

# Configure CUCM Private Line Automatic Ring-down (PLAR)

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## Introduction

This document describes how to configure a Cisco IP Phone for PLAR or Hotdial with Cisco Unified Communications Manager (CUCM).

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Unified Communications Manager (CUCM)
- Calling Search Space (CSS)
- Partition (PT)
- Translation Patterns
- Session Initiation Protocol (SIP) Dial Rules

### Components Used

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

- CUCM 10.5
- Skinny Client Control Protocol (SCCP) & SIP phones register with CUCM

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any change.

## Related Products

This document can also be used with these hardware and software versions:


- CUCM 8.X/9.X/11.X/12.X/14.X

## Configuration Steps

### SCCP PLAR Configuration

In order to allow the phone to automatically dial a pre-configured phone number when the IP Phone goes off-hook, a CSS is configured with a partition that contains a translation pattern with a blank translation pattern string. This results in Cisco Call Manager immediately matching this pattern. The translation pattern then transforms the called number which is none to the destination number (Hotdial) where the call is delivered.

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 **Note:** Since a Directory Number (DN) configured for PLAR dials a preconfigured number when it goes off-hook, you cannot use PLAR DN to dial any other numbers. For example, this is a typical configuration in hotel lobbies.

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#### Step 1. Create a Partition for the PLAR Destination


Navigate to **Call Routing> Class Control>Partition** and then **Add a New Partition**. Enter the required details and click **Insert**.

**Partition Configuration**

 Save

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**Status**

 Status: Ready

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
**Partition Information**

To enter multiple partitions, use one line for each partition entry. You can enter up to 75 partitions; the names and descriptions can have up to a total of 1475 characters. The partition name cannot exceed 50 characters. Use a comma (',') to separate the partition name and description on each line. If a description is not entered, Cisco Unified Communications Manager uses the partition name as the description. For example:

```
<< partitionName >> , << description >>  
CiscoPartition, Cisco employee partition  
DallasPartition
```

Name\*

---




 Save

## Step 2. Create a New CSS


Navigate to **Call Routing > Class Control > Calling Search Space** and then click **Add a New Calling Search Space**.

System ▾ Call Routing ▾ Media Resources ▾ Advanced Features ▾ Device ▾ Application ▾ User Management

### Calling Search Space Configuration

Save  Delete  Copy  Add New

**Status**

 Status: Ready

**Calling Search Space Information**

Name\*

Description

**Route Partitions for this Calling Search Space**


Available Partitions\*\*   
Global Learned E164 Numbers  
Global Learned E164 Patterns  
Global Learned Enterprise Numbers  
Global Learned Enterprise Patterns

Selected Partitions

### Step 3. Create a Translation Pattern

Navigate to **Call Routing > Translation Pattern** and then click **Add a New Translation Pattern**. Select the desired partition name and CSS that were previously created in Step One and Step Two. Finally, under **Called Party Transformation Mask**, enter the PLAR target number. Click **Insert**.

 **Note:** Ensure that the Translation Pattern field is left blank.

**Status**  
 Status: Ready

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**Pattern Definition**

Translation Pattern

Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Resource Priority Namespace Network Domain

Route Class\*

Calling Search Space

Use Originator's Calling Search Space

External Call Control Profile

Route Option  
 Route this pattern  
 Block this pattern

Provide Outside Dial Tone  
 Urgent Priority  
 Do Not Wait For Interdigit Timeout On Subsequent Hops  
 Route Next Hop By Calling Party Number

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**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask


Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\*

Calling Name Presentation\*

Calling Party Number Type\*

Calling Party Numbering Plan\*

 **Note:** The design behind the example is based on DN 1161. 1161 is the target for the PLAR, but this configuration guarantees that 1161 can get a call from any other phone.

The CSS used in the first screenshot for the Translation Pattern has access to the target DN partition.

#### Step 4. Assign the Desired Calling Search Space for the PLAR Phone

- Navigate to **Device > Phone**.
- Click **Find** in order to locate all the registered IP phones in Cisco Unified Communications Manager
- Select the **PLAR phone**, and choose the **DN to PLAR**.
- Assign the CSS to the DN for PLAR.

Phone Configuration Related Links: [Back To Find/List](#)

Save  Delete  Copy  Reset  Apply Config  Add New

**Status**  
 Status: Ready

**Association**

Modify Button Items

- 1 [Line \[1\] - 1054 \(no partition\)](#)
- 2 [Line \[2\] - Add a new DN](#)
- 3 [Add a new SURF](#)
- 4 [Add a new BLF SD](#)
- 5 [Add a new SD](#)
- 6 [Add a new BLF Directed Call Park](#)
- 7 CallBack
- 8 Call Park
- 9 Call Pickup
- 10 Conference List
- 11 Conference
- 12 Do Not Disturb
- 13 End Call
- 14 Forward All
- 15 Group Call Pickup

**Phone Type**

Product Type: Cisco 7942  
 Device Protocol: SCCP

**Real-time Device Status**

Registration: Registered with Cisco Unified Communications Manager josevil-105  
 IPv4 Address: 10.201.192.57  
 Active Load ID: SCCP42.9-4-2-15  
 Download Status: None

**Device Information**

Device is Active  
 Device is trusted  
 MAC Address\* 108CCFE06150  
 Description Auto 1054  
 Device Pool\* Default [View Details](#)  
 Common Device Configuration < None > [View Details](#)  
 Phone Button Template\* Universal Device Template Button Layout  
 Softkey Template < None >  
 Common Phone Profile\* Standard Common Phone Profile [View Details](#)  
 Calling Search Space < None >

**Directory Number Configuration**

Save  Delete  Reset  Apply Config  Add New

**Status**  
 Status: Ready

**Directory Number Information**

Directory Number\* 1054  Urgent Priority

Route Partition < None >

Description

Alerting Name

ASCII Alerting Name

External Call Control Profile < None >

Allow Control of Device from CTI

Associated Devices SEP108CCFE06150

[Edit Device](#)  
[Edit Line Appearance](#)

Dissociate Devices

**Directory Number Settings**

Voice Mail Profile < None > (Choose <None> to use system default)

Calling Search Space PlarTo1161

BLF Presence Group\* Standard Presence group

User Hold MOH Audio Source < None >

Network Hold MOH Audio Source < None >

Auto Answer\* Auto Answer Off

Reject Anonymous Calls

**Note:** This configuration example creates a PLAR on DN 1054 to 1161, but the CSS is configured to a DN level, which provides the ability to assign another DN to a different button on the phone, allowing to make normal calls from the same IP Phone without affecting the PLAR feature.

# SIP PLAR Configuration

## Step 1. Create SIP PLAR Dial Rules

- Navigate to **Call Routing > Dial Rules > SIP Dial Rules**
- Click **Add New**.

## Step 2. Create a New Pattern

- Add a pattern description. Typing the description activates buttons **Add Pattern** and **Add Plar**.
- Click **Add Plar**.

### SIP Dial Rule Configuration

Save Delete Reset Apply Config Add New

**Status**  
Update successful

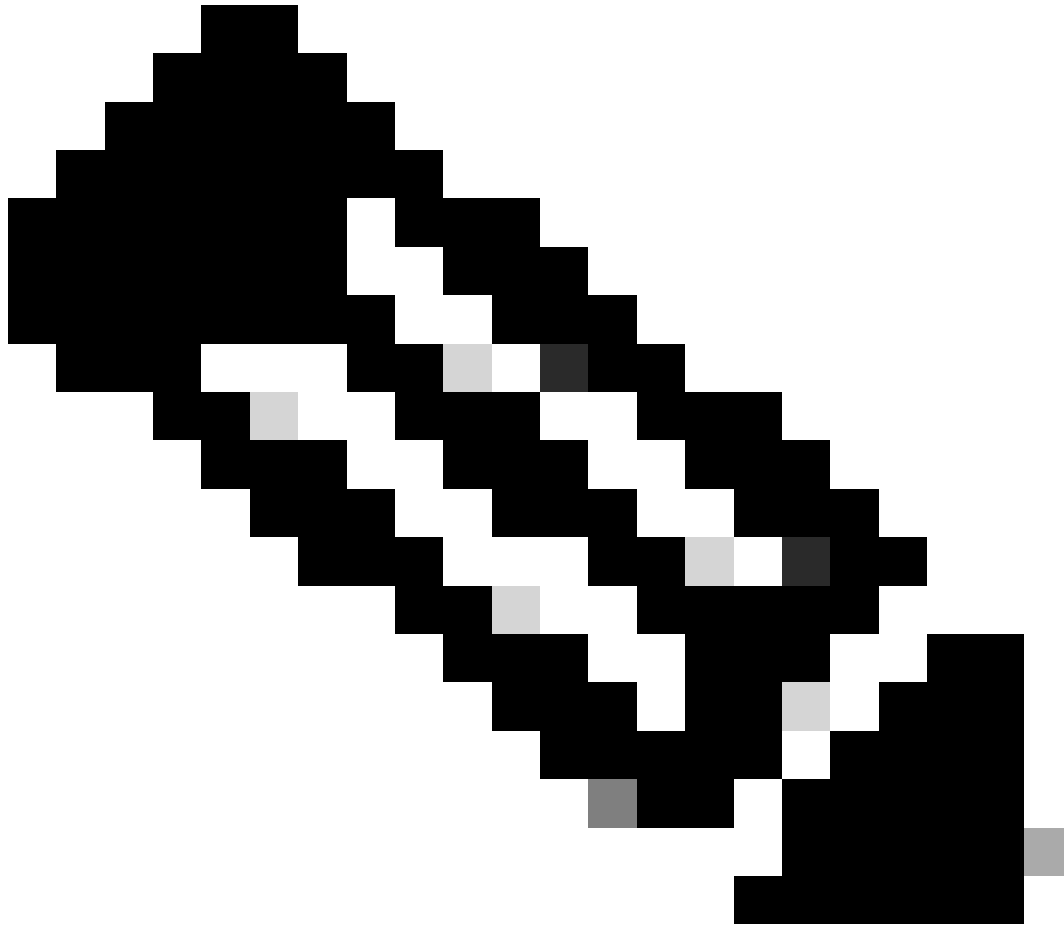
**SIP Dial Rule Information**  
Name\* PlarTo1161  
Description Plar for Button 2  
Dial Pattern 7940\_7960\_OTHER

**Pattern Information**

Description	Delete Pattern	Dial Parameter	Value	Delete Parameter	
1161	<input type="checkbox"/>	Button	2	<input type="checkbox"/>	Edit Parameter
		Pattern			Delete Selected
					Add New Parameter

**Pattern Addition**  
Pattern Description  Add Pattern Add Plar

Save Delete Reset Apply Config Add New




**Note:** Set the Value field to 1 if this is a single line IP Phone.

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 **Note:** The description field is optional.

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 **Note:** The Dial Parameter is set to button in order to force the PLAR feature to only 1 DN of the device.

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 **Note:** If PLAR is required in another button or IP Phone, another PLAR Rule needs to be created.

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### **Step 3. Assign the Rule to the SIP Phones**

This is only required on SIP phones.



#### Protocol Specific Information

Packet Capture Mode*	None	▼
Packet Capture Duration	0	
BLF Presence Group*	Standard Presence group	▼
SIP Dial Rules	PlarTo1161	▼
MTP Preferred Originating Codec*	711ulaw	▼
Device Security Profile*	Cisco 7942 - Standard SIP Non-Secure Profile	▼
Rerouting Calling Search Space	< None >	▼
SUBSCRIBE Calling Search Space	< None >	▼
SIP Profile*	Standard SIP Profile	▼ <a href="#">View Details</a>
Digest User	< None >	▼
<input type="checkbox"/> Media Termination Point Required		
<input type="checkbox"/> Unattended Port		
<input type="checkbox"/> Require DTMF Reception		

## Verify

In order to verify that the configuration was performed correctly take the phone off hook. The phone automatically dials the number 1161.