

# ALM CallManager configuration Manual for CUCM11



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# Configuration manual ALM

This manual describes the configuration steps to complete the ALM settings for a user.

Only the Cisco® Unified Communications Manager (CUCM) part of the installation will be discussed in this manual.

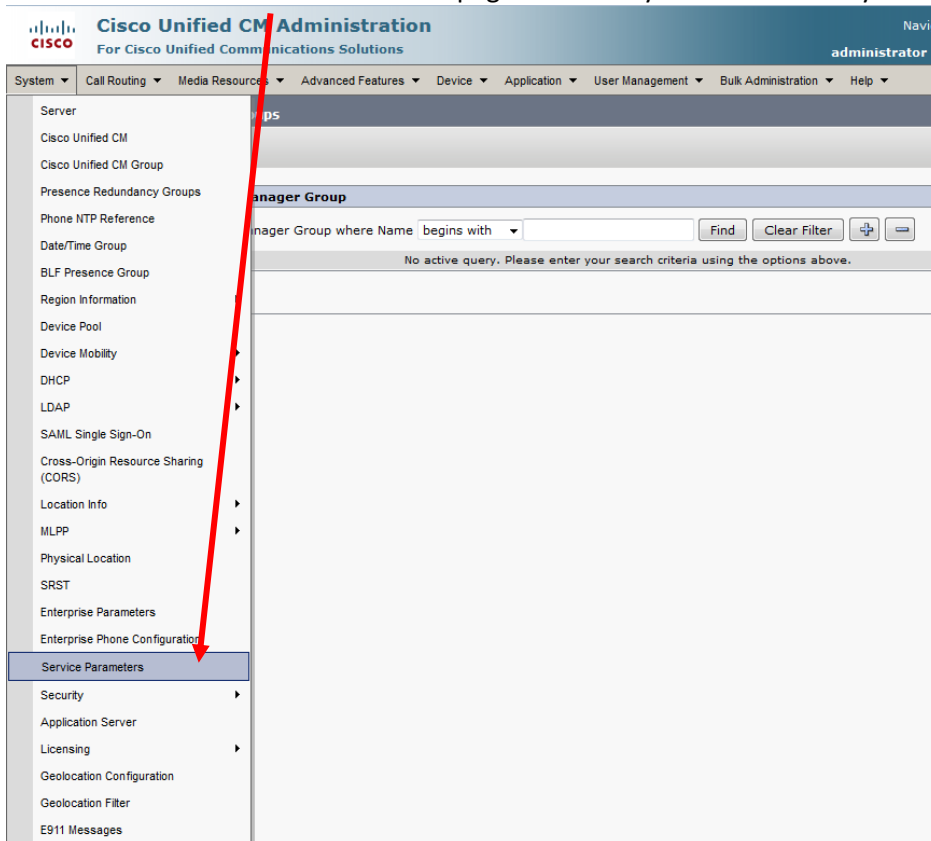
Several steps are required like the configuration of a device/phone and the configuration of a Device Profile and a user.

This manual does not contain instructions on how to configure Partitions, CallingSearchSpaces and other phone and user settings.

## System settings

Log on to the Cisco Unified CM Administration page

- On the CUCM Administration page click on “System” followed by “Service Parameters”



- Select the Publisher / Primary CUCM Server
- Select the Cisco Extension Mobility Service

The screenshot shows the 'Service Parameter Configuration' page in Cisco Unified CM Administration. The 'Server\*' dropdown is set to '192.168.1.241--CUCM Voice/Video (Active)'. The 'Service\*' dropdown is currently set to '-- Not Selected --'. A red arrow points to 'Cisco Extension Mobility (Active)' in the expanded list of services. Other services listed include Cisco AMC Service, Cisco Audit Event Service, Cisco Bulk Provisioning Service, Cisco CTIManager, Cisco CTL Provider, Cisco CallManager, Cisco CallManager SNMP Service, Cisco Certificate Authority Proxy Function, Cisco DRF Local, Cisco DRF Master, Cisco Database Layer Monitor, Cisco DirSync, Cisco Directory Number Alias Lookup, Cisco Directory Number Alias Sync, Cisco Extended Functions, Cisco IP Manager Assistant, Cisco IP Voice Media Streaming App, and Cisco Intercluster Lookup Service.

The screenshot shows the configuration page for 'Cisco Extension Mobility (Active) Parameters on server 192.168.1.241--CUCM Voice/Video (Active)'. The 'Server\*' dropdown is set to '192.168.1.241--CUCM Voice/Video (Active)' and the 'Service\*' dropdown is set to 'Cisco Extension Mobility (Active)'. The page displays a table of parameters for this service.

Parameter Name	Parameter Value	Suggested Value
<b>Clusterwide Parameters (Parameters that apply to all servers)</b>		
<a href="#">Enforce Intra-cluster Maximum Login Time</a> *	False	False
<a href="#">Intra-cluster Maximum Login Time</a> *	8:00	8:00
<a href="#">Inter-cluster Maximum Login Time</a> *	10:00	10:00
<a href="#">Intra-cluster Multiple Login Behavior</a> *	Auto Logout	Multiple Logins Not Allowed
<a href="#">Alphanumeric User ID</a> *	True	True
<a href="#">Remember the Last User Logged In</a> *	False	False
<a href="#">Clear Call Logs on Intra-Cluster EM</a> *	False	False

The 'Intra-cluster Multiple Login Behavior' parameter is highlighted with a red box. Below the table, there are buttons for 'Save', 'Set to Default', and 'Advanced'. A note at the bottom states: '\* indicates required item.' and '\*\*The Set-to-Default button restores all parameters that have been modified to their original default values.'

In the CUCM several Service Parameters for the ExtensionMobility service must be changed.

One of the required settings is the "Intra-Cluster Multiple Login Behaviour". This will control the procedure of the login request.

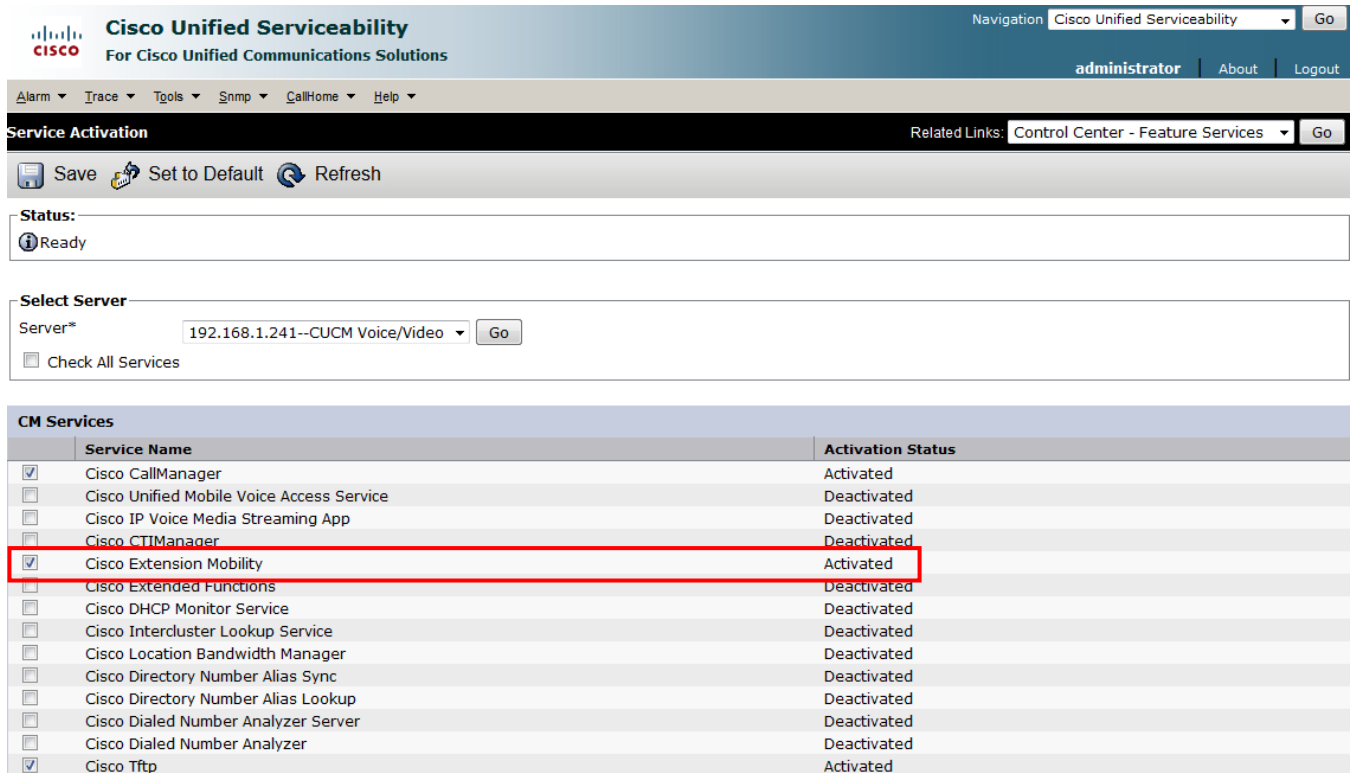
The required setting is “Auto Logout”. This feature will automatically logout or disconnect a user if he/she is already logged into another IP Phone.

So this setting will automatically logoff a user if he/she is already logged on at another extension.

All the other settings may be changed depending on the situation.

## Service settings

Verify the Cisco Extension Mobility Service is activated on all CallManager Servers.



The screenshot shows the Cisco Unified Serviceability interface. The top navigation bar includes the Cisco logo, the text "Cisco Unified Serviceability For Cisco Unified Communications Solutions", and a navigation dropdown menu set to "Cisco Unified Serviceability" with a "Go" button. Below the navigation bar, there are tabs for "Alarm", "Trace", "Tools", "Snmp", "CallHome", and "Help". The main content area is titled "Service Activation" and includes a "Related Links" dropdown menu set to "Control Center - Feature Services" with a "Go" button. Below this, there are buttons for "Save", "Set to Default", and "Refresh". The "Status:" section shows "Ready". The "Select Server" section has a "Server\*" dropdown menu set to "192.168.1.241--CUCM Voice/Video" and a "Go" button, along with a "Check All Services" checkbox. The "CM Services" section contains a table with the following data:

	Service Name	Activation Status
<input checked="" type="checkbox"/>	Cisco CallManager	Activated
<input type="checkbox"/>	Cisco Unified Mobile Voice Access Service	Deactivated
<input type="checkbox"/>	Cisco IP Voice Media Streaming App	Deactivated
<input type="checkbox"/>	Cisco CTIManager	Deactivated
<input checked="" type="checkbox"/>	Cisco Extension Mobility	Activated
<input type="checkbox"/>	Cisco Extended Functions	Deactivated
<input type="checkbox"/>	Cisco DHCP Monitor Service	Deactivated
<input type="checkbox"/>	Cisco Intercluster Lookup Service	Deactivated
<input type="checkbox"/>	Cisco Location Bandwidth Manager	Deactivated
<input type="checkbox"/>	Cisco Directory Number Alias Sync	Deactivated
<input type="checkbox"/>	Cisco Directory Number Alias Lookup	Deactivated
<input type="checkbox"/>	Cisco Dialed Number Analyzer Server	Deactivated
<input type="checkbox"/>	Cisco Dialed Number Analyzer	Deactivated
<input checked="" type="checkbox"/>	Cisco Tftp	Activated

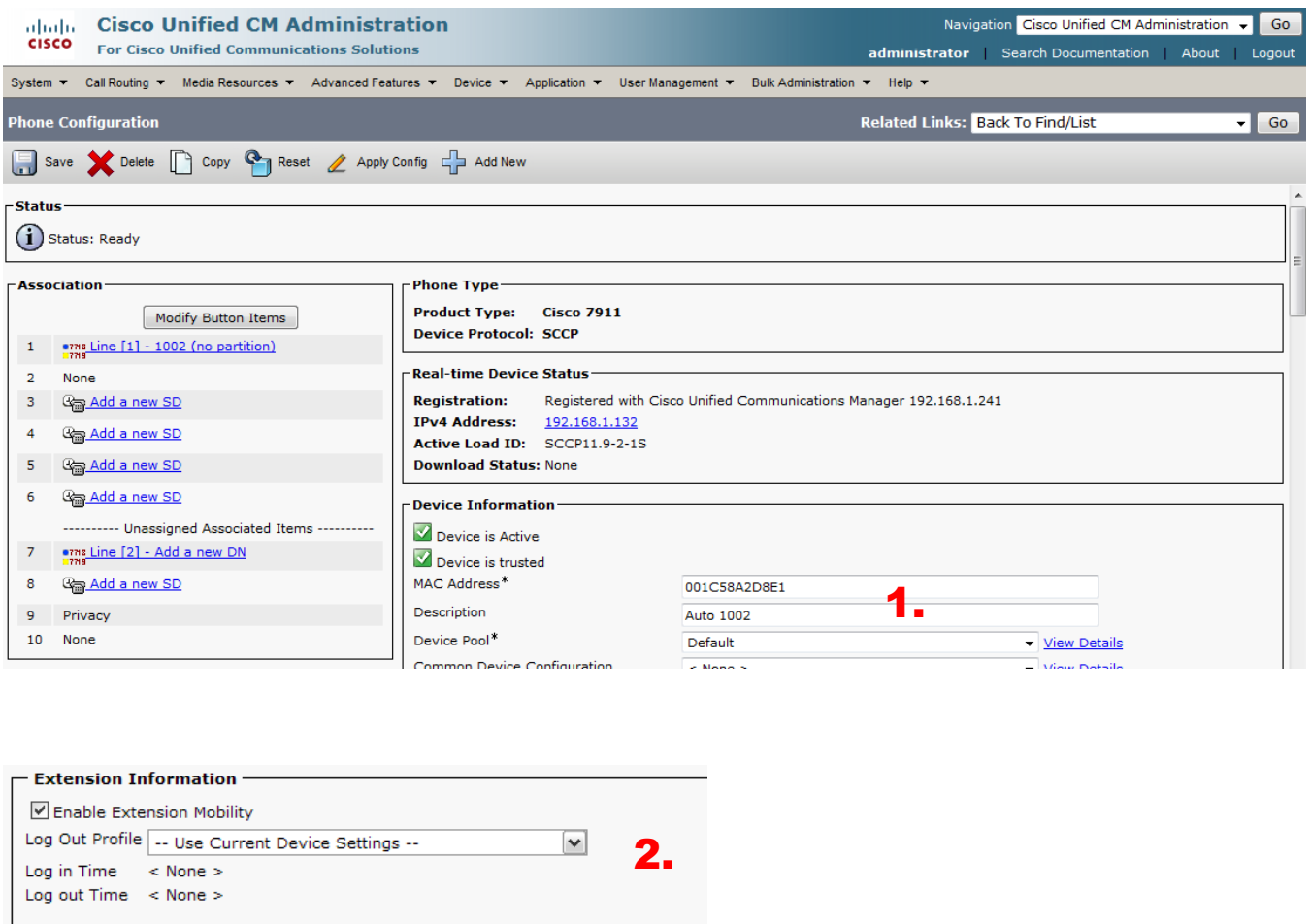
Verify the Cisco Extension Mobility Service is running on all CallManager Servers.

CM Services					
	Service Name	Status:	Activation Status	Start Time	Up Time
<input type="radio"/>	Cisco CallManager	Started	Activated	Wed Jul 3 14:13:06 2013	0 days 02:49:19
<input type="radio"/>	Cisco Messaging Interface	Not Running	Deactivated		
<input type="radio"/>	Cisco Unified Mobile Voice Access Service	Not Running	Deactivated		
<input type="radio"/>	Cisco IP Voice Media Streaming App	Not Running	Deactivated		
<input type="radio"/>	Cisco CTIManager	Not Running	Deactivated		
<input type="radio"/>	Cisco Extension Mobility	Started	Activated	Wed Jul 3 14:22:57 2013	0 days 02:39:28
<input type="radio"/>	Cisco DHCP Monitor Service	Not Running	Deactivated		
<input type="radio"/>	Cisco Intercluster Lookup Service	Not Running	Deactivated		
<input type="radio"/>	Cisco Location Bandwidth Manager	Not Running	Deactivated		
<input type="radio"/>	Cisco Dialed Number Analyzer Server	Not Running	Deactivated		
<input type="radio"/>	Cisco Dialed Number Analyzer	Not Running	Deactivated		
<input type="radio"/>	Cisco Tftp	Started	Activated	Wed Jul 3 14:13:09 2013	0 days 02:49:16

# Device settings

The following settings are a required field on every phone or device:

- 1) **Description:** Administrative field to identify each phone in the system
- 2) **Enable Extension Mobility Feature:** to activate the possibility to logon to this specific phone
- 3) **PC Voice VLAN Access:** is a required field and must always be enabled. This field enables the ALM to detect the phone.
- 4) **Web Access Enabled:** is a required field and must always be enabled.
- 5) Optional the Extension Mobility (XML) service can be activated on the phone, when the ALM application does not start or does not exists on the PC a user can always login manually on the phone.



The screenshot shows the Cisco Unified CM Administration interface for a phone configuration. The page title is "Phone Configuration" and it includes navigation menus for System, Call Routing, Media Resources, Advanced Features, Device, Application, User Management, Bulk Administration, and Help. The phone is identified as a Cisco 7911 with Product Type "Cisco 7911" and Device Protocol "SCCP".

**Association Table:**

Line	Description
1	Line [1] - 1002 (no partition)
2	None
3	Add a new SD
4	Add a new SD
5	Add a new SD
6	Add a new SD
----- Unassigned Associated Items -----	
7	Line [2] - Add a new DN
8	Add a new SD
9	Privacy
10	None

**Phone Type:**  
**Product Type:** Cisco 7911  
**Device Protocol:** SCCP

**Real-time Device Status:**  
**Registration:** Registered with Cisco Unified Communications Manager 192.168.1.241  
**IPv4 Address:** 192.168.1.132  
**Active Load ID:** SCCP11.9-2-1S  
**Download Status:** None

**Device Information:**  
 Device is Active  
 Device is trusted  
**MAC Address\*:** 001C58A2D8E1  
**Description:** Auto 1002  
**Device Pool\*:** Default  
[View Details](#)

**Extension Information:**  
 Enable Extension Mobility  
**Log Out Profile:** -- Use Current Device Settings --  
**Log in Time:** < None >  
**Log out Time:** < None >

**Product Specific Configuration Layout**

	Parameter Value	Override Common Settings
<input type="checkbox"/> Disable Speakerphone		
<input type="checkbox"/> Enable Group Listen		
<input type="checkbox"/> Enable Mute Feature		<input type="checkbox"/>
Forwarding Delay*	Disabled	
PC Port *	Enabled	
Settings Access*	Enabled	<input type="checkbox"/>
Gratuitous ARP*	Disabled	
PC Voice VLAN Access*	Enabled <b>3.</b>	
Video Capabilities*	Disabled	<input type="checkbox"/>
Web Access*	Enabled <b>4.</b>	<input checked="" type="checkbox"/>
Enable Power Save Plus	Sunday Monday Tuesday	<input type="checkbox"/>
Phone On Time	00:00	<input type="checkbox"/>
Phone Off Time	24:00	<input type="checkbox"/>
Phone Off Idle Timeout*	60	<input type="checkbox"/>
<input type="checkbox"/> Enable Audible Alert		<input type="checkbox"/>
EnergyWise Domain		<input type="checkbox"/>
EnergyWise Endpoint Security Secret		<input type="checkbox"/>
<input type="checkbox"/> Allow EnergyWise Overrides		<input type="checkbox"/>
Span to PC Port*	Disabled	
Logging Display*	PC Controlled	
Load Server		<input type="checkbox"/>
Recording Tone*	Disabled	

**Subscribed Cisco IP Phone Services for SEP001A2F8DFA32**

Save ? Help

**Status**  
*i* Add successful

Service Subscription: Extension Mobility

**Service Information**

Service Name\*

ASCII Service Name\*  **5.**

**Subscribed Services**

[Subscribe a New Service](#)

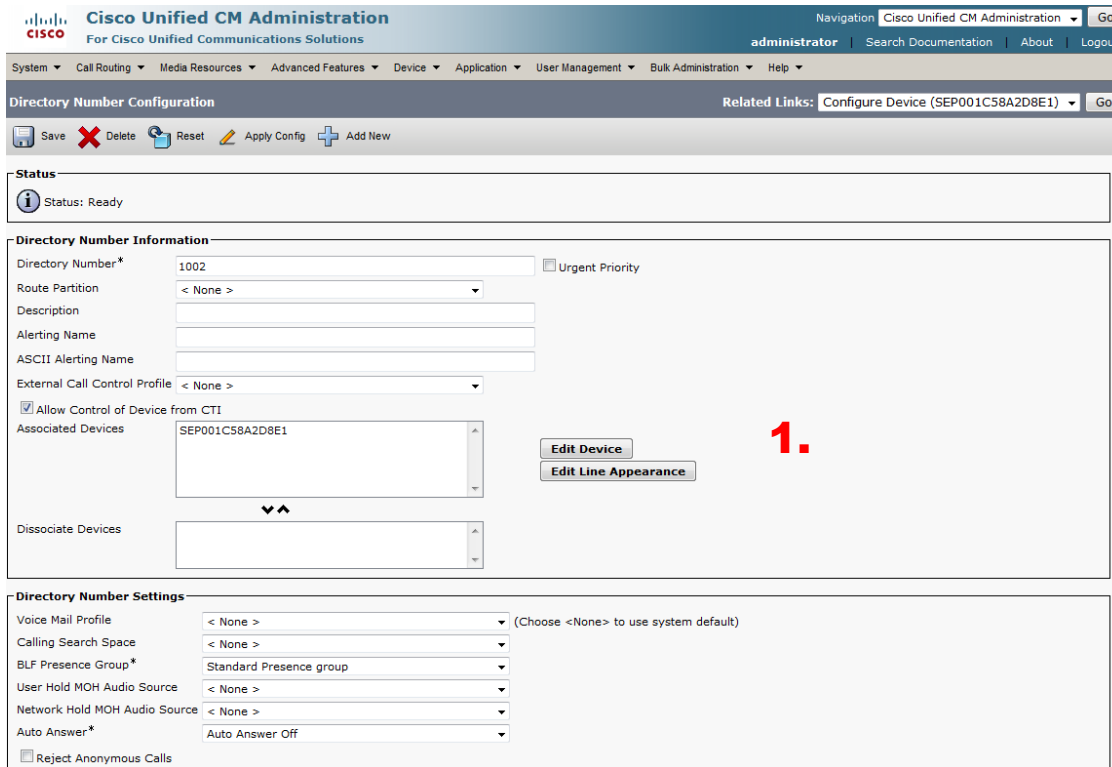
[Extension Mobility](#)

Unsubscribe Delete

*i* \*- indicates required item.

# Line settings

Every phone requires a line to place and accept calls. This is not a required field for the ALM to function correctly.



**Cisco Unified CM Administration**  
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Navigation: Cisco Unified CM Administration | Go  
administrator | Search Documentation | About | Logout

System | Call Routing | Media Resources | Advanced Features | Device | Application | User Management | Bulk Administration | Help

Directory Number Configuration | Related Links: Configure Device (SEP001C58A2D8E1) | Go

Save | Delete | Reset | Apply Config | Add New

**Status**  
Status: Ready

**Directory Number Information**

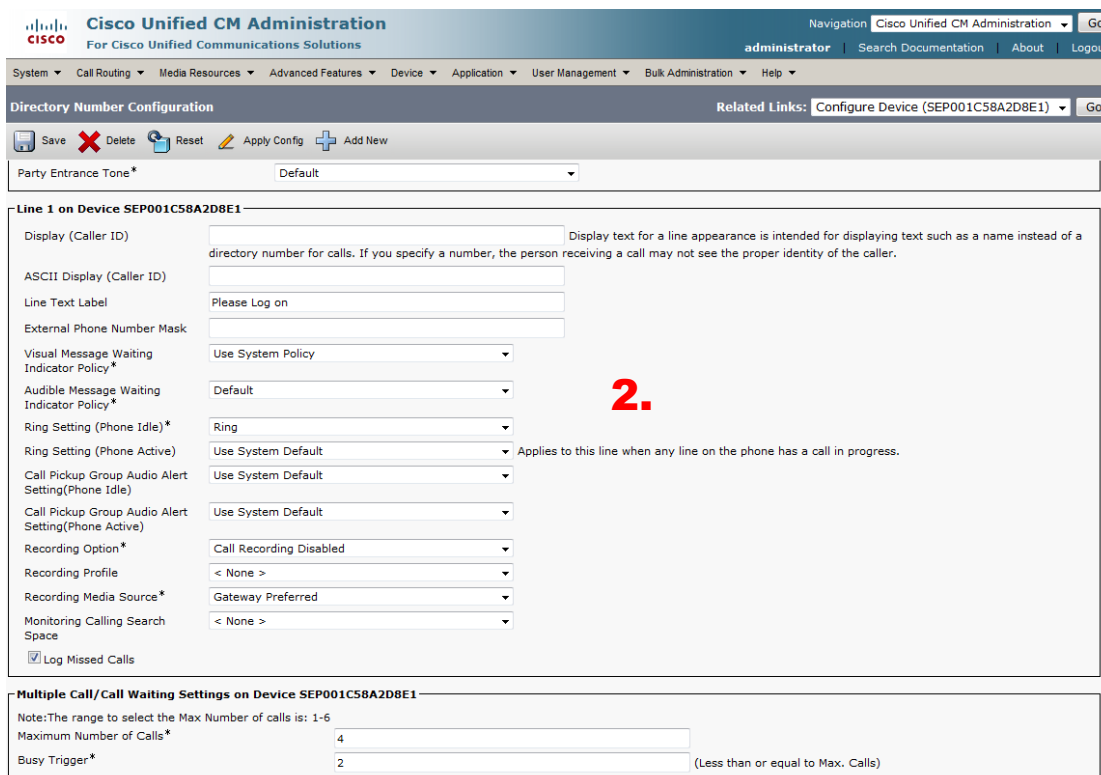
Directory Number\*: 1002  Urgent Priority  
Route Partition: < None >  
Description:  
Alerting Name:  
ASCII Alerting Name:  
External Call Control Profile: < None >  
 Allow Control of Device from CT1  
Associated Devices: SEP001C58A2D8E1  
Dissociate Devices:

Edit Device | Edit Line Appearance

**1.**

**Directory Number Settings**

Voice Mail Profile: < None > (Choose <None> to use system default)  
Calling Search Space: < None >  
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



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Directory Number Configuration | Related Links: Configure Device (SEP001C58A2D8E1) | Go

Save | Delete | Reset | Apply Config | Add New

Party Entrance Tone\*: Default

**Line 1 on Device SEP001C58A2D8E1**

Display (Caller ID): directory number for calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.  
ASCII Display (Caller ID):  
Line Text Label: Please Log on  
External Phone Number Mask:  
Visual Message Waiting Indicator Policy\*: Use System Policy  
Audible Message Waiting Indicator Policy\*: Default  
Ring Setting (Phone Idle)\*: Ring  
Ring Setting (Phone Active): Use System Default Applies to this line when any line on the phone has a call in progress.  
Call Pickup Group Audio Alert Setting(Phone Idle): Use System Default  
Call Pickup Group Audio Alert Setting(Phone Active): Use System Default  
Recording Option\*: Call Recording Disabled  
Recording Profile: < None >  
Recording Media Source\*: Gateway Preferred  
Monitoring Calling Search Space: < None >  
 Log Missed Calls

**2.**

**Multiple Call/Call Waiting Settings on Device SEP001C58A2D8E1**

Note: The range to select the Max Number of calls is: 1-6  
Maximum Number of Calls\*: 4  
Busy Trigger\*: 2 (Less than or equal to Max. Calls)

The “Line Text Label” field is the text which is displayed on the phone to identify a phone or a user. Because the phone in this example is only an internal phone and can only be used in combination with ExtensionMobility and ALM.

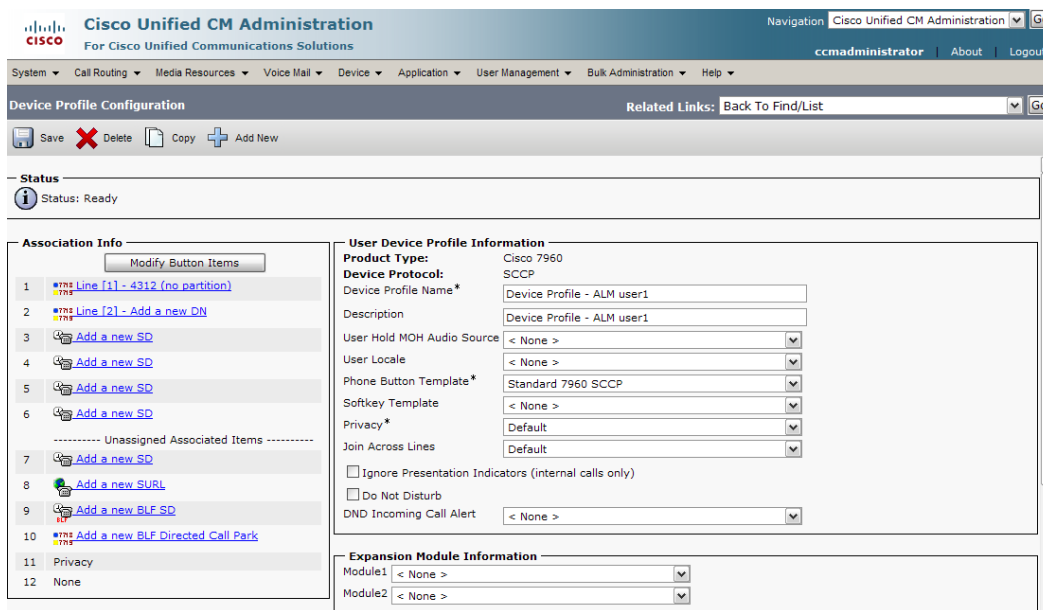


Using an internal Partition and CallingSearchSpaces the phone can be restricted to only dial internal numbers. This will prevent unauthorized usage of the phone if no user has logged on. This way the costs can be reduced.

## Device profile

A User Device Profile is the profile which will be loaded on the phone when a user logs in using ALM. The settings which were previously configured on the phone will not be available anymore.

- Optional the Extension Mobility IP Phone service can be activated on the phone, when the ALM application does start on the PC a user can always login manually on the phone.



The screenshot shows the Cisco Unified CM Administration interface for Device Profile Configuration. The page title is "Device Profile Configuration" and the user is logged in as "ccmadministrator". The status is "Ready".

**Association Info**

1	Line [1] - 4312 (no partition)
2	Line [2] - Add a new DN
3	Add a new SD
4	Add a new SD
5	Add a new SD
6	Add a new SD
----- Unassigned Associated Items -----	
7	Add a new SD
8	Add a new SURL
9	Add a new BLF SD
10	Add a new BLF Directed Call Park
11	Privacy
12	None

**User Device Profile Information**

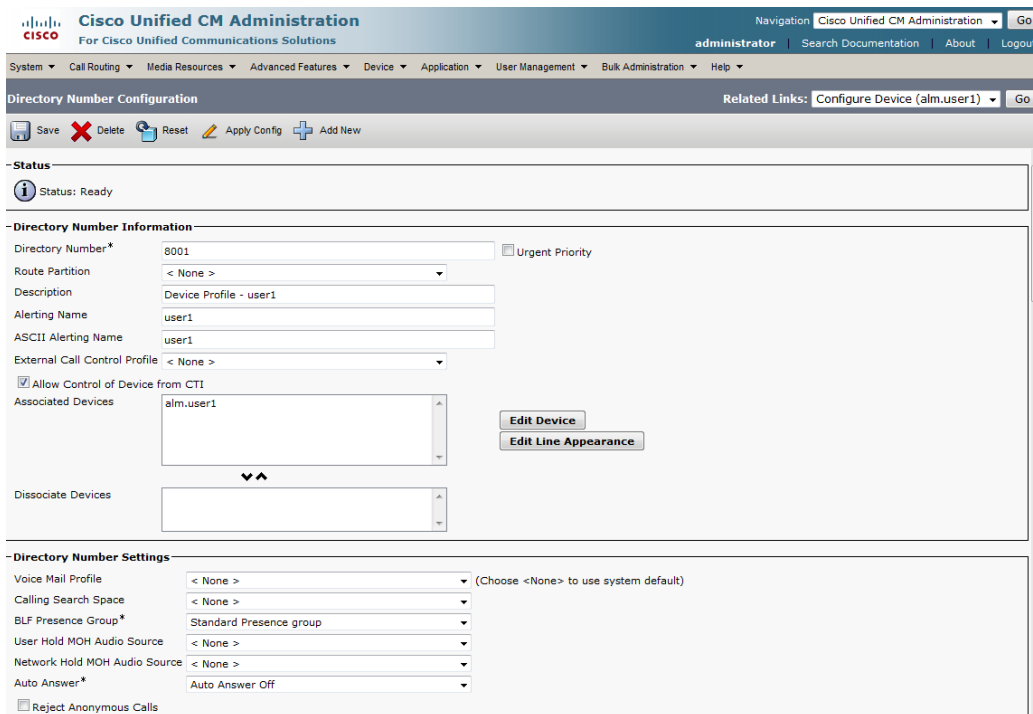
Product Type: Cisco 7960  
 Device Protocol: SCCP  
 Device Profile Name\*: Device Profile - ALM user1  
 Description: Device Profile - ALM user1  
 User Hold MOH Audio Source: < None >  
 User Locale: < None >  
 Phone Button Template\*: Standard 7960 SCCP  
 Softkey Template: < None >  
 Privacy\*: Default  
 Join Across Lines: Default  
 Ignore Presentation Indicators (internal calls only)  
 Do Not Disturb  
 DND Incoming Call Alert: < None >

**Expansion Module Information**

Module1: < None >  
 Module2: < None >

## Device profile directory number settings

The Directory Number Configuration will be loaded on the specific phone when a user logs on.



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Navigation: Cisco Unified CM Administration | Go

administrator | Search Documentation | About | Logout

System | Call Routing | Media Resources | Advanced Features | Device | Application | User Management | Bulk Administration | Help

Directory Number Configuration | Related Links: Configure Device (alm.user1) | Go

Save | Delete | Reset | Apply Config | Add New

**-Status-**  
Status: Ready

**-Directory Number Information-**

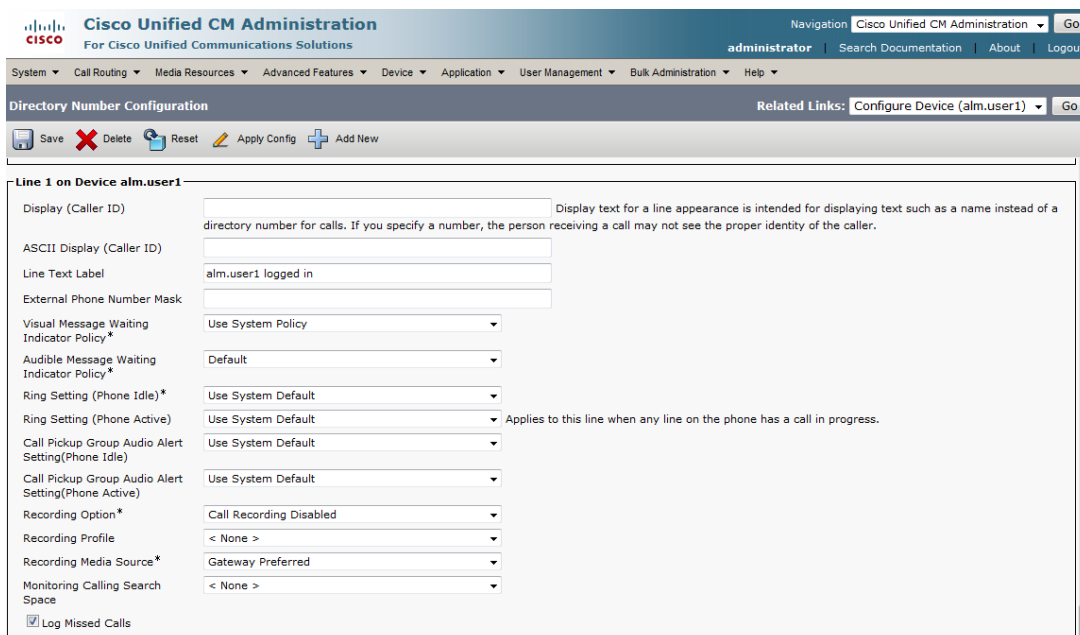
Directory Number\* 8001  Urgent Priority  
 Route Partition < None >  
 Description Device Profile - user1  
 Alerting Name user1  
 ASCII Alerting Name user1  
 External Call Control Profile < None >  
 Allow Control of Device from CTI  
 Associated Devices alm.user1  
 Dissociate Devices

Edit Device  
Edit Line Appearance

**-Directory Number Settings-**

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

All basic user settings can be configured in the field above. So a DN, Partition and CallingSearchSpace, also the forwards to voicemail or another internal or external destination can be configured on the phone.



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Directory Number Configuration | Related Links: Configure Device (alm.user1) | Go

Save | Delete | Reset | Apply Config | Add New

**Line 1 on Device alm.user1**

Display (Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Caller ID)

Line Text Label alm.user1 logged in

External Phone Number Mask

Visual Message Waiting Indicator Policy\* Use System Policy

Audible Message Waiting Indicator Policy\* Default

Ring Setting (Phone Idle)\* Use System Default

Ring Setting (Phone Active) Use System Default Applies to this line when any line on the phone has a call in progress.

Call Pickup Group Audio Alert Setting(Phone Idle) Use System Default

Call Pickup Group Audio Alert Setting(Phone Active) Use System Default

Recording Option\* Call Recording Disabled

Recording Profile < None >

Recording Media Source\* Gateway Preferred

Monitoring Calling Search Space < None >

Log Missed Calls

## Creating a user

The UserID is a required field, this field is the username which is send to the CallManager when a user logs in.

The ALM application will send this username to the system so the user does not have to enter their username manually on the phone anymore using the keypad.

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration Go  
administrator | Search Documentation | About | Logout

System Call Routing Media Resources Advanced Features Device Application User Management Bulk Administration Help

**End User Configuration** Related Links: Back to Find List Users Go

Save Delete Add New

**Status**  
Status: Ready

**User Information**

User Status: Enabled Local User

User ID\*: alm.user1

Password: [Redacted] Edit Credential

Confirm Password: [Redacted]

Self-Service User ID: [Empty]

PIN: [Redacted] Edit Credential

Confirm PIN: [Redacted]

Last name\*: user1

Middle name: [Empty]

First name: alm

Display name: [Empty]

Title: [Empty]

Directory URI: [Empty]

Telephone Number: 8001

Home Number: [Empty]

Mobile Number: [Empty]

The previously created DeviceProfile has to be attached to a user so the system knows which profile has to be loaded on the phone based on the entered UserID.

Scroll down to the “Extension Mobility” field to attach the DeviceProfile.

**Extension Mobility**

Available Profiles: user\_profile\_10, user\_profile\_11, user\_profile\_12, user\_profile\_13, user\_profile\_14

Controlled Profiles: user\_profile\_1

Default Profile: -- Not Selected --

BLF Presence Group\*: Standard Presence group

SUBSCRIBE Calling Search Space: < None >

Allow Control of Device from CTI

Enable Extension Mobility Cross Cluster

## Q & A

This Q&A provides an overview of commonly asked questions about the ALM.

- The device and the profile can have the same DN, this does not affect the operation of the ALM;
- If the device has no DN, this will not affect the operation of the ALM;
- From release 3 and up ALM supports multiple profiles;
- Access to the webpage of the phone is only required for automatic phone detection;
- Using a phone with no PC Port is supported, refer to the administration and configuration manual for more information;
- all phones with support for EM are supported by ALM;
- The UserID is not case-sensitive;
- ALM 4 and up supports EMCC;

## Ordering Information

Please send your quotation requests to [sales@rsconnect.net](mailto:sales@rsconnect.net) along with the number of licenses you require.

1 license is required for 1 PC/Phone combination, the license is not user or phone based.  
If two employees use 1 computer in combination with 1 IP Phone you will require 1 license.

## Additional Information

For any additional information please contact or visit:

- United Kingdom: +44 203 608 8259
- Other countries: +31 88 1221 800
- <http://www.rsconnect.net>
- [sales@rsconnect.net](mailto:sales@rsconnect.net)