WORKFORCE CONNECT
Voice Client 8.2.x

Administrator Guide
for Asterisk
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Revision History

Changes to the original guide are listed below:

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Introduction

This manual describes how to install, configure and use Workforce Connect Voice Client on an Asterisk network.

NOTE: Screens and windows pictured in this guide are samples and can differ from actual screens.

Chapter Descriptions

Topics covered in this guide are as follows:

- **Configuring the Client**, describes the steps you need to take prior to beginning to configure the device.
- **Configuring the PBX**, describes the steps you need to take to configure the PBX.
- **Dynamic Configuration**, describes the procedures to dynamically configure the WFC client using an XML variable file.
- **Settings**, provides detailed information on configuring settings.
- **Logging**, describes the process used to capture and collect WFC Voice Client log files and Fusion log files.
- **Headless Mode and WFCVoice Service**, describes the procedures to configure WFC Voice client as a background service.
- **Using the Client**, explains how to use the functions and features of the WFC client.
- **Button Actions**, includes a table listing the XML tags used to define a button action.
- **XML Tags**, includes a table listing all XML tags used in the Workforce Connect Voice Client configuration file and where they are valid.
- **XML Example - Profile**, provides an XML example for the Profile section.
- **XML Example - Footer**, provides an XML example for the Footer section.
- **XML Example - Dashboard**, provides an XML example for the Dashboard section.
- **XML Example - Call Buttons**, provides an XML example for the In-Call Buttons section.
- **Configuring a Proxy Server**, explains how to configure a proxy server.
- **Network Ports and Protocols**, provides an overview of the ports and protocols the WFC Voice Client uses on supported Zebra devices.
Notational Conventions

The following 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.

Related Documents and Software

The following documents provide more information about the WFC Voice Client.

- Best Practices Guide: Deploying VoWLAN Over WiNG5 Wireless Networks, p/n MN001150Axx

For the latest version of this guide and all guides, go to: [www.zebra.com/support](http://www.zebra.com/support).

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](http://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 the Client

Introduction

This chapter describes how to install, activate and configure the Workforce Connect Voice Client (WFC Voice Client).

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 not suitable for voice traffic, WFC Voice Client will perform on a best effort basis. Contact the Zebra Software Support Desk for more information: [www.zebra.com/support](http://www.zebra.com/support).

Connect Android Wireless Device to Network

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

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

Connect the Android wireless device to the network. See device instructions for more information. If you need assistance, contact the Zebra Support at: [www.zebra.com/support](http://www.zebra.com/support).
Install Workforce Connect Voice Client

There are two ways to install the WFC Voice Client:

- USB tether or web server - This section describes using a USB tether or web server to install the WFC Voice Client APK manually or using ADB commands.
- Mobile Device Manager (MDM) - For information on installing the WFC Voice Client APK using an MDM, refer to the Workforce Connect Voice Client Configuration Guide for Mobile Device Managers.

Download and Install Board Support Package (BSP) Operating System

For instructions please refer to 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.

Download and Install Android Application Packager (APK) Client

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 WFC Voice APK file.

Installing the APK Manually

To install the APK manually:

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 the WFC Voice Client is available in the Apps Screen.

   The WF Connect 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 WFC Voice APK file.

Create a Shortcut for the Workforce Connect Voice Client

To create a shortcut:

1. In the Apps Screen, press and hold on the WF Connect icon.
2. Drag the WF Connect Icon to the Home screen.

3. Drop icon on Home screen.

---

**Open Workforce Connect Voice Client**

To open the WFC Voice Client, use one of the following methods:

- Touch the WF Connect icon on the Home screen.
Activate Workforce Connect Voice Client

When the WFC Voice Client starts for the first time, the **App Activation** screen appears. A valid license is required for each PBX. The WFC Voice Client is activated by using an activation key, Mobile Device Manager (MDM), or USB tether.

**NOTE:** When activating a device that does not have direct access to the license source, use a proxy server. See Configuring a Proxy Server on page 170.

Activate Using an Activation Key

To activate the WFC Voice Client:
1. Open the WFC Voice Client.

**Figure 5  App Activation Screen**

2. Use one of the following activation methods:
   - **Keys or features** - Acquires licenses from the default licensing source.
     
     In the **keys or features** field, enter your activation code(s) separated by commas.

   **NOTE:** The WFC Voice Client version 8.2.729 requires a license source URL when activating using an activation key. Refer to the Workforce Connect Voice Client 8.2.x Administration Guide for Licensing.

3. To enter a **device alias**, touch the **toggle button** and, in the **device alias** field, enter a name to identify the device on the license source.

4. Touch **Register App**.

   The **About** screen appears, displaying currently licensed keys and features.

**Figure 6  About Screen**

5. Touch **OK**.
Activate Using an MDM

Configuring the WFC Voice Client using an MDM requires a deployment package and the WFC Voice Client configuration file. The configuration file **WFConnect.xml** stores all WFC Voice client configuration parameters, including licensing information, as key and value pairs. For detailed information on the XML configuration file, see Settings on page 37.

Define the licensing information using the following XML tags:

- **license_key** - Contains one or more WFC Voice Client activation keys separated by commas.
  
  Example: `<license_key>abcd-1234-ab12-1234-5678-efgh-ef56-gh78</license_key>

- **license_source** - The URL of a license source.
  
  - WFC Voice Client version 8.2.729 - Enter the following URL:
    https://zebra-licensing.flexnetoperations.com/flexnet/deviceservices
  
  - WFC Voice Client version 8.2.730 or later - Leave this field blank.

- **license_alias** - Identifies the device on the license source. (Optional)

MDM Deployment

During runtime, WFC Voice Client listens for **wfc.voice.ACTION_UPDATE_CONFIG** intent. When the WFC Voice Client receives the intent from an MDM, the configuration file uses **WFConnect.xml** to update the WFC Voice Client 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 Workforce Connect Voice Client 8.x Configuration Guide for Mobile Device Managers.

Activate Using a USB Tether

Send the **WFConnect.xml** configuration file to the device using a USB tether, use an 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 WFC Voice Client APK. See Download and Install Android Application Packager (APK) Client on page 13.
  2. Copy the **WFConnect.xml** file in the /sdcard/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"
     ```

Update License

To update all WFC Voice Client licenses, refer to the Workforce Connect Voice Client 8.2.x Administration Guide for Licensing.

Configure Workforce Connect Voice Client

The WFC Voice Client is configured using the Graphical User Interface (GUI), an MDM, or a USB Tether.
Configure Using the WFC Voice Client GUI

To configure the WFC Voice Client:

1. Touch the menu button.

2. Touch Settings.

3. Enter the settings password. The default password is: \textit{zamboni}.

4. Touch Connection Parameters.

5. Select a PBX configuration. The default configuration is: \textbf{PBX\#1 Configuration}.

   For information on configuring additional PBX types, see Configuring Multiple PBX Types on page 42.

6. Touch the PBX Type field and select Asterisk.

\textbf{NOTE:} It is not recommended to install the WFConnect.xml file using a USB tether because it can cause permission issues on the device.
7. Enter the User ID.
8. Enter the Password.
9. Enter the Address of the PBX server.

**Figure 10** Enter Parameters

- PBX Type
- User ID
- Password
- Server Address

**NOTE:** For information on optional configuration settings, see XML Tags on page 145.

10. Touch the back button three times to return to the WFC Voice Client home screen.

**Figure 11** Confirmation Message

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

**Configure Using an MDM**

Configuring the WFC Voice Client using an MDM requires a deployment package and the WFC Voice Client configuration file. The configuration file `WFConnect.xml` stores all WFC Voice client configuration parameters,
including licensing information, as key and value pairs. For detailed information on the XML configuration file, see Settings on page 37.

Define the licensing information using the following XML tags:

- **license_key** - Contains one or more WFC Voice Client activation keys separated by commas.  
  Example: `<license_key>abcd-1234-ab23-3456-efgh-ef56-gh78</license_key>`

- **license_source** - The URL of a license source.
  - WFC Voice Client version 8.2.729 - Enter the following URL:  
  - WFC Voice Client version 8.2.730 or later - Leave this field blank.

- **license_alias** - Identifies the device on the license source. (Optional)

**MDM Deployment**

During runtime, WFC Voice Client listens for `wfc.voice.ACTION_UPDATE_CONFIG` intent. When the WFC Voice Client receives the intent from an MDM, the configuration file uses `WFConnect.xml` to update the WFC Voice Client 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 Workforce Connect Voice Client 8.x Configuration Guide for Mobile Device Managers.

**Configure Using a USB Tether**

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

1. Install the WFC Voice Client APK. See Download and Install Android Application Packager (APK) Client on page 13.
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"
   ```

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.
Introduction

This chapter describes the steps you need to take to configure the PBX.

You will perform the following steps to configure the Asterisk:

- Enable Supported Audio Codecs
- Enable TCP As Signaling Transport Protocol
- Adding an Extension
- Check the configuration of the mobile device.

Enable Supported Audio Codecs

To enable supported Audio Codecs:

1. Login to Asterisk PBX as administrator.
2. Select Settings > Asterisk SIP Settings.

⚠️ IMPORTANT: Client supported Audio Codecs are G.711 u-Law, G.711 A-Law, G.722, GSM, and G.729.
3. Click Submit.

Enable TCP As Signaling Transport Protocol

To enable TCP as signaling transport protocol:

1. Go to the Command Line Interface (CLI) and enter the following:
   
   `srv# cat /etc/asterisk/sip_custom.conf
   tcpenable=yes
tcpbindaddr=0.0.0.0
   srv# asterisk -x "sip reload"
   
1. Press Enter.

Adding an Extension

To add an extension:

1. Click Device drop-down menu, select the device.
2. **Click Submit.** The Add Extension screen will appear.
3. Enter the user extension, display name and password.

**Figure 14** Add Extension Screen

4. **Click Submit.** Additional device options appear.
5. Enable TCP or UDP as transport protocol.
In order to register WFC with Asterisk, the admin/user needs to configure the application with the UserID and password that has been configured at the voice gateway. Also, unless the application receives the Asterisk’s IP address during the DHCP DORA exchange, the admin/user needs to add the voice gateway as “server address” in the WFC Voice Settings.
Check Device Settings

At the device there are only 3 fields the administrator must set:

- User ID
- Password
- Server Address.

Figure 16  Device Settings
Introduction

The WFC Voice Client 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 defining 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 preparing the WFC Voice Client 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 the WFC Voice Client using an XML variable file. File delivery can be manual, by an MDM, or automatic through existing network services.

Overview

The chapter includes:

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

Properly configuring these elements allows the WFC Voice Client to register to the PBX.

General Device Use Cases

- 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

There are three stages of device life-cycle in the customer environment that affect how the WFC Voice Client 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

Device Identification

The system identifies each mobile device by a unique user ID and password. The user’s credentials are mapped to a specific feature set in the PBX. This requires that the user credentials are loaded into the WFC Voice Client XML and passed to the PBX at registration time.
Profile Configuration

For the WFC Voice Client to connect to a PBX, the Profile section of the \texttt{WFConnect.xml} file must contain XML tags which the device uses to:

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

✓ \textbf{NOTE:} Any element in the WFC Voice Client configuration file can be replaced with a variable.

Connection Attributes

The \texttt{sip_userid} and \texttt{sip_userpass} provide access to the PBX as shown in the following example:

\begin{verbatim}
<Profile>
  ...
  <profile_type>Asterisk</profile_type>
  <display>true</display>
  <profname>Asterisk</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>
\end{verbatim}

The profile section requires:

- An IP address in the \texttt{sip_remhost} field to target the appropriate PBX.
- A user ID (\texttt{sip_userid}) and password (\texttt{sip_pass}) to identify the client to the PBX.
Dynamic Configuration

Enabling Dynamic Configuration

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

```xml
<wFConnect>
  <Profile>
    <var_location>file:///wfconnect/wfcvariable.xml</var_location>
  </Profile>
</wFConnect>
```

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

When the WFC Voice Client 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

Wcfvariable.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 WFC Voice Client 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 set to 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.

```xml
<!-- Asterisk Users -->
<Entry>
  <profile_type>Asterisk</profile_type>
  <display>true</display>
  <profname>Asterisk-2797</profname>
  <prof_password></prof_password>
  <sip_userid>2797</sip_userid>
  <sip_userpass>123456</sip_userpass>
  <prof_description>MC40.1</prof_description>
  <sip_mac></sip_mac>
  <sip_remhost>10.80.212.44</sip_remhost>
</Entry>
```
<Entry>
  <profile_type>Asterisk</profile_type>
  <display>true</display>
  <profname>Asterisk-2799</profname>
  <prof_password></prof_password>
  <sip_userid>2799</sip_userid>
  <sip_userpass>123456</sip_userpass>
  <prof_description>MC40.2</prof_description>
  <sip_mac></sip_mac>
  <sip_remhost>10.80.212.44</sip_remhost>
</Entry>

<Entry>
  <profile_type>Asterisk</profile_type>
  <display>true</display>
  <profname>Asterisk-2800</profname>
  <prof_password></prof_password>
  <sip_userid>2800</sip_userid>
  <sip_userpass>123456</sip_userpass>
  <prof_description>MC40.3</prof_description>
  <sip_mac></sip_mac>
  <sip_remhost>10.80.212.44</sip_remhost>
</Entry>

<Entry>
  <profile_type>Asterisk</profile_type>
  <display>true</display>
  <profname>Asterisk-2801</profname>
  <prof_password></prof_password>
  <sip_userid>2801</sip_userid>
  <sip_userpass>123456</sip_userpass>
  <prof_description>MC40.4</prof_description>
  <sip_mac></sip_mac>
  <sip_remhost>10.80.212.44</sip_remhost>
</Entry>

**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 the WFC Voice Client looks for the XML file on the device (a local file) or at a network location, for example:

- Local: file:///WFConnect/wfcvariable.xml
Dynamic Configuration

- 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 also have a central location for the variable file.

**DHCP Option 150**

The WFC Voice Client 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 WFC service re-processes the variable files.

✔ **NOTE:** The system administrator must ensure that updates are posted to the correct location available to the WFC Voice Client client.
Dynamic Configuration Start-Up - Server Side

The following diagram describes the steps WFC Voice Client follows on the server side to download dynamic configuration during initialization.

**Figure 17** Dynamic Configuration Start-Up Process

---

**Dynamic Mode**

Network Services – Option 60 Support in Sunrise products

- `<WFConnect>
  <Profile>
    <var_location>http://(Option 186)(Option 188)</var_location>
  </Profile>
</WFConnect>`

- `<WFConnect>
  <Profile>
    <var_location>http://192.168.10.10/WFConnect/wfcvariable.xml</var_location>
  </Profile>`

- `<WFConnect>
  <Profile>
    <var_location>http://192.168.10.10/WFConnect/wfcvariable.xml</var_location>
  </Profile>`

- var file downloaded for later processing once extension is selected.

- Var file downloaded to the MC for processing. A WFconfig.xml file is built.

- No Dynamic Config process. End.

- Start Up WFC for Manual Config.
Dynamic Configuration Start-Up - Client Side

The following diagram describes the steps WFC Voice Client follows on the client side to download dynamic configuration during initialization.

Figure 18   Dynamic Configuration Start-Up Process - Continued
XML File Examples

The following example displays the standard profile and different ways the voice client is able to retrieve a Dynamic Workforce Configuration XML file. Options include local XML and TFTP downloaded XML configuration.

**Figure 19  XML Files Example**

**Standard Config**

(legacy mode)

```
<WFConnect>
  <Profile>
    <profile_type>PBX</profile_type>
    <sip_mac>aaaabbbbcccc1</sip_mac>
    <sip_remhost>192.168.10.50</sip_remhost>
  </Profile>
</WFConnect>
```

**Dynamic Mode**

Network Services – Option 60 Support in Sunrise products

```
<WFConnect>
  <Profile>
    <var_location>http://192.168.10.10/WFConnect/wfcvariable.xml</var_location>
  </Profile>
</WFConnect>
```

**Variable File**

Wfcvariable.xml

```
<Users>
  <Entry>
    <display>false</display>
    <prof_name>1001</prof_name>
    <password>abc123</password>
    <prof_description>boss</prof_description>
    <sip_mac>aaaabbbbcccc1</sip_mac>
    <sip_remhost>192.168.10.50</sip_remhost>
    <layout_location>http://192.168.10.10/WFConnect/buttons_1001.xml</layout_location>
  </Entry>
</Users>
```

**Buttons_1001.xml**

```
<Footer>
  <Button>
    <title>History</title>
    <action>HISTORY</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <fg_color>#FFFFFF</fg_color>
    <icon></icon>
  </Button>
</Footer>
```

192.168.10.10

WFC Service Start-up:
- Request Var File

Var File sent to device.
At WFC UI Activation user prompted for Prof_Names
User scrolls through Profile Names and makes selection.

192.168.10.10

Button File external reference for profile.
- Request Button File

Button File sent to device.
Var file and Button file has all information needed to build WFConfig.xml file.
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 WFC Voice Client website.
3. Create the website and add a virtual folder.
4. Open the Default Documents properties.

Figure 20  Server Manager

5. Set the folder for the WFC Voice Client XML file repository.
6. Test the settings to verify the system and default user can access the files.

   **NOTE:** To test accessibility of the files, point your browser to the web site.

7. After determining access to the files, modify the XML files accordingly:
   - An example of remote access in **WFConnect.xml** is:
     ```xml
     <Profile>
     <var_location>http://192.168.10.45/var/wfcvariable.xml</var_location>
     </Profile>
     ```
   - An example of remote access in the **wfcvariable.xml** is:
     ```xml
     <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.
**Introduction**

This chapter contains information on settings used to configure and customize the WFC Voice Client.

The following sections provide detailed information on:

- **Profile Settings** - creating, editing, loading and saving a settings profile.
- **Connection Parameters** - configuring up to four PBX types.
- **Audio Settings** - configuring advanced audio settings.
- **UI Settings** - controlling the appearance and functionality of WFC Voice Client.
- **Call Settings** - configuring advanced call settings.
- **Ringtones** - configuring WFC Voice Client ringtones.
- **Miscellaneous Settings** - locating help files and editing the settings password.

**Exiting the WFC Voice Client:**

1. Touch the menu button, then **Settings**. The password dialog box appears.
2. Enter password (default: zamboni).
3. Touch **Enter**.
4. Touch **Stop Service > Yes**.

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.STOP_APP
```

**Reloading the WFC Client:**

1. Touch the menu button, then **Settings**. The password dialog box appears.
2. Enter password (default: zamboni).
3. Touch **Enter**.
4. Touch 🔄.

For more ways to reload the WFC Voice Client, see **Reload on page 81**.
Profile Settings

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

Create Profile

Create a new profile. A new XML file is created in the WFConnect folder.

To create a new profile:
1. Touch the menu button, then Settings. The password dialog box appears.
2. Enter password (default: zamboni).
3. Touch Enter.
4. Touch the menu button, then Create new profile.
5. Touch Save current profile.
6. Enter a file name for the new profile.
7. Touch Save. The file is saved in the WFConnect folder.
8. Touch the Back button to return to the WFC Voice Client home screen.

Change Profile Name

To change the name of the current profile:
1. Touch the menu button, then Settings. The password dialog box appears.
2. Enter password (default: zamboni).
3. Touch Enter.
4. Touch Profile name.
5. Enter a file name for the new profile.
6. Touch OK. The file name in the WFConnect folder is updated.
7. Touch the Back button to return to the WFC Voice Client home screen.

Shared Profiles URI

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

To set the URI of a shared profile:
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 the WFC Voice Client, touch the menu button, then Settings. The password dialog box appears.
4. Enter password (default: zamboni).
5. Touch Enter.
6. Touch Shared Profiles URI.
7. Enter the URI of the shared profile.
8. Touch OK.
9. Touch the Back button to return to the WFC Voice Client home screen.
Load New Profile

Load profiles previously saved to the:

- WFConnect folder
- SD Card

Loading a New Profile Using the GUI

1. Touch the menu button, then Settings. The password dialog box appears.
2. Enter password (default: zamboni).
3. Touch Enter.
4. Scroll to the bottom of the screen.
5. Touch Load new profile. The Select Profile File dialog box appears.

![Select Profile Popup](image)

6. Select a profile file name.
7. Touch the Back button or Refresh button to load new profile.

Loading a New Profile Using XML

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

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 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

Using the same file name, save the current profile to replace an existing XML file.

To save an existing profile:

1. Touch the menu button, then Settings. The password dialog box appears.
2. Enter password (default: zamboni).
3. Touch Enter.
4. Scroll the bottom of the screen.
5. Touch Save current profile. The current profile name appears.
6. Touch Save. The file is saved in the WFConnect folder.
7. Touch the Back button to return to the WFC Voice Client 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.
Settings

Connection Parameters

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

To configure the default PBX (PBX#1 Configuration) see Configure Workforce Connect Voice Client on page 17.

Figure 23  Connection Parameters
# Configuring Multiple PBX Types

Set the configuration parameters for additional PBX types:

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

## Using the GUI

1. Touch the menu button, then **Settings**. The password dialog box appears.
2. Enter the password (default: zamboni).
3. Touch **Enter**.
4. Touch **Advanced Settings > Connection Parameters**.
5. Touch **PBX#2 Configuration**.
6. Touch **PBX#2 Type**.
7. Select the PBX type that is the same as the target PBX call server.
8. Enter the configuration information.
   Refer to the Getting Started chapter of the WFC Voice Client Administrator Guide for the desired PBX type.
9. Touch the **Back** button to return to the Connection Parameters screen.
10. Repeat steps 5 through 7 for up to two more PBX types (optional).
11. Touch the **Back** button to return to the WFC Voice Client home screen.

## Using XML

```
<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>9971</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>
```
Audio Settings

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

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

To configure audio settings:

1. Touch the menu button, then **Settings**. The password dialog box appears.

   ![WFC Voice Client Menu](image)
   
   Figure 24   WFC Voice Client Menu

2. Enter password (default: **zamboni**).
3. Touch **Enter**.

   ![WFC Voice Client Settings Menu](image)
   
   Figure 25   WFC Voice Client Settings Menu

4. Touch **Advanced Settings > Audio Settings**.


Figure 26  Advanced Settings / Audio Settings
Audio Codecs Priorities

Set the audio Codecs preferences.

✓ NOTE: Only select audio Codecs available in the PBX.

Using the GUI
1. In Advanced Settings select Audio Settings.
2. Select Audio Codecs Priorities.
3. Select the Codec preference (default order preferred). See Table 1 for descriptions.
4. Touch Back button to return to the WFC Voice Client home screen.

Using XML
<WFConnect>
<Profile>
    <codec_ulaw_priority>1</codec_ulaw_priority>
</Profile>
...</WFConnect>

<table>
<thead>
<tr>
<th>Field Type</th>
<th>Description</th>
<th>XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.711 u-Law</td>
<td>When selected, assigns preference priority for G.711 u-LAW Voice codec negotiations between PBX and Client.</td>
<td>&lt;codec_ulaw_priority&gt;1&lt;/codec_ulaw_priority&gt;</td>
</tr>
<tr>
<td>G.729</td>
<td>When selected assigns preference priority for G.729 Voice codec negotiations between PBX and Client.</td>
<td>&lt;codec_g729_priority&gt;3&lt;/codec_g729_priority&gt;</td>
</tr>
<tr>
<td>G.722</td>
<td>When selected assigns preference priority for G.722 Voice codec negotiations between PBX and Client.</td>
<td>&lt;codec_g722_priority&gt;4&lt;/codec_g722_priority&gt;</td>
</tr>
<tr>
<td>GSM</td>
<td>When selected assigns preference priority for GSM Voice codec negotiations between PBX and Client.</td>
<td>&lt;codec_gsm_priority&gt;5&lt;/codec_gsm_priority&gt;</td>
</tr>
</tbody>
</table>
### Jitter Buffer

#### Jitter Initial Delay

Set the Jitter Buffer initial delay settings.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>Audio Settings</strong>.</td>
<td>Using XML &lt;WFConnect&gt;</td>
</tr>
<tr>
<td>2. <strong>Slide the Jitter Initial Delay slider</strong> (default 60 msec).</td>
<td>&lt;Profile&gt;</td>
</tr>
<tr>
<td>3. <strong>Touch Back</strong> button to return to the WFC Voice Client home screen.</td>
<td>&lt;jitter_min&gt;60&lt;/jitter_min&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;/Profile&gt;</td>
</tr>
<tr>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/WFConnect&gt;</td>
</tr>
</tbody>
</table>

#### Jitter Buffer Max Buffer Size

Set the maximum Jitter Buffer size.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>Audio Settings</strong>.</td>
<td>Using XML &lt;WFConnect&gt;</td>
</tr>
<tr>
<td>2. Slide the <strong>Jitter Buffer Size</strong> slider (default 250 msec).</td>
<td>&lt;Profile&gt;</td>
</tr>
<tr>
<td>3. <strong>Touch Back</strong> button to return to the WFC Voice Client home screen.</td>
<td>&lt;jitter_max&gt;250&lt;/jitter_max&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;/Profile&gt;</td>
</tr>
<tr>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/WFConnect&gt;</td>
</tr>
</tbody>
</table>
### RTP Parameters

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

Set the RTP Payload size.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> In <strong>Advanced Settings</strong> select <strong>Audio Settings</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> Select <strong>RTP payload size</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>3.</strong> Select the <strong>RTP payload size</strong> from the dialog box (default 20 ms).</td>
<td></td>
</tr>
<tr>
<td><strong>4.</strong> Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td></td>
</tr>
</tbody>
</table>

**Using XML**

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

**First Real-Time Transport Protocol (RTP) Port**

Set the First RTP Port.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> In <strong>Advanced Settings</strong> select <strong>Audio Settings</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> Select <strong>First RTP port</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>3.</strong> Enter the <strong>First RTP port number</strong> (default 50000).</td>
<td></td>
</tr>
<tr>
<td><strong>4.</strong> Select <strong>OK</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>5.</strong> Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td></td>
</tr>
</tbody>
</table>

**Using XML**

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

**Last Real-Time Transport Protocol (RTP) Port**

Select the Last RTP Port.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> In <strong>Advanced Settings</strong> select <strong>Audio Settings</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> Select <strong>Last RTP Port</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>3.</strong> Enter the <strong>Last RTP port number</strong> (default 50025).</td>
<td></td>
</tr>
<tr>
<td><strong>4.</strong> Select <strong>OK</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>5.</strong> Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td></td>
</tr>
</tbody>
</table>

**Using XML**

```
<WFConnect>
  <Profile>
    <sip_rtp_port2>50025</sip_rtp_port2>
  </Profile>
...</WFConnect>
```
### Audio Enhancements

This section describes how to enable and disable audio enhancements.

#### Configuring Audio Enhancements

Set the following audio enhancements:

- Echo Cancellation
- Noise Reduction
- AGC on speaker
- AGC on earpiece

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
</table>
| 1. In **Advanced Settings** select **Audio Settings**. | <WFConnect>
| 2. Scroll down to **Audio Enhancements**. | <Profile>
| 3. Tap the check boxes next to the items to enable (default: disabled). |  
| 4. Touch the **Back** button to return to the WFC Voice Client home screen. | <use_aec>false</use_aec>
| | <use_noise>false</use_noise>
| | <use_agc_speaker>false</use_agc_speaker>
| | <use_agc_ear>false</use_agc_ear>
| | </Profile>
| | ...
| | </WFConnect>

### Input / Output Audio

Set the input / output volume.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
</table>
| 1. In **Advanced Settings** select **Audio Settings**. | <WFConnect>
| 2. Scroll down to **Input Audio Volume** and **Output Audio Volume** under **Audio Enhancements**. | <Profile>
| 3. Use the slider to select the volume levels for Input and Output Audio (default 1). |  
| 4. Touch the **Back** button to return to the WFC Voice Client home screen. | <audio_gain_in>1</audio_gain_in>
| | <audio_gain_out>1</audio_gain_out>
| | </Profile>
| | ...
| | </WFConnect>

### Audio Debugging Tools

Set the following debugging tools:

- Show jitter stats
- Save incoming voice

<table>
<thead>
<tr>
<th>Using XML</th>
</tr>
</thead>
</table>
| <WFConnect>
| <Profile>
|  
|  
|  
|  
|  
| </Profile>
| ...
| </WFConnect>
• Native Sample Rate

Using the GUI

1. In **Advanced Settings** select **Audio Settings**.
2. Scroll down to **Audio Debugging Tools**.
3. Tap the check boxes next to the items to enable (default: disabled).
4. Touch the **Back** button to return to the WFC Voice Client home screen.

Using XML

```xml
<WFConnect>
  <Profile>
    <show_jitter_stats>false</show_jitter_stats>
    <save_incoming_voice_to_file>false</save_incoming_voice_to_file>
    <use_native_sample_rate>false</use_native_sample_rate>
  </Profile>
  ...
</WFConnect>
```
**UI Settings**

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 drives the WFC Voice Client 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. If this file does not exist, the application uses the default parameter values. The WFC Voice Client XML configuration file has the following sections which must be present in the file and in the following order:

- Profile section
- Footer 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.

### Configuration File Sections

**Profile Section**

The Profile section contains all the global settings and only requires one item to begin using the WFC Voice Client on a PBX.

- SIP Remote Host (PBX Server Address) `<sip_remhost>`

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

See XML Example - Profile for a profile section example.

**Footer Section**

The Footer section defines the buttons, or soft keys, on the WFC Voice Client home screen. The buttons are listed in the order they appear on the screen. A maximum of six buttons can be added. The Footer always displays until a call is initiated. While additional items can be defined in the Footer, the following items are strongly recommended:

- History
- Redial
- Dial
- Contacts
- Voicemail.

Use the WFC Voice Client GUI or `WFConnect.xml` file to customize the Footer. Both methods are discussed with each Function description.
NOTE: The footer area does not require a <columns> element as it is always one row of buttons.

IMPORTANT: If a footer section is not required, do not define any buttons between the <Footer> and the </Footer> tags.

See XML Example - Footer for a footer section example.

Dashboard Section

The Home Screen Dashboard section defines the buttons in the dashboard area of the screen and their layout on the WFC Voice Client 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 WFC Voice Client GUI or WFConnect.xml file to customize the Footer. Both methods are discussed with each Function description.

See XML Example - Dashboard 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 WFC Voice Client 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 for a call button section example.

Headless Mode

For detailed information on Headless Mode see Headless Mode and WFCVoice Service.
Background Logo

Icon Library
To choose a background from the icon library:

Using the GUI
1. In Advanced Settings select UI Settings > 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 WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <background_logo>logo</background_logo>
  </Profile>
  ...
</WFConnect>

Custom Background Configuration
The user can create a custom background. To select a custom background:

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.

Using the GUI
1. In Advanced Settings select UI Settings > 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 WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <background_logo>custom_logo.png</background_logo>
  </Profile>
  ...
</WFConnect>

Buttons Padding
Set the horizontal spacing between in-call buttons from 0 pixels to 50 pixels, in 10 pixel increments.

Using the GUI
1. In Advanced Settings select UI Settings > Background Logo.
2. Slide the Buttons padding slider (default 0).
3. Touch Back to return to the WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <buttons_padding>50</buttons_padding>
  </Profile>
  ...
</WFConnect>
Dialer Padding

Set vertical padding at the bottom of the contacts and history screens from 0 pixels to 200 pixels, in 1 pixel increments.

Using the GUI

1. In **Advanced Settings** select **UI Settings > Background Logo**.
2. Slide the **Dialer padding** slider (default 0).
3. Touch **Back** to return to the WFC Voice Client home screen.

Using XML

```xml
<WFConnect>
  <Profile>
    <dialer_padding>78</dialer_padding>
  </Profile>
...<WFConnect>
```

Graphical User Interface Design Tool

Use the GUI Design Tool to customize the Footer, Dashboard and In-Call screen from within the WFC Voice Client. Configure each to fit the specific needs of the customer. The appearance of the WFC Voice Client 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.

To begin using the GUI Design Tool, follow the steps below to configure the Footer, Dashboard or In-Call screens:

1. Launch WFC Voice Client.
2. Touch the menu button, then **Settings**. The password dialog box appears.

**Figure 27**  WFC Voice Client Menu

1. Enter password (default: **zamboni**).
2. Touch **Enter**.
5. Touch **Advanced Settings > UI Settings**.

6. Select **Edit Dashboard**, **Edit Footer** or **Edit In-Call Button**.

**Using the UI Settings GUI Design Tool**

The following diagram describes the buttons available for each area.
The Footer and In-Call views use the layout displayed in Figure 30. The Dashboard view has an additional toggle button in the bottom center of the screen to change the number of columns on the dashboard (3 or 4).
Home Screen Dashboard

**Figure 32** Home Screen Dashboard

In-Call Dashboard

**Figure 33** In-Call Dashboard
Button Configuration

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

Call

Call 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.

Figure 34 Sample Button Edit Screen
Configuring the Call Button

Using the GUI

1. In UI Settings select Edit Footer, 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 84.
10. Touch BG to set the background color. See Button Background Color on page 87.
11. Touch FG to set the foreground text color. See Button Text Color on page 88.
12. Touch the Back button to return to the WFC Voice Client home screen.

Using XML

<Footer> or <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>
...
</Footer> or </Dashboard> or </CallButtons>
**Dial**

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.

### Configuring the Dial Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings</strong> &gt; Edit Footer, Edit Dashboard or Edit In-Call &gt; Add.</td>
<td>&lt;Footer&gt; or &lt;Dashboard&gt; or &lt;CallButtons&gt; ...</td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>\ <code>&lt;Button&gt;</code></td>
</tr>
<tr>
<td>3. Touch <em>Edit</em>.</td>
<td>\ <code>&lt;title&gt;Dial&lt;/title&gt;</code></td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td>\ <code>&lt;action&gt;DIAL&lt;/action&gt;</code></td>
</tr>
<tr>
<td>5. Touch <em>Action</em> and select <strong>DIAL</strong> from the Select Action menu.</td>
<td>\ <code>&lt;value&gt;&lt;/value&gt;</code></td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Dial</strong>.</td>
<td>\ <code>&lt;enabled&gt;true&lt;/enabled&gt;</code></td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td>\ <code>&lt;confirm&gt;false&lt;/confirm&gt;</code></td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the Select Icon menu.</td>
<td>\ <code>&lt;description&gt;Dial a number or extension&lt;/description&gt;</code></td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See Button Background Color on page 87.</td>
<td>\ <code>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</code></td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See Button Text Color on page 88.</td>
<td>\ <code>&lt;fg_color&gt;#FFFFFFFF&lt;/fg_color&gt;</code></td>
</tr>
<tr>
<td>11. Touch the <em>Back</em> button to return to the WFC Voice Client home screen.</td>
<td>\ <code>&lt;icon&gt;Default&lt;/icon&gt;</code></td>
</tr>
</tbody>
</table>
Start Application defines a button to launch another application on the device. When the button is pressed WFC Voice Client minimizes to run in the background and the defined application launches. For example, a button can be placed in the Footer to open an email application.

Configuring the Start App

Using the GUI

1. In Advanced Settings select UI Settings > Edit Footer, 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 84.
10. Touch BG to set the background color. See Button Background Color on page 87.
11. Touch FG to set the foreground text color. See Button Text Color on page 88.
12. Touch the Back button to return to the WFC Voice Client home screen.

Using XML

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

```xml
<Footer> or <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>
...
</Footer> or </Dashboard> or </CallButtons>
```
Log Marker

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

Configuring the Log Marker

Using the GUI

1. In **Advanced Settings** select **UI Settings** > **Edit Footer**, **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 84**.
9. Touch **BG** to set the background color. See **Button Background Color on page 87**.
10. Touch **FG** to set the foreground text color. See **Button Text Color on page 88**.
11. Touch the **Back** button to return to the WFC Voice Client home screen.

Using XML

```
<Footer> or <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>
...
</Footer> or </Dashboard> or </CallButtons>
```
Speed Dial 0-9

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.

Configuring the Speed Dial Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings &gt; Edit Footer, Edit Dashboard or Edit In-Call &gt; Add</strong>.</td>
<td>&lt;Footer&gt; or &lt;Dashboard&gt; or &lt;CallButtons&gt;</td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td>3. Touch <strong>Edit</strong>.</td>
<td>&lt;Button&gt;</td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td>&lt;title&gt;Speed Dial #1&lt;/title&gt;</td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>SPEED_DIALx</strong> from the <strong>Select Action</strong> menu.</td>
<td>&lt;action&gt;SPEED_DIAL1&lt;/action&gt;</td>
</tr>
<tr>
<td>6. In the <strong>Value</strong> field, enter the extension.</td>
<td>&lt;value&gt;5133&lt;/value&gt;</td>
</tr>
<tr>
<td>7. In the <strong>Title</strong> field, enter <strong>Speed Dial (#)</strong>.</td>
<td>&lt;enabled&gt;true&lt;/enabled&gt;</td>
</tr>
<tr>
<td>8. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td>&lt;confirm&gt;false&lt;/confirm&gt;</td>
</tr>
<tr>
<td>9. Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See <strong>Icons on page 84</strong>.</td>
<td>&lt;description&gt;Speed dial #1&lt;/description&gt;</td>
</tr>
<tr>
<td>10. Touch <strong>BG</strong> to set the background color. See <strong>Button Background Color on page 87</strong>.</td>
<td>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</td>
</tr>
<tr>
<td>11. Touch <strong>FG</strong> to set the foreground text color. See <strong>Button Text Color on page 88</strong>.</td>
<td>&lt;fg_color&gt;#FFFFFFFF&lt;/fg_color&gt;</td>
</tr>
<tr>
<td>12. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td>&lt;icon&gt;Default&lt;/icon&gt;</td>
</tr>
</tbody>
</table>

...
Redial
Redial places a telephone call to the most recently call location. It is highly recommended that the redial button resides only in the Footer.

Configuring the Redial Button

Using the GUI
1. In Advanced Settings select UI Settings > Edit Footer > 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 84.
9. Touch BG to set the background color. See Button Background Color on page 87.
10. Touch FG to set the foreground text color. See Button Text Color on page 88.
11. Touch the Back button to return to the WFC Voice Client home screen.

Using XML
<Footer>
 ...
 <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>
 ...
</Footer>
**Suspend Mode**

Suspend Mode blocks all incoming or outgoing calls.

**Configuring the Suspend Mode Button**

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings &gt; Edit Footer, Edit Dashboard</strong> or <strong>Edit In-Call &gt; Add</strong>.</td>
<td><strong>&lt;Footer&gt; or &lt;Dashboard&gt; or &lt;CallButtons&gt;</strong></td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td><strong>...</strong></td>
</tr>
<tr>
<td>3. Touch <strong>Edit</strong>.</td>
<td><strong>&lt;Button&gt;</strong></td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td><strong>&lt;title&gt;Suspend Mode&lt;/title&gt;</strong></td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>SUSPEND_MODE</strong>.</td>
<td><strong>&lt;action&gt;SUSPEND_MODE&lt;/action&gt;</strong></td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Suspend Mode</strong>.</td>
<td><strong>&lt;value&gt;&lt;/value&gt;</strong></td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td><strong>&lt;enabled&gt;true&lt;/enabled&gt;</strong></td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See <strong>Icons on page 84</strong>.</td>
<td><strong>&lt;confirm&gt;false&lt;/confirm&gt;</strong></td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See <strong>Button Background Color on page 87</strong>.</td>
<td><strong>&lt;description&gt;Block all incoming calls&lt;/description&gt;</strong></td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See <strong>Button Text Color on page 88</strong>.</td>
<td><strong>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</strong></td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td><strong>&lt;fg_color&gt;#FFFFFFFF&lt;/fg_color&gt;</strong></td>
</tr>
<tr>
<td></td>
<td><strong>&lt;icon&gt;Default&lt;/icon&gt;</strong></td>
</tr>
<tr>
<td></td>
<td><strong>&lt;/Button&gt;</strong></td>
</tr>
</tbody>
</table>

...                                                                           | **</Footer> or <Dashboard> or <CallButtons>**
History
History lists recently called numbers and incoming calls, including missed calls.

Configuring the History Button

Using the GUI

1. In Advanced Settings select UI Settings > Edit Footer, 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 84.
9. Touch BG to set the background color. See Button Background Color on page 87.
10. Touch FG to set the foreground text color. See Button Text Color on page 88.
11. Touch the Back button to return to the WFC Voice Client home screen.

Using XML

<Footer> or <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>
...
</Footer> or </Dashboard> or </CallButtons>
Contacts

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

Configuring the Contacts Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings</strong> &gt; <strong>Edit Footer, Edit Dashboard</strong> or <strong>Edit In-Call</strong> &gt; <strong>Add</strong>.</td>
<td><code>&lt;Footer&gt; or &lt;Dashboard&gt; or &lt;CallButtons&gt;</code></td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td>3. Touch <strong>Edit</strong>.</td>
<td><code>&lt;Button&gt;</code></td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td><code>&lt;title&gt;Contacts&lt;/title&gt;</code></td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>CONTACTS</strong>.</td>
<td><code>&lt;action&gt;CONTACTS&lt;/action&gt;</code></td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Contacts</strong>.</td>
<td><code>&lt;value&gt;&lt;/value&gt;</code></td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td><code>&lt;enabled&gt;true&lt;/enabled&gt;</code></td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See <strong>Icons on page 84</strong>.</td>
<td><code>&lt;confirm&gt;false&lt;/confirm&gt;</code></td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See <strong>Button Background Color on page 87</strong>.</td>
<td><code>&lt;description&gt;Display contacts&lt;/description&gt;</code></td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See <strong>Button Text Color on page 88</strong>.</td>
<td><code>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</code></td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td><code>&lt;fg_color&gt;#FFFFFF&lt;/fg_color&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;icon&gt;Default&lt;/icon&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;/Button&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;/Footer&gt; or &lt;/Dashboard&gt; or &lt;/CallButtons&gt;</code></td>
</tr>
</tbody>
</table>
Favorites

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.

Configuring the Favorites Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> In Advanced Settings select UI Settings &gt; Edit Footer, Edit Dashboard or Edit In-Call &gt; Add.</td>
<td>&lt;Footer&gt; or &lt;Dashboard&gt; or &lt;CallButtons&gt;</td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td>3. Touch Edit.</td>
<td>&lt;Button&gt;</td>
</tr>
<tr>
<td>4. Select the check box next to Confirm On Click to enable this (the default is Disabled).</td>
<td>title&gt;Favorites&lt;/title&gt;</td>
</tr>
<tr>
<td>5. Touch Action and select FAVORITES.</td>
<td>&lt;action&gt;FAVORITES&lt;/action&gt;</td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter Favorites.</td>
<td>&lt;value&gt;&lt;/value&gt;</td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td>enabled&gt;true&lt;/enabled&gt;</td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the Select Icon menu. See Icons on page 84.</td>
<td>confirm&gt;false&lt;/confirm&gt;</td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See Button Background Color on page 87.</td>
<td>description&gt;Display favorites&lt;/description&gt;</td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See Button Text Color on page 88.</td>
<td>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td>&lt;fg_color&gt;#FFFFFFFF&lt;/fg_color&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;icon&gt;Default&lt;/icon&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;/Button&gt;</td>
</tr>
<tr>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/Footer&gt; or &lt;/Dashboard&gt; or &lt;/CallButtons&gt;</td>
</tr>
</tbody>
</table>
**Voicemail**

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

**Configuring the Voicemail Button**

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> In Advanced Settings select UI Settings &gt; Edit Footer, Edit Dashboard or Edit In-Call &gt; Add.</td>
<td>&lt;Footer&gt; or &lt;Dashboard&gt; or &lt;CallButtons&gt;</td>
</tr>
<tr>
<td><strong>2.</strong> Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td><strong>3.</strong> Touch <strong>Edit</strong>.</td>
<td><strong>&lt;Button&gt;</strong></td>
</tr>
<tr>
<td><strong>4.</strong> Select the check box next to Confirm On Click to enable this (the default is Disabled).</td>
<td><strong>&lt;title&gt;Voicemail&lt;/title&gt;</strong></td>
</tr>
<tr>
<td><strong>5.</strong> Touch <strong>Action</strong> and select VOICEMAIL.</td>
<td><strong>&lt;action&gt;VOICEMAIL&lt;/action&gt;</strong></td>
</tr>
<tr>
<td><strong>6.</strong> In the Value field, enter the Voicemail Pilot number.</td>
<td><strong>&lt;value&gt;9999&lt;/value&gt;</strong></td>
</tr>
<tr>
<td><strong>7.</strong> In the Title field, enter Voicemail.</td>
<td><strong>&lt;enabled&gt;true&lt;/enabled&gt;</strong></td>
</tr>
<tr>
<td><strong>8.</strong> In the Description field, enter a short description of the button function.</td>
<td><strong>&lt;confirm&gt;false&lt;/confirm&gt;</strong></td>
</tr>
<tr>
<td><strong>9.</strong> Touch <strong>Icon</strong> and select an icon from the Select Icon menu. See Icons on page 84.</td>
<td><strong>&lt;description&gt;Voicemail messages&lt;/description&gt;</strong></td>
</tr>
<tr>
<td><strong>10.</strong> Touch <strong>BG</strong> to set the background color. See Button Background Color on page 87.</td>
<td><strong>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</strong></td>
</tr>
<tr>
<td><strong>11.</strong> Touch <strong>FG</strong> to set the foreground text color. See Button Text Color on page 88.</td>
<td><strong>&lt;fg_color&gt;#FFFFFFFF&lt;/fg_color&gt;</strong></td>
</tr>
<tr>
<td><strong>12.</strong> Touch the Back button to return to the WFC Voice Client home screen.</td>
<td><strong>&lt;icon&gt;Default&lt;/icon&gt;</strong></td>
</tr>
</tbody>
</table>

...
Do Not Disturb

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.

Configuring the DND Button

Using the GUI

1. In Advanced Settings select UI Settings > Edit Footer, 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 84.
10. Touch BG to set the background color. See Button Background Color on page 87.
11. Touch FG to set the foreground text color. See Button Text Color on page 88.
12. Touch the Back button to return to the WFC Voice Client home screen.

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

Using XML

<Footer> or <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>#FFFFFF</fg_color>
<icon>Default</icon>
</Button>
...
</Footer> or </Dashboard> or </CallButtons>
Add Call

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.

**IMPORTANT:** Only available on the In-Call screen only.

### Configuring the Add Call Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings &gt; Edit In-Call &gt; Add</strong>.</td>
<td>&lt;CallButtons&gt;</td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td>3. Touch <strong>Edit</strong>.</td>
<td>&lt;Button&gt;</td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td>&lt;title&gt;Add Call&lt;/title&gt;</td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>ADD_CALL</strong>.</td>
<td>&lt;action&gt;ADD_CALL&lt;/action&gt;</td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Add Call</strong>.</td>
<td>&lt;value&gt;&lt;/value&gt;</td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td>&lt;enabled&gt;true&lt;/enabled&gt;</td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the Select Icon menu. See Icons on page 84.</td>
<td>&lt;confirm&gt;false&lt;/confirm&gt;</td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See Button Background Color on page 87.</td>
<td>&lt;description&gt;Add a call by opening the dialer &lt;/description&gt;</td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See Button Text Color on page 88.</td>
<td>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td>&lt;fg_color&gt;#FFFFFFFF&lt;/fg_color&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;icon&gt;Default&lt;/icon&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;/Button&gt;</td>
</tr>
<tr>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/CallButtons&gt;</td>
</tr>
</tbody>
</table>
Home

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

**IMPORTANT:** Only available on the In-Call screen.

### Configuring the Home Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings</strong> &gt; <strong>Edit In-Call</strong> &gt; <strong>Add</strong>.</td>
<td></td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td></td>
</tr>
<tr>
<td>3. Touch <strong>Edit</strong>.</td>
<td></td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td></td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>HOME</strong>.</td>
<td></td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Home</strong>.</td>
<td></td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td></td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See Icons on page 84.</td>
<td></td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See Button Background Color on page 87.</td>
<td></td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See Button Text Color on page 88.</td>
<td></td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td></td>
</tr>
</tbody>
</table>

Using XML:

```xml
<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>
```
## Hold

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.

**IMPORTANT:** Only available on the In-Call screen.

### Configuring the Hold Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings</strong> &gt; <strong>Edit In-Call</strong> &gt; <strong>Add</strong>.</td>
<td>&lt;CallButtons&gt;</td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td>3. Touch <strong>Edit</strong>.</td>
<td>&lt;Button&gt;</td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td>&lt;title&gt;Hold&lt;/title&gt;</td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>HOLD</strong>.</td>
<td>&lt;action&gt;HOLD&lt;/action&gt;</td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Hold</strong>.</td>
<td>&lt;value&gt;&lt;/value&gt;</td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td>&lt;enabled&gt;false&lt;/enabled&gt;</td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See <strong>Icons on page 84</strong>.</td>
<td>&lt;confirm&gt;false&lt;/confirm&gt;</td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See <strong>Button Background Color on page 87</strong>.</td>
<td>&lt;description&gt;Place call on hold&lt;/description&gt;</td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See <strong>Button Text Color on page 88</strong>.</td>
<td>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;</td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td>&lt;fg_color&gt;#FFFFFF&lt;/fg_color&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;icon&gt;Default&lt;/icon&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;/Button&gt;</td>
</tr>
<tr>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/CallButtons&gt;</td>
</tr>
</tbody>
</table>
## Resume

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

**IMPORTANT:** Only available on the In-Call screen.

### Configuring the Resume Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings &gt; Edit In-Call &gt; Add.</strong></td>
<td>&lt;CallButtons&gt;</td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td></td>
</tr>
<tr>
<td>3. Touch <strong>Edit.</strong></td>
<td></td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td></td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>RESUME.</strong></td>
<td></td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Resume.</strong></td>
<td></td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td></td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See <strong>Icons on page 84.</strong></td>
<td></td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See <strong>Button Background Color on page 87.</strong></td>
<td></td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See <strong>Button Text Color on page 88.</strong></td>
<td></td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;Button&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;/Button&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Transfer**

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.

**IMPORTANT:** Only available on the In-Call screen.

### Configuring the Transfer Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings &gt; Edit In-Call &gt; Add.</strong></td>
<td><strong>&lt;CallButtons&gt;</strong></td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td></td>
</tr>
<tr>
<td>3. Touch <strong>Edit.</strong></td>
<td><strong>...</strong></td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td><strong>&lt;Button&gt;</strong></td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>TRANSFER.</strong></td>
<td></td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Transfer.</strong></td>
<td><strong>&lt;title&gt;Transfer&lt;/title&gt;</strong></td>
</tr>
<tr>
<td>7. In the <strong>Description</strong> field, enter a short description of the button function.</td>
<td><strong>&lt;action&gt;TRANSFER&lt;/action&gt;</strong></td>
</tr>
<tr>
<td>8. Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See <strong>Icons on page 84.</strong></td>
<td><strong>&lt;value&gt;&lt;/value&gt;</strong></td>
</tr>
<tr>
<td>9. Touch <strong>BG</strong> to set the background color. See <strong>Button Background Color on page 87.</strong></td>
<td><strong>&lt;enabled&gt;false&lt;/enabled&gt;</strong></td>
</tr>
<tr>
<td>10. Touch <strong>FG</strong> to set the foreground text color. See <strong>Button Text Color on page 88.</strong></td>
<td><strong>&lt;confirm&gt;false&lt;/confirm&gt;</strong></td>
</tr>
<tr>
<td>11. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td><strong>&lt;description&gt;Transfer a call&lt;/description&gt;</strong></td>
</tr>
<tr>
<td></td>
<td><strong>&lt;bg_color&gt;##FF001425&lt;/bg_color&gt;</strong></td>
</tr>
<tr>
<td></td>
<td><strong>&lt;fg_color&gt;##FFFFFFFF&lt;/fg_color&gt;</strong></td>
</tr>
<tr>
<td></td>
<td><strong>&lt;icon&gt;Default&lt;/icon&gt;</strong></td>
</tr>
<tr>
<td></td>
<td><strong>&lt;/Button&gt;</strong></td>
</tr>
<tr>
<td></td>
<td><strong>&lt;/CallButtons&gt;</strong></td>
</tr>
</tbody>
</table>

Use a Feature Access Code (FAC) to enable or disable this feature. See **System Feature Settings on page 27.**
Complete

This internal type is used for call transfer.

**IMPORTANT:** Only available on the In-Call screen.

Configuring the Complete Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
</table>
| 1. In **Advanced Settings** select **UI Settings** > **Edit In-Call** > **Add**. | <CallButtons>
| 2. Select the new button. A yellow box appears around the selected button. | ... |
| 3. Touch **Edit**. | <Button>
| 4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled). |  
\[<title>Complete</title>\]
\[<action>COMPLETE</action>\]
\[<value></value>\]
\[<enabled>true</enabled>\]
\[<confirm>false</confirm>\]
\[<description>End a call transfer</description>\]
\[<bg_color>#FF001425</bg_color>\]
\[<fg_color>#FFFFFFFF</fg_color>\]
\[<icon>Default</icon>\]
| 5. Touch **Action** and select **COMPLETE**. | </Button> |
| 6. In the **Title** field, enter **Complete**. | ... |
| 7. In the **Description** field, enter a short description of the button function. | </CallButtons> |
| 8. Touch **Icon** and select an icon from the **Select Icon** menu. See **Icons** on page 84. | |
| 9. Touch **BG** to set the background color. See **Button Background Color** on page 87. | |
| 10. Touch **FG** to set the foreground text color. See **Button Text Color** on page 88. | |
| 11. Touch the **Back** button to return to the WFC Voice Client home screen. | |

...
End Call

This function ends a call in any state. It is pushed back from the Workforce Connect client to the PBX.

**IMPORTANT:** Only available on the In-Call screen.

**NOTE:** Placing the End Call button on the in-call dashboard replaces the default End Call button.

### Configuring the End Call Button

#### Using the GUI

1. In **Advanced Settings** select **UI Settings > 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 84.**
9. Touch **BG** to set the background color. See **Button Background Color on page 87.**
10. Touch **FG** to set the foreground text color. See **Button Text Color on page 88.**
11. Touch the **Back** button to return to the WFC Voice Client home screen.

#### Using XML

```xml
<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>
```
List
By default, List displays the speed dial list 0-9. Alternatively, configure the List button to open a menu built from other WFC Voice Client buttons.

**IMPORTANT:** Only available on the In-Call screen.

Configuring the Default List Button

**NOTE:** This only creates a button. Edit XML file to customize the list.

The List button description appears at the top of the List popup dialog.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> In <strong>Advanced Settings</strong> select <strong>UI Settings &gt; Edit Footer</strong> or <strong>Edit Dashboard &gt; Add.</strong>&lt;br&gt;<strong>2.</strong> Select the new button. A yellow box appears around the selected button.&lt;br&gt;<strong>3.</strong> Touch <strong>Edit.</strong>&lt;br&gt;<strong>4.</strong> Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).&lt;br&gt;<strong>5.</strong> Touch <strong>Action</strong> and select <strong>LIST.</strong>&lt;br&gt;<strong>6.</strong> In the <strong>Title</strong> field, enter <strong>List.</strong>&lt;br&gt;<strong>7.</strong> In the <strong>Description</strong> field, enter a short description of the button function.&lt;br&gt;<strong>8.</strong> Touch <strong>Icon</strong> and select an icon from the <strong>Select Icon</strong> menu. See <strong>Icons on page 84.</strong>&lt;br&gt;<strong>9.</strong> Touch <strong>BG</strong> to set the background color. See <strong>Button Background Color on page 87.</strong>&lt;br&gt;<strong>10.</strong> Touch <strong>FG</strong> to set the foreground text color. See <strong>Button Text Color on page 88.</strong>&lt;br&gt;<strong>11.</strong> Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td><strong>&lt;Footer&gt;</strong> or <strong>&lt;Dashboard&gt;</strong>&lt;br&gt;<strong>...</strong>&lt;br&gt;<strong>&lt;Button&gt;</strong>&lt;br&gt;<strong>&lt;title&gt;<strong>List</strong>&lt;/title&gt;</strong>&lt;br&gt;<strong>&lt;action&gt;<strong>LIST</strong>&lt;/action&gt;</strong>&lt;br&gt;<strong>&lt;value&gt;</strong>&lt;/value&gt;<strong>&lt;br&gt;</strong>&lt;enabled&gt;true&lt;/enabled&gt;<strong>&lt;br&gt;</strong>&lt;confirm&gt;false&lt;/confirm&gt;<strong>&lt;br&gt;</strong>&lt;description&gt;<strong>Department extensions</strong>&lt;/description&gt;<strong>&lt;br&gt;</strong>&lt;bg_color&gt;#FF001425&lt;/bg_color&gt;<strong>&lt;br&gt;</strong>&lt;fg_color&gt;#FFFFFF&lt;/fg_color&gt;<strong>&lt;br&gt;</strong>&lt;icon&gt;<strong>Default&lt;/icon&gt;</strong>&lt;br&gt;<strong>&lt;/Button&gt;</strong>&lt;br&gt;<strong>...</strong>&lt;br&gt;<strong>&lt;/Footer&gt;</strong> or <strong>&lt;/Dashboard&gt;</strong></td>
</tr>
</tbody>
</table>

Configuring List Buttons Using XML

List buttons are configured using XML. 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.

For example, to create a list with three custom buttons (Bedding, Electronics and Toys):
Figure 35  List Button Example

<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>
<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>
</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>#FFFFFF</fg_color>
  <icon></icon>
</Button>

...
Blank

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

Configuring the Blank Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Advanced Settings select UI Settings &gt; Edit Footer, Edit Dashboard or Edit In-Call &gt; Add.</td>
<td>&lt;Footer&gt; or &lt;Dashboard&gt; or &lt;CallButtons&gt;</td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td>3. Touch Edit.</td>
<td>&lt;Button&gt;</td>
</tr>
<tr>
<td>4. Select the check box next to Confirm On Click to enable this (the default is Disabled).</td>
<td>&lt;title&gt;Blank&lt;/title&gt;</td>
</tr>
<tr>
<td>5. Touch Action and select BLANK.</td>
<td>&lt;action&gt;BLANK&lt;/action&gt;</td>
</tr>
<tr>
<td>6. In the Title field, enter Blank.</td>
<td>&lt;value&gt;&lt;/value&gt;</td>
</tr>
<tr>
<td>7. Touch the Back button to return to the WFC Voice Client home screen.</td>
<td>&lt;enabled&gt;true&lt;/enabled&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;confirm&gt;false&lt;/confirm&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;description&gt;Empty space&lt;/description&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;icon&gt;&lt;/icon&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;/Button&gt;</td>
</tr>
<tr>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/Footer&gt; or &lt;/Dashboard&gt; or &lt;/CallButtons&gt;</td>
</tr>
</tbody>
</table>
Reload
Reload allows a user to sign out and then automatically sign back in to the WFC Voice Client.

Configuring the Reload Button

Using the GUI
1. In Advanced Settings select UI Settings > 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 WFC Voice Client home screen.

Using XML
<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
Sign Out

Sign Out allows a user to sign out of the WFC Voice Client.

Configuring the Sign Out Button

**Using the GUI**

1. In *Advanced Settings* select *UI Settings > 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 WFC Voice Client home screen.

**Using XML**

```xml
<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:

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

Sign Out allows a user to sign out of the WFC Voice Client.

### Configuring the Blank Button

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings &gt; Edit Dashboard or Edit In-Call &gt; Add.</strong></td>
<td><code>&lt;Dashboard&gt;</code> or <code>&lt;CallButtons&gt;</code></td>
</tr>
<tr>
<td>2. Select the new button. A yellow box appears around the selected button.</td>
<td>...</td>
</tr>
<tr>
<td>3. Touch <strong>Edit.</strong></td>
<td><code>&lt;Button&gt;</code></td>
</tr>
<tr>
<td>4. Select the check box next to <strong>Confirm On Click</strong> to enable this (the default is Disabled).</td>
<td><code>&lt;title&gt;Ringtone&lt;/title&gt;</code></td>
</tr>
<tr>
<td>5. Touch <strong>Action</strong> and select <strong>RINGTONE.</strong></td>
<td><code>&lt;action&gt;RINGTONE&lt;/action&gt;</code></td>
</tr>
<tr>
<td>6. In the <strong>Title</strong> field, enter <strong>Ringtone.</strong></td>
<td><code>&lt;value&gt;&lt;/value&gt;</code></td>
</tr>
<tr>
<td>7. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td><code>&lt;enabled&gt;true&lt;/enabled&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;confirm&gt;false&lt;/confirm&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;description&gt;&lt;/description&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;icon&gt;&lt;/icon&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;scale&gt;CENTER_INSIDE&lt;/scale&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;/Button&gt;</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;/Dashboard&gt;</code> or <code>&lt;/CallButtons&gt;</code></td>
</tr>
</tbody>
</table>
Icons

Icon Library

To choose a button from the icon library:

Using the GUI

1. In Advanced Settings select UI Settings > Edit Footer, 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 Button Background Color on page 87.
9. Touch FG to set the foreground text color. See Button Text Color on page 88.
10. Touch the Back button to return to the WFC Voice Client home screen.

Using XML

<Footer> or <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>#FFFFFF</fg_color>
      <icon>ic_dialpad</icon>
   </Button>
...<Footer> or <Dashboard> or <CallButtons>

Custom Icon Configuration

✓ NOTE: Icons must be 128 pixels by 128 pixels and in PNG format.

The user can create custom icons. To select a custom icon:

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

- **CENTER_INSIDE**
  Position image in the center area above title. Size of the image will be equal to or less than the size of the button. This is the default scale type.

- **SCALE_CENTER**
  Scale image in the center to fill area above title. Maintain 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 on 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 on top of the image in the center.

To set the scale type for an icon:

Using the GUI

1. In Advanced Settings select UI Settings > Edit Footer, 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 displays.
7. From the SDCARD tab, select an icon.
8. Touch BG to set the background color. See Button Background Color on page 87.
9. Touch FG to set the foreground text color. See Button Text Color on page 88.
10. Touch the Back button to return to the WFC Voice Client home screen.

Using XML

```xml
<Footer> or <Dashboard> or <CallButtons>
...
<Button>
  <title>Dial</title>
  <action>DIAL</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description>Dial button from SD card</description>
  <bg_color>#FF001425</bg_color>
  <fg_color>#FFFFFFFF</fg_color>
  <icon>dialbtn.png</icon>
</Button>
...
<Footer> or <Dashboard> or <CallButtons>
```
### Using the GUI

1. In **Advanced Settings** select **UI Settings > Edit Footer, Edit Dashboard** or **Edit In-Call**
2. Select a button. A yellow box appears around the selected button.
3. Touch **Edit**.
4. In the **Scale** field, select a **Scale Type**.
5. Touch the **Back** button to return to the WFC Voice Client home screen.

### Using XML

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

**Button Background Color**

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 dark gray (#FF001425).

![Button Background Color](image)

**Figure 36  Button Background Color**

**Setting Button Background Color**

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
</table>
| 1. In **Advanced Settings** select **UI Settings > Edit Footer, Edit Dashboard** or **Edit In-Call**  
2. Select a 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 WFC Voice Client home screen. |  
| **Using XML**  
<Button>  
<bg_color>#FF001425</bg_color>  
</Button> |
**Button Text Color**

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 white (#FFFFFFFF).

**Figure 37**  Button Text Color

![Button Text Color](image)

**Setting Button Text Color**

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings</strong> &gt; <strong>Edit Footer</strong>, <strong>Edit Dashboard</strong> or <strong>Edit In-Call</strong></td>
<td>Using XML</td>
</tr>
<tr>
<td>2. Select a button. A yellow box appears around the selected button.</td>
<td>&lt;Button&gt;</td>
</tr>
<tr>
<td>3. Touch <strong>Edit</strong>.</td>
<td>&lt;fg_color&gt;#FFFFFFFF&lt;/fg_color&gt;</td>
</tr>
<tr>
<td>4. Touch the <strong>FG</strong> button.</td>
<td>&lt;/Button&gt;</td>
</tr>
<tr>
<td>5. Select a color and touch <strong>Set</strong>.</td>
<td></td>
</tr>
<tr>
<td>6. Touch the <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td></td>
</tr>
</tbody>
</table>
Global Button Color Settings

Global Button Background Color

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 dark gray (FF001425).

Figure 38  Button Background Color

Setting Button Background Color

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Advanced Settings select UI Settings.</td>
<td>&lt;WFConnect&gt;</td>
</tr>
<tr>
<td>2. Select Button Background color.</td>
<td>&lt;Profile&gt;</td>
</tr>
<tr>
<td>3. Select a color from the color wheel for the button background or enter RGB color in hex format.</td>
<td>&lt;gbg_color&gt;#FF001425&lt;/gbg_color&gt;</td>
</tr>
<tr>
<td>4. Touch Set.</td>
<td>&lt;/Profile&gt;</td>
</tr>
<tr>
<td>5. Touch Back button to return to the WFC Voice Client home screen.</td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/WFConnect&gt;</td>
</tr>
</tbody>
</table>
Global Button Text Color

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 white (#FFFFFF).

**Figure 39  Button Text Color**

Setting Button Text Color

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In <strong>Advanced Settings</strong> select <strong>UI Settings</strong>.</td>
<td></td>
</tr>
<tr>
<td>2. Select <strong>Button text color</strong>.</td>
<td></td>
</tr>
<tr>
<td>3. Select a color from the color wheel for the button text or enter RGB color in hex format.</td>
<td></td>
</tr>
<tr>
<td>4. Touch <strong>Set</strong>.</td>
<td></td>
</tr>
<tr>
<td>5. Touch <strong>Back</strong> button to return to the WFC Voice Client home screen.</td>
<td></td>
</tr>
<tr>
<td>Using XML</td>
<td></td>
</tr>
<tr>
<td>&lt;WFConnect&gt;</td>
<td></td>
</tr>
<tr>
<td>&lt;Profile&gt;</td>
<td></td>
</tr>
<tr>
<td>&lt;gfg_color&gt;#FFFFFF&lt;/gfg_color&gt;</td>
<td></td>
</tr>
<tr>
<td>&lt;/Profile&gt;</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
<tr>
<td>&lt;/WFConnect&gt;</td>
<td></td>
</tr>
</tbody>
</table>
**Reset Colors to Default**

To reapply the factory default button colors:

1. In Advanced Settings select UI Settings > Reset colors to default.
2. Touch the Back button to return to the WFC Voice Client home screen.

**Restore Buttons**

To reapply the factory default buttons and their layout:

1. In Advanced Settings select UI Settings > Restore buttons.
2. Touch the Back button to return to the WFC Voice Client home screen.
Call Settings

This section provides detailed information on configuring advanced call settings.

To configure call settings:

1. Touch the menu button, then Settings. The password dialog box appears.

   **Figure 40**  WFC Voice Client Menu

2. Enter password (default: zamboni).
3. Touch Enter.

   **Figure 41**  WFC Voice Client Settings Menu

4. Touch Advanced Settings > Call Settings.
Call Waiting Volume
Set the Call Waiting Volume setting.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Advanced Settings select Call Settings.</td>
<td>Using XML</td>
</tr>
<tr>
<td>2. Slide the Call Waiting Volume slider (default 80).</td>
<td>&lt;WFConnect&gt;</td>
</tr>
<tr>
<td>3. Touch Back to return to the WFC Voice Client home screen.</td>
<td>&lt;Profile&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;callwaiting_volume&gt;80&lt;/callwaiting_volume&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;/Profile&gt;</td>
</tr>
<tr>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>&lt;/WFConnect&gt;</td>
</tr>
</tbody>
</table>
Call Waiting Interval

Set the Call Waiting Interval setting.

Using the GUI
1. In Advanced Settings select Call Settings.
2. Slide the Call Waiting Interval slider (default 2000).
3. Touch Back to return to the WFC Voice Client home screen.

Using XML
<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.

Using the GUI
1. In Advanced Settings select Call Settings.
2. Select the check box next to Ringer OFF in Charger to enable this (the default is Disabled).
3. Touch Back to return to the WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <ringer_off_in_charger>false</ringer_off_in_charger>
  </Profile>
</WFConnect>

Disable Speaker mode

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

Using the GUI
1. In Advanced Settings select Call Settings.
2. Select the check box next to Disable Speaker Mode to enable this (the default is Disabled).
3. Touch Back to return to the WFC Voice Client home screen.

Using XML
<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.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
</table>
| 1. In **Advanced Settings** select **Call Settings**.  
2. Select the check box next to **Speaker on table** to enable this (the default is Disabled).  
3. Touch **Back** to return to the WFC Voice Client home screen. |  
|  | <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).

- Accept-Reject - The operator touches one of two buttons to accept or reject an incoming call.
- Slider - The operator swipes one of two buttons across the screen to accept or reject an incoming call.
- Glow Pad - The operator touches a handset symbol to accept or reject an incoming call.

**Figure 43** Call Accept Buttons
# Configure the Glow Pad Buttons

### Using the GUI

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

### Using XML

<table>
<thead>
<tr>
<th>Sliding Tab (GB)</th>
<th>Accept-Reject Buttons</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;Profile&gt;</code></td>
<td><code>&lt;Profile&gt;</code></td>
</tr>
<tr>
<td><code>&lt;incall_widget&gt;incall_gb&lt;/incall_widget&gt;</code></td>
<td><code>&lt;incall_widget&gt;incall_buttons&lt;/incall_widget&gt;</code></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glow Pad Buttons (JB)</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;Profile&gt;</code></td>
</tr>
<tr>
<td><code>&lt;incall_widget&gt;incall_buttons&lt;/incall_widget&gt;</code></td>
</tr>
</tbody>
</table>
Auto Answer Mode

Enable Auto Answer Mode to auto-answer all incoming calls.

Using the GUI
1. In Advanced Settings select Call Settings.
2. Select the check box next to Auto Answer Mode to enable (Default: disabled).
3. Touch Back button to return to the WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <sip_auto_answer>true</sip_auto_answer>
  </Profile>
</WFConnect>

Incoming Call Voice Announcer

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

Using the GUI
1. In Advanced Settings select Call Settings.
2. Select the check box next to Incoming Call Voice Announcer to enable this (Default: disabled).
3. Touch Back button to return to the WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <voice_announcer_check>true</voice_announcer_check>
  </Profile>
</WFConnect>

No Audio Cutoff

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

Using the GUI
1. In Advanced Settings select Call Settings.
2. Touch No Audio Cutoff.
3. Select a time interval (Default: 30 seconds).
4. Touch Back button to return to the WFC Voice Client home screen.

Using XML
<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. To select a custom WAV audio file:
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 device.

### Using the GUI
1. In **Advanced Settings** select **Call Settings**.
2. Touch **Audio Prompt File**.
4. Touch **Back** button to return to the WFC Voice Client home screen.

### Using XML
```
<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.

### Using the GUI
1. In **Advanced Settings** select **Call Settings**.
2. Select the check box next to **MOH Enabled** to enable this (Default: disabled).
3. Touch **Back** button to return to the WFC Voice Client home screen.

### Using XML
```
<WFConnect>
  <Profile>
    <moh_enabled>true</moh_enabled>
  </Profile>
...)
</WFConnect>
```

---

### MOH File
Use Music on Hold (MOH) File to select a custom WAV audio file to play when a user is placed on hold. To select a custom WAV audio file:

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 device.

### Using the GUI
1. In **Advanced Settings** select **Call Settings**.
2. Touch **MOH File**.
4. Touch **Back** button to return to the WFC Voice Client home screen.

### Using XML
```
<WFConnect>
  <Profile>
    <moh_file>opusno1.wav</moh_file>
  </Profile>
...)
</WFConnect>
```
Ringtones

This section provides detailed information on configuring advanced ringtone settings.

To configure ringtone settings:

1. Touch the menu button, then Settings. The password dialog box appears.
2. Enter password (default: zamboni).
3. Touch Enter.
4. Touch Ringtones.

Line Ringtones

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

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

Using the GUI

1. In Advanced Settings, select Ringtones.
2. Touch Line Ringtones.
3. Select a line for which to configure the ringtone.
4. To select the default ringtone, touch Default.
5. To select an Android ringtone:
   a. Touch Android.
   b. Select a ringtone.
   c. Touch OK.
6. To select a ringtone from Library:
   a. Touch Library.
   b. Select a ringtone.
7. To select a ringtone on the SD card:
   a. Touch SDCARD.
   b. Select a ringtone.
8. Touch Back to return to the WFC Voice Client home screen.

Using XML

<WFConnect>
    <Profile>
        <ringtone_line1>-1</ringtone_line1>
        <ringtone_line2>UK_Phone</ringtone_line2>
        <ringtone_line3>michelle_ringtone.ogg</ringtone_line3>
    </Profile>
    ...
</WFConnect>
Miscellaneous Settings

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

Sign OUT in Charger

By default, the WFC Voice Client remains signed in when using a cable or cradle to charge the device. Enable this option to automatically sign out of the WFC Voice Client when the device begins charging.

Setting Sign OUT in Charger

1. Select Settings.
2. Select Advanced Settings > Miscellaneous Settings.
3. Select the check box next to Sign OUT in Charger to enable this (Default: disable).
4. Touch Back button to return to the WFC Voice Client home screen.

Using XML

<WFConnect>
    <Profile>
        <sign_out_in_charger>true</sign_out_in_charger>
    </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

1. Select Settings.
2. Select Advanced Settings > Miscellaneous Settings.
3. Select the check box next to Flexible TLS to disable this (Default: enable).
4. Touch Back button to return to the WFC Voice Client home screen.

Using XML

<WFConnect>
    <Profile>
        <flex_tls>true</flex_tls>
    </Profile>
    ...
</WFConnect>

WiFi Preferred

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

Using the GUI
1. Select Settings.
2. Select Advanced Settings > Miscellaneous Settings.
3. Select the check box next to WiFi Preferred to disable this (Default: enable).
4. Touch Back button to return to the WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <wifi_preferred>true</wifi_preferred>
  </Profile>
</WFConnect>

Help URL

The location of the on-device help file.

Setting Help URL

Using the GUI
1. Select Settings.
2. Select Advanced Settings > Miscellaneous Settings.
3. Select Help URL.
4. Set HELP URL location.
5. Touch OK.
6. Touch Back button to get back to WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <help_url>file:///wfconnect/help.htm</help_url>
  </Profile>
</WFConnect>

Settings Password

The WFC Voice Client 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.

To change the settings password:
1. Select Settings.
2. Select Advanced Settings > Miscellaneous Settings.
3. Select Settings password.
4. Enter Current Password.
5. Enter New Password and Confirm.
6. Touch Enter.

Touch Back button to get back to WFC Voice Client 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

Using the GUI

1. Select **Settings**.
2. Select **Advanced Settings > Miscellaneous Settings**.
3. Select **Additional Profile URI**.
4. Set Additional Profile URI location.
5. Touch **OK**.
6. Touch **Back** button to get back to WFC Voice Client home screen.

Using XML

```xml
<WFConnect>
  <Profile>
    <layout_location>file:///wfconnect/buttons-layout.xml</layout_location>
  </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 103.

Setting Contacts URL

Using the GUI

1. Select **Settings**.
2. Select **Advanced Settings > Miscellaneous Settings**.
3. Select **Contacts URL**.
4. Set CONTACTS URL location.
5. Touch **OK**.
6. Touch **Back** button to get back to WFC Voice Client home screen.

Using XML

```xml
<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

1. From the host computer, use a spreadsheet program to create a list of contacts where the first row contains the following fields:
   - contactId
   - firstName
   - lastName
   - cellNumber
   - officeNumber
   - homeNumber

2. Enter contact information as needed. For example:

<table>
<thead>
<tr>
<th>contactId</th>
<th>firstName</th>
<th>lastName</th>
<th>cellNumber</th>
<th>officeNumber</th>
<th>homeNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>John</td>
<td>Smith</td>
<td>2001</td>
<td>516-555-1234</td>
<td>516-555-1235</td>
</tr>
<tr>
<td>2</td>
<td>Jane</td>
<td>Doe</td>
<td>2002</td>
<td>516-555-1236</td>
<td>516-555-1237</td>
</tr>
</tbody>
</table>
3. Save the spreadsheet as a CSV file.

**Syncing Contacts**

1. From the host computer, copy the CSV file to the **WFConnect** folder on device.
2. From the WFC Voice Client, select **Settings > Advanced Setting > Miscellaneous Settings**.

**Figure 44**  Sync Contacts

3. Select **Sync Contacts**. A confirmation that the contacts are updated displays.
Introduction

This chapter describes the process used to capture and collect WFC Voice Client 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 WFC Voice environment during run-time operations.

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

Logging Level

- **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

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
</table>
| **1.** Select **Settings**.  
**2.** Select **Advanced Settings > Logging**.  
**3.** Select **Logging level**.  
**4.** Choose a level for Logging. Default level “Error” is suggested.  
**5.** Touch **Back** button to get back to WFC Voice Client home screen. | **Using XML**  
<WFConnect>  
<Profile>  
  <log_level>Error</log_level>  
</Profile>  
...  
</WFConnect> |
Logging Types

There are several types of logging within the WFC Voice Client as well as the native Android OS.

Logging to Console

Information sent to the In-Call dashboard for live viewing.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Select <strong>Settings</strong>.</td>
<td><code>&lt;WFConnect&gt;</code></td>
</tr>
<tr>
<td>2. Select <strong>Advanced Settings &gt; Logging</strong></td>
<td><code>&lt;Profile&gt;</code></td>
</tr>
<tr>
<td>3. Select <strong>Logging to Console</strong>.</td>
<td><code>&lt;log_console&gt;false&lt;/log_console&gt;</code></td>
</tr>
<tr>
<td>4. Touch the box to enable Logging to Console.</td>
<td><code>&lt;/Profile&gt;</code></td>
</tr>
<tr>
<td>5. Touch <strong>Back</strong> button to get back to WFC Voice Client home screen.</td>
<td><code>&lt;/WFConnect&gt;</code></td>
</tr>
</tbody>
</table>

Logging to File

Log information is written to a file on the device.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Select <strong>Settings</strong>.</td>
<td><code>&lt;WFConnect&gt;</code></td>
</tr>
<tr>
<td>2. Select <strong>Advanced Settings &gt; Logging</strong></td>
<td><code>&lt;Profile&gt;</code></td>
</tr>
<tr>
<td>3. Select <strong>Logging to File</strong>.</td>
<td><code>&lt;log_console&gt;false&lt;/log_console&gt;</code></td>
</tr>
<tr>
<td>4. Touch the box to enable Logging to File. The file is saved in the WFConnect folder.</td>
<td><code>&lt;/Profile&gt;</code></td>
</tr>
<tr>
<td>5. Touch <strong>Back</strong> button to get back to WFC Voice Client home screen.</td>
<td><code>&lt;/WFConnect&gt;</code></td>
</tr>
</tbody>
</table>

Logging to HTTP Post URL

Post the log file to a server when client starts and daily after midnight.

<table>
<thead>
<tr>
<th>Using the GUI</th>
<th>Using XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Select <strong>Settings</strong>.</td>
<td><code>&lt;WFConnect&gt;</code></td>
</tr>
<tr>
<td>2. Select <strong>Advanced Settings &gt; Logging</strong></td>
<td><code>&lt;Profile&gt;</code></td>
</tr>
<tr>
<td>3. Select <strong>HTTP POST URL</strong>.</td>
<td><code>&lt;post_log_url&gt;&lt;/post_log_url&gt;</code></td>
</tr>
<tr>
<td>4. Enter the server address to send log file to. Set URL value to empty string to disable it.</td>
<td><code>&lt;/Profile&gt;</code></td>
</tr>
<tr>
<td>5. Touch <strong>OK</strong>.</td>
<td></td>
</tr>
<tr>
<td>6. Touch <strong>Back</strong> button to get back to WFC Voice Client home screen.</td>
<td><code>&lt;/WFConnect&gt;</code></td>
</tr>
</tbody>
</table>
Log Files

Two types of log files can be collected:

- Workforce Connect Logs
- Fusion Logs

Workforce Connect Logs

The WFC Voice Client has the following logging methods:

- **Android LogCat** - LogCat provides a mechanism for collecting and viewing system and applications messages. RxLogger tool is used to collect this file. When RxLogger is started, the WFC Voice Client automatically logs all messages into LogCat at the VERBOSE level.

- **Session Initiation Protocol Common Log Format (SIPCLF)** - All received and sent SIP messages are contained in CLF format as 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:
  ```
  .../RxLogger/WFConnect/WFConnect_<device_id>_<timestamp>.clf
  ```

- **Crash Report** - WFC Voice automatically stores up to ten crash report files on the device. This logging method is always enabled.

  Crash report files can be found in the following location:
  ```
  .../RxLogger/WFConnect/WFConnect_<device_id>_<timestamp>.crash
  ```

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 WFC Voice Client log files. There is no need to set the log level inside WFC Voice Client. When Rxlogger logging starts, WFC Voice Client is notified via plugin to enable VERBOSE LogCat and SIPCLF logging. By default, SIPCLF is disabled.

Enabling RXLogger

From the RxLogger main screen:
Figure 45  RxLogger

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

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

Users can customize WFC Voice logging in the RxLogger configurations.

Figure 46  RxLogger Configuration
Log Marker

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): <<<MARKER>>> 
```

Adding a Log Marker

From the WFC Voice main screen:

1. Touch the **Menu** button.

2. Select **Add Log Marker**.

**Figure 47**  Add Log Marker

**NOTE:** LogCat sets the VERBOSE level in WFC Voice Client.
When RxLogger starts, it overwrites the setting level to VERBOSE.
When using RxLogger, the WFC Voice Client logging is disable and all logging is posted through RxLogger.
Figure 48  Log Marker Description

3. Enter an optional description.
4. Click SET.

Configuring Log Marker

The Log Marker feature is accessed only by the WFC Voice Client main screen by default. 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 Log Marker on page 61.

✓ NOTE: When a custom Log Marker button is used, the optional description is not available.

Fusion Logs

Fusion Logs are enabled in Wi-Fi settings.

1. Touch All Apps > Settings > Wi-Fi.
2. Touch the menu button.
3. Touch **Advanced**.

4. In the Logging section touch **Advanced Logging**.

**Figure 49** Wi-Fi Settings

5. Ensure the **Enable Logging** check box is selected. The user can only change the log file location when Advanced Logging is disabled.

**Figure 50** Enable Advanced Logging

Fusion Logs are now set. Run the WFC Voice Client. When events occur they are captured in the location set in Advanced Logging.
Capturing the Logs

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.

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

✓ **NOTE:** It is recommended to delete and recapture inaccurate log files.
Headless Mode and WFCVoice Service

Introduction

WFC Voice Client is configurable as a background service allowing third party applications to manage voice calls via remote service or plug-in. In Headless Mode, WFC Voice Client runs without showing the main dashboard screen, and launches the dialer instead. Touching the header section launches the settings screen of the third party application. All other screens and functions are the same as default mode.

The WFCVoice Service is a plug-in allowing another application to remotely manage voice calls using WFC Voice Client Headless Mode. The plug-in is a small library (WFCVoiceConnector.jar) providing an interface between WFC Voice Client and another android client. Third party applications use custom UI screens to control voice calls, or existing WFC Voice Client In-Call screens for advanced features.

The figure below illustrates WFC Voice Client communicating with third party applications using the WFCVoice Service plug-in.

Figure 51  WFCVoice Service
Integrating WFCVoice Service Plug-in

NOTE: To obtain the JAR file for the WFCVoice Service plug-in, contact your Zebra account representative.

1. Add WFCVoiceConnector.jar file as a library in the project
2. Declare a WFCVoiceConnector object in the activity
3. Initialize it inside onStart() method

When the WFCVoiceConnector object is created, it automatically registers with WFCVoice Service. To unregister, call WFCVoiceConnector.disconnect() method inside onStop() in your activity.

WFCVoice Service plug-in allows applications to send commands to WFC Voice Client, and receive notifications about service or call state changes. See WFCVoiceConnector class for a list of all available commands. The ConnectorCallback sends voice and call status notifications from WFC Voice Client. Third party applications implement ConnectorCallback and pass it to a WFCVoiceConnector object during initialization.

For more information, refer to the Java Documentation for Service Plugin provided with the source code bundle.

Enabling Headless Mode

Using the GUI
1. Open Settings.
2. Select Advanced Settings > UI Settings
3. Select Headless Mode
4. Select Back to return to the WFC Voice Client home screen.

Using XML
<WFConnect>
  <Profile>
    <headless_mode>true</headless_mode>
  </Profile>
  ...
</WFConnect>

Initiating a Call

To initiate a call third party applications can use the following intents with a tel, sip, or csip data scheme:

- android.intent.action.CALL
- android.intent.action.DIAL
- android.intent.action.VIEWS

For example, to initiate a call to extension 2001 using ADB:

$ adb shell am start -a android.intent.action.CALL -d sip:2001
$ adb shell am start -a android.intent.action.VIEW -d csip:2001
Reporting App State

The WFC Voice Client broadcasts its status to a third party app using the following intent:

Action: wfc.voice.PHONE_STATE

Extras:

- **registration_state**: ACTIVE|ACTIVE_DND|CONNECTING|INACTIVE
- **state**: IDLE|CALLING|RINGING|ACTIVE
- **number**: the phone number for the current session (optional, reported when voice call state changes)
- **line_id**: the line number (optional, reported when one of the line registers)
- **line_extension**: the line extension (optional, reported when one of the line registers)
- **line_registered**: true/false (optional, reported when one of the line registers)

Where: **registration_state** is PBX registration state, and state is a voice call state

The following code example calls wfc.voice.PHONE_STATE from a third party app.

```java
// create broadcast receiver
BroadcastReceiver mMessageReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        Log.i(TAG,
            "Received PHONE_STATE from WFCVoice "
            + " registration_state=" + intent.getStringExtra("registration_state")
            + " call state=" + intent.getStringExtra("state")
            + " number=" + intent.getStringExtra("number")
            + " line_id=" + intent.getStringExtra("line_id")
            + " line_extension=" + intent.getStringExtra("line_extension")
            + " line_registered=" + intent.getBooleanExtra("line_registered", false)
        );
    }
};

// register broadcast receiver in the Activity
IntentFilter mMessageReceiver = new IntentFilter();
requestFilter.addAction("wfc.voice.PHONE_STATE");
registerReceiver(mMessageReceiver, requestFilter);
```
WFCDemo Android Project

WFCDemo is a sample android application for demonstrating WFCVoice Service integration. It allows user to initiate and control a new voice call remotely in the WFC Voice Client.

The following figures illustrate accepting and controlling an incoming call in the WFCDemo application.

Figure 52  WFCDemo Idle State

In Figure 52, WFCDemo is in an idle state displaying WFC Voice Client status in the blue box.
In Figure 53, the application plays a custom ring tone and the user selects:

- Accept
- Reject
- More, to display the WFCVoice incoming screen.

Figure 54  Active Call
In Figure 54, the WFCDemo screen controlling a call (end, speaker, mute). Selecting **More** accesses advanced controls by displaying the WFCVoice In-Call screen, shown in **Figure 55**.

**Figure 55**  WFCVoice In-Call Screen
Introduction

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

With WFC Voice Client 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.

This chapter explains how to use the following functions and features:

• Home Screen Dashboard on page 121
• In-Call Dashboard on page 121
• Signal Quality on page 122
• Calling on page 122
  • Call Hold and Resume on page 128
• Voicemail on page 130
  • Message Waiting on page 130
  • Message Retrieval on page 130
• Contacts on page 131
• Call Log / Call History on page 133
• Advanced Calling Features on page 135
  • Multiple Lines on page 135
    • Multiple Line Appearances on page 135
    • Busy Indicator on page 135
  • Transfer (attended, semi-attended) on page 136
• Miscellaneous Features on page 138
  • Speed Dial Numbers on page 138
  • Do Not Disturb on page 138
  • List on page 140
  • Home on page 141
  • Adjusting the Ring Volume on page 141
  • Unique Ringtone per Line Appearance on page 141
  • Unique Ringtone per Contact on page 141
  • Distinctive Ringing on page 141
  • Vibrate/Ring Tone on page 141
  • Start Application on page 142
  • Log Marker on page 142
  • Caller ID on page 142
  • Hold Recall on page 142
  • On-hook Dialing on page 142
Home Screen Dashboard

**Figure 56** Home Screen Dashboard

- Single Line
- Dashboard Header Line Status
- Dashboard Extensions List
- Dashboard Buttons
- Dashboard Footer Buttons

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

In-Call Dashboard

**Figure 57** In-Call Dashboard

- In-Call Header Line Status
- In-Call Dashboard Buttons
- In-Call Footer Buttons
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

Figure 58  Signal Quality Indicator

Calling

Making 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.
Figure 59  Dialer Screen

- Touch ☎️ to display a list of previous calls. See Call Log / Call History on page 133 for more information.
- Touch 🌐 to display a list of saved contacts. See Contacts on page 131 for more information.
- Touch ⭐️ to display a list of favorite contacts. See Contacts on page 131 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

For information on initiating a call using a third party app, see Headless Mode and WFCVoice Service.
Receiving a Call

The incoming screen offers various call accept styles, such as accept and reject buttons, a slider, and Glow Pad buttons.

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

Figure 60 Call Accept Buttons

Accept-Reject Buttons
Touch one of two buttons to accept or reject an incoming call.

Sliding Tab
Swipe one of two buttons across the screen to accept or reject an incoming call.

Glow Pad
Touch a handset symbol to accept or reject an incoming call.

Popup Window

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

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

To resume the WFC Voice Client call, open the WFC Voice Client and touch .
End Call

The End Call feature ends a call in any state.

Add Call

During an active call the Add Call button dials a preset number or opens the dialer. This places the current call on hold while initiating the new call. When the new call connects, you can Transfer, Conference, or End the second call and resume the first call.
Touch \hspace{0.1cm} \hspace{0.1cm} \hspace{0.1cm} \hspace{0.1cm} \textcolor{red}{+} \hspace{0.1cm} \textcolor{red}{	ext{to display the dial pad.}}

\textbf{Figure 64} \hspace{0.1cm} \textbf{Add Call Dialer}

Enter the new number and touch \hspace{0.1cm} \hspace{0.1cm} \hspace{0.1cm} \textcolor{red}{	ext{.}}
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.
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 Hold on page 72 and Resume on page 73.

Figure 66  Hold Button

Touch \( \text{Hold} \) to display the Hold screen.

Figure 67  Hold Screen

Touch \( \text{Resume} \) to resume the call.
Voicemail

Use the Message Retrieval feature to retrieve voice messages from the voice mail server. For information on configuring the Voicemail button, see Voicemail on page 68.

**NOTE:** To configure Voicemail go to Settings>Advanced Settings>Connection Parameters>HTTPS Server Address and enter the utility server IP address. For more information, see Setting the Utility Server IP Address on page 23.

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

**Figure 68** Voicemail Messages

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

**Message Waiting**

The Message Waiting feature provides notifications of messages waiting. The extension and associated voice messages appear in a bar on the main screen.

**Message Retrieval**

Use the Message Retrieval feature to retrieve voice messages from the voice mail server. Voice messages can also be retrieved by pressing the Message Waiting bar or the Voicemail button.
Contacts

Use the Contacts feature to store and dial frequently used numbers. See Contacts on page 66 for information on how to create the Contact button.

✓ **NOTE:** Add and edit contacts from the native Android operating system. Refer to the Android guide for more information.

Touch the default **Contacts** button  to display a list of saved contacts.

**Figure 69** Contact List

Touch a contact number to call that contact.
Favorites

Use the Favorites feature to store and dial contacts that are set as favorites. See Favorites on page 67 for information on how to create the Favorites button.

✔ **NOTE:** Set contacts as favorites from the native Android operating system. Refer to the Android guide for more information.

Touch the default **Contacts** button, and select the **Favorites** tab ★ to display a list of favorite contacts.

**Figure 70**  Contact List

Touch a contact number to call that contact.
Call Log / Call History

View Recent Calls

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.

For information on configuring the Call History button, see History on page 65.

Touch the History button 🔔 to view the call history screen.

Dial from Call History

Touch ☎️ next to a recent call.

Delete Call History

Touch the Menu button, then Clear all recent calls.

View Call History

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

Touch 📞 to display a list of previous calls.
Figure 72  Recent Call List
Advanced Calling Features

Multiple Lines

The WFC Voice Client supports and displays a presence icon displayed to the left of each line. The shape, color, and animation of the icon indicates its type and status. Table 2 lists presence icon combinations.

Table 2  Presence Icon Description

<table>
<thead>
<tr>
<th>Icon Status</th>
<th>Dedicated Line</th>
<th>Shared Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idle (Solid Icon)</td>
<td>![Black Icon]</td>
<td>![Black Icon]</td>
</tr>
<tr>
<td>Active (Solid Icon)</td>
<td>![Green Icon]</td>
<td>![Green Icon]</td>
</tr>
<tr>
<td>Call on Hold (Blinking Icon)</td>
<td>![Green Blink]</td>
<td>![Green Blink]</td>
</tr>
<tr>
<td>Busy / Registering</td>
<td>![Red Icon]</td>
<td>![Red Icon]</td>
</tr>
<tr>
<td>Status text appears next to the extension (Solid Icon)</td>
<td>![Red Icon]</td>
<td>![Red Icon]</td>
</tr>
<tr>
<td>Busy in a call (Blinking Icon)</td>
<td>![Red Blink]</td>
<td>![Red Blink]</td>
</tr>
</tbody>
</table>

Figure 73  Multiple Extensions

Multiple Line Appearances

Use the Multiple Line Appearances feature to associate and use multiple lines with a device. Configure multiple lines in the PBX.

Busy Indicator

The WFC Voice Client 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 Description on page 135.
Transfer (attended, semi-attended)

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 Transfer on page 74.

There are two types of transfer:

- Call Transfer Attended - The transferring party does not complete the transfer (i.e. remains on the call) until the transferred-to party answers.
- Call Transfer Blind - The transferring party completes the transfer (i.e. drops the call) while the transferred-to party is still ringing.

1. Touch ☀ to display the dial screen.

2. Dial the number and touch ✆.
3. Touch **Complete Transfer** to complete the call transfer.
Miscellaneous Features

Ringtone

By default, the WFC Voice Client uses the ringtone configured in the native Android settings.

Touch the Menu button, then **Ringtone** to change the default ringtone for the WFC Voice Client.

Reload

Touch the Menu button, then **Reload** to sign out and then automatically sign back in to the WFC Voice Client.

Sign Out

Touch the Menu button, then **Sign Out** to sign out of the WFC Voice Client. To sign back in to the WFC Voice Client, touch **Sign In**.

After signing out, touch the Menu button, then **Quit**, to exit the WFC Voice Client.

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.

![Dialer Screen - Speed Dial](image)

Do Not Disturb

Do Not Disturb (DND) ignores all calls to the extension, and routes the call immediately to an extension specified by the system administrator. DND removes the extension from any Coverage Answer Group, Simultaneous Ringing, and Hunt Groups.

Touch the default **DND** button 📞 to enable Do Not Disturb on the selected line.
**Figure 79**  Do Not Disturb Enabled
Suspend Mode

Suspend Mode blocks all incoming or outgoing calls.

Touch the Suspend Mode button to enable or disable Suspend Mode.

Figure 80  Suspend Mode

List

List displays a speed dial list by default.

IMPORTANT: List is configured by the system administrator.

Touch the default List button to display the speed dial list.

Figure 81  Speed Dial List
Using the Client

Home

During an active call touch 🏡 to display the Dashboard and access to Dashboard functions.

Figure 82  Dashboard

Adjusting the Ring Volume

Configure using the device’s sound settings. Refer to the MC40, TC70 or TC75 User Guide at www.zebra.com/support for more information.

Unique Ringtone per Line Appearance

To configure ringtones per line, see Line Ringtones on page 100.

Unique Ringtone per Contact

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/Ring Tone

Configure using the device’s sound settings. Refer to the MC40, TC70 or TC75 User Guide at www.zebra.com/support for more information.
Start Application

WFC Voice Client can be configured by a system administrator to launch another application on the device. When the button is pressed WFC Voice Client minimizes to run in the background and the application launches.

Touch the application button to launch another application.

Log Marker

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

Touch the Log Marker button to display the following message.

![Log Marker Message](image)

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 WFC 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.

On-hook Dialing

On-hook dialing enables the user to pre-dial digits before going off-hook, or pressing the send key. The WFC Voice client provides this capability automatically and does not go off-hook until the send key is pressed.
### Table 3  Button Actions

<table>
<thead>
<tr>
<th>Action Type</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD_CALL</td>
<td>Calls the number in Value tag. &lt;br&gt; If there is no number in Value tag, opens the dialer. &lt;br&gt; Allowed on the in-call screen only.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>BLANK</td>
<td>No action. &lt;br&gt; Creates a gap or space between other buttons.</td>
<td>N/A</td>
</tr>
<tr>
<td>CALL</td>
<td>Calls the number in Value tag. &lt;br&gt; If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>COMPLETE</td>
<td>This is internal type used for call transfer or conference scenarios. &lt;br&gt; Only allowed on the in-call screen.</td>
<td>N/A</td>
</tr>
<tr>
<td>CONTACTS</td>
<td>Displays the contacts list.</td>
<td>N/A</td>
</tr>
<tr>
<td>DIAL</td>
<td>Opens the dialer.</td>
<td>Prefix to dialed number. The prefix is not displayed to the user.</td>
</tr>
<tr>
<td>DO_NOT_DISTURB</td>
<td>Triggers DND function. &lt;br&gt; This Feature Button is pushed from the PBX Configuration during registration.</td>
<td>N/A</td>
</tr>
<tr>
<td>END_CALL</td>
<td>This is internal type used for END call button on in-call screen. &lt;br&gt; Only allowed on the in-call screen.</td>
<td>N/A</td>
</tr>
<tr>
<td>HISTORY</td>
<td>Shows a list of recently called numbers.</td>
<td>N/A</td>
</tr>
<tr>
<td>HOLD</td>
<td>Puts the call on hold. &lt;br&gt; Only allowed on the in-call screen.</td>
<td>N/A</td>
</tr>
<tr>
<td>HOME</td>
<td>Jumps to the Home screen. &lt;br&gt; Only allowed on the in-call screen.</td>
<td>N/A</td>
</tr>
<tr>
<td>Action Type</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>LIST</td>
<td>Shows buttons as a pop-up list. This feature can only be set in an XML configuration.</td>
<td>N/A</td>
</tr>
<tr>
<td>LOG_MARKER</td>
<td>Creates a time stamp in the logs.</td>
<td>N/A</td>
</tr>
<tr>
<td>REDIAL</td>
<td>Redials the last number. Only allowed in the footer area of the display.</td>
<td>N/A</td>
</tr>
<tr>
<td>RESUME</td>
<td>Resumes a call that is on hold. Only allowed on the in-call screen.</td>
<td>N/A</td>
</tr>
<tr>
<td>SPEED_DIAL0</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL1</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL2</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL3</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL4</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL5</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL6</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL7</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL8</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>SPEED_DIAL9</td>
<td>Calls the number in Value tag. If there is no number in Value tag, opens the dialer.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>START_APP</td>
<td>Starts an application.</td>
<td>Path and filename of the application.</td>
</tr>
<tr>
<td>SUSPEND_MODE</td>
<td>Blocks all incoming or outgoing calls.</td>
<td>N/A</td>
</tr>
<tr>
<td>TRANSFER</td>
<td>Transfers the call. Only allowed on the in-call screen.</td>
<td>N/A</td>
</tr>
<tr>
<td>VOICEMAIL</td>
<td>Opens voicemail. Dials voice mail number configured on the PBX.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### Table 4  WFConnect Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Buttons</td>
<td>Defines the buttons available in the in-call area.</td>
</tr>
<tr>
<td>Dashboard</td>
<td>Dashboard section.</td>
</tr>
<tr>
<td>Profile</td>
<td>Profile section.</td>
</tr>
</tbody>
</table>

### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>audio_gain_in</td>
<td>Input Audio Volume (Optional).</td>
<td>Number between 1 and 8 Default: 1</td>
</tr>
<tr>
<td>audio_gain_out</td>
<td>Output Audio Volume (Optional).</td>
<td>Number between 1 and 8 Default: 1</td>
</tr>
<tr>
<td>background_logo</td>
<td>Set a background image for the WFC Voice Client home screen dashboard</td>
<td>Default: None (Disabled)</td>
</tr>
<tr>
<td></td>
<td>(Optional).</td>
<td></td>
</tr>
<tr>
<td>buttons_padding</td>
<td>Set the horizontal spacing between in-call buttons in pixels (Optional).</td>
<td>Number between 0 and 50 Default: 0</td>
</tr>
<tr>
<td>callwaiting_interval</td>
<td>Interval of call waiting tone.</td>
<td>500ms to 8000ms Default: 2000ms</td>
</tr>
<tr>
<td>callwaiting_volume</td>
<td>Call waiting volume.</td>
<td>Percentage between 10% and 100% Default: 80%</td>
</tr>
<tr>
<td>codec_alaw_priority</td>
<td>Assigns preference priority for G.711 A-Law Voice codec negotiations</td>
<td>Number between -5 and 5 Negative numbers disable the codec. Default: 2</td>
</tr>
<tr>
<td></td>
<td>between PBX and Client.</td>
<td></td>
</tr>
<tr>
<td>codec_g722_priority</td>
<td>Assigns preference priority for G.722 Voice codec negotiations between</td>
<td>Number between -5 and 5 Negative numbers disable the codec. Default: 4</td>
</tr>
<tr>
<td></td>
<td>PBX and Client.</td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>codec_g729_priority</td>
<td>Assigns preference priority for G.729 Voice codec negotiations between PBX and Client.</td>
<td>Number between -5 and 5 Negative numbers disable the codec. Default: 3</td>
</tr>
<tr>
<td>codec_gsm_priority</td>
<td>Assigns preference priority for GSM Voice codec negotiations between PBX and Client.</td>
<td>Number between -5 and 5 Negative numbers disable the codec. Default: 2</td>
</tr>
<tr>
<td>codec_ulaw_priority</td>
<td>Assigns preference priority for G.711 u-LAW Voice codec negotiations between PBX and Client.</td>
<td>Number between -5 and 5 Negative numbers disable the codec. Default: 1</td>
</tr>
<tr>
<td>contacts_url</td>
<td>The URL of contacts list located on a remote or local server (Optional).</td>
<td>File type: CVS. Protocols: file, http, https, tftp. Default: none</td>
</tr>
<tr>
<td>dialer_padding</td>
<td>Set vertical padding at the bottom of the contacts and history screens (Optional).</td>
<td>Number between 0 and 200 Default: 0</td>
</tr>
<tr>
<td>disable_speaker</td>
<td>Do not answer incoming calls in speaker mode when the device is placed on a horizontal surface (Optional).</td>
<td>true: Disable speaker mode. false: Enable speaker mode. Default: false</td>
</tr>
<tr>
<td>flex_tls</td>
<td>Set security for SIP connections (Optional).</td>
<td>true: Trust all remote hosts. false: Use Android certificates for TLS/SSL connections. Default: true</td>
</tr>
</tbody>
</table>
| 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 |
Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
</table>
| gfg_color      | 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). See Headless Mode and WFCVoice Service.           | 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       |
| 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  |
| 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  |
  Default: none  |
| license_alias  | Identify the device on the license source. (Optional)                       | Device alias.                             |
| license_key    | One or more WFC Voice Client activation keys. When using license_source element, license_key can be used to list one or more PBX types. | Comma separated list of:  
  - Activation keys  
  - PBX types.  |
<p>| license_source | The URL of a license source running on the cloud or a local network.        | Default: Flexera server                  |</p>
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>log_file</td>
<td>Enable logging for WFC Voice Client (Optional). Log files are saved to the WFConnect folder on the device.</td>
<td>true: Logging enabled. false: Logging disabled. Default: false</td>
</tr>
<tr>
<td>log_level</td>
<td>The log level for all log messages produced by Workforce Connect (Optional).</td>
<td>Select one of the following: • Error • Warning • Info • Debug • Verbose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For debugging use Verbose. Default: Error</td>
</tr>
<tr>
<td>log_sipclf</td>
<td>Enable logging of SIP messages. Logs are stored as a CLF file on the device in SIP Common Log Format (Optional).</td>
<td>true: Log to a file on the device. false: Do not log to file. Default: false</td>
</tr>
<tr>
<td>moh_enabled</td>
<td>Enable music on hold to play a WAV audio file when a user is placed on hold (optional).</td>
<td>Default: false</td>
</tr>
<tr>
<td>moh_file</td>
<td>Select a custom WAV audio file to play when a user is placed on hold (optional).</td>
<td>WAV file stored in the WFConnect folder. Default: None</td>
</tr>
<tr>
<td>no_audio_cutoff</td>
<td>Disconnect a call when no audio is detected for a set interval.</td>
<td>Select one of the following: • 0 • 30 • 60 • 120 • 300 Default: 30</td>
</tr>
<tr>
<td>process_cell_call</td>
<td>Ignore all call requests from Android dialer. Required on device with call service.</td>
<td>true: Process Android calls false: Do not process android calls Default: false</td>
</tr>
<tr>
<td>profile_type</td>
<td>Primary PBX type.</td>
<td>Contents: Text Default: None</td>
</tr>
<tr>
<td>profile2_type</td>
<td>Second PBX type (Optional).</td>
<td>Contents: Text Default: None</td>
</tr>
<tr>
<td>profile3_type</td>
<td>Third PBX type (Optional).</td>
<td>Contents: Text Default: None</td>
</tr>
</tbody>
</table>
### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
</table>
| 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 ringer while device is charging.     | true: Disable ringer while charging
|                   |                                                  | false: Enable ringer while charging
|                   |                                                  | Default: false                                                       |
| ringtone_callback | Call back ringtone (Optional).                   | One of the following:
|                   |                                                  | • A number indicating a ringtone in Android.
|                   |                                                  | • The name of an audio file stored in the wfconnect folder in OGG format.
|                   |                                                  | Default: UK_Phone                                                    |
| ringtone_external | Ringtone for external calls (Optional).          | One of the following:
|                   |                                                  | • A number indicating a ringtone in Android.
|                   |                                                  | • The name of an audio file stored in the wfconnect folder in OGG format.
|                   |                                                  | Default: HI_UK_Phone                                                 |
| ringtone_intercome | Rington for intercome calls (Optional).          | One of the following:
|                   |                                                  | • A number indicating a ringtone in Android.
|                   |                                                  | • The name of an audio file stored in the wfconnect folder in OGG format.
|                   |                                                  | Default: French_Phone                                                |
| ringtone_line1    | The ringtone for line #1 (Optional).             | One of the following:
|                   |                                                  | • A number indicating a ringtone in Android.
|                   |                                                  | • The name of an audio file stored in the WFConnect folder in OGG format.
|                   |                                                  | Default: None (The default Android ringtone is used.)                |
### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
</table>
| ringtone_line2| The ringtone for line #2 (Optional). | One of the following:  
- A number indicating a ringtone in Android.  
- The name of an audio file stored in the WFConnect folder in OGG format.  
Default: None (The default Android ringtone is used.) |
| ringtone_line3| The ringtone for line #3 (Optional). | One of the following:  
- A number indicating a ringtone in Android.  
- The name of an audio file stored in the WFConnect folder in OGG format.  
Default: None (The default Android ringtone is used.) |
| ringtone_line4| The ringtone for line #4 (Optional). | One of the following:  
- A number indicating a ringtone in Android.  
- The name of an audio file stored in the WFConnect folder in OGG format.  
Default: None (The default Android ringtone is used.) |
| ringtone_line5| The ringtone for line #5 (Optional). | One of the following:  
- A number indicating a ringtone in Android.  
- The name of an audio file stored in the WFConnect folder in OGG format.  
Default: None (The default Android ringtone is used.) |
| ringtone_line6| The ringtone for line #6 (Optional). | One of the following:  
- A number indicating a ringtone in Android.  
- The name of an audio file stored in the WFConnect folder in OGG format.  
Default: None (The default Android ringtone is used.) |
### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ringtone_park</td>
<td>The ringtone for park (Optional).</td>
<td>One of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• A number indicating a ringtone in Android.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The name of an audio file stored in the wfconnect folder in OGG format.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None (The default Android ringtone is used.)</td>
</tr>
<tr>
<td>ringtone_priority</td>
<td>Priority call ringtone (Optional).</td>
<td>One of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• A number indicating a ringtone in Android.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The name of an audio file stored in the wfconnect folder in OGG format.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None (The default Android ringtone is used.)</td>
</tr>
<tr>
<td>rtp_stats</td>
<td>Show Real Time Transport Protocol (RTP) Statistics on in-call screen (Optional).</td>
<td>true: RTP statistics are shown.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: RTP statistics are not shown.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>sample_rate</td>
<td>Audio sample rate. Selecting an audio codec overrides this setting (Optional).</td>
<td>Select one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 8000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 16000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 32000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 48000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: 8000</td>
</tr>
<tr>
<td>save_incoming_voice_to_file</td>
<td>Save incoming voice to a file in the wfconnect folder. The file name is a time-stamp plus PCM extension (Optional).</td>
<td>true: File is saved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: File is not saved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>show_department_name</td>
<td>Display the department name associated with an extension (Optional).</td>
<td>true: Department names are shown.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Department names are not shown.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>show_jitter_stats</td>
<td>Show jitter statistics (Optional).</td>
<td>true: Jitter statistics are shown in audio debugging files.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Jitter statistics are not shown in audio debugging files.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
</tbody>
</table>
### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>sign_out_in_charger</td>
<td>Automatically sign out of the WFC Voice Client when the device begins charging (Optional).</td>
<td>true: Sign out when charging begins. false: Stay signed in while charged. Default: false</td>
</tr>
<tr>
<td>sip_auto_answer</td>
<td>Auto answer mode (Optional).</td>
<td>true: Workforce Connect client auto-answers all incoming calls. false: The user must use Workforce Connect to answer the call. Default: false</td>
</tr>
<tr>
<td>sip_localport</td>
<td>The primary local listening port for SIP connections. Use with primary PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip_parknum</td>
<td>SIP default call park extension. Use with primary PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_pbx_logo</td>
<td>Identify the PBX type on the WFC Voice Client home screen dashboard. Enter text or set a logo (Optional).</td>
<td>Default: Displays the default text for the PBX type.</td>
</tr>
<tr>
<td>sip_mac</td>
<td>Primary radio MAC address of this mobile device. Use with primary PBX type (Optional).</td>
<td>MAC address Default: None</td>
</tr>
<tr>
<td>sip Realm</td>
<td>SIP domain. Use with primary PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_remap</td>
<td>Primary TFTP server address #1. Use with primary PBX type (Optional).</td>
<td>Server address Default: The server address provided by option 150 in the DHCP.</td>
</tr>
<tr>
<td>sip_remap2</td>
<td>TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with primary PBX type (Optional).</td>
<td>Server address Default: None</td>
</tr>
<tr>
<td>sip_remap3</td>
<td>TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with primary PBX type (Optional).</td>
<td>Server address Default: None</td>
</tr>
<tr>
<td>sip_remap</td>
<td>TFTP server remote port. Use with primary PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip_rtp_port1</td>
<td>First RTP port. Use with primary PBX type (Optional).</td>
<td>Default: 51000</td>
</tr>
<tr>
<td>sip_rtp_port2</td>
<td>Last RTP port. Use with primary PBX type (Optional).</td>
<td>Default: 51025</td>
</tr>
</tbody>
</table>
### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>sip_rtp_ptime</td>
<td>RTP payload size in milliseconds.</td>
<td>Select one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: 20</td>
</tr>
<tr>
<td>sip_transport</td>
<td>SIP transport type.</td>
<td>Select one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• UDP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• TCP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• TSL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: TCP</td>
</tr>
<tr>
<td>sip_userid</td>
<td>SIP user or authentication ID.</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_userpass</td>
<td>SIP authentication password.</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_vmnum</td>
<td>SIP voice mail extension.</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_confnum</td>
<td>SIP default conference number.</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_localport</td>
<td>The local listening port for SIP connections.</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip2_mac</td>
<td>Radio MAC address of this mobile device.</td>
<td>MAC address</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_parknum</td>
<td>SIP default call park extension.</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_realm</td>
<td>SIP domain.</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_remhost</td>
<td>TFTP server address #1.</td>
<td>Server address</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: The server address provided by option 150 in the DHCP.</td>
</tr>
</tbody>
</table>
**Table 5  Profile Tags**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>sip2_remhost2</td>
<td>TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with second PBX type (Optional).</td>
<td>Server address&lt;br&gt;Default: None</td>
</tr>
<tr>
<td>sip2_remhost3</td>
<td>TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with second PBX type (Optional).</td>
<td>Server address&lt;br&gt;Default: None</td>
</tr>
<tr>
<td>sip2_remport</td>
<td>TFTP server remote port. Use with second PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip2_transport</td>
<td>SIP transport type. Use with second PBX type (Optional).</td>
<td>Select one of the following:&lt;br&gt;• UDP&lt;br&gt;• TCP&lt;br&gt;• TSL&lt;br&gt;Default: TCP</td>
</tr>
<tr>
<td>sip2_userid</td>
<td>SIP user or authentication ID. Use with second PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_userpass</td>
<td>SIP authentication password. Use with second PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_vmnum</td>
<td>SIP voice mail extension. Use with second PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip3_confnum</td>
<td>SIP default conference number. Use with third PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip3_localport</td>
<td>The local listening port for SIP connections. Use with third PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip3_mac</td>
<td>Radio MAC address of this mobile device. Use with third PBX type (Optional).</td>
<td>MAC address&lt;br&gt;Default: None</td>
</tr>
<tr>
<td>sip3_parknum</td>
<td>SIP default call park extension. Use with third PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip3_realm</td>
<td>SIP domain. Use with third PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip3_remhost</td>
<td>TFTP server address #1. Use with third PBX type (Optional).</td>
<td>Server address&lt;br&gt;Default: The server address provided by option 150 in the DHCP.</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>sip3_remhost2</td>
<td>TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with third PBX type (Optional).</td>
<td>Server address Default: None</td>
</tr>
<tr>
<td>sip3_remhost3</td>
<td>TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with third PBX type (Optional).</td>
<td>Server address Default: None</td>
</tr>
<tr>
<td>sip3_remport</td>
<td>TFTP server remote port. Use with third PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip3_transport</td>
<td>SIP transport type. Use with third PBX type (Optional).</td>
<td>Select one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• UDP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• TCP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• TSL</td>
</tr>
<tr>
<td>sip3_userid</td>
<td>SIP user or authentication ID. Use with third PBX type (Optional).</td>
<td>Default: TCP</td>
</tr>
<tr>
<td>sip3_userpass</td>
<td>SIP authentication password. Use with third PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip3_vmnum</td>
<td>SIP voice mail extension. Use with third PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip4_confnum</td>
<td>SIP default conference number. Use with fourth PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip4_localport</td>
<td>The local listening port for SIP connections. Use with fourth PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip4_mac</td>
<td>Radio MAC address of this mobile device. Use with fourth PBX type (Optional).</td>
<td>MAC address Default: None</td>
</tr>
<tr>
<td>sip4_parknum</td>
<td>SIP default call park extension. Use with fourth PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip4_realm</td>
<td>SIP domain. Use with fourth PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip4_remhost</td>
<td>TFTP server address #1. Use with fourth PBX type (Optional).</td>
<td>Server address Default: The server address provided by option 150 in the DHCP.</td>
</tr>
</tbody>
</table>
### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>sip4_remhost2</td>
<td>TFTP server address #2. This is a secondary address used if the primary address is not reachable. Use with fourth PBX type (Optional).</td>
<td>Server address Default: None</td>
</tr>
<tr>
<td>sip4_remhost3</td>
<td>TFTP server address #3. This is a secondary address used if the primary address is not reachable. Use with fourth PBX type (Optional).</td>
<td>Server address Default: None</td>
</tr>
<tr>
<td>sip4_remport</td>
<td>TFTP server remote port. Use with fourth PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip4_transport</td>
<td>SIP transport type. Use with fourth PBX type (Optional).</td>
<td>Select one of the following: • UDP • TCP • TSL Default: TCP</td>
</tr>
<tr>
<td>sip4_userid</td>
<td>SIP user or authentication ID. Use with fourth PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip4_userpass</td>
<td>SIP authentication password. Use with fourth PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip4_vmnum</td>
<td>SIP voice mail extension. Use with fourth PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sms_enabled</td>
<td>Short Message Service (SMS) (Optional).</td>
<td>true: Enable SMS false: Disable SMS Default: false</td>
</tr>
<tr>
<td>speaker_on_horizontal</td>
<td>Answer calls in speaker mode when the device is placed on a horizontal surface</td>
<td>true: Enable speaker mode false: Disable speaker mode Default: false</td>
</tr>
<tr>
<td>use_android_dialer</td>
<td>Use the native Android dialer to place calls.</td>
<td>true: Use Android dialer false: Use Workforce Connect dialer</td>
</tr>
<tr>
<td>use_accelerometer</td>
<td>Use the native Android accelerometer (Optional).</td>
<td>true: Accelerometer is used. false: Accelerometer is not used. Default: false</td>
</tr>
<tr>
<td>use_aec</td>
<td>Echo Cancellation (Optional).</td>
<td>true: Echo cancellation is used. false: Echo cancellation is not used. Default: false</td>
</tr>
</tbody>
</table>
### Table 5  Profile Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>use_agc_ear</td>
<td>Automatic Gain Control (AGC) on earpiece (Optional).</td>
<td>true: AGC is used. false: AGC is not used. Default: false</td>
</tr>
<tr>
<td>use_agc_speaker</td>
<td>Automatic Gain Control (AGC) on speaker. (Optional).</td>
<td>true: AGC is used. false: AGC is not used. Default: false</td>
</tr>
<tr>
<td>use_native_sample_rate</td>
<td>Use the native sample rate set by Android (Optional).</td>
<td>true: Android native sample rate is used. false: Sample rate is 8000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>use_noise</td>
<td>Noise Reduction (Optional).</td>
<td>true: Noise reduction is used. false: Noise reduction is not used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use native sample rate set by Android.</td>
</tr>
<tr>
<td>use_prox_wake_lock</td>
<td>Use the Android platform default proximity WAKE LOCK (Optional).</td>
<td>true: Uses the Android platform default proximity WAKE LOCK.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Uses a workaround solution.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: true</td>
</tr>
<tr>
<td>var_location</td>
<td>The URI of shared profile located on a remote or local server (Optional).</td>
<td>Protocols: file, http, https, tftp.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: none (Disabled)</td>
</tr>
<tr>
<td>vibrate_when_ringing</td>
<td>The device vibrates when a call is received (Optional).</td>
<td>true: The device vibrates when a call is received.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: The device does not vibrate when a call is received.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>voice_announcer_check</td>
<td>Announces the number or user name of an incoming call (Optional).</td>
<td>true: Incoming calls are announced.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Incoming calls are not announced.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>wifi_preferred</td>
<td>Connect to an available WiFi network. This setting only applies after network state changes or when the client is restarted.</td>
<td>true: Connect to an available WiFi network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Only connect to the device’s default network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
</tbody>
</table>

### Table 6  Dashboard Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columns</td>
<td>Number of columns on the dashboard area.</td>
</tr>
<tr>
<td>Button</td>
<td>The definition of an on-screen button. See Table 8 for details.</td>
</tr>
</tbody>
</table>
### Table 7  Call Buttons Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Button</td>
<td>The definition of an on-screen button. See Table 8 for details.</td>
</tr>
</tbody>
</table>

### Table 8  Button Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>action</td>
<td>The button action.</td>
<td>This must be one of the action types listed in Button Actions. If this string is not a valid action type the button is not created.</td>
</tr>
<tr>
<td>bg_color</td>
<td>Button background color (optional). If no color is defined then the profile element &lt;gfg_color&gt; is used.</td>
<td>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</td>
</tr>
<tr>
<td>confirm</td>
<td>After touching the button, the operator is asked to confirm the action before it is executed (optional).</td>
<td>true: Confirm action false: Do not confirm action Default: false</td>
</tr>
<tr>
<td>description</td>
<td>Description is used by the LIST action type.</td>
<td>On the LIST action type button: • It is used as the title on the popup dialog • It appears as a comment for each LIST sub button, identifying which action is performed by the button. For all other buttons, the description is optional.</td>
</tr>
<tr>
<td>enabled</td>
<td>Defines whether the button is available on the Workforce Connect client screen (optional).</td>
<td>true: Button is visible and active. false: Button is not visible. Default: true.</td>
</tr>
</tbody>
</table>
### Table 8  Button Tags (Continued)

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
</table>
| fg_color | Button text color (Optional). If no color is defined then the profile element `<fg_color>` is used. | 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 |
| 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 2 lines; otherwise, all the text displays on one line. The font size adjusts depending on 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 Actions. |
| Button | The definition of an on-screen button. | N/A |
<WFConnect>
  <Profile>
    <use_android_dialer>true</use_android_dialer>
    <sip_rechost2/>
    <background_logo>company_logo.png</background_logo>
    <lux_threshold>0</lux_threshold>
    <sip_rechost3/>
    <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>
    <use_native_sample_rate>false</use_native_sample_rate>
    <jitter_max>250</jitter_max>
    <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>#FFFFFF</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>
...
...<Footer>
  <Button>
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    <action>HISTORY</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <fg_color>#FFFFFFFF</fg_color>
    <icon></icon>
  </Button>
  <Button>
    <title>Redial</title>
    <action>REDIAL</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <fg_color>#FFFFFFFF</fg_color>
    <icon></icon>
  </Button>
  <Button>
    <title>Dial</title>
    <action>DIAL</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <fg_color>#FFFFFFFF</fg_color>
    <icon></icon>
</Footer>
</Button>
<Button>
    <title>Contacts</title>
    <action>CONTACTS</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <fg_color>#FFFFFFFF</fg_color>
    <icon></icon>
</Button>
<Button>
    <title>Voicemail</title>
    <action>VOICEMAIL</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <bg_color>#FF001425</bg_color>
    <fg_color>#FFFFFFFF</fg_color>
    <icon>Default</icon>
</Button>
</Footer>
...
XML Example - Dashboard

...<Dashboard>
  <Columns>4</Columns>
  <Button>
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    <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>
</Dashboard>
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<action>LIST</action>
:value></value>
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<confirm>false</confirm>
<description></description>
<icon></icon>
</Button>
<Button>
<title>SpeedDial#3</title>
<action>SPEED_DIAL3</action>
:value></value>
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<confirm>false</confirm>
<description></description>
<icon></icon>
</Button>
<Button>
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:value></value>
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<description></description>
<icon></icon>
</Button>
<Button>
<title>SpeedDial#5</title>
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<description></description>
<icon></icon>
</Button>
<Button>
<title>SpeedDial#6</title>
<action>SPEED_DIAL6</action>
:value></value>
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<confirm>false</confirm>
<description></description>
<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>
</Button>
<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>...
<CallButtons>
  <Button>
    <title>AddCall</title>
    <action>ADD_CALL</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>
  <Button>
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    <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>
  </Button>
</CallButtons>
<action>RESUME</action>
<value></value>
<enabled>false</enabled>
<confirm>false</confirm>
<description></description>
<icon>Default</icon>
</Button>
</CallButtons>
</WFConnect>
Configuring a Proxy Server

To activate the WFC Voice Client, one or more licenses must be retrieved from one of the following types of license sources:

- Local license server
- Cloud license server.

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 84  Proxy Server Configuration

To configure a proxy server:

1. Ensure the proxy server and DNS server are running.
2. Ensure the device running the WFC Voice Client 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.
Network Ports and Protocols

This section provides an overview of the ports and protocols the WFC Voice Client uses on supported Zebra devices.

Zebra devices may contain applications that use the same ports and protocols for normal operation as the WFC Voice Client. Refer to the application documentation for more information.

Table 9  Ports for Advanced Features

<table>
<thead>
<tr>
<th>Port</th>
<th>Destination</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>443</td>
<td><a href="https://zebra-licensing.flexnetoperations.com">https://zebra-licensing.flexnetoperations.com</a></td>
<td>License registration and validation for WFC Voice Client.</td>
</tr>
<tr>
<td>5060</td>
<td>Call Manager server(s)</td>
<td>SIP messaging to Call Manager. To use a different port, change in both the device configuration and PBX Call Manager.</td>
</tr>
<tr>
<td>69</td>
<td>TFTP server(s)</td>
<td>TFTP services download.</td>
</tr>
<tr>
<td>51000 – 51025</td>
<td>RTP Traffic to other devices</td>
<td>To use a different port, change in the device configuration.</td>
</tr>
<tr>
<td>80</td>
<td>WebServer</td>
<td>HTTP, HTTPS, or TFTP file download of the WFC Voice Client configuration file, and the contacts list CSV file, if available.</td>
</tr>
</tbody>
</table>