Mitel SIP-DECT Multi-cell Interoperability Guide

For SIP-DECT 8.3SP2 and later

Release 1.0
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Interoperability Guide

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ABOUT THIS DOCUMENT

This purpose of this document is to provide a list of the telephony features available with the products that combine Mitel SIP-DECT and RingCentral capabilities.

It also provides guidelines and the steps for configuring and provisioning Mitel SIP-DECT with RingCentral.

The Mitel team has validated SIP interoperability for Mitel SIP-DECT 8.3 SP2 with RingCentral.

AUDIENCE

This guide is intended for the following technical personnel:

- Networking professionals responsible for designing and implementing wireless networks
- Network administrators and IT support personnel who need to migrate, install, configure, maintain, and monitor system components

IMPORTANT ASSUMPTIONS

In writing this document, the following assumptions were made:

- You have the required SIP-DECT training.
- You have a general understanding of network deployments.
- You have a general understanding of radio frequency concepts including signal strength, interference, and attenuation.
- You have working knowledge of basic TCP/IP/SIP protocols, Network Address Translation, and so on.

CONTENTS OF THIS GUIDE

The guide is divided into two parts:

- Provisioning in RingCentral
- Provisioning in Mitel SIP-DECT

Each part describes the general configuration and the basic elements of user administration.

ENVIRONMENT INFORMATION

- RingCentral: www.ringcentral.com
- RingCentral Network Requirements: https://support.ringcentral.com/s/article/9233?language=en_US
- SIP-DECT 8.3 SP2 or later
- SIP-DECT base station (RFP44, RFP45, RFP47, RFP47 DRC, or RFP48 WLAN)
- SIP-DECT Handsets 6x2d (612d, 622d, and 632d)

RELATED DOCUMENTATION

MITEL DOCUMENTATION
- Mitel 600 DECT Phone User Guide
- SIP-DECT OM System Manual

RINGCENTRAL DOCUMENTATION
- Assign an existing device to an existing extension
- Manual Provisioning for Third-Party Phones
- Get the SIP Settings For Manual Provisioning
HARDWARE AND SOFTWARE LIST

The following lists the hardware and software requirements for provisioning Mitel SIP-DECT with RingCentral.

HARDWARE

- SIP-DECT base stations: RFP44, RFP45, RFP47, RFP47 DRC, or RFP48 WLAN
- SIP-DECT handsets: 612d, 622d, 632d

SOFTWARE

- Open Mobility Manager running SIP-DECT 8.3 SP2 or later
- OM Management Portal running SIP-DECT 8.3 SP2 or later (optional). Required only if you are using TLS 1.2 or SIP-DECT internal conferencing.

FEATURES LIST

The following table lists the supported features.

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>Set up the phone/device to be able to make and receive calls and utilize all other supported VOIP/SIP features</td>
</tr>
<tr>
<td>Make and receive calls</td>
<td>Make and receive extension, local, and international calls.</td>
</tr>
<tr>
<td>Voicemail</td>
<td>Record messages from callers when you can't answer the phone. Check for and playback messages from your phone.</td>
</tr>
<tr>
<td>Call line identification</td>
<td>Displays the number and/or name of the incoming caller</td>
</tr>
<tr>
<td>Caller ID</td>
<td>Transmits your number and/or name to the receiving party</td>
</tr>
<tr>
<td>Hold and retrieve</td>
<td>Place active calls on Hold</td>
</tr>
<tr>
<td>Call waiting</td>
<td>Answer an incoming call while on another call</td>
</tr>
<tr>
<td>Call Forward (Immediately, Busy, No answer, Busy &amp; No Answer)</td>
<td>Forward calls to a specific phone number. The feature can be activated and configured via the DECT phone menu.</td>
</tr>
<tr>
<td>Conference (3-way SIP-DECT internal conferencing)</td>
<td>Host a local conference call with other parties within the SIP-DECT system.</td>
</tr>
<tr>
<td>Transfer calls</td>
<td>Transfer active calls to another extension or number.</td>
</tr>
<tr>
<td>Call Flip</td>
<td>Transfer calls from one device to another quickly and effortlessly with RingCentral Call Flip</td>
</tr>
<tr>
<td>Directed call pickup</td>
<td>Pickup and answer another user’s calls</td>
</tr>
</tbody>
</table>
| Park and retrieve | Park an active call in the cloud  
Retrieve a parked call from the cloud to continue the conversation |
## Features

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Recording (automatic &amp; on-demand)</td>
<td>Call recording is the ability to record a voice conversation over an audio source</td>
</tr>
<tr>
<td>Secure voice (TLS)</td>
<td>Allows the device to use Support Transport Layer Security (TLS) to encrypt call signaling and media</td>
</tr>
</tbody>
</table>

## BYOD PHONE FEATURE DETAILS

<table>
<thead>
<tr>
<th>Function</th>
<th>DTMF Key Code</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open the RingCentral Interactive Voice Response (IVR)</td>
<td>*</td>
<td>When calling your extension or Direct Number, press * to manage your RingCentral account settings over the phone.</td>
</tr>
<tr>
<td>Mute Conference Bridge Music</td>
<td>* # 903 #</td>
<td>If you are the only participant on a RingCentral Conferencing Bridge, dial *#903# to mute the hold music.</td>
</tr>
<tr>
<td>Connect directly to voicemail</td>
<td>#</td>
<td>When calling an extension, press the # key to go directly to the extension's voicemail. Note: This command does not apply to Call Queues.</td>
</tr>
<tr>
<td>Voicemail</td>
<td>*86</td>
<td>Dial *86 on your RingCentral desk phone to listen to your voice messages over the phone. Alternative procedure: long press 1-key or DECT phone menu</td>
</tr>
<tr>
<td>Hold</td>
<td>##</td>
<td>Press ## to place an active call on hold. Alternative procedure: R-Key or DECT phone menu</td>
</tr>
<tr>
<td>Blind transfer</td>
<td>## + ext. number</td>
<td>Blind transfer from any phone. For more information, visit Deskphones - Transfer Calls. Alternative procedure: R-Key or DECT phone menu</td>
</tr>
<tr>
<td>External transfer</td>
<td>## * 1 + 10-digit number</td>
<td>This will transfer the call externally, showing the originating caller ID, not the extension transferring it.</td>
</tr>
<tr>
<td>Internal transfer</td>
<td>## + ext. number + #</td>
<td>This will transfer the call externally, showing the caller ID of the extension transferring, not the originating caller ID. Alternative procedure: R-Key or DECT phone menu</td>
</tr>
<tr>
<td>Function</td>
<td>DTMF Key Code</td>
<td>Details</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Transfer to voicemail</td>
<td>Deflect call + *0</td>
<td>Send the caller directly to voicemail.</td>
</tr>
<tr>
<td>Call Flip</td>
<td>* + flip number</td>
<td>During an active call, press *1 up to 8 to initiate Call Flip. For more information, visit How to Use Call Flip</td>
</tr>
<tr>
<td>Outgoing caller ID blocking</td>
<td>*67 + 10-digit number</td>
<td>When placing an outgoing call, dial *67 before the 10-digit number to block your outgoing caller ID on a per-call basis.</td>
</tr>
<tr>
<td>Directed call pickup</td>
<td>*58 + ext. number</td>
<td>Answer a call using directed call pickup.</td>
</tr>
<tr>
<td>Call park (retrieve)</td>
<td>* + park location extension</td>
<td>Press * and then the park location extension to pick up a parked call. For more information, visit Park a Call.</td>
</tr>
<tr>
<td>Call park (send to park location)</td>
<td>##*3</td>
<td>Press ##*3 to park an active call. For more information, visit Park a Call.</td>
</tr>
<tr>
<td>Call recording (start/stop)</td>
<td>*9</td>
<td>During an active call, press *9 to start/stop the call recording. For more information, visit Ways to Record a Call.</td>
</tr>
</tbody>
</table>
PROVISIONING IN RINGCENTRAL

To provision a BYOD (Bring Your Own Device) phone with RingCentral, you need an Existing Device type. You can use the following methods to provision a BYOD:

1. Add a new user with a BYOD phone or
2. Add a new BYOD phone to an existing user, if you already have users configured.

ADD A NEW USER WITH A BYOD PHONE

To add a new User with a BYOD do the following:

1. Log in to your RingCentral online account as an Administrator.

3. In the Add Users page, under MVP User, chose the correct location and click Select.
4. In the Add User Info tab, provide information for the following fields:

   **Note:** In the example, we will use Jane Doe as a user.

   a. Email
   b. First Name
   c. Last Name
   d. Phone: Select **Bring your own device**

5. Click **Next**.

6. In the Setup Option tab, click the **Send invite** radio button.
7. Click **Submit**.

8. Navigate to **Users > Users with Extensions**.

9. Search for the user you created. In this example, we will use Jane Doe.

10. From the search results, click **Jane Doe** and expand **Phones & Numbers**.

11. Under **Actions**, select **Set Up and Provision**.
12. In the **Setup & Provisioning** window, under the **Add Emergency Response Location** tab, select the required location

**Note:** This step is for US customers only.

13. Click **Next**.

14. In the **Select Device** tab, click **Set up manually using SIP**.
15. Click **Next**.

16. In the **Finish** tab, do the following:

   a. Select the **Yes – The device must support Transport Protocol version TLS 1.2** radio button

      **Note:** It is recommended to use TLS 1.2 for security purposes. However, this setting is optional. This setting must be the same for all users using SIP-DECT.

   b. Select the required **Outbound Proxy** value from the drop-down list.

17. Copy the SIP settings for easy reference. Click **Copy**, then paste the settings into a Notepad or any other place for easy reference.
18. Click **Done**.

The following details for the respective subscriber/user are required when configuring the SIP-DECT OMM.

<table>
<thead>
<tr>
<th>Mitel SIP-DECT System SIP Settings</th>
<th>Ring Central SIP Settings (Setup &amp; Provisioning – Manual Provisioning)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proxy Server</td>
<td>SIP Domain w/o port</td>
</tr>
<tr>
<td>Proxy Port</td>
<td>SIP Domain port</td>
</tr>
<tr>
<td>Registrar Server</td>
<td>SIP Domain w/o port</td>
</tr>
<tr>
<td>Registrar Port</td>
<td>SIP Domain port</td>
</tr>
<tr>
<td>Outbound proxy server</td>
<td>Outbound Proxy</td>
</tr>
<tr>
<td>Outbound proxy port</td>
<td>Outbound Proxy Port</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mitel SIP-DECT SIP Users/Devices Settings</th>
<th>Ring Central SIP Settings (Setup &amp; Provisioning – Manual Provisioning)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General settings</td>
<td></td>
</tr>
<tr>
<td>Number/SIP user name</td>
<td>User Name</td>
</tr>
<tr>
<td>SIP authentication</td>
<td></td>
</tr>
<tr>
<td>Authentication user name</td>
<td>Authorization ID</td>
</tr>
<tr>
<td>Password</td>
<td>Password</td>
</tr>
</tbody>
</table>

**ADD A NEW BYOD PHONE TO AN EXISTING USER**

To add a new BYOD phone to an existing User, do the following:

1. Log in as an Administrator to your RingCentral Online Account.
2. Navigate to **Users > User List > Users With Extensions**.
3. Search for the desired user.
4. From the search results, click desired user and expand **Phones & Numbers**.
5. Click **Add Phone**.
6. In the Add User Phones window, under the Select Location tab, choose either the Domestic or International radio button. The Domestic or International country location you select will determine which numbers can be assigned to the device.

7. Click Next.

8. Under the Select Devices tab, click Other Phones > Existing Phone and add the required number of phones.
9. Click **Next**.

10. Under the **Select Numbers** tab, click **New Number**.

11. Select the **State/Province** and **Area Code**.

12. Select **Existing Phone**.

13. Click **Assign to Selected** to assign a phone number.
14. Click Next

15. In the Add Emergency Response Location tab, select an emergency address for the device. It's important because if this is not set up, outbound calling will be blocked.

16. Select Existing Phone.

17. Click Assign to Selected to assign an emergency location.

18. Click Next.

19. Under the Add Shipping Info tab, select the shipping address.

20. Select Existing Phone.

21. Click Assign to Selected to assign the shipping address.
22. Click **Next**.

23. Under the **Confirm** tab, confirm the order.

24. Click **Next**.

25. Click **Done**. The new Existing Device is displayed.

26. Under **Actions**, select **Set Up and Provision**.
27. In the **Setup & Provisioning** window, under the **Select Device** tab, click **Set up manually using SIP**.

28. Click **Next**.

29. In the **Finish** tab, do the following:

   c. Select the **Yes – The device must support Transport Protocol version TLS 1.2** radio button

      **Note:** It is recommended to use TLS 1.2 for security purposes. However, this setting is optional. This setting must be the same for all users using SIP-DECT.

   d. Select the required **Outbound Proxy** value from the drop-down list.
30. Copy the SIP settings for easy reference. Click **Copy**, then paste the settings into a Notepad or any other place for easy reference.

31. Click **Done**.
PROVISIONING IN MITEL SIP-DECT

Following is a description of how to configure SIP-DECT subscribers and terminals.

PREREQUISITES

You have SIP-DECT 8.3 SP2 installed and running.

VoIP CONFIGURATION

Following are the steps for provisioning devices in Mitel SIP-DECT.

1. Log in to OM Management Portal (OMP).
3. Under General, select Medium as the security level.
4. Click OK.

Note: This setting is optional. If you selected TLS 1.2 as No in the Finish tab of the RingCentral, ignore these steps.

5. Log in to the Open Mobility Manager (OMM) Web Service.
6. Select the Advanced option in the top bar.
7. Navigate to System > SIP, and enter the following:

   Note: Enter the values obtained from Setup & Provisioning window of RingCentral.

   a. Proxy server: sip.ringcentral.com
   b. Proxy port: 5060
c. **Registrar server**: sip.ringcentral.com

d. **Registrar port**: 5060

e. **Globally Routable User-Agent URL**: Off

f. **Outbound proxy server**: sip20.ringcentral.com

g. **Outbound proxy port**: 5096. If TLS 1.2 is not used, the port is 5090.

h. **Transport protocol**: Persistent: TLS. If TLS 1.2 is not used, the value is TCP.

i. **Send SIPS over TLS active**: Off. If TLS 1.2 is not used, this setting is optional.

8. Click **OK**.

9. Navigate to **Sites** and edit the site.

10. In the **Configure site** page, for **SRTP**, select **Only**. If TLS 1.2 is not used, the value is **Disabled**.

11. Enable **Wideband Audio G.722** if desired.
12. Navigate to **SIP Users/Devices**.

13. Under **Create a new SIP User/Device**, click **New**.

14. In the **New SIP user** page, enter information for the following:

   **Note**: Enter the values obtained from the **Setup & Provisioning** window of RingCentral

   a. **General settings**:

      i. Display name

      ii. Number/SIP user name

      iii. PIN

   b. **SIP authentication**:

      i. Authentication user name

      ii. Password
### iii. Password confirmation

![Configure SIP User/Device](image_url)

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display name</td>
<td></td>
</tr>
<tr>
<td>Number/SIP user name</td>
<td></td>
</tr>
<tr>
<td>PIN</td>
<td></td>
</tr>
<tr>
<td>User/Device relation</td>
<td></td>
</tr>
<tr>
<td>IPEI</td>
<td></td>
</tr>
<tr>
<td>DECT authentication code</td>
<td></td>
</tr>
<tr>
<td>Login/Additional ID</td>
<td></td>
</tr>
<tr>
<td>Delete subscription</td>
<td></td>
</tr>
<tr>
<td>SOS number</td>
<td></td>
</tr>
<tr>
<td>ManDown number</td>
<td></td>
</tr>
<tr>
<td>Voice mail number</td>
<td></td>
</tr>
<tr>
<td>Number used for visibility</td>
<td></td>
</tr>
<tr>
<td>checks</td>
<td></td>
</tr>
<tr>
<td>Authentication user name</td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td></td>
</tr>
<tr>
<td>Password confirmation</td>
<td></td>
</tr>
<tr>
<td>Use SIP user name</td>
<td></td>
</tr>
<tr>
<td>Use SIP user authentication</td>
<td></td>
</tr>
<tr>
<td>User name</td>
<td></td>
</tr>
<tr>
<td>Authentication name</td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td></td>
</tr>
<tr>
<td>Password confirmation</td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td></td>
</tr>
<tr>
<td>PIN</td>
<td></td>
</tr>
<tr>
<td>PIN confirmation</td>
<td></td>
</tr>
<tr>
<td>Timer</td>
<td></td>
</tr>
</tbody>
</table>

[Image of Configure SIP User/Device page]
SIP-DECT INTERNAL CONFERENCE

To set up internal conference:

1. Log in to your RingCentral online account as an Administrator.
2. Navigate to Users > Users with Extensions.
3. Search for your conference phone. In this example, we will use SIP-DECT Conference Room.
4. Click SIP-DECT Conference Room and expand Phones & Numbers.
5. Under Actions, select Set Up and Provision.
6. In the **Setup & Provisioning** window, under the **Select Device** tab, click **Set up manually using SIP**.

7. Click **Next**.

8. In the **Finish** tab, select the **Yes – The device must support Transport Protocol version TLS 1.2** radio button.

   **Note:** It is recommended to use TLS 1.2 for security purposes. However, this setting is optional. This setting must be the same for all users using SIP-DECT.

9. Note the values for the following fields:

   a. **User Name**

   b. **Password**
c. Authorization ID

10. Click **Done**.

The following details for the respective subscriber/user are required when configuring the SIP-DECT OMM.

<table>
<thead>
<tr>
<th>Mitel SIP-DECT SIP Conference Room Settings</th>
<th>Ring Central SIP Settings (Setup &amp; Provisioning – Manual Provisioning)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference ID</td>
<td>User Name</td>
</tr>
<tr>
<td>User name</td>
<td>Authorization ID</td>
</tr>
<tr>
<td>Password</td>
<td>Password</td>
</tr>
</tbody>
</table>

11. Log in to **OMP**.

12. Navigate to **Conference rooms**.

13. Click **Create**.
14. In the General tab, enter the values obtained from the **Setup & Provisioning** window of RingCentral.

15. Click **OK**.