



## ALM – CallManager configuration manual

For UCM version 5



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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.

## CallManager System Settings

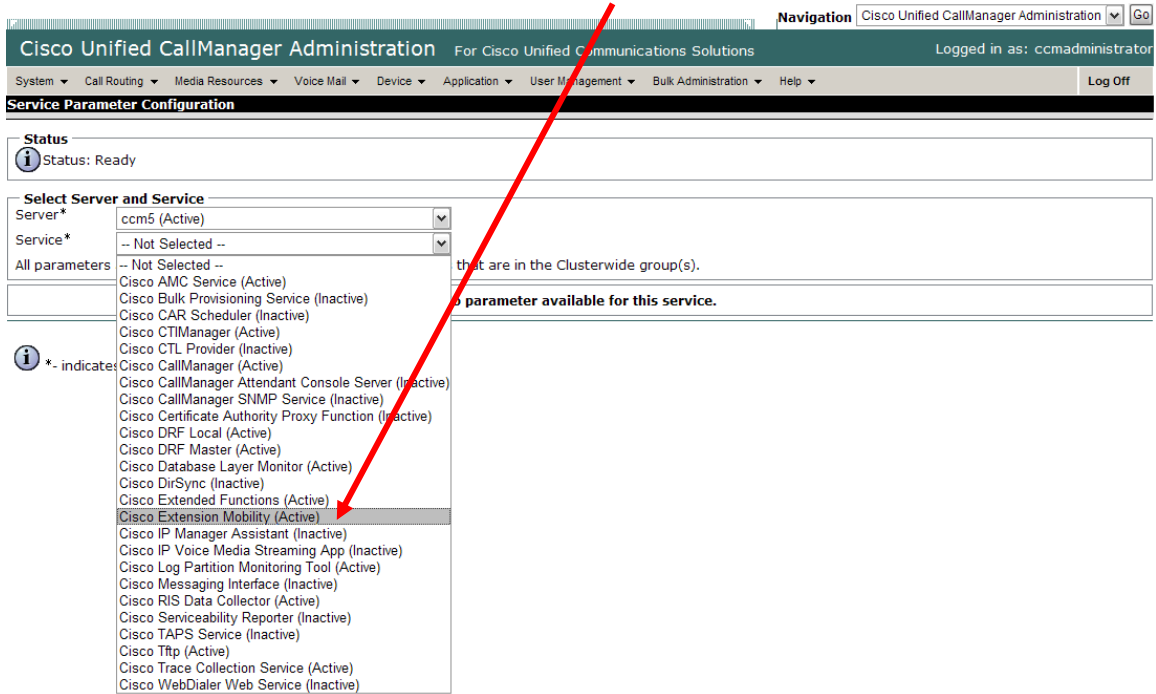
### System settings

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 Cisco Unified CallManager Administration web interface. At the top, there is a navigation bar with the title 'Cisco Unified CallManager Administration' and a 'Go' button. Below this is a breadcrumb trail: 'System > Call Routing > Media Resources > Voice Mail > Device > Application > User Management > Bulk Administration > Help'. The main content area is titled 'Service Parameter Configuration'. It shows a status bar indicating 'Status: Ready'. Below this is a section titled 'Select Server and Service'. The 'Server\*' dropdown is set to 'ccm5 (Active)'. The 'Service\*' dropdown is currently empty, showing '-- Not Selected --'. A list of services is displayed below, with 'Cisco Extension Mobility (Active)' highlighted. A red arrow points from the text above to this highlighted service. Other services in the list include Cisco AMC Service, Cisco Bulk Provisioning Service, Cisco CAR Scheduler, Cisco CTIManager, Cisco CTL Provider, Cisco CallManager, Cisco CallManager Attendant Console Server, Cisco CallManager SNMP Service, Cisco Certificate Authority Proxy Function, Cisco DRF Local, Cisco DRF Master, Cisco Database Layer Monitor, Cisco DirSync, Cisco Extended Functions, Cisco IP Manager Assistant, Cisco IP Voice Media Streaming App, Cisco Log Partition Monitoring Tool, Cisco Messaging Interface, Cisco RIS Data Collector, Cisco Serviceability Reporter, Cisco TAPS Service, Cisco Tftp, Cisco Trace Collection Service, and Cisco WebDialer Web Service. A note at the bottom left of the list states '\* - indicates that are in the Clusterwide group(s)'. A warning message at the bottom of the list states 'No parameter available for this service.'

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: ccmadministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Service Parameter Configuration Related Links: Parameters for All Servers Go

Status  
 Status: Ready

Select Server and Service  
 Server\* ccm5 (Active)  
 Service\* Cisco Extension Mobility (Active)  
 All parameters apply only to the current server except parameters that are in the Clusterwide group(s).

Cisco Extension Mobility (Active) Parameters on server ccm5 (Active)

Parameter Name	Parameter Value	Suggested Value
Clusterwide Parameters (Parameters that apply to all servers)		
Enforce Maximum Login Time *	False	False
Maximum Login Time *	8:00	8:00
Maximum Concurrent Requests *	5	5
Multiple Login Behavior *	Auto Logout	Multiple Logins Not Allowed
Alphanumenc User ID *	True	True
Remember the Last User Logged In *	False	False
Clear Call Log *	False	False

Save Set to Default

\*- indicates required item.

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

One of the required settings is the "Multiple Login Behavior". 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 an other IP Phone.

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

Navigation Cisco Unified CallManager Serviceability

Cisco Unified CallManager Serviceability For Cisco Unified Communications Solutions Logged in as:ccmadministrator

Alarm Trace Toggles Snmp Help

Service Activation Related Links: Control Center - Feature Services

Status  
Status : Ready

Select Server  
Server\*

Service Name	Activation Status
<input checked="" type="checkbox"/> Cisco CallManager	Activated
<input checked="" type="checkbox"/> Cisco Tftp	Activated
<input type="checkbox"/> Cisco Messaging Interface	Deactivated
<input type="checkbox"/> Cisco IP Voice Media Streaming App	Deactivated
<input checked="" type="checkbox"/> Cisco CTIManager	Activated
<input type="checkbox"/> Cisco CallManager Attendant Console Server	Deactivated
<input checked="" type="checkbox"/> Cisco Extension Mobility	Activated
<input checked="" type="checkbox"/> Cisco Extended Functions	Activated
<input type="checkbox"/> Cisco Dialed Number Analyzer	Deactivated
<input type="checkbox"/> Cisco DHCP Monitor Service	Deactivated

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

Navigation Cisco Unified CallManager Serviceability

Cisco Unified CallManager Serviceability For Cisco Unified Communications Solutions Logged in as:ccmadministrator

Alarm Trace Tools Snmp Help

Control Center - Feature Services Related Links: Service Activation

**Status**  
 Status : Ready

**Select Server**  
 Server\* ccm5

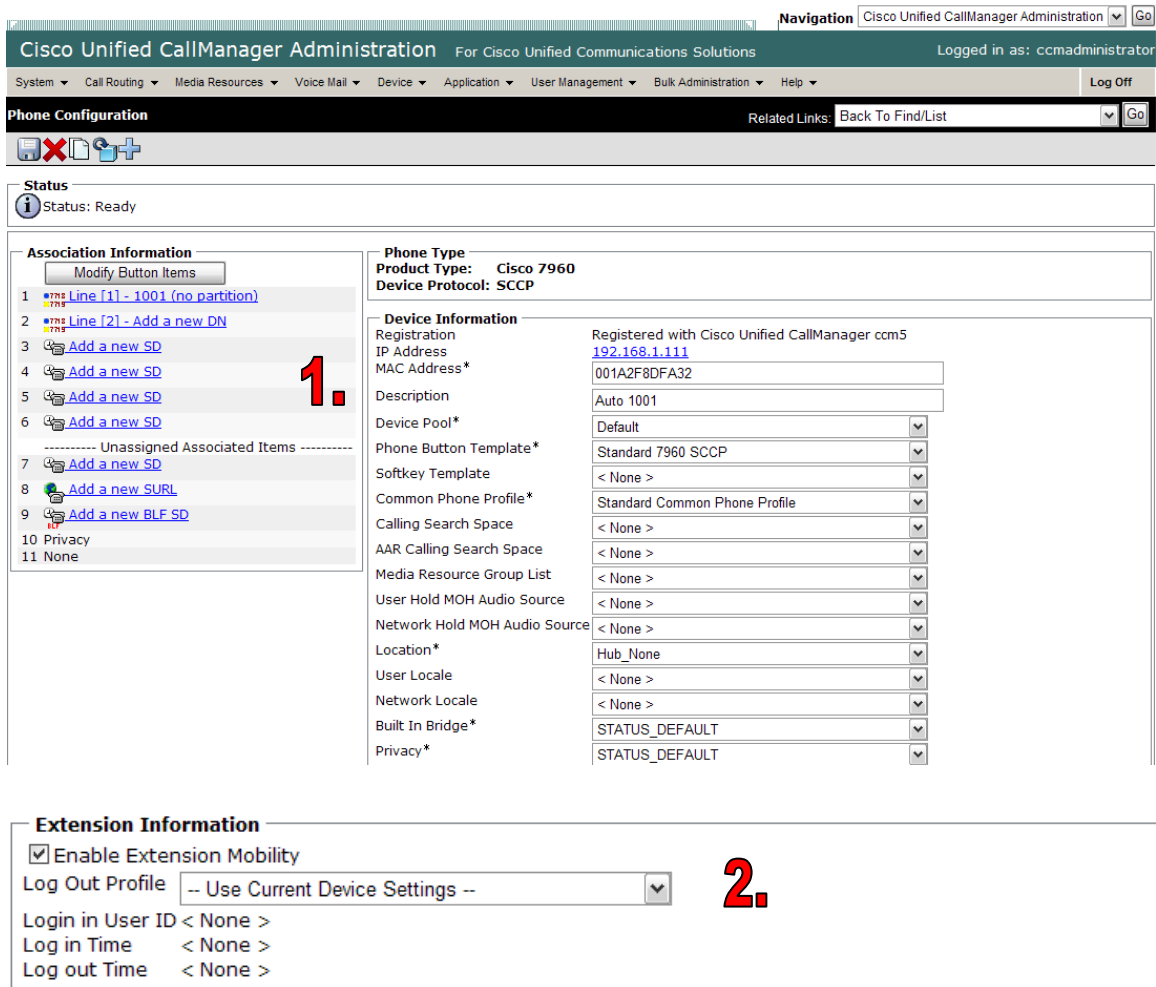
**CM Services**

Service Name	Status*	Activation Status
<input type="radio"/> Cisco CallManager	Started	Activated
<input type="radio"/> Cisco Tftp	Started	Activated
<input type="radio"/> Cisco Messaging Interface	Not Running	Deactivated
<input type="radio"/> Cisco IP Voice Media Streaming App	Not Running	Deactivated
<input type="radio"/> Cisco CTIManager	Started	Activated
<input type="radio"/> Cisco CallManager Attendant Console Server	Not Running	Deactivated
<input type="radio"/> Cisco Extension Mobility	Started	Activated
<input type="radio"/> Cisco Extended Functions	Started	Activated
<input type="radio"/> Cisco Dialed Number Analyzer	Not Running	Deactivated
<input type="radio"/> Cisco DHCP Monitor Service	Not Running	Deactivated

## 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 CallManager Administration interface. The top navigation bar includes 'Cisco Unified CallManager Administration' and 'Logged in as: ccadministrator'. The main content area is titled 'Phone Configuration' and shows the configuration for a Cisco 7960 phone. The 'Association Information' section on the left lists various line and SD options, with a red '1.' highlighting the 'Line [1] - 1001 (no partition)' entry. The 'Device Information' section on the right shows fields for IP Address (192.168.1.111), MAC Address (001A2F8DFA32), and Description (Auto 1001). The 'Extension Information' section at the bottom shows the 'Enable Extension Mobility' checkbox checked, with a red '2.' highlighting this section.



**Product Specific Configuration Layout** ?

Disable Speakerphone  
 Disable Speakerphone and Headset

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

**3.**  
**4.**

**Subscribed Cisco IP Phone Services for SEP001A2F8DFA32**

➔ ?

**Status**  
*i* Status: Ready

Service Subscription: New **5.**

**Service Information**

Select a Service\* -- Not Selected -- ▼  
 Service Descriptic -- Not Selected --  
 Extension Mobility

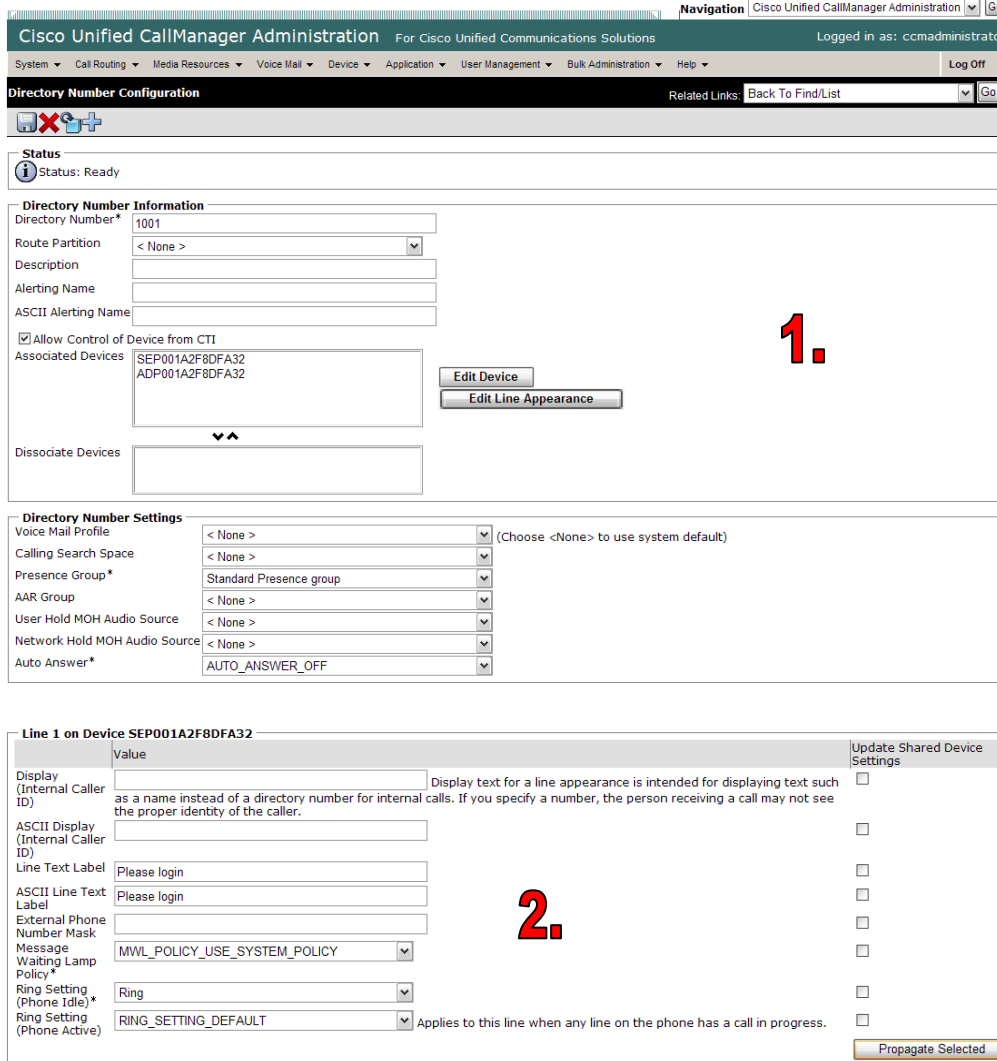
**Subscribed Services**

Next Close

*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.



The screenshot shows the Cisco Unified CallManager Administration interface. The top navigation bar includes "Cisco Unified CallManager Administration" and "Logged in as: ccmadministrator". The main content area is titled "Directory Number Configuration" and contains several sections:

- Status:** Ready
- Directory Number Information:**
  - Directory Number\*: 1001
  - Route Partition: < None >
  - Description: (empty)
  - Alerting Name: (empty)
  - ASCII Alerting Name: (empty)
  - Allow Control of Device from CTI
  - Associated Devices: SEP001A2F8DFA32, ADP001A2F8DFA32
  - Buttons: Edit Device, Edit Line Appearance
  - Dissociate Devices: (empty)
- Directory Number Settings:**
  - Voice Mail Profile: < None >
  - Calling Search Space: < None >
  - Presence Group\*: Standard Presence group
  - AAR Group: < None >
  - User Hold MOH Audio Source: < None >
  - Network Hold MOH Audio Source: < None >
  - Auto Answer\*: AUTO\_ANSWER\_OFF
- Line 1 on Device SEP001A2F8DFA32:**

Value	Update Shared Device Settings
Display (Internal Caller ID): as a name instead of a directory number for internal 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 (Internal Caller ID):	<input type="checkbox"/>
Line Text Label: Please login	<input type="checkbox"/>
ASCII Line Text Label: Please login	<input type="checkbox"/>
External Phone Number Mask:	<input type="checkbox"/>
Message Waiting Lamp Policy*: MWL_POLICY_USE_SYSTEM_POLICY	<input type="checkbox"/>
Ring Setting (Phone Idle)*: Ring	<input type="checkbox"/>
Ring Setting (Phone Active): RING_SETTING_DEFAULT	<input type="checkbox"/>

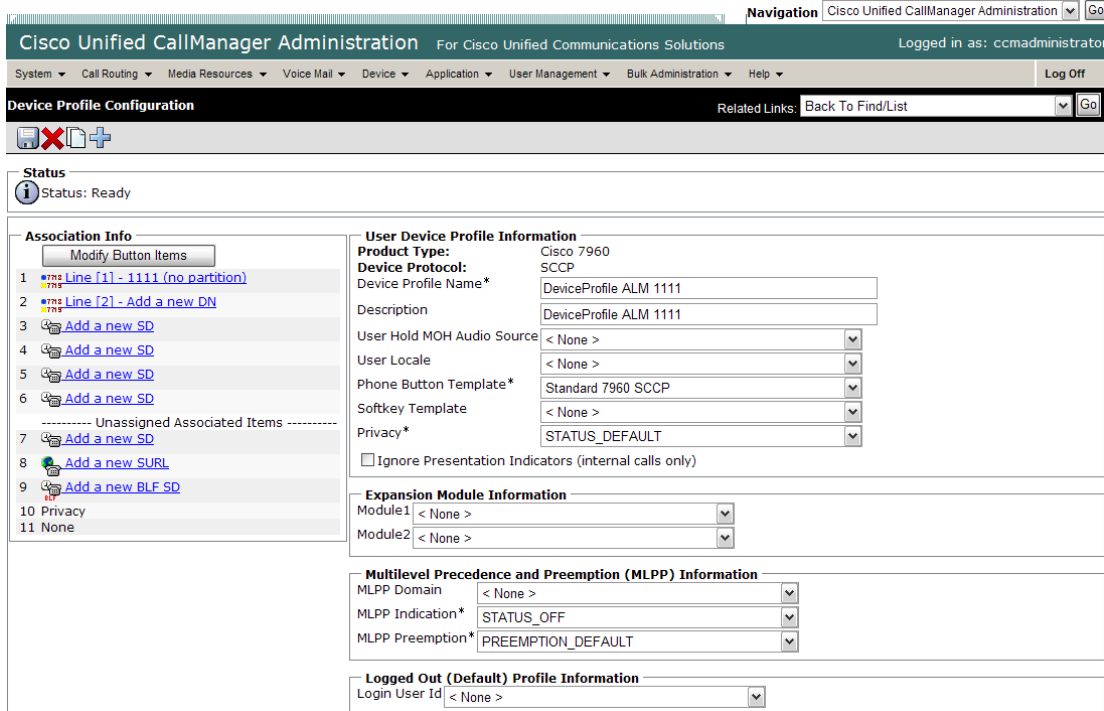
The "Line Text Label" field is the text which is displayed on the phone to identify a phone or a user. Because the phone in this example is only an internal phone and can only be used in combination with ExtensionMobility and ALM.

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.

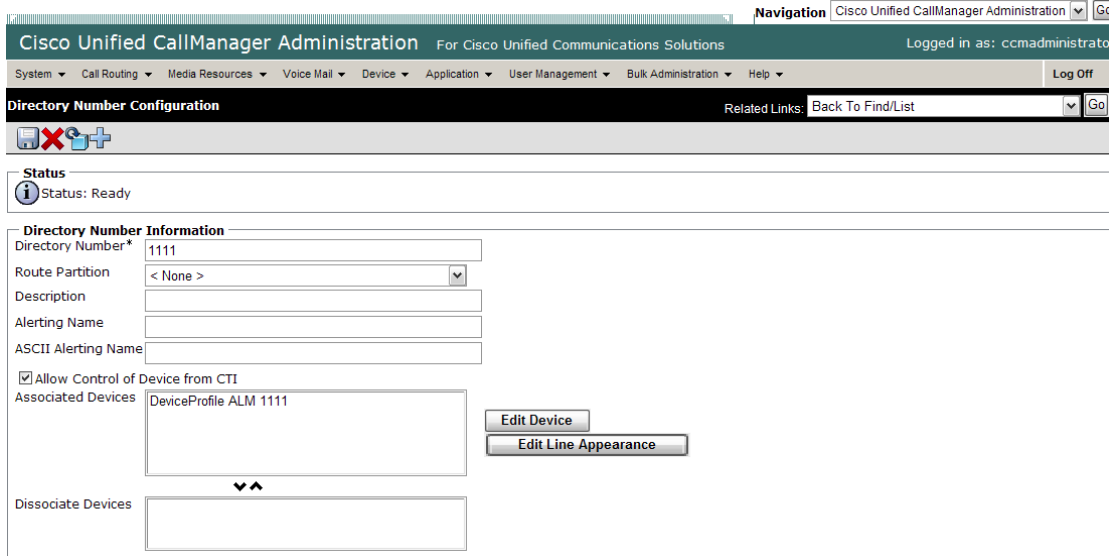


The screenshot shows the 'Device Profile Configuration' page in Cisco Unified CallManager Administration. The page is titled 'Device Profile Configuration' and includes a navigation bar with 'Cisco Unified CallManager Administration' and 'For Cisco Unified Communications Solutions'. The user is logged in as 'ccmadministrator'. The page contains several sections:

- Status:** Status: Ready
- Association Info:** A list of associations with a 'Modify Button Items' button. The list includes:
  - Line [1] - 1111 (no partition)
  - Line [2] - Add a new DN
  - Add a new SD
  - Add a new SD
  - Add a new SD
  - Add a new SD
  - Unassigned Associated Items
  - Add a new SD
  - Add a new SURL
  - Add a new BLF SD
  - Privacy
  - None
- User Device Profile Information:**
  - Product Type: Cisco 7960
  - Device Protocol: SCCP
  - Device Profile Name\*: DeviceProfile ALM 1111
  - Description: DeviceProfile ALM 1111
  - User Hold MOH Audio Source: < None >
  - User Locale: < None >
  - Phone Button Template\*: Standard 7960 SCCP
  - Softkey Template: < None >
  - Privacy\*: STATUS\_DEFAULT
  - Ignore Presentation Indicators (internal calls only)
- Expansion Module Information:**
  - Module1: < None >
  - Module2: < None >
- Multilevel Precedence and Preemption (MLPP) Information:**
  - MLPP Domain: < None >
  - MLPP Indication\*: STATUS\_OFF
  - MLPP Preemption\*: PREEMPTION\_DEFAULT
- Logged Out (Default) Profile Information:**
  - Login User Id: < None >

## Device profile directory number settings

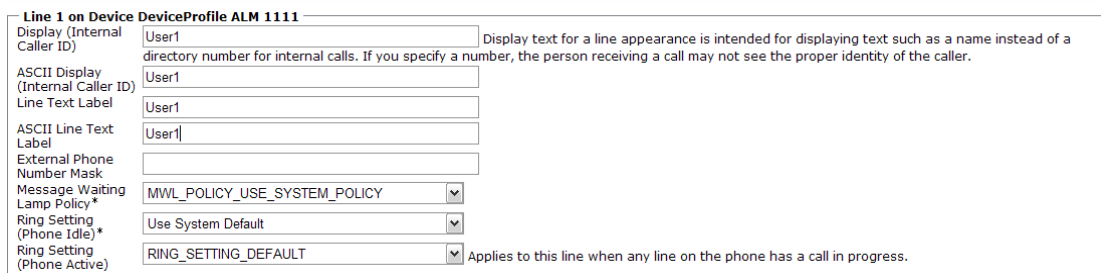
The Directory Number Configuration will be loaded on the specific phone when a user logs on.



The screenshot shows the 'Directory Number Configuration' page in the Cisco Unified CallManager Administration interface. The page title is 'Directory Number Configuration' and it is logged in as 'ccmadministrator'. The navigation menu includes System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area is titled 'Directory Number Information' and contains the following fields and controls:

- Status:** Ready
- Directory Number\*:** 1111
- Route Partition:** < None >
- Description:** (empty)
- Alerting Name:** (empty)
- ASCII Alerting Name:** (empty)
- Allow Control of Device from CTI
- Associated Devices:** DeviceProfile ALM 1111
- Buttons:** Edit Device, Edit Line Appearance
- Dissociate Devices:** (empty)

All basic users 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.



The screenshot shows the 'Line 1 on Device DeviceProfile ALM 1111' configuration page. The page title is 'Line 1 on Device DeviceProfile ALM 1111' and it contains the following fields and controls:

- Display (Internal Caller ID):** User1
- ASCII Display (Internal Caller ID):** User1
- Line Text Label:** User1
- ASCII Line Text Label:** User1
- External Phone Number Mask:** (empty)
- Message Waiting Lamp Policy\*:** MWL\_POLICY\_USE\_SYSTEM\_POLICY
- Ring Setting (Phone Idle)\*:** Use System Default
- Ring Setting (Phone Active):** RING\_SETTING\_DEFAULT

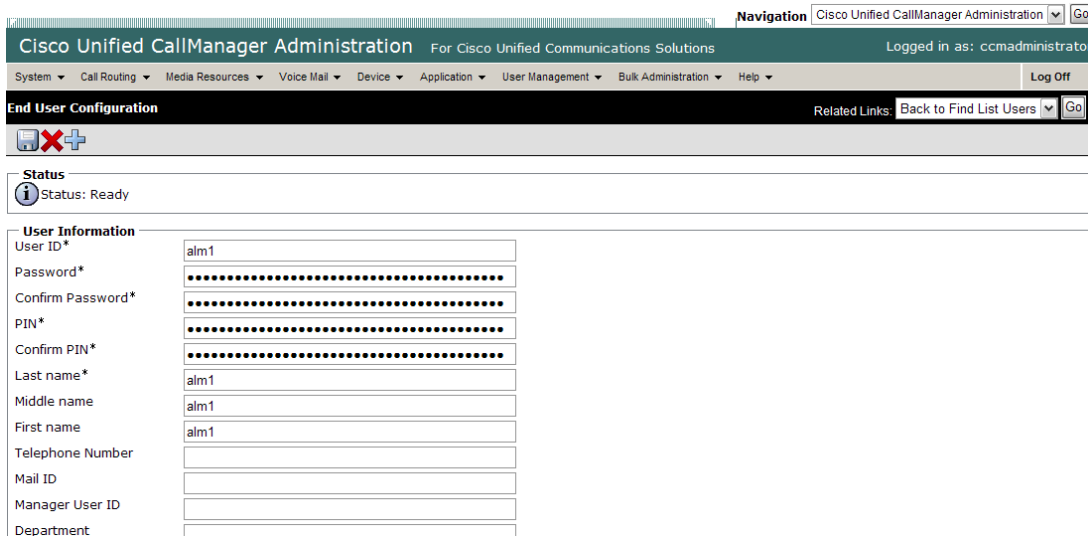
Additional text: Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

Applies to this line when any line on the phone has a call in progress.

## 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.



**Navigation** Cisco Unified CallManager Administration

**Cisco Unified CallManager Administration** For Cisco Unified Communications Solutions Logged in as: ccmadministrator

System  Call Routing  Media Resources  Voice Mail  Device  Application  User Management  Bulk Administration  Help

**End User Configuration** Related Links:

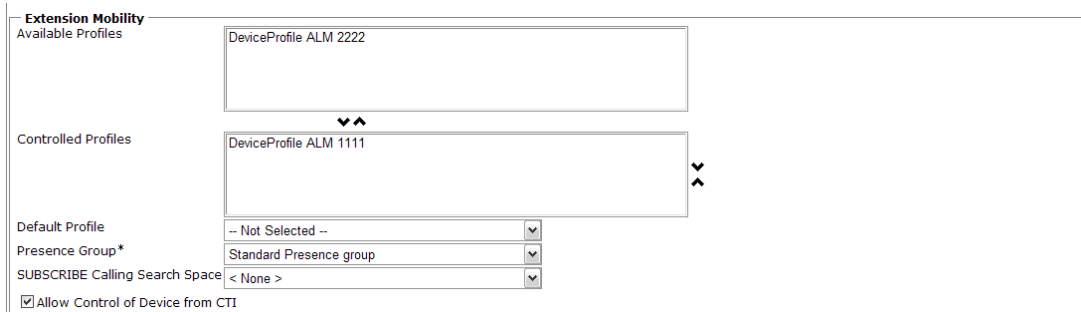
**Status**  
 Status: Ready

**User Information**

User ID*	alm1
Password*	.....
Confirm Password*	.....
PIN*	.....
Confirm PIN*	.....
Last name*	alm1
Middle name	alm1
First name	alm1
Telephone Number	
Mail ID	
Manager User ID	
Department	

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

Controlled Profiles

Default Profile  -- Not Selected --

Presence Group\*  Standard Presence group

SUBSCRIBE Calling Search Space  < None >

Allow Control of Device from CTI

## 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;
- Integration of the Cisco CallManager with Microsoft Active Directory has not been tested yet but should work without any issues;
- The UserID is not case-sensitive;