



Grandstream Networks, Inc.

UCM6100 Busy Camp-on Guide



Index

Table of Contents

OVERVIEW	2
CALL COMPLETION FOR LOCAL EXTENSIONS.....	3
CONFIGURATION	3
SAMPLE APPLICATION	4
CALL COMPLETION FOR TRUNKS	6
CONFIGURATION	6
SAMPLE APPLICATION	9

Table of Figures

Figure 1: Enable Call Completion for Extensions	3
Figure 2: Call Completion Feature Code	4
Figure 3: Enable Call Completion for SIP Register Trunk.....	6
Figure 4: Create SIP Register Trunk.....	7
Figure 5: SIP Register Trunk Status.....	8
Figure 6: Call Completion Feature Code	9

This document is subject to change without notice. The latest electronic version of this document is available for download here:

<http://www.grandstream.com/support>

Reproduction or transmittal of the entire or any part, in any form or by any means, electronic or print, for any purpose without the express written permission of Grandstream Networks, Inc. is not permitted.

OVERVIEW

Busy Camp-on/Call Completion is a feature that the PBX will camp on a called party and inform the caller as soon as the called party becomes available given the previous attempted call cannot be successfully established.

UCM6100 starts to support this feature from firmware version 1.0.8.11. If a call fails to be established, the caller could request the UCM6100 to camp on the called party by dialing the call completion request code. Then the UCM6100 will give a call to the caller as soon as the called party becomes available. By answering the call from UCM6100, a call from the caller to the called party will be initiated automatically by the UCM6100 to complete the call.

The call completion can be configured for individual extensions as well as SIP register trunks.

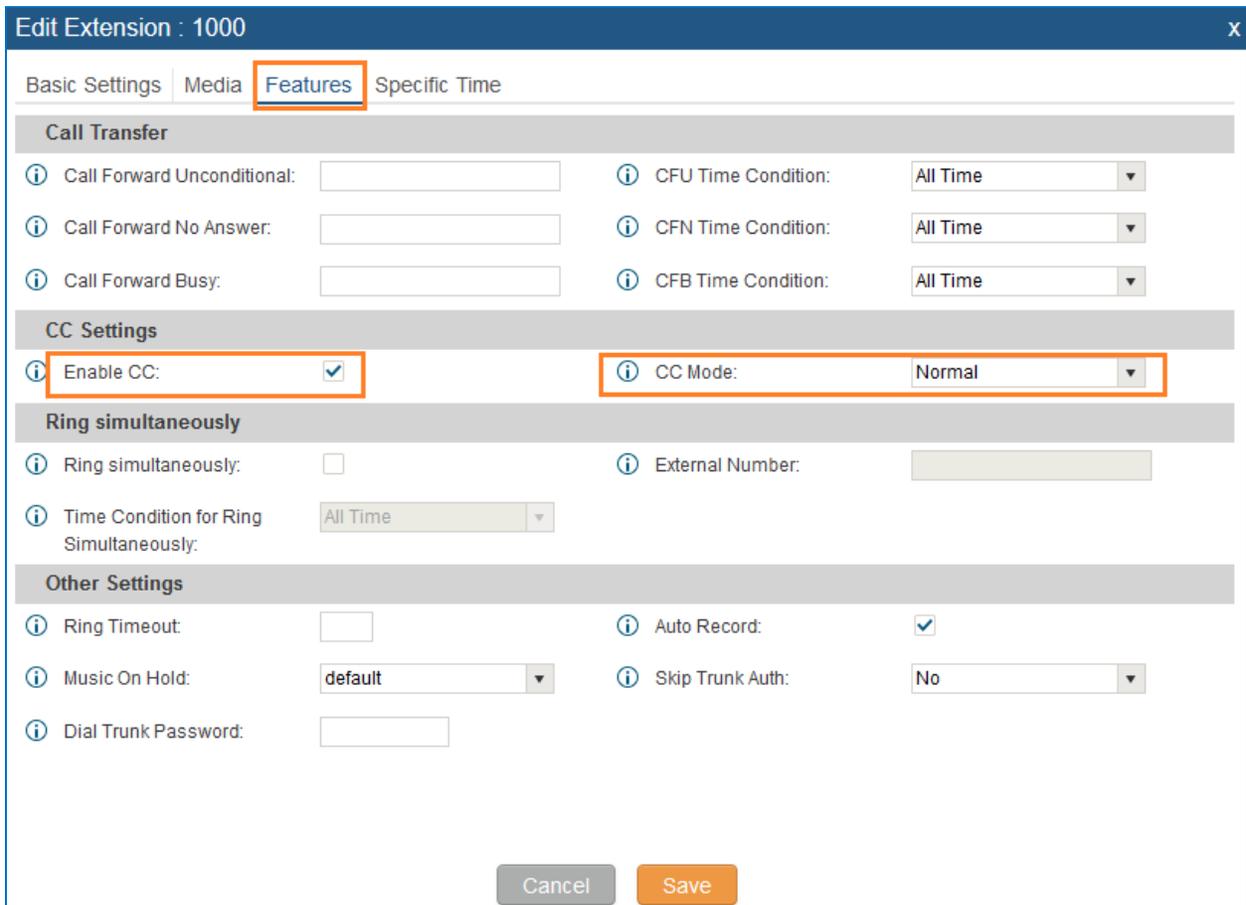
- When call completion is configured for individual extensions, the specific extension will get notified to complete the call when the called extension is available.
- When call completion is configured for SIP register trunks, any extension in one UCM6100 will get notified to complete the call when the called extension in the peer UCM6100 is available if the extension has call completion configured too.

This document describes how to configure call completion for the above two applications.

CALL COMPLETION FOR LOCAL EXTENSIONS

CONFIGURATION

1. On UCM6100 web GUI->**PBX->Basic/Call Routes->Extensions** page, create or edit an extension (e.g., 1000) to bring up the dialog in below figure.
2. Click on “Features” tab and make sure the following are configured:
 - “Enable CC”: selected
 - “CC Mode”: set to “Normal”

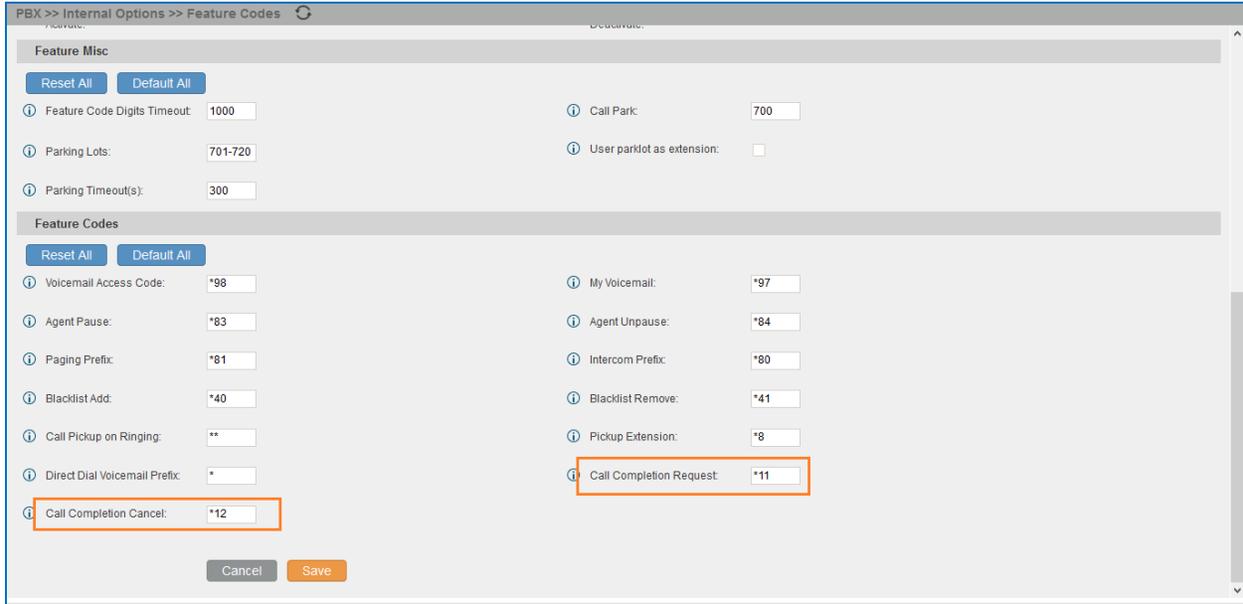


The screenshot shows the 'Edit Extension : 1000' dialog box with the 'Features' tab selected. The 'Features' tab is highlighted with an orange box. Within this tab, the 'CC Settings' section is visible, where 'Enable CC:' is checked and 'CC Mode:' is set to 'Normal'. Both of these settings are also highlighted with orange boxes. Other sections include 'Call Transfer', 'Ring simultaneously', and 'Other Settings'.

Figure 1: Enable Call Completion for Extensions

3. Configure the above steps to another extension 1001 if extension 1001 is the party that will be on the call with extension 1000.

4. Feature code for call completion request can be modified on web GUI->**PBX->Internal Options->Feature Codes** page. The default setting is *11 for “Call Completion Request” and *12 for “Call Completion Cancel”.



The screenshot shows the 'Feature Codes' configuration page in the Grandstream web GUI. The page is titled 'PBX >> Internal Options >> Feature Codes'. It contains two sections: 'Feature Misc' and 'Feature Codes'. The 'Feature Codes' section has a table of settings with 'Call Completion Request' set to '*11' and 'Call Completion Cancel' set to '*12'. Both of these fields are highlighted with orange boxes. At the bottom of the page are 'Cancel' and 'Save' buttons.

Feature Code	Value
Feature Code Digits Timeout	1000
Call Park	700
Parking Lots	701-720
User parklot as extension	<input type="checkbox"/>
Parking Timeout(s)	300
Feature Codes	
Voicemail Access Code	*98
My Voicemail	*97
Agent Pause	*83
Agent Unpause	*84
Paging Prefix	*81
Intercom Prefix	*80
Blacklist Add	*40
Blacklist Remove	*41
Call Pickup on Ringing	**
Pickup Extension	*8
Direct Dial Voicemail Prefix	*
Call Completion Request	*11
Call Completion Cancel	*12

Figure 2: Call Completion Feature Code

SAMPLE APPLICATION

Assuming user A is using UCM6100 extension 1000, and user B is using UCM6100 extension 1001. Both extensions have “Enable CC” selected and “CC Mode” set to “Normal” as mentioned above.

1. Extension 1000 calls extension 1001.
2. The call fails to be established due to the following possible reasons:
 - a) Extension 1001 is busy, e.g., talking on the phone.
 - b) Extension 1001 rejects the call or the call goes to timeout.
3. At this time, extension 1000 dials “Call Completion Request” code (*11 by default) to activate camp on feature. Please note “Enable CC” option must be selected and “CC Mode” must be set to “Normal” for both extensions 1000 and 1001. Otherwise the user is not allowed to dial the call completion request code.
4. Once extension 1001 becomes available, UCM6100 will call extension 1000. Extension 1000 has to answer the call. The following conditions for extension 1001 are considered as available:
 - a) If extension 1001 was busy when 1000 called 1001, 1001 is considered as available after the

previously active call hangs up.

b) If extension 1001 rejected the call or the call went to timeout when 1000 called 1001, 1001 is considered as available after a new call is completed. This means extension 1001 has to initiate a new call or answer another incoming call and the new call hangs up. Otherwise, the UCM6100 will not know whether extension 1001 is available or not.

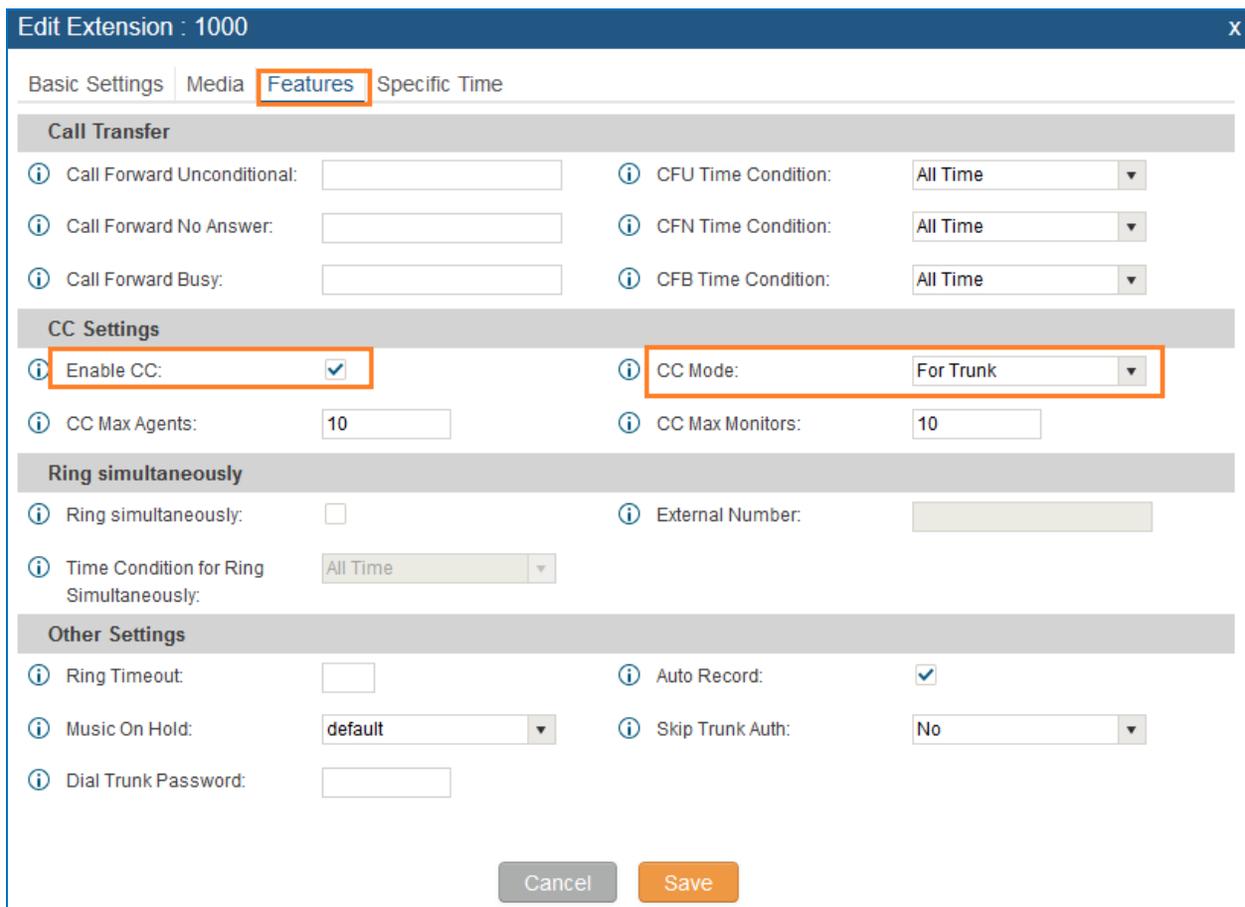
5. A call will be initiated to extension 1001 to establish call between 1000 and 1001.

CALL COMPLETION FOR TRUNKS

CONFIGURATION

Call completion for trunks is only applicable to SIP register trunks. Two UCM6100s must be first configured with SIP trunks registered to each other. For the sake of the following illustration, we name the two UCM6100s involved in this example UCM1 with IP address 192.168.40.233 and UCM2 with IP address 192.168.40.216 respectively.

1. On UCM1, create extension 1000. This extension is for UCM2 to register SIP trunk to UCM1.
2. On UCM1 extension 1000, go to “Features” tab and make sure the following are configured:
 - “Enable CC”: selected
 - “CC Mode”: set to “For Trunk”



The screenshot shows the 'Edit Extension : 1000' configuration window. The 'Features' tab is active. The 'CC Settings' section is highlighted, showing 'Enable CC' checked and 'CC Mode' set to 'For Trunk'. Other sections include 'Call Transfer' with CFU, CFN, and CFB settings, 'Ring simultaneously' with a checkbox and time condition, and 'Other Settings' with Ring Timeout, Music On Hold, Auto Record, Skip Trunk Auth, and Dial Trunk Password.

Figure 3: Enable Call Completion for SIP Register Trunk

3. Make the same configuration for extension 5000 on UCM2. This extension is for UCM1 to register SIP trunk on UCM2.
4. On UCM1, create a SIP register trunk and register to the extension 5000 on UCM2. This can be done by clicking Create New SIP Trunk on web GUI->**PBX->Basic/Call Routes->VoIP Trunks**. The following figure shows the configuration for new SIP trunk on UCM1.

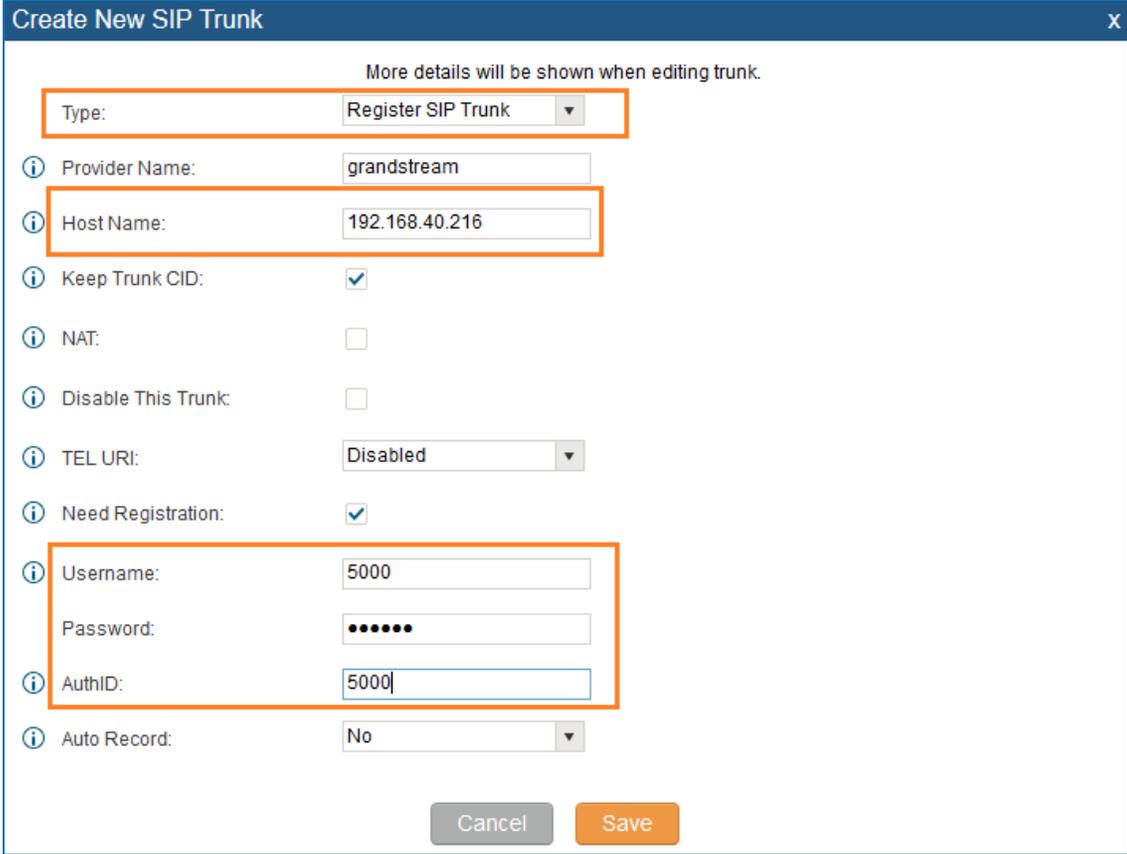


Figure 4: Create SIP Register Trunk

- Type: Select “Register SIP Trunk”
 - Host Name: Enter the IP address of the UCM to register to
 - Username: The extension number on the UCM to register to
 - AuthID: Same as Username
 - Password: The password of the extension number on the UCM to register to
5. Similar to step 4, on UCM2, create a SIP register trunk and register to the extension 1000 on UCM1.
 6. Check the registration status of the trunks on web GUI->**Status->PBX Status**. If configured successfully, the status for the trunk should show as “Registered”.

Status >> PBX Status >> PBX Status 

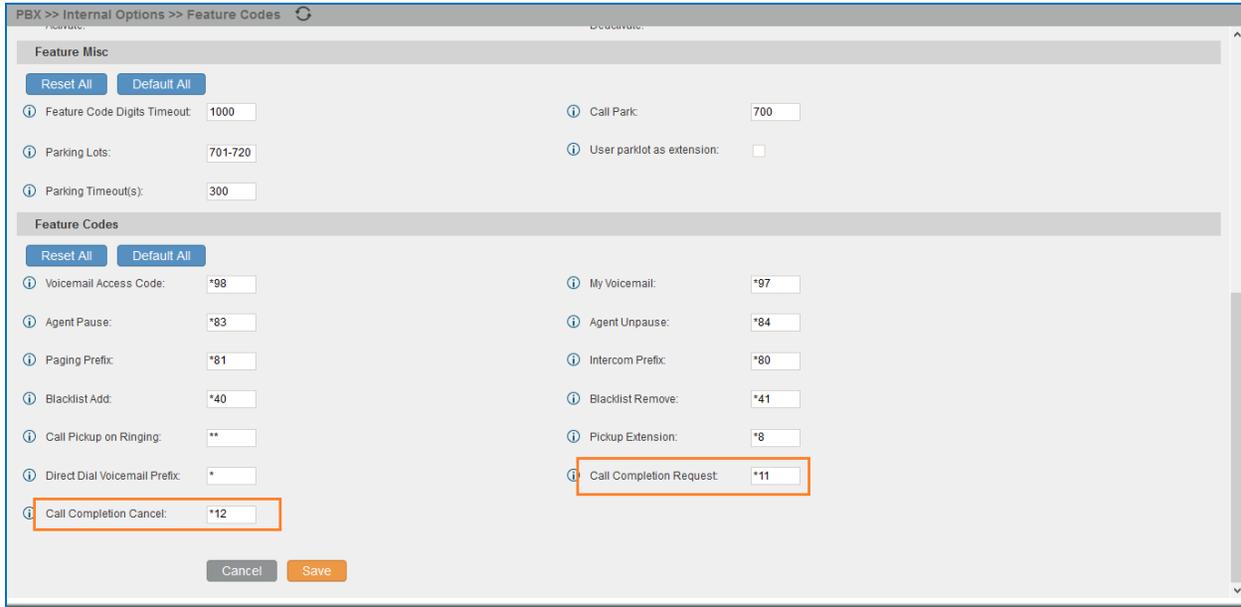
Trunks  [-]				
Status 	Trunks	Type	Username	Port/Hostname/IP
Registered	ucm6116	SIP	5000	192.168.40.216

Status >> PBX Status >> PBX Status 

Trunks  [-]				
Status 	Trunks	Type	Username	Port/Hostname/IP
Reachable	sip	SIP		192.168.40.77
Registered	ucm6102	SIP	1000	192.168.40.233

Figure 5: SIP Register Trunk Status

7. Configure inbound and outbound rules on two UCMs to make sure the extensions on UCM1 can reach the extensions on UCM2 through the SIP register trunk and vice versa.
8. For the extensions on both UCM6100 that you would like to use call completion, go to the UCM6100 web GUI->**PBX->Basic/Call Routes->Extensions** page, create or edit extension with the following configured in “Features” tab:
 - “Enable CC”: selected
 - “CC Mode”: set to “Normal”
9. Feature code for call completion request can be modified on web GUI->**PBX->Internal Options->Feature Codes** page. The default setting is *11 for “Call Completion Request” and *12 for “Call Completion Cancel”.



PBX >> Internal Options >> Feature Codes

Feature Misc

Reset All Default All

Feature Code Digits Timeout: 1000

Parking Lots: 701-720

Parking Timeout(s): 300

Call Park: 700

User parklot as extension:

Feature Codes

Reset All Default All

Voicemail Access Code: *98

Agent Pause: *83

Paging Prefix: *81

Blacklist Add: *40

Call Pickup on Ringing: **

Direct Dial Voicemail Prefix: *

Call Completion Cancel: *12

My Voicemail: *97

Agent Unpause: *84

Intercom Prefix: *80

Blacklist Remove: *41

Pickup Extension: *8

Call Completion Request: *11

Cancel Save

Figure 6: Call Completion Feature Code

Now, Call Completion feature for trunks is ready to be used when making calls between the 2 UCM6100 extensions.

SAMPLE APPLICATION

After the above configuration, assuming user A is using extension 1005 on UCM1 and user B is using extension 5001 on UCM2.

1. Extension 1005 on UCM1 calls extension 5001 on UCM2.
2. The call fails to be established due to the following possible reasons:
 - a) Extension 5001 is busy, e.g., talking on the phone.
 - b) Extension 5001 rejects the call or the call goes to timeout.
3. At this time, extension 1005 dials “Call Completion Request” code (*11 by default) to activate camp on feature. Please make sure “Enable CC” option is enabled and “CC Mode” is set to “Normal” for both extension 1005 and extension 5001. Otherwise, the user is not allowed to dial the call completion request code.
6. Once extension 5001 becomes available, UCM6100 will call extension 1005. Extension 1005 has to answer the call. The following conditions for extension 5001 are considered as available.

- a) If extension 5001 was busy when 1005 called 5001, 5001 is considered as available after the previously active call hangs up.
 - b) If extension 5001 rejected the call or the call went to timeout when 1005 called 5001, 5001 is considered as available after a new call is completed. This means extension 5001 has to initiate a new call or answer another incoming call and the new call hangs up. Otherwise the UCM6100 will not know whether extension 5001 is available or not.
7. A call will be initiated to extension 1005 to establish call between 1005 and 5001.

**** Asterisk is a Registered Trademark of Digium, Inc.***