

ALM CallManager configuration Manual for CUCM14



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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.

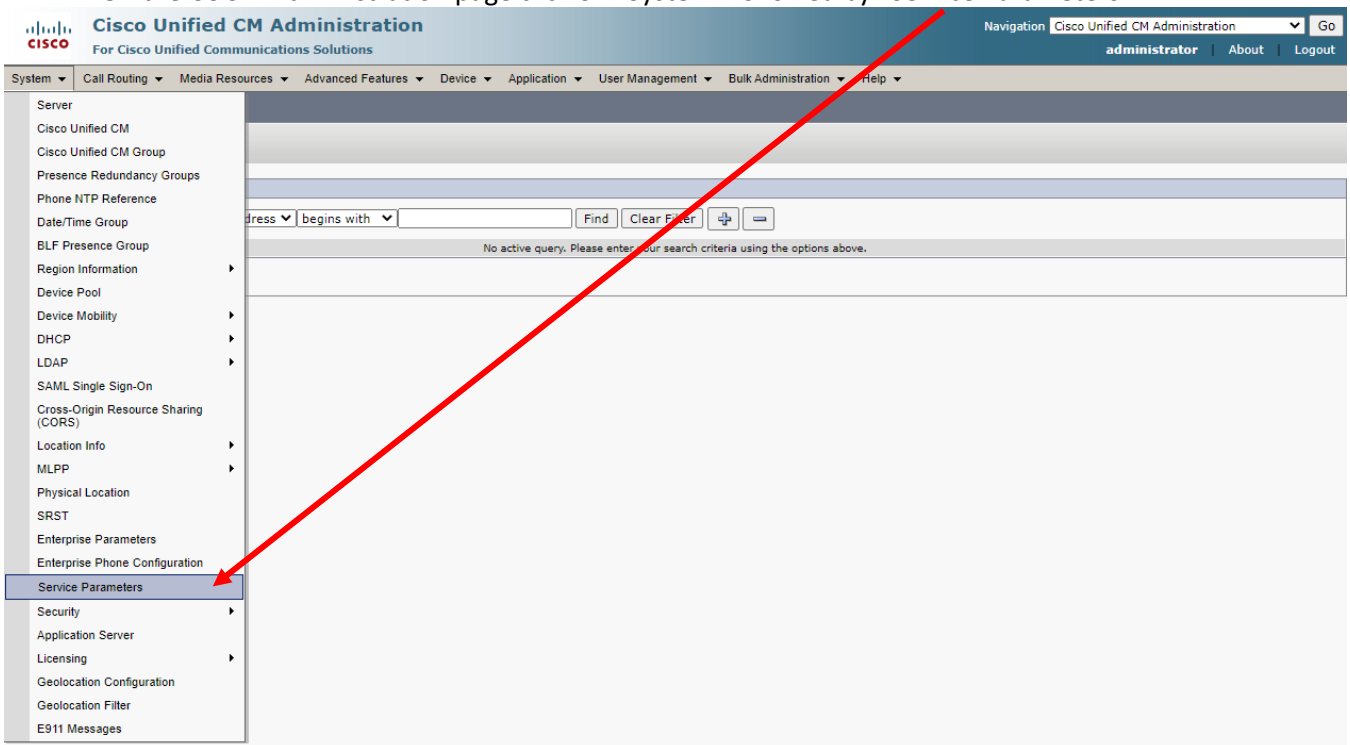
Several steps are required like the configuration of a device/phone and the configuration of a Device Profile and a user.

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

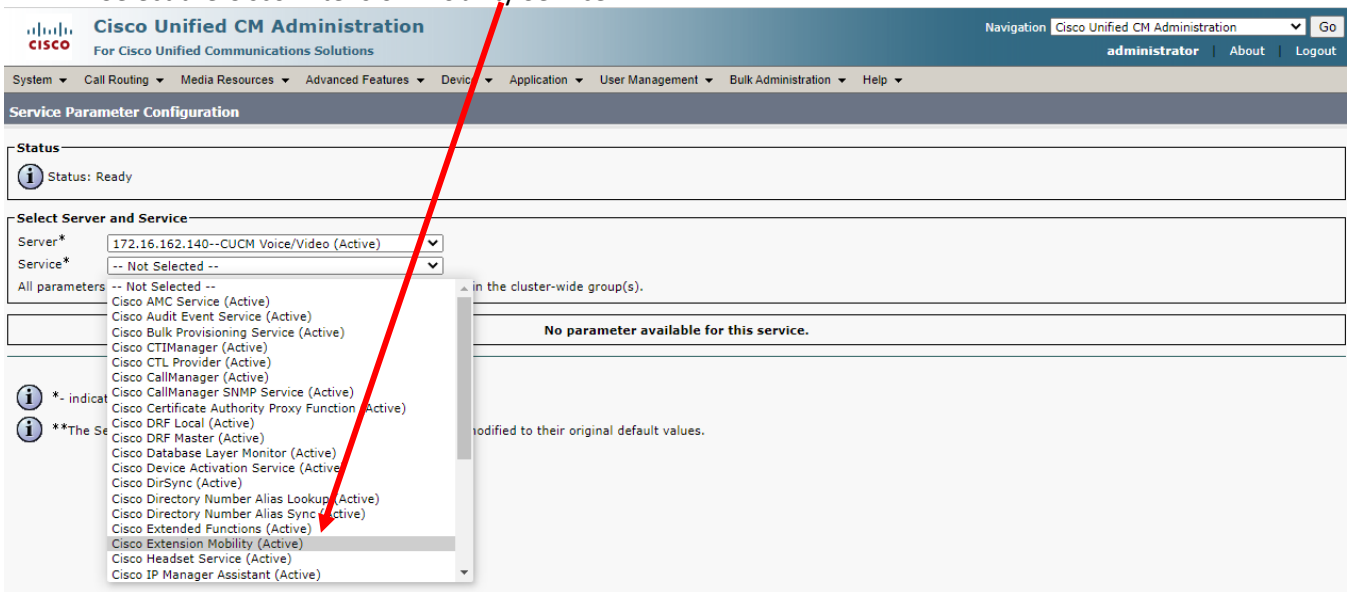
System settings

Log on to the Cisco Unified CM Administration page

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

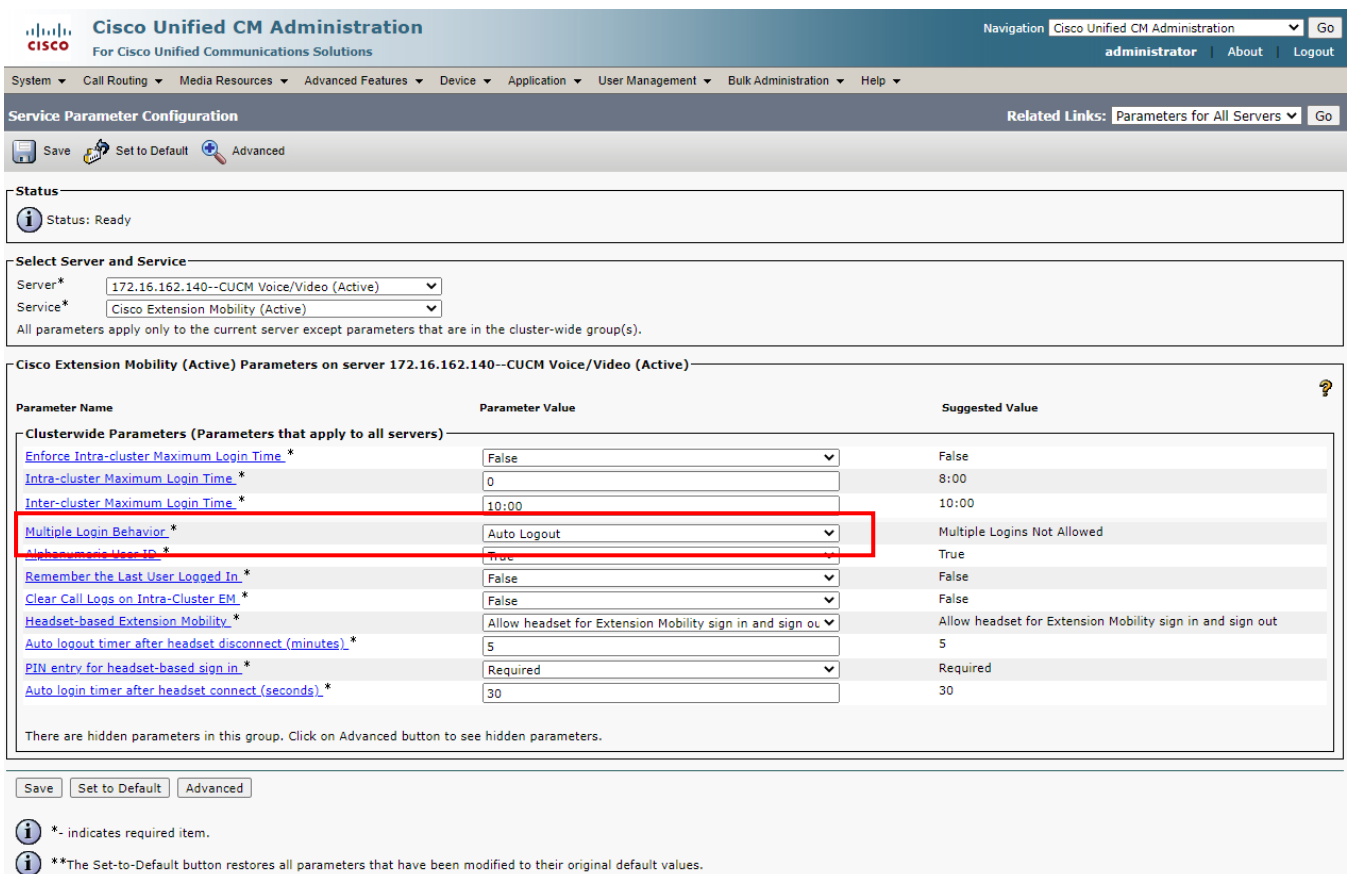


- Select the Publisher / Primary CUCM Server
- Select the Cisco Extension Mobility Service



The screenshot shows the 'Service Parameter Configuration' page in Cisco Unified CM Administration. The 'Server*' dropdown is set to '172.16.162.140--CUCM Voice/Video (Active)'. The 'Service*' dropdown is currently set to '-- Not Selected --'. A dropdown menu is open, showing a list of services, with 'Cisco Extension Mobility (Active)' highlighted. A red arrow points from this service in the menu to the 'Service*' dropdown. Below the dropdown, a message states: 'No parameter available for this service.'

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



The screenshot shows the 'Cisco Extension Mobility (Active) Parameters on server 172.16.162.140--CUCM Voice/Video (Active)' page. The 'Service*' dropdown is set to 'Cisco Extension Mobility (Active)'. Below the dropdown, a table lists parameters for the service. A red box highlights the 'Multiple Login Behavior' parameter, which is set to 'Auto Logout'.

Parameter Name	Parameter Value	Suggested Value
Clusterwide Parameters (Parameters that apply to all servers)		
Enforce Intra-cluster Maximum Login Time *	False	False
Intra-cluster Maximum Login Time *	0	8:00
Inter-cluster Maximum Login Time *	10:00	10:00
Multiple Login Behavior *	Auto Logout	Multiple Logins Not Allowed
Anonymous User ID *	True	True
Remember the Last User Logged In *	False	False
Clear Call Logs on Intra-Cluster EM *	False	False
Headset-based Extension Mobility *	Allow headset for Extension Mobility sign in and sign ou	Allow headset for Extension Mobility sign in and sign out
Auto logout timer after headset disconnect (minutes) *	5	5
PIN entry for headset-based sign in *	Required	Required
Auto login timer after headset connect (seconds) *	30	30

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

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

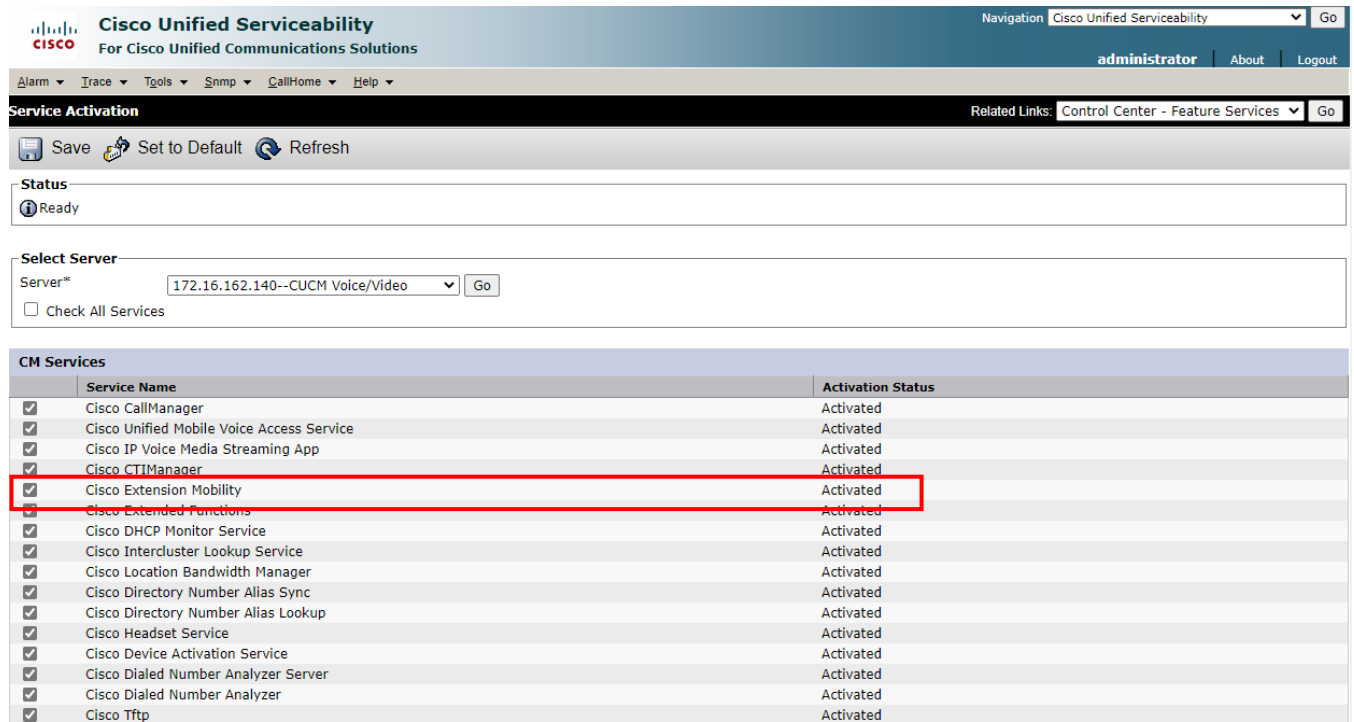
The required setting is “Auto Logout”. This feature will automatically logout or disconnect a user if he/she is already logged into another IP Phone.

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 for a server. The 'Service Activation' section is active, and the 'Select Server' dropdown is set to '172.16.162.140--CUCM Voice/Video'. The 'CM Services' table lists various services, with 'Cisco Extension Mobility' highlighted by a red box, indicating it is activated.

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

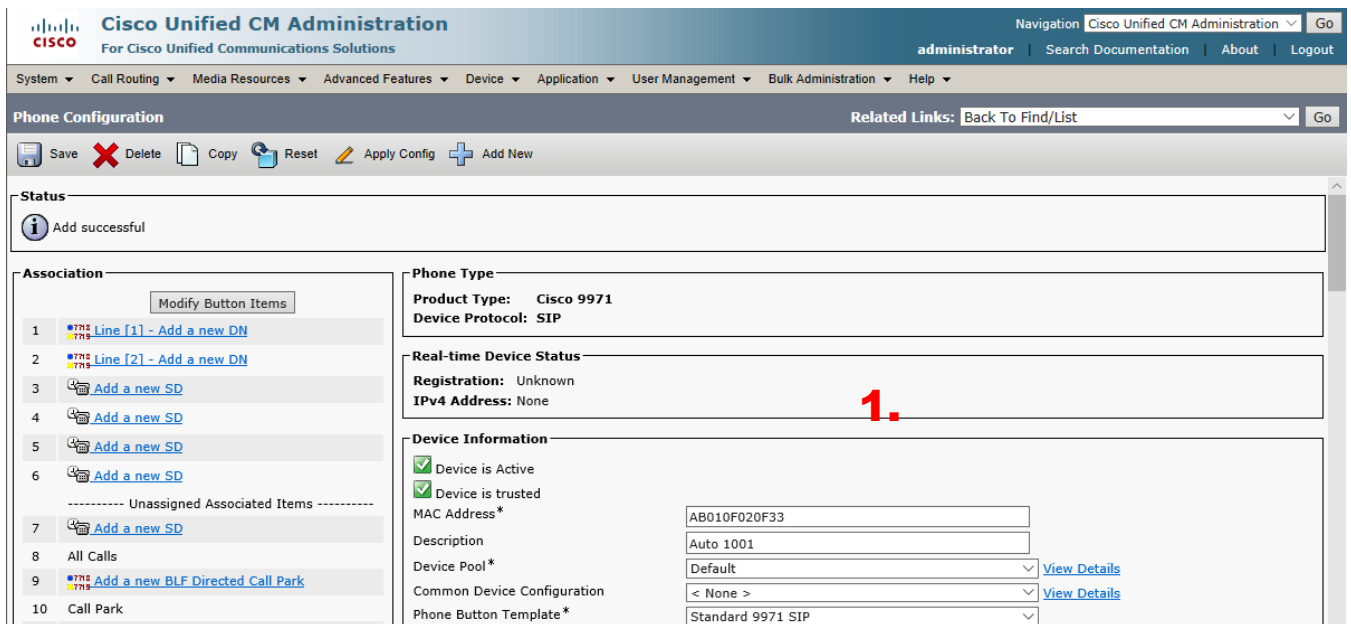
Verify the Cisco Extension Mobility Service is running on all CallManager Servers.

CM Services						
	Service Name	Status	Activation Status	Start Time	Up Time	
<input type="radio"/>	Cisco CallManager	Started	Activated	Mon Jul 5 10:48:28 2021	0 days 10:56:20	
<input type="radio"/>	Cisco Unified Mobile Voice Access Service	Started	Activated	Mon Jul 5 10:52:41 2021	0 days 10:52:07	
<input type="radio"/>	Cisco IP Voice Media Streaming App	Started	Activated	Mon Jul 5 10:48:29 2021	0 days 10:56:19	
<input type="radio"/>	Cisco CTIManager	Started	Activated	Mon Jul 5 10:48:33 2021	0 days 10:56:15	
<input type="radio"/>	Cisco Extension Mobility	Started	Activated	Mon Jul 5 10:52:34 2021	0 days 10:52:14	
<input type="radio"/>	Cisco DRCP Monitor Service	Started	Activated	Mon Jul 5 10:48:40 2021	0 days 10:56:02	
<input type="radio"/>	Cisco Intercluster Lookup Service	Started	Activated	Mon Jul 5 10:48:47 2021	0 days 10:56:01	
<input type="radio"/>	Cisco Location Bandwidth Manager	Started	Activated	Mon Jul 5 10:48:27 2021	0 days 10:56:21	
<input type="radio"/>	Cisco Directory Number Alias Sync	Started	Activated	Mon Jul 5 10:48:51 2021	0 days 10:55:57	
<input type="radio"/>	Cisco Directory Number Alias Lookup	Started	Activated	Mon Jul 5 10:52:41 2021	0 days 10:52:07	
<input type="radio"/>	Cisco Headset Service	Started	Activated	Mon Jul 5 10:52:41 2021	0 days 10:52:07	
<input type="radio"/>	Cisco Device Activation Service	Started	Activated	Mon Jul 5 10:52:41 2021	0 days 10:52:07	
<input type="radio"/>	Cisco Dialed Number Analyzer Server	Started	Activated	Mon Jul 5 10:48:53 2021	0 days 10:55:55	
<input type="radio"/>	Cisco Dialed Number Analyzer	Started	Activated	Mon Jul 5 10:52:41 2021	0 days 10:52:07	
<input type="radio"/>	Cisco Tftp	Started	Activated	Mon Jul 5 10:48:57 2021	0 days 10:55:51	

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.



Phone Configuration

Save Delete Copy Reset Apply Config Add New

Status
Add successful

Association

1	Line [1] - Add a new DN
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	All Calls
9	Add a new BLF Directed Call Park
10	Call Park

Phone Type
Product Type: Cisco 9971
Device Protocol: SIP

Real-time Device Status
Registration: Unknown
IPv4 Address: None **1.**

Device Information

<input checked="" type="checkbox"/> Device is Active	
<input checked="" type="checkbox"/> Device is trusted	
MAC Address*	AB010F020F33
Description	Auto 1001
Device Pool*	Default View Details
Common Device Configuration	< None > View Details
Phone Button Template*	Standard 9971 SIP

Extension Information

Enable Extension Mobility

Log Out Profile -- Use Current Device Settings -- **2.**

Log in Time < None >

Log out Time < None >

Product Specific Configuration Layout

Disable Speakerphone

Disable Speakerphone and Headset

PC Port *	Enabled	3.
Settings Access*	Enabled	
Gratuitous ARP*	Enabled	
PC Voice VLAN Access*	Enabled	3.
Video Capabilities*	Disabled	
Auto Line Select*	Disabled	
Web Access*	Enabled	4.

Subscribed Cisco IP Phone Services for SEP001A2F8DFA32

Save ? Help

Status
 Add successful

Service Subscription: Extension Mobility

Service Information

Service Name* **5.**
 ASCII Service Name*

Subscribed Services

[Subscribe a New Service](#)

[Extension Mobility](#)

Unsubscribe Delete

*- 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
 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

Directory Number Configuration Related Links: [Configure Device \(SEP001C58A2D8E1\)](#) Go

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 CT1

Associated Devices **1.**
 Edit Device
 Edit Line Appearance

Dissociate Devices

Directory Number Settings

Voice Mail Profile (Choose <None> to use system default)
 Calling Search Space
 BLF Presence Group*
 User Hold MOH Audio Source
 Network Hold MOH Audio Source
 Auto Answer*
 Reject Anonymous Calls

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | administrator | About | Logout

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

Directory Number Configuration | Related Links: Configure Device (SEP0007EB6442EF)

Save | Delete | Reset | Apply Config | Add New

Confidential Access Mode: < None >
Confidential Access Level: < None >
Call Control Agent Profile: < None >

Line Settings for All Devices

Hold Reversion Ring Duration (seconds): Setting the Hold Reversion Ring Duration to zero will disable the feature
Hold Reversion Notification Interval (seconds): Setting the Hold Reversion Notification Interval to zero will disable the feature
Party Entrance Tone*: Default

Line 1 on Device SEP0007EB6442EF

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: **2.**
External Phone Number Mask:
Visual Message Waiting Indicator Policy*: Use System Policy
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
Monitoring Calling Search Space: < None >

Multiple Call/Call Waiting Settings on Device SEP0007EB6442EF

Note: The range to select the Max Number of calls is: 1-200
Maximum Number of Calls*:
Busy Trigger*: (Less than or equal to Max. Calls)

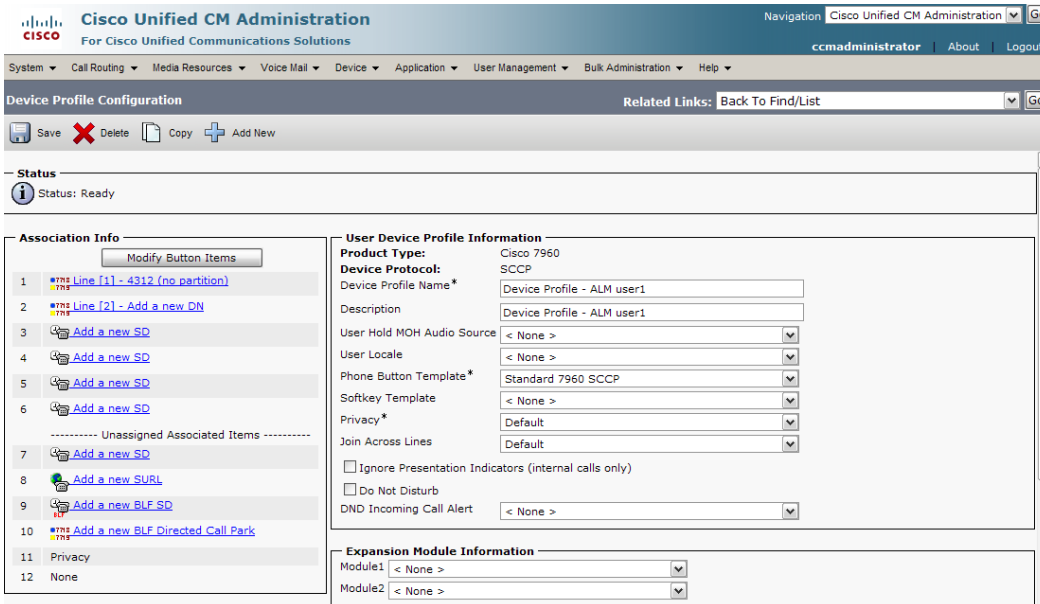
The “Line Text Label” field is the text which is displayed on the phone to identify a phone or a user. Because the phone in this example is only an internal phone and can only be used in combination with ExtensionMobility and ALM.

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.

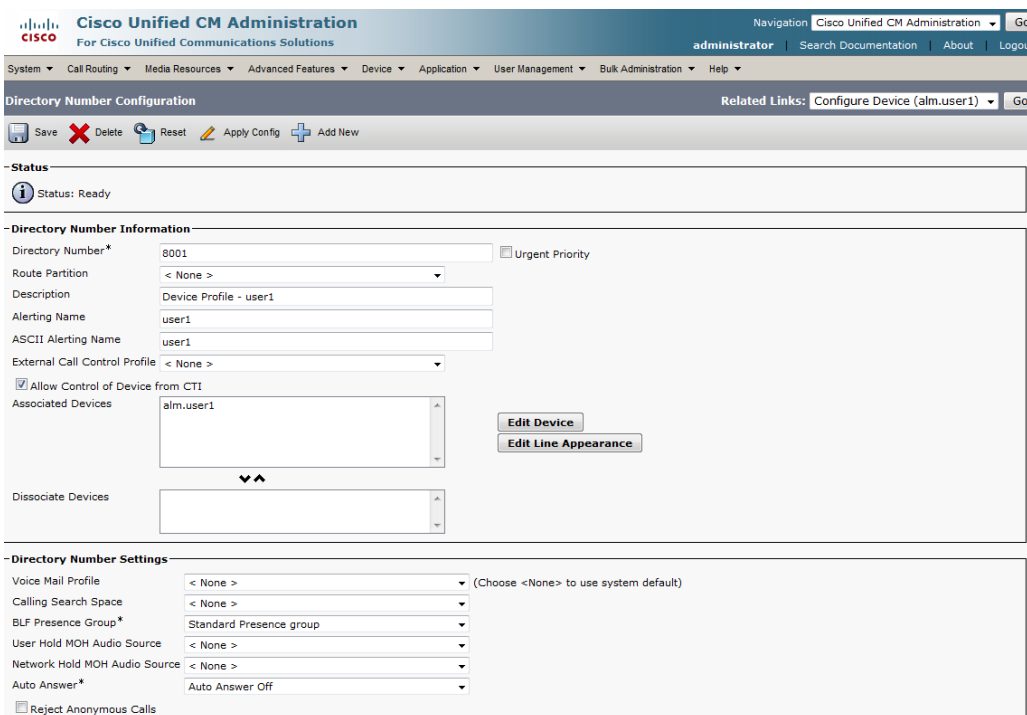
- Optional the Extension Mobility IP Phone service can be activated on the phone, when the ALM application does start on the PC a user can always login manually on the phone.



The screenshot shows the 'Device Profile Configuration' page in Cisco Unified CM Administration. The page is titled 'Device Profile Configuration' and includes a 'Status' section showing 'Ready'. The main configuration area is divided into two sections: 'Association Info' and 'User Device Profile Information'. The 'Association Info' section lists 12 items, including 'Line [1] - 4312 (no partition)', 'Line [2] - Add a new DN', and several 'Add a new SD' and 'Add a new BLF SD' options. The 'User Device Profile Information' section contains fields for 'Product Type' (Cisco 7960), 'Device Protocol' (SCCP), 'Device Profile Name' (Device Profile - ALM user1), 'Description' (Device Profile - ALM user1), 'User Hold MOH Audio Source', 'User Locale', 'Phone Button Template*' (Standard 7960 SCCP), 'Softkey Template', 'Privacy*', 'Join Across Lines', and 'DND Incoming Call Alert'. There are also checkboxes for 'Ignore Presentation Indicators (internal calls only)' and 'Do Not Disturb'. The 'Expansion Module Information' section at the bottom has two dropdown menus for 'Module1' and 'Module2', both set to '< None >'. Navigation buttons like 'Save', 'Delete', 'Copy', and 'Add New' are visible at the top left.

Device profile directory number settings

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



The screenshot shows the 'Directory Number Configuration' page in Cisco Unified CM Administration. The page is titled 'Directory Number Configuration' and includes a 'Status' section showing 'Ready'. The main configuration area is divided into two sections: 'Directory Number Information' and 'Directory Number Settings'. The 'Directory Number Information' section contains fields for 'Directory Number*' (8001), 'Route Partition' (< None >), 'Description' (Device Profile - user1), 'Alerting Name' (user1), 'ASCII Alerting Name' (user1), 'External Call Control Profile' (< None >), and 'Associated Devices' (alm.user1). There are checkboxes for 'Urgent Priority' and 'Allow Control of Device from CTI'. The 'Directory Number Settings' section contains dropdown menus for 'Voice Mail Profile', 'Calling Search Space', 'BLF Presence Group*' (Standard Presence group), 'User Hold MOH Audio Source', 'Network Hold MOH Audio Source', and 'Auto Answer*' (Auto Answer Off). There is also a checkbox for 'Reject Anonymous Calls'. Navigation buttons like 'Save', 'Delete', 'Reset', 'Apply Config', and 'Add New' are visible at the top left.

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.

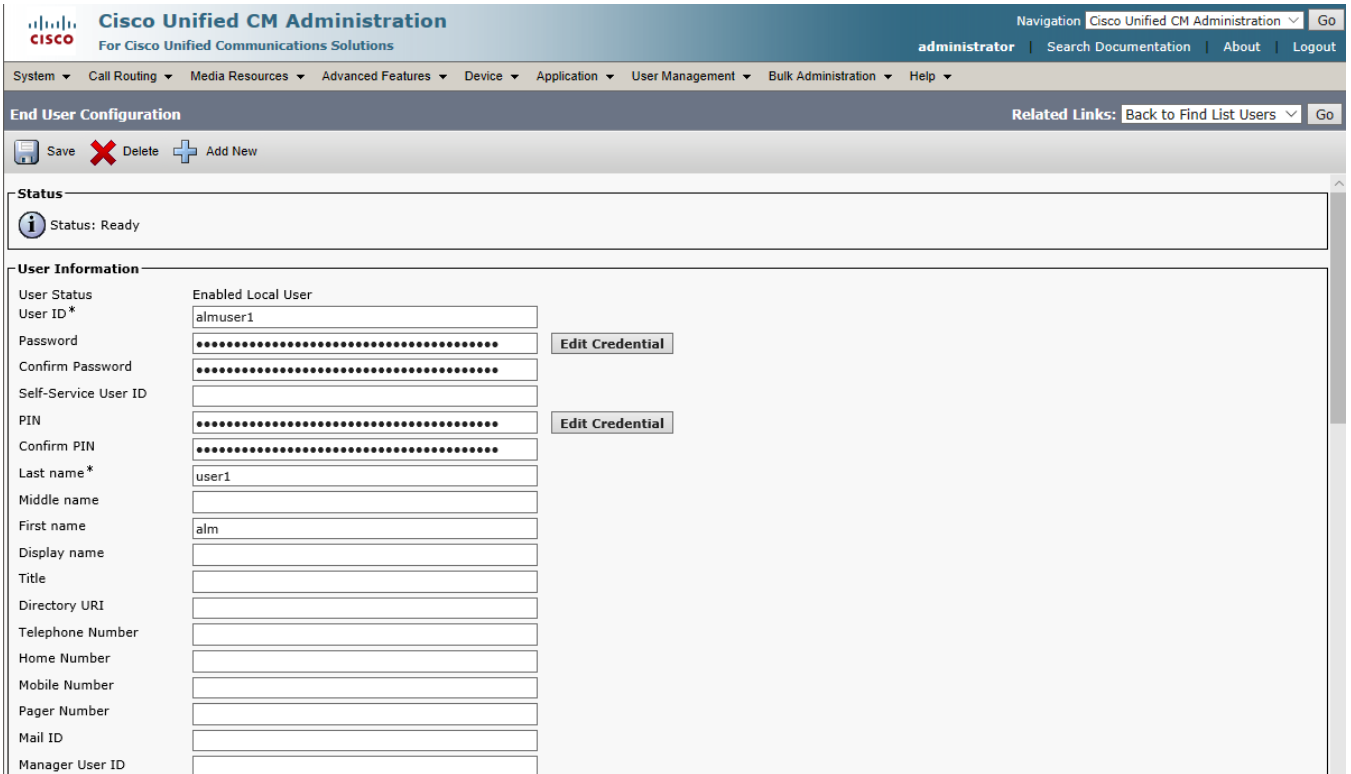
Line 1 on Device almuser01

	Value	Update Shared Device Settings
Display (Caller ID)	<input type="text"/> 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.	<input type="checkbox"/>
ASCII Display (Caller ID)	<input type="text"/>	<input type="checkbox"/>
Line Text Label	almuser01	<input type="checkbox"/>
External Phone Number Mask	<input type="text"/>	<input type="checkbox"/>
Visual Message Waiting Indicator Policy*	Use System Policy	<input type="checkbox"/>
Ring Setting (Phone Idle)*	Use System Default	<input type="checkbox"/>
Ring Setting (Phone Active)	Use System Default Applies to this line when any line on the phone has a call in progress.	<input type="checkbox"/>
Call Pickup Group Audio Alert Setting(Phone Idle)	Use System Default	<input type="checkbox"/>
Call Pickup Group Audio Alert Setting(Phone Active)	Use System Default	<input type="checkbox"/>
Monitoring Calling Search Space	< None >	<input type="checkbox"/>

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.

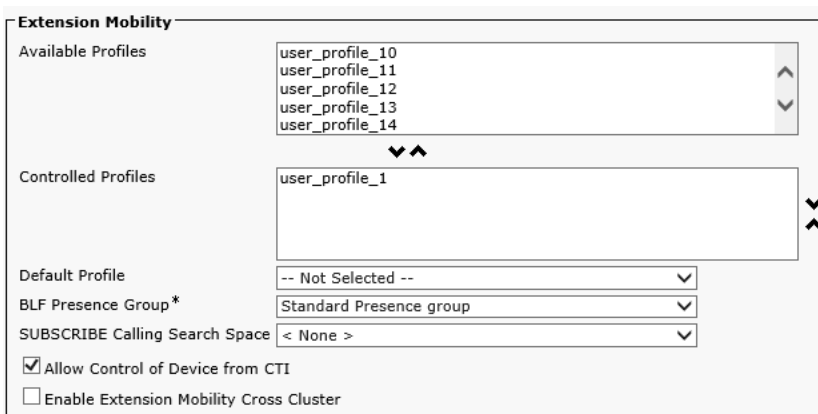
The ALM application will send this username to the system so the user does not have to enter their username manually on the phone anymore using the keypad.



The screenshot shows the 'End User Configuration' page in Cisco Unified CM Administration. The page title is 'End User Configuration' and it includes navigation links like 'System', 'Call Routing', 'Media Resources', etc. The 'Status' section shows 'Status: Ready'. The 'User Information' section is expanded, showing fields for 'User ID*' (almuser1), 'Password', 'Confirm Password', 'Self-Service User ID', 'PIN', 'Confirm PIN', 'Last name*' (user1), 'Middle name', 'First name' (alm), 'Display name', 'Title', 'Directory URI', 'Telephone Number', 'Home Number', 'Mobile Number', 'Pager Number', 'Mail ID', and 'Manager User ID'. There are 'Edit Credential' buttons next to the password and PIN fields.

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.



The screenshot shows the 'Extension Mobility' configuration section. It includes a list of 'Available Profiles' (user_profile_10 to user_profile_14), a 'Controlled Profiles' list (user_profile_1), a 'Default Profile' dropdown (set to '-- Not Selected --'), a 'BLF Presence Group*' dropdown (set to 'Standard Presence group'), and a 'SUBSCRIBE Calling Search Space' dropdown (set to '< None >'). There are also checkboxes for 'Allow Control of Device from CTI' (checked) and 'Enable Extension Mobility Cross Cluster' (unchecked).

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 Cisco IP 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 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