



# Microsoft Office Communications Server 2007 Enterprise Edition using Direct SIP to Cisco Unified Communications Manager 7.0(1) Simultaneous Ring Feature

November 6, 2008 - Revision 1

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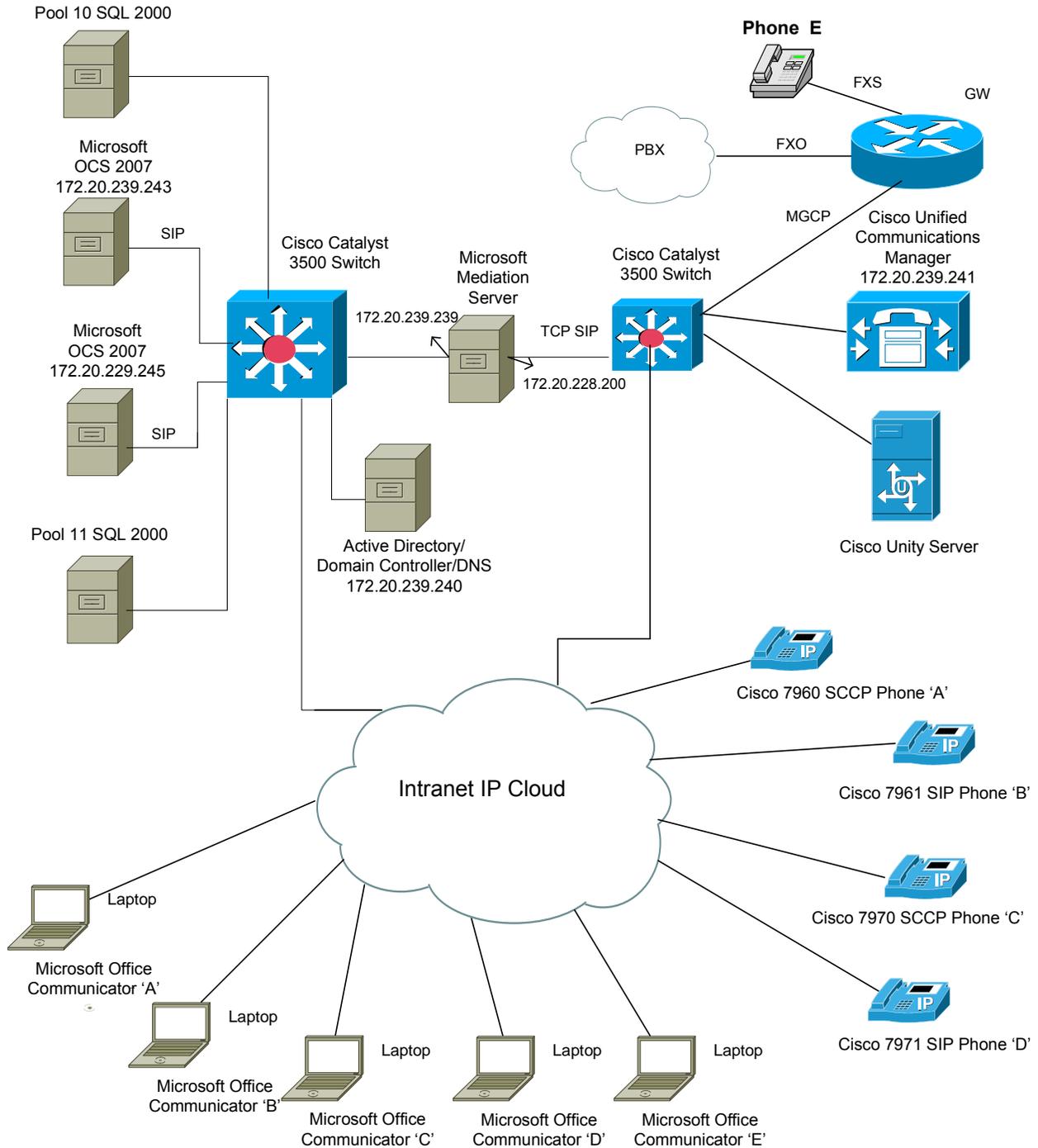
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## Introduction

- This document describes the simultaneous ring feature interoperability and documents the steps and configurations necessary for Cisco Unified Communications Manager (Cisco UCM) Release 7.0(1) to interoperate with Microsoft Office Communications Server (OCS) 2007 Enterprise Edition. It aims to provide a good understanding of what works and what does not work in terms of the feature interaction between a Cisco UCM device and Microsoft Office Communicator. It also provides guidance to deployment participants regarding the limitations, expected behaviors, and known issues. Please note that this document does not address performance and scalability, which are part of a broader criteria for a deployment-ready solution.
- The simultaneous ring feature allows a Cisco UCM endpoint (IP Phone, IP Communicator, etc...) to simultaneously ring its remote destination(s) when a call is placed to that endpoint. The remote destination(s) could be Microsoft Office Communicator and/or any other device(s) including mobile phones, PSTN phones or even local PBX extensions. The remote destination feature uses the Cisco Unified Mobility functionality and can be configured to allow or block the receipt of certain numbers. For the simultaneous ring configuration, Cisco UCM has a Direct SIP connection to Microsoft Mediation Server.
- The endpoints used in this testing all have E.164 numbering which is supported by Cisco UCM Release 7.0(1).

## Network Topology

Figure 1. Network Topology/Test Setup





## Limitations

- When a Microsoft Office Communicator user answers a simultaneous ring (simring) call and then conferences in other users, after the conference ends and all other users hang up, the Microsoft Office Communicator's conversation window does not show "call ended" and does not automatically close.
- In the cases of call transfer, connected number information is not updated on the new connection.
- OCS does not provide music on hold (MoH) capability.
- Media termination point is required on the SIP trunk for proper operation.
- Call forwarding all (CFA) setting using the soft key button on the IP phone failed when the IP phone is configured with E.164 numbering. This is a known issue on Cisco UCM 7.0(1) and it is documented in CDETS CSCsu33520 to be fixed in a later release of Cisco UCM.

## System Components

### Hardware Requirements

#### Cisco hardware

- Cisco Unified Communications Manager (MCS 7825H)
- Cisco Unity (MCS 7825H)
- Cisco Unified IOS gateway 2851 (with NM-HD-2VE and VWIC-2MFT-T1 cards)
- Cisco Catalyst 3560
- 1 Cisco 7960 IP Phone (SCCP)
- 1 Cisco 7961 IP Phone (SIP)
- 1 Cisco 7970 IP Phone (SCCP)
- 1 Cisco 7971 IP Phone (SIP)

#### Microsoft hardware

- Office Communications Server 2007 Enterprise Edition (MCS 7825H) Windows Server 2003 R2, with SP2
- Windows Active Directory Node/DNS/Cert Server for OCS (MCS 7825H) Windows Server 2003 R2, Enterprise Edition, with SP1
- Windows SQL Server 2005 Enterprise Edition (MCS 7825H) Windows Server 2003 R2, with SP2
- Microsoft Mediation Server (MCS 7825H2) Windows Server 2003 R2, Enterprise Edition, with SP1
- Notebook computers for Microsoft Office Communicator clients running on Windows XP Professional version 2002 with SP2

### Software Requirements

- Cisco Unified Communications Manager Release 7.0(1)
- Microsoft Office Communications Server 2007 Enterprise Edition



## Features

### Desktop Features Supported

- Basic Call Placement / Clearing
- Hold / Retrieval of Call
- Call Transfer
  - Unannounced or Blind
  - Announced or Attended
- Call Forwarding (CFA, CFB, CFNR)
- Call Conference
- Do-Not-Disturb (DND)
- Switch call back to Microsoft Office Communicator user
- Resume call from Microsoft Office Communicator user
- Voice Mail

### Configuration

For more Cisco deployment and installation guides, go to [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/cucm/srnd/7x/uc7\\_0.html](http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/srnd/7x/uc7_0.html)

For more Microsoft deployment and installation guides, go to:

<http://technet.microsoft.com/en-us/library/bb676082.aspx>

<http://search.technet.microsoft.com/search/Default.aspx?brand=technet&query=OCS&refinement=66&lang=en-us>

### Configuration Sequence and Tasks

#### A. Microsoft Office Communications Server Enterprise Edition Configuration

1. Domain Name System
2. Pool Properties
3. Pool Users
4. User Configuration
5. Mediation Server Configuration
6. Microsoft Office Communicator Configuration

#### B. Cisco UCM Configuration

1. Configure the SIP Trunk
2. Configure the Cisco IP Phones
3. Configure the End Users
4. Configure Remote Destination Profile
5. Configure Remote Destination
6. Configure Softkey Template
7. Configure Route Pattern
8. Configure Translation Pattern
9. Configure Gateway (to simulate PSTN/PBX and to connect to PBX)
10. Configure Unity Voice Mail

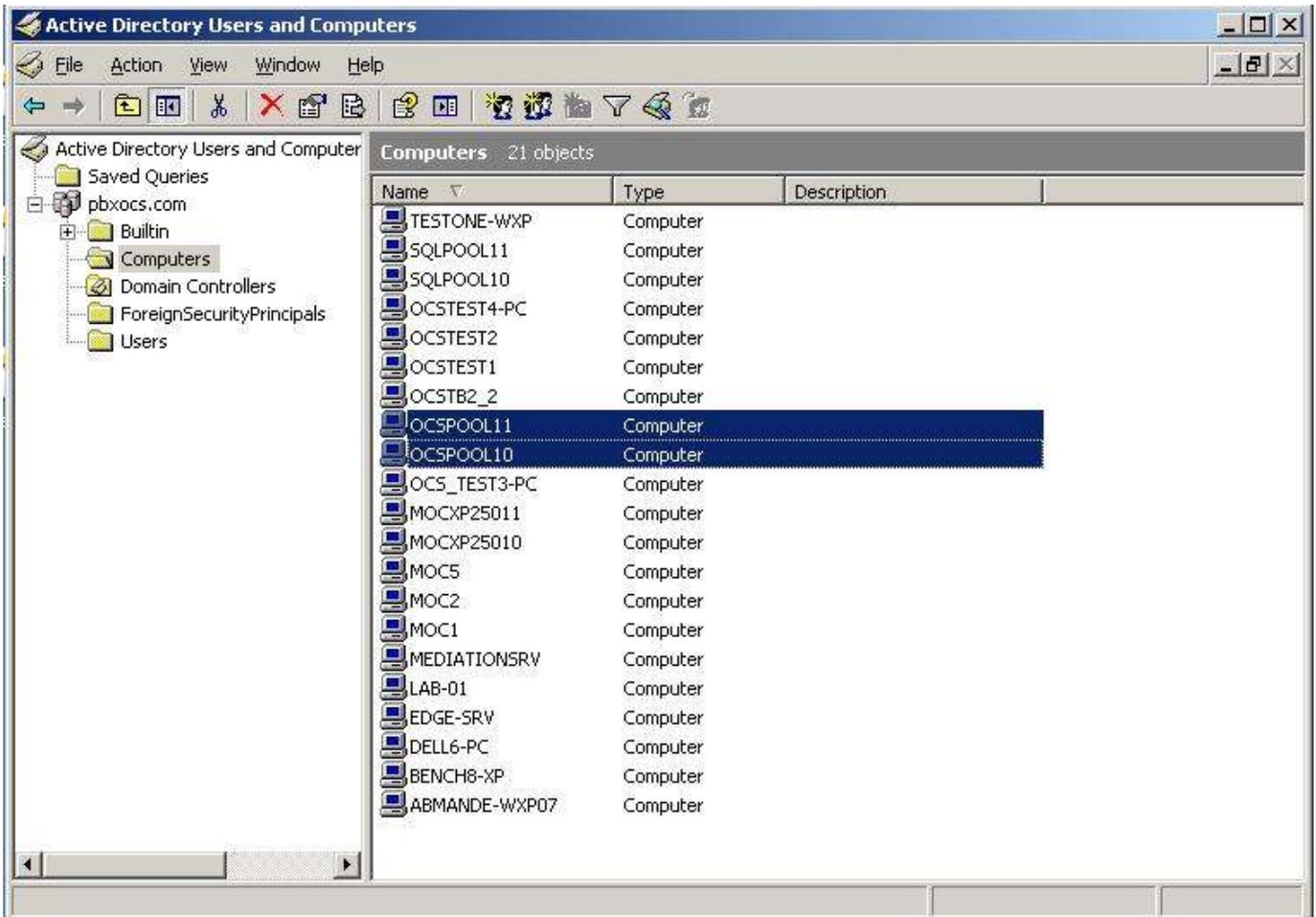


## Configuring Microsoft OCS 2007 Enterprise Edition

Please refer to the Microsoft OCS 2007 Enterprise Edition deployment guide for setup details. Only interoperability related information is included in this document.

### Domain Name System Configuration

The two Front End Servers that are used in this testing are defined as such in the Active Directory.





Forward Lookup Zone Host records for Cisco Unified Communication Manager and OCS Pools:

The screenshot shows the DNS Manager interface for the domain pbxocs.com. The left pane displays the DNS hierarchy, and the right pane shows a list of 58 records. Two groups of records are highlighted with red boxes and labels:

- CUCM Host Record:** cm-ocs (172.20.239.241)
- OCS Pools Host Records:** pool10 (172.20.239.243) and pool11 (172.20.229.245)

Name	Type	Data
BENCH8-XP	Host (A)	172.20.236.175
cm-exchange	Host (A)	172.20.88.254
cm-ocs	Host (A)	172.20.239.241
CME	Host (A)	172.20.228.254
cube	Host (A)	172.20.174.30
cups-ocs	Host (A)	172.20.239.242
DELL6-PC	Host (A)	172.20.178.221
eaton-pc	Host (A)	172.20.172.65
Edge-SRV	Host (A)	172.20.228.228
Edge-SRV	Host (A)	172.20.239.226
exchangepbx	Host (A)	172.20.85.254
EXTAedge-srv	Host (A)	172.20.228.228
EXTBedge-srv	Host (A)	172.20.228.228
EXTCedge-srv	Host (A)	172.20.228.228
lab-01	Host (A)	172.20.157.69
Lab-PC	Host (A)	172.20.227.55
labconf	Host (A)	172.20.123.104
labconf	Host (A)	172.20.123.103
labconfmr	Host (A)	172.20.123.104
mediationsrv	Host (A)	172.20.239.239
MEDSRV2008	Host (A)	172.20.239.225
MOC1	Host (A)	172.20.2.75
MOC2	Host (A)	172.20.227.32
MOC5	Host (A)	172.20.227.110
MOCXP25010	Host (A)	172.20.8.71
MOCXP25011	Host (A)	172.20.8.70
mtgplace	Host (A)	172.20.123.101
ntp	Host (A)	172.20.2.181
OCS_TEST3-PC	Host (A)	172.20.227.20
ocspdc	Host (A)	172.20.239.240
ocspool10	Host (A)	172.20.239.243
ocspool11	Host (A)	172.20.229.245
OCSTB2_2	Host (A)	172.20.227.23
OCSTEST1	Host (A)	172.20.227.8
OCSTEST2	Host (A)	172.20.227.33
OCSTEST4-PC	Host (A)	172.20.2.25
pbxlab-rim	Host (A)	172.20.5.50
pool10	Host (A)	172.20.239.243
pool11	Host (A)	172.20.229.245
qfake	Host (A)	1.1.1.1
SQLPOOL10	Host (A)	172.20.239.244
sqlpool11	Host (A)	172.20.229.246
TEST1-GW	Host (A)	172.20.88.254
TEST2-GW	Host (A)	172.20.8.26
test3	Host (A)	172.20.2.1
testone-wxp	Host (A)	172.30.100.11
ucclient	Host (A)	172.20.172.66
UCLab	Host (A)	172.20.172.66



Reverse Lookup Zone PTR records for Cisco Unified Communication Manager and OCS Pools:

Name	Type	Data
(same as parent folder)	Start of Authority (SOA)	[54], ocspsc.pbxocs.com., ...
(same as parent folder)	Name Server (NS)	ocspdc.pbxocs.com,
172.20.239.0	Pointer (PTR)	pbxocs.com.
172.20.239.225	Pointer (PTR)	medsrv2008.pbxocs.com.
172.20.239.226	Pointer (PTR)	edge-srv.pbxocs.com.
172.20.239.239	Pointer (PTR)	mediationsrv.pbxocs.com.
172.20.239.240	Pointer (PTR)	ocspdc.pbxocs.com.
172.20.239.241	Pointer (PTR)	cm-ocs.pbxocs.com. <b>CUCM PTR Record</b>
172.20.239.242	Pointer (PTR)	cups-ocs.pbxocs.com.
172.20.239.243	Pointer (PTR)	pool10.pbxocs.com. <b>OCS Pool10 PTR Record</b>
172.20.239.243	Pointer (PTR)	ocspool10.pbxocs.com.
172.20.239.244	Pointer (PTR)	sqlpool10.pbxocs.com.



SRV records for OCS Pools:

The screenshot shows the DNS Manager interface for the OCS Pools. The left pane shows the hierarchy: OCS PDC > Forward Lookup Zones > pbxocs.com > \_tcp. The right pane displays 8 SRV records for the \_tcp zone. Two records are highlighted with a red box and labeled 'OCS Pools SRV Records':

Name	Type	Data
_finger	Service Location (SRV)	[1][1][79] ocspdc.pbxocs.c...
_gc	Service Location (SRV)	[0][100][3268] ocspdc.pbxo...
_kerberos	Service Location (SRV)	[0][100][88] ocspdc.pbxocs...
_kpasswd	Service Location (SRV)	[0][100][464] ocspdc.pbxoc...
_ldap	Service Location (SRV)	[0][100][389] ocspdc.pbxoc...
_sip	Service Location (SRV)	[0][0][5060] pool11.pbxocs...
_sip	Service Location (SRV)	[1][0][5060] pool10.pbxocs...
_sipinternaltls	Service Location (SRV)	[0][0][5061] pool10.pbxocs...



## Pool Properties

On the OCS, the two pools defined are pool10 and pool11. The screenshots show the settings of pool10.

The screenshot displays the Microsoft Office Communications Server 2007 management console. The left-hand tree view shows the hierarchy: Forest - pbxocs.com > Enterprise pools > pool10. The main pane shows the configuration for pool10, with tabs for Status, Database, and Resources. The 'General Settings' tab is active, showing the following configuration:

- Pool: pool10.pbxocs.com
- Federation or global route:
- FQDN: <None>
- Port: 5061
- Authentication protocol: NTLM
- Server to server outgoing compression:
- Client to server compression:

Below the general settings is a table for 'Static IP routes (outbound connections)':

URI:	Next Hop Address:	Port:	Transport:
SIP: *@cups-ocs.pbxocs.com	172.20.239.242	5060	TCP
SIP: *@cup-med-srv.pbxlab.org	172.20.228.50	5060	TCP
SIP: *@CM-Exchange.pbxocs.com	172.20.88.254	5060	TCP

At the bottom of the 'General Settings' pane, there are 'Default certificate settings' for the server name 'ocspool10.pbxocs.com', which are 'Enabled/Disabled' with a green checkmark.

On the right side of the console, an 'Available Tasks' pane contains a single task: 'Remove Pool', which 'Removes the specified pool from the forest.'



Microsoft Office Communications Server 2007

File Window Help

Office Communications Server 2007

Forest - pbxocs.com

- Enterprise pools
  - pool10
    - Users
    - Front Ends
      - ocspool10.pbxocs
      - Web Conferencing
      - A/V Conferencing
      - Web Components
  - pool11
    - Users
    - Front Ends
    - Web Conferencing
    - A/V Conferencing
    - Web Components
- Standard Edition Servers
- Archiving and CDR Servers
- Unassigned users
- Mediation Servers
- mediationsrv.pbxocs.com
- Live Communications Server 2

Microsoft Office Communications Server 2007

Status Database Resources

General Settings

Meeting Settings

Presentation folder: \\sqlpool10\presentations  
Presentation metadata folder: \\sqlpool10\metadata  
Internal URL for meeting content download: https://pool10.pbxocs.com/etc/place/null  
External URL for meeting content download: <None>  
Internal URL for Live Meeting client download: http://r.office.microsoft.com/r/rlidOCS?clid=1033&p1=livemeeting  
External URL for Live Meeting client download: http://r.office.microsoft.com/r/rlidOCS?clid=1033&p1=livemeeting  
Meeting content compliance:   
Meeting content compliance folder: <None>  
Meeting compliance critical:   
Internal technical support URL: http://r.office.microsoft.com/r/rlidLiveMeeting?p1=12&p2=en\_us&p3=LMIInfo&p4=supportserver  
External technical support URL: http://r.office.microsoft.com/r/rlidLiveMeeting?p1=12&p2=en\_us&p3=LMIInfo&p4=supportserver  
Group expansion:   
Maximum group size: 100  
Internal URL for group expansion: https://pool10.pbxocs.com/GroupExpansion/Int/service.aspx  
External URL for group expansion: <None>  
A/V encryption status Require Encryption level:

Available Tasks:

Remove Pool  
Removes the specified pool from the forest.

Web Conferencing Edge Server Settings



Microsoft Office Communications Server 2007

File Window Help

Office Communications Server 2007

Status Database Resources

Meeting client download: Meeting content compliance: Meeting content compliance folder: Meeting compliance critical: Internal technical support URL: External technical support URL: Group expansion: Maximum group size: Internal URL for group expansion: External URL for group expansion: A/V encryption status. Require Encryption level:

Web Conferencing Edge Server Settings  
Internal Port: 8057  
External Port: 443  
Internal FQDN: External FQDN: <None>

A/V Conference Edge Server Settings  
Internal FQDN: <None>  
A/V authentication port: <None>

Archiving and CDR Settings  
Address Book Server Settings  
Voice Settings

Available Tasks:  
Remove Pool  
Removes the specified pool from the forest.

Forest - pbxocs.com  
Enterprise pools  
pool10  
Users  
Front Ends  
ocspool10.pbxocs  
Web Conferencing  
A/V Conferencing  
Web Components  
pool11  
Users  
Front Ends  
Web Conferencing  
A/V Conferencing  
Web Components  
Standard Edition Servers  
Archiving and CDR Servers  
Unassigned users  
Mediation Servers  
mediationsrv.pbxocs.com  
Live Communications Server 2



Microsoft Office Communications Server 2007

File Window Help

Office Communications Server 2007

Status Database Resources

General Settings

Meeting Settings

Archiving and CDR Settings

Content archiving:	✘
Call details recording:	✘
Shut down if archiving fails:	✘
Shut down if Message Queuing encryption fails:	✘

Office Communications Server: ocspool10.pbxocs.com      Associated queue path: <None>

Address Book Server Settings

Synchronization time:	1:30:00 AM
Output location:	\\sqlpool10\abs
File share location for internal connections:	https://pool10.pbxocs.com/Abs/Int/Handler
File share URL for external connections:	<None>

Voice Settings

Phone Lock Enforced:	✓
Minimum PIN length	6
Minimum time out	10 (minutes)

Location Profile

Ocs-Policy.pbxocs.com

- SDigit
- SDigitE164
- +\_11digit

Advanced Options

Voice quality of service setting:	-40
802.1p Voice setting:	0
SIP Security Mode:	Medium

Available Tasks:

Remove Pool  
Removes the specified pool from the forest.

Office Communications Server 2007

Forest - pbxocs.com

- Enterprise pools
  - pool10
    - Users
    - Front Ends
      - ocspool10.pbxocs
      - Web Conferencing
      - A/V Conferencing
      - Web Components
  - pool11
    - Users
    - Front Ends
    - Web Conferencing
    - A/V Conferencing
    - Web Components
- Standard Edition Servers
- Archiving and CDR Servers
- Unassigned users
- Mediation Servers
- mediationsrv.pbxocs.com
- Live Communications Server 2



The set of normalization rules associated with the location profile, for OCS environment. Please refer to Microsoft documentation for more details.

The screenshot shows the Microsoft Office Communications Server 2007 management console. The left-hand tree view displays the hierarchy: Forest - pbxocs.com > Enterprise pools > pool10 > Users > Front Ends > ocspool10.pbxocs.com > Location Profile. The main pane shows the configuration for the 'Ocs-Policy.pbxocs.com' location profile. Under 'Voice Settings', the 'Phone Lock Enforced' section is expanded, showing 'Minimum PIN length' set to 6 and 'Minimum time out' set to 10 (minutes). The 'Location Profile' section is also expanded, showing three normalization rules:

SDigit	Phone Pattern	Translation
SDigit	^(6\d{3})\d+\$	+140852\$1
SDigitE164	^(7\d{3})\d+\$	+140852\$1
+_11digit	^(1\d{10})\$	+\$1

Below these rules, the 'Advanced Options' section is visible, showing 'Voice quality of service setting' at 40, '802.1p Voice setting' at 0, and 'SIP Security Mode' set to Medium. An 'Available Tasks' pane on the right contains a 'Remove Pool' task with the description: 'Removes the specified pool from the forest.'



## Pool Users

### Pool 10 Users

Microsoft Office Communications Server 2007				
Enabled	Display name	SIP URI	Type	
Enabled	50025 pool10	sip:50025@pbxocs.com	User	
Enabled	55531	sip:55531@pbxocs.com	User	
Enabled	55532	sip:55532@pbxocs.com	User	
Enabled	AutoAttendant	sip:AAOCS.OCS-Policy.pbxocs.com@pbxocs...	AutoAttendant	
Enabled	CecilyOne	sip:Cecilyone@pbxocs.com	User	
Enabled	CecilyTwo	sip:Cecilytwo@pbxocs.com	User	
Enabled	DF test1	sip:DFtest1@pbxocs.com	User	
Enabled	LCSTEST	sip:LCSTEST@pbxocs.com	User	
Enabled	MOC1 pool10	sip:MOC1@pbxocs.com	User	
Enabled	MOC10 Pool10	sip:MOC10@pbxocs.com	User	
Enabled	MOC11 Pool10	sip:MOC11@pbxocs.com	User	
Enabled	MOC2 pool10	sip:MOC2@pbxocs.com	User	
Enabled	MOC23 pool10	sip:MOC23@pbxocs.com	User	
Enabled	MOC24 pool10	sip:MOC24@pbxocs.com	User	
Enabled	OCSTEST10 pool10	sip:OCSTEST10@pbxocs.com	User	
Enabled	OCSTEST3 pool10	sip:OCSTEST3@pbxocs.com	User	
Enabled	OCSTEST4 Pool10	sip:OCSTEST4@pbxocs.com	User	
Enabled	OCSTEST7 pool10	sip:OCSTEST7@pbxocs.com	User	
Enabled	Outlook1 Test	sip:Outlook1@pbxocs.com	User	
Enabled	polycom test	sip:polycomtest@pbxocs.com	User	
Enabled	polycom test01	sip:polycomtest01@pbxocs.com	User	
Enabled	ScenarioC user01	sip:ScenarioCuser01@pbxocs.com	User	



### Pool 11 Users

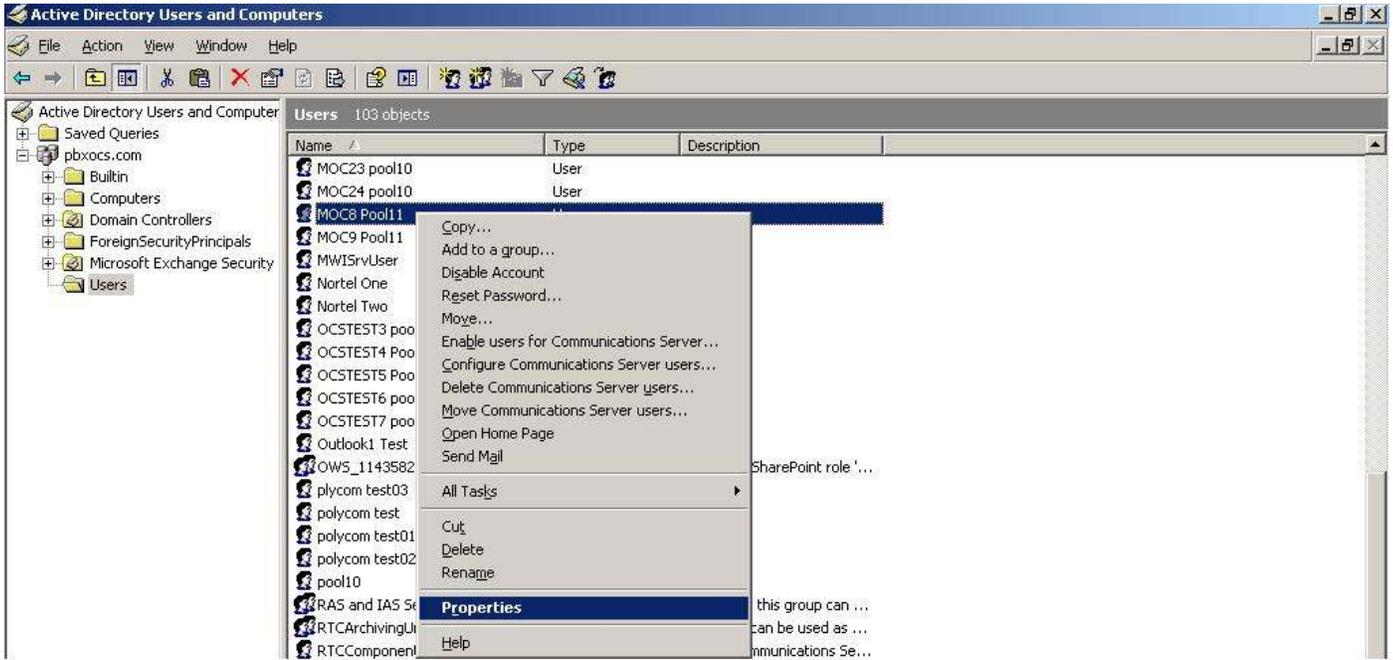
The screenshot shows the Microsoft Office Communications Server 2007 console. The left pane displays a tree view of the server hierarchy, with 'pool11' selected under 'Enterprise pools'. The right pane shows a table of users for this pool.

Enabled	Display name	SIP URI	Type
Enabled	UMTEST21 Liu	sip:UMTEST21@pbxocs.com	User
Enabled	SimRing Three	sip:SimRingThree@pbxocs.com	User
Enabled	SimRing Four	sip:SimRingFour@pbxocs.com	User
Enabled	SimRing Five	sip:SimRingFive@pbxocs.com	User
Enabled	SecurityTest4 pool11	sip:SecurityTest4@pbxocs.com	User
Enabled	SecurityTest3 pool11	sip:SecurityTest3@pbxocs.com	User
Enabled	polycom test03	sip:polycomtest03@pbxocs.com	User
Enabled	polycom test02	sip:polycomtest02@pbxocs.com	User
Enabled	OCSTEST6 pool11	sip:OCSTEST6@pbxocs.com	User
Enabled	OCSTEST5 Pool11	sip:OCSTEST5@pbxocs.com	User
Enabled	MOC9 Pool11	sip:MOC9@pbxocs.com	User
Enabled	MOC8 Pool11	sip:MOC8@pbxocs.com	User
Enabled	moc20 ocspool11	sip:moc20@pbxocs.com	User
Enabled	moc12 ocspool11	sip:moc12@pbxocs.com	User



## User Configuration

As users are added, right-click any user and choose “Properties” to go through the configuration.





Fill out the necessary information under the “General” tab.

MOC8 Pool11 Properties

Member Of	Dial-in	Environment	Sessions		
Remote control	Terminal Services Profile	COM+	Communications		
General	Address	Account	Profile	Telephones	Organization

 MOC8 Pool11

First name:  Initials:

Last name:

Display name:

Description:

Office:

Telephone number:

E-mail:

Web page:

OK Cancel Apply Help

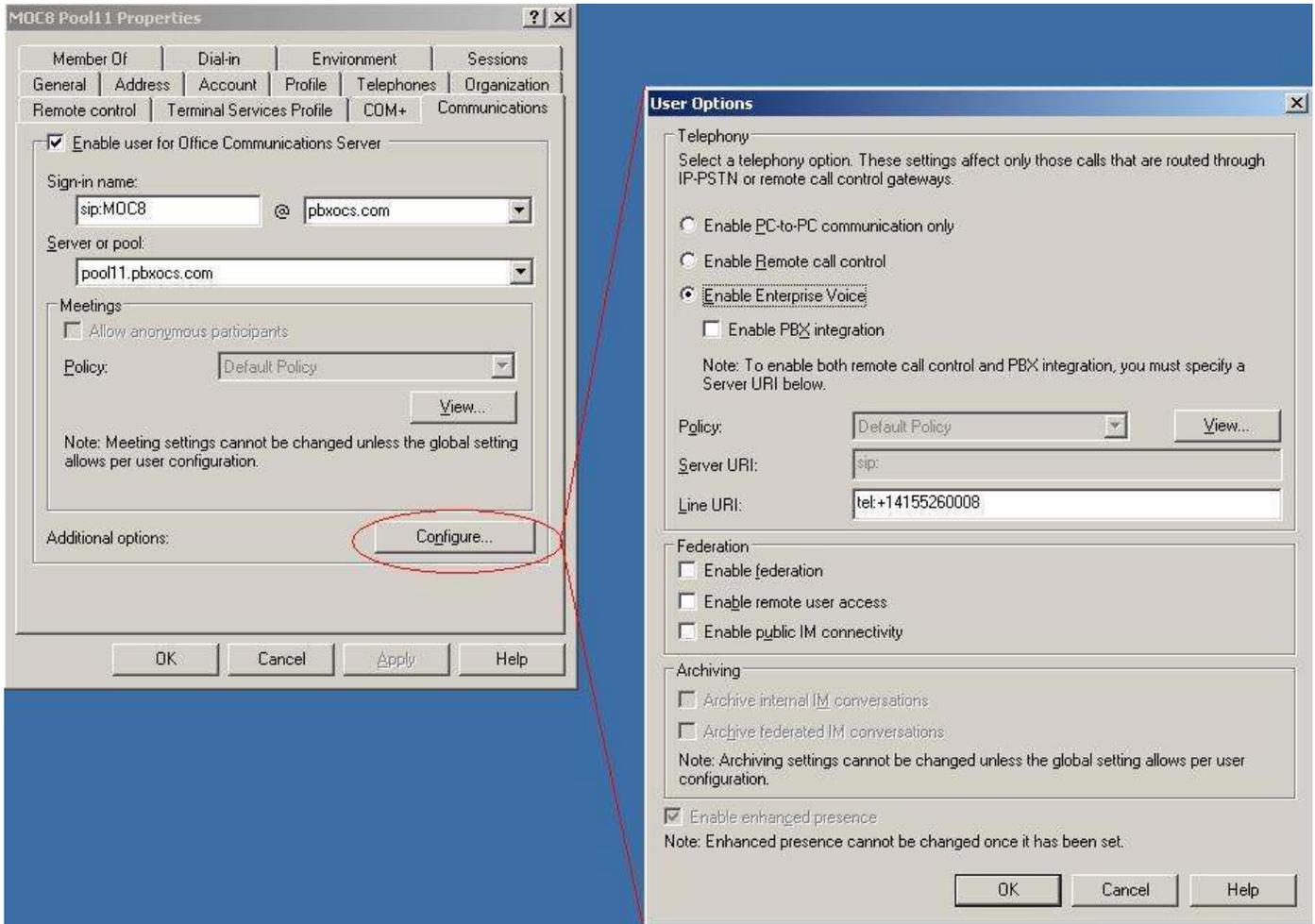


Fill out the necessary information under the “Account” tab.

The screenshot shows the 'MOC8 Pool11 Properties' dialog box with the 'Account' tab selected. The 'User logon name' field contains 'MOC8' and the domain dropdown is set to '@pbxocs.com'. The 'User logon name (pre-Windows 2000)' field contains 'PBXDCS\MOC8'. Under 'Account options', the following options are checked: 'User cannot change password' and 'Password never expires'. The 'Account expires' section is set to 'Never'. The 'Log On I.o...' button is visible. At the bottom, there are 'OK', 'Cancel', 'Apply', and 'Help' buttons.



Click the “Communications” tab and fill out the necessary information. Then click the “Configure” button and configure the Microsoft Office Communicator for Enterprise Voice.





## Mediation Server Configuration

The screenshot displays the Microsoft Office Communications Server 2007 Management Console (MMC). The left-hand tree view shows the hierarchy: Forest - pbxocs.com > Enterprise pools > pool10 > Mediation Servers. A context menu is open over the 'Mediation Servers' folder, with 'Properties' selected. The main pane shows the 'Route Information' tab for a selected route, 'MedSrv\_Outbound'. The route details are as follows:

Route Name	Description
MedSrv_Outbound	Route from MedSrv to Outbound/PSTN

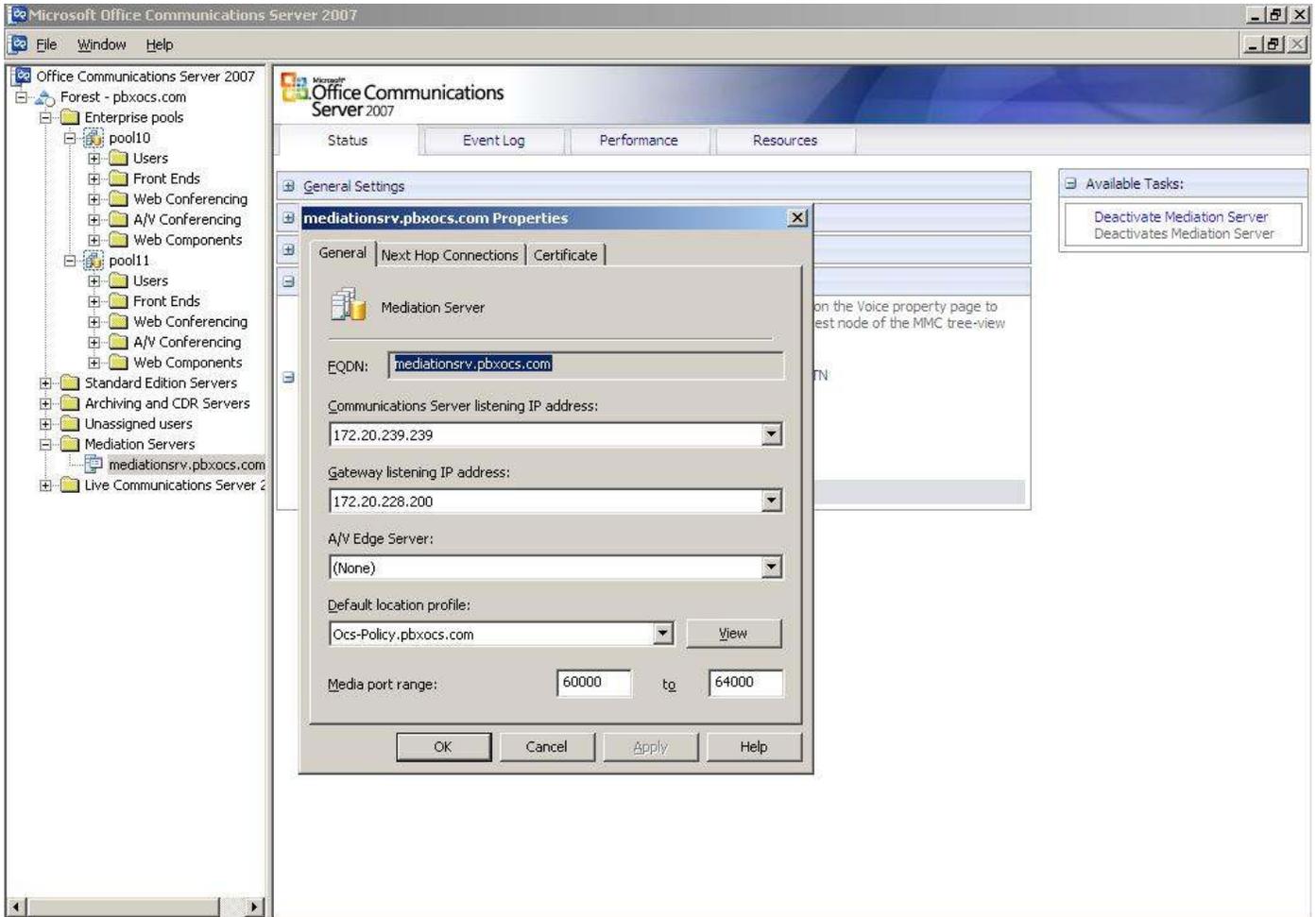
Additional details for the selected route:

- Phone Number Pattern: ^\+?(1\*)\$
- Phone Usage: Sample phone usage

The 'Available Tasks' pane on the right contains a button labeled 'Deactivate Mediation Server'.

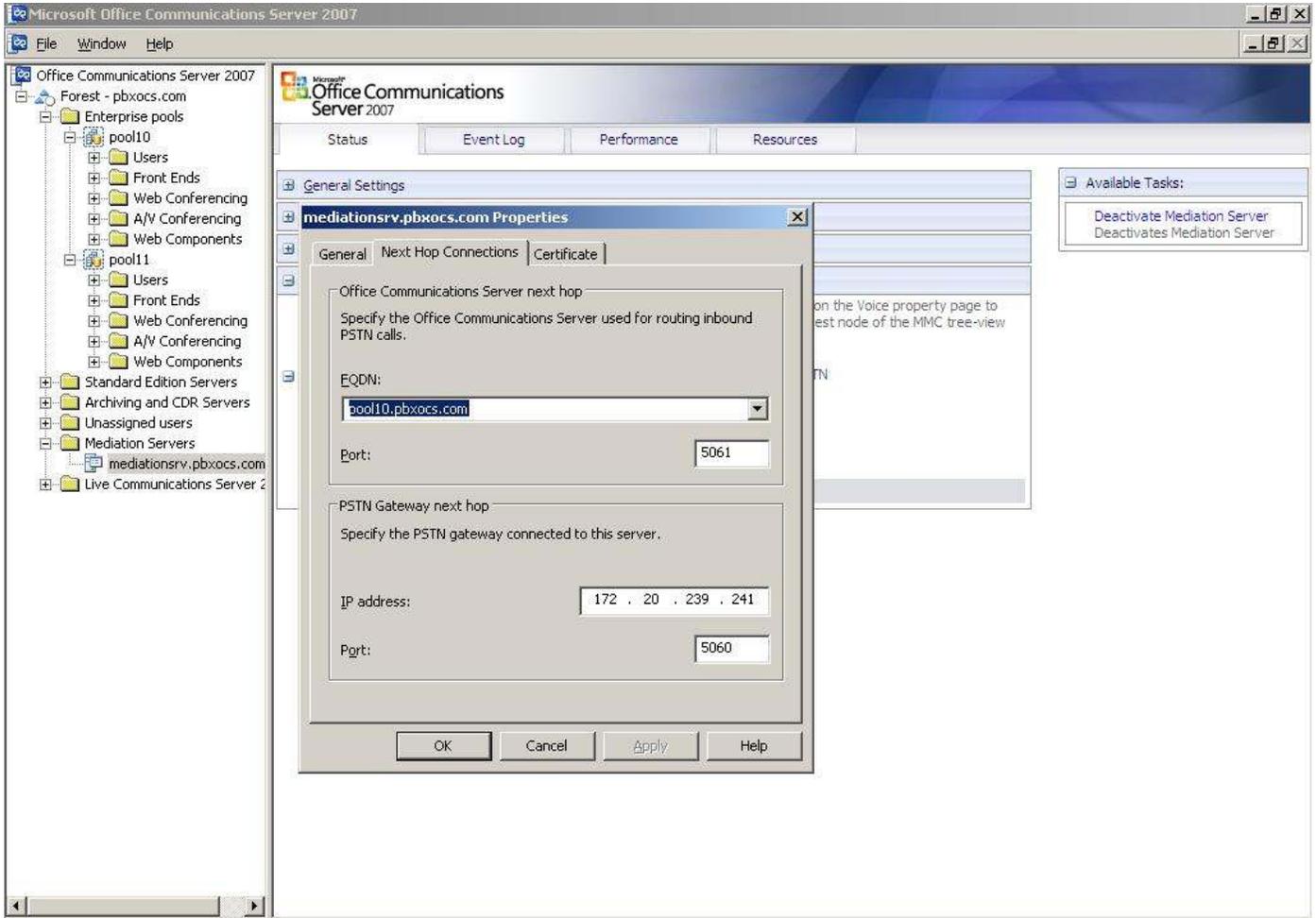


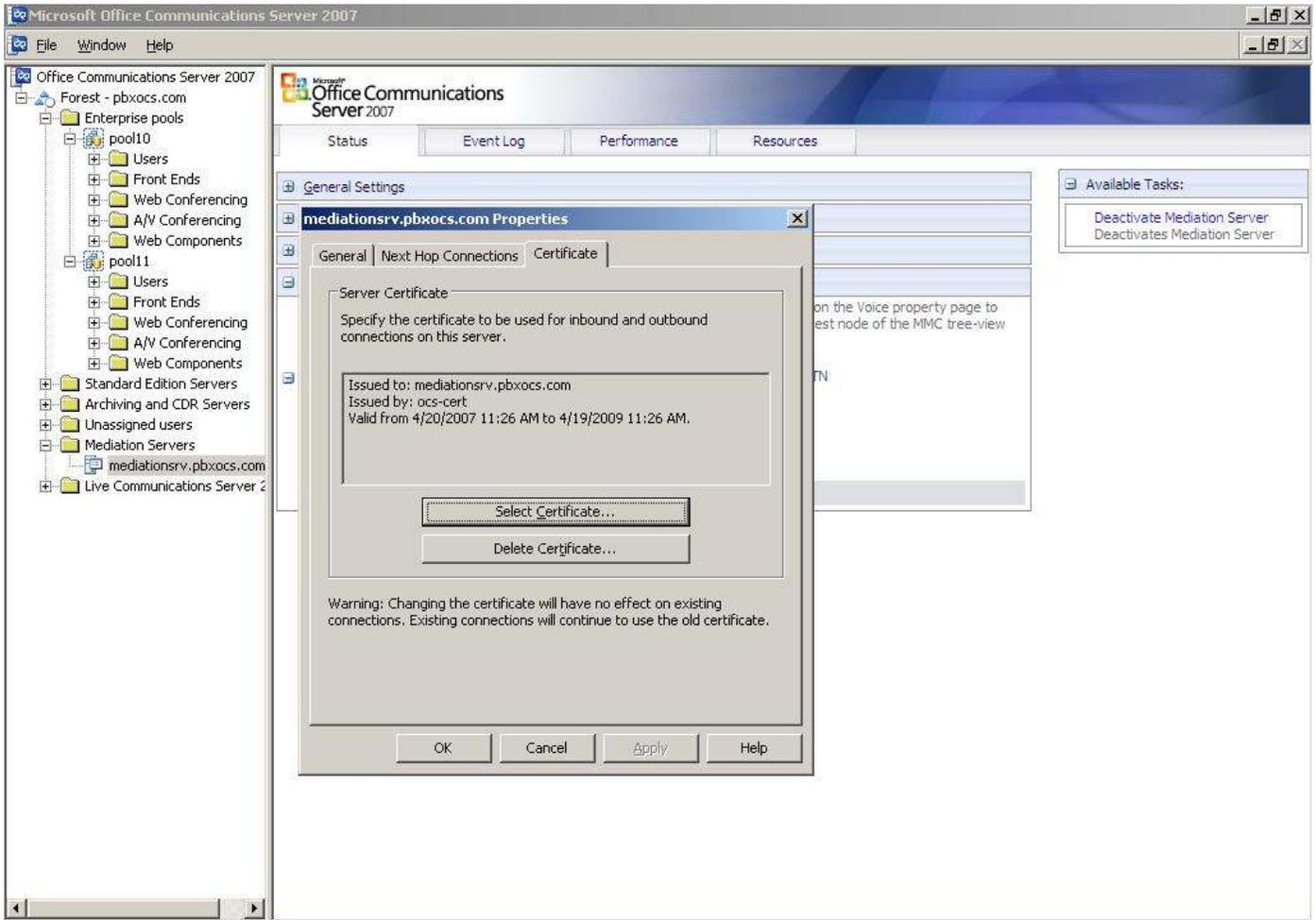
The Mediation Server has two Ethernet Interfaces, one listens to the Microsoft Office Communications Server (172.20.239.239) and the other to the Cisco UCM (172.20.228.200).

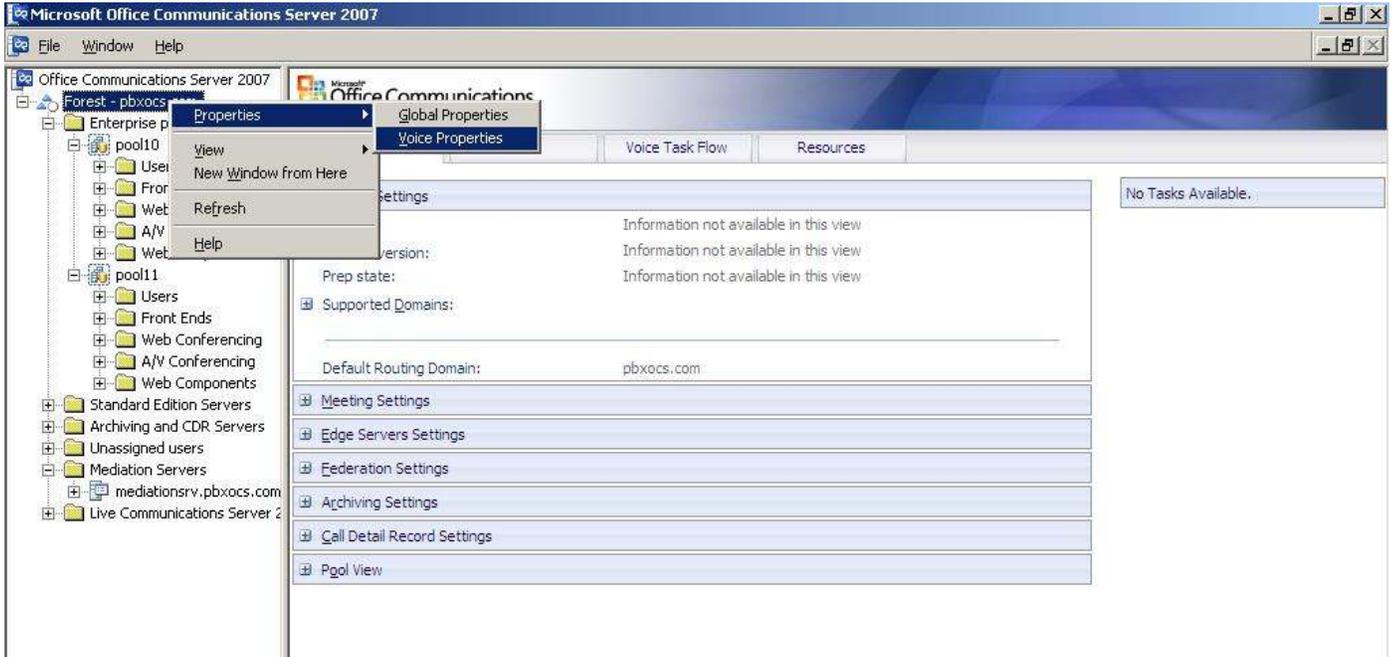




The next hop PSTN Gateway connected to the Mediation Server is the Cisco UCM (172.20.239.141).

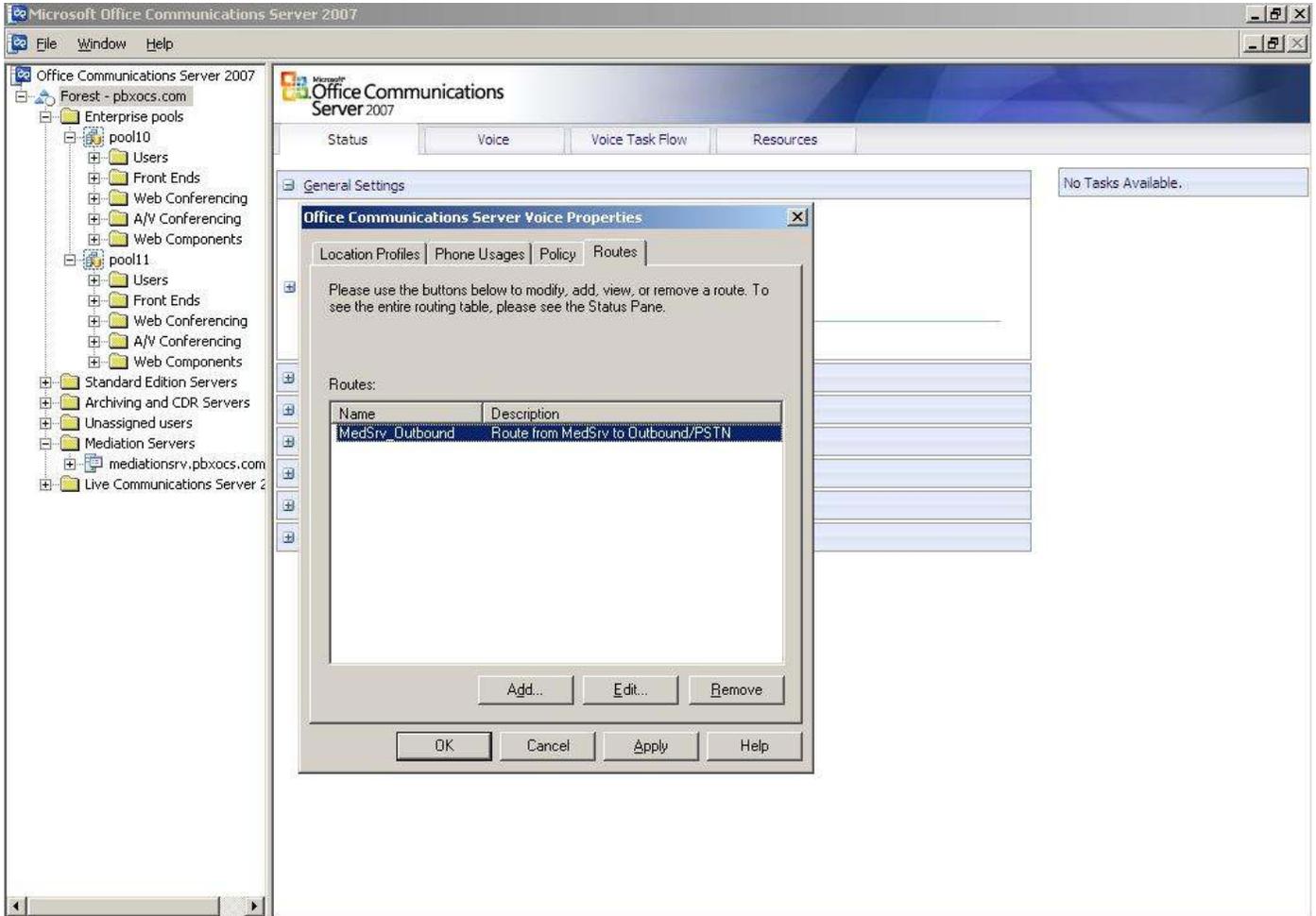








Number patterns to be routed through this Mediation Server.





The screenshot displays the Microsoft Office Communications Server 2007 management console. On the left, a tree view shows the server hierarchy under 'Forest - pbxocs.com', including 'Enterprise pools' (pool10, pool11) and 'Mediation Servers' (mediationsrv.pbxocs.com). The main window shows the 'Voice' configuration page with an 'Edit Route' dialog box open. The dialog box contains the following fields and options:

- Name:** MedSrv\_Outbound
- Description:** Route from MedSrv to Outbound/PSTN
- Target phone numbers:** Target regular expression: `^\\+?(\\d*)$`
- Gateways:** Address: mediationsrv.pbxocs.com:5061
- Phone usages:** Default Usage

The dialog box also includes 'Add...', 'Remove', 'Helper...', 'Configure...', 'OK', 'Cancel', and 'Help' buttons. The background console shows a 'Routes' table with one entry: 'MedSrv\_Outbound' with a description of 'Route from MedSrv to Outbound/PSTN'.



## Meditation Server Overview.

The screenshot displays the Administration Console for Microsoft Office Communications Server 2007. The left-hand tree view shows the hierarchy: Forest - pbxocs.com > Enterprise pools > pool10 > Mediation Servers > mediationsrv.pbxocs.com. The main pane shows the configuration for this server, with tabs for Status, Event Log, Performance, and Resources. The 'Status' tab is active, showing the following details:

- General Settings**
  - Windows services: Mediation service: Running
  - Certificate settings: Name: ocs-cert, Expiration Date: 4/19/2009
  - Location Profile: Ocs-Policy.pbxocs.com
    - 5Digit
    - 5DigitE164
    - +\_11digit
  - A/V Edge Server FQDN: <None>
  - A/V Edge Server port: <None>
- Listening Connections**
  - Listening address for Communications Server: 172.20.239.239
  - Communications Server listening port: 5061
  - Listening address for Gateway traffic: 172.20.228.200
  - PSTN Gateway Listening Port: 5060
  - Media port range: 60000 - 64000
- Next Hop Connections**
  - Communications Server Next Hop FQDN: pool10.pbxocs.com
  - Communications Server Next Hop Port: 5061
  - PSTN Gateway IP Address: 172.20.239.241
  - PSTN Gateway Port: 5060
- Route Information**

An 'Available Tasks' pane on the right contains a button labeled 'Deactivate Mediation Server' with a sub-label 'Deactivates Mediation Server'.



Microsoft Office Communications Server 2007

File Window Help

Office Communications Server 2007

Status Event Log Performance Resources

General Settings

Listening Connections

Next Hop Connections

Route Information

The following routes are served by this Mediation Server. Please use the Route tab on the Voice property page to add, modify or delete a route. To access the Voice property page, right click the Forest node of the MMC tree-view pane.

MedSrv_Outbound	Route from MedSrv to Outbound/PSTN
Phone Number Pattern:	^\+?(\d*)\$
Phone Usage:	Default Usage
Description:	Sample phone usage

Available Tasks:

Deactivate Mediation Server  
Deactivates Mediation Server

Office Communications Server 2007 MMC tree-view:

- Forest - pbxocs.com
  - Enterprise pools
    - pool10
      - Users
      - Front Ends
      - Web Conferencing
      - A/V Conferencing
      - Web Components
    - pool11
      - Users
      - Front Ends
      - Web Conferencing
      - A/V Conferencing
      - Web Components
  - Standard Edition Servers
  - Archiving and CDR Servers
  - Unassigned users
  - Mediation Servers
    - mediationsrv.pbxocs.com
  - Live Communications Server 2



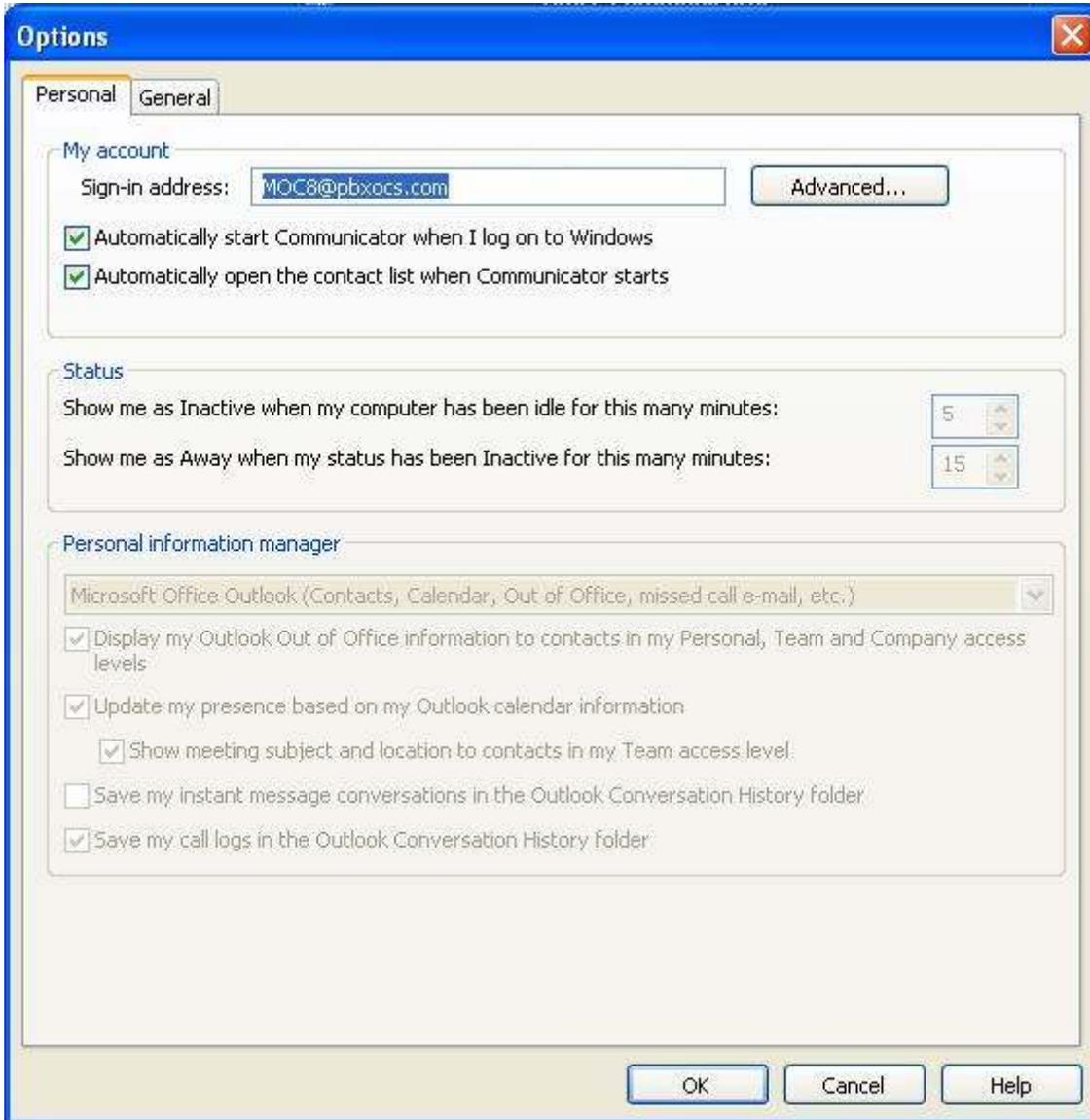
## Microsoft Office Communicator Configuration

Choose Tools → Options and enter the sign-in information.



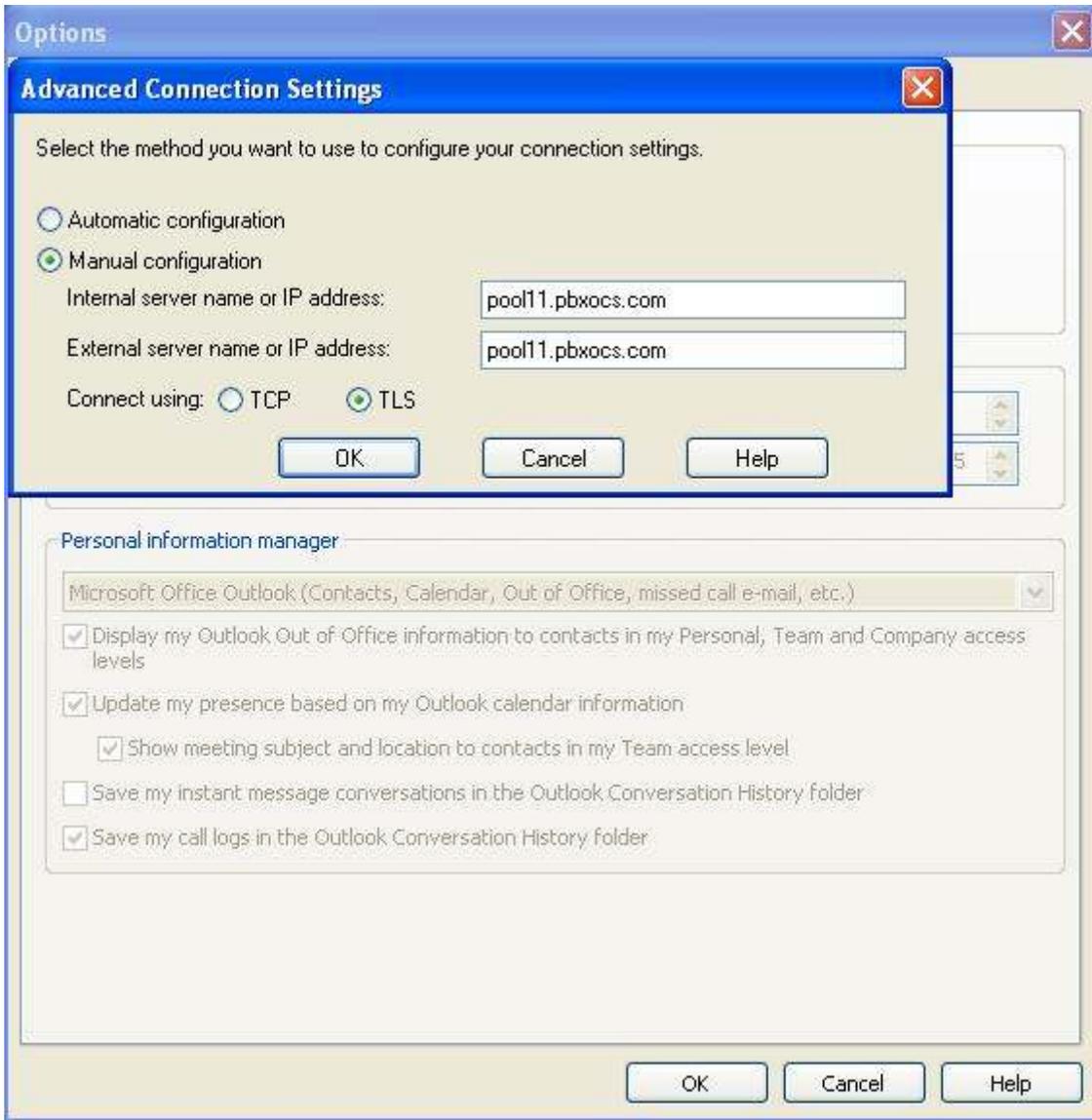


Click Advanced button to select the Advanced Connection Settings.





Because there is no DNS entry for this Microsoft Office Communicator, manual configuration is used.



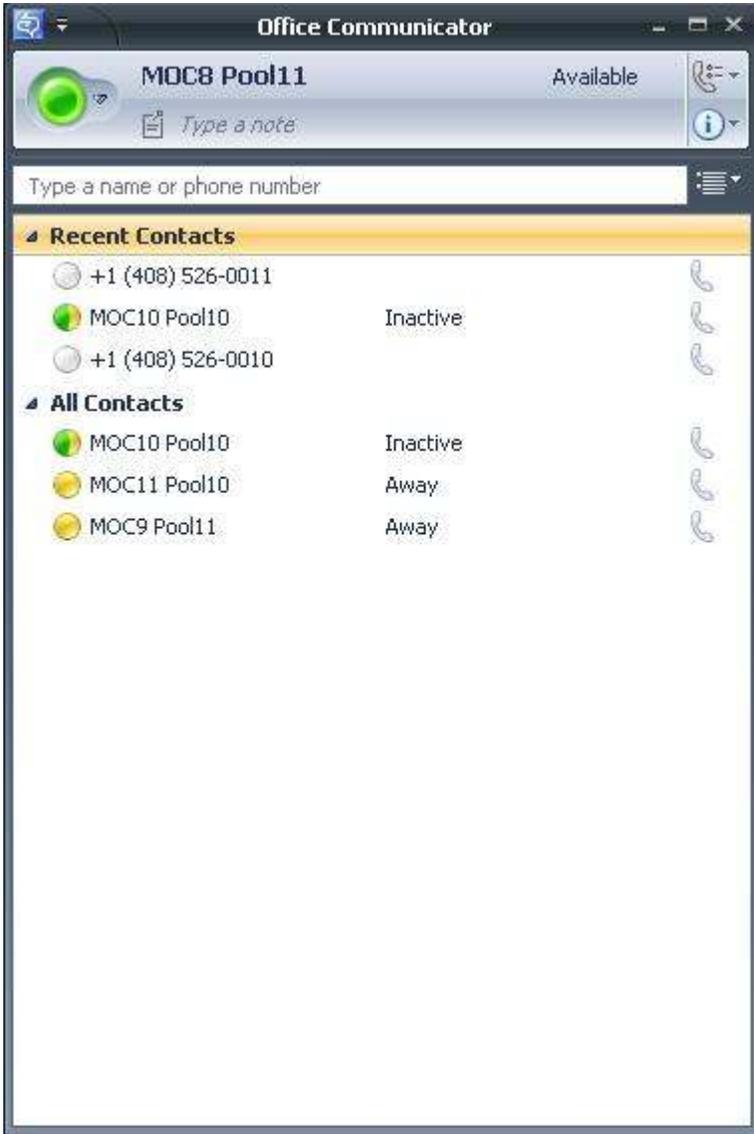


Sign in to Microsoft Office Communicator.

The screenshot shows the sign-in interface of Microsoft Office Communicator 2007. The window title is "Office Communicator". The main heading reads "Welcome to Microsoft Office Communicator 2007". Below this, there are three input fields: "Sign-in address:" with the value "MOC8@pbxocs.com", "User name:" with the value "MOC8@pbxocs.com", and "Password:" with the value "\*\*\*\*\*". A link "Change your sign-in address" is located below the first field. Below the password field, there are "Examples:" listed as "domain\username" and "someone@example.com". At the bottom, there is a "Sign in as:" section with a green status indicator and the text "Available" followed by a dropdown arrow. A "Sign In" button is positioned at the very bottom of the form.

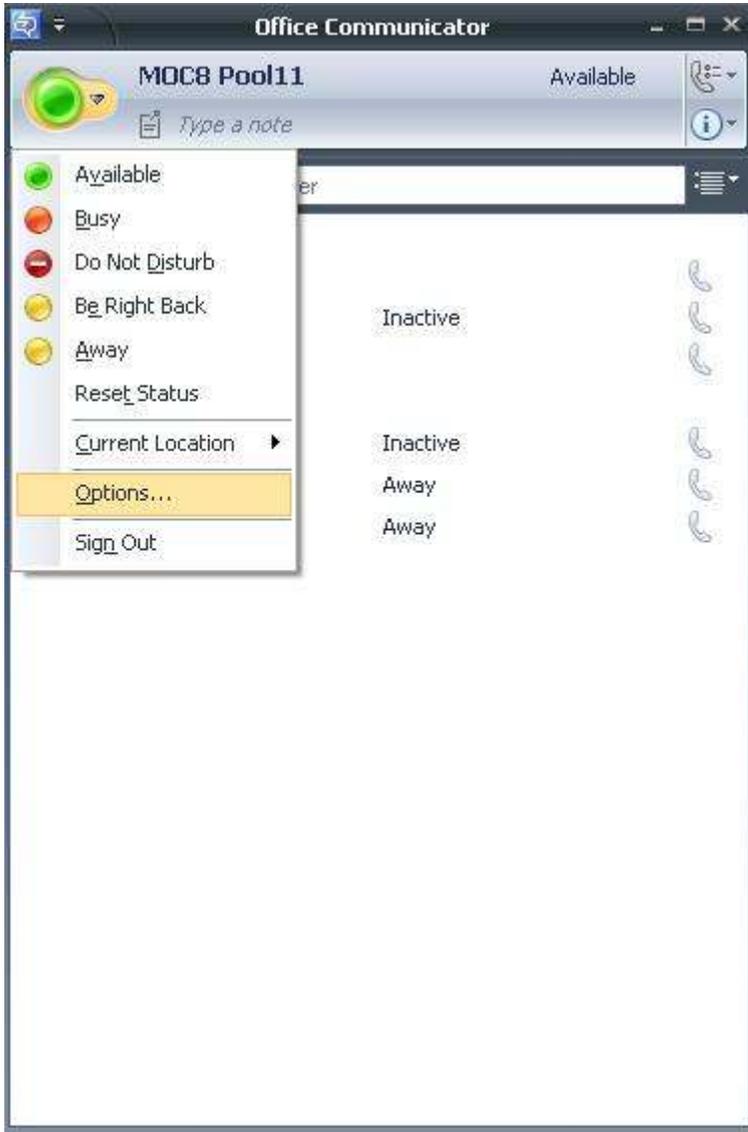


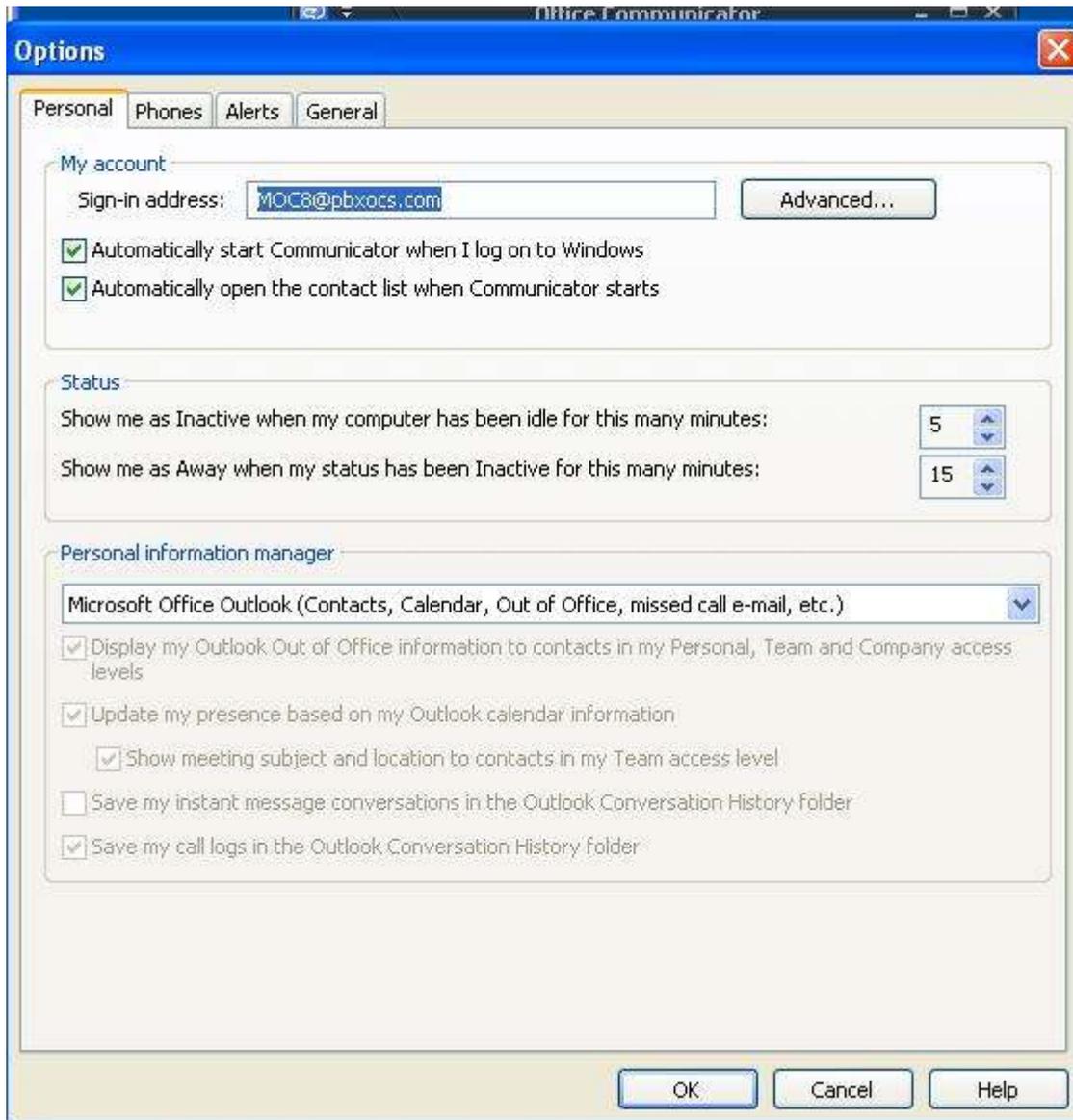
Add contacts.

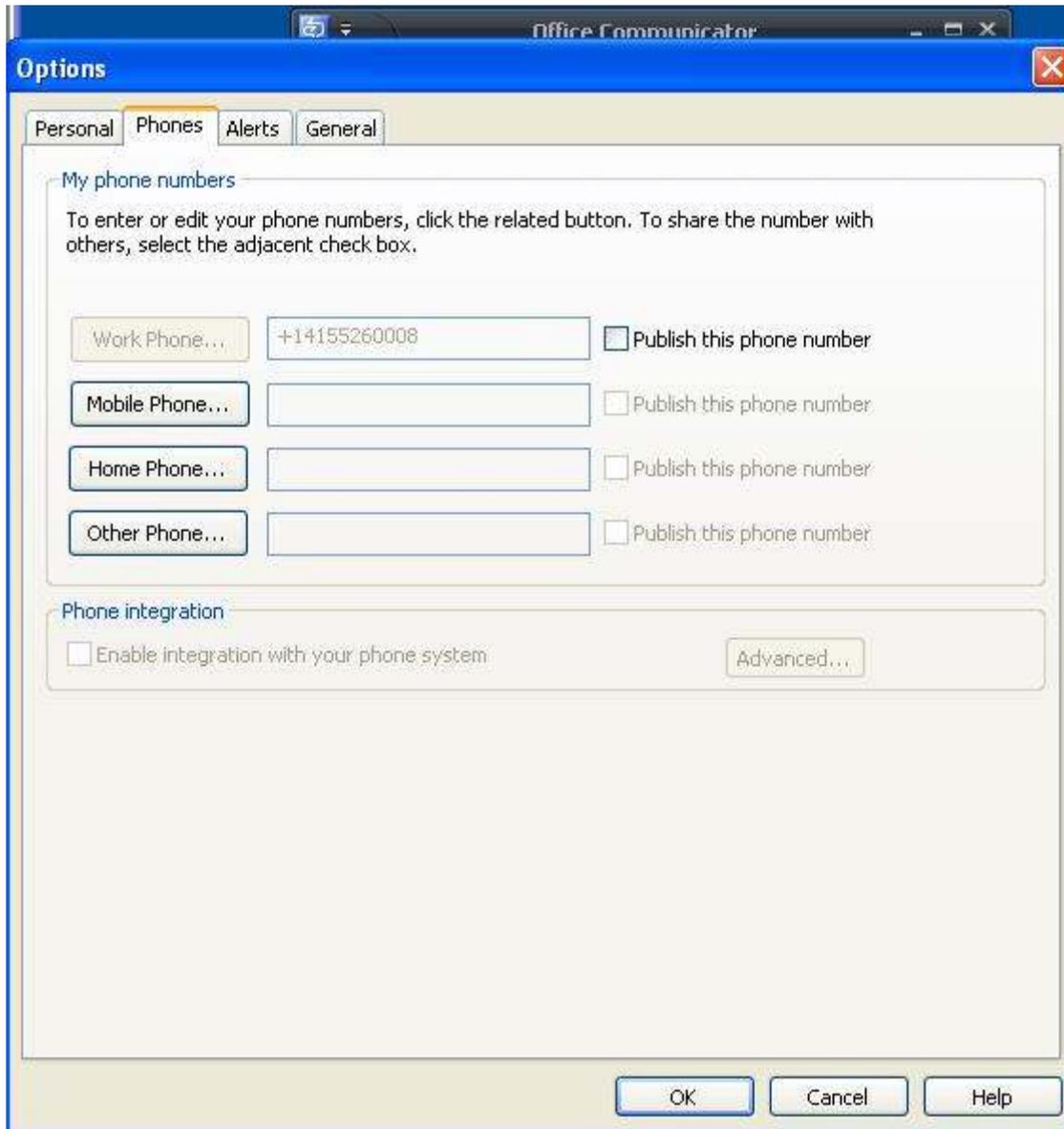




Modify user options as needed.

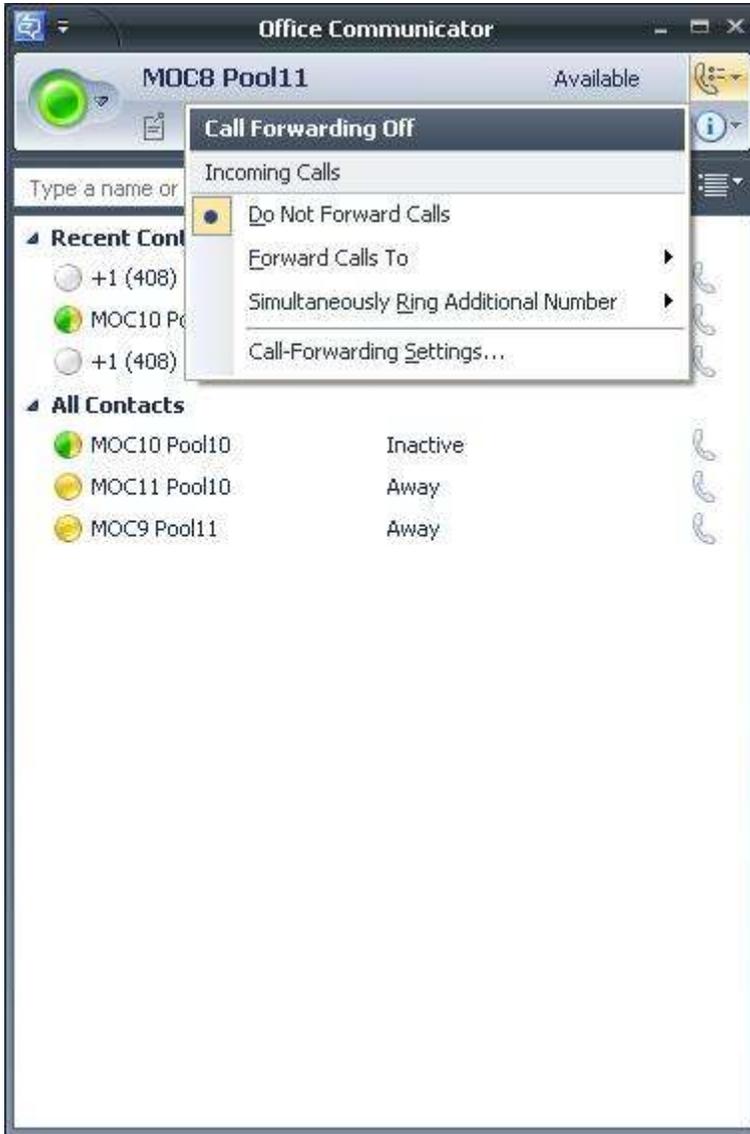








Call-Forwarding Settings:







## Configuring Cisco Unified Communications Manager

### Cisco Unified Communications Manager Version

**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 ▾

## Cisco Unified CM Administration

System version: 7.0.1.11000-2

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A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>.  
If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).



## SIP Trunk

From the “Cisco Unified CM Administration” page, go to “Device” then click “Trunk”.

Add a SIP Trunk connecting to the Microsoft Mediation Server. Check the box for “Media Termination Point Required” to ensure complete interworking with the Mediation Server.

The screenshot displays the Cisco Unified CM Administration web interface for configuring a SIP Trunk. The page title is "Trunk Configuration" and it includes a navigation menu with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The user is logged in as "CCMAdministrator".

**Trunk Configuration**

Related Links: [Back To Find/List](#)

Save  Delete   Add New

**Status**

Status: Ready

**Device Information**

Product:	SIP Trunk
Device Protocol:	SIP
Device Name *	CM-Med-Srv
Description	<input type="text"/>
Device Pool*	Default
Common Device Configuration	< None >
Call Classification*	Use System Default
Media Resource Group List	< None >
Location*	Hub_None
AAR Group	< None >
Packet Capture Mode*	None
Packet Capture Duration	0
<input checked="" type="checkbox"/> Media Termination Point Required	
<input checked="" type="checkbox"/> Retry Video Call as Audio	
<input type="checkbox"/> Transmit UTF-8 for Calling Party Name	
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> SRTP Allowed - When this flag is checked, Encrypted TLS needs to be configured in the network to provide end to end security. Failure to do so will expose keys and other information.	
Use Trusted Relay Point*	Default

**Incoming Calling Party Settings**

If the administrator sets the prefix to Default this indicates call processing will use prefix at the next level setting (DevicePool/Service Parameter). Otherwise, the value configured is used as the prefix unless the field is empty in which case there is no prefix assigned.

Incoming Calling Party Unknown Number Prefix



All number patterns are accepted into the Cisco UCM from the Microsoft Mediation Server.

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

Navigation Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

**Trunk Configuration** Related Links: Back To Find/List Go

Save Delete Reset Add New

**Multilevel Precedence and Preemption (MLPP) Information**  
MLPP Domain < None >

**Call Routing Information**  
 Remote-Party-Id  
 Asserted-Identity  
Asserted-Type\* Default  
SIP Privacy\* Default

**Inbound Calls**  
Significant Digits\* All  
Connected Line ID Presentation\* Default  
Connected Name Presentation\* Default  
Calling Search Space < None >  
AAR Calling Search Space < None >  
Prefix DN  
 Redirecting Diversion Header Delivery - Inbound

**Outbound Calls**  
Called Party Transformation CSS < None >  
 Use Device Pool Called Party Transformation CSS  
Calling Party Transformation CSS < None >  
 Use Device Pool Calling Party Transformation CSS  
Calling Party Selection\* Originator  
Calling Line ID Presentation\* Default  
Calling Name Presentation\* Default  
Caller ID DN  
Caller Name  
 Redirecting Diversion Header Delivery - Outbound



The Destination Address points to the Microsoft Mediation Server.

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

Navigation | Cisco Unified CM Administration | Go

CCMAdministrator | About | Logout

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

### Trunk Configuration

Related Links: Back To Find/List | Go

Save | Delete | Reset | Add New

Called Party Transformation CSS: < None >

Use Device Pool Called Party Transformation CSS

Calling Party Transformation CSS: < None >

Use Device Pool Calling Party Transformation CSS

Calling Party Selection\*: Originator

Calling Line ID Presentation\*: Default

Calling Name Presentation\*: Default

Caller ID DN:

Caller Name:

Redirecting Diversion Header Delivery - Outbound

---

#### SIP Information

Destination Address:

Destination Address is an SRV

Destination Port\*:

MTP Preferred Originating Codec\*: 711ulaw

Presence Group\*: Standard Presence group

SIP Trunk Security Profile\*: Non Secure SIP Trunk Profile

Rerouting Calling Search Space: < None >

Out-Of-Dialog Refer Calling Search Space: < None >

SUBSCRIBE Calling Search Space: < None >

SIP Profile\*: Standard SIP Profile

DTMF Signaling Method\*: No Preference

Save | Delete | Reset | Add New

**i** \* - indicates required item.

**i** \*\* - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



## Cisco IP Phone Configuration

Shown below in the red rectangle are the IP phones configured for this setup.

The screenshot shows the Cisco Unified CM Administration interface. The page title is "Cisco Unified CM Administration" and the user 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 "Find and List Phones" and shows 14 records found. The table below lists the phones, with a search filter set to "Description begins with". A red rectangle highlights four rows in the table.

Device Name(Line)	Description	Device Pool	Device Protocol	Status	IP Address	Copy	Super Copy
SEPBBBBAAAACCCC	+14085260000	Default	SIP	Unknown	Unknown		
SEP001B53B8B428	+14085260001	Default	SIP	Registered with cm-ocs	172.20.227.2		
SEP001B0CDBC27	+14085260002	Default	SIP	Registered with cm-ocs	172.20.227.7		
SEP00146A4D3BF5	+14085260005	Default	SCCP	Registered with cm-ocs	172.20.227.13		
SEP001B5452DBA3	+14085260006	Default	SCCP	Registered with cm-ocs	172.20.227.6		
SEP001B0CDBB399	+14085260007	Default	SCCP	Registered with cm-ocs	172.20.227.4		
SEP001F9EAC0AFA	+14085260008	Default	SIP	Registered with cm-ocs	172.20.227.20		
SEP00146A9C3C1F	+14085260009	Default	SCCP	Registered with cm-ocs	172.20.236.141		
SEP00070E364FE0	+14085260010	Default	SIP	Registered with cm-ocs	172.20.227.103		
SEP0015632CE07B	+14085260011	Default	SCCP	Registered with cm-ocs	172.20.227.208		
SEP001B0CAD5EBB	+14085260020	Default	SIP	Registered with cm-ocs	172.20.227.3		
SEP003094C290B3	+14085260023	Default	SIP	Registered with cm-ocs	172.20.227.24		
SEP0015C5CC32B9	Auto 60025	Default	SCCP	Unknown	Unknown		
SEP0015C5CC34CD	IP Communicator	Default	SCCP	Unknown	Unknown		



## 7971 SIP Phone

The softkey template must be modified to allow access to the mobility softkey. Configuration details for the softkey template are found in a later section.

The screenshot displays the Cisco Unified CM Administration web interface for configuring a 7971 SIP phone. The page is titled "Phone Configuration" and includes a navigation menu at the top with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. A breadcrumb trail shows the current path: Phone Configuration > Back To Find/List. Below the navigation, there are action buttons: Save, Delete, Copy, Reset, and Add New. The main content area is divided into several sections:

- Status:** Shows "Status: Ready".
- Association Information:** A list of 21 items for configuration, including:
  - 1. 7971 Line [1] - \+14085260008 (no partition)
  - 2. 7971 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. Unassigned Associated Items
  - 10. Add a new SURL
  - 11. Add a new BLF SD
  - 12. Add a new BLF Directed Call Park
  - 13. Intercom [1] - Add a new Intercom
  - 14. Do Not Disturb
  - 15. Call Park
  - 16. Call Pickup
  - 17. CallBack
  - 18. Conference List
  - 19. Conference
  - 20. End Call
  - 21. Forward All
- Phone Type:** Product Type: Cisco 7971, Device Protocol: SIP.
- Device Information:** A table of configuration parameters:
  - Registration: Registered with Cisco Unified Communications Manager cm-ocs
  - IP Address: 172.20.227.20
  - MAC Address\*: 001F9EAC0AFA
  - Description: +14085260008
  - Device Pool\*: Default (View Details)
  - Common Device Configuration: < None > (View Details)
  - Phone Button Template\*: Standard 7971 SIP
  - Softkey Template: Mobility User
  - Common Phone Profile\*: Standard Common Phone Profile
  - Calling Search Space: < None >
  - AAR Calling Search Space: < None >
  - Media Resource Group List: < None >
  - User Hold MOH Audio Source: 1-SampleAudioSource
  - Network Hold MOH Audio Source: 1-SampleAudioSource
  - Location\*: Hub\_None
  - AAR Group: < None >
  - User Locale: < None >
  - Network Locale: < None >
  - Built In Bridge\*: Default
  - Privacy\*: Default
  - Device Mobility Mode\*: Default (View Current Device)



Simultaneous ring is configured by creating a remote destination and a remote destination profile, which uses the Cisco Unified Mobility Functionality, for each endpoint.

For each IP phone, the "Owner User ID" needs to be entered for the remote destination configuration. Details on this are found in a later section.

The screenshot shows the Cisco Unified CM Administration interface. The top navigation bar includes "Cisco Unified CM Administration" and "CCMAdministrator". The main menu has options like "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", "Bulk Administration", and "Help". The "Phone Configuration" page is active, with a "Related Links" section containing "Back To Find/List".

On the left, there is a list of services with checkboxes: 21 Forward All, 22 Group Call Pickup, 23 Hold, 24 Hunt Group Logout, 25 Malicious Call Identification, 26 Meet Me Conference, 27 Mobility, 28 New Call, 29 Other Pickup, 30 Quality Reporting Tool, 31 Redial, 32 Remove Last Participant, 33 Transfer, 34 Privacy, 35 None.

The main configuration area is titled "Device Mobility Mode\*" and includes the following settings:

- Device Mobility Mode\*: Default (dropdown)
- Owner User ID: MOC8 (dropdown, highlighted with a red box)
- Phone Personalization\*: Default (dropdown)
- Services Provisioning\*: Default (dropdown)
- Phone Load Name: (empty text field)
- Single Button Barge: Default (dropdown)
- Join Across Lines: Default (dropdown)
- Use Trusted Relay Point\*: Default (dropdown)
- BLF Audible Alert Setting (Phone Idle)\*: Default (dropdown)
- BLF Audible Alert Setting (Phone Busy)\*: Default (dropdown)
- Calling Party Transformation CSS: < None > (dropdown)
- Use Device Pool Calling Party Transformation CSS
- Is Active
- Ignore Presentation Indicators (internal calls only)
- Allow Control of Device from CTI
- Logged Into Hunt Group
- Remote Device
- Protected Device\*\*\*\*

Below this is the "Protocol Specific Information" section:

- Packet Capture Mode\*: None (dropdown)
- Packet Capture Duration: 0 (text field)
- Presence Group\*: Standard Presence group (dropdown)
- SIP Dial Rules: < None > (dropdown)
- MTP Preferred Originating Codec\*: 711ulaw (dropdown)
- Device Security Profile\*: Cisco 7971 - Standard SIP Non-Secure Profile (dropdown)
- Rerouting Calling Search Space: < None > (dropdown)



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

Navigation Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

Phone Configuration Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

Rerouting Calling Search Space < None >  
SUBSCRIBE Calling Search Space < None >  
SIP Profile\* Standard SIP Profile  
Digest User < None >

Media Termination Point Required  
 Unattended Port  
 Require DTMF Reception

**Certification Authority Proxy Function (CAPF) Information**

Certificate Operation\* No Pending Operation  
Authentication Mode\* By Null String  
Authentication String  
Generate String  
Key Size (Bits)\* 1024  
Operation Completes By 2008 9 26 12 (YYYY:MM:DD:HH)  
Certificate Operation Status: None  
Note: Security Profile Contains Addition CAPF Settings.

**Expansion Module Information**

Module 1 < None >  
Module 1 Load Name  
Module 2 < None >  
Module 2 Load Name

**External Data Locations Information (Leave blank to use default)**

Information  
Directory  
Messages  
Services



**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 ▾

**Phone Configuration** Related Links:

Authentication Server:   
Proxy Server:   
Idle:   
Idle Timer (seconds):

**Extension Information**

Enable Extension Mobility  
Log Out Profile:   
Log in Time:   
Log out Time:

**MLPP Information**

MLPP Domain:

**Do Not Disturb**

Do Not Disturb  
DND Option\*:   
DND Incoming Call Alert:

**Secure Shell Information**

Secure Shell User:   
Secure Shell Password:

**Product Specific Configuration Layout**

Disable Speakerphone  
 Disable Speakerphone and Headset  
PC Port\*:   
Settings Access\*:   
Gratuitous ARP\*:



Phone Configuration

Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

Gratuitous ARP*	Disabled
PC Voice VLAN Access*	Enabled
Auto Line Select*	Disabled
Web Access*	Enabled
Days Display Not Active	Sunday Monday Tuesday
Display On Time	07:30
Display On Duration	10:30
Display Idle Timeout	01:00
Span to PC Port*	Disabled
Logging Display*	PC Controlled
Load Server	
Recording Tone*	Disabled
Recording Tone Local Volume*	100
Recording Tone Remote Volume*	50
Recording Tone Duration	
Display On When Incoming Call*	Disabled
RTCP*	Disabled
"more" Soft Key Timer	5
Auto Call Select*	Enabled
Log Server	
Advertise G.722 Codec*	Use System Default
Wideband Headset UI Control*	Enabled
Wideband Handset UI Control*	Enabled
Wideband Headset*	Enabled
Wideband Handset*	Use Phone Default
Peer Firmware Sharing*	Disabled
Cisco Discovery Protocol (CDP): Switch Port*	Enabled



**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 ▾

Phone Configuration Related Links:

Recording Tone Local Volume*	<input type="text" value="100"/>
Recording Tone Remote Volume*	<input type="text" value="50"/>
Recording Tone Duration	<input type="text"/>
Display On When Incoming Call*	<input type="text" value="Disabled"/>
RTCP*	<input type="text" value="Disabled"/>
"more" Soft Key Timer	<input type="text" value="5"/>
Auto Call Select*	<input type="text" value="Enabled"/>
Log Server	<input type="text"/>
Advertise G.722 Codec*	<input type="text" value="Use System Default"/>
Wideband Headset UI Control*	<input type="text" value="Enabled"/>
Wideband Handset UI Control*	<input type="text" value="Enabled"/>
Wideband Headset*	<input type="text" value="Enabled"/>
Wideband Handset*	<input type="text" value="Use Phone Default"/>
Peer Firmware Sharing*	<input type="text" value="Disabled"/>
Cisco Discovery Protocol (CDP): Switch Port*	<input type="text" value="Enabled"/>
Cisco Discovery Protocol (CDP): PC Port*	<input type="text" value="Enabled"/>
Link Layer Discovery Protocol - Media Endpoint Discover (LLDP-MED): Switch Port*	<input type="text" value="Enabled"/>
Link Layer Discovery Protocol (LLDP): PC Port*	<input type="text" value="Enabled"/>
LLDP Asset ID	<input type="text"/>
LLDP Power Priority*	<input type="text" value="Unknown"/>

**i** \*- indicates required item.  
**i** \*\*- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.  
**i** \*\*\*Note: Security Profile Contains Addition CAPF Settings.  
**i** \*\*\*\*Note: A new softkey template without supplementary service softkeys must be used for a protected phone.



Click “Line [1] – Add a new DN” under “Association Information” to enter the “Directory Number Configuration”.

The screenshot shows the Cisco Unified CM Administration interface for configuring a Directory Number. The page title is "Directory Number Configuration" and it includes navigation menus and a "Related Links" section with "Configure Device (SEP001F9EAC0AFA)".

**Status:** Ready

**Directory Number Information:**

- Directory Number\*: \+14085260008
- Route Partition: < None >
- Description:
- Alerting Name: MOC8
- ASCII Alerting Name: MOC8
- Allow Control of Device from CTI
- Associated Devices: SEP001F9EAC0AFA, MOC8\_RDP
- Buttons: Edit Device, Edit Line Appearance
- Dissociate Devices:

**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: 1-SampleAudioSource
- Network Hold MOH Audio Source: 1-SampleAudioSource
- Auto Answer\*: Auto Answer Off

**Associated Remote Destinations:**

Name	Destination Number	Owner
MOC8_RD	14155260008	MOC8

Two callout boxes provide additional context: "Remote Destination Profile associated with this phone (covered in more details in a later section)." points to the MOC8\_RDP device, and "Remote Destination associated with this phone (covered in more details in a later section)." points to the MOC8\_RD entry in the table.



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

Navigation | Cisco Unified CM Administration | Go

CCMAdministrator | About | Logout

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

**Directory Number Configuration** Related Links: [Configure Device \(SEP001F9EAC0AFA\)](#) | Go

Save Delete Reset Add New

**Associated Remote Destinations**

Name	Destination Number	Owner
<a href="#">MOC8_RD</a>	14155260008	<a href="#">MOC8</a>

**AAR Settings**

Voice Mail	AAR Destination Mask	AAR Group
AAR <input type="checkbox"/> or	<input type="text"/>	< None >

Retain this destination in the call forwarding history

**Call Forward and Call Pickup Settings**

Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy		Use System Default
Forward All <input type="checkbox"/> or	<input type="text"/>	< None >
Secondary Calling Search Space for Forward All		< None >
Forward Busy Internal <input type="checkbox"/> or	<input type="text"/>	< None >
Forward Busy External <input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer Internal <input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer External <input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage Internal <input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage External <input type="checkbox"/> or	<input type="text"/>	< None >
Forward on CTI Failure <input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered Internal <input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered External <input type="checkbox"/> or	<input type="text"/>	< None >
No Answer Ring Duration (seconds)	<input type="text"/>	
Call Pickup Group		< None >

**MLPP Alternate Party Settings**



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

Navigation | Cisco Unified CM Administration | Go

CCMAdministrator | About | Logout

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

**Directory Number Configuration** | Related Links: [Configure Device \(SEP001F9EAC0AFA\)](#) | Go

Save | Delete | Reset | Add New

**MLPP Alternate Party Settings**

Target (Destination)

MLPP Calling Search Space

MLPP No Answer Ring Duration (seconds)

---

**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

---

**Line 1 on Device SEP001F9EAC0AFA**

	Value	Update Shared Device Settings
Display (Internal Caller ID)	<input type="text" value="MOC8"/> 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.	<input type="checkbox"/>
ASCII Display (Internal Caller ID)	<input type="text" value="MOC8"/>	<input type="checkbox"/>
Line Text Label	<input type="text" value="MOC8"/>	<input type="checkbox"/>
ASCII Line Text Label	<input type="text" value="MOC8"/>	<input type="checkbox"/>
External Phone Number Mask	<input style="background-color: yellow;" type="text"/>	<input type="checkbox"/>
Visual Message Waiting Indicator Policy*	<input type="text" value="Use System Policy"/>	<input type="checkbox"/>
Audible Message Waiting Indicator Policy*	<input type="text" value="Off"/>	<input type="checkbox"/>
Ring Setting (Phone Idle)*	<input type="text" value="Use System Default"/>	<input type="checkbox"/>
Ring Setting (Phone Active)	<input type="text" value="Use System Default"/> Applies to this line when any line on the phone has a call in progress.	<input type="checkbox"/>
Call Pickup Group	<input type="text" value="Use System Default"/>	<input type="checkbox"/>



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

Navigation: Cisco Unified CM Administration

CCMAdministrator | About | Logout

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**Directory Number Configuration** Related Links:

Commit progress:

Call Pickup Group Audio Alert Setting (Phone Idle)	<input type="text" value="Use System Default"/>
Call Pickup Group Audio Alert Setting (Phone Active)	<input type="text" value="Use System Default"/>
Recording Option*	<input type="text" value="Call Recording Disabled"/>
Recording Profile	<input type="text" value="&lt; None &gt;"/>
Monitoring Calling Search Space	<input type="text" value="&lt; None &gt;"/>

---

**Multiple Call/Call Waiting Settings on Device SEP001F9EAC0AFA**

Note: The range to select the Max Number of calls is: 1-50

Maximum Number of Calls*	<input type="text" value="4"/>
Busy Trigger*	<input type="text" value="2"/> (Less than or equal to Max. Calls)

---

**Forwarded Call Information Display on Device SEP001F9EAC0AFA**

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

---

**Users Associated with Line**

---

**i** \*- indicates required item.

**i** \*\*- Changes to Line or Directory Number settings require restart.



## End User Configuration

From the “Cisco Unified CM Administration” page, go to “User Management” then click “End User”.

Shown below in the red rectangles are End Users configured for this setup.

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 user is logged in as "CCMAdministrator". The main menu includes "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", "Bulk Administration", and "Help". The "User Management" section is active, showing "Find and List Users".

The "Find and List Users" section includes a search bar with "Find User where" and "First Name" selected, and a "begins with" filter. The search results are displayed in a table with columns: "User ID", "First Name", "Last Name", and "Department".

<input type="checkbox"/>	User ID ^	First Name	Last Name	Department
<input type="checkbox"/>	<a href="#">MOC24</a>		pool10	
<input type="checkbox"/>	<a href="#">OCSTEST3</a>		pool10	
<input type="checkbox"/>	<a href="#">OCSTEST10</a>		Pool10	
<input type="checkbox"/>	<a href="#">OCSTEST7</a>		Pool10	
<input type="checkbox"/>	<a href="#">50025</a>		pool10	
<input type="checkbox"/>	<a href="#">MOC23</a>		pool10	
<input type="checkbox"/>	<a href="#">OCSTEST4</a>		pool10	
<input type="checkbox"/>	<a href="#">MOC1</a>	MOC1	pool10	
<input type="checkbox"/>	<a href="#">MOC10</a>	MOC10	Pool10	
<input type="checkbox"/>	<a href="#">MOC11</a>	MOC11	Pool10	
<input type="checkbox"/>	<a href="#">MOC12</a>	MOC12	OCSPool11	
<input type="checkbox"/>	<a href="#">MOC2</a>	MOC2	OCSPool10	
<input type="checkbox"/>	<a href="#">MOC8</a>	MOC8	Pool11	
<input type="checkbox"/>	<a href="#">MOC9</a>	MOC9	Pool11	
<input type="checkbox"/>	<a href="#">OCSTEST5</a>	OCSTEST5	Pool11	
<input type="checkbox"/>	<a href="#">OCSTEST6</a>	OCSTEST6	OCSPool10	
<input type="checkbox"/>	<a href="#">moc20</a>	moc20	ocspool11	
<input type="checkbox"/>	<a href="#">tenacity</a>	tenacity	corp	

At the bottom of the table, there are buttons for "Add New", "Select All", "Clear All", and "Delete Selected".



Add End User per the configuration shown below:

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

Navigation: Cisco Unified CM Administration Go  
CCMAdministrator | About | Logout

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

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

Save Delete Add New

**Status**  
Add successful

**User Information**

User ID*	<input type="text" value="MOC8"/>	
Password	<input type="password" value="....."/>	<input type="button" value="Edit Credential"/>
Confirm Password	<input type="password" value="....."/>	
PIN	<input type="password" value="....."/>	<input type="button" value="Edit Credential"/>
Confirm PIN	<input type="password" value="....."/>	
Last name*	<input type="text" value="Pool11"/>	
Middle name	<input type="text"/>	
First name	<input type="text"/>	
Telephone Number	<input type="text"/>	
Mail ID	<input type="text"/>	
Manager User ID	<input type="text"/>	
Department	<input type="text"/>	
User Locale	< None >	
Associated PC	<input type="text"/>	
Digest Credentials	<input type="text"/>	
Confirm Digest Credentials	<input type="text"/>	



**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

End User Configuration Related Links: [Back to Find List Users](#)

---

**Device Associations**

Controlled Devices

---

**Extension Mobility**

Available Profiles: MOC1 EXTMOB Profile, OCSTEST4 EXTMOB profile, OCSTEST5 EXTMOB Profile, OCSTEST6 EXTMOB Profile

Controlled Profiles

Default Profile: -- Not Selected --

Presence Group\*: Standard Presence group

SUBSCRIBE Calling Search Space: < None >

Allow Control of Device from CTI

---

**Directory Number Associations**

Primary Extension: < None >



As part of the configuration for simultaneous ring, make sure “Enable Mobility” and “Enable Mobility Voice Access” boxes are checked.

The screenshot shows the Cisco Unified CM Administration interface for End User Configuration. The page is titled "End User Configuration" and includes a navigation menu at the top with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The user is logged in as "CCMAdministrator".

The main configuration area is divided into three sections:

- Mobility Information:** This section contains several fields and checkboxes. The "Enable Mobility" and "Enable Mobile Voice Access" checkboxes are checked. The "Primary User Device" is set to "< None >". The "Maximum Wait Time for Desk Pickup\*" is set to 10000. The "Remote Destination Limit\*" is set to 4. The "Remote Destination Profiles" field is empty, and a callout box points to it with the text: "When the Remote Destination Profile for this end user's endpoint is created it will show up here." There is a "View Details" link below this section.
- CAPF Information:** This section contains an "Associated CAPF Profiles" field, which is empty. There is a "View Details" link below this section.
- Permissions Information:** This section contains "Groups" and "Roles" fields, both of which are empty. There are two buttons: "Add to User Group" and "Remove from User Group". There is a "View Details" link below this section.



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

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

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

Save ~~X~~ Delete + Add New

Remote Destination Profiles  [View Details](#)

**CAPF Information**  
Associated CAPF Profiles  [View Details](#)

**Permissions Information**

Groups  [View Details](#)

Roles  [View Details](#)

Save Delete Add New

**i** \*- Indicates required item.



## Remote Destination Profile Configuration

As part of the configuration for simultaneous ring, provision remote destination profile (RDP). As mentioned before, this uses the Cisco Unified Mobility Functionality.

From the “Cisco Unified CM Administration” page, choose “Device” → “Device Settings” → “Remote Destination Profile”.

For each Single-Number-Reach-enabled (SNR-enabled) end-user, the administrator needs to create a profile to be used for the remote destination.

The screenshot displays the Cisco Unified CM Administration web interface. The page title is "Remote Destination Profile Configuration". The navigation menu includes System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The user is logged in as CCMAdministrator. The page shows a status message "Add successful" and a table for "Association Information" with one entry: "1" associated with "Line [1] - Add a new DN". The "Remote Destination Profile Information" section contains the following fields:

Name*	MOCB_RDP
Description	MOCB Remote Destination Profile
User ID*	MOCB
Device Pool*	Default
Calling Search Space	< None >
User Hold Audio Source	1-SampleAudioSource
Network Hold MOH Audio Source	1-SampleAudioSource
Privacy*	Off
Rerouting Calling Search Space	< None >
Calling Party Transformation CSS	< None >
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	
User Locale	< None >
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	

Below the profile information is the "Associated Remote Destinations" section with a link to "Add a New Remote Destination".



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

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

### Remote Destination Profile Configuration

Related Links: Back To Find/List Go

Save Delete Copy Add New

User ID *	MOCB
Device Pool*	Default
Calling Search Space	< None >
User Hold Audio Source	1-SampleAudioSource
Network Hold MOH Audio Source	1-SampleAudioSource
Privacy*	Off
Rerouting Calling Search Space	< None >
Calling Party Transformation CSS	< None >
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	
User Locale	< None >
<input type="checkbox"/> Ignore Presentation Indicators (Internal calls only)	

**Associated Remote Destinations**  
[Add a New Remote Destination](#)

**Do Not Disturb**  
 Do Not Disturb  
DND Option\* Call Reject

Save Delete Copy Add New

**i** \*- indicates required item.



After the remote destination profile is filled out, click “Line [1] – Add a new DN” under “Association Information” and complete before proceeding.

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

Navigation: Cisco Unified CM Administration Go  
CCMAdministrator | About | Logout

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

Directory Number Configuration Related Links: Configure Device (MOCB\_RDP) Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Directory Number Information**

Directory Number\* \+14085260008  
Route Partition < None >  
Description  
Alerting Name MOCB  
ASCII Alerting Name MOCB

Allow Control of Device from CTI

Associated Devices  
SEP001F9EAC0AFA  
MOCB\_RDP

Edit Device  
Edit Line Appearance

Dissociate Devices

**Directory Number Settings**

Voice Mail Profile < None > (Choose <None> to use system default)  
Calling Search Space < None >  
Presence Group\* Standard Presence group



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

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

Directory Number Configuration Related Links: Configure Device (MOC8\_RDP) Go

Save Delete Reset Add New

User Hold MOH Audio Source: 1-SampleAudioSource  
Network Hold MOH Audio Source: 1-SampleAudioSource

**AAR Settings**

	Voice Mail	AAR Destination Mask	AAR Group
AAR	<input type="checkbox"/> or	<input type="text"/>	< None >
<input checked="" type="checkbox"/> Retain this destination in the call forwarding history			

**Call Forward and Call Pickup Settings**

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			Use System Default
Forward All	<input type="checkbox"/> or	<input type="text"/>	< None >
Secondary Calling Search Space for Forward All			< None >
Forward Busy Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward on CTI Failure	<input type="checkbox"/> or	<input type="text"/>	< None >



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

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

Directory Number Configuration Related Links: Configure Device (MOC8\_RDP) Go

Save Delete Reset Add New

Forward Unregistered Internal  or

Forward Unregistered External  or

No Answer Ring Duration (seconds)

Call Pickup Group

---

**MLPP Alternate Party Settings**

Target (Destination)

MLPP Calling Search Space

MLPP No Answer Ring Duration (seconds)

---

**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

---

**Line 1 on Device MOC8\_RDP**

	Value	Update Shared Device Settings
Display (Internal Caller ID)	MOC8 <small>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.</small>	<input type="checkbox"/>
ASCII Display (Internal Caller ID)	MOC8	<input type="checkbox"/>
External Phone Number Mask	<input type="text"/>	<input type="checkbox"/>



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

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

Directory Number Configuration Related Links: Configure Device (MOC8\_RDP) Go

Save Delete Reset Add New

External Phone Number Mask   Propagate Selected

---

**Multiple Call/Call Waiting Settings on Device MOC8\_RDP**

Note: The range to select the Max Number of calls is: 1-2

Maximum Number of Calls\*

Busy Trigger\*  (Less than or equal to Max. Calls)

---

**Forwarded Call Information Display on Device MOC8\_RDP**

Caller Name

Caller Number

Redirected Number

Dialed Number

---

**Users Associated with Line**

---

Save Delete Reset Add New

**i** \*- indicates required item.

**i** \*\*- Changes to Line or Directory Number settings require restart.



Completed Remote Destination Profile:

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

Navigation: Cisco Unified CM Administration Go  
CCMAdministrator | About | Logout

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

Remote Destination Profile Configuration  
Related Links: Back To Find/List Go

Save Delete Copy Add New

**Status**  
Status: Ready

Association Information		Remote Destination Profile Information	
1	Line [1] - \+14085260008 (no partition)	Name*	MOCB_RDP
2	Line [2] - Add a new DN	Description	MOCB Remote Destination Profile
		User ID*	MOCB
		Device Pool*	Default
		Calling Search Space	< None >
		User Hold Audio Source	1-SampleAudioSource
		Network Hold MOH Audio Source	1-SampleAudioSource
		Privacy*	Off
		Rerouting Calling Search Space	< None >
		Calling Party Transformation CSS	< None >
		<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	
		User Locale	< None >
		<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	



Remote Destination Profile Configuration

Save Delete Copy Add New

Calling Search Space	< None >
User Hold Audio Source	1-SampleAudioSource
Network Hold MOH Audio Source	1-SampleAudioSource
Privacy*	Off
Rerouting Calling Search Space	< None >
Calling Party Transformation CSS	< None >
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	
User Locale	< None >
<input type="checkbox"/> Ignore Presentation Indicators (Internal calls only)	

Associated Remote Destinations

Name	Destination Number
MOCB_RD	14155260008

[Add a New Remote Destination](#)

Do Not Disturb

Do Not Disturb

DND Option\* Call Reject

Save Delete Copy Add New

\*- indicates required item.



## Remote Destination Configuration

From the “Cisco Unified CM Administration” page, click “Device” then choose “Remote Destination”. Add a new “Remote Destination”.

Make sure “Line Association” and “Enable Mobile Connect” boxes are checked for Simultaneous Ring configuration.

Make sure “Mobile Phone” box is checked for Desk Phone to be able to switch call back to Microsoft Office Communicator (or “send call to mobile” feature).

The screenshot displays the "Remote Destination Configuration" page in the Cisco Unified CM Administration interface. The page includes a navigation bar at the top with "Cisco Unified CM Administration" and "For Cisco Unified Communications Solutions". Below the navigation bar, there are tabs for "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", "Bulk Administration", and "Help". The main content area is titled "Remote Destination Configuration" and includes a "Status" section with an "Update successful" message. The "Association Information" section shows a table with one entry: "Line [1] - \+14085260008 (no partition)" with a checked "Line Association" box. The "Remote Destination Information" section contains the following fields: "Name" (MOCB\_RD), "Destination Number\*" (14155260008), "Answer Too Soon Timer\*" (1500), "Answer Too Late Timer\*" (19000), "Delay Before Ringing Timer\*" (4000), and "Remote Destination Profile\*" (MOCB\_RDP). There are also checkboxes for "Mobile Phone" and "Enable Mobile Connect", both of which are checked. A callout box points to the "Destination Number\*" field with the text: "Note that the remote destination number is different than the line DN of the IP phone in the association information." The "When Mobile Connect is Enabled" section includes a "Ring Schedule" section with radio buttons for "All the time" (selected) and "As specified below", and a table for configuring office hours for Monday, Tuesday, and Wednesday.



Save Delete Copy Add New

When Mobile Connect is Enabled

**Ring Schedule:**

All the time  
 As specified below

<input type="checkbox"/> Monday	<input type="checkbox"/> All Day	No Office Hours	to	No Office Hours
<input type="checkbox"/> Tuesday	<input type="checkbox"/> All Day	No Office Hours	to	No Office Hours
<input type="checkbox"/> Wednesday	<input type="checkbox"/> All Day	No Office Hours	to	No Office Hours
<input type="checkbox"/> Thursday	<input type="checkbox"/> All Day	No Office Hours	to	No Office Hours
<input type="checkbox"/> Friday	<input type="checkbox"/> All Day	No Office Hours	to	No Office Hours
<input type="checkbox"/> Saturday	<input type="checkbox"/> All Day	No Office Hours	to	No Office Hours
<input type="checkbox"/> Sunday	<input type="checkbox"/> All Day	No Office Hours	to	No Office Hours

Time Zone\* Greenwich Standard Time

**When receiving a call during the above ring schedule:**

Always ring this destination  
 Ring this destination only if caller is in --- Not Selected --- [View Details](#)  
 Do not ring this destination if caller is in --- Not Selected --- [View Details](#)

Save Delete Copy Add New

\*- Indicates required item.



From the “Cisco Unified CM Administration” page, click “Device” then choose “Phone”.

To complete the simultaneous ring configuration, go to the phone configuration page, and add the end user with the corresponding remote destination profile to the “Owner User ID”.

The screenshot displays the Cisco Unified CM Administration interface for Phone Configuration. The top navigation bar includes 'System', 'Call Routing', 'Media Resources', 'Voice Mail', 'Device', 'Application', 'User Management', 'Bulk Administration', and 'Help'. The 'Phone Configuration' page has a 'Related Links' section with 'Back To Find/List'. A toolbar contains 'Save', 'Delete', 'Copy', 'Reset', and 'Add New' buttons. On the left, a list of phone features is shown, with 'None' selected. The main configuration area includes:

- Device Mobility Mode\*: Default
- Owner User ID: MOC8 (highlighted with a red box)
- Phone Personalization\*: Default
- Services Provisioning\*: Default
- Phone Load Name: (empty field)
- Single Button Barge: Default
- Join Across Lines: Default
- Use Trusted Relay Point\*: Default
- BLF Audible Alert Setting (Phone Idle)\*: Default
- BLF Audible Alert Setting (Phone Busy)\*: Default
- Calling Party Transformation CSS: < None >
- Use Device Pool Calling Party Transformation CSS
- Is Active
- Ignore Presentation Indicators (internal calls only)
- Allow Control of Device from CTI
- Logged Into Hunt Group
- Remote Device
- Protected Device\*\*\*\*

The 'Protocol Specific Information' section includes:

- Packet Capture Mode\*: None
- Packet Capture Duration: 0
- Presence Group\*: Standard Presence group
- SIP Dial Rules: < None >
- MTP Preferred Originating Codec\*: 711ulaw
- Device Security Profile\*: Cisco 7971 - Standard SIP Non-Secure Profile
- Rerouting Calling Search Space: < None >



## Mobility Softkey Template Configuration

Configure Mobility Softkey for “send call to mobile” feature.

From the “Cisco Unified CM Administration” page, click “Device” → “Device Settings” → “Softkey Template”

Add New → Select Standard User from Menu → Copy → Change Name accordingly → Save.

The screenshot displays the Cisco Unified CM Administration interface for configuring a softkey template. The page title is "Softkey Template Configuration". The status is "Ready". The "Softkey Template Information" section includes the following fields and controls:

- Name\***: Mobility User
- Description**: Mobility Softkey Template for CallManager only
- Applications\***: Cisco CallManager
- Buttons**: Add Application, Remove Application
- Checkbox**:  Default Softkey Template

At the bottom of the form, there are buttons for Save, Delete, Copy, Add New, and Reset. A note indicates that an asterisk (\*) denotes a required item. In the upper right-hand side, there is a "Related Links: Configure Softkey Layout" link with a "Go" button.

In the upper right-hand side, click “Go” next to “Related Links: Configure Soft Key Layout”.



Select the “On Hook” and “Connected” states, then add “Mobility (Mobility)” to the “Selected Softkeys”. Save the template.

The screenshot shows the Cisco Unified CM Administration interface for configuring a softkey template. The page title is "Softkey Template Configuration" and the user is logged in as "CCMAdministrator". The "Status" is "Ready". Under "Softkey Layout Configuration", the "Softkey Template" is "Mobility User" and the "Call state to configure" is "On Hook".

Unselected Softkeys	Selected Softkeys (ordered by position)**
Call Back (CallBack)	Redial (Redial)
Conference List (ConfList)	**NewCall (NewCall)
Direct Transfer (DirTrfr)	Forward All (CfwdAll)
Group Pick Up (GPickUp)	Mobility (Mobility)
HLog (HLog)	Toggle Do Not Disturb (DND)
Immediate Divert (IDivert)	
Join (Join)	
Meet Me (MeetMe)	
Other Pickup (oPickup)	
Pick Up (PickUp)	
Quality Report Tool (QRT)	
Remove Last Conference Party (RmLstC)	
Select (Select)	
Undefined (Undefined)	
Video Mode Command (VidMode)	

Legend: \* - indicates required item. \*\* - indicates mandatory fields.

The screenshot shows the Cisco Unified CM Administration interface for configuring a softkey template. The page title is "Softkey Template Configuration" and the user is logged in as "CCMAdministrator". The "Status" is "Ready". Under "Softkey Layout Configuration", the "Softkey Template" is "Mobility User" and the "Call state to configure" is "Connected".

Unselected Softkeys	Selected Softkeys (ordered by position)**
HLog (HLog)	Hold (Hold)
Immediate Divert (IDivert)	End Call (EndCall)
Quality Report Tool (QRT)	Transfer (Trnsfer)
Remove Last Conference Party (RmLstC)	Park (Park)
Toggle Do Not Disturb (DND)	Conference (Confrn)
Toggle Malicious Call Trace (MCID)	Conference List (ConfList)
Undefined (Undefined)	Select (Select)
	Join (Join)
	Direct Transfer (DirTrfr)
	Video Mode Command (VidMode)
	Mobility (Mobility)

Legend: \* - indicates required item. \*\* - indicates mandatory fields.



From the “Cisco Unified CM Administration” page, click “Device” then choose “Phone”.

On the Phone Configuration, make sure to add the Softkey Template that includes “Mobility”.

The screenshot shows the Cisco Unified CM Administration interface for configuring a phone. The top navigation bar includes "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", "Bulk Administration", and "Help". The current page is "Phone Configuration" for a "Cisco 7971" phone. The "Status" is "Ready".

**Association Information**

- 1. Line [1] - \+14085260008 (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
- Unassigned Associated Items -----
- 9. Add a new SD
- 10. Add a new SURL
- 11. Add a new BLF SD
- 12. Add a new BLF Directed Call Park
- 13. Intercom [1] - Add a new Intercom
- 14. Do Not Disturb
- 15. Call Park
- 16. Call Pickup
- 17. CallBack
- 18. Conference List
- 19. Conference
- 20. End Call
- 21. Forward All

**Phone Type**

- Product Type: Cisco 7971
- Device Protocol: SIP

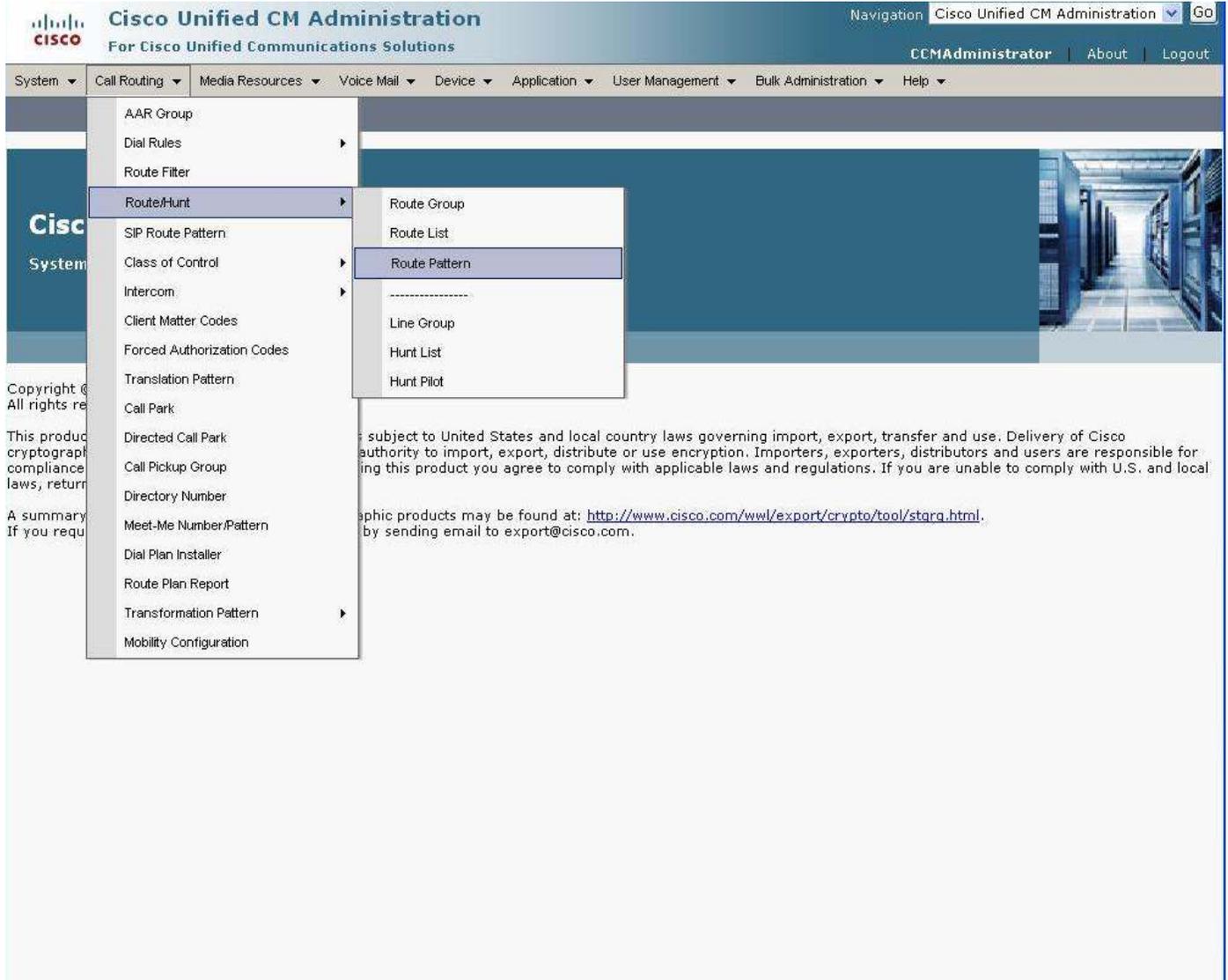
**Device Information**

- Registration: Registered with Cisco Unified Communications Manager cm-ocs
- IP Address: 172.20.227.20
- MAC Address\*: 001F9EAC0AFA
- Description: +14085260008
- Device Pool\*: Default [View Details](#)
- Common Device Configuration: < None > [View Details](#)
- Phone Button Template\*: Standard 7971 SIP
- Softkey Template: Mobility User
- Common Phone Profile\*: Standard Common Phone Profile
- Calling Search Space: < None >
- AAR Calling Search Space: < None >
- Media Resource Group List: < None >
- User Hold MOH Audio Source: 1-SampleAudioSource
- Network Hold MOH Audio Source: 1-SampleAudioSource
- Location\*: Hub\_None
- AAR Group: < None >
- User Locale: < None >
- Network Locale: < None >
- Built In Bridge\*: Default
- Privacy\*: Default
- Device Mobility Mode\*: Default [View Current Device](#)



## Route Pattern Configuration

A route pattern was setup to route calls to the remote destinations associated with the endpoints.





Remote Destinations Route Pattern:

**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 ▾

**Route Pattern Configuration** Related Links: [Back To Find/List](#)

**Status**

**Status:** Ready

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Resource Priority Namespace Network Domain

Gateway/Route List\*  (Edit)

Route Option

Route this pattern

Block this pattern

Call Classification\*

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority

Require Forced Authorization Code

Authorization Level\*

Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\*

Calling Name Presentation\*

Calling Party Number Type\*

Calling Party Numbering Plan\*



Prefix with a plus sign (+) to match the directory numbers (DN's) on the OCS side, in case the normalization rules in the Microsoft OCS environment do not already add the plus sign.

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

Navigation: Cisco Unified CM Administration [Go]

CCMAdministrator | About | Logout

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

### Route Pattern Configuration

Related Links: Back To Find/List [Go]

Save Delete Copy Add New

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask:

Prefix Digits (Outgoing Calls):

Calling Line ID Presentation\*: Default [v]

Calling Name Presentation\*: Default [v]

Calling Party Number Type\*: Cisco CallManager [v]

Calling Party Numbering Plan\*: Cisco CallManager [v]

#### Connected Party Transformations

Connected Line ID Presentation\*: Default [v]

Connected Name Presentation\*: Default [v]

#### Called Party Transformations

Discard Digits: < None > [v]

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):

Called Party Number Type\*: Cisco CallManager [v]

Called Party Numbering Plan\*: Cisco CallManager [v]

#### ISDN Network-Specific Facilities Information Element

Network Service Protocol: -- Not Selected -- [v]

Carrier Identification Code:

Network Service	Service Parameter Name	Service Parameter Value
-- Not Selected -- [v]	< Not Exist >	<input type="text"/>

Save Delete Copy Add New

**i** \*- indicates required item.



## Translation Pattern Configuration

From the “Cisco Unified CM Administration” page, click “Call Routing” then choose “Translation Pattern”.

For internal dialing, this pattern translates 5-digit extensions to the E.164 DN’s of the IP phones.

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

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

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

**Translation Pattern Configuration** Related Links: Back To Find/List Go

Save Delete Copy Add New

**Status**  
Status: Ready

**Pattern Definition**

Translation Pattern	600XX
Partition	< None >
Description	
Numbering Plan	< None >
Route Filter	< None >
MLPP Precedence*	Default
Resource Priority Namespace Network Domain	< None >
Calling Search Space	< None >
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern No Error

Provide Outside Dial Tone  
 Urgent Priority

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation*	Default
Calling Name Presentation*	Default
Calling Party Number Type*	Cisco CallManager
Calling Party Numbering Plan*	Cisco CallManager

**Connected Party Transformations**

Connected Line ID Presentation*	Default
Connected Name Presentation*	Default



Translation Pattern Configuration

Related Links: Back To Find/List Go

Save Delete Copy Add New

Calling Search Space: < None >

Route Option:  
 Route this pattern  
 Block this pattern No Error

Provide Outside Dial Tone  
 Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask:

Prefix Digits (Outgoing Calls):

Calling Line ID Presentation\*: Default

Calling Name Presentation\*: Default

Calling Party Number Type\*: Cisco CallManager

Calling Party Numbering Plan\*: Cisco CallManager

Connected Party Transformations

Connected Line ID Presentation\*: Default

Connected Name Presentation\*: Default

Called Party Transformations

Discard Digits: < None >

Called Party Transform Mask: +140852600XX

Prefix Digits (Outgoing Calls):

Called Party Number Type\*: Cisco CallManager

Called Party Numbering Plan\*: Cisco CallManager

Save Delete Copy Add New

**i** \*- indicates required item.



## Gateway Configuration

From the “Cisco Unified CM Administration” page, click “Device” then choose “Gateway”.

The screenshot shows the Cisco Unified CM Administration interface for Gateway configuration. The page title is "Find and List Gateway". It includes a navigation menu with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area shows a status message "1 records found" and a table of gateways. The table has columns for Device Name, Description, Device Pool, Calling Search Space, Device Type, Status, and IP Address. One gateway is listed: MS\_GW1, MS\_GW1, Cisco 3825. Below the table are buttons for Add New, Select All, Clear All, Delete Selected, and Reset Selected.

**Find and List Gateway**

Navigation: Cisco Unified CM Administration

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

CCMAdministrator | About | Logout

**Status**

1 records found

**Gateways (1 - 1 of 1)** Rows per Page: 50

Find Gateways where Name begins with Hide endpoints Find Clear Filter + -

Select item or enter search text

<input type="checkbox"/>	Device Name ^	Description	Device Pool	Calling Search Space	Device Type	Status	IP Address
<input type="checkbox"/>	MS_GW1	MS_GW1			Cisco 3825	<a href="#">See Endpoints</a>	

Add New Select All Clear All Delete Selected Reset Selected



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

Navigation Cisco Unified CM Administration Go

CCMAdministrator About Logout

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

**Gateway Configuration** Related Links: Back To Find/List Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Gateway Details**

Product	Cisco 3825
Gateway	MS_GW1
Protocol	MGCP
Domain Name*	MS_GW1
Description	MS_GW1
Cisco Unified Communications Manager Group*	Default

**Configured Slots, VICs and Endpoints**

Module in Slot 0 NM-4VWIC-MBRD

Subunit 0	VIC-4FXS	0/0/ 0	0/0/ 1	0/0/ 2	0/0/ 3
Subunit 1	VVIC2-2MFT-T1E1-T1	0/1/ 0	0/1/ 1		
Subunit 2	VIC2-4FXO	0/2/ 0	0/2/ 1	0/2/ 2	0/2/ 3
Subunit 3	< None >				

Module in Slot 1 < None >

Module in Slot 2 < None >

**Product Specific Configuration Layout**

Global ISDN Switch Type	4ESS
Switchback Timing*	Graceful
Switchback uptime-delay (min)	10
Switchback schedule (hh:mm)	12:00
Type Of DTMF Relay*	Current GW Config
Fax mode*	Fax Relay
Modem Passthrough*	Enable

Configure the FXS port to simulate calls to or from PBX/PSTN through MGCP Gateway.

Configure the FXO port to receive PBX calls.



FXS Port:

**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

**Gateway Configuration** Related Links: Back to MGCP Configuration Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Directory Number Information**  
778 Line [1] - \+14085260060 (no partition)  
778

**Device Information**

Product	Cisco MGCP FXS Port
Gateway	MS_GW1
Device Protocol	Analog Access
Registration	Registered with Cisco Unified Communications Manager cm-ocs
IP Address	172.20.150.200
End-Point Name *	AALN/S0/SU0/0@MS_GW1
Description	AALN/S0/SU0/0@MS_GW1
Device Pool*	Default
Common Device Configuration	< None >
Media Resource Group List	< None >
Packet Capture Mode*	None
Packet Capture Duration	0
Calling Search Space	< None >
AAR Calling Search Space	< None >
Location*	Hub_None
AAR Group	< None >
Network Locale	< None >
Use Trusted Relay Point*	Default
<input type="checkbox"/> Transmit UTF-8 for Calling Party Name	
Calling Party Transformation CSS	< None >
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	

**Multilevel Precedence and Preemption (MLPP) Information**

MLPP Domain	< None >
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device



Gateway Configuration

Related Links: Back to MGCP Configuration Go

Save Delete Reset Add New

Packet Capture Mode*	None
Packet Capture Duration	0
Calling Search Space	< None >
AAR Calling Search Space	< None >
Location*	Hub_None
AAR Group	< None >
Network Locale	< None >
Use Trusted Relay Point*	Default
<input type="checkbox"/> Transmit UTF-8 for Calling Party Name	
Calling Party Transformation CSS	< None >
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS	

**Multilevel Precedence and Preemption (MLPP) Information**

MLPP Domain	< None >
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device

**Port Information (POTS)**

Port Direction*	Bothways
Prefix DN	
Num Digits*	11
Expected Digits*	11
SMDI Port Number(0-4096)*	0
<input type="checkbox"/> Unattended Port	

Save Delete Reset Add New

\*- indicates required item.

\*\* - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



FXS Port (endpoint) End User:

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

Navigation Cisco Unified CM Administration

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

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

**Status**

Status: Ready

**User Information**

User ID*	<input type="text" value="MOC60"/>	
Password	<input type="password" value="....."/>	<input type="button" value="Edit Credential"/>
Confirm Password	<input type="password" value="....."/>	
PIN	<input type="password" value="....."/>	<input type="button" value="Edit Credential"/>
Confirm PIN	<input type="password" value="....."/>	
Last name*	<input type="text" value="Pool11"/>	
Middle name	<input type="text"/>	
First name	<input type="text" value="MOC60"/>	
Telephone Number	<input type="text" value="+14085260060"/>	
Mail ID	<input type="text"/>	
Manager User ID	<input type="text"/>	
Department	<input type="text"/>	
User Locale	<input type="text" value=" &lt; None &gt;"/>	
Associated PC	<input type="text"/>	
Digest Credentials	<input type="text"/>	
Confirm Digest Credentials	<input type="text"/>	

**Device Associations**

Controlled Devices

**Extension Mobility**



End User Configuration

Save Delete Add New

Extension Mobility

Available Profiles

Ext. Mobility Profile for MOC20  
MOC1 EXTMOB Profile  
OCSTEST4 EXTMOB profile  
OCSTEST5 EXTMOB Profile  
OCSTEST6 EXTMOB Profile

Controlled Profiles

Default Profile -- Not Selected --

Presence Group\* Standard Presence group

SUBSCRIBE Calling Search Space < None >

Allow Control of Device from CTI

Directory Number Associations

Primary Extension < None >

Mobility Information

Enable Mobility

Primary User Device < None >

Enable Mobile Voice Access

Maximum Wait Time for Desk Pickup\* 10000

Remote Destination Limit\* 4

Remote Destination Profiles MOC60\_RDP

[View Details](#)

CAPF Information



End User Configuration

Related Links: Back to Find List Users Go

Save Delete Add New

Directory Number Associations

Primary Extension < None >

Mobility Information

Enable Mobility

Primary User Device < None >

Enable Mobile Voice Access

Maximum Wait Time for Desk Pickup\* 10000

Remote Destination Limit\* 4

Remote Destination Profiles MOC60\_RDP

[View Details](#)

CAPF Information

Associated CAPF Profiles

[View Details](#)

Permissions Information

Groups

Add to User Group

Remove from User Group

[View Details](#)

Roles

[View Details](#)

Save Delete Add New

\*- indicates required item.



FXO Port:

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

Navigation | Cisco Unified CM Administration | Go

CCMAdministrator | About | Logout

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

Gateway Configuration | Related Links: Back to MGCP Configuration | Go

Save | Delete | Reset | Add New

**Status**  
Status: Ready

**Device Information**

Product	Cisco MGCP FXO Port
Gateway	MS_GW1
Device Protocol	Analog Access
Registration	Registered with Cisco Unified Communications Manager cm-ocs
IP Address	172.20.150.200
End-Point Name *	AALN/S0/SU2/0@MS_GW1
Description	<input type="text" value="AALN/S0/SU2/0@MS_GW1"/>
Device Pool*	<input type="text" value="Default"/>
Common Device Configuration	<input type="text" value="&lt; None &gt;"/>
Media Resource Group List	<input type="text" value="&lt; None &gt;"/>
Packet Capture Mode*	<input type="text" value="None"/>
Packet Capture Duration	<input type="text" value="0"/>
Calling Search Space	<input type="text" value="&lt; None &gt;"/>
AAR Calling Search Space	<input type="text" value="&lt; None &gt;"/>
Location*	<input type="text" value="Hub_None"/>
AAR Group	<input type="text" value="&lt; None &gt;"/>
Network Locale	<input type="text" value="&lt; None &gt;"/>
Use Trusted Relay Point*	<input type="text" value="Default"/>

Transmit UTF-8 for Calling Party Name

Called Party Transformation CSS

Use Device Pool Called Party Transformation CSS

**Multilevel Precedence and Preemption (MLPP) Information**

MLPP Domain

MLPP Indication Not available on this device

MLPP Preemption Not available on this device



Gateway Configuration

Related Links: Back to MGCP Configuration Go

Save Delete Reset Add New

Transmit UTF-8 for Calling Party Name  
Called Party Transformation CSS < None >  
 Use Device Pool Called Party Transformation CSS

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain < None >  
MLPP Indication Not available on this device  
MLPP Preemption Not available on this device

Port Information (Loop Start)

Port Direction\* Bothways  
Attendant DN\* 60011  
 Unattended Port

Product Specific Configuration Layout

Hookflash Timer (50-1550ms)\* 50  
Inter-digit Duration Timer (50-500 ms)\* 100  
Input Gain (-6..14 db)\* 0  
Output Attenuation (-6..14 db)\* 3  
Echo Cancellation Enable\* Enable  
Echo Cancellation Coverage (ms)\* 64  
Ring Number\* Default  
Impedance\* Default GW config

Save Delete Reset Add New



\*- indicates required item.



\*\* - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



## Unity Voice Mail Configuration

To configure voice mail, perform the initial configuration steps, then set up a voice mail hunt list:

1. From the “Cisco Unified CM Administration” page, click “Voice Mail” → run “Cisco Voice Mail Port Wizard”
2. From the “Cisco Unified CM Administration” page, click “Call Routing” → “Route/Hunt” → “Hunt List”

The screenshot displays the Cisco Unified CM Administration interface for Hunt List Configuration. The top navigation bar includes the Cisco logo, the title "Cisco Unified CM Administration For Cisco Unified Communications Solutions", and navigation options like "Navigation", "Cisco Unified CM Administration", and "Go". Below the navigation bar, there are tabs for "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", "Bulk Administration", and "Help". The main content area is titled "Hunt List Configuration" and includes a "Related Links" section with "Back To Find/List" and "Go".

The configuration page is divided into several sections:

- Status:** Shows "Status: Ready".
- Hunt List Information:** Contains fields for "Name\*" (OCS\_VMHL), "Description" (OCS VoiceMail Huntlist), and "Cisco Unified Communications Manager Group\*" (Default). There are checkboxes for "Enable this Hunt List (change effective on Save; no reset required)" and "For Voice Mail Usage".
- Hunt List Member Information:** Includes an "Add Line Group" button, a "Selected Groups\*\*" list containing "OCS\_LG", and a "Removed Groups\*\*\*" list.
- Hunt List Details:** Shows a small icon and the text "OCS\_LG".

At the bottom of the page, there are buttons for "Save", "Delete", "Copy", "Reset", and "Add New". A legend explains the symbols used in the configuration:

- i** \*- indicates required item.
- i** \*\*ordered by highest priority
- i** \*\*\*will be removed from Hunt List when you click Save



Voice Mail "Line Group":

**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 ▾

**Line Group Configuration** Related Links: [Back To Find/List](#)

**Line Group Information**

Line Group Name\*

RNA Reversion Timeout\*

Distribution Algorithm\*

**Hunt Options**

No Answer\*

Busy\*\*

Not Available\*\*

**Line Group Member Information**

**Find Directory Numbers to Add to Line Group**

Partition

Directory Number Contains

Available DN/Route Partition

- 14085260002
- 14085260006
- 14085260007
- 14085260020
- 4085260001

**Current Line Group Members**

Selected DN/Route Partition

- 60901
- 60902
- 60903
- 60904

Removed DN/Route Partition



Line Group Configuration

Related Links: Back To Find/List Go

Save Delete Add New

Directory Number Contains  Find

Available DN/Route Partition

14085260002
14085260006
14085260007
14085260020
4085260001

Add to Line Group

Current Line Group Members

Reverse Order of Selected DN/Route Partitions

Selected DN/Route Partition

60901
60902
60903
60904

Removed DN/Route Partition

--

Directory Numbers

- 60901 (no partition)
- 60902 (no partition)
- 60903 (no partition)
- 60904 (no partition)

Save Delete Add New

- \*- indicates required item.
- \*\*Fields marked with a \*\* are required when the Distribution Algorithm is set to Top Down or Circular, and are not used when the Distribution Algorithm is set to Longest Idle or Broadcast. The No Answer setting is used for Longest Idle and Broadcast.
- \*\*\*Changes to Line Group do not take effect until Hunt List is reset. After saving Line Group changes, please reset all Hunt Lists of which this Line Group is a member.



Voice Mail "Hunt Pilot" number:

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

Navigation | Cisco Unified CM Administration | Go

CCMAdministrator | About | Logout

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

### Hunt Pilot Configuration

Related Links: [Back To Find/List](#) | Go

Save | Delete | Copy | Add New

**Status**  
Status: Ready

**Pattern Definition**

Hunt Pilot\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Hunt List\*  (Edit)

Route Option  
 Route this pattern  
 Block this pattern

Provide Outside Dial Tone  Urgent Priority

**Hunt Forward Settings**

	Use Personal Preferences	Destination	Calling Search Space
Forward Hunt No Answer	<input type="checkbox"/> or	<input type="text"/>	<input type="text" value=" &lt; None &gt;"/>
Forward Hunt Busy	<input type="checkbox"/> or	<input type="text"/>	<input type="text" value=" &lt; None &gt;"/>
Maximum Hunt Timer		<input type="text"/>	

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\*

Calling Name Presentation\*



### Hunt Pilot Configuration

Related Links: [Back To Find/List](#) [Go](#)

Save Delete Copy Add New

Maximum Hunt Timer

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\*

Calling Name Presentation\*

Calling Party Number Type\*

Calling Party Numbering Plan\*

#### Connected Party Transformations

Connected Line ID Presentation\*

Connected Name Presentation\*

#### Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

Called Party Number Type\*

Called Party Numbering Plan\*

#### AAR Group Settings

AAR Group

External Number Mask

\*- indicates required item.



MWI ON and OFF DN (from the “Cisco Unified CM Administration” page, go to “Voice Mail” → “Message Waiting”)

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

Navigation | Cisco Unified CM Administration | Go

CCMAdministrator | About | Logout

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

### Find and List Message Waiting Numbers

+ Add New | Select All | Clear All | Delete Selected

**Status**  
2 records found

#### Message Waiting Numbers (1 - 2 of 2)

Rows per Page: 50

Find Message Waiting Numbers where Directory Number begins with and where Message Waiting Indicator is Both

	Directory Number	Description	Partition	Calling Search Space	Copy
<input type="checkbox"/>	60998	MWI ON			
<input type="checkbox"/>	60999	MWI OFF			

Add New | Select All | Clear All | Delete Selected



From the “Cisco Unified CM Administration” page, choose “Voice Mail” → “Voice Mail Pilot”. The voice mail Pilot Number should be the same as the voice mail Hunt Pilot Number:

The screenshot displays 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 a "Navigation" menu with "Cisco Unified CM Administration" selected. Below this is a secondary menu with "CCMAdministrator", "About", and "Logout". A main navigation menu contains "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", "Bulk Administration", and "Help". The current page is titled "Voice Mail Pilot Configuration" and includes a "Related Links" section with a "Back To Find/List" button. Action buttons for "Save", "Delete", and "Add New" are present. The "Status" section shows "Status: Ready". The "Voice Mail Pilot Information" section contains the following fields: "Voice Mail Pilot Number" (60900), "Calling Search Space" (< None >), and "Description" (Default). A checkbox labeled "Make this the default Voice Mail Pilot for the system" is checked. At the bottom, there are "Save", "Delete", and "Add New" buttons, and a note: "\* - indicates required item."



In the “Voice Mail Profile”, the voice mail Pilot Number is assigned into Default Profile:

**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 ▾

**Voice Mail Profile Configuration** Related Links: Back To Find/List

**Status**  
Status: Ready

**Voice Mail Profile Information**

Voice Mail Profile: Default (used by 21 devices)

Voice Mail Profile Name\*: Default

Description: Default voice messaging profile

Voice Mail Pilot\*\*: 60900/< None >

Voice Mail Box Mask:

Make this the default Voice Mail Profile for the System

**i** \*- indicates required item.

**i** \*\*- The Voice Mail Pilot is comprised of the Voice Mail Pilot Number and it's corresponding Calling Search Space Name (< Voice Mail Pilot Number >/< Calling Search Space >).

On the “Directory Number” configuration page for the phones, set the “Voice Mail Profile” accordingly (in this case None or Default).



## Acronyms

Cisco UCM	Cisco Unified Communications Manager
CFA	Call Forwarding Always
CFB	Call Forwarding Busy
CFNR	Call Forwarding No Reply
DN	Directory Number
DND	Do-Not-Disturb
DNS	Domain Name System
DTMF	Dual Tone MultiFrequency
DTP	DeskTop Phone
MOC	Microsoft Office Communicator
MCS	Multimedia Communication Server
MWI	Message Waiting Indicator
OCS	Office Communications Server
SCCP	Skinny Protocol
SIP	Session Initiation Protocol
TCP	Transmission Control Protocol
TLS	Transport Layer Security
XML	Extensible Markup Language
QoS	Quality of Service
GW	Gateway
S/W	Software
DB	Database



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