

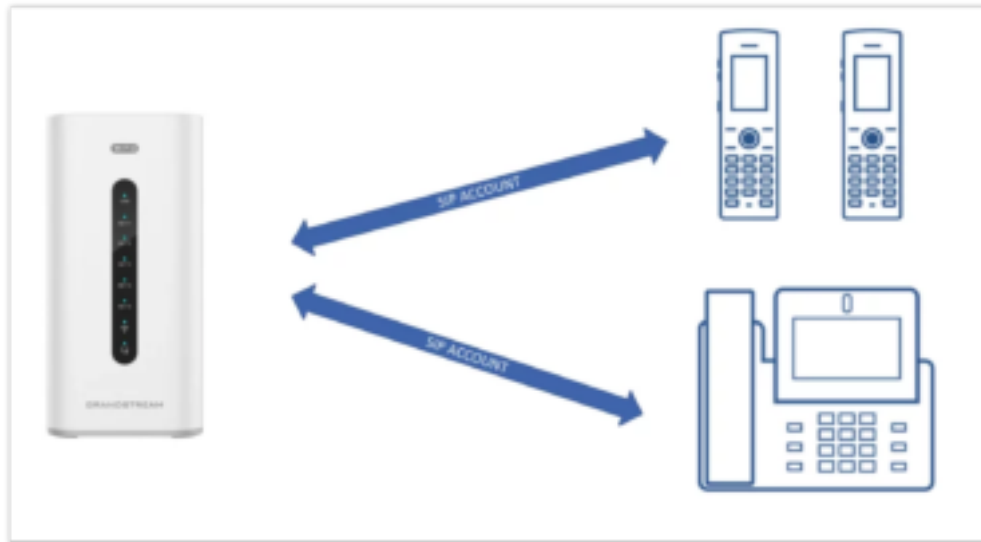
Grandstream Networks, Inc.

GCC6000 Series - **Fast Provisioning Guide**

GCC6000 Series - Fast Provisioning Guide

Introduction

Fast Provisioning is a feature available on the GCC6000 convergence devices, its main purpose is to facilitate the process of registering VoIP devices to the PBX module of the GCC6000 device, making it easier for administrators and system integrator to deploy SIP accounts to the desired installed endpoints, the process of pushing the account configuration from the GCC6000 device to the endpoints is straightforward. The below illustration describes the process.



GCC6000 Series Fast Provisioning

Prerequisites

Before starting the configuration, make sure the following conditions are met:

- The Grandstream VoIP devices and the GCC6000 unit are deployed under the same LAN, or the same VLAN.
- The GCC6000's PBX module is enabled.

Configuration Scenario

Note

By default, 12 extensions are included for Fast Provisioning. If users upgrade the PBX plan, they can add up to 200 users.

Let's consider the following example:

The GCC6000 administrator wants to deploy 10 extensions to his network, two of these extensions will be used by a WP8x6 Wi-Fi phone, and a GXV34xx video phone, the rest will be used by other Grandstream VoIP devices such as the GRP26xx IP phones.

This can be done easily by following the below steps, we will split the configuration into three sections:

- [GCC6000 configuration](#)
- [WP816/WP826/WP836 configuration](#)
- [GXV34xx configuration](#)
- [Initial Dial up Deployment](#)

Here is an illustration of the setup:



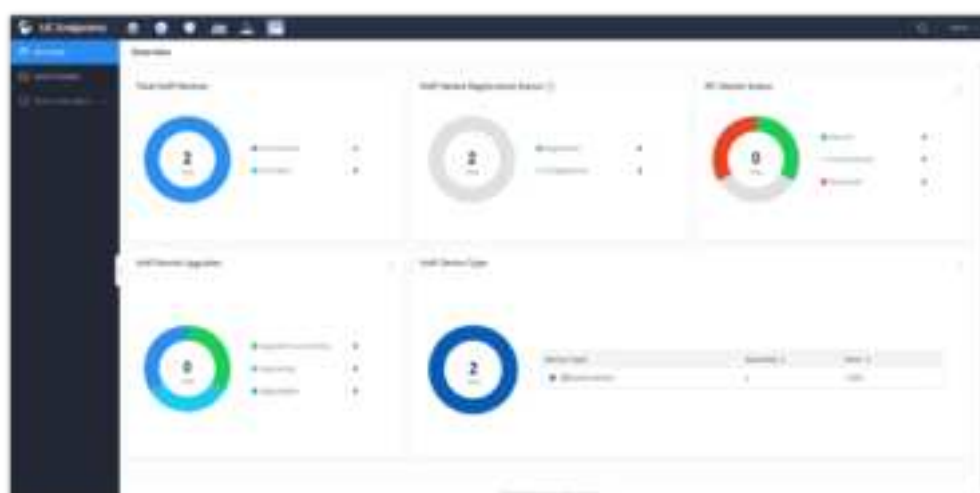
Set up

The GCC6010W model supports an embedded Access Point, and would not need an additional access point to connect wireless devices.

GCC6000 Configuration

On the GCC6000, please perform the below steps:

1. Open the UC Endpoint Module of the GCC6000 device



UC Endpoints

2. Access to Fast Provisioning Tab



Fast Provisioning

3. Depending on your preference:

Either add manually each extension and define its Profile code.

Edit: 1011

Device Information

Extension Number: 1011

MAC Address: C07A0D6A06C8

Profile Code: 451211

Validity Period of Profile Code: Permanently Active [Cancel]

Profile Code User: 3 Custom [Cancel]

Network Priority: Normal

Call Security Level: Normal

Call Voice Quality: Normal

Identity Information

Employee ID: 1011

First Name: John

Last Name: Doe

Job Title: Engineer

Email: email@email.com

Add Extension Manually

Use a predefined Excel file to batch-create extensions and batch-generate their profile codes. Once created you can import the Excel file.

The template can be downloaded by clicking “Download Import Template” as shown below.



Import from template

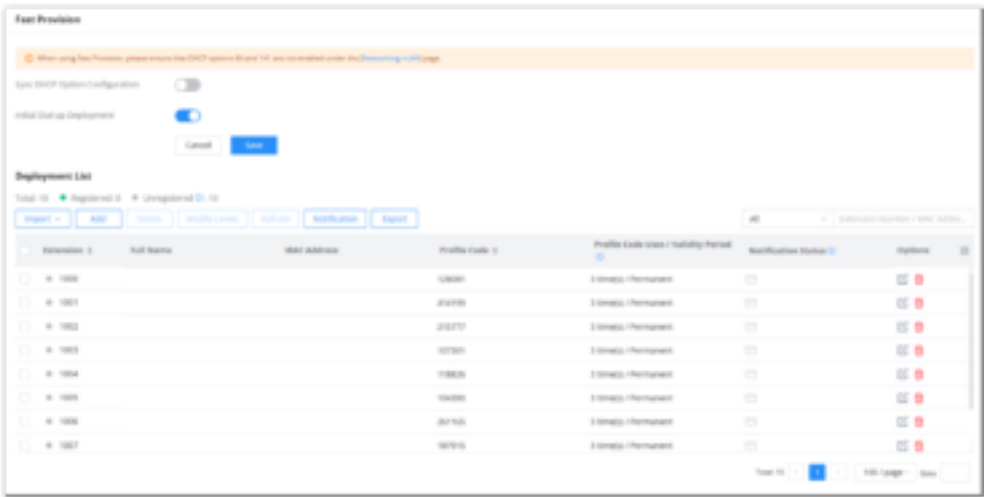
Comments:

- Fields marked with * are required.
- Place your mouse cursor over the field to see the instructions.

*Extension	Device MAC	Network Priority	Call Security Level	Voice Quality	Employee ID	First Name	Last Name	Job Title	Mobile Number	Email	Profile Code	Profile Code User	Profile Code Use Count
1000		General	General	General									0
1001													0
1002													0
1003													0
1004													0
1005													0
1006													0
1007													0
1008													0
1009													0

Excel file template

4. Once the extensions are added, they will be generated with a specific Profile code, each 6-digit code is mapped to an extension, this code will be used on the UC endpoints to automatically retrieve the SIP information and register the extension to the GCC6000's PBX module.



The screenshot shows the 'Fast Provisioning' interface. At the top, there's a warning banner: 'When using Fast Provisioning, please ensure the GCC6000 system is in the 'Ready' state and is connected to the network.' Below this, there are two toggle switches: 'Save GCC6000 System Configuration' (disabled) and 'Initial Startup Deployment' (enabled). There are 'Cancel' and 'Save' buttons. A 'Deployment List' section shows a table with columns: Extension, Full Name, MAC Address, Profile Code, Profile Code Uses / Validity Period, Provisioning Status, and Options. The table lists 7 extensions (1000-1006) with their respective MAC addresses and profile codes. The 'Provisioning Status' column shows icons for each extension. At the bottom right, there are 'Total: 7', 'Add', 'Edit', and 'Delete' buttons.

Extension	Full Name	MAC Address	Profile Code	Profile Code Uses / Validity Period	Provisioning Status	Options
1000		100000	100000	1 times / Permanent		
1001		100100	100100	1 times / Permanent		
1002		100200	100200	1 times / Permanent		
1003		100300	100300	1 times / Permanent		
1004		100400	100400	1 times / Permanent		
1005		100500	100500	1 times / Permanent		
1006		100600	100600	1 times / Permanent		

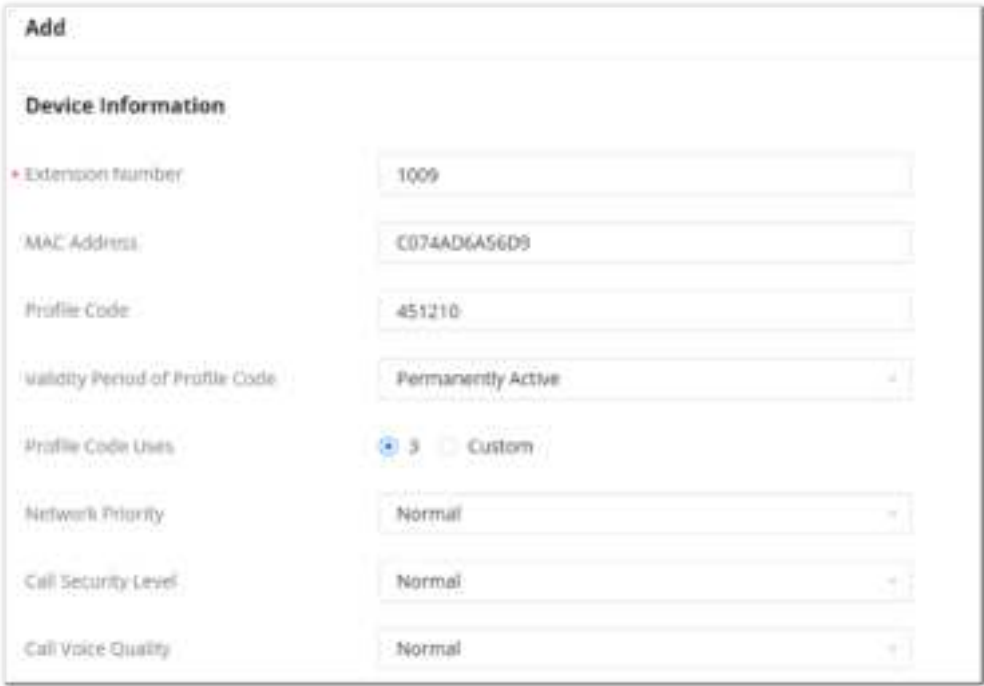
Added Extensions

Once the extensions are created, they will be automatically added to the UCM module of the GCC6000 device.

Additional Fast Provisioning Parameters

Some additional parameters can be defined when manually adding an extension on the Fast provisioning app, or directly on the Excel file example, on the fast provisioning app, we can define the following:

- **Device information:** In this section, we define the custom extension we would like to add, we can manually add the device's MAC address, and we can define Network Priority, Call Security level, and Call Voice Quality, for each parameter, three levels are available: Normal, Intermediate, and Advanced, and additionally, we can define the Profile code for the specific extension, The profile code defined can be set to be permanently active or expires after a certain period (1 day, 2 days, 7 days, 30 days, or Custom amount of days)



The screenshot shows the 'Add' form in the Fast Provisioning application. It has a 'Device Information' section with the following fields: 'Extension Number' (1009), 'MAC Address' (C074AD6A56D9), 'Profile Code' (451210), 'Validity Period of Profile Code' (Permanently Active), 'Profile Code Uses' (3, with a 'Custom' button), 'Network Priority' (Normal), 'Call Security Level' (Normal), and 'Call Voice Quality' (Normal). Each field has a dropdown arrow on the right.

Device Information

- **Identity Information:** In this section, you can define the user-specific information including Employee ID, First and Last name, Email, Mobile Number, Job Title.

Identity Information

Employee ID	1010
First Name	John
Last Name	Doe
Job Title	Engineer
Email	test@email.com
Mobile Number	+1 5555555555

Identity Information

Additional Fast Provisioning Operations

- **Delete:** This option is used to select and delete a specific extension, or extensions.

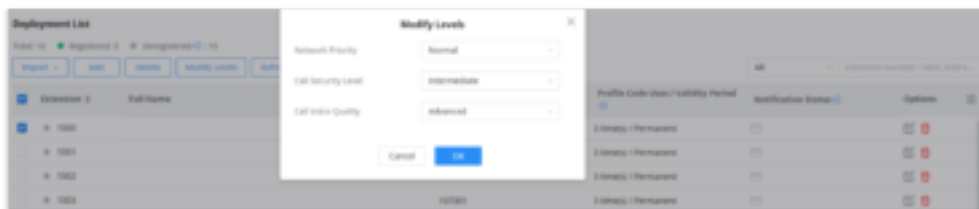


Delete Extension

- **Refresh:** This option allows the users to automatically change the 6-digit profile code for a specific extension into a newly generated code.



- **Modify Levels:** This option allows the user to change the extension's network priority, call security level, and voice call quality, these settings correlate directly with the QoS configuration on the router module.
 1. **Network Priority:** Defines how the system prioritizes voice traffic over the network for the specific extension, particularly when there is congestion or limited bandwidth.
 - **Normal:** Voice traffic is treated as regular data traffic with no special prioritization.
 - **Intermediate:** Voice traffic is given higher priority over other types of data traffic, like file transfers or browsing.
 - **Advanced:** Voice traffic is given the highest level of priority on the network, this is for critical for environments with high congestion
 2. **Call security level:** Defines the call security level, controls the encryption and security protocols applied to voice calls to protect them from interception or unauthorized access, three levels are available: Normal, intermediate, and advanced.
 - **Normal:** Minimal or no encryption is applied.
 - **Intermediate:** Moderate security measures, such as Secure RTP (SRTP), are applied.
 - **Advanced:** Maximum encryption and security features are applied, including TLS for signaling and SRTP for media.
 3. **Voice call quality level:** Defines the compression and encoding algorithms used to maintain voice clarity and reduce latency, three levels are available: Normal, intermediate, and advanced.
 - **Normal:** Standard codecs (e.g., G.711) with no special optimization.
 - **Intermediate:** Slightly optimized codecs (e.g., G.729) that balance voice clarity with bandwidth efficiency.
 - **Advanced:** High-quality codecs with advanced processing (e.g., Opus or wideband codecs).



Modify Network levels

- **Notification:** Using this option, the administrator can send the ID profile code for a specific extension related to a specific user, he can be notified through SMS by using an SMS carrier service such as Twilio or Amazon, or through email by defining the corresponding email settings.



Sending SMS or Email notification



Email Example

- **Export:** The administrator can export all extension information into one Excel file by clicking the Export option.



Export Extensions

DHCP Option Configuration

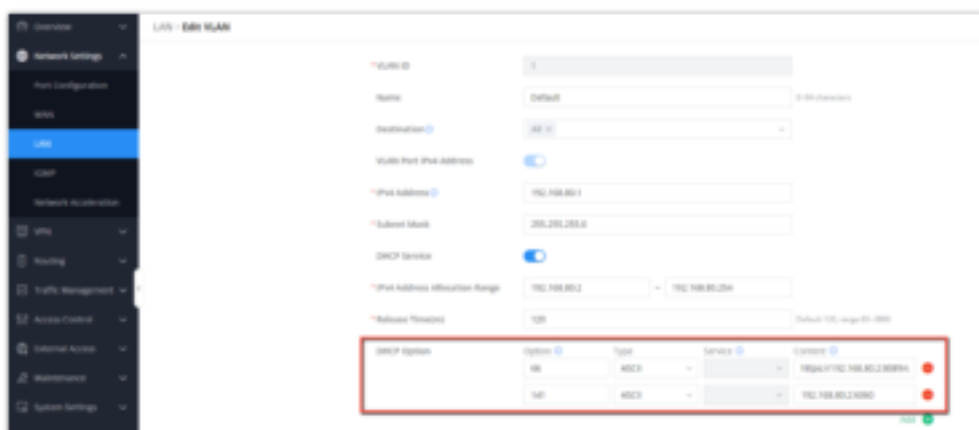
When using fast provision, please ensure the DHCP options 66 and 141 are not defined under the [Networking->LAN->DHCP Options] page.

- **First Scenario: Sync DHCP Option Configuration enabled**

Sync DHCP option is a crucial parameter that will define how the SIP extension will be pushed to the endpoint devices. If the option is enabled, then option 66, responsible for defining the Config server path, and option 121, responsible for defining the SIP server address, will be automatically pushed to the router's DHCP options, with the crucial condition that there are no DHCP options 66 and 121 already defined; otherwise, it will not work.



Sync DHCP



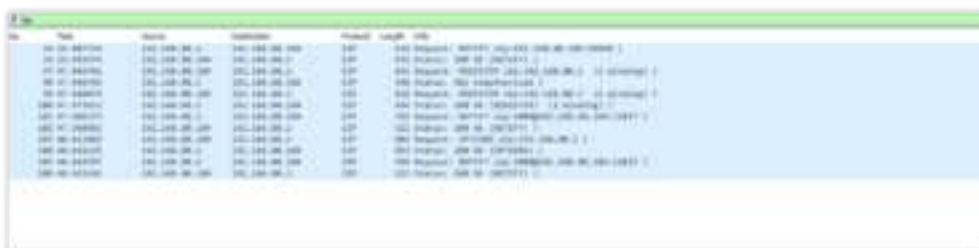
Sync DHCP Enabled

◦ Second Scenario: Sync DHCP Option Configuration disabled

The second option to push the SIP extension is when the sync DHCP option is disabled. In this case, the SIP extension will be pushed using a SIP subscribe message sent from the endpoint to the SIP server, by providing the Profile code defined. It will bypass defining parameters such as the SIP user ID, SIP Auth ID, and SIP password, and will only require a unique 6-digit Profile code to register the extension. Once the Profile code is provided, the SIP server will provide back a SIP notify message with the configuration server path, and a message confirming that the account has been provisioned.



Config Server Path pushed through Fast Provision



Account registered through SIP NOTIFY

Note

It might take 1-2 mins for the the account to be registered and the SIP NOTIFY message to be automatically received by the endpoint.

Endpoint Configuration

WP816/WP826/WP836 configuration

On the WP8x6 Wi-Fi phone, you can deploy the extension by simply providing the profile code in the phone's internal settings, please follow the below steps to complete the configuration:

1. On your WP8x6, Access **Settings** → **Zero Config**.
2. Open the **Profile Code** option, and select the user account you want to add the extension to.
3. Provide the 6-digit code received, and click connect. After this, the extension will be automatically deployed to the device, in addition, the device's MAC address will be automatically retrieved and added to the GCC6000 device.

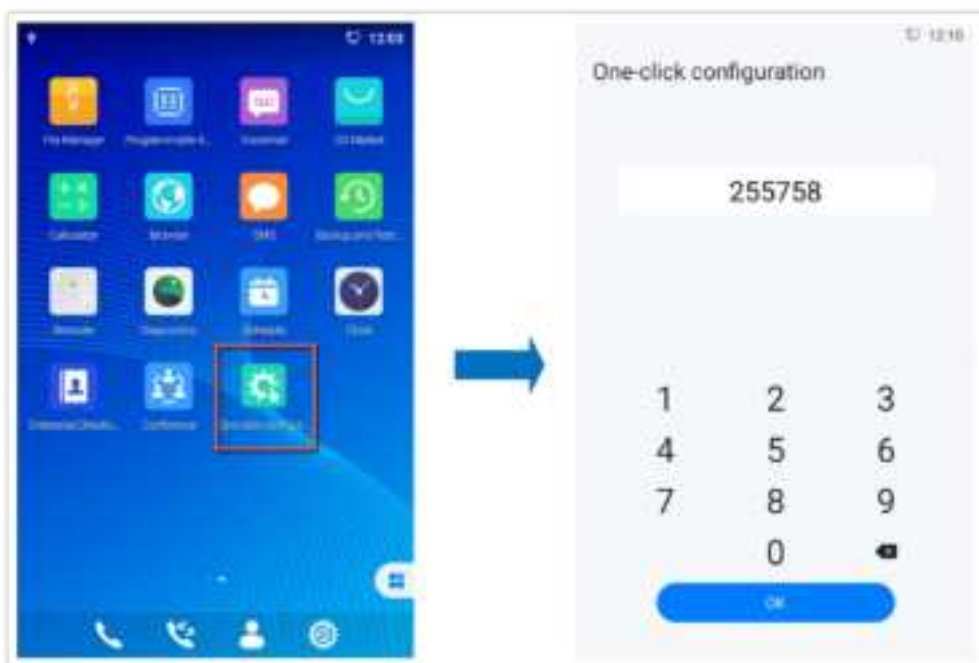


Configuration Steps

GXV34xx configuration

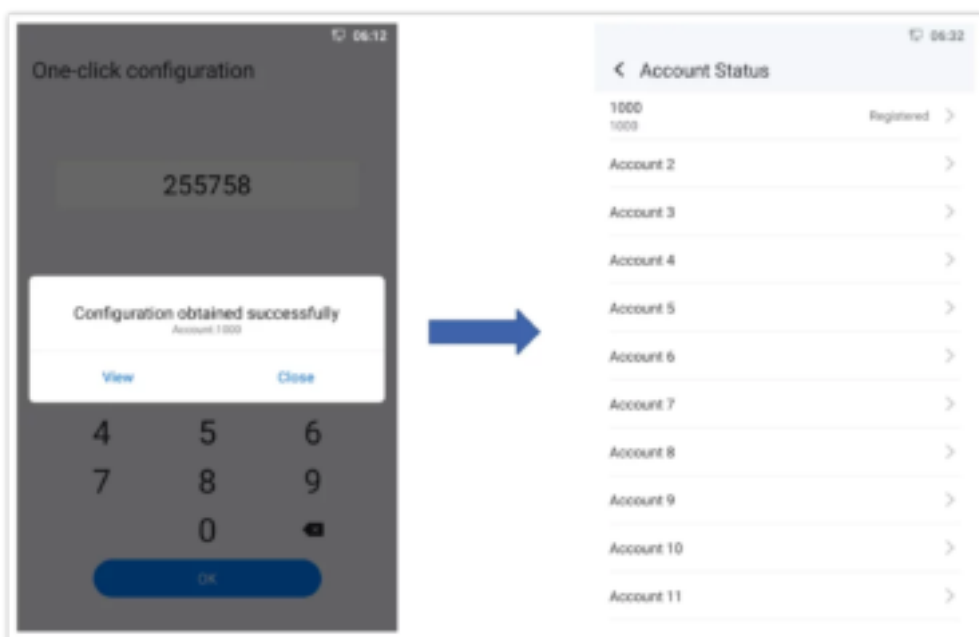
The GXV34xx device uses an application called “One-Click Configuration” to push the extension settings to a specified account, Please follow the below steps to achieve that goal:

1. On your GXV34xx, Open the **One-Click Configuration** App
2. Provide the 6-digit Profile code for your corresponding extension.



One Click Configuration

3. The extension will automatically be registered to the device, after showing the success message below, in addition, the device’s MAC address will be automatically retrieved and added to the GCC6000 device.

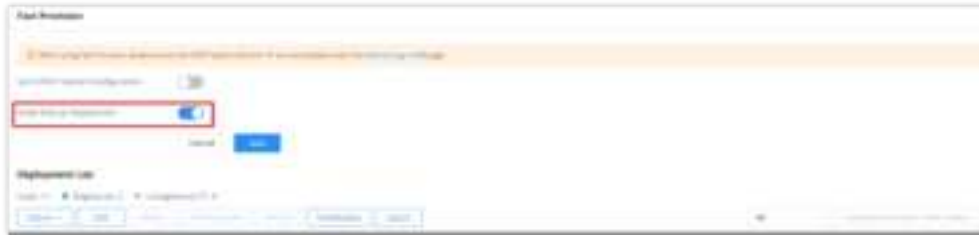


Configuration Completed

Initial Dial up Deployment

For other VoIP devices that do not support the one-click configuration application, or the zero config configuration, the process of provisioning the SIP account is done through the initial dial up deployment, the way to set this up is as follows:

1. Enable Initial Dial-up Deployment feature under **UC Endpoints Module→ Fast Provision**.



Initial Dial up Deployment

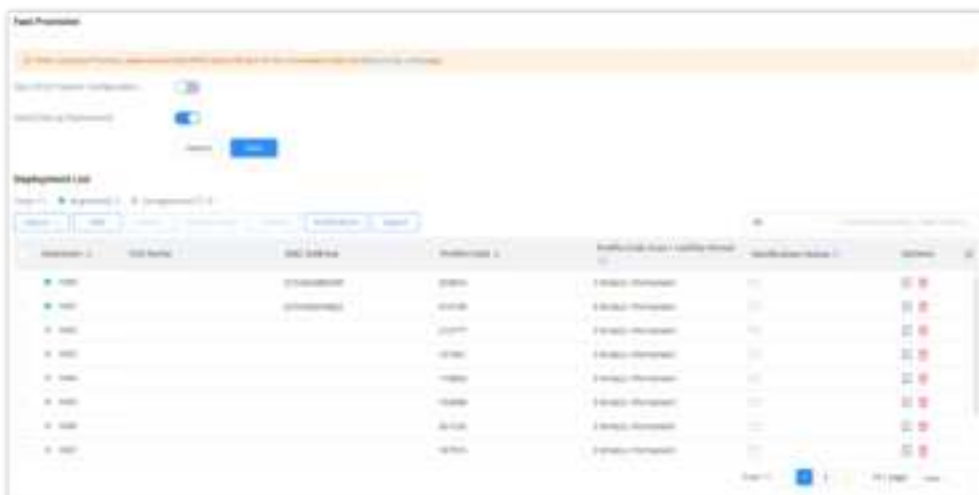
2. Under **UC Endpoints Module→ Device Management → VoIP Devices**, select the devices that you wish to register with the SIP accounts created

3. Click the [Update Config](#) icon to push the a SIP Notify message with the account information.



SIP Notify

4. On the endpoint, dial the profile code corresponding to the extension you wish to register, the account registration will be completed after that, (e.g: on the dial pad of the IP phone, dial the profile code **359814** to register extension 1000), the MAC address of the unit will be added accordingly.



Extension registered through Initial Dial up Deployment

Supported Devices

Device	Firmware required
GCC6010W	1.0.1.7+
GCC6010	1.0.1.7+

GCC6011	1.0.1.7+
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Supported Devices

Need Support?

Can't find the answer you're looking for? Don't worry we're here to help!

[CONTACT SUPPORT](#)