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Revision History

Changes to the original guide are listed below:

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<tr>
<td>-02 Rev A</td>
<td>5/2019</td>
<td>Fix to initial release of the guide.</td>
</tr>
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<tr>
<td>-04EN Rev A</td>
<td>12/2019</td>
<td>Updates to WFC Voice screenshots, Contacts section, and Logging chapter.</td>
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<td>-06EN Rev A</td>
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<td>-07EN Rev A</td>
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<td>Updates to Using the Client &gt; Profile Manager section. Update sections related to the three-line menu.</td>
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About This Guide

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

**IMPORTANT:** For some devices, a Mobility DNA Enterprise license is required to use WFC Voice. Please contact your administrator or Zebra Support for more information.

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

Notational Conventions

The conventions are used in this document:

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

Service Information

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

When contacting support, please have the following information available:

- Serial number of the unit
About This Guide

- 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.
This section describes how to configure the PBX.
Assemble the following information before you begin to configure the Asterisk PBX and the mobile device.

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

**Enabling Supported Audio Codecs**

Enable supported Audio Codecs in the Asterisk PBX.

**Procedure**

1. Login to Asterisk PBX as administrator.
Configure the Asterisk PBX

2. Select Settings > Asterisk SIP Settings.

NOTE: Client supported Audio Codecs are G.711 u-Law, G.711 A-Law, G.722, GSM, and G.729.

3. Click Submit.

Enabling TCP As Signaling Transport Protocol

To enable TCP as signaling transport protocol using the command line interface.

Procedure
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"
```

2. Press Enter.

Adding an Extension

Add an extension.
Configure the Asterisk PBX

Procedure

1. Click **Device** drop-down menu and select the device.

Add an Extension

**Please select your Device below then click Submit**

- **Device**

<table>
<thead>
<tr>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generic SIP Device</strong></td>
</tr>
</tbody>
</table>

![Submit button]

2. Click **Submit**.

The Add Extension screen will appear.
3. Enter the user extension, display name, and password.

4. Click **Submit**.
Additional device options appear.
Configure the Asterisk PBX

5. Enable TCP or UDP as transport protocol.

In order to register WFC with Asterisk, the admin or 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 or user needs to add the voice gateway as server address in the WFC Voice Settings.

Check Device Settings

At the device there are only three fields the administrator must set.

- User ID
- Password
• Server Address.

**Figure 1: Device Settings**
Learn how to install, activate and configure the Zebra Workforce Connect Voice Client (WFC Voice).

**Determine Deployment Readiness**

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

**WARNING:** If your WLAN is not suitable for voice traffic, WFC Voice will perform on a best effort basis. Contact the Zebra Software Support Desk for more information.

**Connect Android Wireless Device to Network**

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

Zebra WFC Voice for Android includes support for the following device types:
- Enterprise Mobile devices
- Consumer Smartphone devices (evaluation only)

**Install the WFC Profile Client**

To use the WFC Profile Manager to configure a device, install the Device Fabric Service (WFC Profile Client) app on the device before installing WFC Voice.

**NOTE:** WFC Profile Client is only required when using WFC Profile Manager.

The WFC Profile Client app collects authentication, role information, and a list of contacts from WFC Voice and forwards it to the WFC Profile Manager. Settings configured in the WFC Profile Manager are forwarded back to WFC Voice through the WFC Profile Client app.

There are two ways to install the WFC Profile Client app:
- USB tether or web server - This section describes using a USB tether or web server to manually install the WFC Profile Client Android Package Kit (APK).
Installing the WFC Profile Client APK

Procedure

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 Profile Client APK file.

3. Save the APK file to the root directory using one of the following methods:
   - USB tether
   - Web server download (if your network supports this option).

4. On the Android device, go to the Apps list and open the file browser.

5. Navigate to the APK file.

6. Run and install the APK file.

7. Check that the WFC Profile Client app is available in the Apps Screen.

Results

The WFC Profile Client icon should be visible in the list of available applications.

Configure the WFC Profile Client App

To configure the WFC Profile Client app refer to the WFC Profile Client Installation Guide.

Install WFC Voice

This section describes the methods for installing WFC Voice.

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

There are two ways to install WFC Voice:

- USB tether or web server - This section describes using a USB tether or web server to manually install the WFC Voice Android Package Kit (APK).
- 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 the Zebra support at www.zebra.com/support and login using your partner login for latest BSP and integration instructions. If you need assistance, contact Zebra Support at www.zebra.com/support.
Configuring the Client

Installing the WFC Voice APK

Before You Begin
Download the APK from the Zebra Licensing End User Portal.

Procedure
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

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

Procedure
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 WFC Voice is available in the Apps Screen.

Results
The WFC Voice icon 📞 should be visible in the list of available applications.

Installing the APK Using ADB Commands

Procedure
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.

Creating a Shortcut for WFC Voice

Create a shortcut for WFC Voice on the Home screen for quick access.
Procedure

1. In the Apps Screen, press and hold on the WFC Voice icon.

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WFC Voice Icon</td>
</tr>
</tbody>
</table>

2. Drag the WFC Voice Icon to the Home screen.

3. Drop icon on Home screen.

Opening WFC Voice

Open WFC Voice from the Home screen or Apps screen.

Procedure

• To open WFC Voice, use one of the following methods:
  • Touch the WF Connect icon on the Home screen.
  • Touch on the WF Connect icon on the Apps screen.

Results

The App Activation screen displays.

Activate WFC Voice

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

A valid license is required for each PBX. WFC Voice is activated by using an activation key, Mobile Device Manager (MDM), or USB tether. The WFC Profile Manager can not be used to activate WFC Voice.

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

Activating with an Activation Key

Activate WFC Voice by entering your activation code(s).
Configuring the Client

Procedure

1. Open WFC Voice to display the activation screen.

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<tr>
<th>Number</th>
<th>Item</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Toggle Button</td>
</tr>
<tr>
<td>2</td>
<td>Clear All Fields</td>
</tr>
</tbody>
</table>

2. In the **keys or features** field, enter your activation code(s) separated by commas. Licenses are acquired from the default licensing source.

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 Home screen appears.

Activate with an MDM

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

Define the licensing information using the following XML tags:

- **license_key** - Contains one or more WFC Voice activation keys separated by commas.

Example:

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

- license_source - URL of a license source server (optional).
  When license_source is not defined, the WFC Voice Client uses the default license source. Do not change the license_source parameter unless instructed to by Zebra Support.

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

Activate Using MDM Deployment

During runtime, WFC Voice listens for \texttt{wfc.voice.ACTION\_UPDATE\_CONFIG} intent. When WFC Voice receives the intent from an MDM, the configuration file uses \texttt{WFConnect.xml} to update the WFC Voice configuration parameters. Use a single intent to update multiple configuration parameters by including multiple element and value pairs.

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

Activating with a USB Tether

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

About this Task

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

Procedure

1. Install the WFC Voice APK. See Download and Install Board Support Package (BSP) Operating System.

2. Copy the \texttt{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"
```

Update License

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

Configure WFC Voice

WFC Voice is configured using the Graphical User Interface (GUI), an MDM, a USB Tether, or WFC Profile Manager.

\textbf{NOTE:} It is not recommended to install the \texttt{WFConnect.xml} file using a USB tether because it can cause permission issues on the device.
Configuring with WFC Voice GUI

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

About this Task

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

Procedure

1. Touch ☰ > Settings.
2. Enter the settings password. The default password is: *zamboni*.
3. Touch Connection Parameters.
4. Select a PBX configuration. The default configuration is: **PBX#1 Configuration**.
   For information on configuring additional PBX types, see Configuring Multiple PBX Types.
5. Touch the PBX Type field and select Asterisk.
6. Enter the User ID.
7. Enter the Password.
8. Enter the PBX Server Address.

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<th>Number</th>
<th>Item</th>
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<td>PBX Type</td>
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<td>2</td>
<td>User ID</td>
</tr>
<tr>
<td>3</td>
<td>Password</td>
</tr>
<tr>
<td>4</td>
<td>Server Address</td>
</tr>
</tbody>
</table>

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

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

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

Define the licensing information using the following XML tags:
• license_key - Contains one or more WFC Voice activation keys separated by commas.
  Example:

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

• license_source - URL of a license source server (optional).
  When license_source is not defined, the WFC Voice Client uses the default license source. Do not change the license_source parameter unless instructed to by Zebra Support.

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

**Configure Using MDM Deployment**

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

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

**Configuring with a USB Tether**

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

**Before You Begin**

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

**Procedure**

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

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

**Updating a Specific Parameter**

**Procedure**

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
```
After You Finish

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

Configuring with WFC Profile Manager

About this Task
Consider the following when configuring WFC Voice using the WFC Profile Manager:

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

Procedure
To configure WFC Voice using WFC Profile Manager, log in to the WFC Profile Manager and navigate to WFC Voice settings.

Settings available in the WFC Profile Manager match the parameters in the WFConnect.xml configuration file. For a list of XML tags, see XML Tags.
Dynamic Configuration

The WFC Voice configuration file defines the operational environment of the SIP client running on Zebra mobile Android devices. It has various elements that define the network location of the PBX and, for each device, unique 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 WFC Voice for enterprise operation.
- Provides a flexible delivery environment for the customized configuration.
- Provides a method for shared device use without manually reloading the configuration.
- Provides backward compatibility for existing customers.

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

Dynamic Configuration Overview

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

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

General Device Use Cases

Typical use cases where dynamic configuration may be useful.

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

There are three stages of device life-cycle in the customer environment that affect how WFC Voice obtains the suitable runtime configuration:

- Initialized out of the box configuration (no configuration)
- A rebooted device previously configured
- A device reassigned to a new extension / user

Device Identification

This section describes how the system identifies each mobile device.
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 XML and passed to the PBX at registration time.

Profile Configuration

For WFC Voice to connect to a PBX, the Profile section of the WFConnect.xml file must contain XML tags which the device uses.
The Profile XML tags are used to:

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

**NOTE:** Any element in the WFC Voice configuration file can be replaced with a variable.

Connection Attributes

The profile section requires:

- An IP address in the sip_remhost field to target the appropriate PBX.
- A user ID (sip_userid) and password (sip_pass) to identify the client to the PBX.
The sip_userid and sip_userpass provide access to the PBX as shown in the following example:

```xml
<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>
```
Enable Using Dynamic Configuration

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

Enabling Dynamic Configuration

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

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

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

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 the WFC Voice sign-in screen. When the display tag for an entry is set to true, users can select a profile from the list.

When the display tag is 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>
</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 WFC Voice looks for the XML file on the device (a local file) or at a network location, for example:

- **Local** - `file:///WFConnect/wfcvariable.xml`
- **HTTP** - `http://10.5.90.10/wfcvariable.xml`
- **HTTPS** - `https://10.5.90.10/wfcvariable.xml`
- **TFTP** - `tftp://10.5.90.10/wfcvariable.xml`
This provides options for deploying the configuration files. For example, an enterprise using an MDM may supply both the Profile section and the variable file to the device and also have a central location for the variable file.

**DHCP Option 150**

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

**Configuration Resynchronization**

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

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

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

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

Figure 2: Dynamic Configuration Start-Up Process
Dynamic Configuration Start-Up - Client Side

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

**Figure 3:** Dynamic Configuration Start-Up Process - Continued
XML File Examples

This section describes the standard profile and different ways WFC Voice is able to retrieve a Dynamic Workforce Configuration XML file. Options include local XML and TFTP downloaded XML configuration.

Figure 4: XML Files Example

**Standard Config**

(Legacy Mode)

```xml
<WFC>  
  <Profile>  
    <profile_type>PBX</profile_type>  
    <sip_mac>aaaabbbccc1</sip_mac>  
    <sip_remohost>192.168.10.50</sip_remohost>  
  </Profile>  
</WFC>
```

**Dynamic Mode**

Network Services – Option 60 Support in Sunrise products

WFConnect.xml file

```xml
<WFC>  
  <Profile>  
    <var_location>http://[Option 186][Option 188]/var_location</var_location>  
  </Profile>  
</WFC>
```

MDM or Side loaded config file

WFConnect.xml file

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

**Variable File**

Wfcvariable.xml

```xml
<User>
  <Entry>
    <display>false</display>
    <profname>10001</profname>
    <password>abc123</password>
    <prof_description>boss</prof_description>
    <sip_mac>aaaabbbccc1</sip_mac>
    <sip_remohost>192.168.10.50</sip_remohost>
    <layout_location>http://192.168.10.10/WFConnect/buttons_1001.xml</layout_location>
  </Entry>
</User>
```

**Buttons_1001.xml**

```xml
<Dashboard>
  <Button>
    <title>History</title>
    <action>HISTORY</action>
    <value></value>
    <enabled>True</enabled>
    <confirm>false</confirm>
    <description></description>
    <fg_color>#FF0000</fg_color>
    <icon></icon>
  </Button>
</Dashboard>
```
Testing Remote Dynamic Configuration

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

About this Task
To set up a lab system:

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

Figure 5: Server Manager
5. Set the folder for the WFC Voice configuration file repository.

**Figure 6: Edit Virtual Directory**

6. Test the settings to verify the system and default user can access the files.

7. To test accessibility of the files, point your browser to the web site.

8. After determining access to the files, modify the XML files accordingly:
   a) An example of remote access in WFConnect.xml is:

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

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

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

**Results**

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.
Use WFC Voice settings to configure and customize WFC Voice.

Accessing Settings

Access WFC Voice settings from the menu.

Procedure
1. Launch WFC Voice.
   • Touch ☰.
   • Or, swipe right from the left side of the screen.
2. Touch Settings. The password dialog box appears.
3. Enter password (default: zamboni).
4. Touch Enter. The password is preserved until the app quits.

Exit, Reload, or Sign Out

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

Exiting WFC Voice

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

Procedure
• Choose one of the following methods for exiting the WFC Voice app.
  • Go to Settings >Stop Service > Yes.
  • Initiate the action 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.STOP_APP
```
**Reloading WFC Voice:**

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

*Procedure*

- Choose one of the following methods for reloading the WFC Voice app.
  - Touch 回 > Reload.
  - Initiate the action 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
```

**Signing Out of WFC Voice**

Sign Out of WFC Voice from inside the app or using ADB, an MDM, or a third party app.

*Procedure*

- Choose one of the following methods for signing out of the WFC Voice app.
  - Touch 回 > Sign Out.
  - Initiate the action 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
```

**Disabling Sign Out**

Configure the Sign Out option using XML or Extension Manager.

*Procedure*

- Disable the Sign Out option by setting the disable_menu_sign_out parameter to true in the XML configuration file.
  - If the disable_menu_sign_out parameter is not set or set to false, the Sign Out option is available from the three-line menu.
  - If the disable_menu_sign_out parameter is set to true, the Sign Out option is not available from the three-line menu.

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

XML example of Disable Menu Sign Out.

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

Profile Settings

Creating, editing, loading and saving a settings profile.

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

Creating a Profile

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

Procedure

1. Go to Settings.
2. Touch the menu button, then Create new profile.
3. Touch Save current profile.
4. Enter a file name for the new profile.
5. Touch Save. The file is saved in the WFConnect folder.
6. Touch the Back button to return to the WFC Voice home screen.

Changing a Profile Name

Change the name of the current profile.

Procedure

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

Setting the Shared Profiles URI

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

Procedure

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 WFC Voice, go to Settings.
4. Touch Shared Profiles URI.
5. Enter the URI of the shared profile.
6. Touch OK.
7. Touch the Back button to return to the WFC Voice home screen.

Load New Profile

Load profiles previously saved to the:
• WFConnect folder
• SD Card

Loading a New Profile Using the GUI

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

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

Loading a New Profile Using XML

Load a new profile using the XML configuration file.

Procedure
• Update the Profile tag in the XML configuration file.

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

Loading a Profile Using ADB Commands

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

Procedure

• 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.

Procedure

1. Go to Settings.
2. Touch Save current profile. The current profile name appears.
3. Touch Save. The file is saved in the WFConnect folder.
4. Touch the Back button to return to the WFC Voice home screen.

Edit a Profile Using XML

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

Connection Parameters

Configuring up to four PBX types.

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 GUI or WFConnect.xml file.

To configure the default PBX (PBX#1 Configuration) see Configure WFC Voice.

Configuring Multiple PBX Types

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

About this Task

**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 an ASTERISK call manager.

Procedure

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

Refer to the Getting Started chapter of the WFC Voice Client Administrator Guide for the desired PBX type.

7. Touch the Back button to return to the Connection Parameters screen.

8. Repeat steps 5 through 7 for up to two more PBX types (optional).

9. Touch the Back button to return to the WFC Voice home screen.

Example

XML example of configuring multiple PBX types.

```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>
  </Profile>

  <Profile>
    <profile_type>Licensed PBX Two</profile_type>
    <sip_userid>1002</sip_userid>
    <sip_userpass>1234</sip_userpass>
    <sip_device_type>8865</sip_device_type>
    <sip_mac>00-11-22-33-44-55</sip_mac>
    <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>
  </Profile>

...</WFConnect>
```

Audio Settings

Configuring advanced audio settings.

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

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

Accessing Audio Settings

Access the advanced audio settings.
**Procedure**

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

**Audio Codecs Priorities**

Available audio Codecs priorities.

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

<table>
<thead>
<tr>
<th>Field Type</th>
<th>Description</th>
<th>XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPUS</td>
<td>When selected, assigns preference priority for OPUS Voice codec negotiations between PBX and WFC Voice.</td>
<td><code>&lt;codec_ulaw_priority&gt;1&lt;/codec_ulaw_priority&gt;</code></td>
</tr>
<tr>
<td>G.711 u-Law</td>
<td>When selected, assigns preference priority for G.711 u-LAW Voice codec negotiations between PBX and WFC Voice.</td>
<td><code>&lt;codec_ulaw_priority&gt;2&lt;/codec_ulaw_priority&gt;</code></td>
</tr>
<tr>
<td>G.729</td>
<td>When selected assigns preference priority for G.729 Voice codec negotiations between PBX and WFC Voice.</td>
<td><code>&lt;codec_g729_priority&gt;4&lt;/codec_g729_priority&gt;</code></td>
</tr>
<tr>
<td>G.722</td>
<td>When selected assigns preference priority for G.722 Voice codec negotiations between PBX and WFC Voice.</td>
<td><code>&lt;codec_g722_priority&gt;5&lt;/codec_g722_priority&gt;</code></td>
</tr>
<tr>
<td>GSM</td>
<td>When selected assigns preference priority for GSM Voice codec negotiations between PBX and WFC Voice.</td>
<td><code>&lt;codec_gsm_priority&gt;6&lt;/codec_gsm_priority&gt;</code></td>
</tr>
</tbody>
</table>

**Setting Audio Codecs Priorities**

Set the audio Codecs priorities using the GUI or XML.

**Procedure**

1. In **Audio Settings**, select **Audio Codecs Priorities**.
2. Select the Codec preference (default order preferred). See table for descriptions.
3. Touch **Back** button to return to the WFC Voice home screen.
Example
XML example of setting the audio Codecs priorities.

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

Jitter Buffer
Setting Jitter Buffer initial delay and maximum size settings.

Setting Jitter Initial Delay
Set the Jitter Initial Delay using the GUI or XML.

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

Example
XML example of setting the Jitter Initial Delay.

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

Setting Jitter Buffer Max Buffer Size
Set the maximum Jitter Buffer size using the GUI or XML.

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

Example
XML example of setting the maximum Jitter Buffer size.

```
<WFConnect>
  <Profile>
    <jitter_max>250</jitter_max>
  </Profile>
</WFConnect>
```
RTP Parameters

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

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

Set the RTP Payload size using the GUI or XML.

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

**Example**

XML example of RTP Payload size.

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

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

Set the First RTP Port using the GUI or XML.

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

**Example**

XML example of First RTP Port.

```
<WFConnect>
<Profile>
    <sip_rtp_port1>50000</sip_rtp_port1>
</Profile>
...</WFConnect>
```
Setting Last Real-Time Transport Protocol (RTP) Port

Select the Last RTP Port using the GUI or XML.

Procedure

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

Example

XML example of Last RTP Port.

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

Audio Enhancements

Enable and disable audio enhancements using the GUI or XML.

Configuring Audio Enhancements

Configure audio enhancements using the GUI or XML.

About this Task

Set the following audio enhancements:

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

Procedure

1. In Audio Settings, scroll down to Audio Enhancements.
2. Tap the check boxes next to the items to enable (default: disabled).
3. Touch the Back button to return to the WFC Voice home screen.
Example

XML example of the audio enhancements.

```xml
<WFConnect>
  <Profile>
    <use_aec>false</use_aec>
    <use_noise>false</use_noise>
    <use_agcSpeaker>false</use_agcSpeaker>
    <use_agcEar>false</use_agcEar>
  </Profile>
  ...
</WFConnect>
```

Setting Input / Output Audio

Set the input / output volume using the GUI or XML.

Procedure

1. In **Audio Settings**, scroll down to **Audio Enhancements**.
2. Use the slider to select the volume levels for **Input Audio Volume** and **Output Audio Volume** (default 1).
3. Touch the **Back** button to return to the WFC Voice home screen.

Example

XML example of the input / output volume.

```xml
<WFConnect>
  <Profile>
    <audio_gain_in>1</audio_gain_in>
    <audio_gain_out>1</audio_gain_out>
  </Profile>
  ...
</WFConnect>
```

Setting Audio Debugging Tools

About this Task

Set the following audio debugging tools using the GUI or XML.

- Show jitter stats
- Save incoming voice
- Native Sample Rate

Procedure

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

Example
XML example of the audio debugging tools.

```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

Controlling the appearance and functionality of WFC Voice.

Use the GUI to configure the User Interface. Settings made in the GUI are saved to the XML file. The GUI settings and the XML file drives the WFC Voice look and functionality. Alternatively edit the XML file, WFConnect.xml, to make the same GUI settings. The saved WFConnect.xml file can be modified and use 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 XML configuration file has the following sections which must be present in the file and in the following order:

- Profile section
- Dashboard section
- Call buttons section.

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

Accessing UI Settings

Access UI settings from the WFC Voice app.

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

Configuration File Sections

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

Profile Section

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

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

Unless specified, the Profile section of WFC Voice 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 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.

**Dashboard Section**

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

The Dashboard displays functions and features specific to the end user. A maximum of 12 buttons can be displayed on the screen; additional buttons are accessed by scrolling up and down. Use the WFC Voice GUI or WFConnect.xml file to customize the Dashboard. 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 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**

Choose a background logo from the icon library or the device SD card using the GUI or XML.
Choosing a Logo from the Icon Library

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

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

Example
XML example of choosing a background logo.

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

Creating a Custom Background Logo

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

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

Choosing a Logo from the SD Card

Choose a custom background logo from the SD card using the GUI or XML.

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

Example
XML example of choosing a custom background logo.

```xml
<WFConnect>
  <Profile>
    <background_logo>custom_logo.png</background_logo>
  </Profile>
  ...
</WFConnect>
```
Graphical User Interface Design Tool

Use the GUI Design Tool to customize the Dashboard and In-Call screen from within WFC Voice. Configure each to fit the specific needs of the customer. The appearance of WFC Voice is configured using the GUI or by directly modifying the WFConnect.xml file. Details on specific XML settings and the construct of the XML configuration file are discussed in more detail later in this guide.

Accessing the GUI Design Tool

Access the GUI Design Tool from the WFC Voice app.

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

UI Settings GUI Design Tool

This section describes the buttons available for each area.

Figure 7: GUI Design Tool - Dashboard

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

Configure buttons on the Home screen dashboard except for the footer buttons.

*Figure 8: Home Screen Dashboard*

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dashboard Buttons</td>
</tr>
<tr>
<td>2</td>
<td>Footer (Not Configurable)</td>
</tr>
</tbody>
</table>
In-Call Buttons

Configure buttons on the In-Call dashboard except for the footer buttons.

Figure 9: In-Call Dashboard

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In-Call Dashboard Buttons (Configurable)</td>
</tr>
<tr>
<td>2</td>
<td>In-Call Footer (Not Configurable)</td>
</tr>
</tbody>
</table>

Buttons Settings

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

Configuring the Call Button

Configure the Call button using the GUI or XML.

About this Task

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.

Procedure

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

Example

XML example of configuring the Call button.

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

Configuring the Dial Button

Configure the Dial button using the GUI or XML.

About this Task

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.

Procedure

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

8. Touch **Icon** and select an icon from the **Select Icon** menu. See **Icons**.

9. Touch **BG** to set the background color. See **Setting Button Background Color**.

10. Touch **FG** to set the foreground text color. See **Setting Button Text Color**.

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

**Example**

XML example of configuring the Dial button.

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

**Configuring the Start App**

Configure the Start App button sing the GUI.

**About this Task**

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

**Procedure**

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

2. Select the new button. A yellow box appears around the selected button.

3. Touch **Edit**.

4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).

5. Touch **Action** and select **START_APP**.

6. Touch **Select App Package** and select the application from the **Select App Package** menu.

7. In the **Title** field, enter the application name.

8. In the **Description** field, enter a short description of the button function.

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

**Example**

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

```xml
<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>
```

**Configuring the Log Marker**

Configure the Log Marker using the GUI or XML.

**About this Task**

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

**Procedure**

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

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

Configuring Speed Dial 0-9

Configure the Speed Dial button using the GUI or XML.

About this Task
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.

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

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

Configuring the Redial Button

Configure the Redial button using the GUI or XML.

About this Task
Redial places a telephone call to the most recently call location.

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

Example
XML example of configuring the Redial button.

```xml
<Dashboard> or <CallButtons>
...
<Button>
```
Configuring the Suspend Mode Button

Configure the Suspend Mode button using the GUI or XML.

**About this Task**

Suspend Mode blocks all incoming or outgoing calls.

**Procedure**

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

**Example**

XML example of configuring the Suspend Mode button.

```xml
<Dashboard> or </CallButtons>
...
<Button>
  <title>Suspend Mode</title>
  <action>SUSPEND_MODE</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description>Block all incoming calls</description>
  <bg_color>#FF001425</bg_color>
</Button>
...
Configuring the History Button

Configure the History button using the GUI or XML.

**About this Task**
History lists recently called numbers and incoming calls, including missed calls.

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

**Example**
XML example of configuring the History button.

```xml
<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>#FF001425</fg_color>
  <icon>Default</icon>
</Button>
```

Configuring the Contacts Button

Configure the Contacts button using the GUI or XML.

**About this Task**

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

**Procedure**

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

**Example**

XML example of configuring the Contacts button.

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

Configuring the Favorites Button

Configure the Favorites button using the GUI or XML.
About this Task
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.

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

Example
XML example of configuring the Favorites button.

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

Configuring the Voicemail Button

Configure the Voicemail button using the GUI or XML.

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

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

Example
XML example of configuring the Voicemail button.

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

Configuring the Do Not Disturb Button

Configure the DND button using the GUI or XML.

Before You Begin
DND is enabled/disabled using Feature Access Code (FAC).

About this Task
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.
**Procedure**

1. In UI Settings, select Edit Dashboard or Edit In-Call > Add.
2. Select the new button. A yellow box appears around the selected button.
3. Touch Edit.
4. Select the check box next to Confirm On Click to enable this (the default is Disabled).
5. Touch Action and select DO_NOTDISTURB.
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.
10. Touch BG to set the background color. See Setting Button Background Color.
11. Touch FG to set the foreground text color. See Setting Button Text Color.
12. Touch the Back button to return to the WFC Voice home screen.

**Example**

XML example of configuring the DND button.

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

**Configuring the Add Call Button**

Configure the Add Call button using the GUI or XML.

**About this Task**

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

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

Example
XML example of the Add Call button.

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

Configuring the Home Button
Configure the Home button using the GUI or XML.

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

NOTE: Only available on the In-Call screen.

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

Example
XML example of the Home button.

```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>
```

Configuring the Hold Button

Configure the Hold button using the GUI or XML.

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

NOTE: Only available on the In-Call screen.

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

6. In the Title field, enter Hold.

7. In the Description field, enter a short description of the button function.

8. Touch Icon and select an icon from the Select Icon menu. See Icons.

9. Touch BG to set the background color. See Setting Button Background Color.

10. Touch FG to set the foreground text color. See Setting Button Text Color.

11. Touch the Back button to return to the WFC Voice home screen.

Example

XML example of the Hold button.

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

Configuring the Resume Button

Configure the Resume button using the GUI or XML.

About this Task

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

NOTE: Only available on the In-Call screen.

Procedure

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

8. Touch **Icon** and select an icon from the **Select Icon** menu. See **Icons**.

9. Touch **BG** to set the background color. See **Setting Button Background Color**.

10. Touch **FG** to set the foreground text color. See **Setting Button Text Color**.

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

**Example**

XML example of the Resume button.

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

**Configuring the Transfer Button**

Configure the Transfer button using the GUI or XML.

**About this Task**

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

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

**Procedure**

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

2. Select the new button. A yellow box appears around the selected button.

3. Touch **Edit**.

4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).

5. Touch **Action** and select **TRANSFER**.

6. In the **Title** field, enter **Transfer**.

7. In the **Description** field, enter a short description of the button function.

8. Touch **Icon** and select an icon from the **Select Icon** menu. See **Icons**.
9. Touch **BG** to set the background color. See Setting Button Background Color.

10. Touch **FG** to set the foreground text color. See Setting Button Text Color.

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

**Example**

XML example of the Transfer button.

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

**Configuring the Complete Button**

Configure the Complete button using the GUI or XML.

**About this Task**

This internal type is used for call transfer.

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

**Procedure**

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

2. Select the new button. A yellow box appears around the selected button.

3. Touch **Edit**.

4. Select the check box next to **Confirm On Click** to enable this (the default is Disabled).

5. Touch **Action** and select **COMPLETE**.

6. In the **Title** field, enter **Complete**.

7. In the **Description** field, enter a short description of the button function.

8. Touch **Icon** and select an icon from the **Select Icon** menu. See **Icons**.

9. Touch **BG** to set the background color. See **Setting Button Background Color**.

10. Touch **FG** to set the foreground text color. See **Setting Button Text Color**.

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

XML example of the Complete button.

```xml
<CallButtons>
  ...
  <Button>
    <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>
  </Button>
  ...
</CallButtons>
```

Configuring the End Call Button

Configure the End Call button using the GUI or XML.

About this Task

This function ends a call in any state. It is pushed back from WFC Voice to the PBX. Placing the End Call button on the in-call dashboard replaces the default End Call button.

NOTE: Only available on the In-Call screen.

Procedure

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

XML example of the End Call button.

```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>
```

Configuring the Default List Button

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

About this Task

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

NOTE: Only available on the In-Call screen.

Procedure

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

XML example of the List button.

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

After You Finish

Configure the 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, create a list with three custom buttons (Bedding, Electronics and Toys).

**Figure 10: List Button Example**

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

<Button>
    <title>Electronics</title>
    <action>CALL</action>
    <value>1122</value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description>Electronics Department</description>
    <bg_color>#FF001425</bg_color>
    <fg_color>#FFFFFFFF</fg_color>
    <icon></icon>
</Button>

<Button>
    <title>Toys</title>
    <action>CALL</action>
    <value>1133</value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description>Toys Department</description>
    <bg_color>#FF001425</bg_color>
    <fg_color>#FFFFFFFF</fg_color>
    <icon></icon>
</Button>

Configuring the Blank Button

Configure the Blank button using the GUI or XML.

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

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

**Example**

XML example of the Blank button.

```xml
<Dashboard> or <CallButtons>

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

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

**Configuring the Reload Button**

Configure the Reload button using the GUI or XML.

**About this Task**

Reload allows a user to sign out and then automatically sign back in to WFC Voice.

**Procedure**

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

**Example**

XML example of the Reload button.

```xml
<Dashboard> or <CallButtons>

... <Button>
  <title>Sign Out</title>
</Button>

</Dashboard> or </CallButtons>
```
This action can also be initiated using ADB, an MDM, or a third party app. For example, in ADB you can use the following command:

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

Configuring the Sign Out Button

Configure the Sign Out button using the GUI or XML.

**About this Task**

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

**Procedure**

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

**Example**

XML example of the Sign Out button.

```xml
<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>
```

```xml
</Dashboard> or </CallButtons>
```
This action can also be initiated using ADB, an MDM, or a third party app. For example, in ADB you can use the following command:

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

## Configuring the Ringtone Button

Configure the Ringtone button using the GUI or XML.

### About this Task

Ringtone allows a user set the default WFC Voice ringtone.

### Procedure

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

### Example

XML example of the Ringtone button.

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

## Configuring the Add Department Button

Configure the Add Department button using the GUI or XML.
About this Task

NOTE: This feature requires Profile Manager.

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

Procedure

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

Example

XML example of the Add Department button.

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

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

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

Configuring the Change Department Button

Configure the Change Department button using the GUI or XML.
About this Task

NOTE: This feature requires Profile Manager.

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

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

Example
XML example of the Change Department button.

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

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

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

Icons

Choose an icon from the library, use a custom icon, and change icon size and position.
Choosing a Button from the Icon Library

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

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

Example

XML example of choosing a button from the icon library.

```xml
<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>
```

Choosing a Custom Icon

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

Before You Begin

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

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

Example

XML example of choosing a custom icon.

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

Setting the Icon Scale Type

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

Procedure

1. In UI Settings, select Edit Dashboard or Edit In-Call > Add.
2. Select the new button. A yellow box appears around the selected button.
3. Touch Edit.
4. In the Scale field, select a scale type.
   
   - CENTER_INSIDE - Position 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.

5. Touch the Back button to return to the WFC Voice home screen.

Example

XML example of setting the scale type for an icon.

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

Button Color

Customize the background color and text color for a button.

Setting Button Background Color

Set the Button Background Color using the GUI or XML.

About this Task

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

Procedure

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

XML example of setting the Button Background Color.

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

### Setting Button Text Color

Set the Button Text Color using the GUI or XML.

**About this Task**

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

**Procedure**

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

**Example**

XML example of setting the Button Text Color.

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

### Global Button Color Settings

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

### Setting Global Button Background Color

Set the Button Background Color using the GUI or XML.

**Procedure**

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

Example
XML example of setting the Button background color.

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

Setting Global Button Text Color

Set the Button Text Color using the GUI or XML.

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

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

Example
XML example of setting the Button Text Color.

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

Resetting Colors to Default

Reapply the factory default button colors.

Procedure
1. In UI Settings, select Reset colors to default.
2. Touch the Back button to return to the WFC Voice home screen.
Restoring Buttons

Reapply the factory default buttons and their layout.

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

Call Settings

Configuring advanced call settings.
This section provides detailed information on configuring advanced call settings.

Accessing Call Settings

Access Call setting using the GUI.

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

Setting the Call Waiting Volume

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

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

Example
XML example of setting the Call Waiting volume.

```xml
<WFCConnect>
  <Profile>
    <callwaiting_volume>80</callwaiting_volume>
  </Profile>
  ...
</WFCConnect>
```

Setting the Call Waiting Interval

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

Procedure
1. In Call Settings, slide the Call Waiting Interval slider (default 2000).
2. Touch Back to return to the WFC Voice home screen.
Example
XML example of setting the Call Waiting Interval.

```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.

Setting Ringer OFF In Charger

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

Procedure

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

Example

XML example of Ringer OFF In Charger.

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

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.

Setting Speaker Mode

Set Speaker mode using the GUI or XML.

Procedure

1. In Call Settings, select the check box next to **Disable Speaker Mode** to enable this (the default is Disabled).
2. Touch **Back** to return to the WFC Voice home screen.
Example
XML example of setting Speaker mode.

```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.

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

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

**Example**
XML example of setting Speaker on Table.

```xml
<WFConnect>
  <Profile>
    <speaker_on_horizontal>false</speaker_on_horizontal>
  </Profile>
  ... 
</WFConnect>
```
Call Accept Style

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

**Figure 11: Call Accept Buttons**

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accept-Reject Buttons - The operator touches one of two buttons to accept or reject an incoming call.</td>
</tr>
<tr>
<td>2</td>
<td>Sliding Tab - The operator swipes one of two buttons across the screen to accept or reject an incoming call.</td>
</tr>
<tr>
<td>3</td>
<td>Glow Pad - The operator touches a handset symbol to accept or reject an incoming call.</td>
</tr>
</tbody>
</table>

Configuring the Glow Pad Buttons

Configure the Glow Pad buttons using the GUI or XML.

**Procedure**

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

**Example**

XML examples of configuring the Glow Pad button.

Sliding Tab (Gingerbread)

```xml
<Profile>
```
Accept-Reject Buttons

Glow Pad Buttons (Jellybean)

**Setting Auto Answer Mode**

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

**Procedure**

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

**Example**

XML example of setting Auto Answer mode.

```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.

**Setting Incoming Call Voice Announcer**

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

**Procedure**

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

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

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

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

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

Example
XML example of setting Voice Command.

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

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

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

Procedure
1. In Call Settings, select the check box next to Voice Command Confirmation to enable this (Default: disabled).
2. Touch Back button to return to the WFC Voice home screen.
Example
XML example of setting Voice Command Confirmation.

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

No Audio Cutoff

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

Setting No Audio Cutoff

Enable or disable No Audio Cutoff using the GUI or XML

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

Example
XML example of setting No Audio Cutoff.

```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.

Selecting an Audio Prompt File

Transfer a custom WAV audio file to the device.

Procedure
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.
4. In Call Settings, select **Audio Prompt File**.
5. Select an audio file.
6. Touch **Back** button to return to the WFC Voice home screen.

**Example**
XML example of selecting an Audio Prompt file.

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

**MOH Enabled**
Music on Hold (MOH) Enabled plays a WAV audio file when a user is placed on hold.

**Setting MOH Enabled**
Enable or disable MOH Enabled using the GUI or XML.

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

**Example**
XML example of MOH Enabled.

```
<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.

**Selecting a MOH File**
Before selecting a custom WAV audio file, save the file to the device.

**Procedure**
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.
3. In Call Settings, select **MOH File** (requires MOH Enabled).
4. Select an audio file.
5. Touch **Back** button to return to the WFC Voice home screen.

**Example**

XML example of selecting a MOH File

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

# Ringtones

Configuring WFC Voice ringtones.
Configure advanced ringtone settings using the GUI or XML.

## Accessing Ringtone Settings

Access Ringtone settings using the GUI.

**Procedure**

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

## Setting Line Ringtones

Set Line Ringtones using the GUI or XML

**Procedure**

1. In Ringtones, select **Line Ringtones**.
2. Select a line for which to configure the ringtone.
3. To select the default ringtone, touch **Default**.
4. To select an Android ringtone:
   a) Touch **Android Ringtones**.
   b) Select a ringtone.
   c) Touch **OK**.

5. To select a ringtone from Library:
   a) Touch **WFCVoice Library**.
   b) Select a ringtone.

6. To select a ringtone on the device:
   a) Touch **Custom Ringtones**.
   b) Select a ringtone.

7. Touch **Back** to return to the WFC Voice home screen.

**Example**

XML example of setting Line Ringtones.

```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**

Locating help files and editing the settings password.

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

**Accessing Miscellaneous Settings**

Access Ringtone settings using the GUI.

**Procedure**

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

**Sign OUT in Charger**

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

Set Sign OUT in Charger using the GUI or XML.

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

Example
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

Set the Flexible TLS using the GUI or XML.

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

Example
Using XML

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

WiFi Preferred

By default, WFC Voice 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

Set WiFi Preferred using the GUI or XML.

Procedure

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

Example

XML example of setting WiFi Preferred.

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

Help URL

The location of the on-device help file.

Setting Help URL

Set the Help URL using the GUI or XML.

Procedure

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

Example

XML example of setting the Help URL.

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

Settings Password

WFC Voice uses a password to access the settings.
Settings

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

Changing the Settings Password

Change the settings password using the GUI.

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

Additional Profile URI

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

Setting Additional Profile URI

Set the Additional Profile URI using the GUI or XML.

Procedure
1. In Miscellaneous Settings, select Additional Profile URI.
2. Set the additional profile URI location.
3. Touch OK.
4. Touch the back button to get back to the WFC Voice home screen.

Example
Example XML of setting Additional Profile URI.

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

Show Extension Name

NOTE: Requires Profile Manager.

By default, extensions display in WFC Voice dashboard header line and extensions list as just the extension number. Use Show Extension Name to display extensions using the both the extension number and the description set in the PBX.
**Setting Show Extension Name**

Set the Show Extension Name using the GUI or XML.

**Procedure**

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

**Example**

XML example of setting the Show Extension Name.

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

**Contacts URL**

The URL of a contacts list saved as a CSV file on a remote or local server. For information on creating a contacts list see #unique_202.

**Setting Contacts URL**

Set the Contacts URL using the GUI or XML.

**Procedure**

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

**Example**

XML example of setting Contacts URL.

```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

Create a contacts list using a spreadsheet program.

Procedure

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

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

2. Enter contact information as needed. For example:

3. Save the spreadsheet as a CSV file.

Syncing Contacts

Sync contacts using the GUI.

Procedure

1. From the host computer, copy the CSV file to the WFConnect folder on device.
2. From WFC Voice, select Settings > Advanced Setting > Miscellaneous Settings.
3. Select Sync Contacts. A confirmation that the contacts are updated displays.
This chapter describes the process used to capture and collect WFC Voice log files and Fusion log files. The Log Marker feature records the date and time of an event into a log file. Log files are used to assist in troubleshooting the WFC Voice environment during run-time operations.

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

### Accessing Logging Settings

Access the Logging settings using the WFC Voice GUI.

**Procedure**

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

### Logging Level

Available logging levels are:

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

### Setting Logging Level

Set the logging level using the GUI or XML.
Procedure

1. In Logging, select Logging level.
2. Choose a level for Logging. Default level “Error” is suggested.
3. Touch Back button to get back to the WFC Voice home screen.

Example

XML example of setting logging level.

```xml
<wfconnect>
  <profile>
    <log_level>Error</log_level>
  </profile>
  ...
</wfconnect>
```

Logging Types

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

Setting Logging to File

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

Procedure

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

Example

XML example of setting Logging to File.

```xml
<wfconnect>
  <profile>
    <log_console>false</log_console>
  </profile>
  ...
</wfconnect>
```

Setting SIPCLF Logging

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

Procedure

1. In Logging, select SIPCLF Logging.
2. Touch the box to enable SIPCLF Logging. The file is saved in the WFConnect folder.

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

Example
XML example of setting SIPCLF Logging.

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

Log Files

Two types of log files can be collected:
- Workforce Connect Logs
- Fusion Logs

**Workforce Connect Logs**

WFC Voice has the following logging methods:
- Android LogCat - LogCat provides a mechanism for collecting and viewing system and applications messages. By default, WFC Voice automatically logs all messages into LogCat at the VERBOSE level. When Logging to File is enabled, WFC Voice logs all messages in the WFConnect folder.
- 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: /WFConnect/
WFConnect_<device_id>_<timestamp>.clf

**Fusion Logs**

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

**Collecting LogCat with RxLogger**

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

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

About this Task

When RxLogger starts, it overwrites the setting level to VERBOSE. When using RxLogger, WFC Voice logging is disable and all logging is posted through RxLogger. Users can customize WFC Voice logging in the RxLogger configurations.

LogCat sets the VERBOSE level in WFC Voice.

Procedure

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

Debug Log Markers

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

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

Adding a Log Marker for Debugging

Add a Log Marker from the WFC Voice main screen.

Procedure

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

Configure the Log Marker

The Log Marker feature is accessed only by the WFC Voice 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 Configuring the Log Marker.

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

Fusion Logs are enabled in Wi-Fi settings.

Enabling Fusion Logs In Android 6.1 or 7.1.2

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

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

NOTE: Powering off the device will delete the collected fusion logs.

Enabling Fusion Logs In Android 8.1

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

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

NOTE: Powering off the device will delete the collected fusion logs.

Capturing the Logs

Capture the WFC Voice logs to a device.

About this Task
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.
Procedure
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.
Headless Mode and WFCVoice Service

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

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

**Figure 12: WFCVoice Service**

![WFCVoice Service Diagram](image)

**WFCVoice Service Plug-in**

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, 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. Third party applications implement ConnectorCallback and pass it to a WFCVoiceConnector object during initialization.
Headless Mode and WFCVoice Service

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

Integrating WFCVoice Service Plug-in

Integrate the WFCVoice Service Plug-in.

Before You Begin
To obtain the JAR file for the WFCVoice Service plugin, contact your Zebra account representative.

Procedure
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

Enabling Headless Mode

Enable Headless mode using the GUI or XML.

Procedure
1. Launch WFC Voice.
2. Touch ☁ > Settings.
   The password dialog box appears.
3. Enter password (default: zamboni).
4. Touch Enter. The password is preserved until the app quits.
5. Select Advanced Settings > UI Settings
7. Select Back to return to the WFC Voice home screen.

Example
XML example of enabling Headless mode.

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

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

**Figure 13: WFCDemo Idle State**

In the previous figure, WFCDemo is in an idle state displaying WFC Voice status in the blue box.

**Figure 14: Incoming Call**

In the previous figure, the application plays a custom ring tone and the user selects:
• Accept
• Reject
• More, to display the WFCVoice incoming screen.

Figure 15: Active Call
In the previous figure, the WFCDemo screen controlling a call (end, speaker, mute). Selecting More accesses advanced controls by displaying the WFCVoice In-Call screen, shown in the following figure.

**Figure 16: WFCVoice In-Call Screen**
This section provides information on:

- Initiating a call with a third party app.
- Broadcasting the WFC Voice app status to a third party app.

## Initiating a Call

### Procedure
- 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.VIEW`

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

```bash
$ adb shell am start -a android.intent.action.CALL -d sip:2001
$ adb shell am start -a android.intent.action.VIEW -d csip:2001
```

## Report App State

WFC Voice 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);
```
Using the Client

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

With WFC Voice you can:

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

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

Home Screen Dashboard

Examples of the Home screen dashboard.
Using the Client

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

**Figure 17:** Home Screen Dashboard

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Single Line</td>
</tr>
<tr>
<td>2</td>
<td>Multiple Lines</td>
</tr>
<tr>
<td>3</td>
<td>Dashboard Header Line Status</td>
</tr>
<tr>
<td>4</td>
<td>Dashboard Extensions List</td>
</tr>
<tr>
<td>5</td>
<td>Dashboard Buttons</td>
</tr>
<tr>
<td>6</td>
<td>Dashboard Footer Buttons</td>
</tr>
</tbody>
</table>

**Figure 18:** EC30 Home Screen Dashboard
In-Call Dashboard

Examples of the In-Call dashboard.

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

**Figure 19:** In-Call Dashboard

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In-Call Header Line Status</td>
</tr>
<tr>
<td>2</td>
<td>In-Call Action Buttons</td>
</tr>
<tr>
<td>3</td>
<td>In-Call Dashboard Buttons</td>
</tr>
<tr>
<td>4</td>
<td>In-Call Footer Buttons</td>
</tr>
</tbody>
</table>

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

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

- Excellent
- Good
- Acceptable
- Bad

Initiate a Call

There are various ways to initiate a telephone call:

- Touch \( \text{ } \) to enter a specified extension or phone number, and then touch \( \text{ } \) to initiate a call.
- Touch \( \text{ } \) to display a list of previous calls. See Call History for more information.
- Touch \( \text{ } \) to display a list of saved contacts. See Contacts for more information.
- Touch \( \text{ } \) to display a list of favorite contacts. See Favorites for more information.
- Touch \( \text{ } \) to initiate a call to the most recently dialed location.
- Touch \( \text{ } \) to initiate a call to a number preset by the system administrator
- Press the PTT button to initiate a call using voice commands. See Voice Commands.

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

Voice Commands

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

Using Voice Commands

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

Before You Begin

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

Procedure

1. Press and release the (Push to Talk) PTT button to initiate a call.
2. Upon hearing the grant tone, say **Call** or **Dial** and the specified extension, phone number, or contact name. When calling a contact you can also say the phone type (mobile, work, or home).

- If multiple entries are found, the system prompts you to make a choice. Only the first 10 entries are made available when using voice commands.
- If no user or phone number entries are found, the system responds that the entry was not found.

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

- If an invalid selection is made, the system responds **I do not understand**.

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

### Receive a Call

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

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

### Popup Window

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

The popup window also appears when a WFC Voice call is received while using another Android app. When the call ends, the Home Screen Dashboard displays.

When an incoming call is through a wide area network (WAN), the WFC Voice call is placed on hold. If the WAN call is accepted, the WFC Voice call remains on hold.
To resume the WFC Voice call, open WFC Voice and touch ►.

**Figure 20:** Popup Window

![Popup Window](Image)

**Ending a Call**

The End Call feature ends a call in any state.
Procedure

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

Adding a Call

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

Procedure

1. Touch to display the dial pad.
2. Enter the new number and touch ✆.

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

Using Call Hold and Resume

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

Before You Begin
For information on setting up the Hold and Resume buttons, see Configuring the Hold Button and Configuring the Resume Button.

Procedure

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

• Touch to display the Hold screen.
Voicemail

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

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

Retrieving Voicemail Messages

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

Procedure

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

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of Messages Waiting</td>
</tr>
<tr>
<td>2</td>
<td>Line/Extension Messages</td>
</tr>
</tbody>
</table>

**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. Alternatively, retrieve voice messages by pressing the Message Waiting bar or the Voicemail button.

**Contacts**

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

**NOTE:** Add and edit contacts from the native Android operating system. Refer to the Android guide for more information.
Contacts synced with a Gmail account cannot be sorted within a group.

**Using Contacts**

Use the Contacts button to access stored contacts.

**Procedure**

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

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

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Saved Contact</td>
</tr>
<tr>
<td>2</td>
<td>Contacts screen on EC30 device</td>
</tr>
</tbody>
</table>
Using the Client

- To search for a specific contact, touch 🔍. For EC30, touch ⏯️ > Search. Search results display with available contacts at the top of the list.

- Touch a contact number to call that contact.

**Contact Presence Indicators**

Presence is supported when using Profile Manager.

**Table 1:** Contact Presence Indicators

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Gray Icon]</td>
<td>Contact is not assigned an extension.</td>
</tr>
<tr>
<td>![Green Icon]</td>
<td>Contact is available.</td>
</tr>
<tr>
<td>![Red Icon]</td>
<td>Contact in on a call.</td>
</tr>
<tr>
<td>![Red Icon with Exclamation Mark]</td>
<td>Contact is in Do Not Disturb (DnD) mode.</td>
</tr>
<tr>
<td>![Blue Icon]</td>
<td>Contact’s device missed the last check-in to Profile Manager.</td>
</tr>
<tr>
<td>![Blue Icon with Exclamation Mark]</td>
<td>Contact’s device has passed the check-in threshold.</td>
</tr>
<tr>
<td>![Yellow Icon]</td>
<td>Contact is assigned an extension but the contact’s device is not registered.</td>
</tr>
</tbody>
</table>

**Favorites**

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

Procedure

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

• To set contacts as favorites, touch ✫ next to a contact name in either the All or Favorites tabs.

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Favorite Contacts</td>
</tr>
</tbody>
</table>

• Touch a contact number to call that contact.

Call History

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

Before You Begin
For information on configuring the Call History button, see Configuring the History Button.

About this Task
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.

Procedure

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

Dialing from Call History

Initiate a call from Call History.
Using the Client

Procedure

• Touch a recent call to display the Call button 📞.

Deleting Call History

Delete a call from Call History.

Procedure

• Touch the Menu button, then Delete.

Advanced Calling Features

WFC Voice supports several advanced calling features.

Multiple Lines

WFC Voice supports and displays a presence icon displayed to the left of each line.

The shape, color, and animation of the presence icon indicates its type and status. The following table lists presence icon combinations.

Table 2: Presence Icon Descriptions

<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>🔄</td>
<td>🔄</td>
</tr>
<tr>
<td>Active (Solid Icon)</td>
<td>🔄</td>
<td>🔄</td>
</tr>
<tr>
<td>Call on Hold (Blinking Icon)</td>
<td>🔄</td>
<td>🔄</td>
</tr>
<tr>
<td>Busy / Registering Status text appears next to the extension (Solid Icon)</td>
<td>🔄</td>
<td>🔄</td>
</tr>
<tr>
<td>Busy in a call (Blinking Icon)</td>
<td>🔄</td>
<td>🔄</td>
</tr>
</tbody>
</table>

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

WFC Voice supports Busy indicators for multiple extension configurations. An icon is associated with each extension indicating if the line is idle, active, on hold, or busy. See Presence Icon Descriptions.
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 Configuring the Transfer Button.

There are two types of transfer:

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

Initiating a Transfer

Initiate a call transfer using the Transfer button.

Procedure

1. Touch ☎️ to display the dial screen.
2. Dial the number and touch 📞.
3. To complete Call Transfer Attended transfers, touch Complete Transfer.
4. To complete Call Transfer Blind transfers, touch Complete Transfer or end the call.

Miscellaneous Features

Setting Ringtone

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

Procedure

• Touch ☐️ > Ringtone to change the default ringtone for WFC Voice.

Using Reload

Sign out and then automatically sign back in to WFC Voice.

Procedure

• Touch ☐️ > Reload.

Using Sign Out

Sign out of WFC Voice.

Procedure

• To sign out of WFC Voice, touch ☐️ > Sign Out.
• To sign back in to WFC Voice, touch SIGN IN.
Using the Client

• To exit WFC Voice, sign out then touch ➕ > Quit.

Using Speed Dial Numbers

Speed Dial places a call to a preset number or extension. Up to 10 speed dial buttons are available. The system administrator configures speed dial numbers.

Procedure

• Touch the Speed Dial button ➔ to make a call using the preset destination.

Using 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.

About this Task

Procedure

• Touch the default DND button ➔ to enable Do Not Disturb on the selected line.

Using Suspend Mode

Suspend Mode blocks all incoming or outgoing calls.

Procedure

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

Using the List Button

List displays a speed dial list by default.

![NOTE: List is configured by the system administrator.

Procedure

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

Using the Home Button

Use the Home button to display the Dashboard and access to Dashboard functions.

Procedure

• During an active call touch Home.
Using the Client

Adjusting the Ring Volume

Configure using the device’s sound settings. Refer to the User Guide for your Zebra device at www.zebra.com/support for more information.

Unique Ringtone per Line Appearance

To configure ringtones per line, see Setting Line Ringtones.

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 or Ring Tone

Configure using the device’s sound settings. Refer to the User Guide for your Zebra device at www.zebra.com/support for more information.

Start Application

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

Log Markers

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

Adding a Log Marker

Add a log marker from the Home screen.

Procedure

1. Touch > Add Log Marker.
2. Enter a description (optional).
3. Touch SET.
Caller ID

The Caller ID feature displays calling party information on your display telephone that is signaled over ISDN or H.323 trunks. Refer to the 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. WFC Voice provides this capability automatically and does not go off-hook until the send key is pressed.

Profile Manager Features

These features require Profile Manager.

When using Profile Manager, some options and information may appear different in the three-line menu.

- Department, roles, user name, ID, or other information may display at the top of the menu.
- The Switch Role button replaces the Reload button. Use the Switch Role button to change the Profile Manager role. Refer to the Workforce Connect Profile Client Device User’s Guide for more information.

Adding a Department

Use Add Department to select from list of all available department extensions.

About this Task

If an extension was previously configured on the device it is automatically selected. Users can add multiple extensions.

Procedure

1. Touch Add Department. WFC Voice reloads and displays the Add Department list.
2. Touch one or more extensions to select them. Check marks appear next to selected extensions.
3. Touch Apply. The selected extensions and any previously configured extensions are added to the Dashboard.

Changing a Department

Use Change Department to select from a list of all available department extensions.

About this Task

Previously configured extensions are automatically selected.
Procedure

1. Touch **Change Department**. WFC Voice reloads and displays the Change Department list.
2. Touch one or more extensions to select them. Check marks appear next to selected extensions.
3. Touch **Apply**. The selected extensions and any previously configured extensions are added to the Dashboard.

Load Contacts

WFC Voice automatically imports contacts each time it registers or signs in with Profile Manager. Contacts imported from Profile Manager are saved to the device as WFConnect contacts.
This section lists all action types available when customizing buttons on the Dashboard or In-call screen.

**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. If there is no number in Value tag, opens the dialer. Allowed on the in-call screen only.</td>
<td>Phone number.</td>
</tr>
<tr>
<td>BLANK</td>
<td>No action. 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. 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. 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. 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. 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. Only allowed on the in-call screen.</td>
<td>N/A</td>
</tr>
<tr>
<td>HOME</td>
<td>Jumps to the Home screen. Only allowed on the in-call screen.</td>
<td>N/A</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.</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>Action Type</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------</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>
XML Tags

This sections lists the XML tags allowed in the WFConnect.xml file.

**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 home screen dashboard (Optional).</td>
<td>Default: None (Disabled)</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>codec_g722_priority</td>
<td>Assigns preference priority for G.722 Voice codec negotiations between PBX and WFC Voice.</td>
<td>Number between -5 and 5 Negative numbers disable the codec. Default: 4</td>
</tr>
<tr>
<td>codec_g729_priority</td>
<td>Assigns preference priority for G.729 Voice codec negotiations between PBX and WFC Voice.</td>
<td>Number between -5 and 5 Negative numbers disable the codec. Default: 3</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>codec_gsm_priority</td>
<td>Assigns preference priority for GSM Voice codec negotiations between PBX and WFC Voice.</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 WFC Voice.</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>disable_menu_sign_out</td>
<td>Disable the sign out option in the three line menu (Optional).</td>
<td>true: Disable sign out option. false: Enable sign out option. Default: false</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:   
<p>|                        | • #RRGGBB                                                                                                                                          | • #AARRGGBB                                                                                     |
|                        |                                                                                                                                                    | Default: 0xFF001425                                                                              |</p>
<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 #unique_289.                                                                                                                                                                    | 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 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. Use license_key element to define PBX types. If license_key value is not set, the client requests the PBX type set in the WFC Voice profile. | 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 (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:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Error</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Warning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Info</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Debug</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Do not process android calls</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>profile_type</td>
<td>Primary PBX type.</td>
<td>Contents: Text</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</td>
</tr>
<tr>
<td>profile2_type</td>
<td>Second PBX type (Optional).</td>
<td>Contents: Text</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</td>
</tr>
<tr>
<td>profile3_type</td>
<td>Third PBX type (Optional).</td>
<td>Contents: Text</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>profile4_type</td>
<td>Fourth PBX type (Optional).</td>
<td>Contents: Text Default: None</td>
</tr>
<tr>
<td>profname</td>
<td>Profile name (Optional). For information only.</td>
<td>Contents: Text Default: None</td>
</tr>
<tr>
<td>prompt_file</td>
<td>Name of the audio prompt file. (Optional).</td>
<td>WAV file stored in the WFConnect folder Default: None</td>
</tr>
<tr>
<td>ringer_off_in_charger</td>
<td>Disable ringer while device is charging.</td>
<td>true: Disable ringer while charging false: Enable ringer while charging Default: false</td>
</tr>
<tr>
<td>ringtone_callback</td>
<td>Call back 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: UK_Phone</td>
</tr>
<tr>
<td>ringtone_external</td>
<td>Ringtone for external calls (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: HI_UK_Phone</td>
</tr>
<tr>
<td>ringtone_intercome</td>
<td>Rington for intercome calls (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: French_Phone</td>
</tr>
<tr>
<td>ringtone_line1</td>
<td>The ringtone for line #1 (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>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>ringtone_line2</td>
<td>The ringtone for line #2 (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_line3</td>
<td>The ringtone for line #3 (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_line4</td>
<td>The ringtone for line #4 (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_line5</td>
<td>The ringtone for line #5 (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_line6</td>
<td>The ringtone for line #6 (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>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<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_extension_name</td>
<td>Display extensions using the both the extension number and the description set in the PBX (Optional). Requires Profile Manager.</td>
<td>true: Extension names are shown.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Extension names are not shown.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</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>
<tr>
<td>sign_out_in_charger</td>
<td>Automatically sign out of WFC Voice when the device begins charging (Optional).</td>
<td>true: Sign out when charging begins.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: Stay signed in while charged.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>sip_auto_answer</td>
<td>Auto answer mode (Optional).</td>
<td>true: WFC Voice auto-answers all incoming calls.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>false: The user must use Workforce Connect to answer the call.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: false</td>
</tr>
<tr>
<td>sip_http_remhost</td>
<td>HTTP server address (Optional).</td>
<td>Server address</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</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 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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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_remhost</td>
<td>Primary TFTP server address #1.Use with primary PBX type (Optional).</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>
<tr>
<td>sip_remhost2</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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_remhost3</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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_rempor</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.</td>
<td>Default: 51000</td>
</tr>
<tr>
<td>sip_rtp_port2</td>
<td>Last RTP port.</td>
<td>Default: 51025</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<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.Use with primary 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></td>
<td></td>
<td>Default: TCP</td>
</tr>
<tr>
<td>sip_userid</td>
<td>SIP user or authentication ID.Use with primary PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_userpass</td>
<td>SIP authentication password.Use with primary PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip_vmnum</td>
<td>SIP voice mail extension.Use with primary PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_confnum</td>
<td>SIP default conference number.Use with second PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_localport</td>
<td>The local listening port for SIP connections.Use with second PBX type (Optional).</td>
<td>Default: 5060</td>
</tr>
<tr>
<td>sip2_mac</td>
<td>Radio MAC address of this mobile device.Use with second PBX type (Optional).</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.Use with second PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_realm</td>
<td>SIP domain.Use with second PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>sip2_remhost</td>
<td>TFTP server address #1.Use with second PBX type (Optional).</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>
<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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: None</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</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_confnnum</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>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&lt;br&gt;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&lt;br&gt;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>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</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></td>
<td></td>
<td>Default: TCP</td>
</tr>
<tr>
<td>sip3_userid</td>
<td>SIP user or authentication ID. Use with third PBX type (Optional).</td>
<td>Default: None</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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: The server address provided by option 150 in the DHCP.</td>
</tr>
<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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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:</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>sip4_userid</td>
<td>SIP user or authentication ID. Use with fourth PBX type (Optional).</td>
<td>Default: None</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</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>
</tbody>
</table>
| sms_enabled              | Short Message Service (SMS) (Optional).                                      | true: Enable SMS  
false: Disable SMS  
Default: false |
| speaker_on_horizontal    | Answer calls in speaker mode when the device is placed on a horizontal surface | true: Enable speaker mode  
false: Disable speaker mode  
Default: false |
| use_android_dialer       | Use the native Android dialer to place calls.                               | true: Use Android dialer  
false: Use Workforce Connect dialer |
| use_accelerometer        | Use the native Android accelerometer (Optional).                            | true: Accelerometer is used.  
false: Accelerometer is not used.  
Default: false |
| use_aec                  | Echo Cancellation (Optional).                                               | true: Echo cancellation is used.  
false: Echo cancellation is not used.  
Default: false |
| use_agc_ear              | Automatic Gain Control (AGC) on earpiece (Optional).                        | true: AGC is used.  
false: AGC is not used.  
Default: false |
| use_agc_speaker          | Automatic Gain Control (AGC) on speaker. (Optional).                       | true: AGC is used.  
false: AGC is not used.  
Default: false |
| use_native_sample_rate   | Use the native sample rate set by Android (Optional).                       | true: Android native sample rate is used  
false: Sample rate is 8000  
Default: false |
| use_noise                | Noise Reduction (Optional).                                                 | true: Noise reduction is used.  
false: Noise reduction is not used.  
Use native sample rate set by Android. |
| use_prox_wake_lock       | Use the Android platform default proximity WAKE LOCK (Optional).            | true: Uses the Android platform default proximity WAKE LOCK.  
false: Uses a workaround solution.  
Default: true |
| var_location             | The URI of shared profile located on a remote or local server (Optional).   | Protocols: file, http, https, tftp.  
Default: none (Disabled) |
### XML Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<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</td>
<td>true: Connect to an available WiFi network.</td>
</tr>
<tr>
<td></td>
<td>or when the client is restarted.</td>
<td>false: Only connect to the device’s default network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: true</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: Button Tags 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: Button Tags 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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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</td>
<td>The color is one of the following:</td>
</tr>
<tr>
<td></td>
<td>element &lt;gfg_color&gt; is used.</td>
<td>• red, blue, green, black, white, gray, cyan, magenta, yellow, lightgray, darkgray,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>grey, lightgrey, darkgrey, aqua, fuchsia, lime, maroon, navy, olive, purple, silver,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>teal, or, it is an RGB value in one of the following formats expressed as a decimal, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a hexadecimal, number:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• #RRGGBB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• #AARRGGBB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: #FF001425</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>-------</td>
</tr>
</tbody>
</table>
| confirm | After touching the button, the operator is asked to confirm the action before it is executed (optional). | true: Confirm action  
false: Do not confirm action  
Default: false |
| description | Description is used by the LIST action type. | 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. |
| enabled | Defines whether the button is available on the WFC Voice screen (optional). | true: Button is visible and active.  
false: Button is not visible.  
Default: true. |
| 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 |
### XML Tags

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>value</td>
<td>Additional information required by the <code>&lt;action&gt;</code> element (Optional).</td>
<td>For details on the values associated with each action type see Button Actions.</td>
</tr>
<tr>
<td>Button</td>
<td>The definition of an on-screen button.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
This section shows a sample profile in the WFConnect.xml file.

```xml
<WFConnect>
    <Profile>
        <use_android_dialer>true</use_android_dialer>
        <ptt_userid>user</ptt_userid>
        <background_logo>company_logo.png</background_logo>
        <lux_threshold>0</lux_threshold>
        <sip_remhost2></sip_remhost2>
        <rtp_stats>false</rtp_stats>
        <prompt_file>greeting.wav</prompt_file>
        <codec_ulaw_priority>2</codec_ulaw_priority>
        <show_dialpad>true</show_dialpad>
        <sip_expires>36000</sip_expires>
        <use_noise>true</use_noise>
        <ptt_transport>UDP</ptt_transport>
        <use_native_sample_rate>false</use_native_sample_rate>
        <jitter_max>250</jitter_max>
        <post_log_url></post_log_url>
        <sip_device_type>8865</sip_device_type>
        <sip_rtp_ptime>20</sip_rtp_ptime>
        <sip_transport>TCP</sip_transport>
        <sip_rtp_port2>50025</sip_rtp_port2>
        <sip_rtp_port1>50000</sip_rtp_port1>
        <audio_gain_in>5</audio_gain_in>
        <use_prox_wake_lock>true</use_prox_wake_lock>
        <log_console>true</log_console>
        <use_agc_speaker>true</use_agc_speaker>
        <sip_realms>10.16.2.111</sip_realms>
        <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>FFFFFFFFF</gfg_color>
        <codec_alaw_priority>3</codec_alaw_priority>
        <codec_g729_priority>1</codec_g729_priority>
    </Profile>
</WFConnect>
```
<sip_userid>1001</sip_userid>
<log_file>true</log_file>
<rsi_limit>-85</rsi_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>
...
This section shows a sample dashboard in the WFConnect.xml file.

```xml
...<Dashboard>
  <Columns>4</Columns>
  <Button>
    <title>Dial</title>
    <action>DIAL</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon></icon>
  </Button>
  <Button>
    <title>SpeedDial#1</title>
    <action>SPEED_DIAL1</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon></icon>
  </Button>
  <Button>
    <title>SpeedDial#2</title>
    <action>SPEED_DIAL2</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon></icon>
  </Button>
  <Button>
    <title></title>
    <action>LIST</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
  </Button>
</Dashboard>
```
<Button>
  <title>SpeedDial#3</title>
  <action>SPEED_DIAL3</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description></description>
  <icon></icon>
</Button>

<Button>
  <title>SpeedDial#4</title>
  <action>SPEED_DIAL4</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description></description>
  <icon></icon>
</Button>

<Button>
  <title>SpeedDial#5</title>
  <action>SPEED_DIAL5</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description></description>
  <icon></icon>
</Button>

<Button>
  <title>SpeedDial#6</title>
  <action>SPEED_DIAL6</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description></description>
  <icon></icon>
</Button>

<Button>
  <title>SpeedDial#7</title>
  <action>SPEED_DIAL7</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description></description>
  <icon></icon>
</Button>

<Button>
  <title>SpeedDial#8</title>
  <action>SPEED_DIAL8</action>
  <value></value>
  <enabled>true</enabled>
  <confirm>false</confirm>
  <description></description>
</Button>
<Dashboard>
  
  <Button>
    <title>SpeedDial#9</title>
    <action>SPEED_DIAL9</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon></icon>
  </Button>

  <Button>
    <title>Call</title>
    <action>CALL</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>

  <Button>
    <title>StartApp</title>
    <action>START_APP</action>
    <value>Camera</value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>

  <Button>
    <title>LogMarker</title>
    <action>LOG_MARKER</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>

  <Button>
    <title>Blank</title>
    <action>BLANK</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>

  ...
</Dashboard>
This section shows a sample of call buttons in the WFConnect.xml file.

```
...<CallButtons>
  <Button>
    <title>AddCall</title>
    <action>ADD_CALL</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>
  <Button>
    <title>Home</title>
    <action>HOME</action>
    <value></value>
    <enabled>true</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>
  <Button>
    <title>Hold</title>
    <action>HOLD</action>
    <value></value>
    <enabled>false</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon></icon>
  </Button>
  <Button>
    <title>Resume</title>
    <action>RESUME</action>
    <value></value>
    <enabled>false</enabled>
    <confirm>false</confirm>
    <description></description>
    <icon>Default</icon>
  </Button>
...```

</Button>
</CallButtons>
</WFConnect>
To activate WFC Voice, 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 21: Proxy Server Configuration**

### Configuring a Proxy Server

**Procedure**

1. Ensure the proxy server and DNS server are running.
2. Ensure the device running WFC Voice is connected to the DNS server.
3. In the DNS server, change the DNS information to resolve the licensing server domain to the proxy server.
   
   The default license server domain is:
   
   zebra-licensing.flexnetoperations.com
   
4. In the proxy server, allow internet traffic on port 443.
Network Ports and Protocols

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

Zebra devices may contain applications that use the same ports and protocols for normal operation as WFC Voice. 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.</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 Configuration file, and the contacts list CSV file, if available.</td>
</tr>
</tbody>
</table>