

How To configure and use Forced Authorization Codes in Cisco Unified Communications Manager 7.x

Read This document and it's entirety before implementing FAC

Some companies, colleges and universities, restrict certain users to dial certain string of numbers such as Long Distance, International, or 411 dialing, in order to that in UCM 7.x you must use FAC

Step 1.- Designing Force Authorization Codes

Let's proceed to configure a few Forced Authorization Codes, but first we are going to assume that we have 3 users in our company, and that as such we will configure 3 different levels of access to the PSTN, because this company is small we will only use levels, 1, 2, and 3, and large environments I will suggest you to use 10, 20 ,30. Incrementing authorization codes establishes a level of "access", you can specify authorization levels in the range of 0 to 255, ok let's design our level of access.

Level 1.-Users in level 1 will have access to 911 and local dialing only

Level 2.-Users in level 2 will have access to 911, 411, Local, Long Distance dialing only

Level 3.-Users in level 3 will have access to 911, 411, Local, Long Distance, and International dialing

-Our users are going to be,

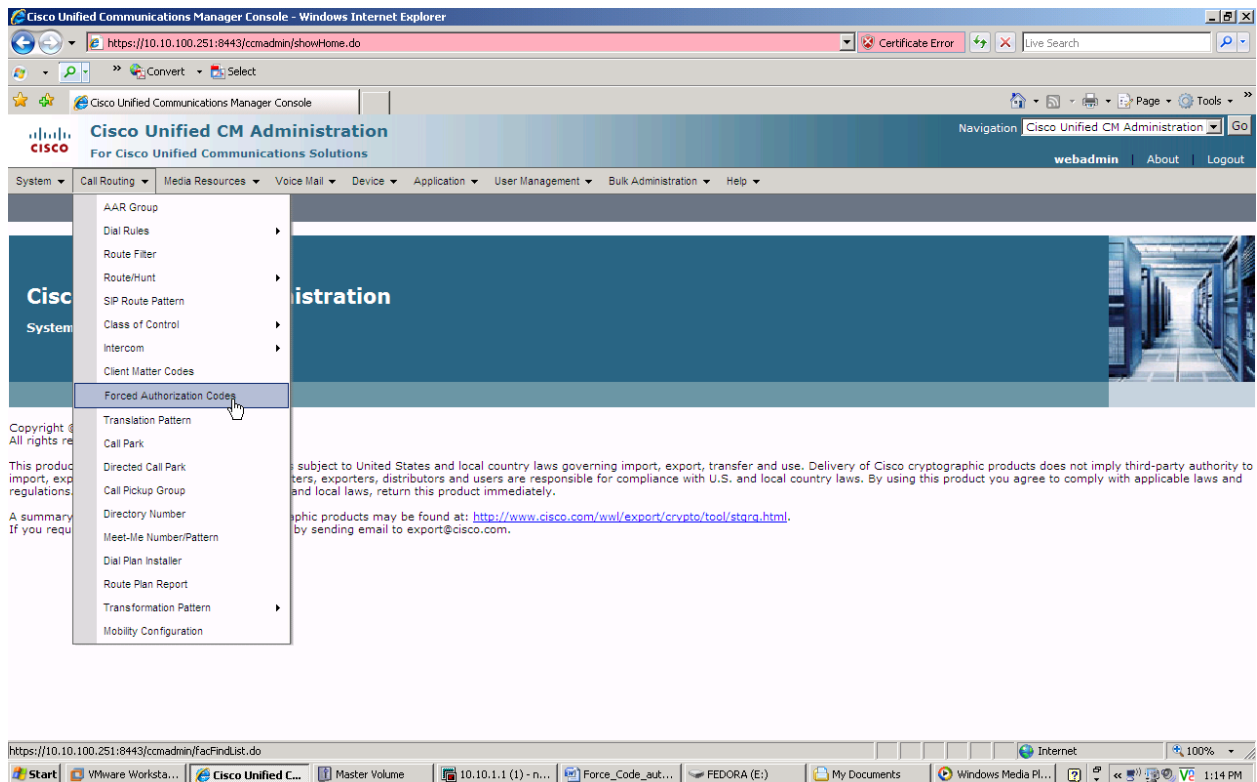
Cesar Fiestas with authorization code 123456 and authorization level 3

Jane Doe with authorization code 654321 and authorization level 2

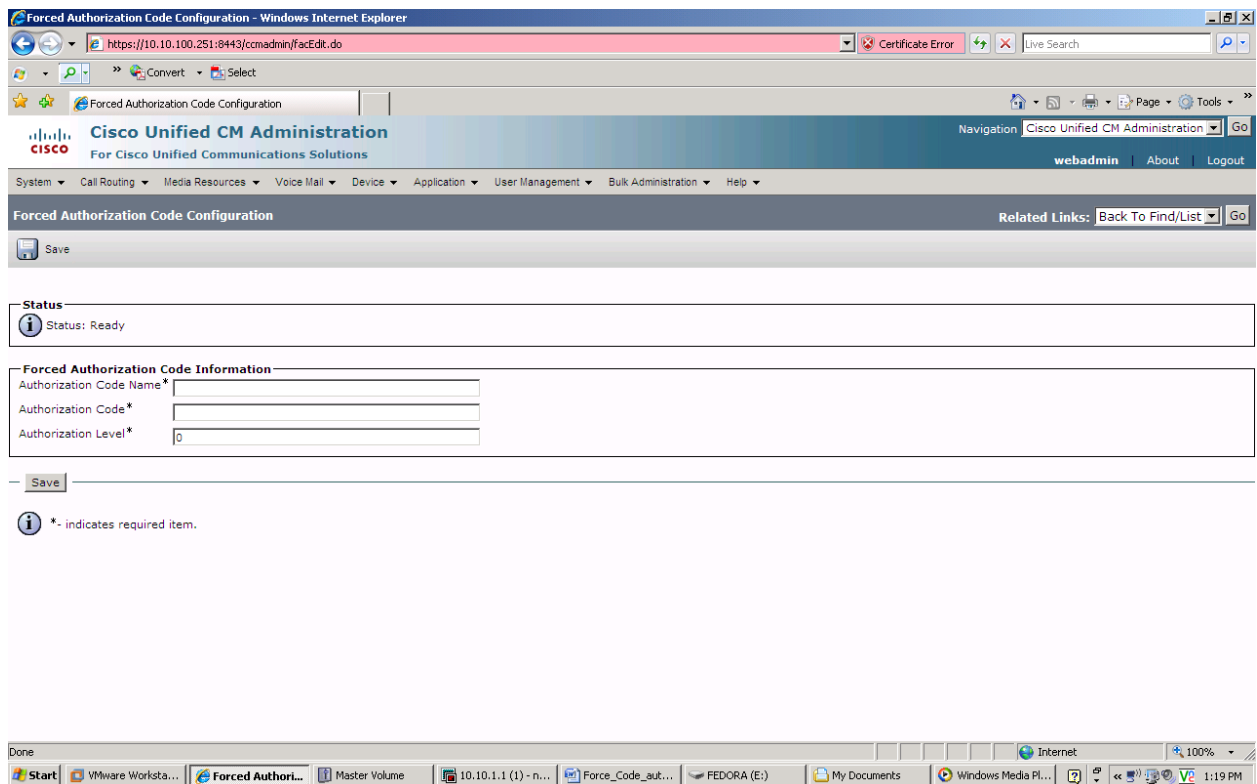
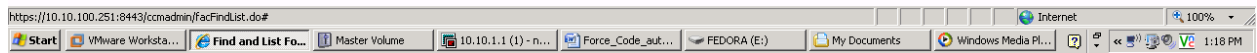
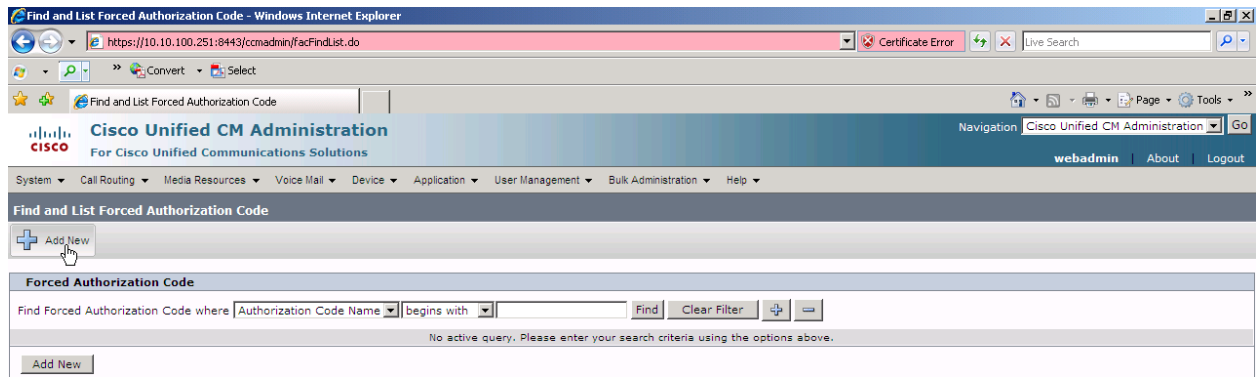
Joe user with authorization code 999999 and authorization level 1

Step 2.-Configuring Forced Authorization Codes

Go to the administration page of Cisco Unified Communications Manager, select Call Routing TAB, then select Force Authorization Codes as shown in the images below.



Proceed to create our users along with their respective authorization levels by clicking the ADD NEW button.

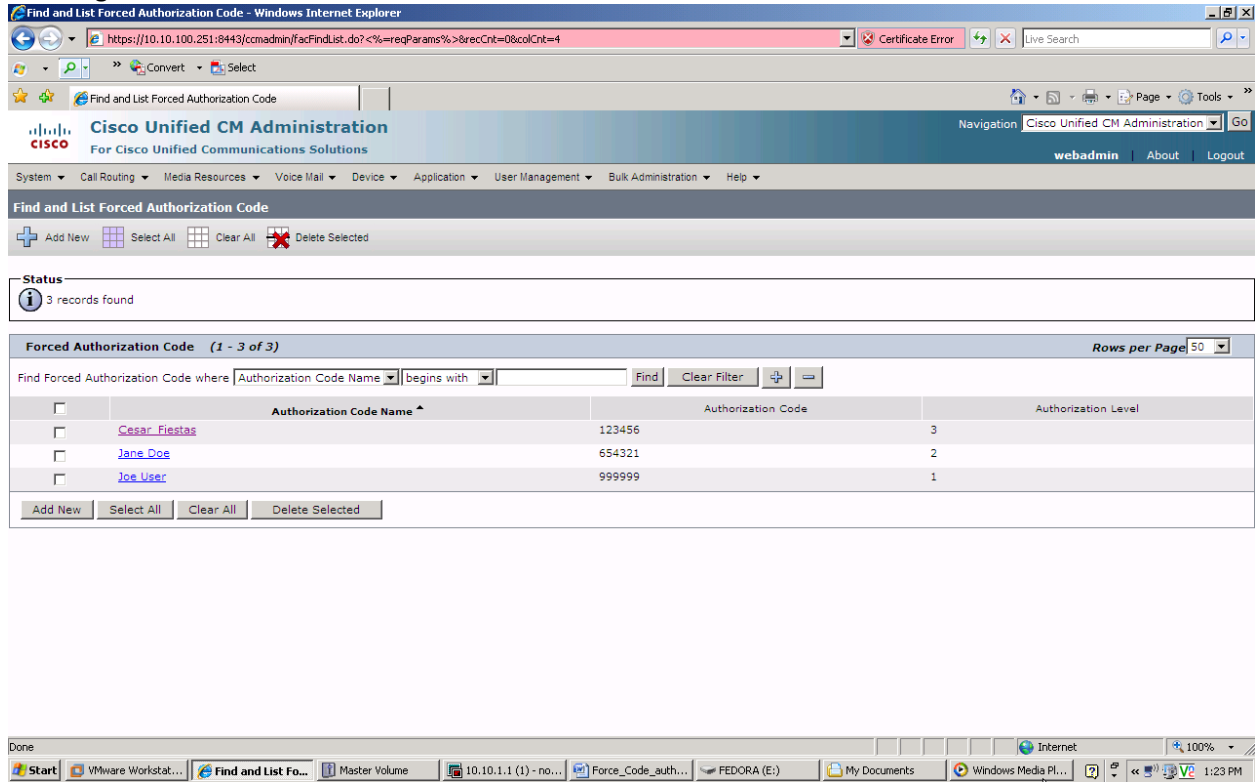


Now, let's proceed to create couple of our users.

The screenshot shows the Cisco Unified CM Administration web interface in Internet Explorer. The browser address bar shows the URL <https://10.10.100.251:8443/ccadmin/facEdt.do>. The page title is "Forced Authorization Code Configuration". The navigation menu includes System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area is titled "Forced Authorization Code Configuration" and includes a "Save" button. Below this is a "Status" section showing "Status: Ready". The "Forced Authorization Code Information" section contains three input fields: "Authorization Code Name*" with the value "Cesar Fiestas", "Authorization Code*" with the value "123456", and "Authorization Level*" with the value "3". A "Save" button is located below the form. A legend indicates that an asterisk (*) denotes a required item.

The screenshot shows the Cisco Unified CM Administration web interface in Internet Explorer, similar to the previous one. The browser address bar shows the URL <https://10.10.100.251:8443/ccadmin/facEdt.do>. The page title is "Forced Authorization Code Configuration". The navigation menu is the same. The main content area is titled "Forced Authorization Code Configuration" and includes a "Save" button. Below this is a "Status" section showing "Status: Ready". The "Forced Authorization Code Information" section contains three input fields: "Authorization Code Name*" with the value "Jane Doe", "Authorization Code*" with the value "654321", and "Authorization Level*" with the value "2". A "Save" button is located below the form. A legend indicates that an asterisk (*) denotes a required item.

Great!, we have now created our users along with their respective FAC codes and levels, take a look at the image below



Step 3. Configuring Route patterns

For testing purposes I have configured the following route patterns and we will be applying FAC/Authorization levels to the International, Long Distance, Local and 411 route patterns, remember we don't want to apply a Forced Authorization Code to 911!

- 9.011!# International Dialing
- 9.1[2-9]XX[2-9]XXXXXX Long Distance Dialing
- 9.411 Information Dialing
- 9.704XXXXXXX Local Dialing
- 9.911 Emergency Dialing

Take a look at the image shown below

The screenshot displays the Cisco Unified CM Administration web interface in Internet Explorer. The page title is "Find and List Route Patterns". The navigation menu includes System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area shows a status bar indicating "5 records found". Below this is a table of Route Patterns with the following data:

Pattern	Description	Partition	Route Filter	Associated Device	Copy
9.011!#	Headquarters International Dialing	HQ_Local_PT		HQ_RL	Copy
9.i[2-9]XX[2-9]XXXXXX	Headquarters Long Distance Dialing	HQ_Local_PT		HQ_RL	Copy
9.411	Headquarters Information Dialing	HQ_Local_PT		HQ_RL	Copy
9.704XXXXXX	Headquarters Local Dialing	HQ_Local_PT		HQ_RL	Copy
9.911	Headquarters Emergency Dialing	HQ_Local_PT		HQ_RL	Copy

The taskbar at the bottom shows several open applications, including VMware Workstation, the current web browser window, Master Volume, a terminal window for 10.10.1.1, Force_Code_auth..., FEDORA (E:), My Documents, and Windows Media Player. The system clock shows 1:35 PM.

Now since we have 3 users configured with Forced Authorization Codes, we will now proceed to modify and place a restriction in our route patterns so that when a User dials a certain string of numbers matching a certain route pattern configured to require a Force Authorization Code/Authorization Level.

Let's proceed to set up the 9.011!# Route pattern which is international Dialing with a FAC/Authorization level code of 3, which is our higher authorization level code,

Go to the Administration page of Cisco Unified Communications Manager, select the Call Routing TAB, then select the Route/Hunt TAB, then select the Route Pattern TAB

Find and List Route Patterns - Windows Internet Explorer

https://10.10.100.251:8443/ccmadmin/routePattern2FindList.do?<%=reqParams%>#recCnt=0&colCnt=0

Cisco Unified CM Administration

Navigation Cisco Unified CM Administration Go

webadmin | About | Logout

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

Find and List Route Patterns

+ Add New Select All Clear All Delete Selected

Status 5 records found

Route Patterns (1 - 5 of 5) Rows per Page 50

Find Route Patterns where Pattern begins with Find Clear Filter

<input type="checkbox"/>	Pattern	Description	Partition	Route Filter	Associated Device	Copy
<input type="checkbox"/>	9.011#	Headquarters International Dialing	HQ_Local_PT		HQ_RL	
<input type="checkbox"/>	9.1[2-9]XX[2-9]XXXXXX	Headquarters Long Distance Dialing	HQ_Local_PT		HQ_RL	
<input type="checkbox"/>	9.411	Headquarters Information Dialing	HQ_Local_PT		HQ_RL	
<input type="checkbox"/>	9.704XXXXXX	Headquarters Local Dialing	HQ_Local_PT		HQ_RL	
<input type="checkbox"/>	9.911	Headquarters Emergency Dialing	HQ_Local_PT		HQ_RL	

Add New Select All Clear All Delete Selected

Done

Start VMware Workstat... Find and List Ro... Master Volume 10.10.1.1 (1) - no... Force_Code_auth... FEDORA (E:) My Documents Windows Media Pl... 1:51 PM

Route Pattern Configuration - Windows Internet Explorer

https://10.10.100.251:8443/ccmadmin/routePattern2Edit.do?key=81c35ab8-b151-d9cc-25a1-01fb79565693

Cisco Unified CM Administration

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Route Pattern Configuration

Save Delete Copy Add New

Related Links: Back To Find/List Go

Status Status: Ready

Pattern Definition

Route Pattern* 9.011#

Route Partition HQ_Local_PT

Description Headquarters International Dialing

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Resource Priority Namespace Network Domain < None >

Gateway/Route List* HQ_RL (Edit)

Route Option

Route this pattern

Block this pattern No Error

Call Classification* OffNet

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

Require Forced Authorization Code

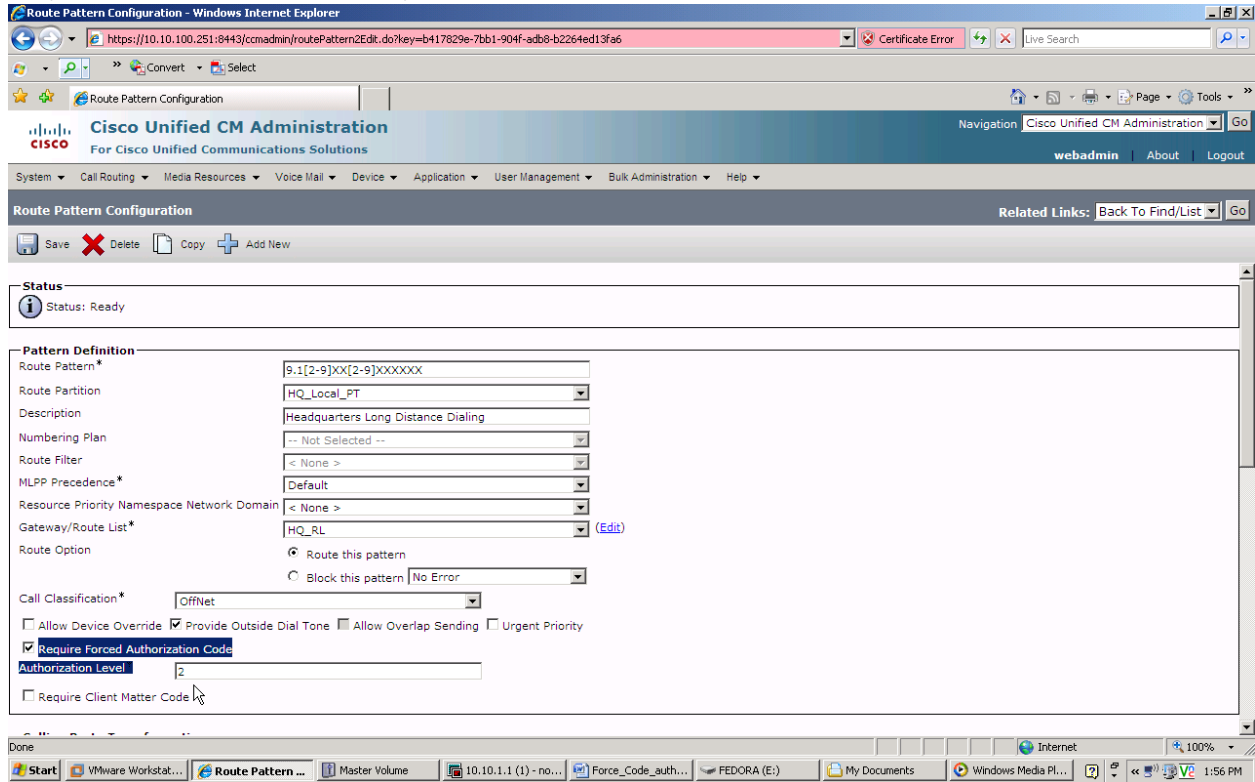
Authorization Level 3

Require Client Matter Code

Done

Start VMware Workstat... Route Pattern ... Master Volume 10.10.1.1 (1) - no... Force_Code_auth... FEDORA (E:) My Documents Windows Media Pl... 1:51 PM

Let's proceed to set up the 9.1[2-9]XX[2-9]XXXXXX Route pattern which is Long Distance Dialing with a FAC/Authorization level code of 2, which is our mid level authorization level code



Things to know:

What happened when a user hears the tone played by UCM?

The user will need to enter their respective FAC, once the user have entered their FAC, it will be a period of time before the call is completed, you can adjust this timer by modifying the T302 timer in System-Service Parameters-RespectiveUCM-Cisco Callmanager Service, before adjusting the T302 Timer read it's help page!

This document was created by Cesar Fiestas