# **Configuration For Curri - ECC**

### Additional configuration when using ECC-CURRI

#### System Requirements for External Call Control - CURRI

- Cisco Unified Communications Manager 8.0(2) or higher
- Imagicle Application Suite Winter 2014 edition or later

#### **Imagicle Application Suite Configuration**

Go to the Imagicle Application Suite Web configuration portal, Phone Lock -> Global Settings

Choose Cisco External Call Control (also known as CURRI) as Block engine technology. You will need the **Cisco External Call Control URI** generated from web page for configuring External Call Control Profile URI later, in Cisco CallManager configuration. The URI will be similar to:

```
http://<Imagicle_server_IP_address>:80/fw/ecc.ashx
```

ettings			
XML Service URL This is the URL to be used when configur address configured, please, choose the	ing IP Phor	ne Service into CUCM Admin. If server has more than one ip ble by IP Phones.	
http://192.188.4.35/fw/Apps/StoneLock/xml	lock/default	.aspx?name=#DEVICENAME#	
http://192.168.4.36/fw/Apps/StoneLock/xml/	/lock/default	.aspx?name=#DEVICENAME#	
Block engine technology			
Gisco External Call Control (CURRI)	٠	Choose which kind of technology you want to use for call blocking. Available options are Tapi and Cisco External Call Control (CURRI)	
Cisco External Call Control (CURRI) URI Use this Un in Cisco Unified Communicati	on Manage	r. External Call Control Profile configuration	
http://192.168.4.35:80/fw/ecc.ashx	1		
A ROLE THE REPORT OF A REAL PROPERTY OF A DATA OF A			

**Note**: you must enter the URI generated form this page. If you enter a different URI (e.g. without the specified port) the configuration won't work.

**Note:** Phone Lock ECC-CURRI method does not allow to lock overlapping phone lines, even on different partitions. This feature is available starting from Imagicle 2020.Spring.1 release, only when using <u>TAPI</u> method.

#### **Cisco CallManager ECC Configuration**

**Warning**: Due to a Cisco CallManager known issue, every modification on a External Call Control Profile requires a Cisco CallManager service restart. This can drop all the calls in progress.

### **External Call Control Profile**

The External Call Control Profile (ECCP) is how Imagicle Application Suite is linked with Unified CM. Configuring an ECCP adds your application's URL to the Unified CM database. The ECCP can then be added to *Trigger Points* in Unified CM. Available Trigger Points are:

- Translation Pattern (CM 8.0 (2) or higer)
- Route Pattern (CM 10.0 or higer)
- Directory Number (CM 10.0 or higer)

When one of this Trigger Points is involved in routing process (e.g. a phone makes an outgoing call and tries to pass through a Translattion Pattern) Unified CM sends a request to the ECCP configured link (Imagicle Application Suite) that elaborates the request and answers making a routing decision. The possibile decisions are:

- Continue: the call will be routed applying the involved triggering point
- Deny (i.e. block with optional message): the involved triggering point is not applied and unified CM stops call routing
- Divert call

**Warning:** The Directory Number ECC profile is triggered only for incoming calls (i.e. calls that ring on that DN). Besides, calls routed to the DN by an Hunt pilot do not trigger the ECC profile call.

### **Configuration in UCM**

In Cisco Unified CM Administration, specify the following information in the Call Routing -> "External Call Control Profile Configuration" window:

- Name of the External Call Control Profile (ECCP)
- Primary Web Service: URI of the Imagicle Application Suite (the one generated during Application Suite configuration in Global Settings page)
  - permits configuration of two URIs, for redundancy (active & standby) and for load balancing (where Imagicle High Availability options is available)
  - supports HTTP
- Timeout value for call routing response (suggeste value is 5000 ms)
- Diversion rerouting calling search space: this CSS is applied in case of diversion to a number for a blocked call
- Call treatment on failures: choose the treatment if Imagicle Application Suite is unresponsive o response timeout has been reached (Allow Calls is suggested)

Cisco Unified CM A For Cisco Unified Communi	Administration ications Solutions appadmin Search I	Unified CM A Documentation
System 👻 Call Routing 👻 Media Resources 🔹	<ul> <li>Advanced Features          <ul> <li>Device              <ul></ul></li></ul></li></ul>	User Managemer
External Call Control Profile Configura	ition Related Links: Back To Find/List	✓ Go
🔚 Save 🗶 Delete 📄 Copy 👍 Ac	dd New	
Status		
Status: Ready		
External Call Control Information		
Name*	Imagicle Ecc-curri	
Primary Web Service*	http://192.168.150.237:80/fw/eccstonelock.ashx	
Secondary Web Service		
Enable Load Balancing		
Routing Request Timer	spoo	
Diversion Rerouting Calling Search Space	< None >	V

#### **Trigger Points**

A Trigger Point is the point in Unified CM's routing logic at which Unified CM issues a Route Request.

- Translation Pattern trigger points are available in Unified CM 8.0(1) and later
- Route Patterns and Directory Numbers are trigger points in Unified CM 10.0 and later

### Enable ECCP in Translation Pattern Trigger point

Cisco Unified CM For Cisco Unified Comm	1 Administration	Navigation Cisco Unifie	entation
System 👻 Call Routing 👻 Media Resource	es 👻 Advanced Features 👻	Device - Application - User Ma	anagement
Translation Pattern Configuration	Relate	d Links: Back To Find/List 🗸	Go
🔜 Save 🗙 Delete 🗋 Copy 🕂	Add New		
Status			^
() Status: Ready			
Pattern Definition			
Translation Pattern	0.1		
Partition	< None >	~	
Description	OUTGOING		
Numbering Plan	< None >	0	
Route Filter	< None >		
MLPP Precedence*	Routine	~	
Resource Priority Namespace Network	< None >	~	
Route Class*	Default	~	
Calling Search Space	ALL IP_PHONES	~	
External Call Control Profile	Imagicle Ecc-curri	~	
Route Option	Route this pattern     Block this pattern		
	No Error	¥	
Provide Outside Dial Tone			
Urgent Priority			
Route Next Hop By Calling Party Nu	imber		

### Enable ECCP in Route Pattern Trigger Point (In Unified CM 10.0 and later)

Route Pattern Configuration	ipy 🛟 Add Nev	N		
- Status (i) Status: Ready				_
-Pattern Definition				
Route Pattern*		1XXX		1
Route Partition		< None >		
Description				1
Numbering Plan		Not Selected		
Route Filter		< None >	v	
MLPP Precedence*		Default		
Apply Call Blocking Percent	tage			1
Resource Priority Namespace M	Network Domain	< None >		
Route Class*		Default		
Gateway/Route List*		SIPT-58212		(Edit)
Route Option		Route this pattern     Block this pattern		
Call Classification*	OffNet	No Error		
External Call Control Profile	< None >			

### Enable ECCP in Directory Number Trigger Point (In Unified CM 10.0 and later)

Directory Number Configu	iration	
🕞 Save 🗙 Delete 😭	Reset 🖉 Apply Config 🛟 Add New	
-Status		
-Directory Number Inform	nation	
Directory Number*	3009	
Route Partition	< None >	
Description		
Alerting Name		
ASCII Alerting Name		
External Call Control Profile	< None >	

### **CM** Configuration Guidelines

The most used trigger point is Translation Pattern (the only one available until Cisco CallManager version 10.0).

if you want the External Call Control (also known as CURRI) web service to be used in call routing you must be sure to involve the translation pattern in call flow. Following schemas represent a simple standard configuration in a Cisco CallManager environment:



In this example, we have a phone with a Directory Number contained in IP-PHONE partition and with ALL-PHONE Calling Search Space. ALL-PHONE includes IP-PHONE and OUTGOING partitions. In this simple case any Directory Number in partition IP-PHONE could call any phone in IP-PHONE partition or any External number starting with 0.

Call Flow examples:



Introducing translation pattern for triggering External Call Control schema should change:



The changes are:

- Create the translation pattern with External Call Control Profile and Calling Search Space ALL-PHONE
- Create a new partition, CURRI, that includes the just created translation pattern
- Create a new Calling search Space, CSS\_CURRI, that includes CURRI partition, but no IP-PHONE partition
- Change the Directory Number Calling Search Space to CSS\_CURRI

The call flows become:



**Note**: be careful with CSS and Partition configuration, a wrong configuration could lead to call loops that can give telephony inefficiency or deteriorate your PBX and Imagicle Application Suite performances

### Blocking incoming calls with ECC - CURRI

To block the incoming calls, the guidelines are similar. Starting with a simple standard configuration, with an incoming route pattern that routes the calls to internal phones as shown below:



If there are Translation Patterns in the flow (E.g. for translation from E164 to internal number) the solutions is easy, just add an External Call Control Profile to the involved translations in order to have a ready to use system.



In case no Translation Patterns are involved, it is necessary to insert a new level in Numbering Plan as we did for outgoing calls. You need to:

- Create the translation pattern with External Call Control Profile and Calling Search Space ALL\_IP\_PHONES
- Create a new partition, CURRI, that includes the just created translation pattern
- Create a new Calling search Space, CSS\_CURRI, that includes CURRI partition, but no IP-PHONE partition
- Change the incoming Route Pattern Calling Search Space to CSS\_CURRI

#### Play a message when a call is blocked

In order to play a message to the caller when a call is blocked, you must first enable "IP Voice Media Streaming" service:

- $\bullet$  Access to CUCM "Cisco Unified Serviceability" web portal and select Tools  $\hat{a}$   $\hfill$  Service Activation
- Make sure that "Cisco IP Voice Media Streaming App" is Activated

CM Services						
	Service Name	Activation Status				
	Cisco CallManager	Activated				
	Cisco Unified Mobile Voice Access Service	Deactivated				
	Cisco IP Voice Media Streaming App	Activated				
	Cisco CTIManager	Activated				
	Cisco Extension Mobility	Deactivated				
	Charles Francisco de la Francisco de	Description to all				

Then you should upload a file from Cisco CallManager Administration web portal, in the **Media Resources â Announcement** web page:

FOF CISCO C	Annunciator	appadmin Search Documentation About Logou
System  Call Routing	Conference Bridge	Device      Application      User Management      Bulk Administration
Find and List Servers	Media Termination Point	
Add New	Music On Hold Audio Source	
-	Fixed MOH Audio Source	
Servers	Music On Hold Server	
Find Servers where Hos	Transcoder	Find Clear Filter 🕹 👄
	Media Resource Group	arch criteria using the options above.
Add New	Media Resource Group List	
	MOH Audio File Management	
	Mobile Voice Access	
	Announcement	

Add a new Announcement, filling the required fields as shown below:

Cisco Un For Cisco Un	ified CM Administration	Navigation Cisco Unified
System - Call Routing - N	Media Resources 🔻 Advanced Features 🔻	Device 👻 Application 👻 User Manaç
Announcement Configura	ation Related Lin	ks: Back To Find/List 🗸 🛛 Go
Save		
- Status		
(i) Status: Ready		
Announcement		
Announcement Identifier*	ecc-curri-block-message	
Description	Message for Imagicle ECC-Curri blocke	d calls
Default Announcement	< None >	~
- Save -	item.	

After the Announcement creation, you have to upload a sound file.

**Note**: Announcements are specific to the locale (language). If your installation is using more than one language locale, each custom announcement must be recorded in each language as a separate **.wav** file and uploaded with the correct locale assignment. This also requires that the correct locale package be installed on each server before uploading custom announcement wav files for languages other than United States English.

The recommended format for announcements includes the following specifications:

- 16-bit PCM wav file
- Stereo or mono
- Sample rates: 48 Khz, 44.1 Khz, 32 Khz, 16 Khz or 8 Khz

ululu Cisco Un	ified CM A	dminist	ration	N	lavigation	Cisco	Unified
For Cisco Un	ified Communic	ations Solu	itions	appadn	nin   Se	arch D	ocume
System - Call Routing - N	ledia Resources 🔻	Advanced F	eatures 🔻	Device 🔻	Application	▼ Us	ser Mana
Announcement Configura	ation	Relate	d Links:	Back To Fi	nd/List	~	Go
Save 🗙 Delete 🛟	Add New	Upload File					
- Status Add successful - Announcement Announcement Identifier*	ecc-curri-block-r	neccane					
Description						=	
Description	Message for Ima	igicle ECC-C	urri blocke	d calls		_	
Default Announcement	< None >				~		
- Save Delete A	dd New Uploa	ad File —					

You can upload one different file for each Local installed in your Cisco CallManager

Status: Ready			
Upload File Announcement Identifier*	ecc-curri-block-message		
Locale*	English, United States	~	
Upload File	Sfoglia BlockMessage.wav		

After file upload you have to insert the Announcement identifier in the Imagicle Application Suite Web interface, PhoneLock Settings page, as you created in Cisco CallManager (in the example "ecc-curri-block-message")

plicationSuite	<b>\$</b>	THE	٢	G		Ø	2 <u>0</u> 2	2	185	Þ
one Lock	Global Settin	gs Manage	Service							
Settings										*
XML Service URL This is the URL to configured, pleas http://192.168.150	be used wh e, choose th .152/hv/Apps	en configur le one read /StoneLock/>	ing IP Phon hable by IP kml/lock/def/	e Service in Phones. sult.aspx?nar	to CUCM Adi me=#DEVICE	min. If serve	er has more t	han one is	o address	
Block engine tec Cisco External Ca	hnology I Control (CU	RRI)	•	Choose with blocking, A Control (C)	hich kind of t vailable opti URR1)	echnology ons are Tap	you want to u bi and Cisco E	se for call xternal Ca	jii	
Cisco External Ca Use this Un in Cis http://192.168.150	dl Control ( co Unified C .152:80/fw/co	curri) uri ommunicati urri	on Manager	, External C	ali Control P	rofile config	juration			
ecc-curri-block-me	ssagel			Insert the o Call Manag prompt who	optional Anni er Announce en blocking c	ouncement ments list, alls	Identifier, as if you want to	listed in o play an a	Cisco Audio	
Delete CDRs olde	r than									
15				Number of	days for bloc	ked calls hi	story retentio	n		
List of allowed m	umbers whe	n phones a	re locked	One entry any seque "9"). You c	for each row nce of digits an use the cl	. You can u (i.e. "91" fo haracter "."	se the charac r any number to permit an	ter "I" to starting v y single di	permit vith git	
				(i.e. "90"	for any 4 dig	its number	starting with	"90")		

From now on every blocked, the caller will hear the uploaded message.

**Warning**: *Diversion* is not compatible with *Message playback*, so if you specify both a block message and a diversion number, the External Call Control (Curri) plugin will only redirect the call without playing any message.

### **Divert blocked calls**

You can divert a blocked call to a number (E.g. voicemail), the number is system wide and you can configure it in Imagicle Application Suite Phone Lock **Global Settings** Page.

In Aj for	nagicle pplicationSuite r Cisco UC	*	.llitli	٢		團		2 <b>0</b> 3	SUPPORT
Ph	none Lock	Global Setting	os Manage	Service Ca	ils History				
Settings									*
XML Service This is the UI configured, p http://192.163	URL RL to be used when please, choose the 8.150.237/fw/Apps/St	i configuring l one reachable oneLock/xml/i	IP Phone S e by IP Pho ock/default.	ervice into ( nes. aspx?name+	CUCM Admir	n. If server ha ME#	as more tha	in one ip add	ress
Cisco Externa	al Call Control (CURR	1)	• Ch	oose which icking, Avai	kind of tec	hnology you s are Tapi an	want to use id Cisco Ext	e for call emai Call	
Blocked call	announcement		Ins Cal pro	ert the opti I Manager J mpt when I	onal Annou Innouncemo blocking call	ncement Idei ents list, if yo is	ntifier, as lis u want to p	sted in Cisco play an audio	
Delete CDRs	older than		Nur	mber of day	s for blocke	d calls histor	vicetention		
13			- dead				,		
	ea numbers when j	nones are it	On an "9" (i.e	e entry for y sequence ). You can b. "90" for	each row. Y of digits (i use the cha any 4 digits	ou can use ti e. "9!" for an racter "." to p number star	he characte y number si permit any s rting with "s	er "1" to perm tarting with single digit 90")	t
Redirect out	going calls to								
9000			If s wh	pecified, St en the pho	oneLock red ne is locked	firect outgoin	g calls to th	his number	
Block Incom	ing calls when pho	ne is locked							
Redirect inco	oming calls to		If s	pecified, St en the pho	oneLock rec	firect incomin	g calls to th	nis number	

It is also necessary to specify a Diversion Rerouting Calling Search Space, used for call diversion of a blocked call

Cisco Unified CM For Cisco Unified Commu	Administration	Navi appadmin	gation Cis Search	co Unified CM Adr Documentation	ministratio About	n 🗸 Go Logou
System 👻 Call Routing 👻 Media Resources	Advanced Features	Device - Ap	oplication +	User Management	Bulk A	dministration
External Call Control Profile Configu	ration	Re	alated Lin	ks: Back To Fin	d/List	✓ Go
🔜 Save 🗙 Delete 🗋 Copy 📫	Add New					
Status Status: Ready External Call Control Information —						
Name*	ecc-curri-148					
Primary Web Service*	http://192.168.150.148	:80/fw/curri				
Secondary Web Service						
Enable Load Balancing	in Tais					
Routing Request Timer	3000					
Diversion Rerouting Calling Search Space	VOICE_MAIL			V		
Call Treatment on Failures*	Allow Calls			~		
Save Delete Copy Add New						
<ul> <li>*- indicates required item.</li> </ul>						

The Diversion Calling Search Space will be used as Calling Search Space for the diverted call, so be sure that the redirection number is contained in that Calling Search Space. In the following images we modified the two standard architectures described above with a Voicemail diversion.

In first image Voicemail number belongs to the same Calling Search Space of the Translation Pattern, so there is no need to specify a new Calling Search Space, it is possible to use the phones one as Diversion rerouting Calling Search Space.

		Translation Pattern CSS	= Diversion Rerouting C
	PARTITION CURRI	CSS ALL_IP_PHONES	
DN - 100 CSS: CSS_CURRI	TRANSLATION PATTERN CSS: ALL_IP_PHONES • NO CALLING TRANSFORMATION • NO CALLED TRANSFORMATION	Partition IP-PHONE DN - 100 DN - 101	Partition VOICE_MAIL 9000 VoiceMail

Translation Pattern and External Call Control Profile must be configured this way:

rstem - Call Routing - Media Resources -	Advanced Features +	Device - App	Dication - User Ma	magement +	Bulk Adm	inistrat
anslation Pattern Configuration			Related Links:	Back To F	ind/List	v (
🔒 Save 💢 Delete [ Copy 👍 Add	New					
tatus						
j) Status: Ready						
attern Definition						
ranslation Pattern	1					
artition	ECC-CURRI			*		
escription	EccCurriTP					
umbering Plan	< None >			÷.		
oute Filter	< None >			~		
LPP Precedence*	Default			¥		
esource Priority Namespace Network Dom	ain < None >			v		
oute Class*	Default			~		
alling Search Space	ALL_IP_PHONES			~		
kternal Call Control Profile	ecc-curri-148			~		
oute Option	Route this patte	rn				
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe	C block this patter	No Error				×.
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Unified CM Ad For Cisco Unified Communic	dministration	Mo Error Navig	ation Cisco Unifie	d CM Admi	nistration	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Unified CM Ad For Cisco Unified Communic	dministration ations Solutions	No Error Navig appadmin	ation Cisco Unifie Search Docum	d CM Admi	nistration About	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco For Cisco Unified Communic tem  Call Routing  Media Resources	dministration ations Solutions	Navig appadmin Device + App	ation Cisco Unifie Search Docum Nation - User Ma	ed CM Admi entation   inagement +	nistration About Buk Adm	V Log
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Unified CM Ad For Cisco Unified Communic tem  Cal Routing  Media Resources  ernal Call Control Profile Configuration	dministration ations Solutions Advanced Features •	Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum Alcation - User Ma lated Links: Bai	ed CM Admi entation Inagement - ck To Find/	nistration About Bulk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe CISCO CISCO Control Unified Communic tem  Cal Routing Media Resources  ernal Call Control Profile Configurati Save Copy Cal Add	Advanced Features +	No Error Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum lication - User Ma lated Links: Bar	d CM Admi entation   inagement + ck To Find/	nistration About Bulk Adm List	Log inistra
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Unified CM Ad For Cisco Unified Communic tem  Call Routing  Media Resources  Cernal Call Control Profile Configurati Save Delete Copy Add atus	Advanced Features +	Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum Alcation - User Ma lated Links: Bat	ed CM Admi entation I inagement - ck To Find/	nistration About Bulk Adm List	Log Inistral
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Coro Cisco Unified Communic tem  Cal Routing Media Resources Cal Routing Copy Cal Add atus Status: Ready	Advanced Features +	No Error Navig appadmin Device + App Rel	ation Cisco Unifie Search Docum Incation - User Ma Nated Links: Bar	entation   Inagement + ck To Find/	nistration About Buk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Unified CM Ad For Cisco Unified Communic tem  Call Routing  Media Resources  Cernal Call Control Profile Configurati Save Copy Add atus Status: Ready Cternal Call Control Information	Advanced Features +	Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum Alcation - User Ma lated Links: Bat	ed CM Admi entation / Insgement - ck To Find/	nistration About Bulk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Concentration Termal Call Control Profile Configuratio Save Call Control Profile Configuratio Calls Control Information Termal Call Control Information Termal Call Control Information Termal Call Control Information	Advanced Features v	Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum Ilication - User Ma lated Links: Bar	ed CM Admi entation   unagement	nistration About Buk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco For Cisco Unified CM Ad For Cisco Unified Communic tem  Cal Routing Media Resources Cal Routing Copy Cal Add ternal Call Control Profile Copy Cal Add ternal Call Control Information me* mary Web Service*	Advanced Features   on New  cc-curri-148  ttp://192.168.150.148:1	Navig appadmin Device - App Rel	ation Cisco Unifia Search Docum Incation - User Ma Nated Links: Bar	d CM Admi entation   inagement + ck To Find/	nistration About Buk Adm List	Log
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Unified CM Ad For Cisco Unified Communic tem  Cal Routing Media Resources Carnal Call Control Profile Configurati Save Delete Copy Call Add atus Distatus: Ready Copy Call Control Information Imme* Imary Web Service	Advanced Features  Advanced Feat	Na Error Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum Alcation - User Ma lated Links: Ba	entation   Inagement + ck To Find/	nistration About Bulk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Cor Cisco Unified Communic For Cisco Unified Communic tem  Cal Routing Media Resources Cal Routing Copy Cal Add tus Status: Ready Copy Cal Control Information Table Cal Control Cal Control Copy Cal Control	Advanced Features ~	No Error Navig appadmin Device - App Rel 80/fw/curri	ation Cisco Unifie Search Docum lication - User Ma lated Links: Ba	d CM Admi entation   inagement + ck To Find/	nistration About Buk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Cosco Cisco Unified CM Ad For Cisco Unified Communic Call Control Profile Configurati Save Call Control Profile Configurati Call Control Information Status: Ready Caternal Call Control Information ame* Call Control Information Cosco Call Control Information Call Control Informa	Advanced Features  Advanced Feat	No Error Navig appadmin Device - App Rel 80/fw/curri	ation Cisco Unifie Search Docum Incation - User Ma Inted Links: Bar	d CM Admi entation   inagement + ck To Find/	nistration About Buk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Unified CM Ad For Cisco Unified Communic term  Cal Routing  Media Resources  Cernal Call Control Profile Configurati Save Caternal Call Control Information ame* imary Web Service* imary Web Service Enable Load Balancing outing Request Timer iversion Rerouting Calling Search Space	Advanced Features - Advanced Features - inco-curri-148 http://192.168.150.148:1 http://192.148:1 http://192.148:1 ht	Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum Acation - User Ma lated Links: Bat	ed CM Admi entation   unsgement - ck To Find/	nistration About Bulk Adm List	
Provide Outside Dial Tone Urgent Priority Route Next Hop By Calling Party Numbe Cisco Cisco Cisco Unified CM Ad For Cisco Unified Communic tem  Cal Routing  Media Resources  ternal Call Control Profile Configurati Save Call Control Information me* imary Web Service* icondary Web Service Enable Load Balancing iuting Request Timer version Rerouting Calling Search Space all Treatment on Failures*	Advanced Features v Advanced Features v on New Advanced Features v New Advanced Features v Advanced Features v Advan	No Error Navig appadmin Device - App Rel	ation Cisco Unifie Search Docum Ilcation - User Ma lated Links: Bar	ck To Find/	nistration About Buk Adm List	

In second image Voicemail number belongs to a different Calling Search Space, that includes only Voicemail numbers, so there will be the need of specify VOICE\_MAIL as Diversion rerouting Calling Search Space.



Translation Pattern and External Call Control Profile must be configured this way:

Cisco Unified CM Administration For Cisco Unified Communications Solutions		Nav	vigation <mark>Ci</mark> Searc	sco Unified CM / h Documentatio	Admin In 1	istration v About	Go
System - Call Routing - Media Resources - A	Device - A	Application 👻	User Managem	ent 👻	Bulk Admin	istration	
Translation Pattern Configuration			Relate	d Links: Back	To F	ind/List 🗸	Go
🞧 Save 🗙 Delete 🗋 Copy 👍 Add Ner	w						
Status							_
(i) Status: Ready							
Pattern Definition							
Translation Pattern				-			
Partition	ECC-CURRI						- 1
Description	EccCurnTP						
Numbering Plan	< None >			U.			
Route Filter	< None >			1			
MLPP Precedence*	Default			v			
Resource Priority Namespace Network Domain	< None >			v			
Route Class*	Default			v			
Calling Search Space	ALL_IP_PHONES			v			
External Call Control Profile	ecc-curri-148			v			
Route Option	Route this patt	ern					
	O Block this patte	ern No Error					~
Provide Outside Dial Tone							
Urgent Priority							
Route Next Hop By Calling Party Number							

Cisco Unified CM / For Cisco Unified Commun	Administration	Na appadmi	vigation C n Sear	isco Unifie ch Docume	d CM Adm	inistratio About	n 🗸	Go gout
System 👻 Call Routing 👻 Media Resources 🖲	Advanced Features -	Device +	Application	User Ma	nagement •	Bulk A	dministra	ation
External Call Control Profile Configura	ition	1	Related Li	inks: Bac	k To Find	/List	~	Go
🔜 Save 🗙 Delete 🗈 Copy 👍 A	dd New							
Status								
(i) Status: Ready								
External Call Control Information								
Name*	ecc-curri-148			1				
Primary Web Service*	http://192.168.150.148	:80/fw/curri		- 1				
Secondary Web Service				]				
Enable Load Balancing								
Routing Request Timer	3000							
Diversion Rerouting Calling Search Space	VOICE_MAIL			~	]			
Call Treatment on Failures*	Allow Calls			~	]			
Save Delete Copy Add New								
(i) *- indicates required item.								

**NOTE:** If you try to divert a blocked call to a number without specifying a Diversion rerouting Calling Search Space. Cisco CallManager will try to reroute the call with Calling Search Space=NONE, that will probably let the call run into a service unavailable pattern.

NOTE: Diversion is not compatible with Message playback, so if you specify both a block message and a diversion number, the External Call Control (Curri) plugin will only redirect the call without playing any message.

### Notes on CuCM performance

Unified CM experiences some degree of performance degradation if it gueries route servers for a majority of incoming calls.

The performance degradation depends on the following factors:

- Response time from route servers
- Network latency for call routing requests and responses

Slow response or network latency adds delay to the post-dial silence for a call. Testing shows that when the response time from the route server is below 50ms (RTT), there is a 15% degradation in the maximum call rate when all calls are subject to a Route Request/Response.

#### Call Block History & Basic Troubleshooting

A complete list of Calls processed by the Imagicle Application Suite External Call Control (CURRI) web service is accessible at the Phone Lock Calls History Web Page. This web page reports the full list of processed requests. It is possible to filter on a specific date, check the call resume (Time, calling, caller, decision and reason) and go deep in a single request opening the call detail. Here you can check the HttpRequest arrived at the web service, the HttpResponse given back to the Cisco CallManager and the specific Application Decisions taken by the Phone Lock Enterprise Service.

For a full list of call block reasons please refer the table at the end of this article.

#### **Basic functional test**

Make a call from an unlocked phone, verify that:

- Call passes
- Call is visible in the Calls History, with decision **Continue**

Lock phone and make a call to an unlocked phone, verify that:

- Call is blocked
- $\bullet$  Call is visible in the Calls History, with decision  $\ensuremath{\textbf{Deny}}$

For more Phone Lock troubleshooting tips and information please refer to this section.

<b>Calls Histo</b>	y Call	Block	Reasons	Reference
--------------------	--------	-------	---------	-----------

Calling	Called	Description
UserLocked	None	Calling User Locked
UserLocked	UserLocked	Internal Call among locked Users
UserLocked	UserUnlocked	Internal call blocked due to caller block
UserLocked	ExternalNumber	Outgoing external call blocked due to caller block
UserLocked	UserLockedAllowedRemoteParty	Internal call blocked due to caller block
UserLocked	UserLockedAllowedSystemPolicy	Internal call blocked due to caller block (Incoming call block is disable)
UserUnlocked	UserUnlocked	Internal Call among unlocked Users
UserUnlocked	ExternalNumber	Outgoing external call from unlocked User
UserUnlocked	None	Calling User Unlocked
UserUnlocked	UserLocked	Internal Call blocked due to called block
UserUnlocked	UserLockedAllowedRemoteParty	Internal Call, called was locked but caller belongs to white list
UserUnlocked	UserLockedAllowedSystemPolicy	Internal call allowed by system policy (Incoming call block is disable)
ExternalNumber	None	External incoming call
ExternalNumber	UserUnlocked	External incoming call to unlocked User
ExternalNumber	UserLocked	External incoming call to locked User
ExternalNumber	UserLockedAllowedRemoteParty	External incoming call to locked User, from an allowed number
ExternalNumber	ExternalNumber	Call among two external numbers
ExternalNumber	UserLockedAllowedSystemPolicy	Incoming call allowed by system policy (Incoming call block is disable)
UserLockedAllowedRemoteParty	UserLocked	Called User Locked
UserLockedAllowedRemoteParty	UserUnlocked	Called User Unlocked, Called belong to white list
UserLockedAllowedRemoteParty	ExternalNumber	Outgoing Call from locked User to white list external number
UserLockedAllowedRemoteParty	None	Outgoing Call from locked User to white list number
UserLockedAllowedRemoteParty	UserLockedAllowedRemoteParty	Internal Call among locked Users both belonging to white list
UserLockedAllowedRemoteParty	UserLockedAllowedSystemPolicy	Internal call among two locked user, allowed by white list (Called is in white list) and system policy (Incoming call block is disable)
LicenseExpired	LicenseExpired	License expired or not valid