#### Microsoft Live Communication Server 2005 Enterprise Edition with SP1 using CSTA over SIP to Cisco Unified CallManager 5.0(4) and Cisco Unified Presence 1.0(3)

Dec 15, 2007

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Introduction

- This document was jointly put together by Cisco Systems, Inc. and Microsoft to show feature interoperability and to document the steps and configurations necessary for Cisco Unified CallManager 5.0 and Cisco Unified Presence (CUPS) 1.0(3) to interoperate with the Microsoft Live Communication Server (LCS) 2005 Enterprise Edition SP1. These features include Microsoft Office Communicator (MOC) features, Desktop (DTP) or IP Phone features, Cisco Unified CallManager administration, configuration and provisioning and CUPS device identification. It aims to provide a good understanding of what works and what does not work in terms of the feature interaction between various components of the Cisco Unified CallManager, CUPS and LCS. It also provides guidance to deployment participants of the limitations, expected behaviors as well as known issues. Please note that this document does not address performance and scalability which are part of broader criteria for a deployment-ready solution.
- As shown in the Network Topology diagram, interoperability testing was performed between the CUPS and the LCS using multiple LCS pools with a Cisco CSS1501load balancer front-ended to the CUPS.



#### **Network Topology**

Figure 1. Basic Call Setup



#### Limitations

- Multiple Point of Presence (MPOP): As of the CUPS release 1.0(3), the MPOP feature where a MOC user is logged in from more than one location is not supported by CUPS. Support for this feature affects other interoperability features between the Cisco CUPS and the Microsoft LCS. The affected features include basic placement and teardown of calls and locations-based call forwarding. These features are inherent to MPOP and without support for this feature, the user experiences loss of device and call control when logged in multiple locations.
- Call Forward Setting on DTP or IP Phone: Call forward setting made on the Cisco IP Phone (Desktop) is not recognized and reflected by the MOC GUI. As of the current release of the Microsoft LCS, this feature is not supported. Thus, the MOC overrides any call forward setting manually configured on the DTP.
- DTMF Digits: Using the MOC dial pad to enter digits presented an issue when a MOC user enters the digits in a relatively fast manner. Some digits may be dropped during the communication signaling between the CUPS and CCM. As a result, user may experience invalid entry when interacting with devices such as voicemails and IVR systems.
- Shared Lines: There are potential unwanted interactions that may occur in shared line scenarios. The CUPS procedure for selecting the device to be controlled by MOC is to login the MOC session. Upon sign-in, both devices associated with shared line will ring and the MOC user must answer the phone the user wishes to control. The unwanted feature interaction in this case include conflict in device and call control and indefinite ringing in cases where the user is away from both devices. This issue is also applicable for devices subscribed to extension mobility where selection of device to control procedures is similar to shared lines.
- Do not Disturb (DND): DND is an unsupported feature with respect to CUPS integration. Thus, any MOC client with DND feature enabled, will still have any received call routed to its controlled DTP.
- Transport Layer Security (TLS) connection between CUPS and LCS: With TLS enabled between CUPS and LCS server, MOC user is unable to exercise CTI control with hardware loadbalancer installed.

#### **System Components**

#### **Hardware Requirements**

- Cisco hardware including interface card
  - a. Linux Servers
    - i. Cisco Unified Presence (MCS 7825H)
    - ii. Cisco Unified CallManager (MCS 7845H)
  - b. Cisco Catalyst 3560



- c. Cisco Load Balancer CSS11501
- d. 1 Cisco 7960 IP Phones (SCCP)
- e. 2 Cisco 7961 IP Phones (SIP)
- f. 1 Cisco 7970 IP Phone with CUVA (SCCP)
- g. 1 Cisco 7971 IP Phone with CUVA (SIP)
- h. 2 Cisco Unified Video Advantage Cameras
- Micorsoft hardware including interface card
  - a. LCS 2005 Enterprise Edition with SP1 MCS 7825H Windows Server 2003 Enterprise, R2 (32 Bit)
  - b. Windows Active Directory Node also serves as DNS for LCS MCS 7825H Windows Server 2003 Enterprise R2, w/SP 1
  - a. Windows SQL MCS 7825H SQL Server 2000 Enterprise Edition w/Win. 2003 Server SP1
- Notebooks for additional MOC Clients running on Windows XP Professional with SP1

#### **Software Requirements**

- Cisco Unified CallManager 5.0.4.2000-1
- Cisco Unfied Presence 1.0.3.1000-8
- Cisco IOS Release or Cisco CatOS Release (for the gateway)
- Cisco Content Switch CSS11501 IOS Version: sg0810106 (08.10.1.06)
- Microsoft Live Communication Server 2005 Enterprise Edition SP1

#### **Features**

- MOC Features
  - Basic Call Placement / Clearing
  - Reverse Number Lookup
  - Basic Call Forwarding
    - New Number
    - Phone Settings
    - Location-based please refer to Limitations section
  - Hold / Retrieval of Call
  - Call Transfer

- Unannounced or Blind
- Announced or Consultation
- Call Conference
  - Call Conference Establishment
  - Call Conference to Busy Number
  - Call Conference to Party with No Answer
  - Call Conference to Party set to forward all calls to VoiceMail
  - Desktop or IP Phone Initiated Single Step Transfer of Conference Call
  - DTMF Digits please refer to Limitations Section
  - Consultation Calls
  - Alternate Call Call Waiting
  - Alternate Call Held Call
  - Deflect Call
  - Call per Line Limit
- Desktop (DTP) Features
  - Basic Call Placement / Clearing
  - Call Transfers
    - Unannounced or Blind
    - Announced or Consultation
  - Call Conference
- Cisco Unified CallManager Administration, Configuration and Provisioning
  - Adding Dial Rules
  - Deleting Dial Rules
  - Changing Dial Rules
  - Prefix Dial Rules
- Cisco Unified Presence (CUPS) Device Identification
  - Shared Lines
    - 2 Phone Devices
    - 1 Phone Device and 1 Cisco IP Communicator
- CUPS Features
  - Extension Mobility



#### Configuration

For more Cisco deployment and installation guides, go to:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/products\_implementation\_design\_guide\_chapter09186a008070bc02.html

http://www.cisco.com/en/US/partner/products/ps6837/tsd products support integrated systems documentation list.html

#### **Configuration Sequence and Tasks**

- A. Cisco Unified CallManager Configuration
  - 1. Cisco Unified CallManager Version
  - 2. Configure the SIP Trunk
  - 3. Configure the Cisco IP Phones
  - 4. Configure the End Users
  - 5. Configure the Licensing Capabilities Assignments
  - 6. Configure the Phone Services
  - 7. Configure the Phone URL Services
  - 8. Configure the Application User
  - 9. Configure the Dial Rules
  - 10. Configure the Conference Bridge
  - 11. Configure the Meet-Me Number
- B. Cisco Unified Presence (CUPS) Configuration
  - 1. CUPS Version
  - 2. Configure the CUPS Method / Event Based Routing
  - 3. Configure the Unified CallManager Presence Gateway
  - 4. Configure the CTI Gateway
  - 5. Configure the MOC Assignments
  - 6. Configure the AXL Information
  - 7. Configure the Privacy ACL Entry (Allowed Destination Host)
  - 8. Configure the Proxy ACL Entry (Allowed Incoming Host)
  - 9. Configure the IP Phone Messenger Setting
  - 10. Configure the IP Phone Messenger User
  - 11. Configure the Application User Configuration
- C. Cisco Content Switch CSS11501 Load Balancer Configuration
- D. LCS Enterprise Edition Configuration
  - 1. Domain Name Server
  - 2. Pool Properties
  - 3. Static Route
  - 4. Authorized Host
  - 5. Server Properties
  - 6. Pool Users
  - 7. User Configuration
  - 8. Micorsoft Office Communicator (MOC) Configuration



#### **Configuration Menus and Commands**

Cisco Unified CallManager Configuration

Cisco Unified CallManager Version



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

SIP Trunk

							Navigation	Cisco Unified CallManager Admini	stration 🔽 🖸
Cisco Unified Ca	llManager	Adminis	tration	For Cisco	Unified Communic	ations Solutions		Logged in as:CCM	Administrator
System 👻 Call Routing 👻 Me	edia Resources 👻	Voice Mail 👻	Device 👻	Application 👻	User Management 👻	Bulk Administration $ ullet $	Help 👻		Log Off
Trunk Configuration								Related Links: Back To Find/Li	st 🔽 🔽
<b>₽×</b> ₽+									
Status Status: Ready									
Device Information									
Product: Device Protocol:	SIP Trunk SIP								
Device Name*	CUPS2-SIP-TF	ЯK							
Description									
Device Pool*	Default			•	•				
Call Classification*	Use System D	)efault		•	*				
Media Resource Group Lis	t < None >			1	*				
Location*	Hub_None				*				
AAR Group	< None >			1	*				
Packet Capture Mode*	None				•				
Packet Capture Duration	0				_				
🗌 Media Termination Poir	nt Required								
Retry Video Call as Auc	dio								
🗌 Transmit UTF-8 for Call	ing Party Name	9							
Unattended Port									
Marking Description		() () () () ()	e						

¥.

Multilevel Precedence and Pr MLPP Domain < None >	eemption (MLPP) Information
— Call Routing Information —	
🗖 Inbound Calls ————	
Significant Digits*	All
Connected Line ID Presentatio	n* Default
Connected Name Presentation	* Default
Calling Search Space	< None >
AAR Calling Search Space	< None >
Prefix DN	
Redirecting Diversion Head	er Delivery - Inbound
— Outbound Calls —	
	Driginator
Calling Line ID Presentation*	Default 🗸
Calling Name Presentation*	Default 🗸
Caller ID DN	
Caller Name	
Redirecting Diversion Head	r Delivery - Outbound
SIP Information	
Destination Address*	EPAS2.pbxlab.org
☑ Destination Address is an SF	V
Destination Port*	0
MTP Preferred Originating Code	* 711ulaw 🗸
Presence Group*	Standard Presence group
OTO TAUNIL CLANICA DALEIL *	

^

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Outbound Calls		2
Calling Party Selection* Originator		
Calling Line ID Presentation* Default	S	
Calling Name Presentation* Default		
Caller ID DN		
Caller Name		
Redirecting Diversion Header Delivery	y - Outbound	
SIP Information		
	EPAS2.pbxlab.org	
Destination Address is an SRV		
Destination Port*	0	
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.

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

#### Cisco IP Phone Configuration

7960 SCCP Phone

		Naviga	tion Cisco Unified Cal	Manager Administration 🔽 😡
Cisco Unified CallManager Admini	stration For Cisco Unified Co	ommunications Solutions	Log	ged in as:CCMAdministrator
System 👻 Call Routing 👻 Media Resources 👻 Voice Mail 👻	Device 👻 Application 👻 User Manag	jement 👻 Bulk Administration 👻 Help 👻		Log Off
Phone Configuration		Related Links	Back To Find/List	Go Go
			-	
- Status				
Association Information Modify Button Items  1 emp Line [1] - 41015 (no partition)	Phone Type Product Type: Cisco 7960 Device Protocol: SCCP			
2     Implementation       2     Implementation       3     Implementation       4     Implementation       4     Implementation		Registered with Cisco Unified CallMar 172.20.201.118 0011219E5721	hager CM-CLUSTER1-	5
5 🖓 Add a new SD	Description	41015-7960SCCP		
6 Carl Add a new SD	Device Pool*	Default	~	
Unassigned Associated Items 7 @ Add a new SD	Phone Button Template*	Standard 7960 SCCP	~	
8 Add a new SURL	Softkey Template Common Phone Profile*	Standard User	~	
9 Gana Add a new BLF SD	Calling Search Space	Standard Common Phone Profile	×	
10 Privacy 11 None	AAR Calling Search Space	< None >		
11 NOILE	Media Resource Group List	CCM MRGL	~	
	User Hold MOH Audio Source	< None >	~	
	Network Hold MOH Audio Source	< None >	~	

Network Hold MOH Audio Source	None >	<u>~</u>	j
Location*	Hub_None		
User Locale	English United States		
Network Locale	< None >		
Built In Bridge*	Default		
Privacy*	Default		
Owner User ID	Pool4C 🗸		
Phone Load Name			
Retry Video Call as Audio	,		
Ignore Presentation Indicato	rs (internal calls only)		
Allow Control of Device from	сті		
Protocol Specific Information			
Packet Capture Mode*	None		
Packet Capture Duration	0		
Presence Group*	Standard Presence group		
Device Security Profile*	Cisco 7960 - Standard SCCP Non-Secure Profile		
SUBSCRIBE Calling Search Space			
Unattended Port			
Require DTMF Reception			
RFC2833 Disabled			
Certification Authority Proxy	Punction (CAPF) Information		
· · · · · · · · · · · · · · · · · · ·	Vull String		
Authentication String			
		_	
Generate String		×	

<ul> <li>Certification Authori Certificate Operation*</li> </ul>	ty Proxy Function (CAPF) Information	
Authentication Mode*		
Authentication String	By Null String	
Generate String		
Key Size (Bits)*	1024	
Operation Completes I	Ву 2007 1 13 12 (ҮҮҮҮ:ММ:DD:НН)	
Certificate Operation 9		
Note: Security Profile (	Contains Addition CAPF Settings.	
- Expansion Module Ir		
L	< None >	
Module 1 Load Name		
Module 2	< None >	
Module 2 Load Name		
- External Data Locati Information	ions Information (Leave blank to use default)	
Directory		
Messages		
Services		
Authentication Server		
Proxy Server		
FIONY SERVER		
Idle		

Extension Information	
Log Out Profile Use Current Device Settings V Log Out	
Login in User ID Pool4C Log in Time Thursday, December 14, 2006 4:28:31 PM PST Log out Time < None > Note: User log out required to allow Extention Mobility changes.	
MLPP Information	_
MLPP Domain < None >	
MLPP Indication* Off	
MLPP Preemption* Default	
Product Specific Configuration Layout	
Disable Speakerphone and Headset	
PC Port * Enabled	
Settings Access* Enabled	
Gratuitous ARP* Enabled	
PC Voice VLAN Access* Enabled	
Video Capabilities* Enabled	
Auto Line Select* Disabled	

- Save Delete Copy Reset Add New

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



Directory Number Co	nfiguration		Related Links: Back To Find/List 🧧 Go	2
Status Status: Ready				]
Directory Number	Informatio	n		1
	41015			
Route Partition	< None >	~		
Description				
Alerting Name				
ASCII Alerting Name				
Allow Control of D	evice from (	сті		
	SEP001121			
	7960 w/ EXT ADP001121		Edit Device	
	ADFOUTIZI	90721	Edit Line Appearance	
		<b>V</b> A		
Dissociate Devices				
L	1			]
Directory Number	Settings —			1
Calling Search Space		< None >	Choose <none> to use system default)</none>	
		< None >		
Presence Group*		Standard Presence group		
AAR Group	_	< None >		-
User Hold MOH Audio	o Source	< Nono >		



Directory Number Config	uration	Related Links; Back To Find/List	Go
╔╱┓			
Status Status: Ready			
Directory Number Info	rmation		
Directory Number* 4101	5		
Route Partition < No	one > 🔽		
Description			
Alerting Name			
ASCII Alerting Name			
Allow Control of Device	e from CTI		
	P0011219E5721		
	) w/ EXTMOB 20011219E5721	Edit Device	
ADF	001121950721	Edit Line Appearance	
	**		
Dissociate Devices	• • •		
<ul> <li>Directory Number Sett</li> </ul>			
Voice Mail Profile	< None >	Choose <none> to use system default)</none>	
Calling Search Space	< None >		
Presence Group*	Standard Presence group		
AAR Group	< None >		_
User Hold MOH Audio Sou	IFCE / None >		V

Line 1 on Device	SEP0011219E5721			
	Value		Update Shared Device Settings	
	Pool3A	Display text for a line appearance is intended for displaying text such as a name instead of a		
ASCII Display	directory number for internal calls. If you specify a nu Pool3A	mber, the person receiving a call may not see the proper identity of the caller.		
(Internal Caller ID)			_	
Line Text Label	Pool3A			
ASCII Line Text Label	Pool3A	]		
External Phone Number Mask				
Message Waiting Lamp Policy*	Use System Policy 👻			
Ring Setting (Phone Idle)*	Use System Default 👻			
Ring Setting (Phone Active)	Use System Default 🖌	applies to this line when any line on the phone has a call in progress.		
(i fiolio Poaro)			Propagate Selected	
	Waiting Settings on Device SEP0011219E5721			]
Busy Trigger*	4 2	(Less than or equal to Max. Calls)		
	nformation Display on Device SEP0011219E5721			1
Caller Name				
Caller Number				
Dialed Number	-01			
- Save Delete Co	opy Reset Add New			1
	ab) Incort inductor			v

#### 7970 SCCP Phone

hone Configuration		Related Links: Back To Find/	/List 🔽 🔽
⋽⋉⋳⋴			
Status			
i)Status: Ready			
Association Information     Modify Button Items      mg Line [1] - 41016 (no partition)	Phone Type Product Type: Cisco 7970 Device Protocol: SCCP		
2 Inter [2] - Add a new DN 3 C Add a new SD	IP Address	Registered with Cisco Unified CallManager CM-CLUS 172.20.201.103	STER1-S
4 @ <u>Add a new SD</u>	MAC Address*	00146A9C3C1F	
5 🖓 🚔 Add a new SD	Description	41016-7970SCCP	7
6 🖓 🚔 Add a new SD	Device Pool*	Default 👻	
7 🖓 Add a new SD	Phone Button Template*	Standard 7970 SCCP	
8 역 <u>금 Add a new SD</u>	Softkey Template	Standard User 🔽	
Unassigned Associated Items	Common Phone Profile*	Standard Common Phone Profile	
9 Carlanew SD	Calling Search Space	< None >	
10 Add a new SURL	AAR Calling Search Space	< None >	
11 Can Add a new BLF SD	Media Resource Group List	CCM_MRGL	
12 Privacy 13 None	User Hold MOH Audio Source	< None >	
	Network Hold MOH Audio Source	< None >	
	Location*	Hub None 🔽	
	User Locale	English United States	
	Network Locale	< None >	
	Built In Bridge*	Default 🔍	

>

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Built In Bridge*	Default	~
Privacy*	Default 🔽	
Owner User ID	< None >	
Phone Load Name		
Retry Video Call as Audio		
🗌 Ignore Presentation Indicato	ors (internal calls only)	
Allow Control of Device from	сті	
Protocol Specific Information	]	
Packet Capture Mode*	None	
Packet Capture Duration	0	
Presence Group*	Standard Presence group	
Device Security Profile*	Cisco 7970 - Standard SCCP Non-Secure Profile 🛛 👻	
SUBSCRIBE Calling Search Space	e < None >	_
🗌 Unattended Port		
Require DTMF Reception		
RFC2833 Disabled		
Certification Authority Proxy	Function (CAPF) Information	
	o Pending Operation	
Authentication Mode*	y Null String	
Authentication String		
Generate String		
Key Size (Bits)*	124	
Operation Completes By 20	107 1 13 12 (YYYY:MM:DD:HH)	
Certificate Operation Status: No	ine ine	
Note: Security Profile Contains A	Addition CAPF Settings.	V

Expansion Module Information	×
Module 1 < None >	<u> </u>
Module 1 Load Name	
Module 2 <pre></pre>	
Module 2 Load Name	
External Data Locations Information (Leave blank to use default)	
Directory	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	
Extension Information	≡
Extension Mobility	
Log Out Profile Use Current Device Settings	
Login in User ID < None >	_
Log in Time < None >	
Log out Time < None >	
MLPP Information	
MLPP Domain < None >	
MLPP Indication* Default	
MLPP Preemption* Default	
	✓

	Secure Shell Informa Secure Shell User	uon		
	Secure Shell Password			
	Product Specific Conf	iguration Layout	?	
	Disable Speakerphor	ne	ĩ	
	Disable Speakerphor	ne and Headset		
		Enabled	×	
	Settings Access*	Enabled	~	
	Gratuitous ARP*	Enabled	×	
	PC Voice VLAN Access*	Enabled	×	
	Video Capabilities*	Enabled	×	
	Auto Line Select*	Disabled	×	
	Web Access*	Enabled	×	
		Monday		
		Tuesday		
		07:30		
		10:30		
	Display Idle Timeout	01:00		
	Span to PC Port*	Disabled	×	
	Logging Display*	PC Controlled	×	
	Load Server			
we Delete Copy Reset A	Add New			

Directory Number Co	onfiguration			Related Links: Back To Find/List 🖉 🙆	*
⋳⋡⋂ଵୄ୷					n
Status Status: Ready					
Directory Number Directory Number*	Information 41016	1	1		
Route Partition	< None >				
Description	Pool4A		1		
Alerting Name	Pool4A		1		
ASCII Alerting Name	Pool4A		ĺ		
Allow Control of D Associated Devices		9C3C1F MOB	Edit Do Edit	evice t Line Appearance	
— Directory Number Voice Mail Profile	Settings —			a contraction of the second	
Calling Search Space	•	Default < None >	4	(Choose <none> to use system default)</none>	
Presence Group*		Standard Presence group	~		
AAR Group		< None >	4		
User Hold MOH Audio	o Source	< None >	Ŷ		Ý

Network Hold MOH Audio S	iource < None >	✓			
Auto Answer*	Auto Answer Off	<b>~</b>			
Call Forward and Call Pi	ckun Settings				
	Voice Mail	Destination		Calling Search Space	
Forward All	🗌 or			< None >	<ul><li>✓</li></ul>
Secondary Calling Search !	Space for Forward All			< None >	<b>~</b>
Forward Busy Internal	🗌 or			< None >	<b>~</b>
Forward Busy External	🗌 or			< None >	<b>~</b>
Forward No Answer Intern	al 🗌 or			< None >	<b>~</b>
Forward No Answer Exterr	nal 🗌 or			< None >	<b>~</b>
Forward No Coverage Inte	ernal 🗌 or			< None >	~
Forward No Coverage Exte	ernal 📃 or			< None >	¥
Forward on CTI Failure	🗌 or			< None >	<b>~</b>
No Answer Ring Duration (	seconds)				
Call Pickup Group	< None >				
MLPP Alternate Party Se Target (Destination)	ettings				
MLPP Calling Search Space	< None >		✓		
MLPP No Answer Ring Dura	tion (seconds)				
Line 1 on Device SEPOO	146A9C3C1F				
Value					Update Shared Device Settings
Display (Internal Caller ID)				f for displaying text such as a name instead of	a 🗖
ASCII Display Pool3C		If you specify a number, the person	receiving a call may not see	the proper identity of the caller.	
Photo:					171 13



Line 1 on Device	SEP00146A9C3C1F	
		Update Shared Device Settings
Display (Internal Caller ID)	Pool3C Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.	
ASCII Display (Internal Caller ID)		
Line Text Label	Pool3C	
ASCII Line Text Label	Pool3C	
External Phone Number Mask		
Message Waiting Lamp Policy*	Use System Policy	
Ring Setting (Phone Idle)*	Use System Default	
Ring Setting (Phone Active)	Use System Default Applies to this line when any line on the phone has a call in progress.	
		Propagate Selected
	Waiting Settings on Device SEP00146A9C3C1F         select the Max Number of calls is: 1-200         if Calls*         2         (Less than or equal to Max. Calls)	
← Forwarded Call I ✓ Caller Name	nformation Display on Device SEP00146A9C3C1F	
Caller Number		
Redirected Num	ber	
Dialed Number		
- Save Delete C	opy Reset Add New	



#### 7961 SIP Phone

hone Configuration		Related Links: Back To Find	'List 🔽 🔽 🔽
itatus			
i)Status: Ready			
0			
Association Information Modify Button Items	Phone Type Product Type: Cisco 7961 Device Protocol: SIP		
	Device Information		
2 ms Line [2] - Add a new DN	Registration	Registered with Cisco Unified CallManager CM-CLUS	TER1-S
3 Car Add a new SD	IP Address MAC Address*	172.20.201.101	_
4 Carlanew SD		00170EEE3394	
5 🖓 Add a new SD	Description	41012-7961SIP Pool3	
6 🖓 Add a new SD	Device Pool*	Default 👻	
Unassigned Associated Items	Phone Button Template*	Standard 7961 SIP	
Carl Add a new SD	Softkey Template	Standard User 🔽	
Add a new SURL	Common Phone Profile*	Standard Common Phone Profile	
Add a new BLF SD	Calling Search Space	< None >	
LO Privacy L1 None	AAR Calling Search Space	< None >	
11 10016	Media Resource Group List	CCM MRGL	
	User Hold MOH Audio Source	< None >	
	Network Hold MOH Audio Source		
	Location*	Hub None	
	User Locale		
	Network Locale	< None >	
		< None >	
	Built In Bridge*	Default	

Built In Bridge*	Default 👻	~
Privacy*	Default	
Owner User ID	< None >	
Phone Load Name		
☐ Ignore Presentation India ✓ Allow Control of Device fro		
Durkerel Correlfic Tofermerk		
Protocol Specific Informat Packet Capture Mode*	don Vone	
Packet Capture Duration		
Presence Group*	Standard Presence group	
SIP Dial Rules	< None >	=
MTP Preferred Originating Co	odec* 711ulaw	
Device Security Profile*	Cisco 7961 - Standard SIP Non-Secure Profile 🛛 👻	
Rerouting Calling Search Spa	ace < None >	_
SUBSCRIBE Calling Search Sp	pace < None >	
SIP Profile*	Standard SIP Profile	
Digest User	< None >	
🗌 Media Termination Point R	Required	
🗌 Unattended Port		
Require DTMF Reception		
	oxy Function (CAPF) Information	
Certificate Operation*	No Pending Operation	
Authentication Mode*	By Null String	
Authentication String		
Generate String		

		~
	Generate String	
	Key Size (Bits)* 1024	
	Operation Completes By 2007 1 13 12 (YYYY:MM:DD:HH)	
	Certificate Operation Status: None Note: Security Profile Contains Addition CAPF Settings.	
	External Data Locations Information (Leave blank to use default)	
	Directory	
	Messages	
	Services	
	Authentication Server	
	Proxy Server	
	Idle	
	Idle Timer (seconds)	
	Extension Information	
	🗹 Enable Extension Mobility	=
	Log Out Profile Use Current Device Settings	
	Login in User ID < None >	
	Log in Time < None > Log out Time < None >	_
	MLPP Information	
	MLPP Domain < None >	
	Secure Shell Information	
	Secure Shell User	
<u>  </u>	Peories Chell Decement	►

MLPP Domain < N	one >	<u>~</u>
- Secure Shell In	ormation	
Secure Shell User		
Secure Shell Pass	word	
Product Specifi	Configuration Layout ??	
Disable Speak	-	
🗌 Disable Speak	erphone and Headset	
PC Port *	Enabled	
Settings Access*	Enabled 🔽	
Gratuitous ARP*	Enabled 🔽	
PC Voice VLAN Act	ess* Enabled	
Video Capabilities	* Disabled	
Auto Line Select*	Disabled 🔽	
Web Access*	Enabled 🔽	
Span to PC Port*	Disabled 🖌	
Logging Display*	PC Controlled	
Load Server		
- Save Delete Copy Reset Add New		
(i) *- indicates required item.		=
(i) **- Device reset is not required for changes to Packet Capture Mod	a and Daalash Cambura Durashian	
-	e anu Packet Capture Duration.	
() ***Note: Security Profile Contains Addition CAPF Settings.		
1		



Directory Number Co	onfiguration		Related Links: Back To Find/List 🔽 Go	)
Status Status: Ready				-
Directory Number		1		- -
Directory Number*	41012			
Description	< None >	¥		
Alerting Name				
ASCII Alerting Name				
Allow Control of D		тт		
	SEP00170E			
	7961 w/ EXT ADP00170E		Edit Device	
	ADFOOT/OL	LL3334	Edit Line Appearance	
		▼∧		
Dissociate Devices				
			1	1
Directory Number Voice Mail Profile	Settings —	< None >	✓ (Choose <none> to use system default)</none>	]
Calling Search Space		< None >		
Presence Group*		Standard Presence group		
AAR Group		< None >		
User Hold MOH Audio	o Source	< None >	v	4

Network Hold MOH	Audio Source / N	lono >							~
Auto Answer*		to Answer Off							
Call Forward and	l Call Pickup Sett		Bulling				Colline County County		
Forward All		Voice Mail	Destination			1	Calling Search Space < None >		
Secondary Calling	Council Counce for					]		×	
							< None >	*	
Forward Busy Inte	rnal	🔽 or					< None >	*	
Forward Busy Exte	ernal	🛄 or					< None >	¥	
Forward No Answe	er Internal	🛄 or					< None >	¥	
Forward No Answe	er External	🛄 or					< None >	¥	
Forward No Covera	age Internal	🛄 or					< None >	¥	
Forward No Covera	age External	🗌 or					< None >	*	
Forward on CTI Fai	ilure	🗌 or					< None >	*	_
No Answer Ring Du	ration (seconds)					-			
Call Pickup Group	ĺ	< None >		~					
─ MLPP Alternate F	Darty Sottings —								
Target (Destination									_
MLPP Calling Searc	h Space	< None >		*					
MLPP No Answer Ri	ing Duration (sec	onds)							
Line 1 on Device	SEP00170EEE3	394							
	Value							Update Shared Device Settings	
Display (Internal Caller ID)	Pool3B						laying text such as a name instead of	-	
· ·		r for internal calls.	If you specify a number,	the person rec	eiving a call ma	y not see the prop	per identity of the caller.		
ASCII Display	Pool3B								

Line 1 on Device SEP00170EEE3394								
	Value		Update Shared Device Settings					
Display (Internal Caller ID)	Pool3B	Display text for a line appearance is intended for displaying text such as a name instead of a						
ASCII Display (Internal Caller ID)	Pool3B	pecify a number, the person receiving a call may not see the proper identity of the caller.						
Line Text Label	Pool3B							
ASCII Line Text Label	Pool3B							
External Phone Number Mask								
Message Waiting Lamp Policy*	Use System Policy							
Ring Setting (Phone Idle)*	Use System Default	×						
Ring Setting (Phone Active)	Use System Default	Applies to this line when any line on the phone has a call in progress.						
(			Propagate Selected					
Multiple Call/Call Waiting Settings on Device SEP00170EEE3394								
Maximum Number o								
Busy Trigger*	2	(Less than or equal to Max. Calls)						
Forwarded Call Information Display on Device SEP00170EEE3394 Caller Name Caller Number								
Redirected Num	ber							
Dialed Number								
- Save Delete C	opy Reset Add New							
,								



Phone Configuration		Related Links: Back To Find	/List 🔽 🖸
⋽╳╘╺			
Status: Ready			
Association Information Modify Button Items	Phone Type Product Type: Cisco 7971 Device Protocol: SIP		
Image: Line [2] - Add a new DN       Image: Comparison of the second	IP Address	Registered with Cisco Unified CallManager CM-CLUS 172.20.201.102 0015629E80F1	STER1-S
5     Carl Add a new SD       6     Carl Add a new SD	Description Device Pool*	41014-7971SIP Pool3 Default	
Garage Add a new SD     Garage Add a new SD     Garage Add a new SD	Phone Button Template* Softkey Template	Standard 7971 SIP Standard User	
Comparison         Compari	Common Phone Profile* Calling Search Space AAR Calling Search Space	Standard Common Phone Profile	
11 🦕 Add a new BLF SD 12 Privacy 13 None	Media Resource Group List User Hold MOH Audio Source Network Hold MOH Audio Source	< None >   CCM_MRGL  < None >  < Non	
	Location* User Locale	Hub_None  English United States	
	Network Locale Built In Bridae*	United States	

Privacy*	Default 🔽
Owner User ID	< None >
Phone Load Name	
Ignore Presentation Indicators	s (internal calls only)
Allow Control of Device from C	ті
Protocol Specific Information -	
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 >
SUBSCRIBE Calling Search Space	< None >
SIP Profile*	Standard SIP Profile
Digest User	< None >
🗌 Media Termination Point Requi	red
Unattended Port	
Require DTMF Reception	
Certification Authority Proxy F	unction (CAPF) Information
Certificate Operation* No	Pending Operation
Authentication Mode*	Null String
Authentication String	
Generate String	
Key Size (Bits)*	4

Operation Completes By     2007     1     13     12     (YYYY:MM:DD:HH)       Certificate Operation Status: None	~		
Note: Security Profile Contains Addition CAPF Settings.			
External Data Locations Information (Leave blank to use default)			
Directory			
Messages			
Services			
Authentication Server			
Proxy Server			
Idle			
Idle Timer (seconds)			
Extension Information			
Enable Extension Mobility			
Log Out Profile Use Current Device Settings			
Login in User ID < None > Log in Time < None >	=		
Log out Time < None >			
MLPP Information			
MLPP Domain < None >			
Secure Shell Information			
Secure Shell User			
Secure Shell Password			
Product Specific Configuration Layout			

- Product Specific Con	figuration Layout?	~
🗌 Disable Speakerpho		
Disable Speakerpho	ne and Headset	
PC Port *	Enabled	
Settings Access*	Enabled	
Gratuitous ARP*	Enabled	
PC Voice VLAN Access*	Enabled	
Video Capabilities*	Disabled	
Auto Line Select*	Disabled	
Web Access*	Enabled	
Days Display Not Active	Sunday	
	Monday	
Diseles: On Time	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		
- Save Delete Copy Reset Add New		
(i) *- indicates required item.		
(i) **- Device reset is not required for changes to Packet Capture Mode and	l Packet Capture Duration.	
The ***Nota: Coqurity Brafile Contains Addition CABE Sattings		¥


Directory Number Configuration	1	Related Links: Back To Find/List 👻	Go 🖄
╔╱╗			Ξ.
Status Status: Ready			
Directory Number Informatio	n		
Directory Number* 41014			
Route Partition < None >	×		
Description 41014-7971	SIP Pool3		
Alerting Name Pool3D			
ASCII Alerting Name Pool3D			
Allow Control of Device from			
Associated Devices ADP001562	9E80F1		
SEP001562 7971 w/ EX		Edit Device	
		Edit Line Appearance	
	**		
Dissociate Devices			
Directory Number Settings     Voice Mail Profile	< None >	(Choose <none> to use system default)</none>	
Calling Search Space	< None >		
Presence Group*	Standard Presence group		
AAR Group	< None >		
User Hold MOH Audio Source	< None >		<b>~</b>

Network Hold MOH	Audio Source 💷	lono >							
Auto Answer*		to Answer Off							
	~								
Call Forward and	l Call Pickup Sett		5 11 11						
Forward All		Voice Mail	Destination				Calling Search Space		
		or					< None >	¥	
Secondary Calling		Forward All					< None >	*	
Forward Busy Inte	rnal	🛄 or					< None >	*	
Forward Busy Exte	ernal	🗌 or					< None >	*	
Forward No Answe	er Internal	🛄 or					< None >	*	
Forward No Answe	er External	🛄 or					< None >	*	
Forward No Covera	age Internal	🛄 or					< None >	*	
Forward No Covera	age External	🛄 or					< None >	*	
Forward on CTI Fai	ilure	🛄 or					< None >	¥	=
No Answer Ring Du	aration (seconds)								
Call Pickup Group		< None >		~					
─ MLPP Alternate F	Darty Sottings —								
Target (Destination									_
MLPP Calling Searc	h Space	< None >		•	*				
MLPP No Answer Ri	ing Duration (seco	onds)							
Line 1 on Device	SEP0015629E8	0F1							
	Value							Update Shared Device Settings	
Display (Internal Caller ID)	Pool3D						playing text such as a name instead o	fa 🗖	
· ·		for internal calls.	If you specify a numbe	er, the person r	receiving a call n	hay not see the pro	per identity of the caller.		
ASCII Display	Pool3D								¥

ASCII Display (Internal Caller	Pool3D				
ID)					
Line Text Label	Pool3D				
ASCII Line Text Label	Pool3D				
External Phone Number Mask					
Message Waiting Lamp Policy*	Use System Policy	~			
Ring Setting (Phone Idle)*	Use System Default	~			
Ring Setting (Phone Active)	Use System Default	💌 I	Applies to this line when any line on the phone has a call in progress.		
,				Propagate Selected	
					1
	l Waiting Settings on Device SEP001				1
	select the Max Number of calls is: 1-50				
Maximum Number o	of Calls*	2			
Busy Trigger*		2	(Less than or equal to Max. Calls)		
— Forwardod Call I	nformation Display on Device SEP00	1562059051			
Caller Name	morniadon Display on Device Stroa	1302920011			
Caller Number					
Redirected Num	hor				
	Del				
Dialed Number					
- Save Delete C	opy Reset Add New				-
(i) *- indicates re	auired item.				
ă					
💵 **- Changes t	o Line or Directory Number settings re	quire restart.			
					Ļ
					~

### End User Configuration

User Configuration		Related Links: Back to Find List Users 🔽 Go
<b>)×</b> +		
atus		
Status: Ready		
r Information ——— ID*	Pool3A	
rd*		
Password*	••••••	
	•••••	
m PIN*	•••••	
ne*	pool3A	
name me		
ne Number		
r User ID		
ment		
ocale	English United States 👻	
ated PC Credentials		
Credentials 1 Digest Credentials		
Associations	404055704	



Device Associations		~
Controlled Devices SEP0011219E	5721	
	Device Association	
Extension Mobility		
Available Profiles	7961 w/ EXTMOB	
And a dolor from os	790 w CATMOB 7970 w EXTMOB	
	7970 w EXTMOB Pool4	
	7971 w/ EXTMOB	
	IPPhone w/ EXTMOB	
	◆▲	
Controlled Profiles	7960 w/ EXTMOB	
	~	
	X X	
Default Profile	< None >	
Presence Group*	Standard Presence group	
SUBSCRIBE Calling Search Space	< None >	
Allow Control of Device from C		
Directory Number Association		
Primary Extension 41015	×	
		-
CAPF Information		
Associated CAPF Profiles		
	View Details	
		¥

1	
Default Profile	< None >
Presence Group*	Standard Presence group
SUBSCRIBE Calling Search Space	
Allow Control of Device from C	
Directory Number Association:	
Primary Extension 41015	
CAPF Information	
Associated CAPF Profiles	
	View Details
Permissions Information	
Groups	
	View Details
Roles	View Details
	View Details
- Save Delete Add New	
(i) *- indicates required item.	

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Licensing Capabilities Assignments

					Navigation	Cisco Unified CallManager Administ	ration 🔽 😡
Cisco Unified CallManager	Administratior	For Cisco	Unified Communic	cations Solutions		Logged in as:CCMA	dministrator
System 👻 Call Routing 👻 Media Resources 👻	Voice Mail 👻 Device 👻	Application 👻	User Management 👻	Bulk Administration $\bullet$	Help 👻		Log Off
Capabilities Assignment Configuration						Related Links: Back To Find	/List 🔽 Go
Status i Status: Ready							
User Information User ID: Pool3A							
— Capabilities Assignment Information —							
Enable UPS (Unified Presence Server)     Enable UPC (Unified Personal Community)	nicator)						
- Save							
(i) *- indicates required item.							



Phone Services

				Navigation	Cisco Unified CallManager Administ	ration 🔽 🖸
Cisco Unified CallManager Admin	istration For Cisco	Unified Communica	tions Solutions		Logged in as:CCMA	dministrato
System 👻 Call Routing 👻 Media Resources 👻 Voice Mail	▼ Device ▼ Application ▼	User Management 👻	Bulk Administration 👻	Help 👻		Log Off
IP Phone Services Configuration					Related Links: Back To Find/List	🔽 <table-cell></table-cell>
Status Status: Ready						
Service Information	ASCII Service Name*					
ЕХТМОВ	EXTMOB					
Service Description	Service URL*					
Extension Mobility	http://172.20.241.253:80	)80/emapp/EMAppSen	/let?device=			
Service Parameter Information Parameters	New Edit Delete					
Save Delete Update Subscriptions	Add New					

#### Phone URL Services

Use Standard VM Handling For Precedence Calls *	False	V False	
Security Parameters			
Cluster Security Mode *	0		
CAPF Phone Port.*	3804	3804	
CAPF Operation Expires in (days) *	10	10	
Phone URL Parameters			
URL Authentication	http://172.20.241.253:8080/ccmcip/authenticate.jsp		
URL Directories	http://172.20.241.253:8080/ccmcip/xmldirectory.jsp		
URL Idle			
<u>URL Idle Time</u>	0	0	
URL Information	http://172.20.241.253:8080/ccmcip/GetTelecasterHelpText.jsp		
<u>URL Messages</u>			
IP Phone Proxy Address			
URL Services	http://172.20.241.253:8080/ccmcip/getservicesmenu.jsp		
User Search Parameters			
Enable All User Search *	True	V True	
<u>User Search Limit</u> *	64	64	
CCM Web Services Parameters			
Allowed Performance Queries Per Minute *	50	50	
Allowed Device Queries Per Minute *	15	15	
Performance Queue Limit.*	100	100	
Maximum Performance Counters Per Session *	100	100	

### Application User Configuration

Application User Configura	tion Related Links: Back To Find/List	🔽 Go	~
Status Status: Ready			
Application User Informa User ID*	ation		
Password*	•••••••		
Confirm Password*	•••••••••••••••••••••••••••••••••••••••		≣
Digest Credentials			
Confirm Digest Credentials			
Presence Group*	Standard Presence group		
Accept Presence Subscri			
Accept Out-of-dialog REI			
Accept Unsolicited Notifi			
Accept Replaces Header	r		
SEP000 SEP0011 SEP0014 SEP0016 SEP0016 SEP0016	25613642 7F DDC B10 382073374 219E5721 22A9DFAD ▼▲ 10EEE3394 22830947 32930047 3295004		



	~
**	
SEP00170EEE3394	
SEP00152B360947	
SEP0015629E80F1	
SEP00192F07EE84	
CAPF Information	
Associated CAPF Profiles	
Edit Profile	
Permissions Information	1
Groups Standard CTI Allow Control of All Devices	
Standard CTI Enabled	
Edit Group	
✓▲	
Roles Standard CTI Allow Control of All Devices	
Standard CTI Enabled	
Edit Role	
	=
★★	
- Save Delete Copy Add New	-
1 *- indicates required item.	
	<u>×</u>



Application User Configur	ation	Related Links: Back To Find/List 🛛 🔽 Go	
Status Status: Ready			
Application User Inform User ID*	nation PhoneMessenger		
Password*	•••••		
Confirm Password*	•••••		
Digest Credentials			
Confirm Digest Credentia	Is		
Presence Group*	Standard Presence group 👻		
Accept Presence Subs	cription		
Accept Out-of-dialog R			
Accept Unsolicited Not			
Accept Replaces Head	er		
SEP000 SEP001 SEP001	025613642 127FD0CB10 DB82073374 1422A9DFAD 152B8751B ✓▲	Find more Phones Find more Route Points Find more Pilot Points	
SEP001 SEP001 SEP001	11219E5/21 (146A9C3C1F) 1528580947 (1528580947) 170EEE3394 156239ER0E1 (152858094)		



× ^	~
SEP0011219E5721	
SEP00146A9C3C1F	
SEP00152B360947 SEP00170EEE3394	
SEP001662980F1	
CAPF Information	
CAPP Information Associated CAPP Profiles	
Edit Profile	
×^	
Permissions Information	
Groups	
Edit Group	
Roles	
Edit Role	
- Save Delete Copy Add New	-
🛈 *- indicates required item.	
	~



### Dial Rules Configuration

				Navigation Cisco Unified CallManager	Administration 🔽 🜀
Cisco Unified Cal	lManager Administ	tration For Cisco Un	ified Communications Solutions	Logged in a	s:CCMAdministrator
System	dia Resources 👻 Voice Mail 👻	Device  Application  Us	ser Management   Bulk Administration	Help 🔻	Log Off
Application Dial Rule Confi	guration			Related Links: Back	To Find/List 🔽 🖸
— Status —					
Update successful					
Application Dial Rule Inf	ormation				
Name*	LCS-CUPS-CHAR				
Description	Character *				
Number Begins With	*5				
Number of Digits*	5				
Total Digits to be Removed	* 2				
Prefix With Pattern	-				
FIGHA WILL FALLEIN	41				
Application Dial Rule Pri	ority				
Name	Number Begins With	Number of Digits	Total Digits to be Removed	Prefix With Pattern	Up Down
LCS_CUPS DR	4201	5	4	4101	<b>~ ~</b>
LCS-CUPS-CHAR	*5	5	2	41	~ <b>v</b>
LCS-CUPS Char2	#5	5	2	41	<b>~ ~</b>
LCS-CUPS Char3	+5	5	2	41	<b>~ ~</b>
LCS-CUPS Char4	05	5	2	41	<b>~ ~</b>
	~				
<ul> <li>Save Delete Add New</li> </ul>	·				
🕋 *_ indicatae ramuirad it	tem				

### Conference Bridge Configuration

System 👻 Call Routing 👻	Media Resources 👻	Voice Mail 🔻	Device 🔻	Application 👻	User Management 👻	Bulk Administration 👻	Help 🔻		Log Off
Media Resource Group	Configuration							Related Links: Back To Find/Lis	st 🔽 🖸
╔╱╗									
- Status									
Status: Ready									
— Media Resource Gro	un Status								
Media Resource Group		by 8 devices	)						
Media Resource Gro				-					
Name* CCM_MRG									
Description									
– Devices for this Gro Available Media Resou						1			
Avaliable Media Resou	CFB 5								
	MOH_5 MTP_5								
Selected Media Resou	rces* ANN_2 (AN	• • •	•						
	ANN_4 (AN	N)							
	CFB_2 (CFI CFB_4 (CFI	B)				^			
	MOH_2 (MC								
Use Multicast for M	JH AUGIO (IT AT lea:	st one multic	ast MOH n	esource is av	allable)				
- Save Delete Copy	Reset Add Ne	w							
(i) *- indicates requi	red item								
	callent.								



Meet-Me Number

							Navigatio	n Cisco Unified CallManager Administration 🔽 Go
Cisco Unified	CallManager	Adminis	stration	For Cisco	Unified Communi	cations Solutions		Logged in as:CCMAdministrato
System 👻 Call Routing 👻	Media Resources 👻	Voice Mail 👻	Device 👻	Application 👻	User Management 👻	Bulk Administration $\bullet$	Help 👻	Log Off
Meet-Me Number Conf	figuration							Related Links: Back To Find/List 🔽 Go
Status Status: Ready								
— Meet-Me Configurat Directory Number or P	ion attern* 52XX							
Description	Meetme L0	CS/CUPS						
Partition	< None >				~			
- Save Delete Copy	y Add New							
(i) *- indicates requi	ired item.							



Cisco Unified Presence (CUPS) Configuration

#### **CUPS** Version





CUPS Method / Event - Based Routing Entries

System  Cisco Unitied Presence Server Application User Management Bulk Administration Help Code Code Code Code Code Code Code Code	System	System C Gaco Unified Presence Server ◆ Application ♥ User Management ◆ Bulk Administration ♥ Help ♥       Log Off         Initial and List Method/Event-Based Routing Entries       Image: Server ♥ Application ♥ User Management ♥ Bulk Administration ♥ Help ♥       Log Off         Image: Status       Image: Server ♥ Application ♥ User Management ♥ Bulk Administration ♥ Help ♥       Image: Server ♥ Application ♥ Description       Image: Server ♥ Application ♥ Description       Image: Server ♥ Application ♥ Description       Image: Server ♥ Application Port       Copy         Search Results       Image: Pescription       Content Token       Description Address       Destination Port       Copy         SystemPublish       System Managed Publish       PUBLISH       172.20.245.40       5070       Image: Page Publication         SystemSubscribe       System Managed Subscribe       SUBSCRIBE       172.20.245.40       5070       Image: Publication         Image: Public Change Notification       DBChangePkg       172.20.245.40       5065       Image: Publication	System	*			Navigation Cisc	o Unified Presence Server Admir	nistration 🔽 😡		
System	System	System	System	Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions Logged in as: CCMAdministrator							
ind and List Method/Event-Based Routing Entries         Status         if 4 records found         Search Options         Find Method/Event-Based Routing where Name         if begins with if ind index sed Routing where Name         Search Results         Search Results         SystemPublish         SystemPublish         SystemSubscribe         SystemSubscribe         SystemSubscribe         SystemSubscribe         System Managed Subscribe         SUBSCRIBE         172.20.245.40         5070         UPCCN. ChaNotif         Change Notification         DBChangePkg         172.20.245.40         5065	ind and List Method/Event-Based Routing Entries         Status         if 4 records found         Search Options         Find Method/Event-Based Routing where Name         if begins with if ind index sed Routing where Name         Search Results         Search Results         SystemPublish         SystemPublish         SystemSubscribe         SystemSubscribe         SystemSubscribe         SystemSubscribe         System Managed Subscribe         SUBSCRIBE         172.20.245.40         5070         UPCCN. ChaNotif         Change Notification         DBChangePkg         172.20.245.40         5065	ind and List Method/Event-Based Routing Entries         Status         if records found         Search Options         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Search Results         Search Results         SystemPublish       System Managed Publish         PUBLISH       172.20.245.40       5070         SystemSubscribe       System Managed Subscribe       SUBSCRIBE       172.20.245.40       5070         UPCCN. ChaNotif       Change Notification       DBChangePkg       172.20.245.40       5065       Image: Subscribe v         UPCCN. LoginNotif       Multi-Login Notification       LoginPkg       172.20.245.40       5065       Image: Subscribe v	ind and List Method/Event-Based Routing Entries         Status         if records found         Search Options         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Find Method/Event-Based Routing where Name v begins with v         Search Results         Search Results         SystemPublish       System Managed Publish         PUBLISH       172.20.245.40       5070         SystemSubscribe       System Managed Subscribe       SUBSCRIBE       172.20.245.40       5070         UPCCN. ChaNotif       Change Notification       DBChangePkg       172.20.245.40       5065       Image: Subscribe v         UPCCN. LoginNotif       Multi-Login Notification       LoginPkg       172.20.245.40       5065       Image: Subscribe v						L og Off		
Status       Image: Status statu	Status       Status         Image: Provide Found       Image: Provide Found         Search Options       Image: Provide Found         Find Method/Event-Based Routing where Mame       Image: Provide Found         Search Results       Image: Provide Found         SystemPublish       System Managed Publish       PubLISH         SystemSubscribe       System Managed Subscribe       SUBSCRIBE       172.20.245.40         Image: Provide Found Fo	Status       Status         Image: Status of 4 records found       Image: Status of 1 and 1 a	Status       Status         Image: Status of 4 records found       Image: Status of 1 and 1 a			andradon v noip v			Log on		
Status         Image: Part of the second status         Search Options         Find Method/Event-Based Routing where Name         Image: Part of the second status         Name       Description         Content Token       Destination Address         Name       Description         SystemPublish       System Managed Publish         PUBLISH       172.20.245.40       5070         SystemSubscribe       System Managed Subscribe       SUBSCRIBE       172.20.245.40       5070         UPCCN       Change Notification       DBChangePkg       172.20.245.40       5065       Image: Part of the second secon	Status         Image: Part of the second status         Search Options         Find Method/Event-Based Routing where Name         Image: Part of the second status         Name       Description         Content Token       Destination Address         Name       Description         SystemPublish       System Managed Publish         PUBLISH       172.20.245.40       5070         SystemSubscribe       System Managed Subscribe       SUBSCRIBE       172.20.245.40       5070         UPCCN       Change Notification       DBChangePkg       172.20.245.40       5065       Image: Part of the second secon	Status       Status            • 4 records found          Search Options         Find Method/Event-Based Routing where Name	Status       Status            • 4 records found          Search Options         Find Method/Event-Based Routing where Name								
Search Options         Find Method/Event-Based Routing where Name	Search Options         Find Method/Event-Based Routing where Name	Search Options         Find Method/Event-Based Routing where Name	Search Options         Find Method/Event-Based Routing where Name								
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UPCCN     Change Notification     DBChangePkg     172.20.245.40     5065       UPCCN     LoginNotif     Multi-Login Notification     LoginPkg     172.20.245.40     5065	UPCCN     Change Notification     DBChangePkg     172.20.245.40     5065       UPCCN     LoginNotif     Multi-Login Notification     LoginPkg     172.20.245.40     5065	UPCCN     Change Notification     DBChangePkg     172.20.245.40     5065       UPCCN     LoginNotif     Multi-Login Notification     LoginPkg     172.20.245.40     5065	UPCCN     Change Notification     DBChangePkg     172.20.245.40     5065       UPCCN     LoginNotif     Multi-Login Notification     LoginPkg     172.20.245.40     5065	,							
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 $CUPS \ Method \ / \ Event - Based \ Routing \ Configuration$ 

System   Gisco Unified Presence Server   Application   User Management   Buk Administration   Help    Log Off  Related Links: Back To Find/List   Go  Status: Ready   Method/Event-Based Routing Information Name* System Publish Description System Managed Publish Content Category* Method-Based  V Destination Address* 172.20.245.40 Destination Port* 5070 Protocol Type* TCP V  Save Delete Copy Add New	System   Claco Unified Presence Server   Application   User Management   Bulk Administration   Help    Content Category* Method-Based  Content Token* PUBLISH Content Category* Method-Based  For Content Token* Content Category* Method-Based  For Content Category*  For Content			Navigation Cisco Unified Presence Server Administration 🔽 Go
Method/Event-Based Routing Configuration       Back To Find/List © Go         Status       Status         Status       Status: Ready         Method/Event-Based Routing Information       Name*         Name*       SystemPublish         Description       System Managed Publish         Content Token*       PUBLISH         Content Category*       Method/Based         Destination Address*       172.20.245.40         Destination Port*       5070         Protocol Type*       TCP         Save Delete Copy       Add New	Wethod/Event-Based Routing Configuration       Back To Find/List © Go         Status       Status         Descination Address*       Item Status         Status       Status         Status       Status         Status       Status         Status       Status         Status       Status         System Publish       Status         Content Category*       Method/Essed         V       Status       Status         Protocol Type*       TCP         Save       Delete       Copy	Cisco Unified	Presence Server Administration For Cisco Unified Communications Solutions	Logged in as: CCMAdministrato
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Staus         Staus: Ready         Method/Event-Based Routing Information         Name*       SystemPublish         Description       System Managed Publish         Content Token*       PUBLISH         Content Category*       Method-Based         Destination Address*       172.20.245.40         Destination Port*       5070         Protocol Type*       TCP         Save Delete Copy       Add New	Staus         Staus: Ready         Method/Event-Based Routing Information         Name*       SystemPublish         Description       SystemPublish         Content Token*       PUBLISH         Content Category*       Method-Based         Destination Address*       172.20.245.40         Destination Port*       5070         Protocol Type*       TCP         Save Delete Copy       Add New	Method/Event-Based	Routing Configuration	Related Links: Back To Find/List 🔽 Go
Status:       Ready         Method/Event-Based Routing Information	Status:       Ready         Method/Event-Based Routing Information			
Name*     System Publish       Description     System Managed Publish       Content Token*     PUBLISH       Content Category*     Method-Based       Destination Address*     172.20.245.40       Destination Port*     5070       Protocol Type*     TCP         Save Delete Copy	Name*     SystemPublish       Description     System Managed Publish       Content Token*     PUBLISH       Content Category*     Method-Based       Destination Address*     172.20.245.40       Destination Port*     5070       Protocol Type*     TCP         Save Delete Copy	- Status		
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Destination Address* 172.20.245.40 Destination Port* 5070 Protocol Type* TCP  Save Delete Copy Add New	Destination Address* 172.20.245.40 Destination Port* 5070 Protocol Type* TCP  Save Delete Copy Add New	Content Token*	PUBLISH	
Destination Port*     5070       Protocol Type*     TCP       — Save Delete Copy     Add New	Destination Port*     5070       Protocol Type*     TCP       — Save Delete Copy     Add New	Content Category*	Method-Based	
Destination Port*     5070       Protocol Type*     TCP       — Save Delete Copy     Add New	Destination Port*     5070       Protocol Type*     TCP       — Save Delete Copy     Add New	Destination Address	* 172.20.245.40	
- Save Delete Copy Add New	- Save Delete Copy Add New			
		Protocol Type*	TCP	



Unified CallManager Presence Gateway Configuration

	Navigation Cisco Unified Presence Server Administration 🔽 Go
Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions	Logged in as: CCMAdministrator
System 👻 Cisco Unified Presence Server 👻 Application 👻 User Management 👻 Bulk Administration 👻 Help 👻	Log Off
CallManager Presence Gateway Configuration	Related Links: Back To Find/List 🔽 Go
Status Status: Ready	
CallManager Presence Gateway Information Description* CM-CLUSTER GW	
CallManager Presence Gateway* CM-cluster1-p.pbxlab.org	
- Save Delete Copy Add New	
(1) *- indicates required item.	



### CTI Gateway Configuration

*		Navigation Cisco Unified Presence Server Administration 🔽 Go
Cisco Unified Prese	nce Server Administration For Cisco Unified Communications Solutions	Logged in as: CCMAdministrator
System 👻 Cisco Unified Presence S	erver 👻 Application 👻 User Management 👻 Bulk Administration 👻 Help 👻	Log Off
CTI Gateway Settings		
Status Status: Ready		
Application Settings Application Status*	On 👻	
Application Username*	CtiGW	
Application Password*	••••••	
Confirm Password*	••••••	
CTI Address	172.20.241.254	
CTI Address (Failover)	172.20.241.253	
Heartbeat Interval (seconds)*	8	
Session Timer (seconds)*	1810	
- Save		
(i) *- indicates required item	1.	

### MOC Assignments

nd and List I	MOC Assignments				
Status 17 record	ds found				
MOC Usage .7 MOC user					
Search Opt					
	ignment(s) where User I	D 🔽 begins with 🔽	Find	Search Within Results	
	rid begins with any)				
Search Res	ults				
	User ID	Last Name	Manager	Department	MOC Enabled
Г	<u>4100</u>	4100			
Γ	<u>4101</u>	4101			
	<u>4112</u>	4112			J
	LCSTEST	TEST			•
	Pool3A	pool3A			~
	Pool3B	Pool3B			~
	Pool3C	Pool3C			<b>v</b>
	Pool3D	Pool3D			<b>v</b>
	Pool3E	Pool3E			<b>v</b>
Г	Pool48	Pool4			<i>u</i>
	Pool4C	Pool4			<i>.</i>
Г	Pool4D	4D			U
Г	<u>RobWest</u>	Westover			J
Г	<u>fcruz</u>	Cruz			J
	pool4A	pool4			J
_		A.A			. 4



#### AXL Information

	Navigation Cisco Unified Presence Server Administration 📝 Go
Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions	Logged in as: CCMAdministrator
System   Cisco Unified Presence Server   Application   User Management   Bulk Administration   Help	Log Off
AXL Configuration	
Status (i) Status: Ready	
T AXL Information	
AXL Username* CCMAdministrator	
AXL Password*	
Confirm Password*	
- Save	
(i) *- indicates required item.	
- indicates required item.	

Privacy ACL Entry (Allowed Destination Host)

Cisco Unified Presence Server Administration       For Cisco Unified Communications Solutions       Logged in as: CCMAdministrator         System          Cisco Unified Presence Server         Application         User Management         Buik Administration         Help        Log Off          Find and List Allowed Destination Hosts        Search Options        Image: Communication Results          Status       Search Options       Find         Search Within Results        Image: Comparison Results          Search Results       Address Pattern        Find         Search Within Results        Image: Comparison Results          Image: Imag					Navigation Cisco Unified Presence Server Administration 🔽 Go
Find and List Allowed Destination Hosts         Status         Status         Image: Status      <	Cisco Un	nified Presence Serv	er Administration	For Cisco Unified Communications Solutions	Logged in as: CCMAdministrator
Status         Image: Status         Image	System 👻 Cisc	co Unified Presence Server 👻 Appli	cation 👻 User Management 👻	Bulk Administration 👻 Help 👻	Log Off
Status       Search Status         S records found       Find Privacy ACL Entry where begins with ♥       Find □ Search Within Results         (address begins with any)       Search Results       Search Results         Search Results       [Address Pattern       Description         □       172.20.191.150       □         □       172.20.245.85       □         □       192.168.10.10       □         □       192.168.1.10       □         □       172.20.191.151       □					
Image: Second Secon	│ ╺╊ III III III III III III III III III	×			
Search Options         Find         Search Within Results           (address begins with any)         Search Within Results         Search Results           [address Pattern         Description         Copy           Γ         172.20.191.150         Comp           Γ         172.20.245.85         Comp           Γ         192.168.10.10         Comp           Γ         192.168.1.10         Comp					
Find Privacy ACL Entry where begins with ▼       Find       Search Within Results         (address begins with any)       Search Results         Search Results       Description       Copy         □       172.20.191.150       Ib         □       172.20.245.85       Ib         □       192.168.101.10       Ib         □       192.168.101.10       Ib         □       172.20.191.151       Ib	15 records f	found			
Search Results     Description     Copy <ul> <li>Address Pattern</li> <li>Description</li> <li>Copy</li> <li>T 172.20.191.150</li> <li>T 172.20.245.85</li> <li>T 192.168.101.10</li> <li>T 192.168.1.10</li> <li>T 172.20.191.151</li> <li>Copy</li> </ul>					
Search Results         Address Pattern         Description         Copy                Г         172.20.191.150         ©         ©                Г         172.20.245.85         ©         ©                Г         192.168.101.10         ©         ©                Г         192.168.1.10         ©         ©                Г         172.20.191.151         ©         ©		· · · · · · · · · · · · · · · · · · ·	<b>v</b>	Find 🔲 Search Within Results	
Address Pattern         Description         Copy           Г         172.20.191.150         ቤ           Г         172.20.245.85         ቤ           Г         192.168.101.10         ቤ           Г         192.168.101.10         ቤ           Г         192.168.1.10         ቤ	(address beg	ins with any)			
Г     172.20.191.150     В       Г     172.20.245.85     В       Г     192.168.101.10     В       Г     192.168.1.10     В       Г     192.168.1.10     В       Г     192.168.1.10     В       Г     172.20.191.151     В	Search Res			Description	Conv
C     192.168.101.10     C       C     192.168.1.10     C       C     172.20.191.151     C	Г			Description	
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□     □     172.20.191.151		<u>192.168.101.10</u>			ß
	Г	<u>192.168.1.10</u>			ß
Add New Select All Clear All Delete Selected Rows per Page		<u>172.20.191.151</u>			ι <sub>α</sub>
	Add New	/ Select All Clear All	Delete Selected Rov	ws per Page	



Proxy ACL Entry (Allowed Incoming Host)

	Navigation Cisco Unified Presence Server Administration 😪 Go
Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions	Logged in as: CCMAdministrator
System 👻 Cisco Unified Presence Server 👻 Application 👻 User Management 👻 Bulk Administration 👻 Help 👻	Log Off
Privacy Access Control List Configuration	Related Links: Back To Find/List 🔽 Go
Status Status: Ready	
Privacy ACL Information	
Address Pattern* 172.20.245.85	
- Save Delete Copy Add New	
(i) *- indicates required item.	



### IP Phone Messenger Setting

		Navigation Cisco Unified Presence Server Administration 🔽 Go
Cisco Unified Presence	e Server Administration For Cisco Unified Communications Solutions	Logged in as: CCMAdministrator
System 👻 Cisco Unified Presence Server	Application      ✓ User Management      Bulk Administration      ✓ Help      ✓	Log Off
IP Phone Messenger Settings		
Status Status: Ready		
Application Settings		
Application Username	On V	
Application Password	PhoneMessenger	
Confirm Password		
Max Contact List Size*	100	
Max Instant Message History Size*	*25	
Subscription timeout (seconds)*	3600	
Publish timeout (seconds)*	3600	
- Save		
Save		
(i) *- indicates required item.		
0		

### IP Phone Messenger User

nd and List	t IP Phone Messenge	r Users				
Status — 17 reco	rds found					
	ptions ne Messenger Status v ins with any)	vhere User-ID 🔽 begir	ns with 💌	Find 🗌 Sear	rch Within Results	
Search Re	user-ID	First Name	Last Name	Manager	Department	Login Status
Г	4100	First Name	4100	Manayer	Department	Lugin status
Г	4101		4101			
	4112		4112			
Г	LCSTEST		TEST			
Г	Pool3A		pool3A			
Г	Pool3B		Pool3B			
	Pool3C		Pool3C			
Γ	Pool3D		Pool3D			
Г	Pool3E		Pool3E			
Γ	Pool4B		Pool4			
Г	Pool4C		Pool4			
Г	Pool4D	Pool	4D			
Г	RobWest	Rob	Westover			
Г	foruz	Filli	Cruz			
	pool4A		pool4			
Γ	smasters	Steve	Masters			
_	tvore	Terry	Vore			

### Application User Configuration

Application User Configu	ration	Related Links: Back To Find/List 🛛 🔽 🖸
Status Status: Ready		
Application User Inform		
Password*	CtiGW	
Confirm Password*	••••••	
Digest Credentials		
Confirm Digest Credentia		
Presence Group*	Standard Presence group	
Accept Presence Subs		
Accept Unsolicited Not	ification	
Accept Replaces Head	er	
Device Information		Find more Phones       Find more Route Points       Find more Pilot Points
	**	





Application User Configura	ation	Related Links; Back To Find/List 🛛 👻 🖸
Status		
i Status: Ready		
Application User Inform	ation —	
User ID*	PhoneMessenger	
Password*	••••••	
Confirm Password*	•••••	
Digest Credentials		
Confirm Digest Credentials	5	
Presence Group*	Standard Presence group	
🗹 Accept Presence Subsc	ription	
🗹 Accept Out-of-dialog RE		
Accept Unsolicited Notif		
Accept Replaces Heade	ir	
Device Information		
Available Devices		Find more Phones
		Find more Route Points
		Find more Pilot Points
	~~	





### Cisco Content Switch CSS11501 Load Balancer Configuration

CSS11501# sh run

!Generated on 12/29/2006 11:33:39

!Active version: sg0810106

configure

ip management route 172.20.2.0 255.255.255.0 172.20.201.1

ip route 0.0.0.0 0.0.0.0 172.20.191.1 1

interface e1

bridge vlan 5

description "LCS-POOL3"

interface e2

bridge vlan 2

interface e5

bridge vlan 10

description "LCS-POOL4"



interface e8	
interface ec	)

description "NETWORK"

bridge vlan 4

circuit VLAN5

ip address 192.168.1.1 255.255.255.0

circuit VLAN4

ip address 172.20.191.2 255.255.255.0

circuit VLAN10

ip address 192.168.101.1 255.255.255.0

service LCSPOOL3\_135

ip address 192.168.1.10

port 135

protocol tcp

keepalive type none

active



service LCSPOOL3\_5060

ip address 192.168.1.10

port 5060

protocol tcp

keepalive port 5060

keepalive type none

active

### service LCSPOOL3\_5061

ip address 192.168.1.10

port 5061

protocol tcp

keepalive port 5061

keepalive type none

active

service LCSPOOL4\_5060

ip address 192.168.101.10

port 5060

protocol tcp

keepalive type none

active

service LCSPOOL4\_5061

ip address 192.168.101.10

port 5061

protocol tcp

keepalive type none

active

owner LCSPOOL3

#### content LCSPOOL3\_135

add service LCSPOOL3\_135

port 135

protocol tcp

vip address 172.20.191.10

active

content LCSPOOL3\_5060

add service LCSPOOL3\_5060

protocol tcp

port 5060

vip address 172.20.191.10

active

content LCSPOOL3\_5061

protocol tcp

add service LCSPOOL3\_5061



port 5061

vip address 172.20.191.10

active

owner LCSPOOL4

content LCSPOOL4\_5060

add service LCSPOOL4\_5060

vip address 172.20.191.100

protocol tcp

port 5060

active

content LCSPOOL4\_5061

add service LCSPOOL4\_5061

vip address 172.20.191.100

protocol tcp

port 5061

active

group backend

add service LCSPOOL4\_5060

vip address 172.20.191.150

active
group backend2

add service LCSPOOL3\_5060 vip address 172.20.191.151 active CSS11501# CSS11501# CSS11501# CSS11501# sh ver Version: sg0810106 (08.10.1.06) Flash (Locked): 08.10.1.06 Flash (Operational): 08.10.1.06 Type: PRIMARY

Licensed Cmd Set(s): Standard Feature Set

Enhanced Feature Set

CSS11501#

#### LCS Enterprise Edition Configuration

Domain Name Server





Pool Properties

pool3 Properties	;				×
Federation General	Host Autho Routing	_,	Archiving	Address Book Authentication	
pod	ol3		·		
Display <u>N</u> ame:		pool3			
<u>B</u> ack-End Serv	er address:	pool2sql			
<u>M</u> aximum conta	acts per user			150	
	ОК	Cancel	Apply	Help	



pool4 Propertie	5				×
Federation General	Host Auth Routing	I	Archiving pression	1	ess Book
ро	ol4				
Display <u>N</u> ame:		pool4			_
<u>B</u> ack-End Serv	ver address:	pool4sql\			
<u>M</u> aximum cont	acts per user				150
	OK	Cancel	Apply	,	Help

Static Route

Edit Static Route		X
Matching URI (Uniform Resource Ident Wildcard characters can be used in the <u>U</u> ser: <u>D</u> omain:	r .	names.
Ehone URI		
Next hop O <u>N</u> etwork address:		
IP <u>a</u> ddress:	172 . 20 . 2	245 . 40
<u>T</u> ransport:	TCP	•
P <u>o</u> rt:		5060
Replace host in request URI Note: If this route requires a certificate, server in this pool has a valid certificate Use the 'Security' tab on the server pro certificate.	e that can be used (	with this route.
OK	Cancel	Help



#### Authorized Host

pool3 Propertie	s			×
General Federation	Routir Host A	ng Com uthorization		uthentication
		such as gatewa al bandwidth an	ys, application servi d so forth.	ers, special
Servers		Outbound Onl		
172.20.245.4	ŧU	No	Yes	Yes
		A <u>d</u> d	<u> </u>	<u>R</u> emove
	OK	Cancel	Apply	Help

Edit Authorized Host	×
Server © <u>N</u> etwork address: © <u>I</u> P address: 172 . 20 . 245 .	40
Settings Dutbound Only Ihrottle As Server	
Treat As Authenticated	
OK Cancel	Help



Server Properties

pbxorgserver.pbxlab.org Properti	es		×
General Security Logging			
Live Communications Server			
<u>S</u> erver:			
pbxorgserver.pbxlab.org			
Connections Specify how this server handles int	ound conn	ections	
Address	Port	Transport	
	5061	Mutual TLS	
	5060	TCP	
A <u>d</u> d	Ē	dit <u>R</u> emove	
OK Car	ncel	Apply Help	



#### Pool Users

Microsoft Office Live Communications Server	2005				_ [
e <u>H</u> elp					
	Enabled	Display name	SIP URI	Туре	
A Forest - PBXLAB.org	😤 Enabled	4100 4100	sip:4100@pbxlab.org	User	
🖻 💼 Domains	👰 Enabled	LCSTEST	sip:LCSTEST@pbxlab.org	User	
🖻 🛧 PBXLAB.org	😤 Enabled	Rob Westover	sip:robwest@pbxlab.org	User	
Live Communications servers and p	Senabled .	Steve Masters	sip:Smasters@pbxlab.org	User	
⊕ 🗓 pbxlab-8gs8ps3j ⊡ 📴 ks-server	🥂 Enabled	Terry Vore	sip:Tvore@pbxlab.org	User	
E Users	🕂 Enabled	4112	sip:4112@pbxlab.org	User	
	🕂 Enabled	Pool3A	sip:Pool3A@pbxlab.org	User	
erver.puxiau.org 	😤 Enabled	Pool3C	sip:Pool3C@pbxlab.org	User	
pool3	🧟 Enabled	Pool3B	sip:Pool3B@pbxlab.org	User	
Joods     Joods     Logical Action of the second seco	😤 Enabled	Pool3D	sip:Pool3D@pbxlab.org	User	
pbxorgserver.pbxlab.org	😤 Enabled	Pool3E	sip:Pool3E@pbxlab.org	User	
⊕ pool4					
Archiving Services					
Proxy Servers					
🗄 📄 Unassigned users					
E Communications Server 2003					
<b>P</b>					



User Configuration

Use	er Pool3E Propertie	5		×
Ĺ	ive Communications			
	Enable Live Cor	nmunications for this u	Jser	
	<u>S</u> IP URI:	sip:Pool3E@pbxlab.	.org	
		Example: sip:user@d	lomain.com	
	User sign-in name:	Pool3E@pbxlab.org		
	Server or <u>p</u> ool:	pool3.pbxlab.org		•
	Allow and block list:		<u>V</u> iew/E	dit
			Advanced S	Settings
	<u> </u>			
		1	1	
	OK	Cancel	Apply	Help



User Advanced Settings		
Federation Settings Enable federation Enable public IM connectivity Enable remote user access		
☑ Enable Remote Call Control       ☑ evice URI of the user's phone:		
© <u>S</u> IP URI: • <u>T</u> EL URI: tel:41011		
Remote Call Control SIP URI:		
sip:Pool3E@epas2.pbxlab.org		
Archiving Settings		
OK Cancel Help		



Micorsoft Ofice Communicator (MOC) Configuration





Opti	ons		X
ſ		phone numbers, click the Phone butto er. Select the Publish this phone num	on (Work, Mobile, Home, or Other) next
	Work Phone	41015	✓ Publish this phone number and an an and an and an and an and an an and an an and an an and an
	Mobile Phone	41015	✓ Publish this phone number
	Home Phone		Publish this phone number
	Other Phone	51003	Publish this phone number
	Select your personal Windows Addres Microsoft Office <u>N</u> one	-	Office, missed-call e-mail, etc.)
			OK Cancel Help



Opt	ions			
Pe	rsonal General Instant Messages A	lerts Permissions Phones Accounts Rules		
	This list displays the permissions you ha	ave set for your contacts. You can use permission dual or a domain can add you to contact lists, see your ı.		
	Permissions list			
	Person or Domain	Permission Type 🚺 📩 🔊		
	Q2 4112	Allow		
	Revealed the second sec	Allow		
	Recolación de la construcción de	Allow		
	🖓 Pool3D	Allow 😑		
	Realize Realized Real	Allow		
	Rool4A	Allow		
	Republic American Ame	Allow		
	Realized Pool4c	Allow		
	Rool4D	Allow		
	All Other Contacts	Notify 💆		
<u>N</u> ew <u>E</u> dit <u>D</u> elete ■ <u>B</u> lock instant messages from federated contacts who are not allowed to see my status				
		OK Cancel Help		



Options 🛛 🔀					
Personal General Instant Messa	ges Alerts Permissions Phones Accounts Rules				
- My account name					
Sign-in <u>n</u> ame: pool3A@pbxl	ab.org A <u>d</u> vanced				
Phone integration					
Communicator can place ar phone configuration, select	Enable phone integration Communicator can place and receive phone calls. If you need to change the automatic phone configuration, select Manual configuration and then click Configure.				
<ul> <li>Automatic Configuration</li> <li>Manual configuration</li> </ul>	<u>Automatic Configuration</u> <u>Manual configuration</u> <u>Configure</u>				
Conferencing information					
Leader code:					
<u>P</u> articipant code:					
<u>D</u> omain:					
<u>T</u> oll:					
Toll <u>f</u> ree:					
	OK Cancel Help				



Advanced Connection Settings	×
Select which method should be used to configure your connection to a communications service: <u>A</u> utomatic configuration <u>Configure settings</u>	
<u>S</u> erver name or IP address: pool3.pbxlab.org Connect using: <ul> <li><u>I</u>CP</li> <li>TLS</li> </ul>	
OK Cancel Help	



## Acronyms

CTI	Computer Telephony Interface
CUPS	Cisco Unified Presence
DND	Do-Not-Disturb
DTMF	Dual Tone MultiFrequency
DTP	DeskTop Phone
GUI	Graphical User Interface
IETF	Internet Engineering Task Force
IM	Instant Messaging
IPPM	Internet Protocol Phone Messenger
MS LCS	Microsoft Live Communication Server (EE SP1)
MCS	Multimedia Communication Server
MSN	Microsoft Network
MPOP	Multiple Point Of Presence
SCCP	Skinny Protocol
SIMPLE	SIP Instant Messaging and Presence Levering Extensions
SIP	Session Initiation Protocol
SNMP	Simple Network Management Protocol
TCP	Transmission Control Protocol
TLS	Transport Layer Security
XML	Extensible Markup Language
MOC	Microsoft Office Communicator
QoS	Quality of Service
GW	Gateway
S/W	Software
QBE	Quick Buffer Encoding, Protocol
DB	Database



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