



ALM – CallManager configuration manual

For UCM version 6



RSconnect B.V.
P.O. Box 442
6800 AK
Arnhem
The Netherlands
T: +31 (0) 6 429 128 98
E: info@rsconnect.net
W: www.rsconnect.net

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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.

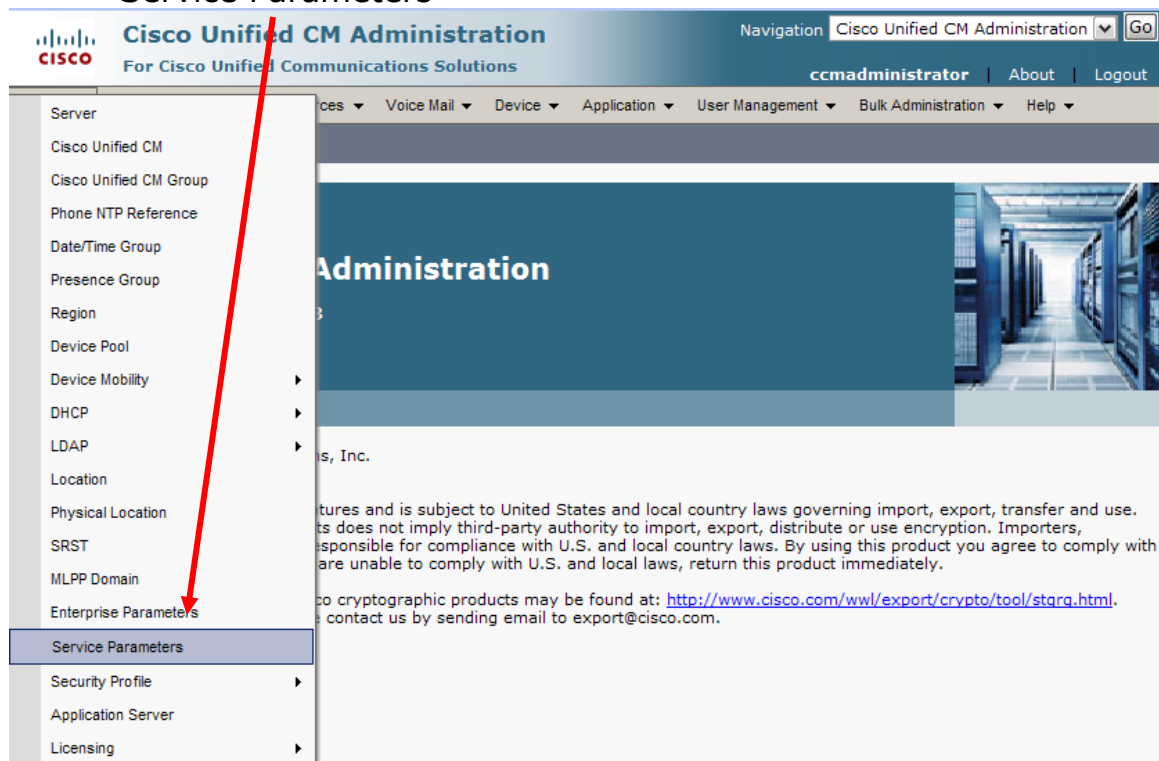
This manual does not contain instructions on how to configure Partitions, CallingSearchSpaces and other phone and user settings.

CallManager System Settings

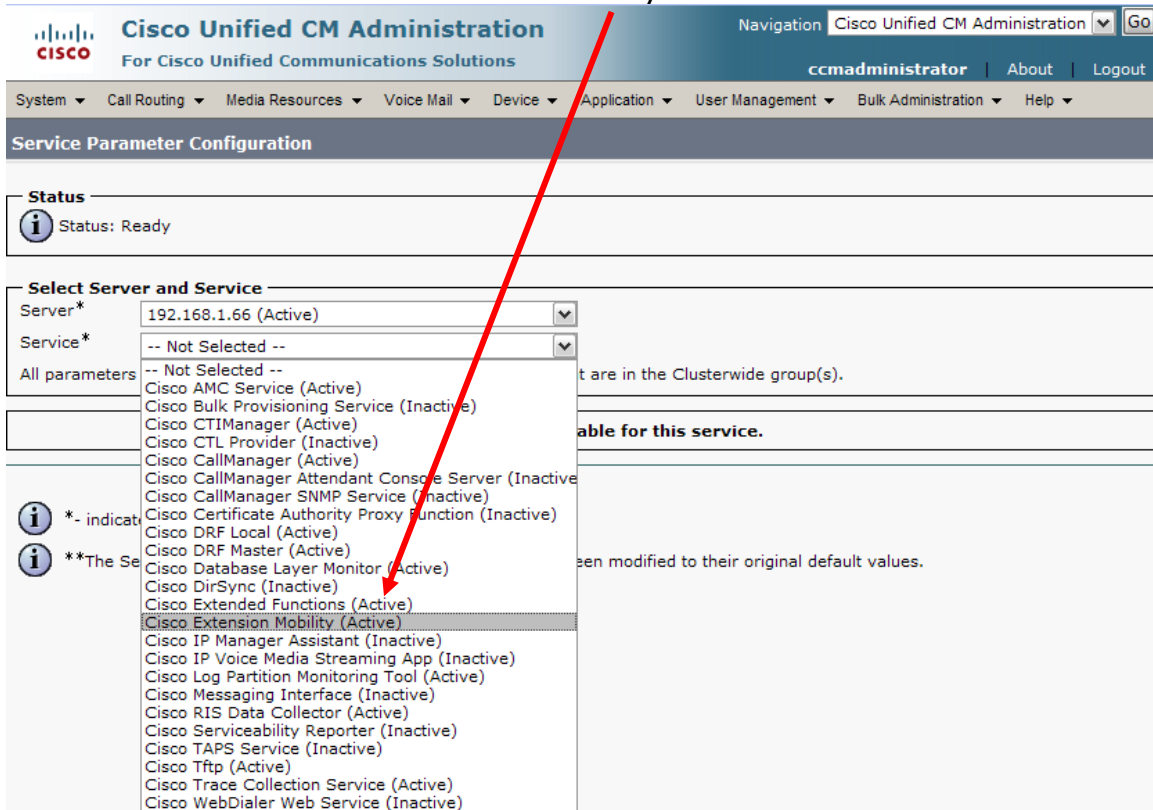
System settings

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 CM Administration web interface. At the top, the navigation bar includes the Cisco logo, the title "Cisco Unified CM Administration For Cisco Unified Communications Solutions", and the user "ccmadministrator". Below the navigation bar is a menu with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help.

The main content area is titled "Service Parameter Configuration". Under the "Status" section, it shows "Status: Ready".

The "Select Server and Service" section contains two dropdown menus. The "Server*" dropdown is set to "192.168.1.66 (Active)". The "Service*" dropdown is set to "-- Not Selected --". Below these are two lists of services:

- All parameters:** A list of services including Cisco AMC Service (Active), Cisco Bulk Provisioning Service (Inactive), Cisco CTIManager (Active), Cisco CTL Provider (Inactive), Cisco CallManager (Active), Cisco CallManager Attendant Console Server (Inactive), Cisco CallManager SNMP Service (Inactive), Cisco Certificate Authority Proxy Function (Inactive), Cisco DRF Local (Active), Cisco DRF Master (Active), Cisco Database Layer Monitor (Active), Cisco DirSync (Inactive), Cisco Extended Functions (Active), Cisco Extension Mobility (Active), Cisco IP Manager Assistant (Inactive), Cisco IP Voice Media Streaming App (Inactive), Cisco Log Partition Monitoring Tool (Active), Cisco Messaging Interface (Inactive), Cisco RIS Data Collector (Active), Cisco Serviceability Reporter (Inactive), Cisco TAPS Service (Inactive), Cisco Tftp (Active), Cisco Trace Collection Service (Active), and Cisco WebDialer Web Service (Inactive).
- Parameters not applicable for this service:** A list of parameters that do not apply to the selected service.

A red arrow points from the top of the page down to the "Cisco Extension Mobility (Active)" entry in the "All parameters" list.

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration

ccmadministrator | About | Logout

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

Service Parameter Configuration Related Links: Parameters for All Servers

Status
Status: Ready

Select Server and Service
Server* 192.168.1.66 (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 192.168.1.66 (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
Multiple Login Behavior *	Auto Logout ▾	Multiple Logins Not Allowed
Alphanumeric User ID *	True ▾	True
Remember the Last User Logged In *	False ▾	False
Clear Call Log *	False ▾	False

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

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

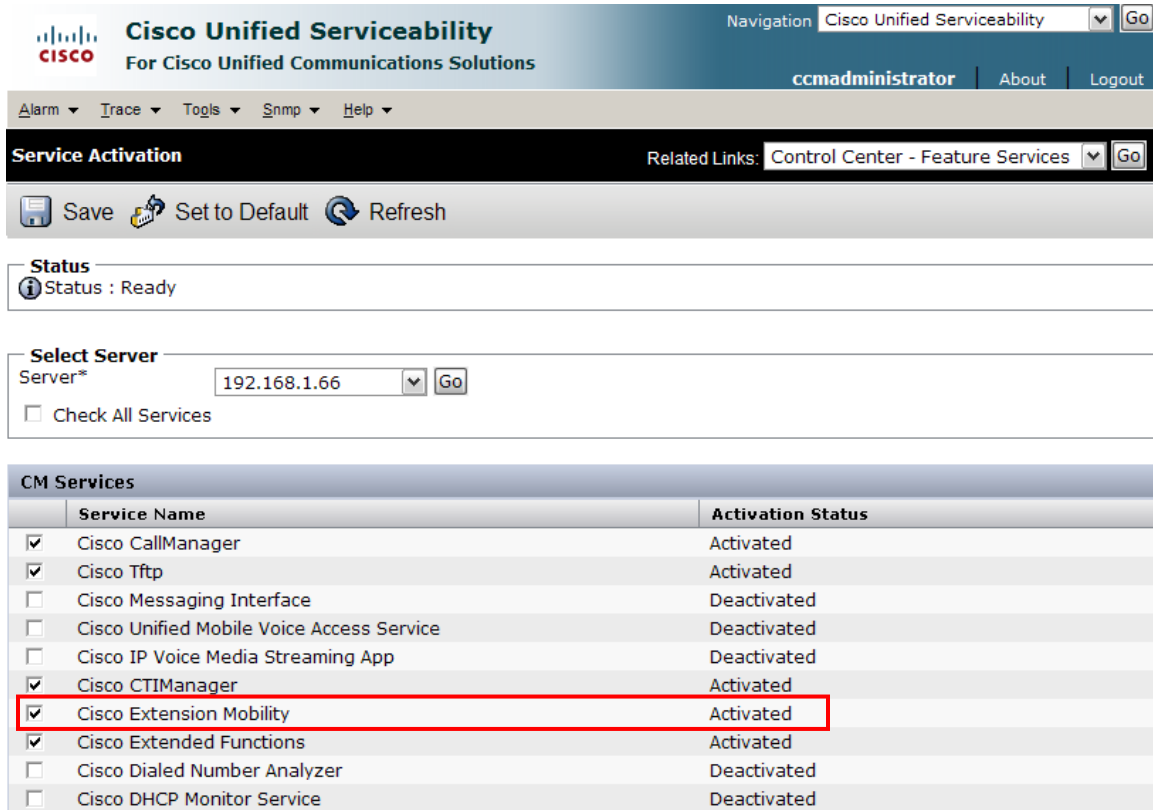
In the CUCM several Service Parameters for the ExtensionMobility service must be changed.

One of the required settings is the "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.



The screenshot shows the Cisco Unified Serviceability interface. At the top, there is a navigation bar with the Cisco logo and the text "Cisco Unified Serviceability For Cisco Unified Communications Solutions". The user is logged in as "ccmadministrator". Below the navigation bar, there are tabs for "Alarm", "Trace", "Tools", "Snmp", and "Help". The main content area is titled "Service Activation" and includes a "Related Links" section with a dropdown menu set to "Control Center - Feature Services". Below this, there are buttons for "Save", "Set to Default", and "Refresh".

The "Status" section shows "Status : Ready".

The "Select Server" section has a "Server*" dropdown menu set to "192.168.1.66" and a "Go" button. There is also a checkbox for "Check All Services".

The "CM Services" section contains a table with the following data:

	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 Unified Mobile Voice Access Service	Deactivated
<input type="checkbox"/>	Cisco IP Voice Media Streaming App	Deactivated
<input checked="" type="checkbox"/>	Cisco CTIManager	Activated
<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.

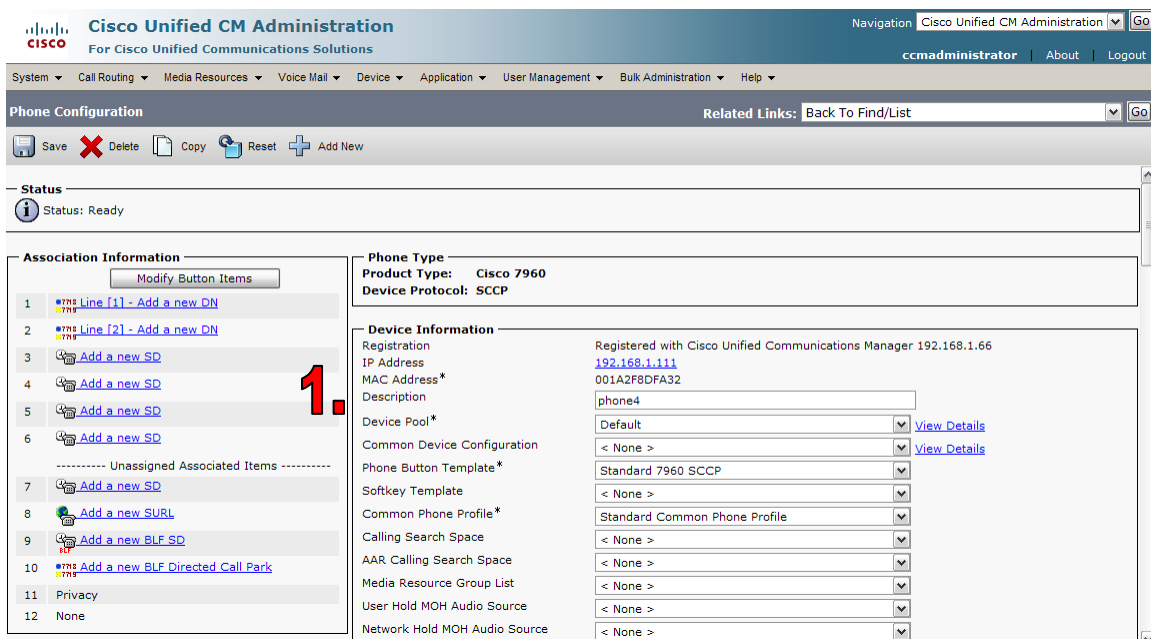
Performance and Monitoring Services					
	Service Name	Status*	Activation Status	Start Time	Up Time
<input type="radio"/>	Cisco Serviceability Reporter	Not Running	Deactivated		
<input type="radio"/>	Cisco CallManager SNMP Service	Not Running	Deactivated		

CM Services					
	Service Name	Status*	Activation Status	Start Time	Up Time
<input type="radio"/>	Cisco CallManager	Started	Activated	Mon Sep 8 09:29:28 2008	0 days 00:20:57
<input type="radio"/>	Cisco Tftp	Started	Activated	Mon Sep 8 09:29:39 2008	0 days 00:20:46
<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	Started	Activated	Mon Sep 8 09:29:40 2008	0 days 00:20:45
<input type="radio"/>	Cisco Extension Mobility	Started	Activated	Mon Sep 8 09:29:41 2008	0 days 00:20:44
<input type="radio"/>	Cisco Dialed Number Analyzer	Not Running	Deactivated		
<input type="radio"/>	Cisco DHCP Monitor Service	Not Running	Deactivated		

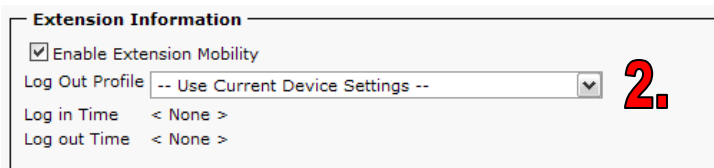
Device settings

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 CM Administration interface. The top navigation bar includes 'Cisco Unified CM Administration' and 'For Cisco Unified Communications Solutions'. 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 configuration items, with a red '1' highlighting the 'Add a new SD' option. The 'Device Information' section on the right shows fields for 'Registration', 'IP Address', 'MAC Address', 'Description', 'Device Pool', 'Common Device Configuration', 'Phone Button Template', 'Softkey Template', 'Common Phone Profile', 'Calling Search Space', 'AAR Calling Search Space', 'Media Resource Group List', 'User Hold MOH Audio Source', and 'Network Hold MOH Audio Source'. The 'Status' section at the top left indicates 'Status: Ready'.



The screenshot shows the 'Extension Information' section. It includes a checkbox for 'Enable Extension Mobility' which is checked. Below it is a dropdown menu for 'Log Out Profile' set to '-- Use Current Device Settings --', with a red '2.' next to it. There are also fields for 'Log in Time' and 'Log out Time', both set to '< None >'.

Product Specific Configuration Layout ?

Disable Speakerphone

Disable Speakerphone and Headset

PC Port * v

Settings Access* v

Gratuitous ARP* v



PC Voice VLAN Access* v **3.**

Video Capabilities* v


Auto Line Select* v

Web Access* v **4.**

Subscribed Cisco IP Phone Services for SEP001A2F8DFA32

 Save  Help

Status

 Add successful

Service Subscription: Extension Mobility **5.**


Service Information


Service Name*

ASCII Service Name*

Subscribed Services

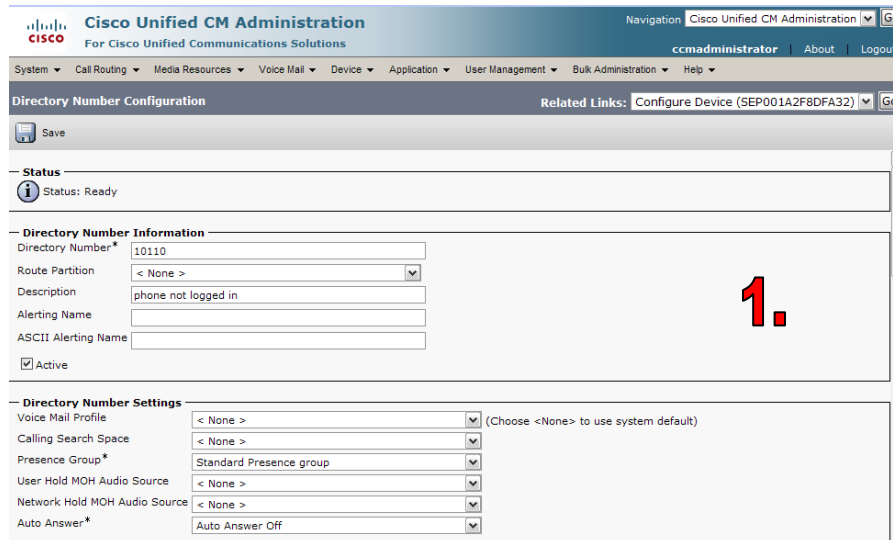
[Subscribe a New Service](#)

 [Extension Mobility](#)

 *- 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

ccadministrator | About | Logout

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

Directory Number Configuration | Related Links: Configure Device (SEP001A2F8DFA32) | Go

Save

Status
Status: Ready

Directory Number Information

Directory Number* 10110

Route Partition < None >

Description phone not logged in

Alerting Name

ASCII Alerting Name

Active

Directory Number Settings

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

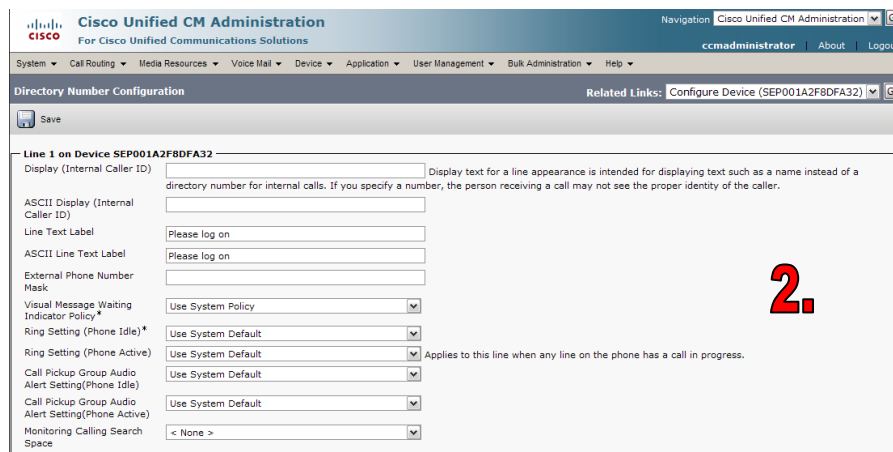
Calling Search Space < None >

Presence Group* Standard Presence group

User Hold MOH Audio Source < None >

Network Hold MOH Audio Source < None >

Auto Answer* Auto Answer Off



Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | Go

ccadministrator | About | Logout

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

Directory Number Configuration | Related Links: Configure Device (SEP001A2F8DFA32) | Go

Save

Line 1 on Device SEP001A2F8DFA32

Display (Internal Caller ID) 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.

ASCII Display (Internal Caller ID)

Line Text Label Please log on

ASCII Line Text Label Please log on

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 >

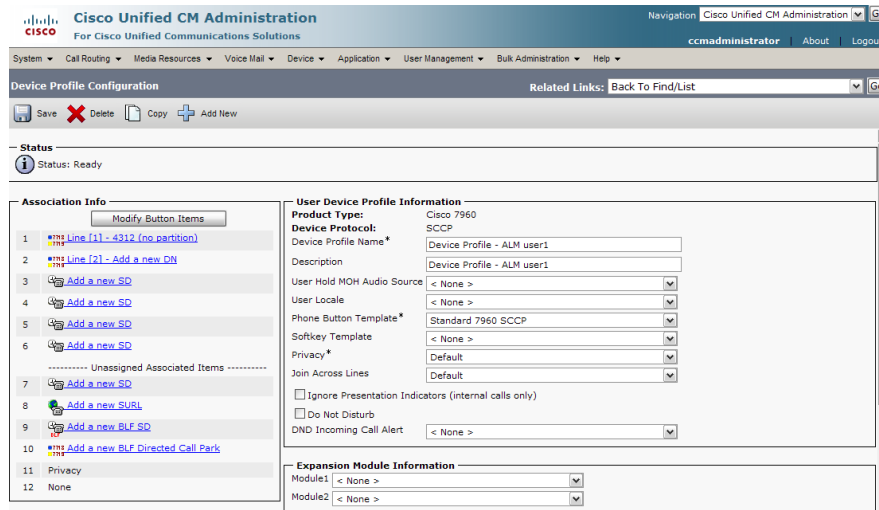
The "Line Text Label" field is the text which is displayed on the phone to identify a phone or a user. Because the phone in this example is only an internal phone and can only be used in combination with ExtensionMobility and ALM.

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

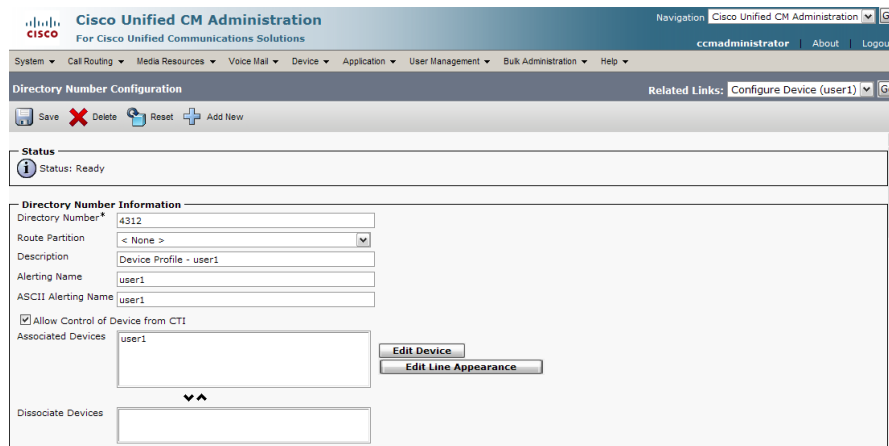
A User Device Profile is the profile which will be loaded on the phone when a user logs in using ALM. The settings which were previously configured on the phone will not be available anymore.

- 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.



Device profile directory number settings

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



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.

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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

ccmadministrator | About | Logout

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

Save Delete Reset Add New

Line 1 on Device user1

Display (Internal Caller ID) 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.

ASCII Display (Internal Caller ID)

Line Text Label

ASCII Line Text Label

External Phone Number Mask

Visual Message Waiting Indicator Policy*

Ring Setting (Phone Idle)*

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

Call Pickup Group Audio Alert Setting(Phone Idle)

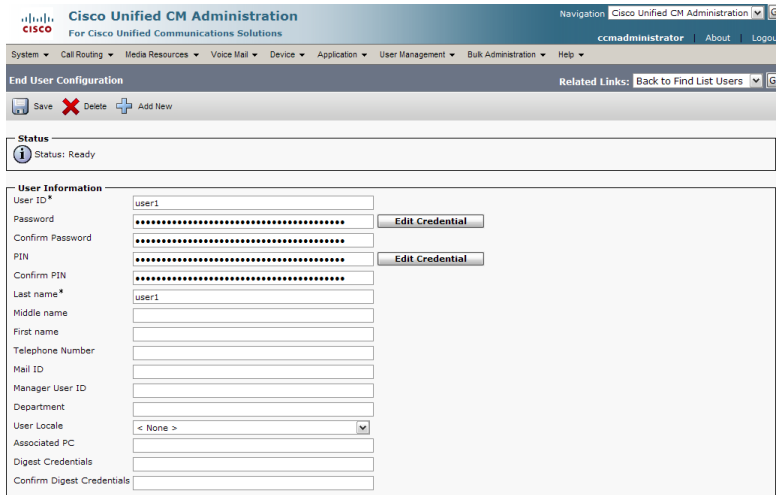
Call Pickup Group Audio Alert Setting(Phone Active)

Monitoring Calling Search Space

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.

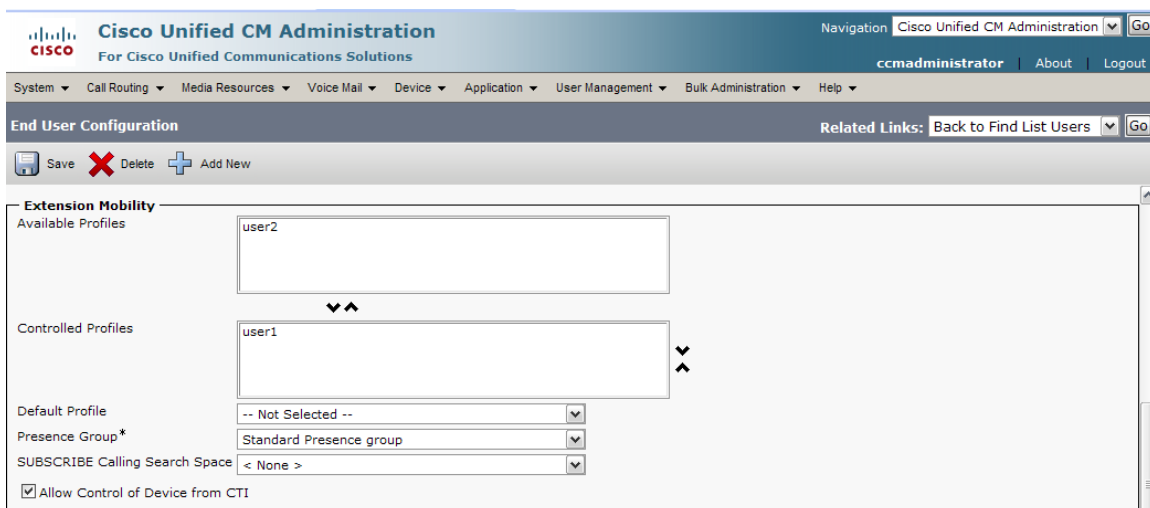
The ALM application will send this username to the system so the user does not have to enter their username manually on the phone anymore using the keypad.



The screenshot shows the 'End User Configuration' page in Cisco Unified CM Administration. The 'User Information' section is expanded, showing the following fields:

- User ID*: user1
- Password: [masked] (with 'Edit Credential' button)
- Confirm Password: [masked]
- PIN: [masked] (with 'Edit Credential' button)
- Confirm PIN: [masked]
- Last name*: user1
- Middle name: [empty]
- First name: [empty]
- Telephone Number: [empty]
- Mail ID: [empty]
- Manager User ID: [empty]
- Department: [empty]
- User Locale: < None >
- Associated PC: [empty]
- Digest Credentials: [empty]
- Confirm Digest Credentials: [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.



The screenshot shows the 'End User Configuration' page in Cisco Unified CM Administration, scrolled down to the 'Extension Mobility' section. The fields are:

- Available Profiles: user2
- Controlled Profiles: user1
- 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;