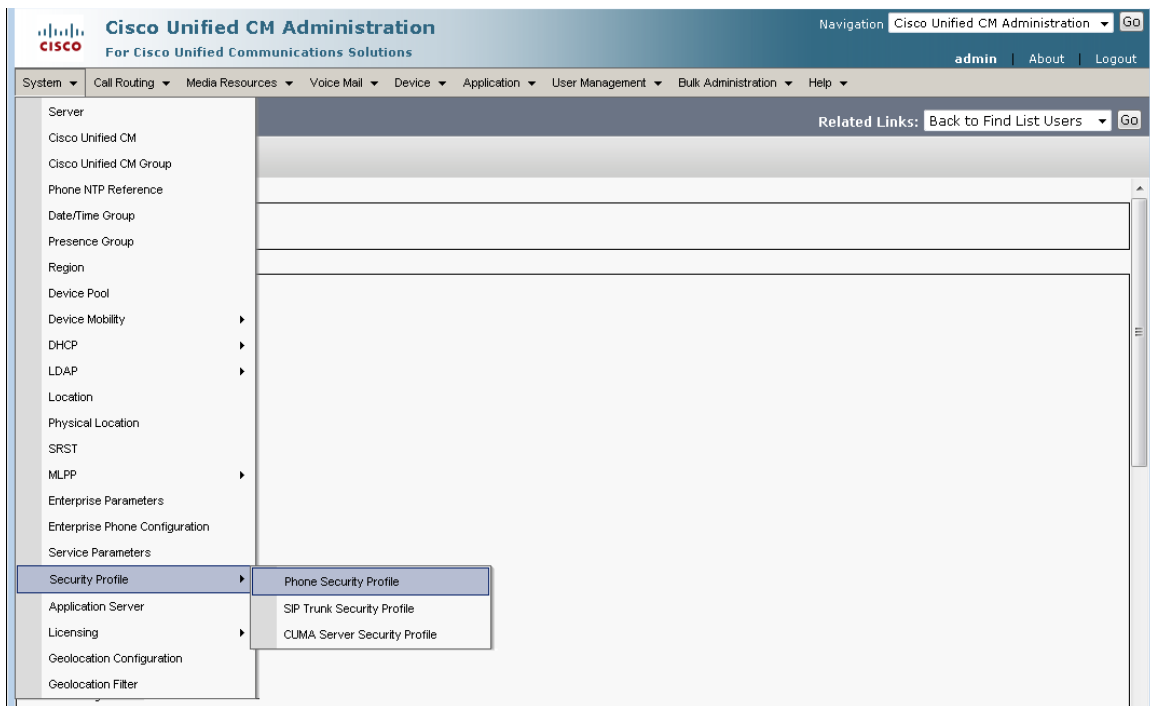


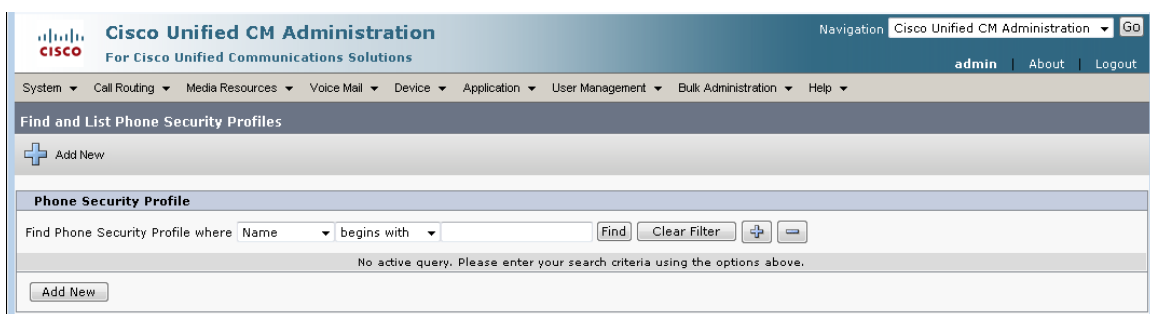
Valcom Session Initiation Protocol (SIP) VIP devices are compatible with Cisco Unified Communications Manager (formerly Cisco Unified CallManager) (SIP enabled versions). The Valcom device is added to the Communications Manager as a Third-party SIP Device (Basic or Advanced). Third-party SIP Device (Basic) supports one line and requires three license units. Third-party SIP Device (Advanced) supports up to eight lines and requires six license units. The following steps outline the typical configuration process.

1. Default, non-secure Phone Security Profiles do not require authentication for a phone to register. To enable digest authentication, a new Phone Security Profile must be configured. If an appropriate profile has already been defined, it may be used for the Valcom device. Skip to Step 5 if an existing profile will be used, or if authentication is not required and a built-in (non-secure) profile will be used.

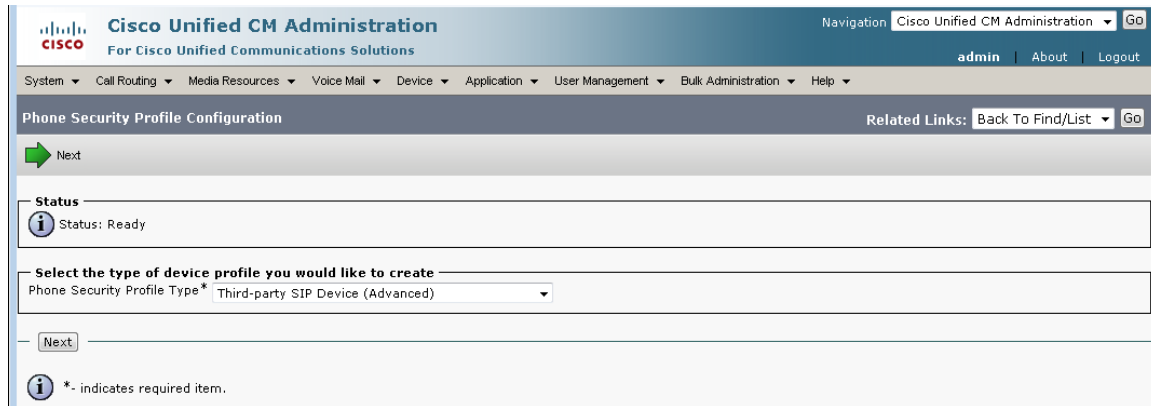
Navigate your web browser to the IP address of your Cisco Unified Communications Manager server and login. Go to the “System” menu, and then click “Security Profile”, then click “Phone Security Profile”.



2. Click on “Add New”



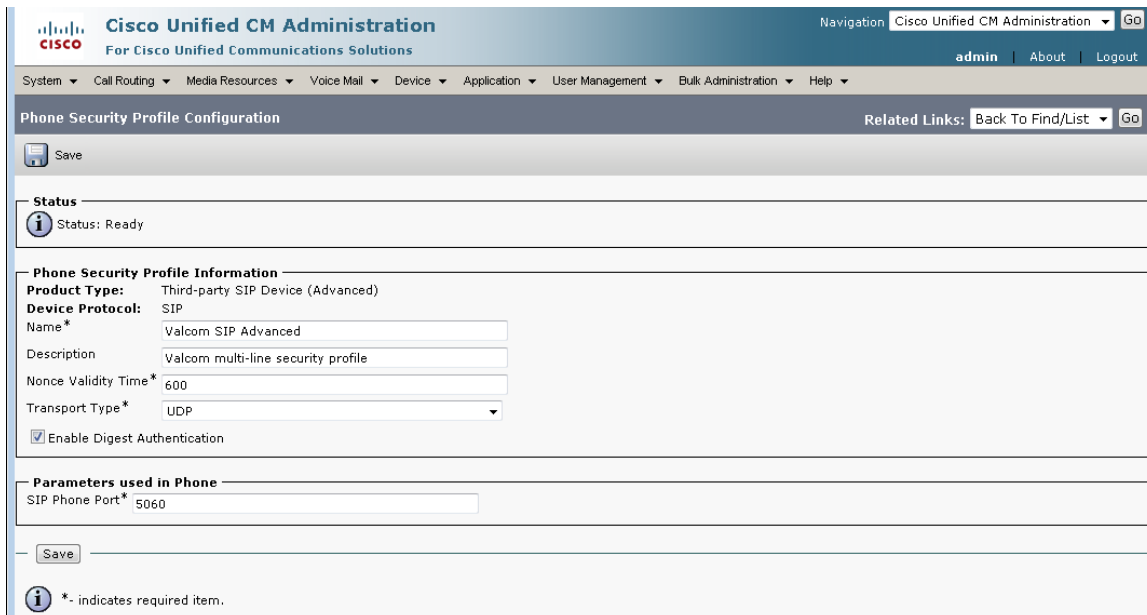
3. On the Phone Security Profile Configuration screen, select the appropriate Profile Type from the dropdown list. For Valcom devices, the type will be either Third-party SIP Device (Advanced) or Third-party SIP Device (Basic). The profile being created will only be available for the phone type that is selected. Use Basic for devices that only have a single SIP identity (such as a SIP speaker). Select Advanced for devices that have multiple SIP identities (such as the VIP-201 Paging Server). Click “Next” after selecting the Type.



The screenshot shows the 'Phone Security Profile Configuration' page in Cisco Unified CM Administration. The page title is 'Phone Security Profile Configuration' and it includes a 'Next' button. The 'Status' section shows 'Status: Ready'. The 'Select the type of device profile you would like to create' section has a dropdown menu for 'Phone Security Profile Type*' set to 'Third-party SIP Device (Advanced)'. A 'Next' button is located below the dropdown. A note at the bottom states: '*- indicates required item.'

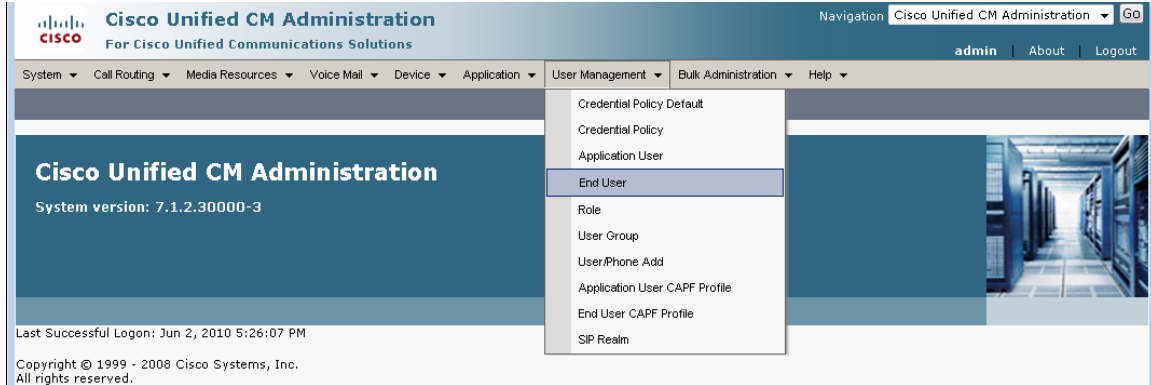
4. Enter the Phone Security Profile Information.

- A) Enter “Name*” (ex. Valcom SIP Advanced)
- B) Enter “Nonce Validity Time*” in seconds (default 600)
- C) For “Transport Type*” select “UDP” from the dropdown list
- D) Check the box for “Enable Digest Authentication”
- E) The “SIP Phone Port*” should be left at the default of 5060, unless it is also changed in the Valcom device.
- F) Click the “Save” button when all fields have been entered.

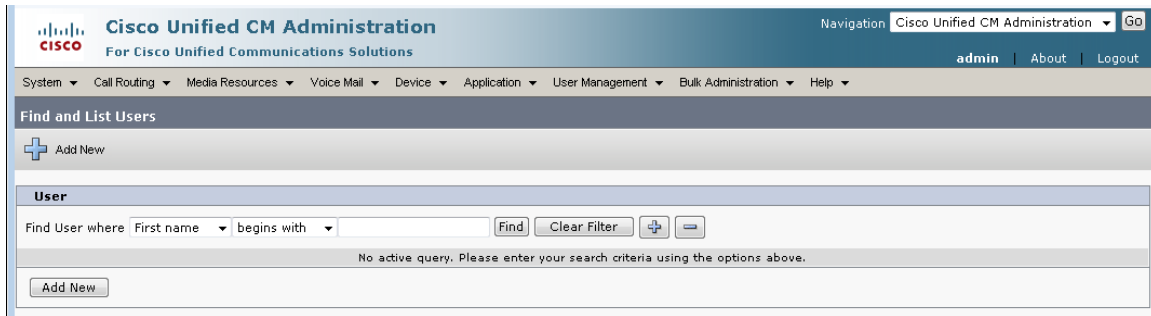


The screenshot shows the 'Phone Security Profile Configuration' page with the 'Phone Security Profile Information' section expanded. The 'Save' button is visible at the top left. The 'Status' section shows 'Status: Ready'. The 'Phone Security Profile Information' section includes the following fields: 'Product Type: Third-party SIP Device (Advanced)', 'Device Protocol: SIP', 'Name*: Valcom SIP Advanced', 'Description: Valcom multi-line security profile', 'Nonce Validity Time*: 600', 'Transport Type*: UDP', and a checked checkbox for 'Enable Digest Authentication'. The 'Parameters used in Phone' section shows 'SIP Phone Port*: 5060'. A 'Save' button is located at the bottom. A note at the bottom states: '*- indicates required item.'

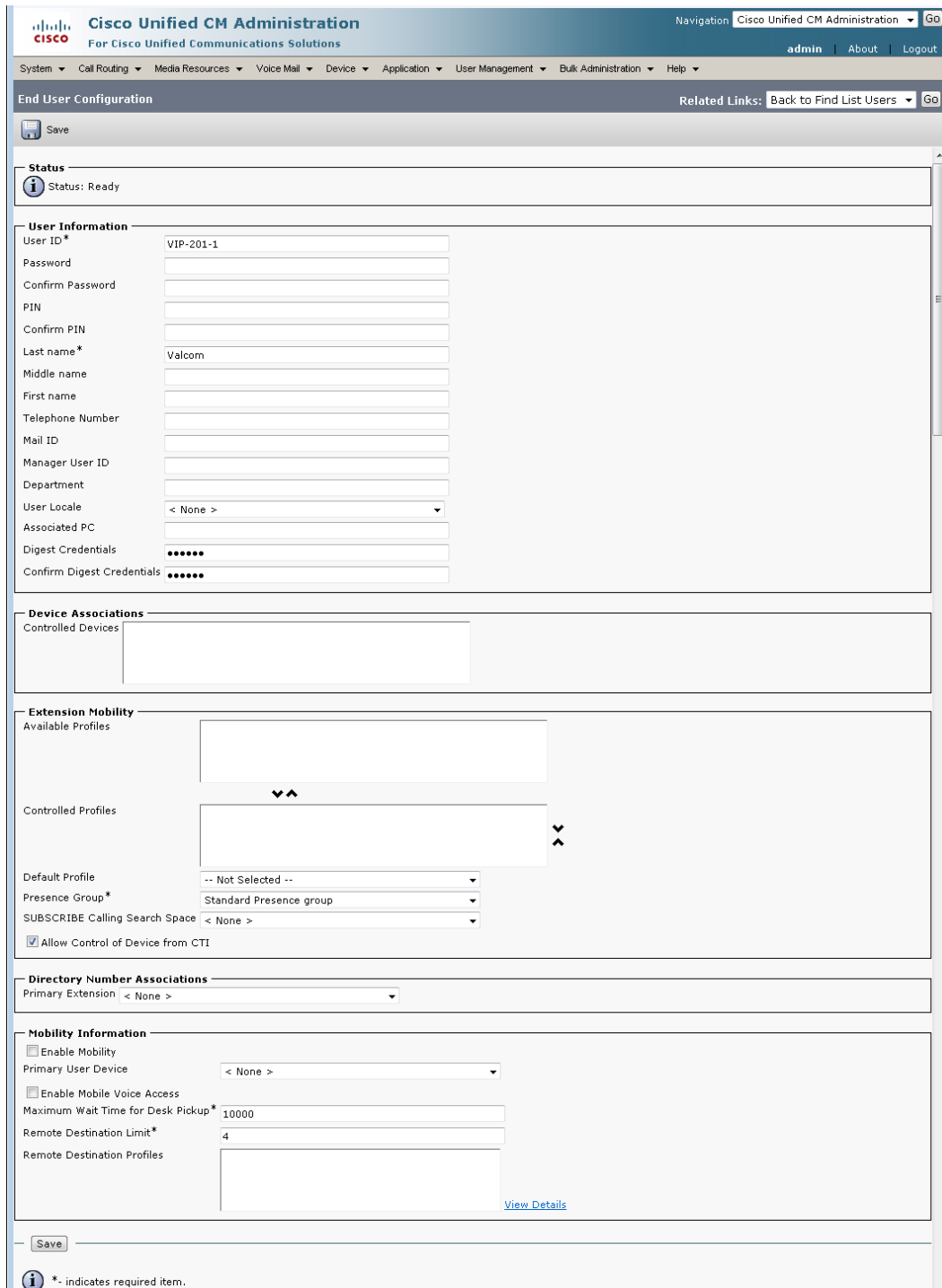
5. An End User must be created to allow the Valcom device to register with the Communications Manager. Under the “User Management” menu, select “End User”



6. Click on “Add New”



7. Configuration items on the End User Configuration page marked with an asterisk (*) are required entries. The minimum required for the Valcom device are listed; other fields should be completed if necessary for your site.
- Enter "User ID*" (ex. VIP-201-1)
 - Enter "Last name*" (ex. Valcom)
 - Enter "Digest Credentials" (ex. valcom). This may be left blank if not using digest authentication.
 - Re-enter credentials in "Confirm Digest Credentials" (ex. valcom)
 - Select "Save" at the top or bottom of the screen



Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | admin | About | Logout

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

End User Configuration | Related Links: Back to Find List Users | Go

Status
Status: Ready

User Information

User ID* | VIP-201-1

Password |

Confirm Password |

PIN |

Confirm PIN |

Last name* | Valcom

Middle name |

First name |

Telephone Number |

Mail ID |

Manager User ID |

Department |

User Locale | < None >

Associated PC |

Digest Credentials |

Confirm Digest Credentials |

Device Associations
Controlled Devices |

Extension Mobility

Available Profiles |

Controlled Profiles |

Default Profile | -- Not Selected --

Presence Group* | Standard Presence group

SUBSCRIBE Calling Search Space | < None >

Allow Control of Device from CTI

Directory Number Associations
Primary Extension | < None >

Mobility Information

Enable Mobility

Primary User Device | < None >

Enable Mobile Voice Access

Maximum Wait Time for Desk Pickup* | 10000

Remote Destination Limit* | 4

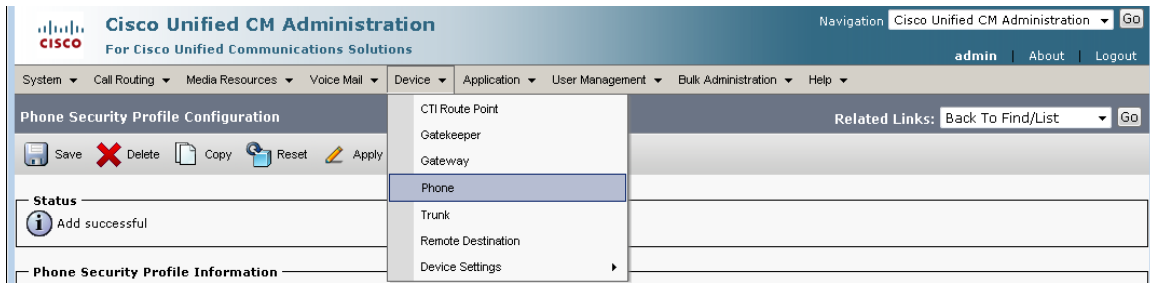
Remote Destination Profiles |

[View Details](#)

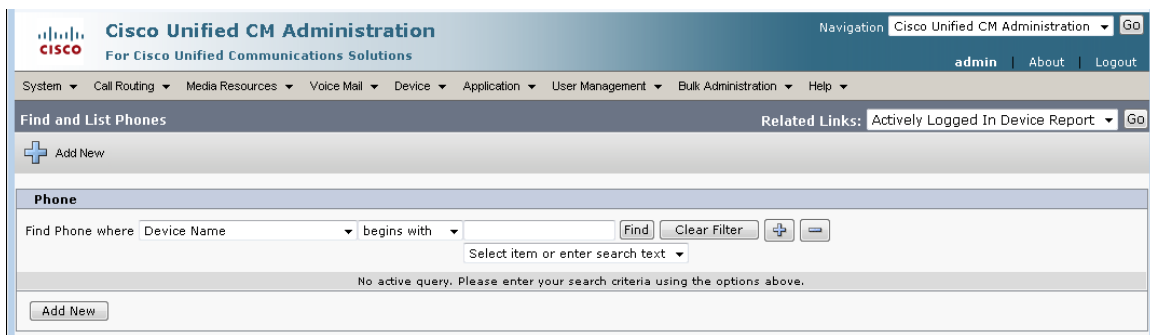
Save

* - indicates required item.

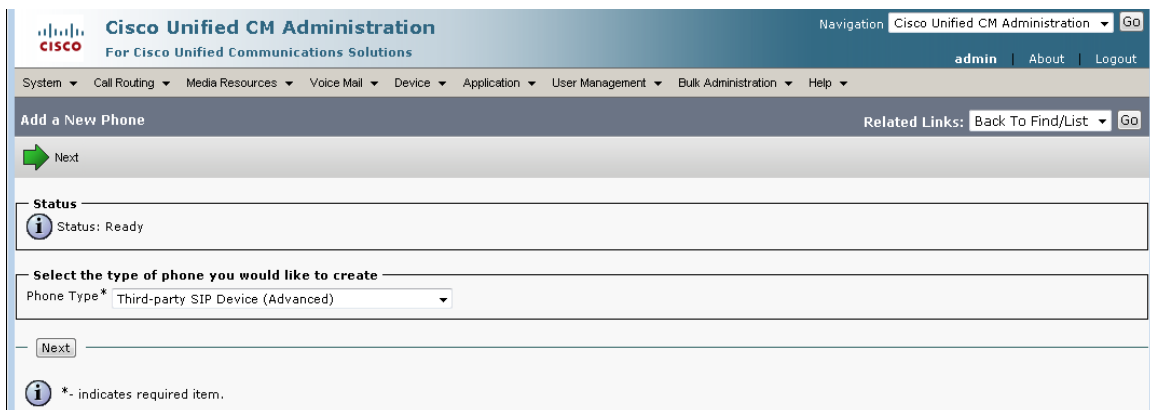
8. Create the Phone definition for the Valcom device. Go to the “Device” menu, and then click on “Phone”



9. Click “Add New”



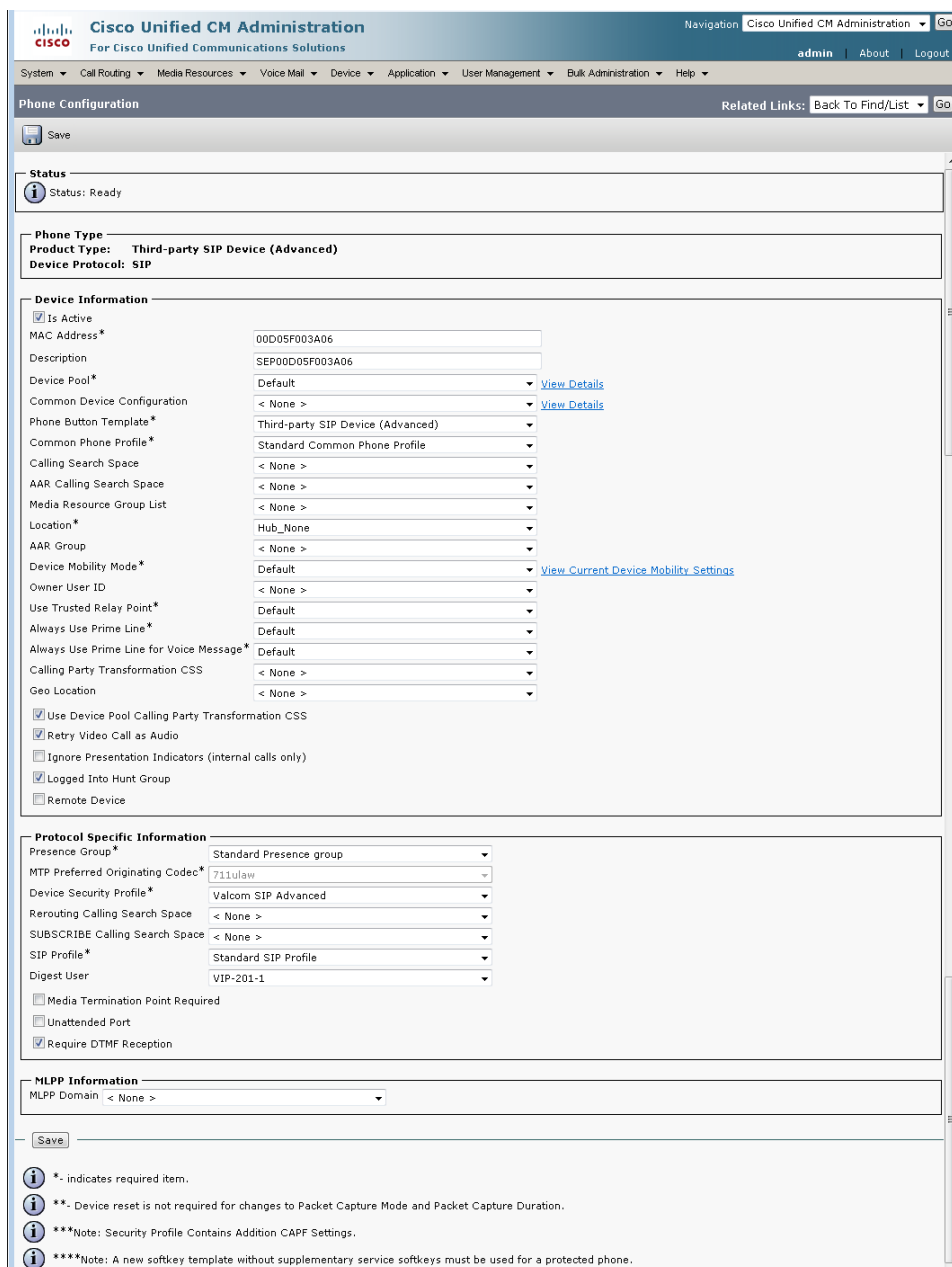
10. Select “Third-party SIP Device (Basic)” or “Third-party SIP Device (Advanced)” from the dropdown, then click “Next”. Valcom IP devices that only have one SIP identity (directory number) would be “Basic”, other Valcom IP devices can be either. If you intend to only use one SIP identity (directory number) on the Valcom IP device, then choose Basic. Otherwise, choose Advanced. Click “Next” after making the Type selection.



11. Configuration items on the web page marked with an asterisk (*) are required entries. Complete those items with values appropriate for your site, particularly for items such as Device Pool, Calling Search Space, Location, etc.

Complete the following steps:

- A) Confirm the “Is Active” checkbox is checked.
- B) Enter “MAC Address*” (ex. 00D05F003A06, use the MAC address from the Valcom device that will be registered)
- C) For “Device Pool*”, select “Default” (or Pool that is valid for your installation)
- D) For “Phone Button Template*”, select “Third-party SIP Device (Basic)” or “Third-party SIP Device (Advanced)”
- E) For “Device Security Profile*”, select Profile created in Step 1 (ex. “Valcom SIP Advanced”), or use built-in non-secure profile if authentication is not required
- F) For “SIP Profile*”, select “Standard SIP Profile”
- G) For “Digest User”, select the “User ID” that was created in Step 7. (ex. VIP-201-1)
- H) Check the box for “Require DTMF Reception”
- I) Select “Save” at the top or bottom of the screen.



The screenshot shows the Cisco Unified CM Administration web interface for configuring a phone. The page title is "Cisco Unified CM Administration" and the breadcrumb is "Phone Configuration". The status is "Ready".

Phone Type
 Product Type: Third-party SIP Device (Advanced)
 Device Protocol: SIP

Device Information

<input checked="" type="checkbox"/> Is Active	
MAC Address*	00D05F003A06
Description	SEP00D05F003A06
Device Pool*	Default
Common Device Configuration	< None >
Phone Button Template*	Third-party SIP Device (Advanced)
Common Phone Profile*	Standard Common Phone Profile
Calling Search Space	< None >
AAR Calling Search Space	< None >
Media Resource Group List	< None >
Location*	Hub_None
AAR Group	< None >
Device Mobility Mode*	Default
Owner User ID	< None >
Use Trusted Relay Point*	Default
Always Use Prime Line*	Default
Always Use Prime Line for Voice Message*	Default
Calling Party Transformation CSS	< None >
Geo Location	< None >

Use Device Pool Calling Party Transformation CSS

Retry Video Call as Audio

Ignore Presentation Indicators (internal calls only)

Logged Into Hunt Group

Remote Device

Protocol Specific Information

Presence Group*	Standard Presence group
MTP Preferred Originating Codec*	711ulaw
Device Security Profile*	Valcom SIP Advanced
Retouring Calling Search Space	< None >
SUBSCRIBE Calling Search Space	< None >
SIP Profile*	Standard SIP Profile
Digest User	VIP-201-1

Media Termination Point Required

Unattended Port

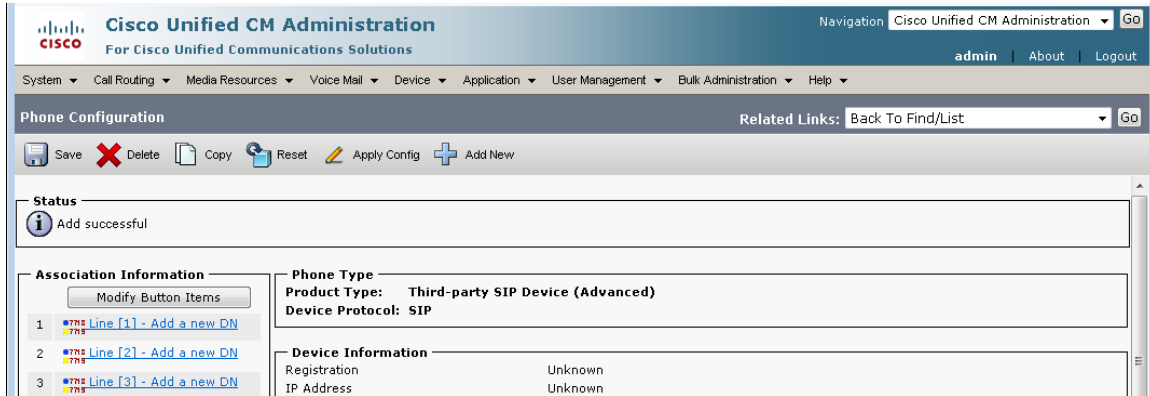
Require DTMF Reception

MLPP Information

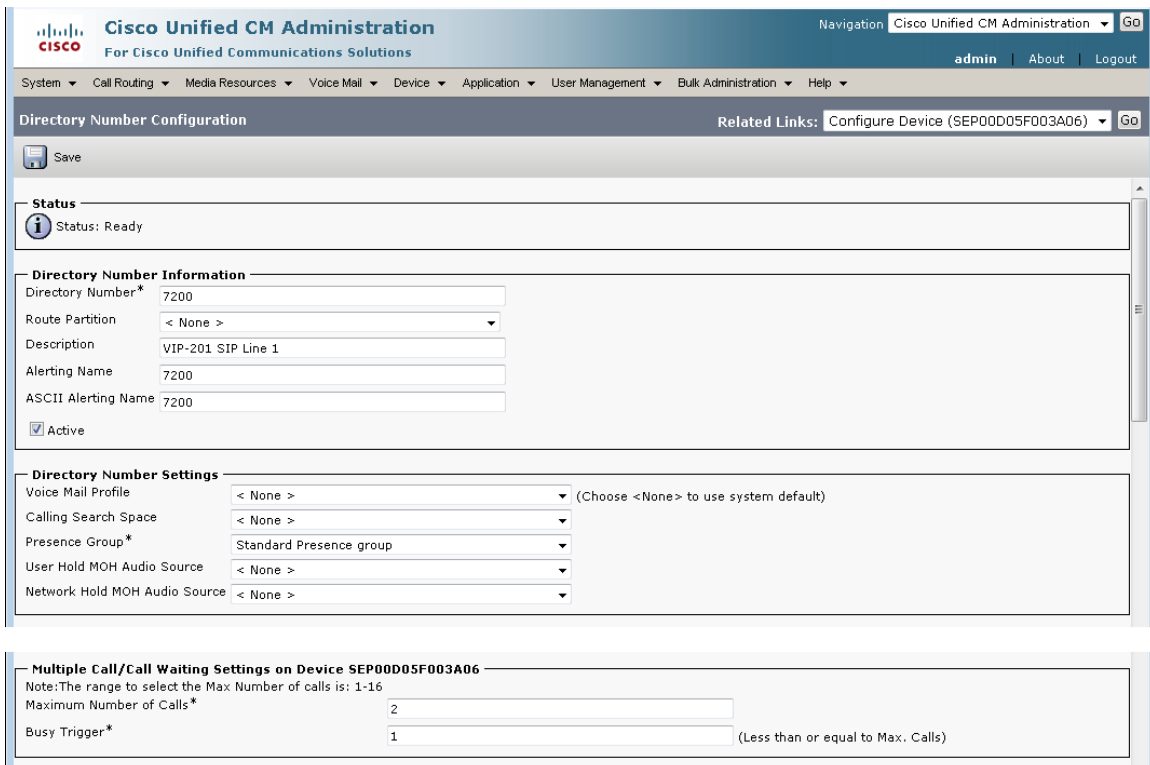
MLPP Domain: < None >

Legend:
 * - indicates required item.
 ** - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.
 ***Note: Security Profile Contains Addition CAPF Settings.
 ****Note: A new softkey template without supplementary service softkeys must be used for a protected phone.

12. After saving the initial Phone Configuration, the screen will now display a column for Association Information. Select any of the line appearance items, typically the first one “Line [1] – Add a new DN”. For Valcom devices that support multiple SIP identities, select any Line that has not already been assigned.



13. The Directory Number Configuration includes many options. Complete the entries with values appropriate for your installation, particularly for items such as Route Partition and Calling Search Space. For Valcom devices that support multiple SIP identities, Steps 12 and 13 may be repeated to assign additional directory numbers to the device.
- Enter “Directory Number*” (ex. 7200)
 - Enter “Description” (ex. VIP-201 SIP Line 1)
 - Make sure the “Is Active” checkbox is checked
 - For “Maximum Number of Calls*”, enter “2”
 - For “Busy Trigger*”, enter “1”
 - Select “Save” at the top or bottom of the screen



14. Open the VIP-102B IP Solutions Setup Tool interface for the Valcom SIP enabled device.

Note: The information contained in this guide is limited to configuration of the "SIP" tab in the VIP-102B IP Solutions Setup Tool for the Valcom VIP device that is to be registered to the SIP server. More information on Valcom VIP device configuration, such as IP address assignment, relay activation, etc, may be found in the VIP-102B Reference Manual. This document may be downloaded from our website at <http://www.valcom.com>

- A) For "Phone Number", enter the Directory Number from Step 13 (ex. 7200)
- B) For "Authentication Name" enter the End User created in Step 7 (ex. VIP-201-1)
- C) For "Secret", enter the Digest Credentials entered in Step 7 (ex. valcom), or leave blank if not using authentication
- D) For "SIP Server", enter the IP address of the Communications Manager server
- E) Make sure the "Register" checkbox is checked
- F) The Port settings should be left at the default values, unless specific site conditions require changes
- G) Other entries, such as Audio Groups, Store and Play selection, etc. may be entered as necessary

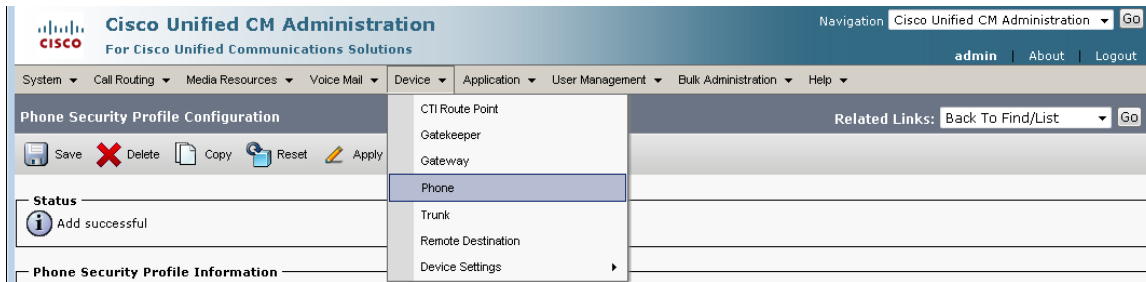
For Valcom devices that support multiple SIP identities, each Directory Number assigned in Steps 12 & 13 can be assigned to one of the available SIP identities. Move the slider control at the bottom of the screen to move between identities. Enter the Phone Number to match the Directory Number for each Line configured in Step 13. The Authentication Name and Secret will stay the same for all SIP identities on the Valcom device. When the Valcom VIP device configuration is complete, select the "Update Changed Devices" option from the Communications menu. When the update is complete, reset the device to make the changes effective.

The screenshot shows the 'SIP' configuration tab for 'SIP Identity 1'. The 'SIP Mode' is set to 'Station'. The configuration includes the following fields and options:

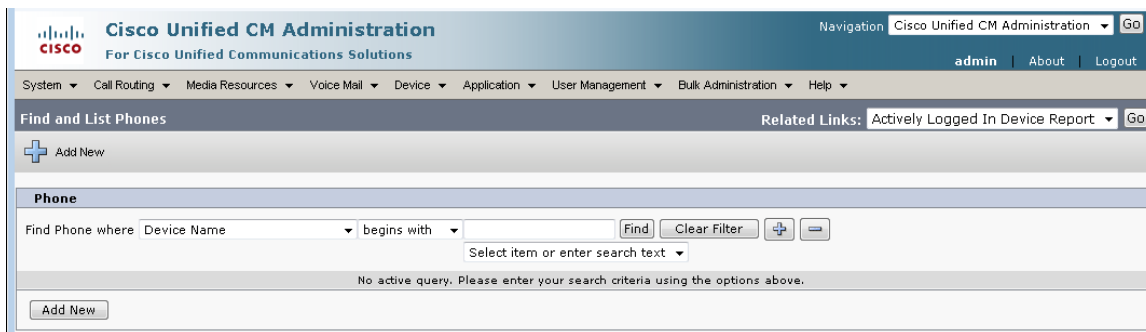
- Phone Number: 7200
- Description: VIP-201 Ch 1
- Authentication Name: VIP-201-1
- Secret: valcom
- Realm: (empty)
- SIP Server: 192.168.97.56
- Register:
- Outbound Proxy: (empty)
- SIP Server Port: 5060
- SIP Port: 5060
- Outbound Port: 5060
- RTP Port: 20000
- Night Ring:
- Pre-Announce Tone:
- Store and Play:
- Play Count: 1
- Announce To: Available
- Audio Groups:
 - 3333 - Concurrent Phones/Speakers
 - 4444 - Mixed Phone-Speaker Group
 - 5555 - Speakers Only
 - 6666 - Cisco Phones Only

Buttons for 'All' and 'None' are present below the Audio Groups list. A 'Cancel' button is at the bottom right. A slider at the bottom indicates '1 of 8' identities.

15. To confirm a successful configuration, return to Communications Manager and click on “Phone” from the “Device” menu.



16. Click the “Find” button to search for Phones.



17. Locate the VIP device in the search results. If successfully registered, the Status column should show the VIP device is registered to the Communications Manager with the VIP device’s IP address in the “IP Address” column.

