## GENERAL OVERVIEW:

This document describes the basic configuration for registering IX stations to Cisco CallManager by Cisco Systems Co., Ltd.  
*The screenshots in this manual are from Unified Communications Manager 11.5

Certified IX stations compatible with CallManager versions **10.5 - 12.5** are as follows:  
IX-MV7-*, IX-RS-*, IX-DV, IX-DVF-*, IX-SSA-*, IX-SS-2G

For configuration of IX Series 2 stations, refer to the IX Series 2 Quick Start Guide or Settings Manuals.  
Please refer to the relevant manual provided by Cisco Systems for further CallManager information.

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Frequently Asked Questions

The following are frequently asked questions pertaining to registering IX Series stations to CallManager, available features, and network requirements. All of the following information is expanded on either further into this document, the IX Series 2 Quick Start Guide provided with every station, or the IX Series 2 Network Summary Document and can be found at www.aiphone.com/IX

Communication

IX Series stations are peer-to-peer and do not require a dedicated or cloud-based server for communication. Because of this, IX Series stations do not require Internet access, only a local network connection. IX Series stations may register to CallManager as a 3rd party device to allow two-way audio communication between the station and another registered SIP device. Video-enabled IP phones (soft or physical) may also stream video from video door/sub stations, as well as two-way video conferencing with IX-MV7-* master station.

Compatibility

**CallManager:** 10.5, 11.0, 11.5, 12.0, and 12.5

**IX Series 2 Stations:** IX-MV7-*, IX-RS-*, IX-DV, IX-DVF-*, IX-SSA-*, IX-SS-2G

**IX Series 1 Stations:** IX-DA, IX-BA (available Q1 2020)

Network Information

**Addressing:** Hostname, IPv4 (default), IPv6 / Static (default), DHCP

**SIP Server:** Primary, Secondary, and Tertiary servers available

**Audio Codec:** G.711 (default) / G.722 **Port:** 20000 (start) - 21000

**Video:** H.264/AVC (default) / MJPEG **Port:** 30000 (start) - 31000

**SIP:** 5060

More detailed network information and requirements are located in the IX Series 2 Network Summary Document found at www.aiphone.com/IX

Extensions

IX Series stations can be assigned a 1 to 5-digit Station Number in Support Tool, which must match the extension given to it when register to CallManager. *This setting is explained in greater detail later in this document.*

A station may call a single, 1 to 10-digit extension *(which can be a direct phone number, based on CallManager settings).* This extension can be that of a single station, or a hunt/call group. If the destination of a call is a hunt/call group, CallManager will then distribute the call to the appropriate group of extensions. *This setting is explained in greater detail later in this document.*

Call Transfer

Call transfers from one IX Series station to another, or to a single SIP extension, is handled by it's internal configuration. Call transfers of an IX Series station from an IP phone to another is handled by CallManager.

IX Series stations have three internal call transfer options; Absent, Delayed, and Scheduled. For more information on this feature and its configuration, reference the IX Series 2 Quick Start Guide.

Door Release

IP phones registered to CallManager can activate an IX Series station's relay output used for door release via it's dial pad or a configured soft button (if available). Note that IX Series master stations have their own method of activating door release, which is automatically enabled.

To activate the door release relay output, press **[code]** while the IP phone is in communication with the station. The door release code *(called an Authentication Key in Support Tool)* and it's length is determined in programing. *This setting is explained in greater detail later in this document.*
CallManager - Getting Started

The following steps may be configured before the initial programming of the IX Series 2 stations has been completed. However, the registration status of any unconfigured (defaulted) station will show as “unknown”.

The MAC address of each station will be needed during Device Registration and may be found by either locating the MAC address sticker on the back of the intercom, or using Support Tool and running a Station Search (Tools > Station Search).

Utilizing either of the methods above, note the Station Type of each station. The station’s type will be referenced throughout this process.

Create a Security Profile

A new security profile will be created for the stations to be registered. If multiple station types are being registered, ensure that the following steps are done for each profile (Basic and Advanced). Rather than editing the existing profile, a copy should be made and a new profile should be saved.

1.1 - Phone Security Profile

Using the System drop-down, find Security and select Phone Security Profile.

1.2 - Third-party SIP Device Basic / Advanced

Locate Find Phone Security Profile and use the drop-down menu options to select Name and begins with. Type “third” in the search field, and click Find.

1.3 - Select a Phone Security Profile

IX-MV7-*, IX-DV, or IX-DVF-*
Third-party SIP Device Advanced - Standard SIP Non-Secure Profile

IX-RS-*, IX-SSA-*, or IX-SS-2G:
Third-party SIP Device Basic - Standard SIP Non-Secure Profile

For more details about the features and information above, please contact Technical Support.

Aiphone Corporation | www.aiphone.com | tech@aiphone.com | (800) 692-0200
Creating a Security Profile (cont)

### Phone Security Profile Configuration

- **Product Type:** Third-party SIP Device (Basic)
- **Device Protocol:** SIP
- **Name:** Aiphone Third-party SIP Device Basic - Standard SIP
- **Description:** Third-party SIP Device (Basic) - Standard SIP Secure
- **Nonce Validity Time:** 600
- **Transport Type:** TCP+UDP
- **Enable Digest Authentication**

#### Parameters used in Phone

<table>
<thead>
<tr>
<th>SIP Phone Port</th>
<th>5060</th>
</tr>
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</table>

1. **Copy**

   - Click the Copy button before making any adjustments.

2. **Name**

   - Give the new copy a unique name that can be easily found.

3. **Digest Authentication**

   - Check the box next to Enable Digest Authentication.

4. **Apply Configuration**

   - Click the Apply Config button.

---

**Registering a User**

A unique User ID and Password will need to be created for each station, as well as a Last Name and Digest Credentials.

#### User Management

- **Select End User**
  - Use the User Management dropdown and select End User.

- **Add New**
  - Click Add New

#### User Information

<table>
<thead>
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<th>Enabled Local User</th>
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<tr>
<td>User ID*</td>
<td>Aiphone1234</td>
</tr>
<tr>
<td>Password</td>
<td>••••••</td>
</tr>
<tr>
<td>Confirm Password</td>
<td>••••••</td>
</tr>
<tr>
<td>Self-Service User ID</td>
<td>••••••</td>
</tr>
<tr>
<td>PIN</td>
<td>••••••</td>
</tr>
<tr>
<td>Confirm PIN</td>
<td>••••••</td>
</tr>
<tr>
<td>Last name*</td>
<td>Front Door Intercom</td>
</tr>
<tr>
<td>Middle name</td>
<td></td>
</tr>
</tbody>
</table>

- **Associated PC/Site Code**
- **Digest Credentials**
- **Confirm Digest Credentials**

3. **Save**

   - Click Save at the top of the page.
Registering a Station - Adding a new Device

Each station will need to be registered as a Third-party SIP Device, selecting Advanced or Basic depending on station type.

3.1 - Select Phone
Use the Device drop-down and select Phone.

3.2 - Add New
Click Add New

3.3 - Select a Phone Type

- **IX-MV7-*, IX-DV, or IX-DVF-***: Third-party SIP Device Advanced - Standard SIP Non-Secure Profile
- **IX-RS-*, IX-SSA-*, or IX-SS-2G**: Third-party SIP Device Basic - Standard SIP Non-Secure Profile

3.4 - Next
Click Next.

Note:
- If a video intercom (IX-MV7-*, IX-DV, or IX-DVF-*) is given a Basic security profile, video will not stream to compatible IP Phones.
Registering a Station - Device and Protocol Information

The following are the required settings needed to register a station. However, other settings under Device Information and Protocol Information, such as Device Pool, Calling Search Space, Location, etc may need to be adjusted based on the existing configuration of the Call Manager environment.

### 4.1 - Device Information

#### MAC Address

The MAC address can be found on a sticker on the back of the intercom, or using Support Tool and running a Station Search (Tools > Station Search).

#### Phone Button Template

- IX-MV7-*, IX-DV, or IX-DVF-*: Third-party SIP Device Advanced - Standard SIP Non-Secure Profile
- IX-RS-*, IX-SSA-*, or IX-SS-2G: Third-party SIP Device Basic - Standard SIP Non-Secure Profile

#### Owner User ID

The User ID created in step 3.3 on page 3.

### 4.2 - Protocol Specific Information

- **Device Security Profile:** Match this profile with the profile created in step 2.1 on pages 2-3.
- **IX-MV7-*, IX-DV, or IX-DVF-**: Third-party SIP Device Advanced - Standard SIP Non-Secure Profile
- **IX-RS-*, IX-SSA-*, or IX-SS-2G:** Third-party SIP Device Basic - Standard SIP Non-Secure Profile

#### SIP Profile:

Select Standard SIP Profile.

#### Digest User:

The User ID created in step 3.3 on page 3.

### 4.3 - Save

Click Save at the top of the page.
5.1 - Line [1]
Select Line [1] – Add a new DN.

5.2 - Directory Number

Directory Number
The Directory Number must match the Station Number assigned to the station in step 1.2 on page 7.

BLF Presence Group
Select Standard Presence Group.

Maximum Number of Calls
Should not be set greater than 2.

Busy Trigger
Must be set to 1.

5.3 - Save
Click Save at the top of the page.

Note: The range to select the Max Number of calls is: 1-16
Maximum Number of Calls
1
Busy Trigger
1
Support Tool - Getting Started

Proceed with the following steps only once the initial programming of the IX Series system, and its stations, have been completed. The IX Series 2 Quick Start Guide is provided with each station, and can be found under Literature at www.Aiphone.com/IX.

Setting Station Information

Each station’s Station Number should be set to the Directory Number (Step 5.2, page 7) assigned to it in CallManager. The station’s Name may be changed here, too, but is not required to match any CallManager settings. More information about Location and other settings can be found in the IX Series 2 Quick Start Guide.

Adding SIP Server Information

Each station’s End User ID / Password and the primary SIP server’s information is entered here. Secondary and Tertiary SIP server information is found by scrolling to the right on this screen.

ID: admin  
Password: admin

Note:
- If the Password of the station contains special characters (!, $, & etc), ensure the station is at least using firmware version 2.0. The latest firmware can always be found at Aiphone.com/IX.
VoIP Phone Registration

Each station may have a single SIP call-in destination, whether that destination is an IP Phone or a Hunt Group’s extension. However, multiple stations may call the same SIP extension.

3.1 - VoIP Phone List
From the tool bar at the top of the screen, click Edit and select VoIP Phone List.

3.2 - Number and Name
Enter the DN of the IP Phone or Hunt Group destination. IX Stations should not be added to this list.

3.3 - Update
Click Update to save.

Calling an IP Phone (Door / Sub Station)
Once an IP Phone or Hunt Group has been added to Support Tool it may be set as a call destination. Note that multiple stations can call to the same extension, but each station may only call one extension.

4.1 - Station View
On the left-hand menu, expand Call Settings, and select Called Stations (Door/Sub).

4.2 - Scroll Right
Scroll right until you find the column of the IP Phone to be called by the Door / Sub station.

4.3 - Select
Use the drop-down option under the desired IP Phone to select ‘U’.

Note:
Settings will not take effect until the setting files have been uploaded to the stations. Refer to page 11 of this guide for the procedure of uploading the settings.
Configuring Door Release (Optional)

IX Series station has two built-in relay outputs, with Relay Output 1 enabled and set for door release by default. 3rd Party IP Phones can activate this output using dial-pad commands with some minor adjustments to the default configuration. Repeat this process for each station.

### Station View

5.1 - Station View
On the left-hand menu, click Station View then expand Option Input / Relay Output, and select Relay Output.

5.2 - Select a Station
Use the drop-down menu under Select Station to Edit and choose the first door station to configure. Click Select.

5.3 - Authentication Key
Find Door Release Authorization and Authentication Key. This key is the number(s) that will be used to activate the relay for door release. Replace the default 4 to 20 digit key with the desired access code.

5.4 - Door Release
On the left-hand menu, click Function Settings and select Door Release.

5.5 - Select a Station
Use the drop-down menu under Select Station to Edit and choose the first master station to configure. Click Select.

5.6 - Authentication Key
Find Door Release Assignment and Authentication Key. Replace the default value with the key created in step 4.3.

**Note: Door Release Command**

To activate door release from an IP phone, press ** [Authentication Key] * while in communication with the door station.

If the Door Release Authorization Authentication Key is adjusted from its default value by following steps 5.1 to 5.3 above, this new key must be set for any IX Series Master Station (IX-MV / IX-MV7-*). Repeat this process for each Master Station.
Configuring a Door Station Call Button to Answer an Incoming Call (Optional)

Auto-answer is not available for incoming SIP calls to a door or sub station. To answer an incoming call, the call button will need to be configured to also answer an incoming call and ending communication.

6.1 - Station Info.
On the left-hand menu, click Station View then Call Settings and select Station Information.

6.2 - Button Function
Use the drop-down menu to select Call, Answer Call, End Communication.

Click Update to save your settings.

Video Settings

Video is streamed by an IX station to an IP Phone during communication by default. However, depending on the IP Phone, the H.264 profile may need to be adjusted to do so. Note that this setting change will not affect the video quality.

7.1 - Video
On the left-hand menu, expand Network Settings, and select Video.

7.2 - Profile
Select the H.264 profile. Baseline is the most commonly used.

Note:
Settings will not take effect until the setting files have been uploaded to the stations. Refer to page 11 of this guide for the procedure of uploading the settings.
Upload Settings to Stations

To apply any setting changes made in Support Tool, the setting file must be uploaded to each station.

8.1 - Uploading Station Settings

From the tool bar at the top of the screen, click **File** and select **Upload Settings To Station**.

8.2 - Select Stations

Click **Select** to check all stations in the system, or individually select the stations to upload to.

8.3 - Upload Settings

Click **Settings** to upload the setting file to each station.

Note:

The **Status** column will show whether the setting file upload was successful or has failed for each station. If the upload has failed, ensure the programming PC and the station are in the same IP range. The station’s IP address can be confirmed by going to **Tools > Station Search** in Support Tool.