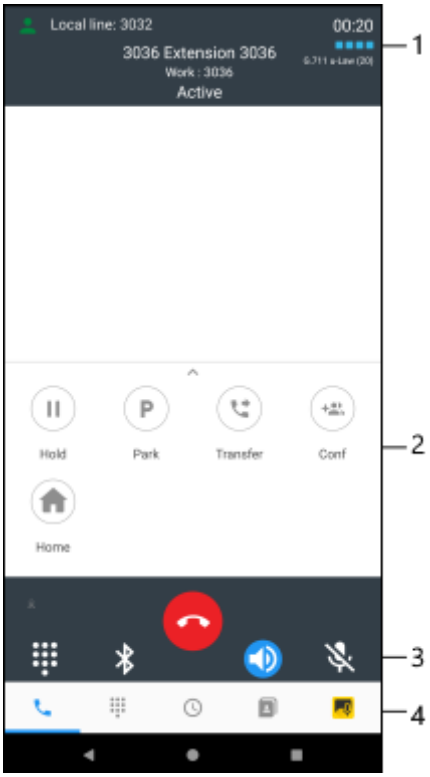
Number	Item
1	Single Line
2	Multiple Lines
3	Dashboard Header Line Status
4	Dashboard Extensions List
5	Dashboard Buttons
6	Dashboard Footer Buttons

In-Call Dashboard

Examples of the In-Call dashboard.

NOTE: In some versions of Zebra Voice, the three-line menu is accessible from the **In-Call** screen by swiping right from the left side of the screen.

Figure 15 In-Call Dashboard



Number	Item
1	In-Call Header Line Status
2	In-Call Dashboard Buttons
3	In-Call Action Buttons
4	In-Call Footer Buttons

Touching the **Back** button from the Home Screen Dashboard or In-Call Dashboard minimizes Zebra Voice and switches to the Android home screen.

Signal Quality

During an active call, the signal quality indicator appears in the upper right portion of the screen, indicating voice traffic errors on the network.

Excellent

Good

Acceptable

Bad

Initiate a Call

There are various ways to initiate a telephone call:

- Touch to enter a specified extension or phone number and then touch to initiate a call.

  If Zebra Voice is configured to use multiple extensions, you can choose which extension to call from by touching **Local Line** and then selecting an extension.
- Touch to display a list of previous calls. See Call History on page 154 for more information.
- Touch to display a list of saved contacts. See Contacts on page 151 for more information.
- Touch to display a list of favorite contacts. See Favorites on page 153 for more information.
- Touch to initiate a call to the most recently dialed location.
- Touch to initiate a call to a number preset by the system administrator
- Press the PTT button to initiate a call using voice commands. See Voice Commands on page 144.

For information on initiating a call using a third-party app, refer to the Zebra Voice Programmer's Guide.

Voice Commands

Voice commands are disabled by default. To enable voice commands, see Voice Command on page 115.

Using Voice Commands

Use voice commands to call a specified extension, phone number, or contact.

A network connection is required to use the Voice Command feature.

1. Press and release the (Push to Talk) **PTT** button to initiate a call.
2. Upon hearing the grant tone, say `Call` or `Dial` and the specified extension, phone number, or contact name. When calling a contact you can also say the phone type (mobile, work, or home).
   - If multiple entries are found, the system prompts you to make a choice. Only the first 10 entries are made available when using voice commands.
   - If no user or phone number entries are found, the system responds that the entry was not found.

     Two beeps indicate that the system has stopped listening for voice commands. Press and release the **PTT** button again to start listening for voice commands.
   - If an invalid selection is made, the system responds **I do not understand**.

     Two beeps indicate that the system has stopped listening for voice commands. Press and release the **PTT** button again to start listening for voice commands.

Voice Command Language Support

A limited set of voice command translations are supported.

Table 3 Translated Voice Commands

Language	Commands	
English	call	phone
French Canadian	appel	téléphone
French	appel	téléphone
Spanish	llamada	teléfono
German	Anruf	Telefon
Dutch	bellen	telefoon
Italian	chiamata	Telefono
Swedish	ring upp	telefon
Hungarian	hívás	telefon
Polish	połączenie	telefon
Slovak	hovor	telefón
Czech	hovor	telefon
Russian	вызов	Телефон

Receive a Call

The incoming screen offers various call accept styles, such as accept and reject buttons or sliders.

NOTE: Available ring tones vary. Use the device system settings to set tones and vibration notification.

Popup Window

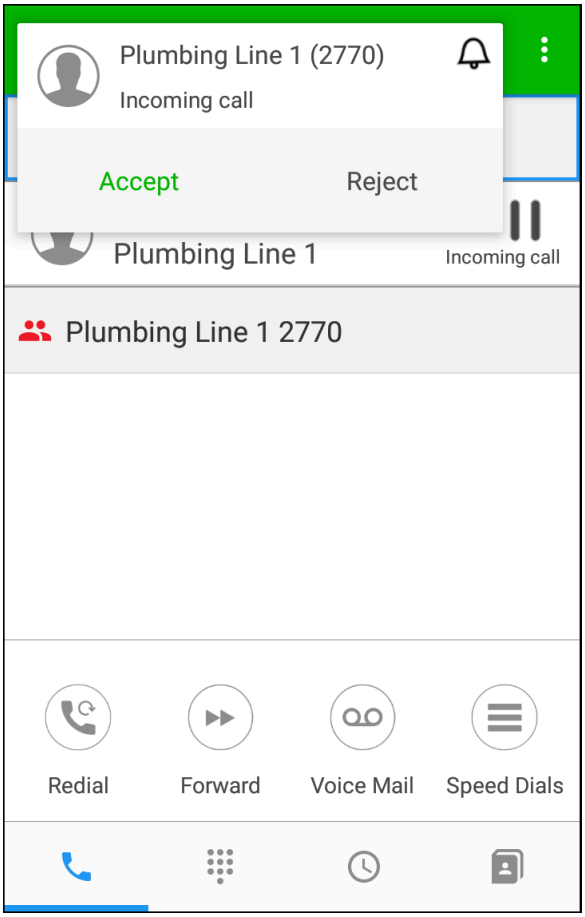
During an active call in Zebra Voice, a popup window appears when an incoming call is received. Touch one of two buttons to accept or reject an incoming call.

Starting in version 9.0.21401, when a Zebra Voice call is received while the app runs in the background, an Android notification displays instead of the Zebra Voice popup window. If there are multiple incoming calls, open the Android notification panel to view all notifications.

When an incoming call is through a wide area network (WAN), the Zebra Voice call is placed on hold. If the WAN call is accepted, the Zebra Voice call remains on hold.

To resume the Zebra Voice call, open Zebra Voice and touch ▶.

Figure 16 Popup Window



Ending a Call

The End Call feature ends a call in any state.

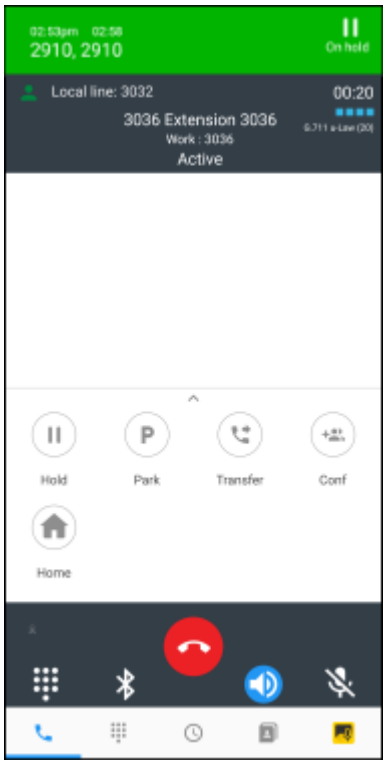
- Touch or the red **End Call** icon to end any call.

Adding a Call

During an active call use the dialer to place the current call on hold and initiate a new call. When the new call connects, you can Transfer, Conference, or End the second call and resume the first call.

1. Touch to display the dial pad.

2. Enter the new number and touch .



The first call is on hold with the option to resume and the new number becomes the active call. To resume the first call, touch the extension.

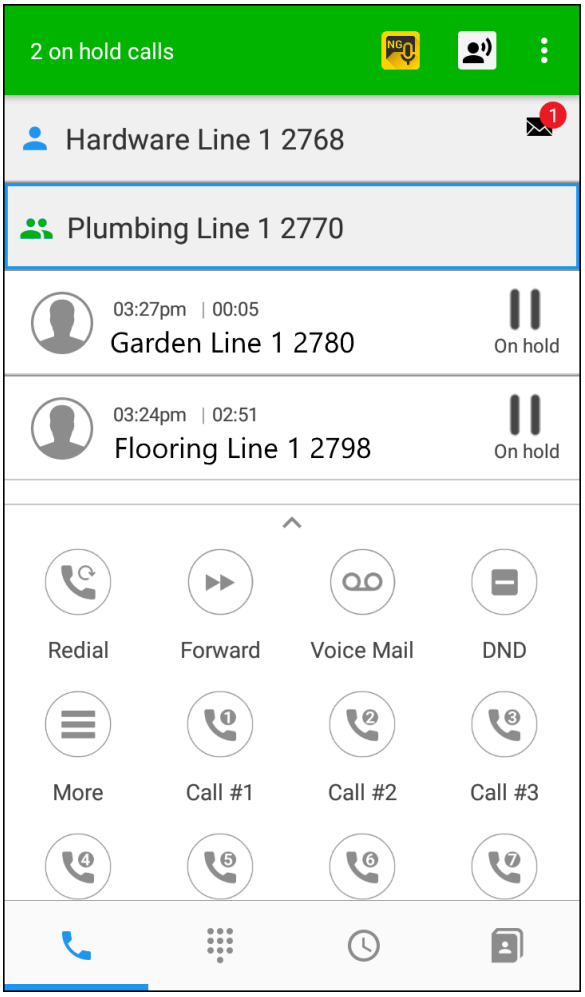
Using Call Hold and Resume

Use the Hold feature to temporarily disconnect a call, use the telephone for another call, and then use Resume to return to the original call.

For information on setting up the Hold and Resume buttons, see Configuring the Hold Button on page 91 and Configuring the Resume Button on page 92.

While on a call use the **Call Hold** and **Resume** buttons.

- Touch to display the Hold screen.
- Touch to resume the call or touch to place another call.
- Use the Home button or to display the home screen dashboard. From the home screen dashboard, touch an extension to resume a call.



Call Park and Unpark(Premium Feature)

Call park and unpark are available on the In-Call dashboard.

NOTE: Feature only available with Cisco CUCM Premium.

Park Call from Other Users

Use the Call Park/Unpark feature to put a call on hold and then retrieve that call from any other telephone within the system.

Touch Ⓟ to display the Park screen.

Unpark Call Using Call Originator

Unpark a call placed by the call originator touch.

Unpark a call so anyone capable of retrieving the parked call can continue speaking with the caller on any phone. The method for retrieving a parked call varies depending on who is unparking the call.

Parked on [parked extension].

Unpark Other Users Call

Unpark a call placed by someone other than the call originator.

1. Touch the **Unpark** button.
2. Enter the extension for the **[call originator]**.
3. Touch **OK**.

Call Park Directed

NOTE: Feature only available with Cisco CUCM Premium.

Use the Call Park Directed feature to transfer a call to a park directed number. Another user then retrieves that call from any other telephone within the system.

This feature must be set in advance on the PBX. If the park directed number is not configured, the PBX rings back the user attempting to park the call.

Using Call Park Directed

1. Touch **Transfer** to display the dial screen.
2. Dial the number and touch .
3. Touch **Complete Transfer** to complete the call transfer.

Using Call Park Directed Retrieval

1. Touch to open the dialer.
2. Enter the `[retrieval number]`.
3. Touch .

Dashboard of Parked Calls (Premium Feature)

The Dashboard of Parked Calls displays when multiple calls are parked.

NOTE: Feature only available with Cisco CUCM Premium.

Voicemail

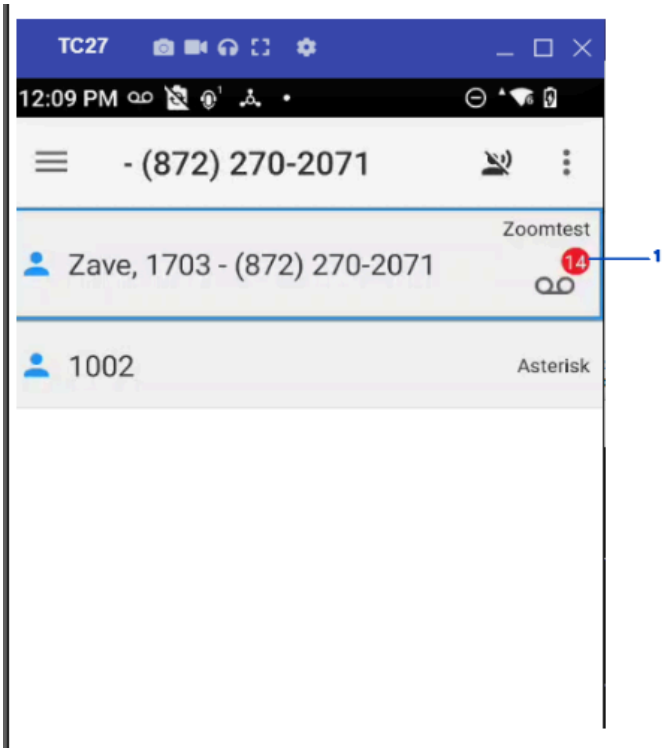
Use the Message Retrieval feature to retrieve voice messages from the voice mail server. For information on configuring the Voicemail button, see Configuring the Voicemail Button on page 87.

NOTE: To configure Voicemail go to **Settings** > **Advanced Settings** > **Connection Parameters** > > **HTTPS Server Address** and enter the utility server IP address.

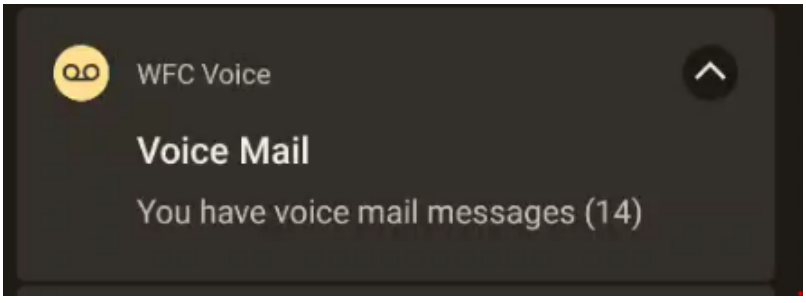
Retrieving Voicemail Messages

Voicemail messages appear for each line/extension next to the extension number.

Touch to call the user's Voicemail box and display a list of received Voicemail.



Number	Item
1	Message Waiting Indicator (MWI) with Number of Messages Waiting (count only available where PBX provides count).



Message Waiting Indicator (MWI)

An Android notification is generated when a new voicemail is received. An Android notification may not be generated if an unread voicemail already exists.

Message Retrieval

Use the Message Retrieval feature to retrieve voice messages from the voice mail server. Alternatively, retrieve voice messages by pressing the Message Waiting bar or the Voicemail button.

Contacts

Use the Contacts feature to store and dial frequently used numbers. See Configuring the Contacts Button on page 86 for information on how to create a Contacts button.

NOTE: Add and edit contacts from the native Android operating system. Refer to the Android guide for more information. If the contacts are not synced after adding them, irrespective of clicking the CANCEL or ADD ACCOUNT button, the following google prompt message is displayed only once:

"Take a minute to add an account that will back up your contacts to Google."

Contacts synced with a Gmail account cannot be sorted within a group.

This feature is separate from the Directory feature and does not affect the PBX.

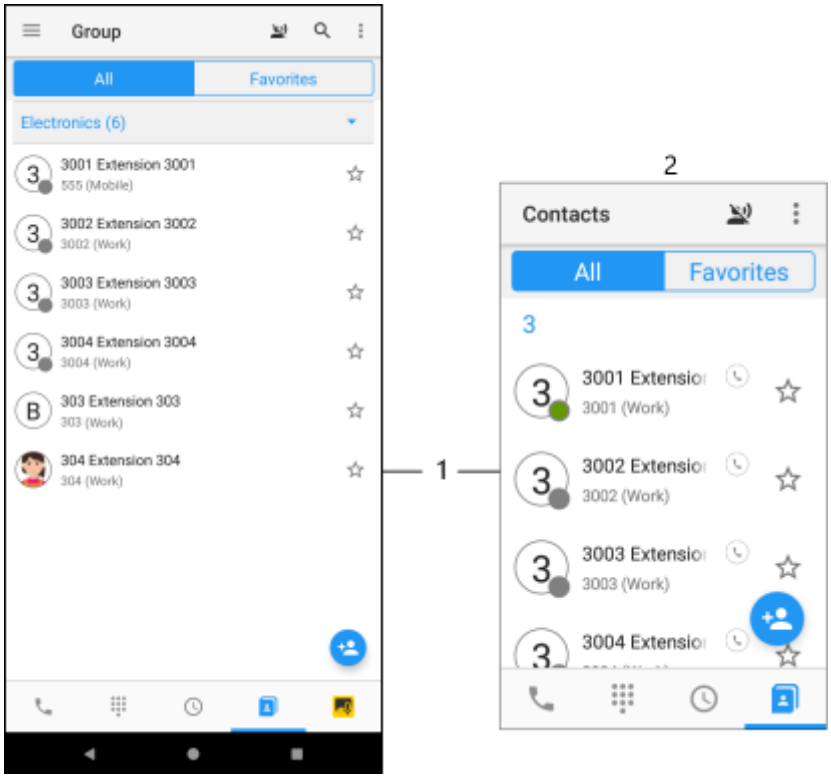
Using Contacts

Use the Contacts button to access stored contacts.

- Touch the **Contacts** button to display a list of saved contacts.
- To view contacts in Group mode, touch > **Group**.

- To view all contacts saved on the device, touch the **My Contacts** label.

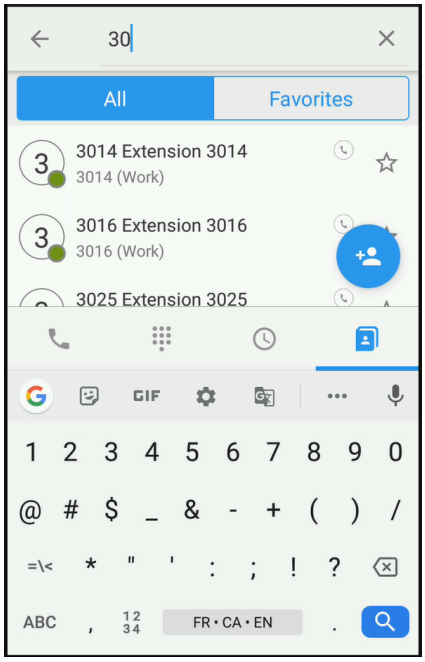
  Contacts that are currently available always appear at the top of the list, including when viewing contacts in Group mode.



Number	Item
1	Saved Contact
2	Contacts screen on EC30 device

- To search for a specific contact, touch . For EC30, touch > **Search**.

  Search results display with available contacts at the top of the list.



- Touch a contact number to call that contact.

Contact Presence Indicators

Presence is supported when using Profile Manager or Extension Manager.

Table 4 Contact Presence Indicators

Icon	Description
	Contact is not assigned an extension.
	Contact is available.
	The contact is busy or on a call.
	The contact is in Do Not Disturb (DnD) mode.

Favorites

Use the Favorites feature to store and dial contacts that are set as favorites. See Configuring the Favorites Button on page 87 for information on how to create the Favorites button.

This feature is separate from the Directory feature and does not affect the PBX.

Using Favorites

- Touch the default **Contacts** button , and select the **Favorites** tab to display a list of favorite contacts.
- To set contacts as favorites, touch ★ next to a contact name in either the **All** or **Favorites** tabs.

Number	Item
1	Favorite Contacts

- Touch a contact number to call that contact.

Call History

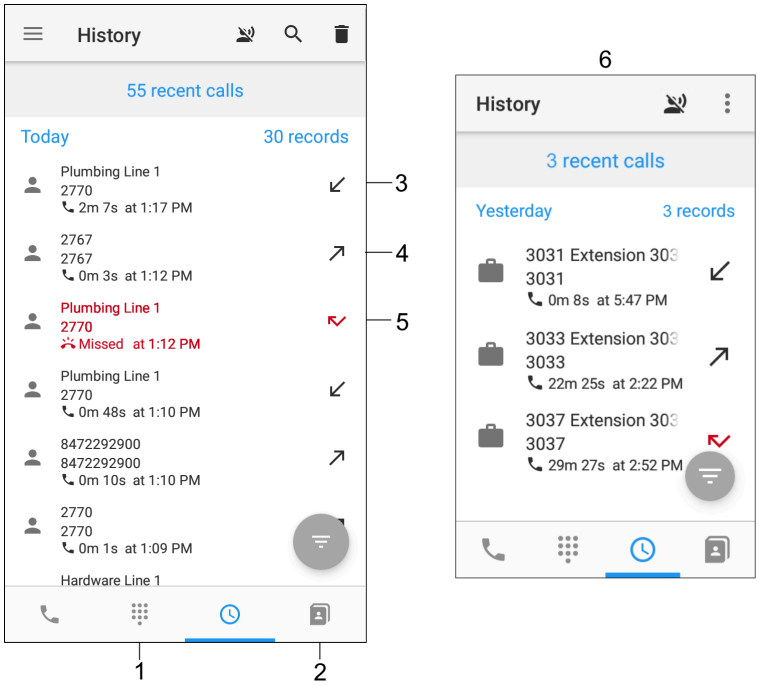
Use Call History to view, dial, and delete recent call history.

Viewing Recent Calls

For information on configuring the Call History button, see Configuring the History Button on page 85.

This feature records missed, answered, and outgoing calls in the call history log. Use this log to initiate a call, delete an entry, or view details of an entry.

- Touch the **History** button to view the call history screen.



Number	Item
1	Dial Pad
2	Contacts
3	Received Call
4	Placed Call
5	Missed Call
6	EC30

- Touch a call history button to see the call detail, which includes the caller ID, extension, call type, time, date and duration.

Dialing from Call History

Initiate a call from Call History.

- Touch a recent call to display the **Call** button .

Deleting Call History

Delete a call from Call History.

- Touch the **Menu** button, then Delete.

Clear Call History on Sign-out

- To clear the call history automatically after signing out, set the Call Clear History setting using the Extension Manager, Profile Manager, or XML.

  XML example of clearing call history on Sign Out.

```
<WFConnect>
<Profile>
   <clearRecentCall>true</clearRecentCall>
</Profile>
...
</WFConnect>
```

Set Call History Filter to All After Signout

Inside the History Fragment, the floating call status menu filter resets to ALL by default each time a user signs out or logs out from the Zebra Voice Client.

To support this feature, the Zebra Voice Client version must be 9.0.23301 or later

Pinboard Integration - Intents/APIs to Share Call Data

Zebra Voice client now exposed new Intent action using that any third-party application can consume the call data generated inside the Voice Client for their business usage. The following features have been exposed to support this.

Generic Intent Support to Get Call Data on Demand

The Voice Client exposed the following intent `com.zebra.wfc.voice.GET_INFO` to get the specific category of call-data count from the Voice Client on-demand basis. Any third-party applications need to follow the steps in the following methods to get the count from the Voice Client.

1. Send a broadcast with the following action `GET_INFO` by providing the proper call category as an extra parameter. For more information, refer to the following table:

Table 5 Intent: com.zebra.wfc.voice.GET_INFO

Extra Parameters	Value	Description
`call_type`	MISSED	Fetches the MISSED call count from the Voice Client and sends it back to the calling application.
`call_type`	REJECTED	Fetches the REJECTED call count from the Voice Client and sends it back to the calling application.
`call_type`	INCOMING	Fetches the INCOMING call count from the Voice Client and sends it back to the calling application.
`call_type`	OUTGOING	Fetches the OUTGOING call count from the Voice Client and sends it back to the calling application.

Generic Intent Support for Broadcasting Call Information

The Voice Client exposed the following intent `com.zebra.wfc.voice.CALL_INFO_BROADCAST` to get the specific category of call-data count from the Voice Client whenever there is a change in call history

information. Any third-party applications need to follow the following steps to get the count from the Voice Client.

Table 6 Intent: com.zebra.wfc.voice.CALL_INFO_BROADCAST

Value	Description
MISSED	Fetches the MISSED call count from the Voice Client and sends it back to the calling application.
REJECTED	Fetches the REJECTED call count from the Voice Client and sends it back to the calling application.
INCOMING	Fetches the INCOMING call count from the Voice Client and sends it back to the calling application.
OUTGOING	Fetches the OUTGOING call count from the Voice Client and sends it back to the calling application.

Generic Intent Support for Opening Voice History Fragment

The Voice Client exposed the following intent `calllog.open_history` to open the Voice Client History Fragment with the specific category of filter selected option on-demand basis. Any third-party applications need to follow the following steps to request for opening Voice Client History Fragment with a specific filter set.

1. Send a broadcast with the following action `calllog.open_history` by providing the proper call category as an extra parameter. For more information, refer to the following table.

Table 7 Intent: com.zebra.wfc.voice.calllog.open_history

Extra Parameters	Value	Description
`call_type`	ALL	Opens all categories of Voice Client call history.
`call_type`	MISSED	Opens the MISSED call history of Voice Client.
`call_type`	REJECTED	Opens the REJECTED call history of Voice Client.
`call_type`	INCOMING	Opens the INCOMING call history of Voice Client.
`call_type`	OUTGOING	Opens the OUTGOING call history of Voice Client.

Advanced Calling Features

Zebra Voice supports several advanced calling features.

Multiple Lines(Premium Feature)

Zebra Voice supports and displays a presence icon to the left of each line.

Feature only available with Cisco CUCM Premium.

The presence icon's shape, color, and animation indicate its type and status. The following table lists presence icon combinations.

Table 8 Presence Icon Descriptions

Icon Status	Dedicated Line	Shared Line
Idle (Solid Icon)		
Active (Solid Icon)		
Call on Hold (Blinking Icon)		
Busy / Registering Status text appears next to the extension (Solid Icon)		
Busy in a call (Blinking Icon)		

Multiple Lines Registration

Zebra Voice Client supports multiple-line registration in **CUCM Premium 12.5 U6** or later, and all the configured multiple lines are registered successfully.

Multiple Line Appearances (Premium Feature)

Use the Multiple Line Appearances feature to associate and use multiple lines with a device. Configure multiple lines in the PBX.

Busy Indicator(Premium Feature)

Zebra Voice supports Busy indicators for multiple extension configurations. An icon is associated with each extension, indicating if the line is idle, active, on hold, or busy. See Presence Icon Descriptions.

Call Transfer

The Transfer feature transfers an active call to a third party. While Call Forwarding must be pre-configured, use Call Transfer to make call exchanges in real-time with an active call. To set up the Transfer button, see Configuring the Transfer Button on page 92.

There are two types of transfer:

- Call Transfer Attended - The transferring party does not complete the transfer (for example, remains on the call) until the transferred-to party answers.
- Call Transfer Blind - The transferring party completes the transfer (for example, drops the call) while the transferred-to party is still ringing.

Initiating a Transfer

Initiate a call transfer using the Transfer button.

1. Touch to display the dial screen.
2. Dial the number and touch .
3. To complete Call Transfer Attended transfers, touch **Complete Transfer**.
4. To complete Call Transfer Blind transfers, touch **Complete Transfer** or end the call.

Ad hoc Conference(Premium Feature)

NOTE: Feature only available with Cisco CUCM Premium.

All conference participants must enable the G.711 codec.

Use this feature to create a conference without the assistance of an attendant and with up to six participants. The Conference feature joins two separate calls for collaboration between each party on the line at the same time.

To set up the Conference button, see Configuring the Conference Button on page 93.

Setting Up Ad hoc Conference

Set up an ad hoc conference using the Conference button.

1. During an active call, touch to default **Conference** button to dial the conference number.
2. Enter a number and touch .
3. Touch the **Conference Complete** button to join the completed conference call.

Miscellaneous Features

Setting Ringtone

By default, Zebra Voice uses the ringtone configured in the native Android settings.

- Touch > **Ringtone** to change the default ringtone for Zebra Voice.

Using Reload

Sign out and then automatically sign back into Zebra Voice.

- Touch > **Reload**.

Using Sign Out

Sign out of Zebra Voice.

- To sign out of Zebra Voice, touch > **Sign Out**.
- To sign in back to Zebra Voice, touch **SIGN IN**.

- To exit Zebra Voice, sign out, then touch > **Quit**.

Using Speed Dial Numbers

Speed Dial places a call to a preset number or extension. Up to 10 speed dial buttons are available. The system administrator configures speed dial numbers.

- Touch the Speed Dial button to make a call using the preset destination.

Using Suspend Mode

Suspend Mode blocks all incoming or outgoing calls.

- Touch the Suspend Mode button to enable or disable **Suspend Mode**.

Using the List Button

List displays a speed dial list by default.

NOTE: List is configured by the system administrator.

- Touch the default **List** button to display the speed dial list.

Using the Home Button

Use the Home button to display the Dashboard and access to Dashboard functions

- During an active call touch **Home**.

Adjusting the Ring Volume

Configure using the device's sound settings. Refer to the User Guide for your Zebra device at www.zebra.com/support for more information.

Unique Ringtone per Line Appearance(Premium Feature)

NOTE: Feature only available with Cisco CUCM Premium.

To configure ringtones per line, see Setting Line Ringtones on page 119.

Unique Ringtone per Contact (Premium Feature)

NOTE: Feature only available with Cisco CUCM Premium.

Configure using the device's sound settings. Refer to the device User Guide at www.zebra.com/support for more information.

Distinctive Ringing

Use the Distinctive Ringing feature to distinguish between incoming call types based on the ringing pattern of the call. For example, internal versus external calls.

Vibrate or Ring Tone

Configure using the device's sound settings. Refer to the User Guide for your Zebra device at www.zebra.com/support for more information.

Start Application

A system administrator can configure Zebra Voice to launch another application on the device. When the button is pressed, Zebra Voice minimizes and runs in the background, and the application launches.

Touch the application button to launch another application. Go to Configuring the Start App for information about configuring the Start App.

Log Markers

Log Marker creates a time stamp in the logs. If you experience any issues with Zebra Voice functionality, the time stamp focuses on troubleshooting of the device to the time the issue occurred for more rapid resolution.

Adding a Log Marker

Add a log marker from the Home screen.

1. Touch ⋮ > **Add Log Marker**.
2. Enter a description (optional).
3. Touch **SET**.

Caller ID

The Caller ID feature displays calling party information on your display telephone that is signaled over ISDN or H.323 trunks. Refer to the Zebra Voice Quick Start Guide for more information on setting up and using this feature.

Hold Recall

Use Hold Recall to be notified when a call is on hold too long, based on the Hold Recall Timer. Visual and audible warnings are sent to the telephone when a call has been on hold past a specified period of time. Both visual and audible warnings are used if the telephone is on-hook. If the telephone is off-hook, a "priority ring" is used.

Hold Recall

Use Hold Recall to be notified when a call is on hold too long, based on the Hold Recall Timer. Visual and audible warnings are sent to the telephone when a call has been on hold past a specified period of

time. Both visual and audible warnings are used if the telephone is on-hook. If the telephone is off-hook, a “priority ring” is used.

Imprivata MDA Support

After including Imprivata Mobile Device Access (MDA) support in the Zebra Voice Client, the Dialpad screen can be launched on the TOP of the Imprivata Lock screen, and the user can make or receive a call to/from a specific number.

. The Imprivata MDA Client version must be 7.2 or later.

NOTE: When the Imprivata lock screen is in the front, and the user receives a call, the call always renders in full-screen mode. Zebra Voice does not support Imprivata MDA Client in guest mode.

If Imprivata is not logged in and the user continues as a guest, it always launches Emergency Dialer regardless of whether it is on the Imprivata Lock screen or Android Home Screen. This feature is available from version v9.0.23405 or later.

Profile Manager Features

These features require Profile Manager.

When using Profile Manager, some options and information may appear differently in the three-line menu.

- Department, roles, user name, ID, or other information may be displayed at the top of the menu.
- The **Switch Role** button replaces the **Reload** button. Use the **Switch Role** button to change the Profile Manager role. For more information, refer to the Workcloud Communication Profile Client Device User Guide.

Adding a Department

Use Add Department to select from the list of all available department extensions.

. Users can add multiple extensions.

1. Touch **Add Department**. Zebra Voice reloads and displays the Add Department list.
2. Touch one or more extensions to select them. Check marks appear next to selected extensions.
3. Touch **Apply**. The selected extensions and any previously configured extensions are added to the Dashboard.

Changing a Department

Use Change Department to select from a list of all available department extensions.

Previously configured extensions are automatically selected.

1. Touch **Change Department**.

   Zebra Voice reloads and displays the Change Department list.
2. Touch one or more extensions to select them.

   Check marks appear next to selected extensions.
3. Touch **Apply**.

   The selected extensions and any previously configured extensions are added to the Dashboard.

Load Contacts

Zebra Voice automatically imports contacts when registering or signing in with Profile Manager. Contacts imported from Profile Manager are saved to the device as WFConnect contacts.

Button Actions

This section lists all action types available when customizing buttons on the Dashboard or In-call screen.

Table 9 Button Actions

Action Type	Description	Value
ADD_CALL	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.Allowed on the in-call screen only.	Phone number.
BLANK	No action.Creates a gap or space between other buttons.	N/A
CALL	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
COMPLETE	This is internal type used for call transfer or conference scenarios.Only allowed on the in-call screen.	N/A
CONFERENCE	Joins two separate calls for collaboration between each party on the line at the same time.Only allowed on the in-call screen.	N/A
CONTACTS	Displays the contacts list.	N/A
DIAL	Opens the dialer.	Prefix to dialed number. The prefix is not displayed to the user.
DO_NOT_DISTURB	Triggers DND function.This Feature Button is pushed from the PBX Configuration during registration.	N/A
END_CALL	This is internal type used for END call button on in-call screen.Only allowed on the in-call screen.	N/A
FORWARD_BUSY	Diverts a telephone call targeted to a busy phone line to a second phone line.This Feature Button is pushed from the PBX Configuration during registration.	Feature Access Code
GROUP_PICKUP	Retrieves calls targeted to a call group from any extension in the target group.	N/A
HISTORY	Shows a list of recently called numbers.	N/A
HOLD	Puts the call on hold.Only allowed on the in-call screen.	N/A

Table 9 Button Actions (Continued)

Action Type	Description	Value
HOME	Jumps to the Home screen.Only allowed on the in-call screen.	N/A
LIST	Shows buttons as a pop-up list.This feature can only be set in an XML configuration.	N/A
LOG_MARKER	Creates a time stamp in the logs.	N/A
OTHER_PICKUP	Retrieves calls within a users own call group.	N/A
PARK	Parks the call. Only allowed on the in-call screen.This Feature Button is pushed from the PBX Configuration during registration.	The park number.
PICKUP	Retrieves any currently ringing phone call on another extension.	N/A
REDIAL	Redials the last number.	N/A
RESUME	Resumes a call that is on hold.Only allowed on the in-call screen.	N/A
SPEED_DIAL0	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL1	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL2	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL3	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL4	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL5	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL6	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL7	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL8	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
SPEED_DIAL9	Calls the number in Value tag.If there is no number in Value tag, opens the dialer.	Phone number.
START_APP	Starts an application.	Path and filename of the application.
SUSPEND_MODE	Blocks all incoming or outgoing calls.	N/A
TRANSFER	Transfers the call.Only allowed on the in-call screen.	N/A
UNPARK	Retrieve a parked call using another telephone.This Feature Button is pushed from the PBX Configuration during registration.	N/A

Table 9 Button Actions (Continued)

Action Type	Description	Value
VOICEMAIL	Opens voicemail.Dials voice mail number configured on the PBX.	N/A

XML Tags

This section lists the XML tags allowed in the `WFConnect.xml` file.

Table 10 WFConnect Tags

Element	Description
Call Buttons	Defines the buttons available in the in-call area.
Dashboard	Dashboard section.
Profile	Profile section.

Table 11 Profile Tags

Element	Description	Value
audio_gain_in	Input Audio Volume (Optional).	An integer between 1 and 8. Default: 1
audio_gain_out	Output Audio Volume (Optional).	An integer between 1 and 8 Default: 1
background_logo	Set a background image for the Zebra Voice home screen dashboard (Optional).	Default: None (Disabled)
callwaiting_interval	An interval of call waiting tone.	500ms to 8000ms Default: 2000ms
callwaiting_volume	Call waiting volume.	Percentage between 10% and 100% Default: 80%
clearRecentCall	Clears the call history on sign-out.	True: clear the recent call history on sign-out. False: retain the recent call history on sign-out. Default: False

Table 11 Profile Tags (Continued)

Element	Description	Value
codec_alaw_priority	Assigns preference priority for G.711 A-Law Voice codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default: 3
show_call_quality_feedback	Enables or disables the call feedback analytics feature.	True: Enable Call Rating feedback screen. False: Disable Call Rating feedback screen. Default: False
enableGA	Enables data collection.	0: Disable data collection. 1: Enable data collection. Default:1
codec_g722_priority	Assigns preference priority for G.722 Voice codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default: 4
codec_g729_priority	Assigns preference priority for G.729 Voice codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default: 5
codec_gsm_priority	Assigns preference priority for GSM Voice codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default: 6
codec_ulaw_priority	Assigns preference priority for G.711 u-LAW Voice codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default: 2
contacts_url	The URL of the contacts list is located on a remote or local server (Optional).	File type: CSV. Protocols: file, http, https, tftp. Default: none
edit_voice_contact	Enables to edit the Voice Contact list.	True: Enable the Voice Contact Editing feature. False: Disable the Voice Contact Editing feature. Default: False

Table 11 Profile Tags (Continued)

Element	Description	Value
codec_opus_priority	Assigns preference priority for OPUS Voice codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default:1
codec_l16_priority	Assigns preference priority for L16 codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default: 7
codec_l16_32_priority	Assigns preference priority for L16_32 codec negotiations between PBX and Zebra Voice.	An integer between 1 and 8 Negative numbers disable the codec. Default: 8 codec_l16_32_priority
 **NOTE:** if administrator provides 0 for any codec type, a random priority is assigned to that codec.		
change_button_behave_as_reload	The RELOAD/CHANGE button functions as the Reload button that is present under the Hamburger menu.	True: Functions as a Reload button present in the Humberger menu. False: Functions as Reload/ Change button as earlier. Default: False
default_screen	Change the default landing screen of the Zebra Voice Client,	Fragment Value: 0: Dashboard (default value) 1: Dialpad 2: Recent 3:Contact
disable_menu_sign _out	Disable the sign-out option in the three-line menu (Optional).	True: Disable the sign-out option. False: Enable the sign-out option. Default: False
disable_speaker	Do not answer incoming calls in speaker mode when the device is placed on a horizontal surface (Optional).	True: Disable speaker mode. False: Enable speaker mode. Default: False

Table 11 Profile Tags (Continued)

Element	Description	Value
gbg_color	Background color used on all buttons, if not customized in the button element <bg_color> (Optional).	The color is one of the following: red, blue, green, black, white, gray, cyan, magenta, yellow, lightgray, darkgray, grey, lightgrey, darkgrey, aqua, fuchsia, lime, maroon, navy, olive, purple, silver, teal, or, it is an RGB value in one of the following formats expressed as a decimal, or a hexadecimal, number: • #RRGGBB • #AARRGGBB Default: 0xFF001425
gfg_color	The text color used on all buttons, if not customized in the button element <fg_color> (Optional).	The color is one of the following: red, blue, green, black, white, gray, cyan, magenta, yellow, lightgray, darkgray, grey, lightgrey, darkgrey, aqua, fuchsia, lime, maroon, navy, olive, purple, silver, teal, or, it is an RGB value in one of the following formats expressed as a decimal, or a hexadecimal, number: • #RRGGBB • #AARRGGBB • Default: 0xFFFFFFFF
headless_mode	Headless mode (Optional).	True: Headless mode enabled. False: Headless mode disabled. Default: False
help_url	The URL of the entry point for the on-device online help (Optional).	Default: `file:///WFConnect/help.html`

Table 11 Profile Tags (Continued)

Element	Description	Value
incall_widget	Call accept style on the incoming call screen (Optional).	Select one of the following: • incall_buttons: Simple buttons. • incall_gb: Slider. • incall_jb: Glow pad. • Default: incall_gb
inCallFooterOrder	Arrange the position of In-Call buttons: Bluetooth, Dialpad, Mute, and Speaker.	The following icons are assigned a specific value, and the value can be arranged in any order: • 0: Dialpad • 1: Bluetooth • 2: Speaker • 3: Mic
jitter_max	Maximum jitter buffer in milliseconds.	250 msec to 1500 msec Default: 250 msec
jitter_min	Initial jitter delay in milliseconds.	30 msec to 100 msec Default: 60 msec
layout_location	The URL of the buttons layout file (Optional).	Protocols: file, http, https, tftp. Default: none
license_alias	Identify the device on the license source. (Optional)	Device alias.
license_key	One or more Zebra Voice activation keys. When using the license_source element, license_key can be used to list one or more PBX types.	Comma-separated list of: • Activation keys • PBX types.
license_source	The URL of a licensed source running on the cloud or a local network. Use the license_key element to define PBX types. If the license_key value is not set, the client requests the PBX type set in the Zebra Voice profile.	Default: Flexera server
log_file	Enables logging for Zebra Voice (Optional).Log files are saved to the WFConnect folder on the device.	True: Logging enabled. False: Logging disabled. Default: False

Table 11 Profile Tags (Continued)

Element	Description	Value
log_level	The log level for all log messages produced by Workcloud Communication (Optional).	Select one of the following: • Error • Warning • Info • Debug • Verbose For debugging, use Verbose. Default: Error
log_sipclf	Enable SIP message logging. Logs are stored on the device as a CLF file in SIP Common Log Format (Optional).	True: Log in to a file on the device. False: Do not log in to the file. Default: False
moh_enabled	Enable music on hold to play a WAV audio file when a user is placed on hold (optional).	Default: False
moh_file	Select a custom WAV audio file to play when a user is placed on hold (optional).	WAV file stored in the WFConnect folder Default: None
no_audio_cutoff	Disconnect a call when no audio is detected for a set interval.	Select one of the following: • 0 • 30 • 60 • 120 • 300 • Default: 30
process_cell_call	Ignore all call requests from the Android dialer. Required on the device with call service.	True: Process Android calls False: Do not process Android calls Default: False
profile_type	Primary PBX type.	Contents: Text Default: None
profile2_type	Second PBX type (Optional).	Contents: Text Default: None
profile3_type	Third PBX type (Optional).	Contents: Text Default: None

Table 11 Profile Tags (Continued)

Element	Description	Value
profile4_type	Fourth PBX type (Optional).	Contents: Text Default: None
profname	Profile name (Optional).For information only.	Contents: Text Default: None
prompt_file	Name of the audio prompt file. (Optional).	WAV file stored in the WFConnect folder Default: None
ringer_off_in_charger	Disable the ringer while the device is charging.	true: Disable the ringer while charging False: Enable ringer while charging Default: False
ringtone_callback	Call back ringtone (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: UK_Phone
ringtone_external	Ringtone for external calls (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. • Default: HI_UK_Phone
ringtone_intercom	Ringtone for intercom calls (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: French_Phone

Table 11 Profile Tags (Continued)

Element	Description	Value
ringtone_line1	The ringtone for line #1 (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: Empty (The default Android ringtone is used.)
ringtone_line2	The ringtone for line #2 (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: Empty (The default Android ringtone is used.)
ringtone_line3	The ringtone for line #3 (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: Empty (The default Android ringtone is used.)
ringtone_line4	The ringtone for line #4 (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: Empty (The default Android ringtone is used.)

Table 11 Profile Tags (Continued)

Element	Description	Value
ringtone_line5	The ringtone for line #5 (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: Empty (The default Android ringtone is used.)
ringtone_line6	The ringtone for line #6 (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file stored in the WFConnect folder. Default: Empty (The default Android ringtone is used.)
ringtone_park	The ringtone for the parking (Optional).	One of the following: • The name of Android Ringtone. • The name of an audio file is stored in the WFConnect folder. Default: Empty (The default Android ringtone is used.)
rtp_stats	Show Real-Time Transport Protocol (RTP) Statistics on the in-call screen (Optional).	True: RTP statistics are shown. False: RTP statistics are not shown. Default: False
sample_rate	Audio sample rate. Selecting an audio codec overrides this setting (Optional).	Select one of the following: • 8000 • 16000 • 32000 • 48000 Default: 8000

Table 11 Profile Tags (Continued)

Element	Description	Value
show_department_name	Display the department name associated with an extension (Optional).	True: Department names are shown. False: Department names are not shown. Default: False
show_extension_name	Display extensions using both the extension number and the description set in the PBX (Optional). Requires Profile Manager.	True: Extension names are shown. False: Extension names are not shown. Default: False
show_jitter_stats	Show jitter statistics (Optional).	True: Jitter statistics are shown in audio debugging files. False: Jitter statistics are not shown in audio debugging files. Default: False
show_update_license_button	Display the Update License button on the About page.	True: The Update License button is shown. False: The Update License button is hidden.
sign_out_in_charger	Automatically sign out of Zebra Voice when the device begins charging (Optional).	True: Sign out when charging begins. False: Stay signed in while charged. Default: False
keep_sign_in_after_reboot	Keep Zebra Voice signed In after reboot.	True: Keep signed in after the device reboots. False: Keep signed out after the device reboots. Default: False
sip_auto_answer	Auto answer mode (Optional).	True: Zebra Voice auto-answers all incoming calls. False: The user must use Workcloud Communication to answer the call. Default: False
sip_confnum	SIP default conference number. Use with primary PBX type (Optional).	Default: None

Table 11 Profile Tags (Continued)

Element	Description	Value
sip_device_type	The Cisco device type. Use with primary PBX type (Optional).	Default: 8865
sip_http_remhost	HTTP server address (Optional).	Server address Default: None
sip_localport	The primary local listening port for SIP connections. Use with primary PBX type (Optional).	Default: 5060
sip_parknum	SIP default call park extension. Use with primary PBX type (Optional).	Default: None
sip_pbx_logo	Identify the PBX type on the Zebra Voice home screen dashboard. Enter text or set a logo (Optional).	Default: Displays the default text for the PBX type.
sip_mac	Primary radio MAC address of this mobile device. Use with primary PBX type (Optional).	MAC address Default: None
sip_realm	SIP domain. Use with primary PBX type (Optional).	Default: None
sip_remhost	Primary TFTP server address #1. Use with primary PBX type (Optional).	Server address Default: The server address is provided by option 150 in the DHCP.
sip_remhost2	TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with primary PBX type (Optional).	Server address Default: None
sip_remhost3	TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with primary PBX type (Optional).	Server address Default: None
sip_remport	TFTP server remote port. Use with primary PBX type (Optional).	Default: 5060
sip_rtp_port1	First RTP port.	Default: 51000
sip_rtp_port2	Last RTP port.	Default: 51025

Table 11 Profile Tags (Continued)

Element	Description	Value
sip_rtp_ptime	RTP payload size in milliseconds.	Select one of the following: • 20 • 30 • 40 • 50 • 60 • 70 • 80 Default: 20
sip_transport	SIP transport type. Use with primary PBX type (Optional).	Select one of the following: • UDP • TCP • TLS Default: TCP
sip_userid	SIP user or authentication ID. Use with primary PBX type (Optional).	Default: None
sip_userpass	SIP authentication password. Use with primary PBX type (Optional).	Default: None
sip_vmnum	SIP voice mail extension. Use with primary PBX type (Optional).	Default: None
sip2_confnum	SIP default conference number. Use with second PBX type (Optional).	Default: None
sip2_device_type	The Cisco device type. Use with second PBX type (Optional).	Default: 8865
sip2_localport	The local listening port for SIP connections. Use with second PBX type (Optional).	Default: 5060
sip2_mac	Radio MAC address of this mobile device. Use with second PBX type (Optional).	MAC address Default: None
sip2_parknum	SIP default call park extension. Use with second PBX type (Optional).	Default: None

Table 11 Profile Tags (Continued)

Element	Description	Value
sip2_realm	SIP domain. Use with second PBX type (Optional).	Default: None
sip2_remhost	TFTP server address #1. Use with second PBX type (Optional).	Server address Default: The server address is provided by option 150 in the DHCP.
sip2_remhost2	TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with second PBX type (Optional).	Server address Default: None
sip2_remhost3	TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with second PBX type (Optional).	Server address Default: None
sip2_remport	TFTP server remote port. Use with second PBX type (Optional).	Default: 5060
sip2_transport	SIP transport type. Use with second PBX type (Optional).	Select one of the following: • UDP • TCP • TLS Default: TCP
sip2_userid	SIP user or authentication ID.Use with second PBX type (Optional).	Default: None
sip2_userpass	SIP authentication password. Use with second PBX type (Optional).	Default: None
sip2_vmnum	SIP voice mail extension. Use with second PBX type (Optional).	Default: None
sip3_confnum	SIP default conference number. Use with third PBX type (Optional).	Default: None
sip3_device_type	The Cisco device type. Use with third PBX type (Optional).	Default: 8865

Table 11 Profile Tags (Continued)

Element	Description	Value
sip3_localport	The local listening port for SIP connections. Use with third PBX type (Optional).	Default: 5060
sip3_mac	Radio MAC address of this mobile device. Use with third PBX type (Optional).	MAC address Default: None
sip3_parknum	SIP default call park extension. Use with third PBX type (Optional).	Default: None
sip3_realm	SIP domain. Use with third PBX type (Optional).	Default: None
sip3_remhost	TFTP server address #1. Use with third PBX type (Optional).	Server address Default: The server address is provided by option 150 in the DHCP.
sip3_remhost2	TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with third PBX type (Optional).	Server address Default: None
sip3_remhost3	TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with third PBX type (Optional).	Server address Default: None
sip3_remport	TFTP server remote port. Use with third PBX type (Optional).	Default: 5060
sip3_transport	SIP transport type. Use with third PBX type (Optional).	Select one of the following: • UDP • TCP • TLS Default: TCP
sip3_userid	SIP user or authentication ID.Use with third PBX type (Optional).	Default: None
sip3_userpass	SIP authentication password. Use with third PBX type (Optional).	Default: None
sip3_vmnum	SIP voice mail extension. Use with third PBX type (Optional).	Default: None

Table 11 Profile Tags (Continued)

Element	Description	Value
sip4_confnum	SIP default conference number. Use the fourth PBX type (Optional).	Default: None
sip4_device_type	The Cisco device type. Use the fourth PBX type (Optional).	Default: 8865
sip4_localport	The local listening port for SIP connections. Use the fourth PBX type (Optional).	Default: 5060
sip4_mac	Radio MAC address of this mobile device. Use with the fourth PBX type (Optional).	MAC address Default: None
sip4_parknum	SIP default call park extension. Use with the fourth PBX type (Optional).	Default: None
sip4_realm	SIP domain. Use with the fourth PBX type (Optional).	Default: None
sip4_remhost	TFTP server address #1. Use with fourth PBX type (Optional).	Server address Default: The server address is provided by option 150 in the DHCP.
sip4_remhost2	TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with the fourth PBX type (Optional).	Server address Default: None
sip4_remhost3	TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with the fourth PBX type (Optional).	Server address Default: None
sip4_remport	TFTP server remote port. Use with fourth PBX type (Optional).	Default: 5060
sip4_transport	SIP transport type. Use with the fourth PBX type (Optional).	Select one of the following: • UDP • TCP • TLS Default: TCP
sip4_userid	SIP user or authentication ID. Use with the fourth PBX type (Optional).	Default: None

Table 11 Profile Tags (Continued)

Element	Description	Value
sip4_userpass	SIP authentication password. Use with the fourth PBX type (Optional).	Default: None
sip4_vmnum	SIP voice mail extension. Use with the fourth PBX type (Optional).	Default: None
speaker_on_horizontal	Answer calls in speaker mode when the device is placed on a horizontal surface	True: Enable speaker mode False: Disable speaker mode Default: False
use_aec	Echo Cancellation (Optional).	True: Echo cancellation is used. False: Echo cancellation is not used. Default: False
use_agc_ear	Automatic Gain Control (AGC) on earpiece (Optional).	True: AGC is used. False: AGC is not used. Default: False
use_agc_speaker	Automatic Gain Control (AGC) on speaker. (Optional).	True: AGC is used. False: AGC is not used. Default: False
use_noise	Noise Reduction (Optional).	True: Noise reduction is used. False: Noise reduction is not used.
use_prox_wake_lock	Use the Android platform default proximity WAKE LOCK (Optional).	True: Uses the Android platform default proximity WAKE LOCK. False: Uses a workaround solution. Default: True
var_location	The URI of the shared profile is located on a remote or local server (Optional).	Protocols: file, http, https, tftp. Default: none (Disabled)
vibrate_when_ringing	The device vibrates when a call is received (Optional).	True: The device vibrates when a call is received. False: The device does not vibrate when a call is received. Default: False

Table 11 Profile Tags (Continued)

Element	Description	Value
voice_announcer_check	Announces the number or user name of an incoming call (Optional).	True: Incoming calls are announced. False: Incoming calls are not announced. Default: False
wifi_preferred	Connect to an available Wi-Fi network. This setting only applies after the network state changes or when the client is restarted. It applies to Zebra Voice Client's earlier versions of 9.0.22409, 9.0.23101, and 9.0.23102.	True: Connect to an available Wi-Fi network. False: Only connect to the device's default network. Default: True
encrypted_password	Allows the administrator to change the Settings password. Password is specified with MD5 encoding (Optional).	MD5 encoded Settings password string.
vpn_configuration	The device routes Zebra Voice traffic through VPN.	Specify one of the following values: • 0: VPN Preferred • 1: Use VPN Only Default Value:0
sip_srtp sip2_srtp sip3_srtp sip4_srtp	Enables Secure RTP feature for standard clients.	True: enable False: disable Default Value: False
showGroup	Displays the Zebra Voice Group when setting the value to true.	true: enable false: disable Default Value: false
showDisclosure	Displays the Data Consent inside the Voice application.	true: enable false: disable Default Value: true
check_phone_service_running	Enables polling to check whether the phone service is running.	true: enable false: disable Default Value: false
check_phone_service_running_interval	Sets the polling mechanism parameters.	Between 60 seconds to 24 hours. The value must be entered in seconds.

Table 11 Profile Tags (Continued)

Element	Description	Value
emergency_numbers	Sets single or multiple emergency numbers.	Commas separate emergency numbers.
emergency_package_name	Sets the package name, which is associated with a Broadcast Intent.	A valid package name.
emergency_class_name	Sets the class name, which is associated with a Broadcast Intent.	A valid broadcast receiver class name.
dial_emergency_number	Either make a call and send or broadcast or only send a broadcast.	True: Initiates a call to the emergency number and activates a broadcast to the third-party service/application. False: Initiates a broadcast to the third-party service/application. Default: true
auto_reload_when_ip_changes	Reloads the Voice Client on the device.	true: enable reloading the Voice Client. False: Work as earlier version. Default Value: false

Table 12 Dashboard tags

Element	Description
Columns	The number of columns on the dashboard area.
Button	The definition of an on-screen button. See Button Tags for details.

Table 13 Call Button Tags

Element	Description
Button	The definition of an on-screen button. See Button Tags for details.

Table 14 Button Tags

Element	Description	Value
action	The button action.	This must be one of the action types listed in Button Tags. The button is not created if this string is not a valid action type.

Table 14 Button Tags (Continued)

Element	Description	Value
bg_color	Button background color (optional). The profile element <gfg_color> is used if no color is defined.	The color is one of the following: red, blue, green, black, white, gray, cyan, magenta, yellow, lightgray, darkgray, grey, lightgrey, darkgrey, aqua, fuchsia, lime, maroon, navy, olive, purple, silver, teal, or, it is an RGB value in one of the following formats expressed as a decimal, or a hexadecimal, number: • #RRGGBB • #AARRGGBB • Default: #FF001425
confirm	After touching the button, the operator is asked to confirm the action before it is executed (optional).	True: Confirm the action False: Do not confirm the action Default: False
description	The LIST action type uses description.	On the LIST action type button: • It is used as the title on the popup dialog box. • It appears as a comment for each LIST sub-button, identifying which action the button performs. For all other buttons, the description is optional.
enabled	Defines whether the button is available on the Zebra Voice screen (optional).	True: The button is visible and active. False: The button is not visible. Default: True.
fg_color	Button text color (Optional). The profile element <gfg_color> is used if no color is defined.	The color is one of the following: red, blue, green, black, white, gray, cyan, magenta, yellow, lightgray, darkgray, grey, lightgrey, darkgrey, aqua, fuchsia, lime, maroon, navy, olive, purple, silver, teal, or, it is an RGB value in one of the following formats expressed as a decimal, or a hexadecimal, number: • #RRGGBB • #AARRGGBB • Default: #FFFFFFFF

Table 14 Button Tags (Continued)

Element	Description	Value
icon	The icon that appears on the button (Optional).	Select one of the following: • none: Only the title is displayed on the button. • Default: Displays the default icon for the associated action type. • <filename>: The filename of a PNG file containing the icon in the WFConnect folder. Include .png in the filename. • Default: Default
title	Button title (Optional). This text is displayed on the on-screen button. If the string contains spaces, the text displays on two lines; otherwise, all the text displays on one line. The font size adjusts depending on the text length.	Contents: Text Default: New
value	Additional information required by the <action> element (Optional).	For details on the values associated with each action type, see Button Tags.
Button	The definition of an on-screen button.	N/A

NOTE: Zebra collects Workcloud Communication usage and performance data to ensure the quality of the products delivered to our customers. From version 2.0.24102, data collection has been integrated and enabled by default with Voice Client. This can be disabled by setting enableGA = 0. For more information about disabling data collection, go to Data Collection.

XML Example - Profile

This section shows a sample profile in the `WFConnect.xml` file.

```
<WFConnect>
<Profile>
   <use_android_dialer>true</use_android_dialer>
   <sip_remhost2></sip_remhost2>
   <ptt_userid>user</ptt_userid>
   <background_logo>company_logo.png</background_logo>
   <lux_threshold>0</lux_threshold>
   <sip_remhost3></sip_remhost3>
   <rtp_stats>false</rtp_stats>
   <prompt_file>greeting.wav</prompt_file>
   <codec_ulaw_priority>2</codec_ulaw_priority>
   <show_dialpad>true</show_dialpad>
   <sip_expires>36000</sip_expires>
   <use_noise>true</use_noise>
   <ptt_transport>UDP</ptt_transport>
   <use_native_sample_rate>false</use_native_sample_rate>
   <jitter_max>250</jitter_max>
   <post_log_url></post_log_url>
   <sip_device_type>8865</sip_device_type>
   <sip_rtp_ptime>20</sip_rtp_ptime>
   <sip_transport>TCP</sip_transport>
   <sip_rtp_port2>50025</sip_rtp_port2>
   <sip_rtp_port1>50000</sip_rtp_port1>
   <audio_gain_in>5</audio_gain_in>
   <use_prox_wake_lock>true</use_prox_wake_lock>
   <log_console>true</log_console>
   <use_agc_speaker>true</use_agc_speaker>
   <sip_realm>10.16.2.111</sip_realm>
   <jitter_min>60</jitter_min>
   <sip_subscribe>false</sip_subscribe>
   <help_url>file:///WFConnect/help.html</help_url>
   <codec_g722_priority>4</codec_g722_priority>
   <save_incoming_voice_to_file>false</save_incoming_voice_to_file>
   <profile_type>Licensed PBX</profile_type>
   <gfg_color>#FFFFFFFF</gfg_color>
   <codec_alaw_priority>3</codec_alaw_priority>
   <codec_g729_priority>1</codec_g729_priority>
```

```
   <sip_userid>1001</sip_userid>
   <log_file>true</log_file>
   <rssi_limit>-85</rssi_limit>
   <incall_widget>incall_buttons</incall_widget>
   <sip_mac></sip_mac>
   <sip_auto_answer>false</sip_auto_answer>
   <audio_gain_out>5</audio_gain_out>
   <show_jitter_stats>false</show_jitter_stats>
   <use_aec>true</use_aec>
   <gbg_color>#FF001425</gbg_color>
   <license_key>abcd-1234-ab12-cd34-5678-efgh-ef56-gh78</license_key>
   <sip_remhost>10.5.97.99</sip_remhost>
   <sip_userpass>1234</sip_userpass>
   <sip_remport>5060</sip_remport>
   <use_accelerometer>true</use_accelerometer>
   <profname>WFConnect.xml</profname>
   <use_agc_ear>true</use_agc_ear>
   <codec_gsm_priority>5</codec_gsm_priority>
   <srtp_type>1</srtp_type>
   <log_level>Error</log_level>
</Profile>
...
```

XML Example - Dashboard

This section shows a sample dashboard in the `WFConnect.xml` file.

```
...
<Dashboard>
   <Columns>4</Columns>
   <Button>
      <title>Dial</title>
      <action>DIAL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#1</title>
      <action>SPEED_DIAL1</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#2</title>
      <action>SPEED_DIAL2</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title></title>
      <action>LIST</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
```

```
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#3</title>
      <action>SPEED_DIAL3</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#4</title>
      <action>SPEED_DIAL4</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#5</title>
      <action>SPEED_DIAL5</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#6</title>
      <action>SPEED_DIAL6</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#7</title>
      <action>SPEED_DIAL7</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#8</title>
      <action>SPEED_DIAL8</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
```

```
      <icon></icon>
   </Button>
   <Button>
      <title>SpeedDial#9</title>
      <action>SPEED_DIAL9</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>Call</title>
      <action>CALL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon>Default</icon>
   </Button>
   <Button>
      <title>StartApp</title>
      <action>START_APP</action>
      <value>Camera</value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon>Default</icon>
   </Button>
   <Button>
      <title>LogMarker</title>
      <action>LOG_MARKER</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon>Default</icon>
   </Button>
   <Button>
      <title>Blank</title>
      <action>BLANK</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon>Default</icon>
   </Button>
</Dashboard>
...
```

XML Example - Call Buttons

This section shows a sample of call buttons in the `WFConnect.xml` file.

```
...
<CallButtons>
   <Button>
      <title>AddCall</title>
      <action>ADD_CALL</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon>Default</icon>
   </Button>
   <Button>
      <title>Home</title>
      <action>HOME</action>
      <value></value>
      <enabled>true</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon>Default</icon>
   </Button>
   <Button>
      <title>Hold</title>
      <action>HOLD</action>
      <value></value>
      <enabled>false</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon></icon>
   </Button>
   <Button>
      <title>Resume</title>
      <action>RESUME</action>
      <value></value>
      <enabled>false</enabled>
      <confirm>false</confirm>
      <description></description>
      <icon>Default</icon>
```

```
   </Button>
</CallButtons>
</WFConnect>
```

Directory Button Configuration

This section describes how to configure and use the directory button.

Creating the Directory Button

To define a button that finds contacts in a directory:

1. Open **Settings**.
2. Select **Advanced Settings** > **UI Settings** > **Edit Dashboard** or **Edit In-Call** > **Add**.
3. Select the new button. A yellow box appears around the selected button.
4. Touch **Edit**.
5. In the **Action** field, select **DIRECTORY**.
6. In the Value field, there are two options:
   - PBX provides the URL; no action is needed
   - URL is manually entered
7. In the **Title** field, enter `DIRECTORY`.
8. In the **Icon** field, choose an icon.
9. Touch the **Back** button to return to the Zebra Voice Client home screen.

Using the Directory Button

Only the first page of contacts displays. Enter contact information on the Directory Search screen to narrow the search results.

1. Touch the **DIRECTORY** button. The **Directory Search** screen appears.
2. Enter contact information.
3. Touch **Search**.

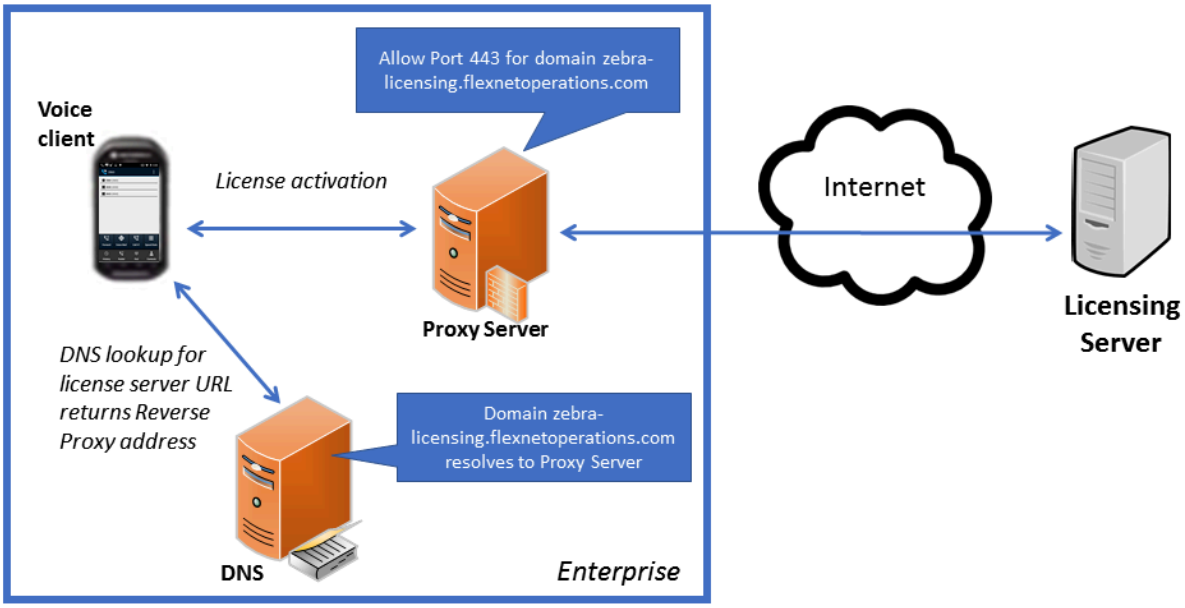
Proxy Server Configuration

To activate Zebra Voice, one or more licenses must be retrieved from one of the following types of license sources:

- Local license server
- Cloud license server.
- Available in Zebra Voice versions earlier than 9.0.20306.

A proxy server is required when using a device that does not have direct access to the license source. For example, when a device is connected to a local network.

Figure 17 Proxy Server Configuration



Configuring a Proxy Server

1. Ensure the proxy server and DNS server are running.
2. Ensure the device running Zebra Voice is connected to the DNS server.

3. In the DNS server, change the DNS information to resolve the licensing server domain to the proxy server.

   The default license server domain is:

   `zebra-licensing.flexnetoperations.com`

4. In the proxy server, allow internet traffic on port 443.

Unsupported Features

Zebra Voice does not support the following CUCM features:

- **Handoff for Dual Mode SIP phones** - Handoff of active calls between WiFi and cellular networks.
- **G.Clear codec** - Support of a 64kbps transparent data channel carried over RTP between two endpoints.
- **Phone Alarm System** - Alarms sent from the phone to the CUCM via SIP REFER messages.
- **Intercom** - one-way audio call to destination speakerphone.
- **Hold Reversion** - Reminder of a call on hold.
- **Secure Monitoring and Recording** - Secure monitoring by a supervisor.
- **Call Recording** - Recording of conversations.
- **Silent Monitoring** - Monitoring of a conversation by a supervisor without knowledge of the call parties.
- **Private Line Automatic Ringdown / Hotdial** - Automatic routing to a destination upon going off-hook.
- **Quality Reporting Tool** - Ability for an endpoint to report quality results.
- **Callback** - Requesting a callback from a busy endpoint.
- **Malicious Call Identifier** - Ability for an endpoint to identify a call as malicious in call detail records.
- **Immediate Diversion** - Ability for an endpoint to immediately forward an incoming, active, or held call to voice mail.
- **Meet Me Conference** - Dynamically reserve a conference number and communicate it to group members.
- **Assisted Directed Call Park** - Parking a call at a pre-configured extension reserved for call park.

Network Ports and Protocols

This section overviews the ports and protocols Zebra Voice uses on supported Zebra devices.

Zebra devices may contain applications that use the same ports and protocols for normal operation as Zebra Voice. Refer to the application documentation for more information.

Table 15 Ports for Advanced Features

Port	Destination	Comments
443	https://zebra-licensing.flexnetoperations.com	License registration and validation for Zebra Voice. Available in Zebra Voice versions earlier than 9.0.20306.
5060	Call Manager server(s)	SIP messaging to Call Manager. Change the device configuration and PBX- Call Manager to use a different port.
69	TFTP server(s)	TFTP services download. Required for advanced Cisco Premium features.
51000 – 51025	RTP Traffic to other devices	To use a different port, change the device configuration.
80	WebServer	HTTP, HTTPS, or TFTP file download of the Zebra Voice Configuration file and the contacts list CSV file, if available.
8443	https://wfc-provisioning1.pttpro.zebra.com/admin/login	License registration for Zebra Voice versions 9.020306 and later.
443	https://wfc-provisioning1.pttpro.zebra.com/admin/login	For customers who use the Extension Manager. To download profile and license information.

Services Configuration

This section provides an overview of how to configure services for Zebra Voice. For detailed information on configuring these services in CUCM, refer to https://supportforums.cisco.com.

The following Cisco services are available on Zebra Voice:

- Extension Mobility
- IP Phone Services URL (SURL).

Configuring Extension Mobility

To configure the Extension Mobility feature in Zebra Voice:

1. From the Zebra Voice home screen, select **Services**.
2. In the **Select service** popup window, select **Extension Mobility**.

   The **Sign On** screen appears.
3. In the **UserID** field, enter `muser1`.
4. In the **PIN** field, enter 4321.
5. Select **Submit**.
6. Touch the back button to return to the Zebra Voice home screen.

The Extension Mobility feature is enabled, and extension 4321 displayed in the dashboard extensions list.

Disabling Extension Mobility

To disable the Extension Mobility feature:

1. Select **Services**.
2. In the **Select service** popup window, select **Extension Mobility**.

   The Extension Mobility log-out screen appears.
3. Select **Yes** to log out and disable the Enterprise Mobility feature.

   Zebra Voice returns to the previously set connection parameters.

IP Phone Services URL (SURL)

Use the Cisco IP Phone Services URL feature to create a phone directory pushed to Zebra Voice from an IIS Web Server. Once configured, access the directory using the **Services** button on the Zebra Voice Home Screen.

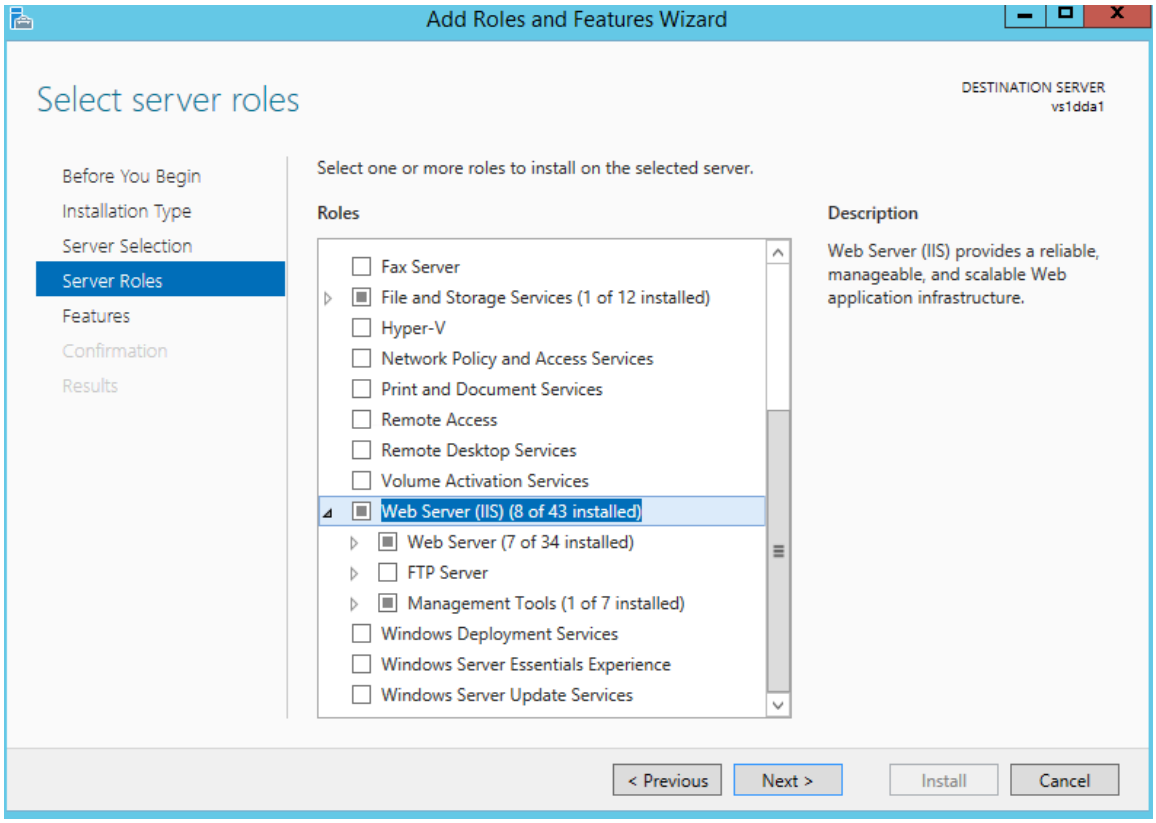
The following sections describe configuring the IP Phone Services URL feature in Zebra Voice.

- Installing IIS Web Services
- Creating IP Phone Services XML Files
- Enabling the Cisco IP Phone Service
- Using IP Phone Services in Zebra Voice.

Installing IIS Web Services

This section assumes knowledge of Microsoft IIS. For more information on Microsoft IIS, refer to support.microsoft.com.

1. From Microsoft IIS, navigate to **Administrative Tools** > **Server Manager** > **Roles Summary**.
2. Select **Add Roles**.
3. Select **Server Roles**.
4. Select **Web Server (IIS)**.
5. Select **Next** and follow the on screen instructions to install Web Server (IIS).



Create IP Phone Services XML Files

Creating a phone directory using the IP Phone Services URL feature requires one XML file containing the main menu, and one or more additional XML files containing the directory entries. This section provides a set of sample XML files that create the following speed dial directories:

`..\wwwroot\SpeedDials` contains:

- `SpeedDial_Main.xml`

`..\wwwroot\SpeedDials\SD` contains:

- `CUSTOMER_SERVICE.xml`
- `GARDENING.xml`
- `HARDWARE.xml`
- `LUMBER.xml`
- `PLUMBING.xml`
- `SECURITY.xml`

Figure 18 Speed Dial Root Folder

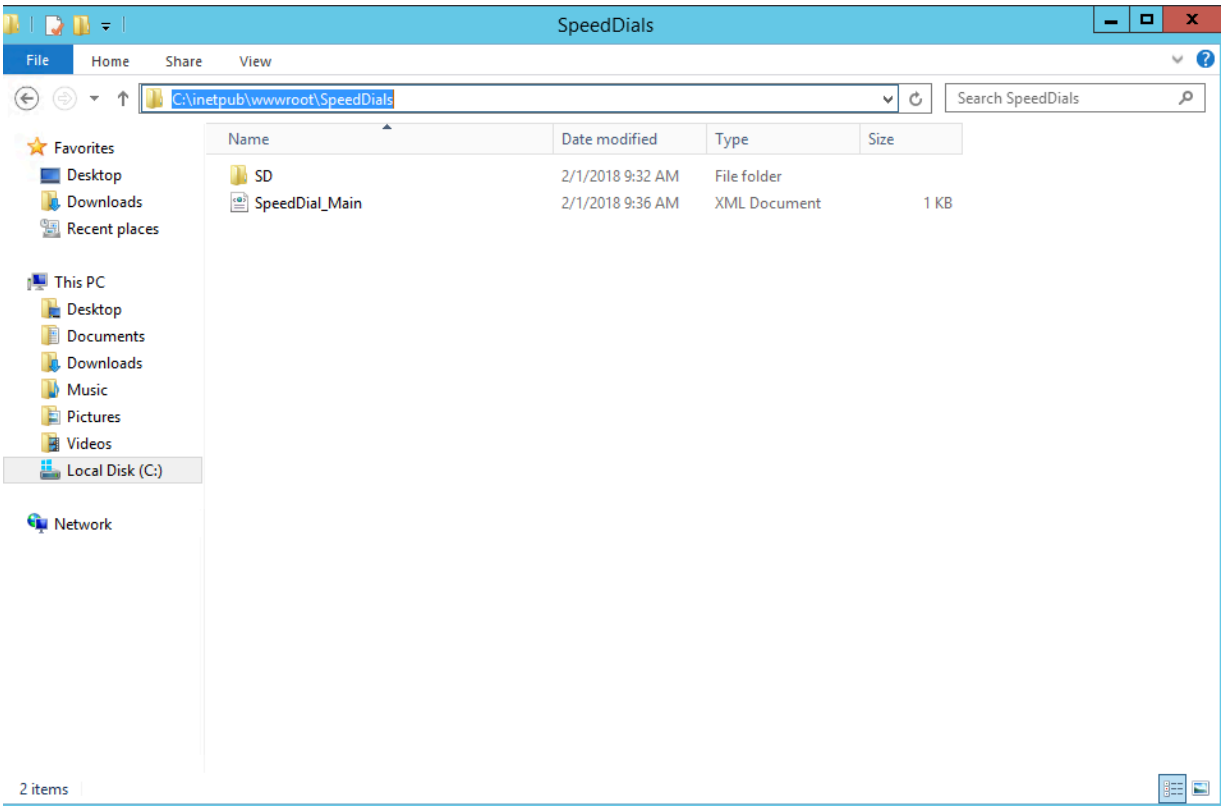
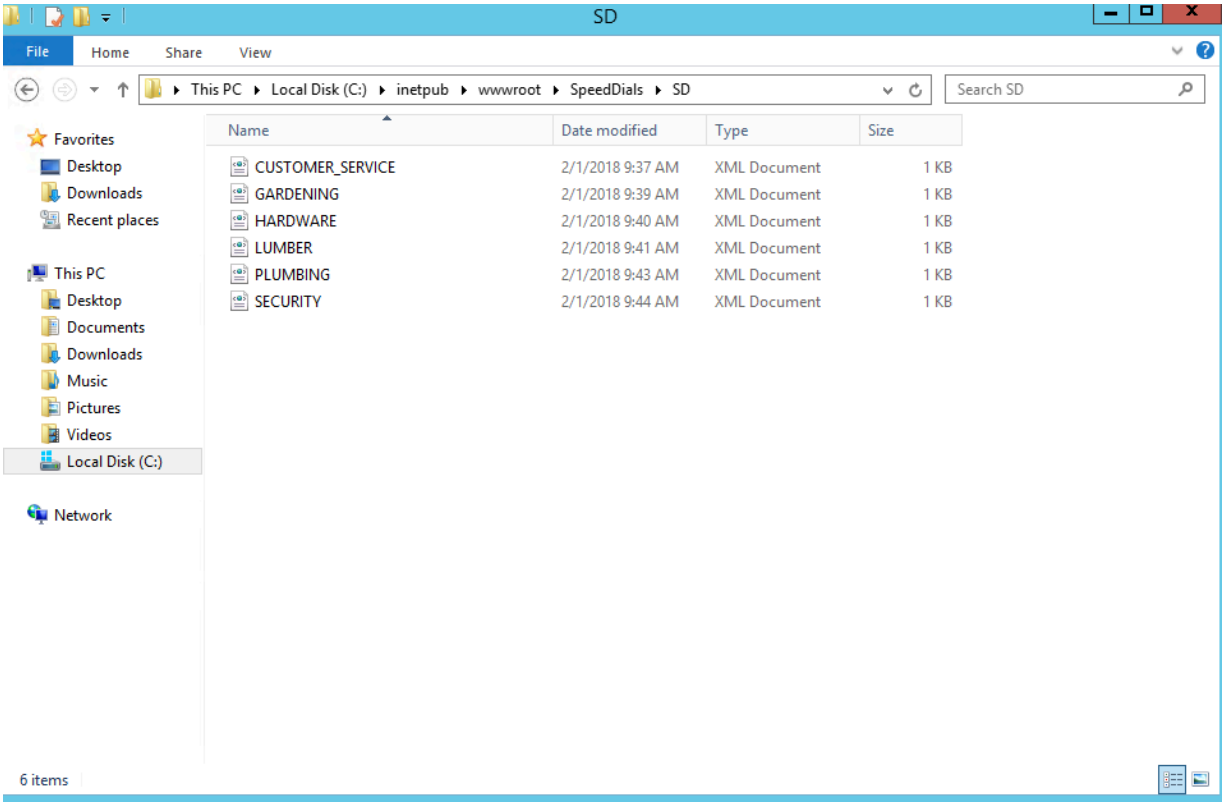


Figure 19 Speed Dial Directory Entries Folder



Example of Main Menu XML File

In the following XML file example, the folder `..\wwwroot\SpeedDials` contains the XML menu file `SpeedDial_Main`.

```
<CiscoIPPhoneMenu>
<Title>SpeedDial</Title>
<Prompt>Please make a selection</Prompt>
<MenuItem>
<Name>CUSTOMER SERVICE</Name>
<URL>http://10.80.212.10/SpeedDials/SD/CUSTOMER_SERVICE.xml</URL>
</MenuItem>
<MenuItem>
<Name>SECURITY</Name>
<URL>http://10.80.212.10/SpeedDials/SD/SECURITY.xml</URL>
</MenuItem>
<MenuItem>
<Name>GARDENING</Name>
<URL>http://10.80.212.10/SpeedDials/SD/GARDENING.xml</URL>
</MenuItem>
<MenuItem>
<Name>LUMBER</Name>
<URL>http://10.80.212.10/SpeedDials/SD/LUMBER.xml</URL>
</MenuItem>
```

```
<MenuItem>
<Name>HARDWARE</Name>
<URL>http://10.80.212.10/SpeedDials/SD/HARDWARE.xml</URL>
</MenuItem>
<MenuItem>
<Name>PLUMBING</Name>
<URL>http://10.80.212.10/SpeedDials/SD/PLUMBING.xml</URL>
</MenuItem>
</CiscoIPPhoneMenu>
```

Example of Directory Entry XML Files

In the following XML file examples, the folder `..\wwwroot\SpeedDials\SD` contains multiple XML directory files. Each directory file contains a set of directory entries.

```
<CiscoIPPhoneDirectory>
<Title>CUSTOMER_SERVICE</Title>
<DirectoryEntry>
<Name>CS1</Name>
<Telephone>1000</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>CS2</Name>
<Telephone>1001</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>CS3</Name>
<Telephone>1003</Telephone>
</DirectoryEntry>
</CiscoIPPhoneDirectory>
```

```
<CiscoIPPhoneDirectory>
<Title>GARDENING</Title>
<DirectoryEntry>
<Name>GARDENING-1</Name>
<Telephone>2000</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>GARDENING-2</Name>
<Telephone>2001</Telephone>
</DirectoryEntry>
</CiscoIPPhoneDirectory>
```

```
<CiscoIPPhoneDirectory>
<Title>HARDWARE</Title>
<DirectoryEntry>
<Name>HARDWARE-1</Name>
<Telephone>2767</Telephone>
```

```
</DirectoryEntry>
<DirectoryEntry>
<Name>HARDWARE-2</Name>
<Telephone>2768</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>HARDWARE-3</Name>
<Telephone>2769</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>HARDWARE-4</Name>
<Telephone>2770</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>HARDWARE-5</Name>
<Telephone>2771</Telephone>
</DirectoryEntry>
</CiscoIPPhoneDirectory>
```

```
<CiscoIPPhoneDirectory>
<Title>LUMBER</Title>
<DirectoryEntry>
<Name>LUMBER-1</Name>
<Telephone>3000</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>LUMBER-2</Name>
<Telephone>3001</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>LUMBER-3</Name>
<Telephone>3002</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>LUMBER-4</Name>
<Telephone>3003</Telephone>
</DirectoryEntry>
</CiscoIPPhoneDirectory>
```

```
<CiscoIPPhoneDirectory>
<Title>PLUMBING</Title>
<DirectoryEntry>
<Name>PLUMBING-1</Name>
<Telephone>1040</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>PLUMBING-2</Name>
<Telephone>1041</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>PLUMBING-3</Name>
```

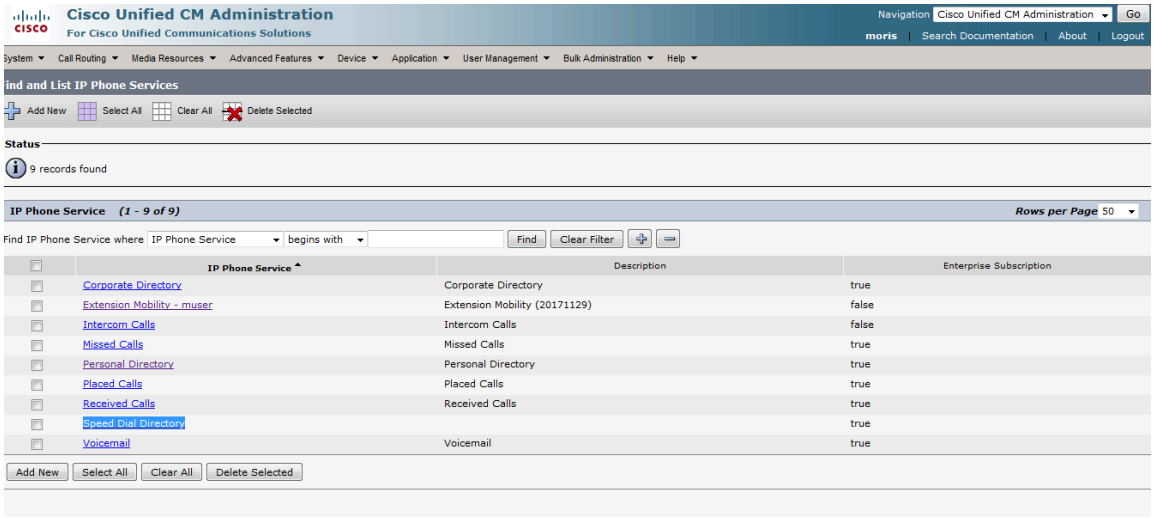
```
<Telephone>1042</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>PLUMBING-4</Name>
<Telephone>1043</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>PLUMBING-5</Name>
<Telephone>1044</Telephone>
</DirectoryEntry>
</CiscoIPPhoneDirectory>
```

```
<CiscoIPPhoneDirectory>
<Title>SECURITY</Title>
<DirectoryEntry>
<Name>Police</Name>
<Telephone>911</Telephone>
</DirectoryEntry>
<DirectoryEntry>
<Name>SECURITY</Name>
<Telephone>111</Telephone>
</DirectoryEntry>
</CiscoIPPhoneDirectory>
```

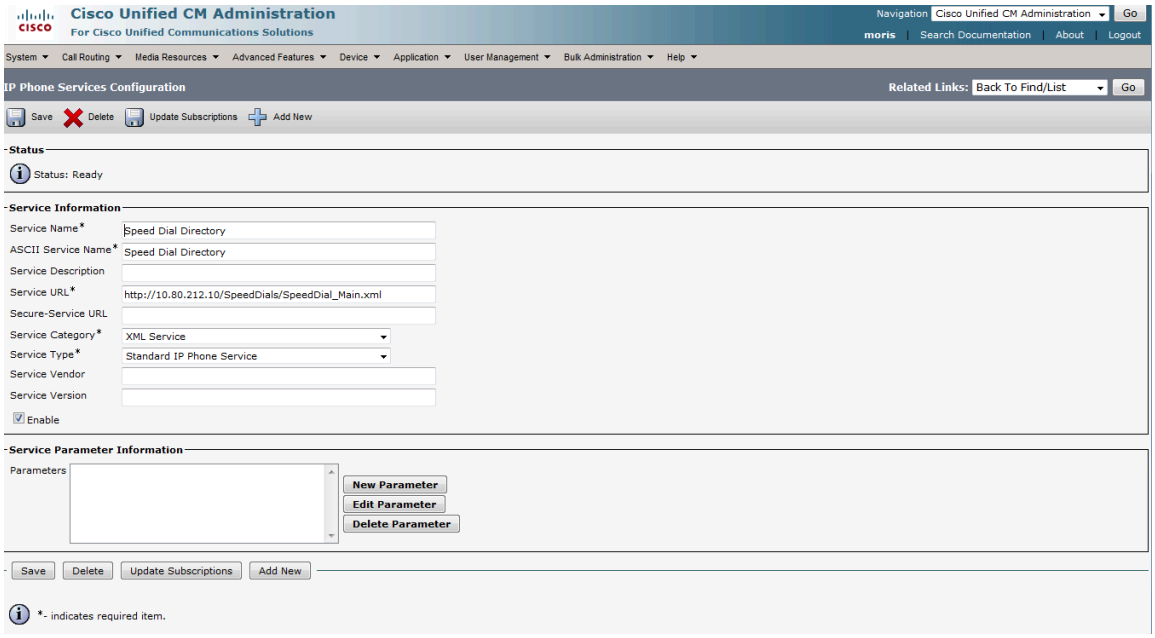
Enabling the Cisco IP Phone Service

This section provides a brief overview on enabling the Cisco IP Phone Service in CUCM. For more information, refer to https://supportforums.cisco.com.

1. In the **Find and List IP Phone Services** screen, select **Add New** to create a directory.



2. In the **IP Phone Services Configuration** screen, in the **Service URL** field, enter the URL for the XML menu file on the Microsoft IIS Web Server.



Using IP Phone Services in Zebra Voice

To use IP Phone Services in Zebra Voice:

1. From the Zebra Voice home screen, select **Services**.
2. In the **Select Services** popup window, select the directory.

   The directory menu screen appears.
3. Select a menu item to view directory entries.
4. Touch a directory entry to initiate a call.

License Migration - Premium to Standard

Customers who wish to migrate their license from the Workcloud Communication Voice Premium product to the Voice Standard product need to initiate a purchase order (PO) through their preferred procurement route and contact your Zebra sales representative for support.

Migrating Customer with PVM from CUCM Premium to Standard License

The following steps are to be followed:

1. Customers are to update their PBX configuration.
   a) Remove the extension with the CISCO device type/phone type, such as **Cisco 8865** or **Cisco 9971**, which supports CUCM Premium features to support the customer's PBX configuration. For more information, go to Deleting the CUCM Premium Extension on page 26.
   b) Create an extension with CISCO device type/phone type as "Third-Party SIP Device (Basic)" on the CUCM. For more information, go to Configuring Basic CUCM on page 16
2. Configure the PBX details in the Voice Client. Follow one of the methods to configure PBX details on each device. This can be simplified by migrating PVM customers to EXM. For more information, go to Migrating Customer from PVM to EXM .
   a) Provide the necessary PBX connection and SIP details in the Voice Client UI. Update configuration to **Basic CUCM** so the client uses the Standard feature set against the Premium. For more information, go to Configuring with Zebra Voice GUI on page 42.
   b) Scan the PVM token (per device) for licenses. We can also provide PBX and SIP details as part of the PVM token instead of manually configuring it in Voice Client UI. For more information, refer to the **Token** of Workcloud Communication Provisioning Manager Customer Administrator Guide.
   c) Configure the PBX details using the WFConnect.xml file. The file is pushed to the device with customer MDM or StageNow. The profile gets applied, and the client registers the extension. (SIP, PBX configurations, and PVM tokens are part of WFConnect.xml). For more information, go to Profile Configuration on page 51 and Configure Using an MDM on page 45 .
3. The profile gets applied, and the client registers the extension. Validate that the voice Client is working as expected with the new standard licenses.

Migrating Customer with EXM from CUCM Premium to Standard License

The following steps are to be followed:

1. Customers are to update their PBX configuration.
   a) Remove the extension with the CISCO device type/phone type, such as **Cisco 8865** or **Cisco 9971**, which supports CUCM Premium features to support the customer's PBX configuration. For more information, go to Deleting the CUCM Premium Extension on page 26.
   b) Create an extension with CISCO device type/phone type as "Third-Party SIP Device (Basic)" on the CUCM. For more information, go to Configuring Basic CUCM on page 16.
2. Create/update the PBX configuration in the Extension Manager to update the PBX type.
3. If the same directory numbers are used for the basic extensions, the administrator can update the existing premium CUCM extension with basic CUCM details. SIP User ID and Password are required to authenticate with the PBX. Customers can import or reuse the existing extensions CSV file with the added modifications. For more information, go to Create Extensions of Workcloud Communication Extension Manager Customer Administrator Guide
4. Register the Voice Client with the required extension and validate that the Voice Client is working as expected with the new standard licenses.

Migrating Customer from PVM to EXM

The process of migrating Provisioning Manager customers to Extension Manager customers is as follows:

1. Create a tenant in the Extension Manager.

   Contact the Zebra Onboarding team (via your Zebra representative) to initiate the creation of the EXM environment.
2. Create a site.

   For more information, refer to **Create Sites** of Workcloud Communication Extension Manager Customer Administrator Guide.
3. Create a department of type **Personal**.

   For more information, refer to **Create Departments** of Workcloud Communication Extension Manager Customer Administrator Guide.
4. Create the PBX configuration in the EXM.

   For more information, refer to **Set up the PBX** of Workcloud Communication Extension Manager Customer Administrator Guide.
5. Create the new extensions in EXM with PBX Type **CME_BASIC** or **CUCM_BASIC** with the reserve field set to the device ID.

   Refer to **Create Extensions** of Workcloud Communication Extension Manager Customer Administrator Guide.

   Customers can be imported or reused using the existing CSV file in Voice Client Premium. For each device, an extension is created.
6. Configure the device on a shared-profile URI using a PVM token or through MDM. Configuration to be done on the devices.
7. Validate that the voice Client is working as expected with the new standard licenses.

   For the full list of supported features with Voice Standard, go to the WCC Voice Client 9.x – Feature Matrix.

Hunt Groups

NOTE: The Voice Hunt Groups feature is only available in Cisco CUCM version 12.5 and higher and requires Zebra Voice version 9.0.21109 or later.

This section contains an overview of configuring and using the Hunt Groups feature in the PBX.

The Hunt Groups feature allows incoming calls to a specific number to be directed to a defined group of extension numbers. When configured, the Hunt Groups feature allows end users to sign in and sign out of Hunt Groups in Zebra Voice only in the premium environment of Cisco CUCM and CME.

For more information on the Hunt Groups feature, refer to cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/12_5_1SU1/cucm_b_feature-configuration-guide-for-cisco1251SU1/cucm_b_feature-configuration-guide-for-cisco1251SU1_chapter_0100001.html

Configuring Hunt Groups

1. In the Cisco CUCM PBX, go to > **Call Routing** > **Route/Hunt** > **Line Group**.
   a) Ensure at least one Line Group exists. To create a new Line Group, select **Add New** and use the default settings.
2. Go to > **Call Routing** > **Route/Hunt** > **Hunt List**.
   a) Ensure at least one Hunt List exists. To create a new Hunt List, select **Add New**.
   b) Select the Hunt List.
   c) In **Hunt List Configuration**, under **Hunt List Member Information** ensure that **Selected Groups** has the desired Line Group. To add a Line Group, select **Add Line Group**.
3. Go to > **Call Routing** > **Route/Hunt** > **Hunt Pilot**.
   a) Ensure at least one Hunt Pilot exists. To create a new Hunt Pilot, select **Add New**.
   b) Select the Hunt Pilot.
   c) In **Hunt Pilot Configuration**, under **Pattern Definition** ensure that **Hunt List** is set to the desired Hunt List.
4. Go to **Device** > **Phone**.
   a) Select an extension.
   b) Select **Modify Button Items**.
   c) In **Manage Button Associations**, ensure Hunt Group Logout is in the **Associated Items** column.

Once configured in the PBX, a button is automatically pushed to the Zebra Voice app on the device.

Joining a Hunt Group

Join a Hunt Group using the Hunt Group button in Zebra Voice.

- From the Home Screen, touch **Hunt Group**.

  A confirmation screen displays and the button turns yellow.

Leaving a Hunt Group

Leave a Hunt Group using the Hunt Group button in Zebra Voice.

- From the Home Screen, touch **Hunt Group**.

  A confirmation screen displays and the button changes from yellow to the default button color.