

# Configure Single Number Reach for CallManager

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## Introduction

This document describes the inputs and modifications commonly used when configuring Cisco Unified Mobility Application known as Mobile Connect.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Remote destination Phone cannot be a phone registered to the same cluster,It could be a phone in a different cluster or a PSTN phone across the trunk/gateway .
- Remote destination phone can be reachable from the cluster of the desk phone .

### Components Used

The information in this document is based on these software versions:

- Cisco Unified call manager 11.0.1.21900-11

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.

## Background Information

Cisco Unified Mobility application known as Mobile Connect, commonly called Single Number Reach (SNR), provides Cisco Unified Communications users with the ability to be reached via a single enterprise

phone number that rings on both their IP desk phone and their cellular phone (Remote Destination), simultaneously. Mobile Connect users can pick up an incoming call on either of their desk or cellular phones and at any point and can move the in-progress call from one of these phones to the other without interruption.

## Configure

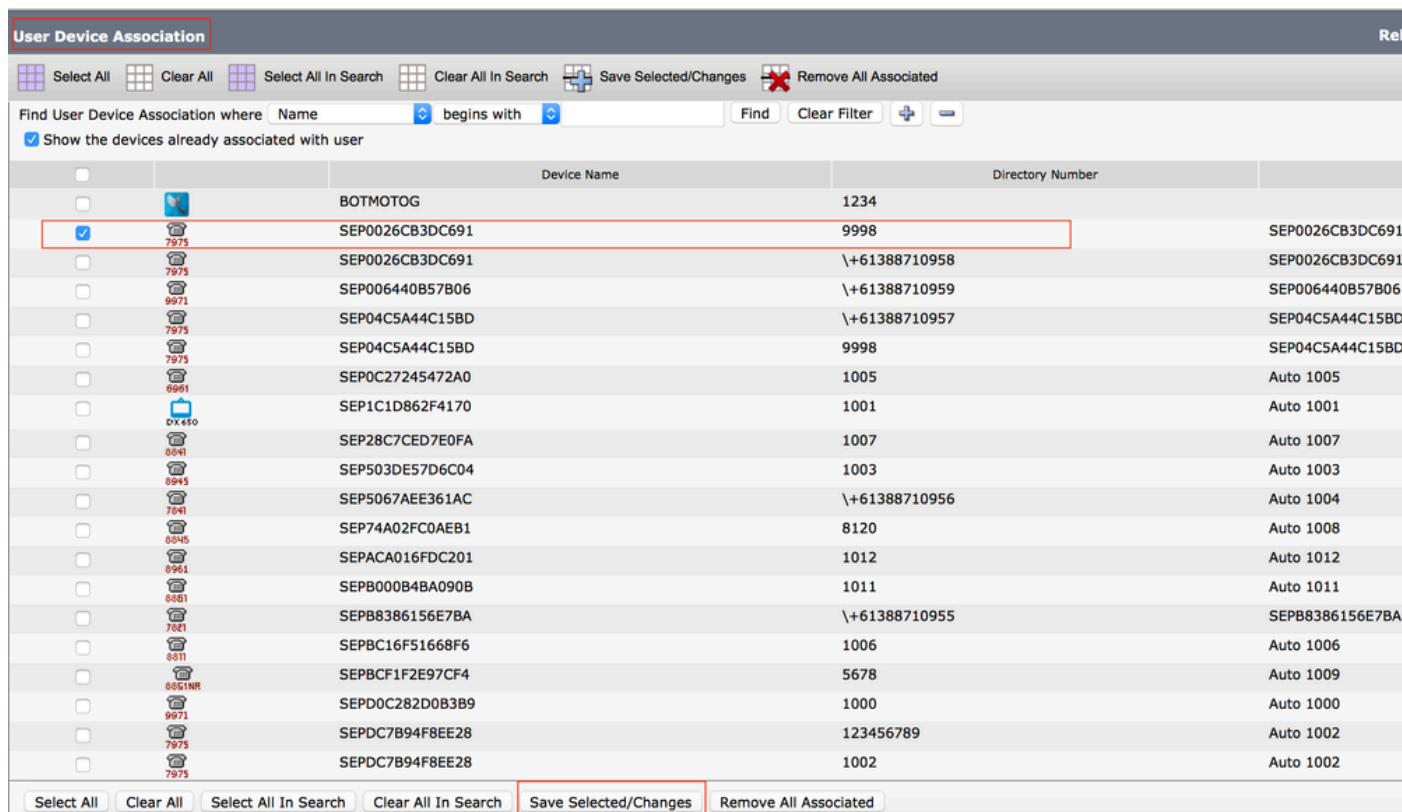
When you work with CUCM, the performed tasks are related to these activities:

- User Configuration
- Remote Destination Profile Configuration
- Remote Destination Configuration

## User Configuration



You are directed to a User Device Association page, where you can select the device which needs to be associated as the deskphone of the user, then click **Save Selected/Changes**, as shown in the image:

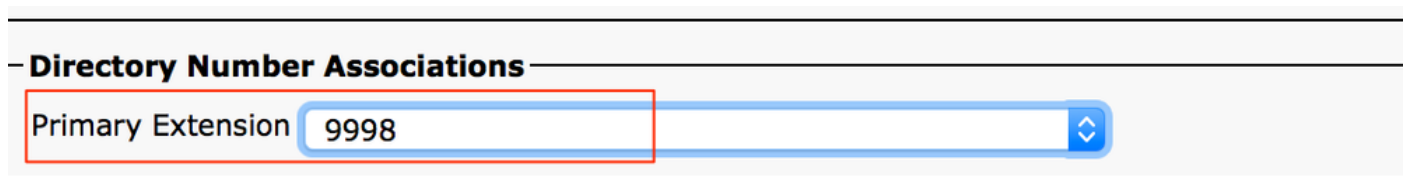


Once done, as shown in the image, you must see the device name in the section controlled devices.



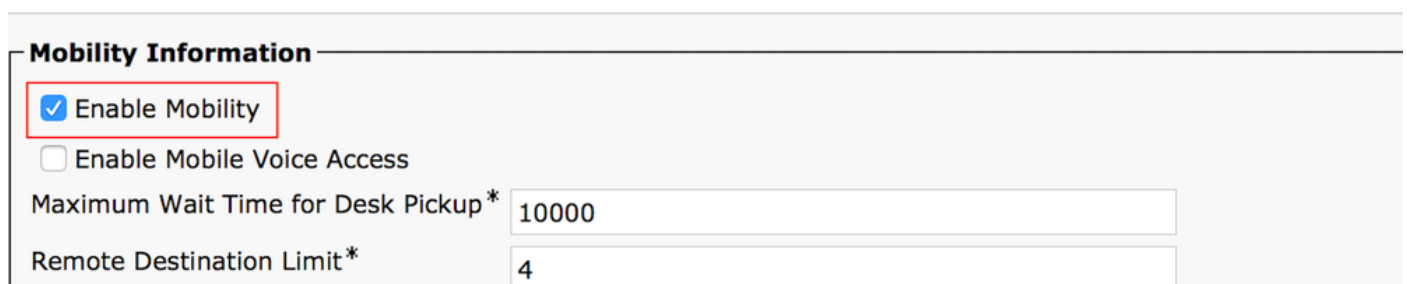
The screenshot shows the 'End User Configuration' interface. At the top, there are buttons for 'Save', 'Delete', and 'Add New'. Below this is the 'Device Information' section, which contains a table with 'Controlled Devices' and a value 'SEP0026CB3DC691'. To the right, there are buttons for 'Device Association' and 'Line Appearance Association for Presence'.

Choose the Primary extension for the device as shown in this image:



The screenshot shows the 'Directory Number Associations' section. It features a 'Primary Extension' dropdown menu with the value '9998' selected.

Check the **Enable Mobility** check box. You can also modify the Maximum Wait Time for Desk Pickup and Remote Destination Limit, if required. Moreover, the default values can be seen in the image:



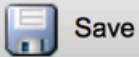
The screenshot shows the 'Mobility Information' section. It includes a checked 'Enable Mobility' checkbox, an unchecked 'Enable Mobile Voice Access' checkbox, and two input fields: 'Maximum Wait Time for Desk Pickup\*' with the value '10000' and 'Remote Destination Limit\*' with the value '4'.

## Remote Destination Profile Configuration

Create a Remote Destination Profile (RDP) for the end user .

In order to create a new RDP profile, navigate to **Device > Device Settings > Remote Destination Profile > Add new**.

## Remote Destination Profile Configuration



Save

### Status



Status: Ready

### Remote Destination Profile Information

Name*	RDP-Sankalp
Description	
User ID*	sankalp
Device Pool*	Default
Calling Search Space	< None >
AAR Calling Search Space	< None >
User Hold Audio Source	< None >
Network Hold MOH Audio Source	< None >
Privacy*	Default
Rerouting Calling Search Space	< None >
Calling Party Transformation CSS	< None >
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	
User Locale	< None >
Network Locale	< None >
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	

### Do Not Disturb

<input type="checkbox"/> Do Not Disturb	
DND Option*	Call Reject


Save

Click **Save**. Now you can see an option to add a new Directory Number (DN).



Click **Add a new DN** to navigate to a directory number configuration where you need to specify the directory number of the desk phone with which you need to associate the RDP. Click **Save**.

## Remote Destination Profile Configuration

 Save  Delete  Copy  Add New

 Add successful


### Association Information


1   Line [1] - [Add a new DN](#)


### Remote Destination Profile Information


Name\*


Description


User ID\*  


Device Pool\*  


Calling Search Space  


AAR Calling Search Space  

User Hold Audio Source  


Network Hold MOH Audio Source  


Privacy\*  

Rerouting Calling Search Space  

Calling Party Transformation CSS  

Use Device Pool Calling Party Transformation CSS

User Locale  

Network Locale  


Ignore Presentation Indicators (internal calls only)

### Associated Remote Destinations

[Add a New Remote Destination](#)





### Do Not Disturb

Do Not Disturb


DND Option\*  

It is also important to know that the CUCM attempts to reach the remote destination through the **Rerouting calling search Space**.

## Directory Number Configuration

 Save  Delete  Reset  Apply Config  Add New

### Status

 Update successful

### Directory Number Information

Directory Number\*   Urgent Priority

After you save the directory number, specify the correct CSS against Rerouting calling search space. Click **Add a New Remote Destination**, as shown in the image:

**Remote Destination Profile Configuration**

Save ✖ Delete 📄 Copy ➕ Add New

---

**Status**  
📘 Status: Ready

---

**Association Information**  

1	📞 7712 📞 7719	Line [1] - 9998 (no partition)
2	📞 7712 📞 7719	Line [2] - Add a new DN

**Remote Destination Profile Information**  

Name*	<input type="text" value="RDP-Sankalp"/>
Description	<input type="text"/>
User ID*	<input type="text" value="sankalp"/> ⌵
Device Pool*	<input type="text" value="Default"/> ⌵
Calling Search Space	<input type="text" value="test"/> ⌵
AAR Calling Search Space	<input type="text" value="&lt; None &gt;"/> ⌵
User Hold Audio Source	<input type="text" value="1-SampleAudioSource"/> ⌵
Network Hold MOH Audio Source	<input type="text" value="1-SampleAudioSource"/> ⌵
Privacy*	<input type="text" value="Default"/> ⌵
Rerouting Calling Search Space	<input type="text" value="test"/> ⌵
Calling Party Transformation CSS	<input type="text" value="test"/> ⌵
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	
User Locale	<input type="text" value="&lt; None &gt;"/> ⌵
Network Locale	<input type="text" value="&lt; None &gt;"/> ⌵
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	

**Associated Remote Destinations**  
[Add a New Remote Destination](#)

## Remote Destination Configuration

Specify the Destination number, as this is the number for your remote destination .

Ensure that the check box, **Enable Unified Mobility features, Enable Single Number Reach, Enable Move to Mobile** is checked.

Single Number Reach Voicemail Policy provides two options:

- Timer Control (default)
- User Control

Under the **Timer Information** section, specify the amount of delay before the Remote Destination can ring.

In case the Remote Destination is required to ring immediately, you can set the **Wait\*** as zero.

It is also important to calibrate the time in which the service provider of the remote destination sends the call to the voice-mail of the remote destination. The **Stop ringing this phone after** value can be set to lesser than that to ensure that the call does not go to the voicemail of the cell phone. This time value is specified against **Stop ringing this phone after**.

In the previous call manager version, these parameters had different names:

- Delay before ringing timer

- Answer too soon timer
- Answer too late timer

**Remote Destination Configuration**

Save

**Status**  
 Status: Ready

**Remote Destination Information**

Name: RDP-Sankalp  
 Destination Number\*: 9008815186  
 Owner User ID\*: sankalp

Enable Unified Mobility features  
 Remote Destination Profile\*: RDP-Sankalp  
 Single Number Reach Voicemail Policy\*: Use System Default

Enable Single Number Reach  
 Ring this phone and my business phone at the same time when my business line(s) is dialed.

Enable Move to Mobile  
 If this is a mobile phone, transfer active calls to this phone when the mobility button on your Cisco IP Phone is pressed.

Enable Extend and Connect  
 Allow this phone to be controlled by CTI applications (e.g. Jabber)  
 CTI Remote Device\*: -- Not Selected --

**Timer Information**

Wait\* 4.0 seconds before ringing this phone when my business line is dialed.\*  
 Prevent this call from going straight to this phone's voicemail by using a time delay of\* 1.5 seconds to detect when calls go straight to voicemail.\*  
 Stop ringing this phone after\* 19.0 seconds to avoid connecting to this phone's voicemail.\*

If the SNR voicemail policy is configured for User Control, the timer information changes, as shown in the image:

Single Number Reach Voicemail Policy\* User Control

Enable Single Number Reach  
 Ring this phone and my business phone at the same time when my business line(s) is dialed.

Enable Move to Mobile  
 If this is a mobile phone, transfer active calls to this phone when the mobility button on your Cisco IP Phone is pressed.

Enable Extend and Connect  
 Allow this phone to be controlled by CTI applications (e.g. Jabber)  
 CTI Remote Device\* -- Not Selected --

**Timer Information**

Wait\* 4.0 seconds before ringing this phone when my business line is dialed.\*  
 Prevent this call from going straight to this phone's voicemail by requiring you to respond to a prompt to be connected.  
 Stop ringing this phone after\* 19.0 seconds to avoid connecting to this phone's voicemail.\*

In case the SNR configuration needs to be restricted based on time and day, these options are modified as required. If no restriction needs to be applied, the **Ring Schedule** can be set to **All the time** and **When receiving a call during the ring schedule** can be set to **Always ring this destination**.

After you complete the configuration of remote destination, click **Save**.

**When Single Number Reach is Enabled**

**Ring Schedule**

All the time

As specified below

Monday  All Day No Office Hours to No Office Hours

Tuesday  All Day No Office Hours to No Office Hours

Wednesday  All Day No Office Hours to No Office Hours

Thursday  All Day No Office Hours to No Office Hours

Friday  All Day No Office Hours to No Office Hours

Saturday  All Day No Office Hours to No Office Hours

Sunday  All Day No Office Hours to No Office Hours

Time Zone\* (GMT) Etc/GMT

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**When receiving a call during the above ring schedule**

Always ring this destination

Ring this destination only if caller is in -- Not Selected -- [View Details](#)

Do not ring this destination if caller is in -- Not Selected -- [View Details](#)

Check the checkbox, which is next to the line, and click **Save**.

**Remote Destination Configuration** Related

Save Delete Copy Add New

**Status**

Add successful

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**Remote Destination Profile**

Line	Line Association
Line [1] - 9998 (no partition)	<input checked="" type="checkbox"/>

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**Remote Destination Information**

Name: RDP-Sankalp

Destination Number\*: 9008815186

Owner User ID\*: sankalp

Enable Unified Mobility features

Remote Destination Profile\*: RDP-Sankalp

Single Number Reach Voicemail Policy\*: Use System Default

Enable Single Number Reach  
Ring this phone and my business phone at the same time when my business line(s) is dialed.

Enable Move to Mobile  
If this is a mobile phone, transfer active calls to this phone when the mobility button on your Cisco IP Phone is pressed.

Enable Extend and Connect  
Allow this phone to be controlled by CTI applications (e.g. Jabber)

CTI Remote Device\*: -- Not Selected --

---

**Timer Information**

Wait\* 4.0 seconds before ringing this phone when my business line is dialed.\*

Prevent this call from going straight to this phone's voicemail by using a time delay of\* 1.5 seconds to detect when calls go straight to voicemail.\*

Stop ringing this phone after\* 19.0 seconds to avoid connecting to this phone's voicemail.\*

## Verify

Use this section in order to confirm that your configuration works properly.

Verify the name of the Remote Destination Profile, which is reflected on the End user page.



**Mobility Information**

Enable Mobility

Enable Mobile Voice Access

Maximum Wait Time for Desk Pickup\*






Remote Destination Limit\*

Remote Destination Profiles


[View Details](#)

On the directory number page, you must see the name of the Remote Destination Profile in the section Associated Devices.

**Directory Number Configuration**

 Save
  Delete
  Reset
  Apply Config
  Add New

**Status**

 Status: Ready

**Directory Number Information**

Directory Number\*   Urgent Priority

Route Partition

Description

Alerting Name

ASCII Alerting Name

External Call Control Profile

Allow Control of Device from CTI

Associated Devices

[Edit Device](#)

[Edit Line Appearance](#)

Perform a test through Dialed Number Analysis to check whether the call manager directs the call to the remote destination based on configuration or not.

In order to perform a dialed number analysis, navigate to **Cisco Unified Serviceability > Tools > Dialed Number Analyzer > Analysis > Phones > Find > Choose the calling phone.**

Specify the Directory number of the desk phone and click **Do Analysis**.

**Analyzer Input**

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**Dialed Digit Settings**

Directory URI

Dialed Digits

Pattern Analysis
  SIP Analysis
 

- Domain Route
- IP Route

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**Date and Time Settings**

Time Zone

Date  -  -  (YYYY - MMM - DD)

Time  -  -  -  (HH : MM : SS : MS)

On the Analysis output, the call is extended to the RDP along with the desk phone, which confirms the eventual effects of SNR configuration.

**DNA Analysis Output**

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**Cisco Unified Communications Manager Dialed Number Analyzer Results**

▼ **Results Summary**

- ▼ **Calling Party Information**
  - Calling Party = 1002
  - Partition =
  - Device CSS =
  - Line CSS =
  - AAR Group Name =
  - AAR CSS =
  - **Dialed Digits = 9998**
  - **Match Result = RouteThisPattern**
- ▼ **Matched Pattern Information**
  - Pattern = 9998
  - Partition =
  - Time Schedule =
- **Called Party Number = 9998**

- ▼ **Device :Type= Cisco 7975**
  - **Device Status** = UnKnown
  - **Device Name** = SEP0026CB3DC691

- ▼ **Device :Type= Remote Destination Profile**
  - **Device Status** = UnKnown
  - **Device Name** = RDP-Sankalp
  - **Ignore Presentation Indicators** = Disabled
  - **Logged Into Hunt Groups** = Disabled
  - **Alerting Name** =
  - **Dual Mode** = Disabled

## Troubleshoot

There is currently no specific information available to troubleshoot this configuration.