

ALM CallManager configuration Manual for CUCM15



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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.

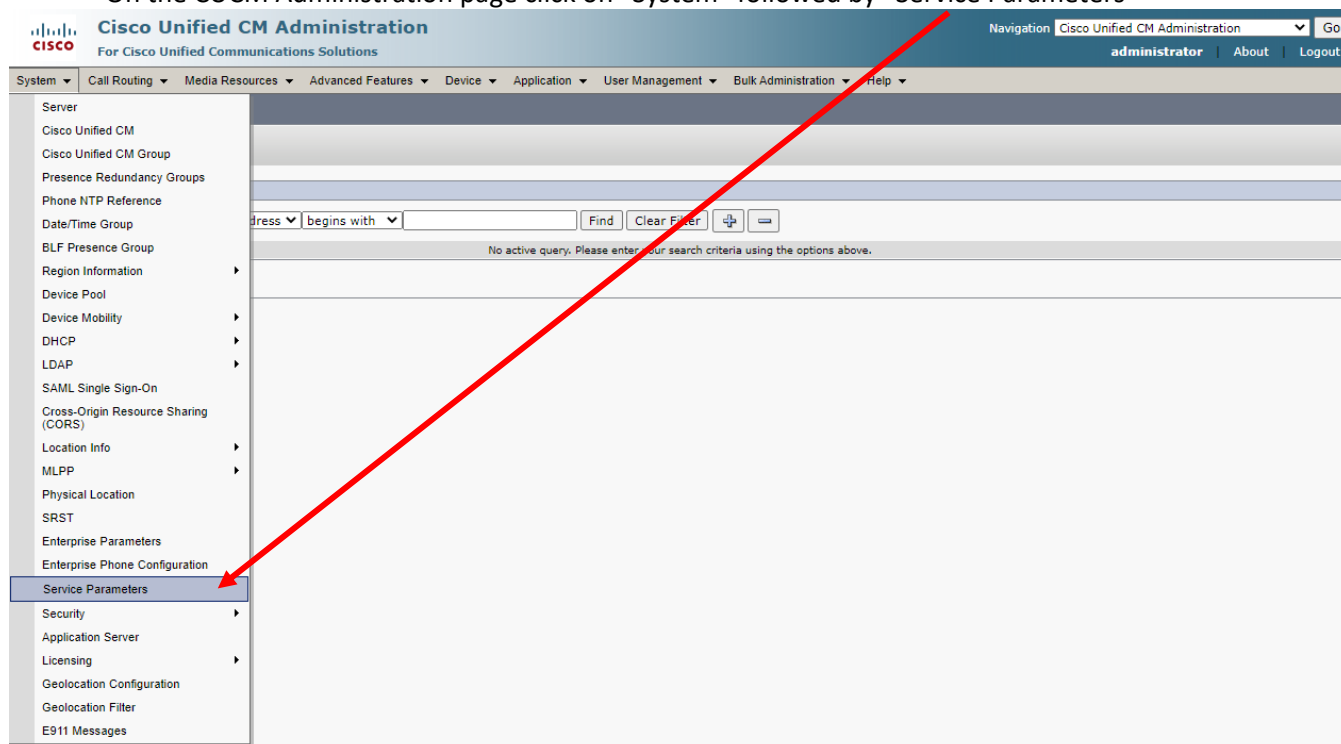
Several steps are required like the configuration of a device/phone and the configuration of a Device Profile and a user.

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

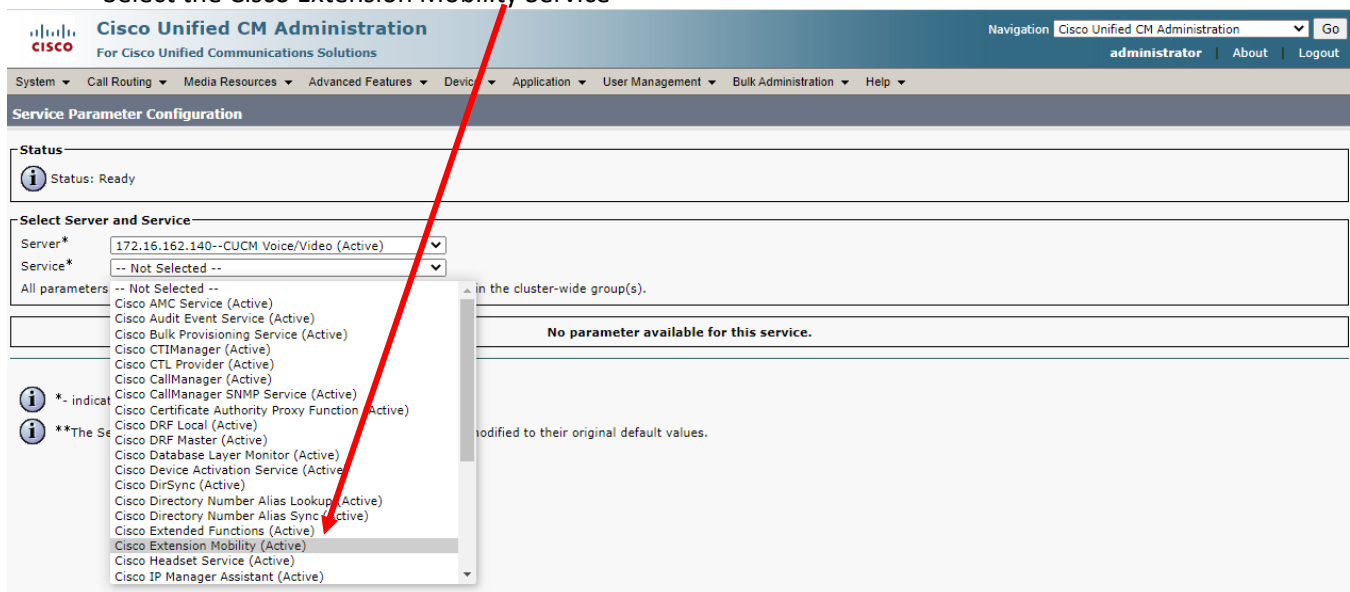
System settings

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



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Service Parameter Configuration

Status: Ready

Select Server and Service

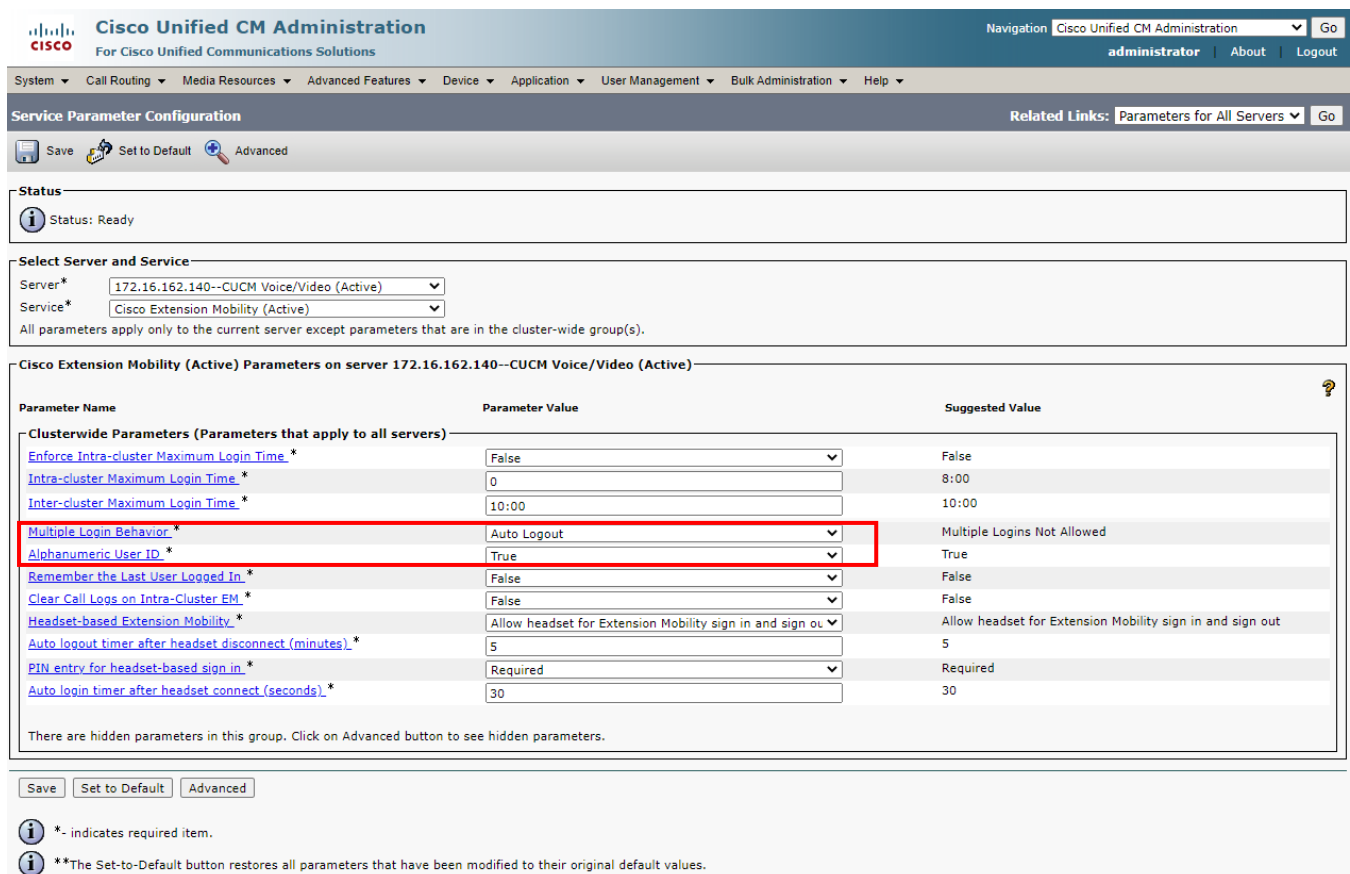
Server*: 172.16.162.140--CUCM Voice/Video (Active)
Service*: -- Not Selected --

All parameters in the cluster-wide group(s).

No parameter available for this service.

*- indicates required item.
**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.



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Service Parameter Configuration

Related Links: Parameters for All Servers Go

Save Set to Default Advanced

Status: Ready

Select Server and Service

Server*: 172.16.162.140--CUCM Voice/Video (Active)
Service*: Cisco Extension Mobility (Active)

All parameters apply only to the current server except parameters that are in the cluster-wide group(s).

Cisco Extension Mobility (Active) Parameters on server 172.16.162.140--CUCM Voice/Video (Active)

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
Alphanumeric 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 out	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.

Save Set to Default Advanced

*- indicates required item.
**The Set-to-Default button restores all parameters that have been modified to their original default values.

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

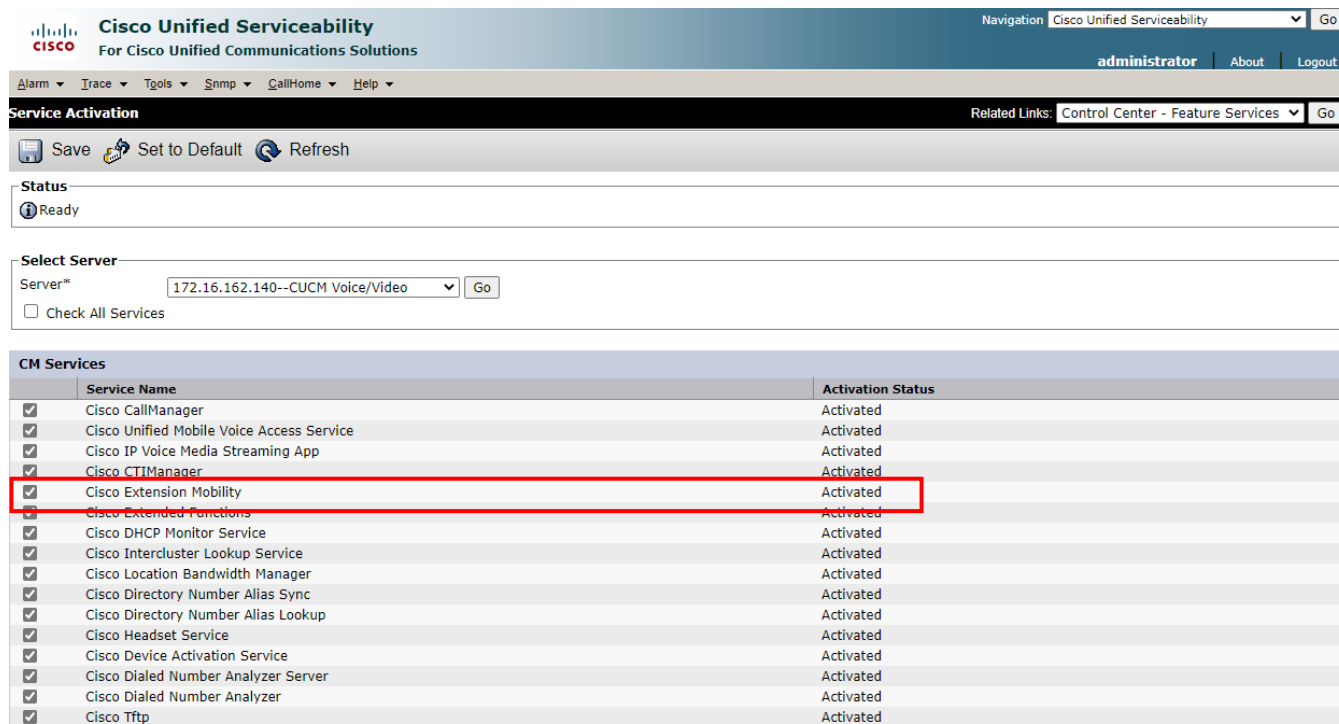
The required setting is “**Auto Logout**”. This feature will automatically logout or disconnect a user if he/she is already logged into another IP Phone.

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.



Service Activation

Status: Ready

Select Server: 172.16.162.140--CUCM Voice/Video

CM Services

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

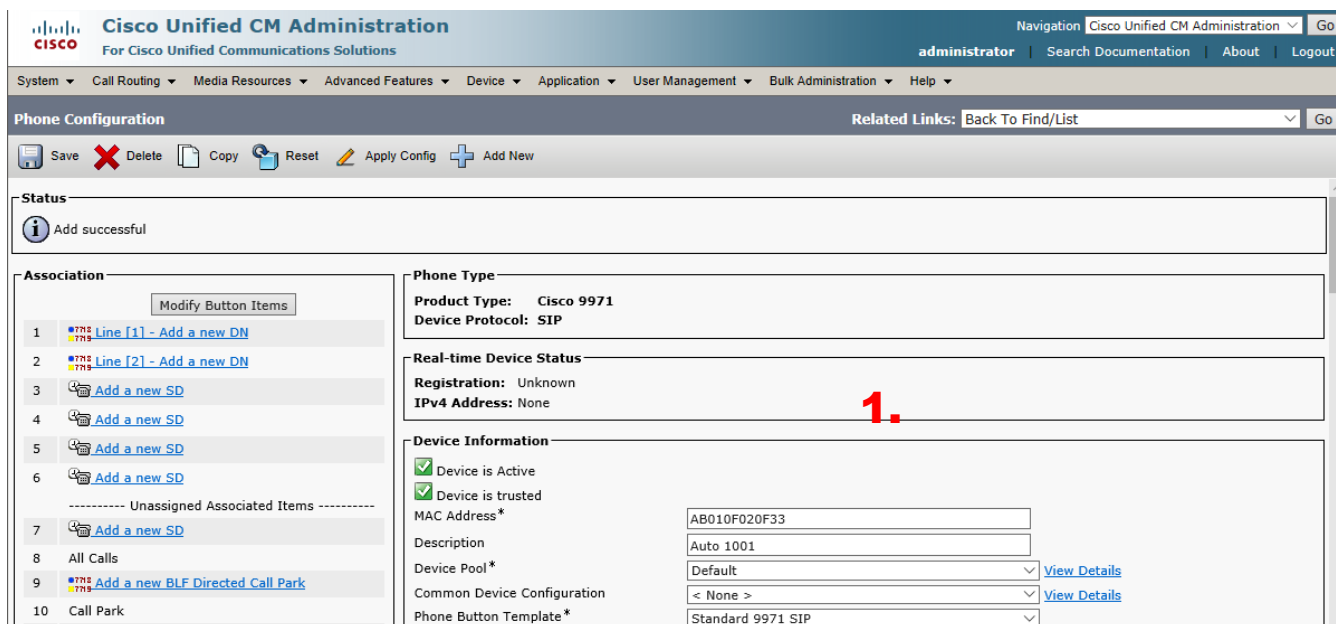
Verify the Cisco Extension Mobility Service is running on all CallManager Servers.

CM Services					
Service Name	Status	Activation Status	Start Time	Up Time	
Cisco CallManager	Started	Activated	Tue Aug 12 12:53:37 2025	0 days 00:11:23	
Cisco Unified Mobile Voice Access Service	Started	Activated	Tue Aug 12 12:59:28 2025	0 days 00:05:32	
Cisco IP Voice Media Streaming App	Started	Activated	Tue Aug 12 12:53:38 2025	0 days 00:11:22	
Cisco CTIManager	Started	Activated	Tue Aug 12 12:53:42 2025	0 days 00:11:18	
Cisco Extension Mobility	Started	Activated	Tue Aug 12 12:59:27 2025	0 days 00:05:33	
Cisco DHCP Monitor Service	Started	Activated	Tue Aug 12 12:53:55 2025	0 days 00:11:05	
Cisco Intercluster Lookup Service	Started	Activated	Tue Aug 12 12:53:56 2025	0 days 00:11:04	
Cisco Location Bandwidth Manager	Started	Activated	Tue Aug 12 12:53:36 2025	0 days 00:11:24	
Cisco Directory Number Alias Sync	Started	Activated	Tue Aug 12 12:54:00 2025	0 days 00:11:00	
Cisco Directory Number Alias Lookup	Started	Activated	Tue Aug 12 12:59:28 2025	0 days 00:05:32	
Cisco Headset Service	Started	Activated	Tue Aug 12 12:59:28 2025	0 days 00:05:32	
Cisco Device Activation Service	Started	Activated	Tue Aug 12 12:59:28 2025	0 days 00:05:32	
Cisco Dialed Number Analyzer Server	Started	Activated	Tue Aug 12 12:54:02 2025	0 days 00:10:58	
Cisco Dialed Number Analyzer	Started	Activated	Tue Aug 12 12:59:28 2025	0 days 00:05:32	
Cisco Tftp	Started	Activated	Tue Aug 12 12:54:06 2025	0 days 00:10:54	

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.



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Phone Configuration | Related Links: Back To Find/List | Go

Save | Delete | Copy | Reset | Apply Config | Add New

Status
Add successful

Association
Modify Button Items

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
☒ Device is Active
☒ Device is trusted
 MAC Address*: AB010F020F33
 Description: Auto 1001
 Device Pool*: Default
 Common Device Configuration: < None >
 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
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*

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.

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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 CTI

Associated Devices

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


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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 Please Login **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* 4
Busy Trigger* 2 (Less than or equal to Max. Calls)

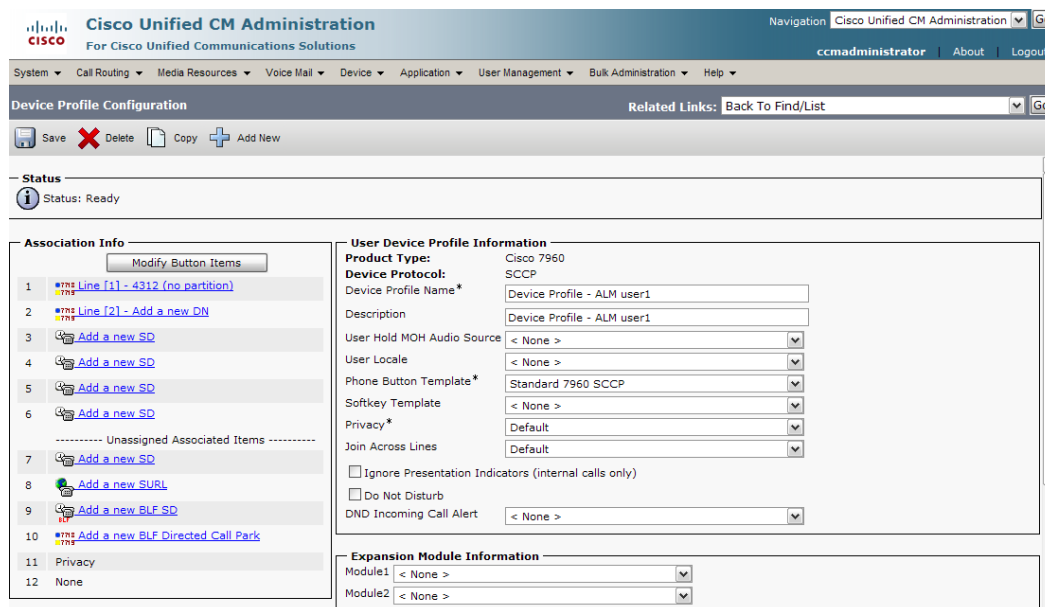
The “Line Text Label” field is the text which is displayed on the phone to identify a phone or a user. Because the phone in this example is only an internal phone and can only be used in combination with ExtensionMobility and ALM.

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.

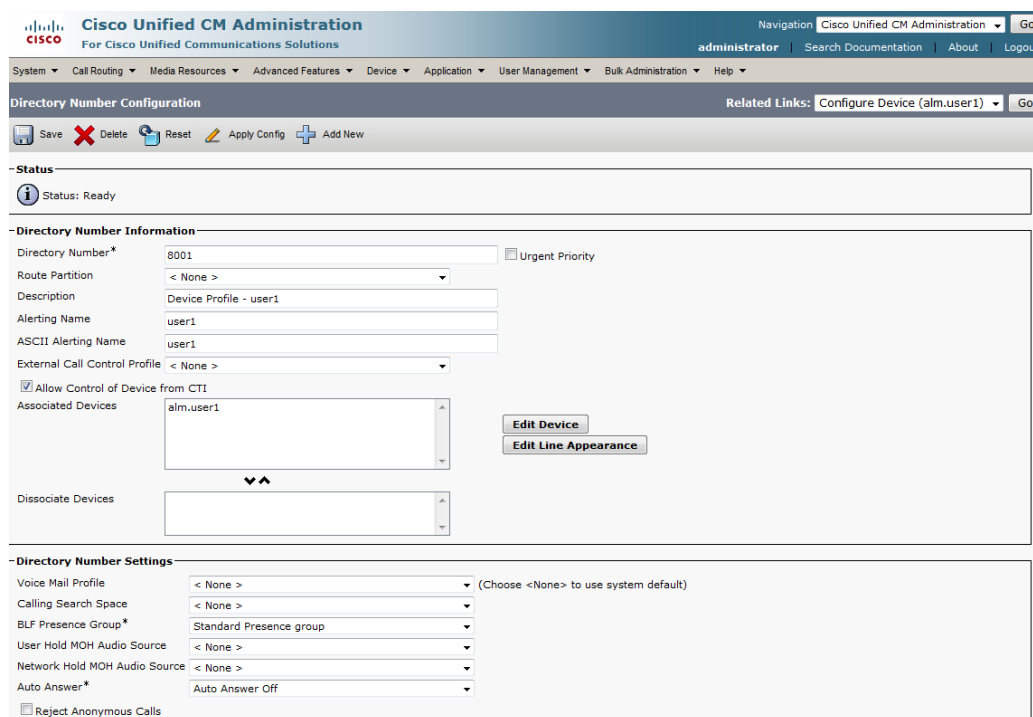
- Optional the Extension Mobility IP Phone service can be activated on the phone, when the ALM application does start on the PC a user can always login manually on the phone.



The screenshot shows the 'Device Profile Configuration' page in Cisco Unified CM Administration. The page is for a 'Cisco 7960' device. The 'Device Profile Name' is 'Device Profile - ALM user1'. The 'Device Protocol' is 'SCCP'. The 'Description' is 'Device Profile - ALM user1'. The 'User Hold MOH Audio Source' is '< None >'. The 'User Locale' is '< None >'. The 'Phone Button Template' is 'Standard 7960 SCCP'. The 'Softkey Template' is '< None >'. The 'Privacy' is 'Default'. The 'Join Across Lines' is 'Default'. The 'Ignore Presentation Indicators (internal calls only)' checkbox is unchecked. The 'Do Not Disturb' checkbox is unchecked. The 'DND Incoming Call Alert' is '< None >'. The 'Expansion Module Information' section shows 'Module1' as '< None >' and 'Module2' as '< None >'. The 'Association Info' section shows a list of 12 items: 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, 7. Add a new SD, 8. Add a new SD, 9. Add a new BLF SD, 10. Add a new BLF Directed Call Park, 11. Privacy, 12. None.


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 for a 'Cisco 7960' device. The 'Directory Number' is '8001'. The 'Route Partition' is '< None >'. The 'Description' is 'Device Profile - user1'. The 'Alerting Name' is 'user1'. The 'ASCII Alerting Name' is 'user1'. The 'External Call Control Profile' is '< None >'. The 'Allow Control of Device from CTI' checkbox is checked. The 'Associated Devices' list contains 'alm.user1'. The 'Dissociate Devices' list is empty. The 'Directory Number Settings' section shows: 'Voice Mail Profile' as '< None >', 'Calling Search Space' as '< None >', 'BLF Presence Group' as 'Standard Presence group', 'User Hold MOH Audio Source' as '< None >', 'Network Hold MOH Audio Source' as '< None >', 'Auto Answer' as 'Auto Answer Off', and 'Reject Anonymous Calls' checkbox is unchecked.

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 (almuser01) | Go

Save | Delete | Reset | Apply Config | Add New

Line 1 on Device almuser01

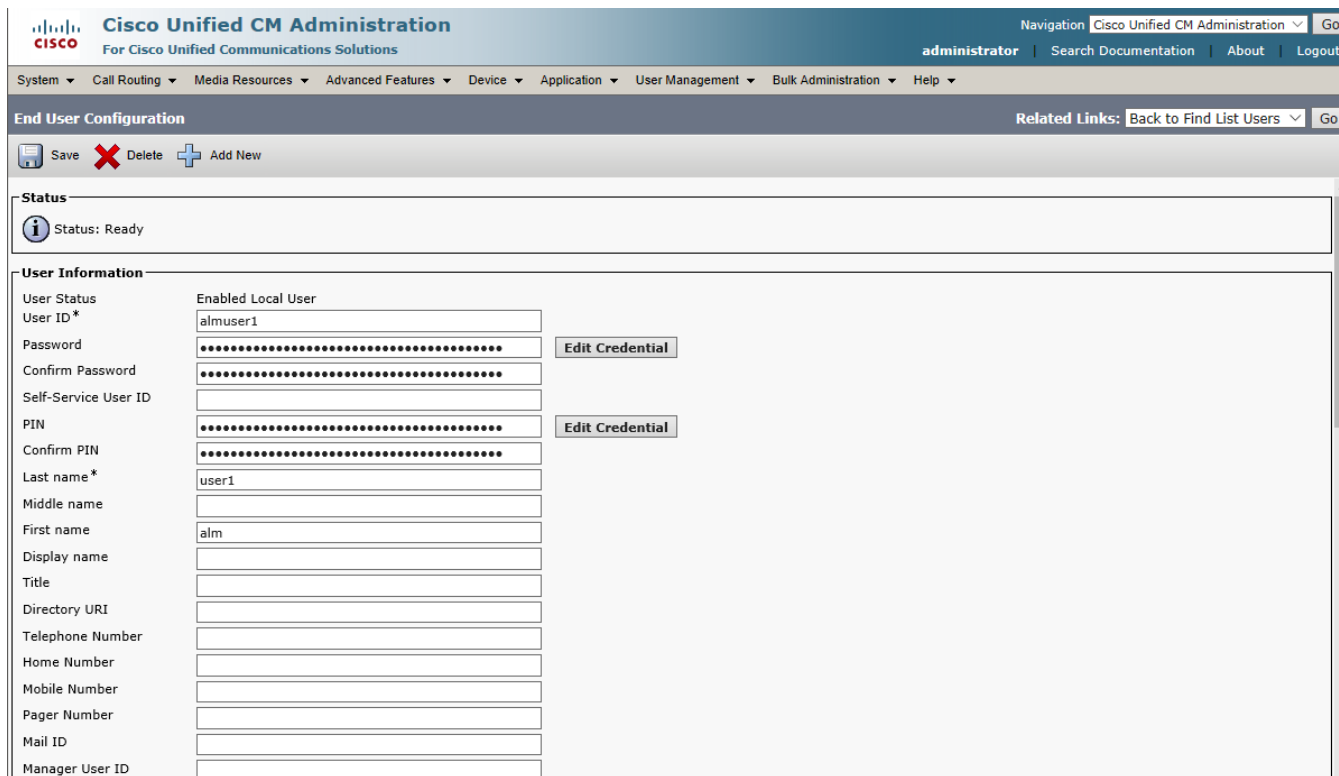
	Value	Update Shared Device Settings
Display (Caller ID)	<input type="text"/> Display text for a line appearance is intended for displaying text such as a name instead of a directory number for calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.	<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	
Call Pickup Group Audio Alert Setting(Phone Active)	Use System Default	
Monitoring Calling Search Space	< None >	

Propagate Selected

Creating a user

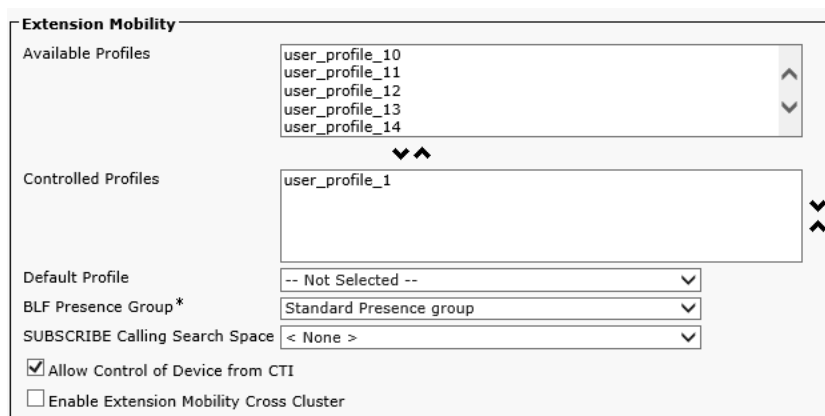
The UserID is a required field, this field is the username which is send to the CallManager when a user logs in.

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 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.



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:

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- Other countries: +31 88 1221 800
- <http://www.rsconnect.net>
- sales@rsconnect.net