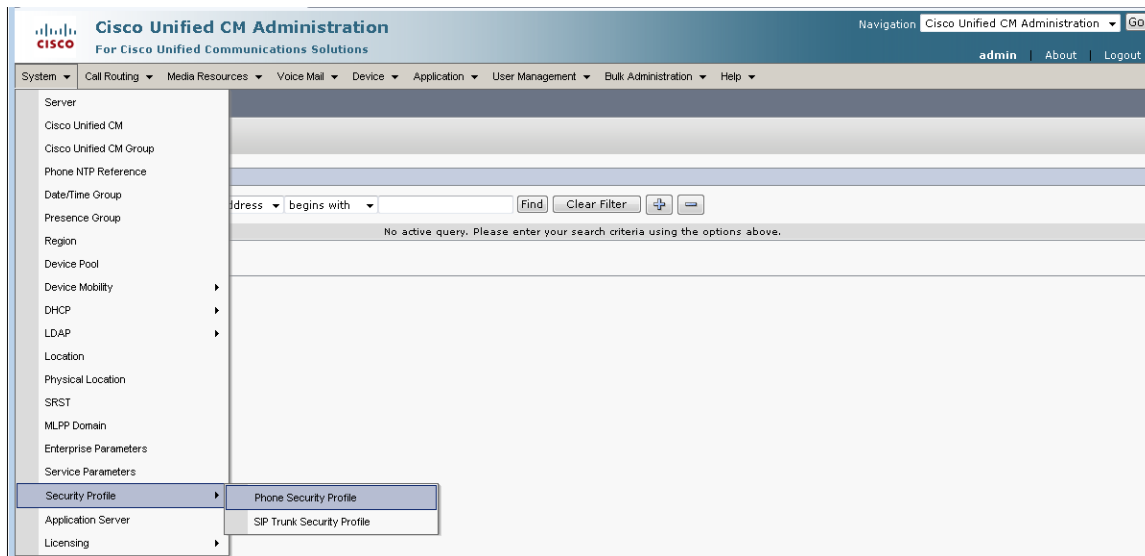


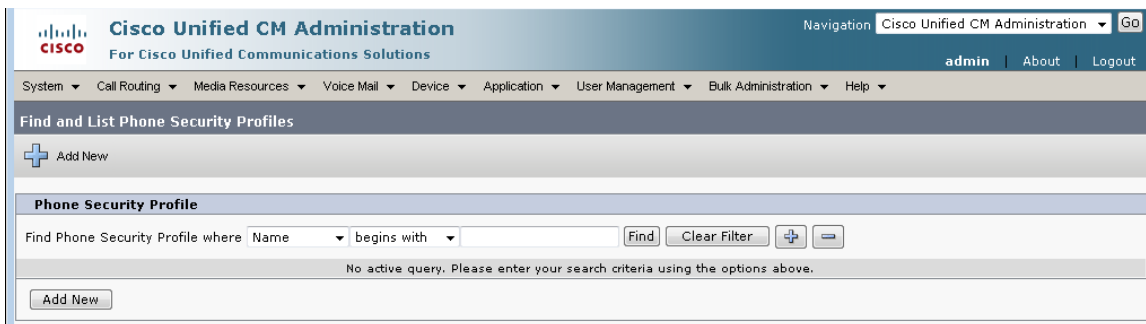
Valcom Session Initiation Protocol (SIP) VIP devices are compatible with Cisco Unified Communications Manager (formerly Cisco Unified CallManager) (SIP enabled versions). The Valcom device is added to the Communications Manager as a Third-party SIP Device (Basic or Advanced). Third-party SIP Device (Basic) 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.

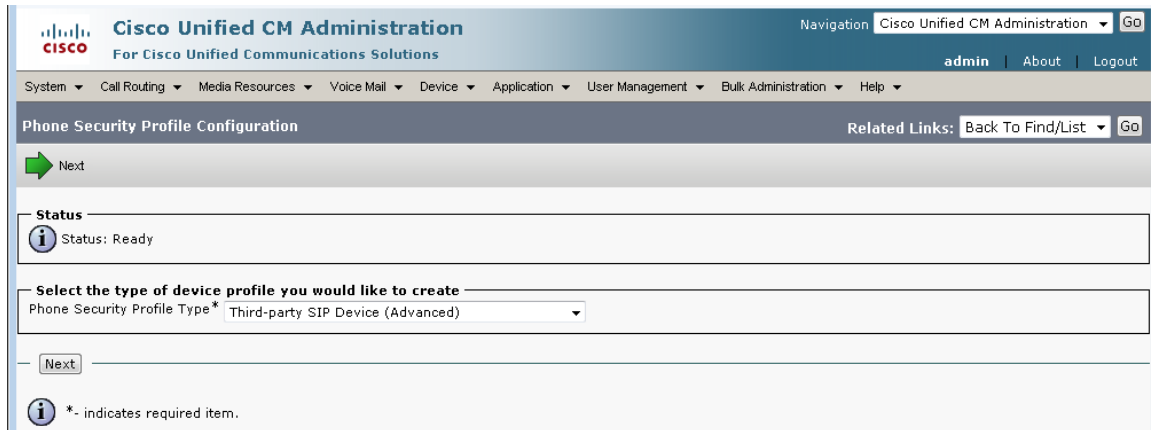
Navigate your web browser to the IP address of your Cisco Unified Communications Manager server and login. Go to the “System” menu, and then click “Security Profile”, then click “Phone Security Profile”.



2. Click on “Add New”



- 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.



Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration Go

admin | About | Logout

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

Phone Security Profile Configuration Related Links: Back To Find/List Go

Next

Status: Ready

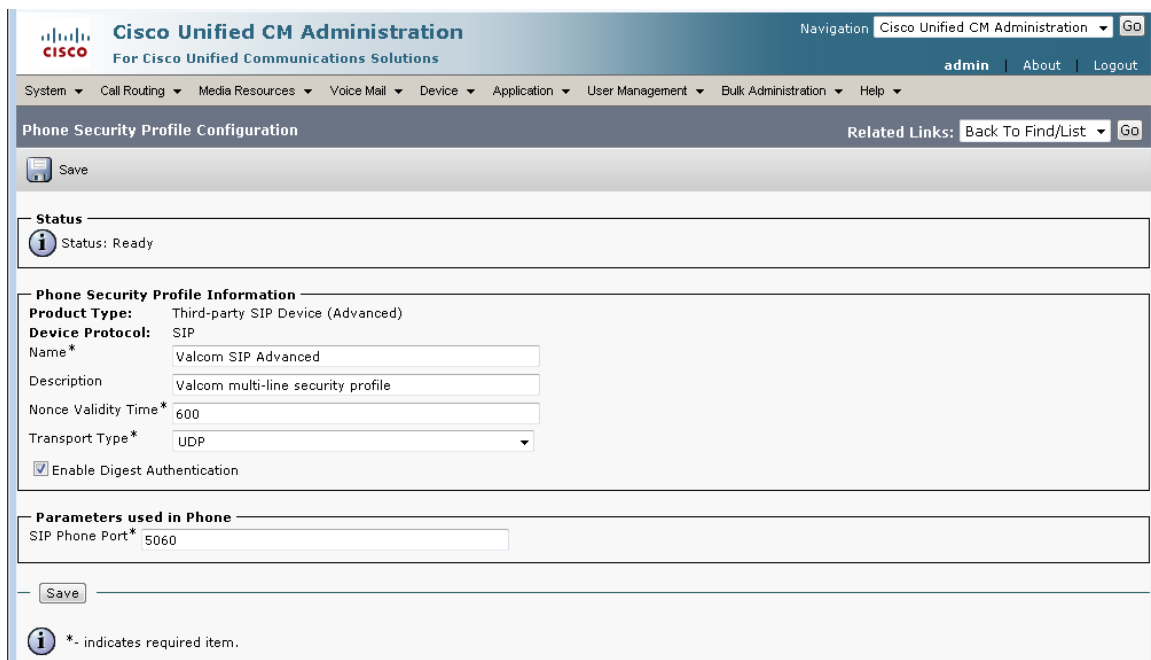
Select the type of device profile you would like to create
Phone Security Profile Type* Third-party SIP Device (Advanced)

Next

*. indicates required item.

- Enter the Phone Security Profile Information.

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



Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration Go

admin | About | Logout

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

Phone Security Profile Configuration Related Links: Back To Find/List Go

Save

Status: Ready

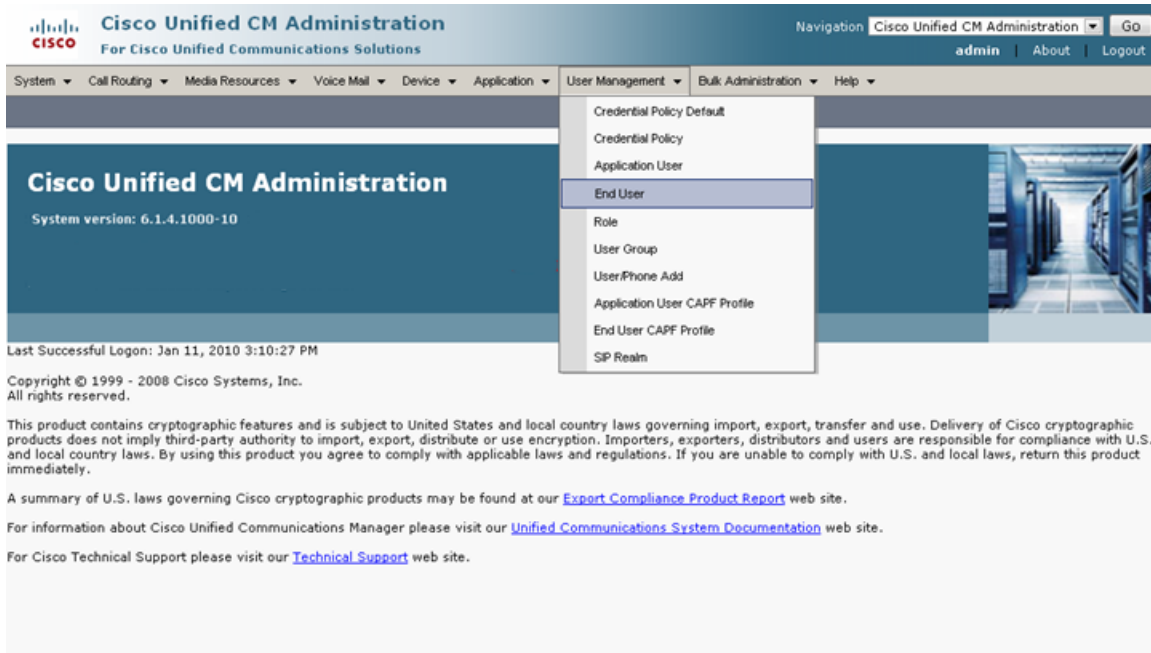
Phone Security Profile Information
Product Type: Third-party SIP Device (Advanced)
Device Protocol: SIP
Name*: Valcom SIP Advanced
Description: Valcom multi-line security profile
Nonce Validity Time*: 600
Transport Type*: UDP
 Enable Digest Authentication

Parameters used in Phone
SIP Phone Port*: 5060

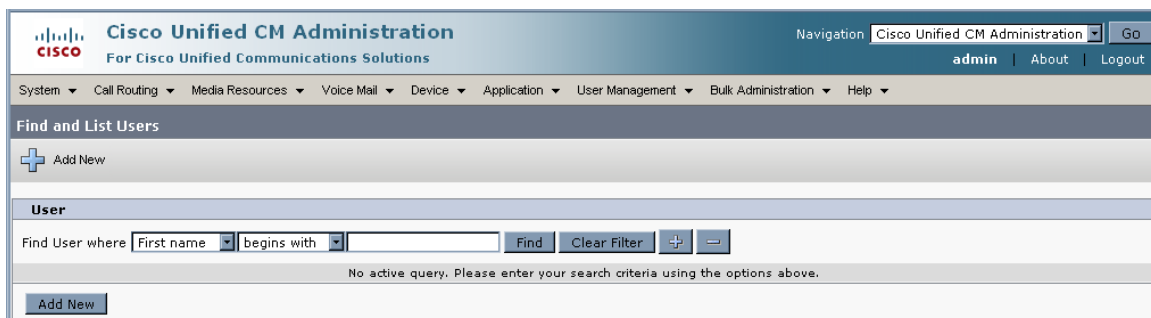
Save

*. 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"

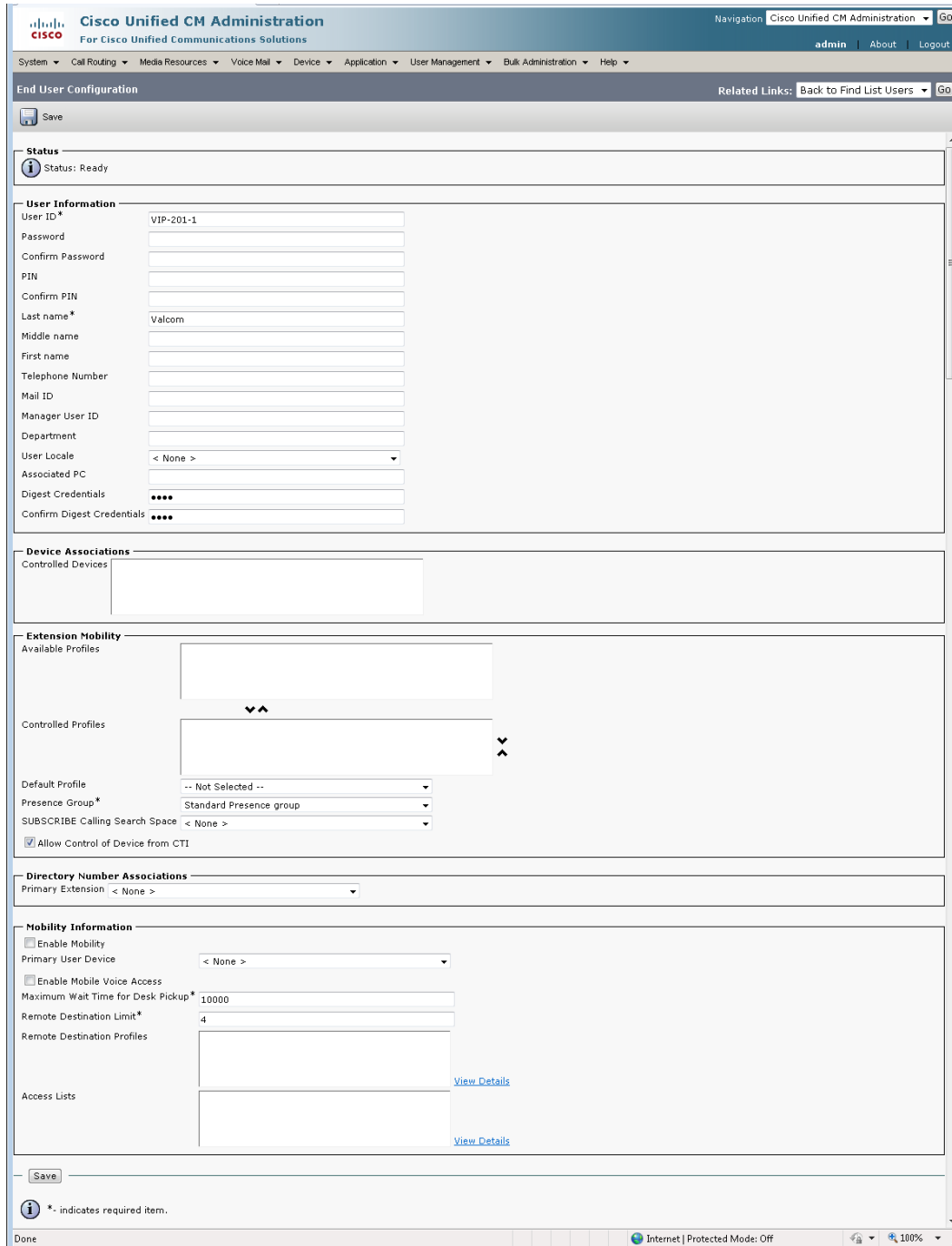


6. Click on "Add New"



7. Configuration items on the web 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.

- A) Enter "User ID*" (ex. VIP-201-1)
- B) Enter "Last name*" (ex. Valcom)
- C) Enter "Digest Credentials" (ex. valcom). This may be left blank if not using digest authentication.
- D) Re-enter credentials in "Confirm Digest Credentials" (ex. valcom)
- E) Select "Save" at the top or bottom of the screen

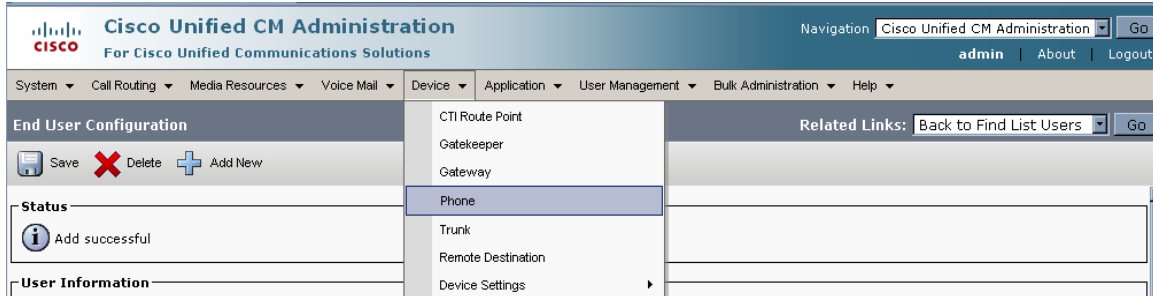


The screenshot shows the Cisco Unified CM Administration web interface for "End User Configuration". The page includes a navigation menu at the top with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area is divided into several sections:

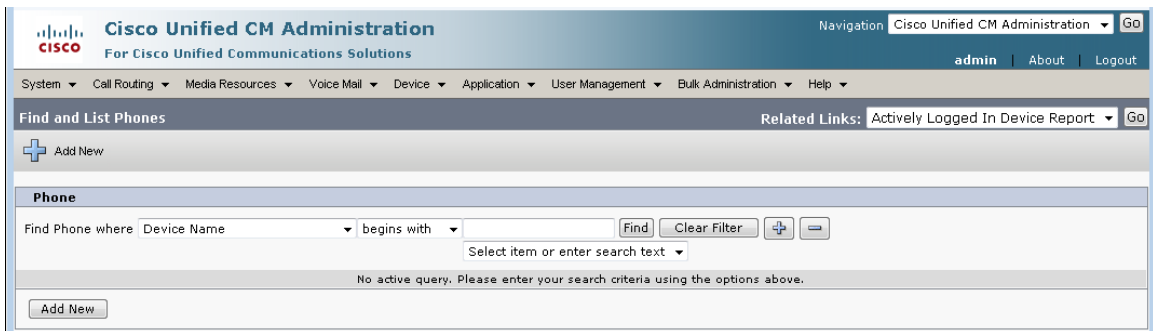
- Status:** Shows "Status: Ready".
- User Information:** Contains fields for User ID* (VIP-201-1), Password, Confirm Password, PIN, Confirm PIN, Last name* (Valcom), Middle name, First name, Telephone Number, Mail ID, Manager User ID, Department, User Locale (set to < None >), Associated PC, Digest Credentials (masked with ****), and Confirm Digest Credentials (masked with ****).
- Device Associations:** A section for Controlled Devices.
- Extension Mobility:** Includes Available Profiles, Controlled Profiles, Default Profile (set to -- Not Selected --), Presence Group* (Standard Presence group), SUBSCRIBE Calling Search Space (set to < None >), and a checked checkbox for "Allow Control of Device from CTI".
- Directory Number Associations:** Primary Extension (set to < None >).
- Mobility Information:** Includes checkboxes for "Enable Mobility" and "Enable Mobile Voice Access", Primary User Device (set to < None >), Maximum Wait Time for Desk Pickup* (10000), Remote Destination Limit* (4), Remote Destination Profiles, and Access Lists (with "View Details" links).

At the bottom of the form, there is a "Save" button and a note: "i * - indicates required item." The browser status bar at the bottom shows "Internet | Protected Mode: Off" and "100%" zoom.

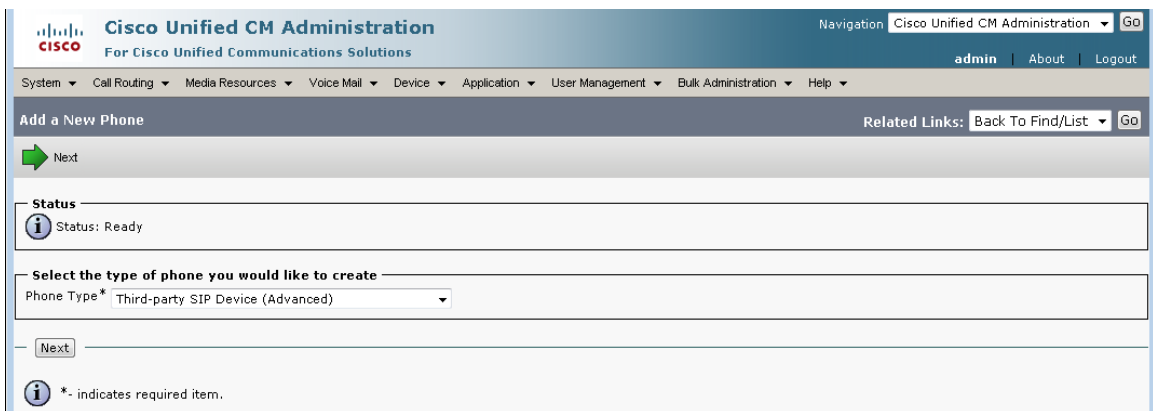
8. Create the Phone definition for the Valcom device. Go to the “Device” menu, and then click on “Phone”



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 4 (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 displays the Cisco Unified CM Administration web interface for configuring a device. The page title is "Cisco Unified CM Administration" and the breadcrumb trail is "System > Call Routing > Media Resources > Voice Mail > Device > Application > User Management > Bulk Administration > Help". The main heading is "Phone Configuration".

Status: Ready

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

Device Information:

- Is Active
- MAC Address*: 00D05F003A06
- Description: SEP00D05F003A06
- Device Pool*: Default [View Details](#)
- Common Device Configuration: < None > [View Details](#)
- 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 [View Current Device Mobility Settings](#)
- Owner User ID: < None >
- Always Use Prime Line*: Default
- Always Use Prime Line for Voice Message*: Default
- 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
- Rerouting 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:

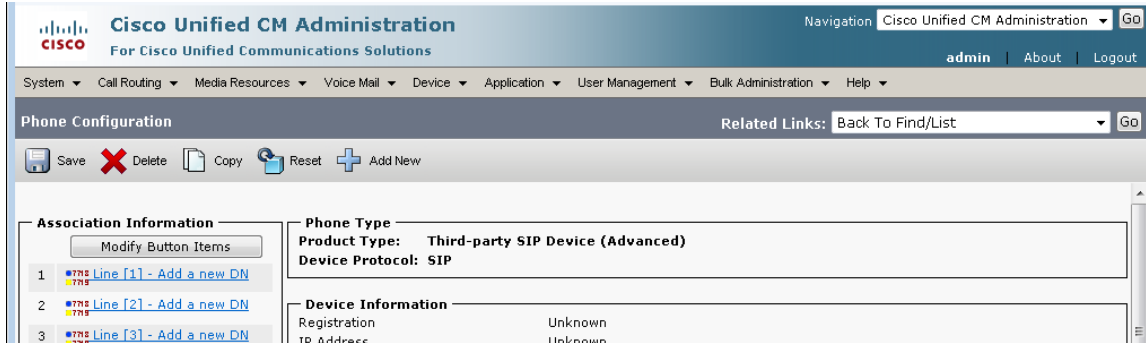
- MLPP Domain: < None >

Save

Footnote:

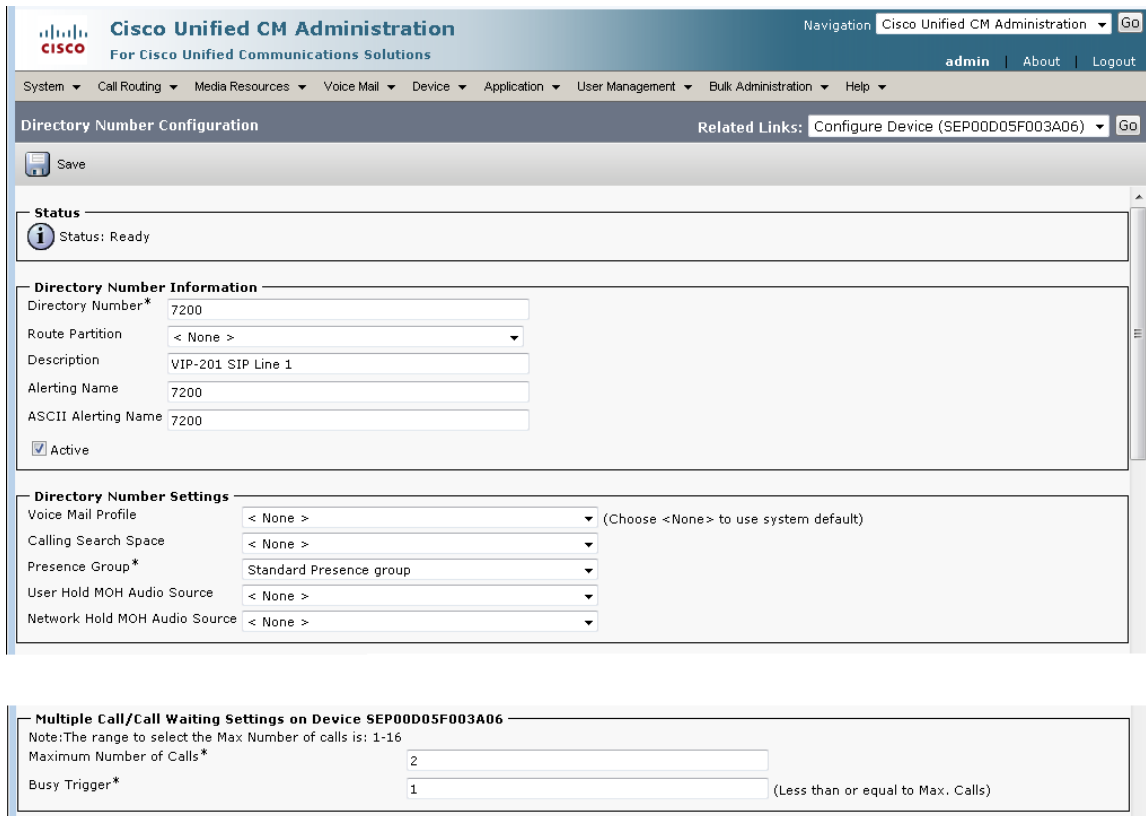
- *. indicates required item.
- ** Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.
- ***Note: Security Profile Contains Addition CAPF Settings.

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

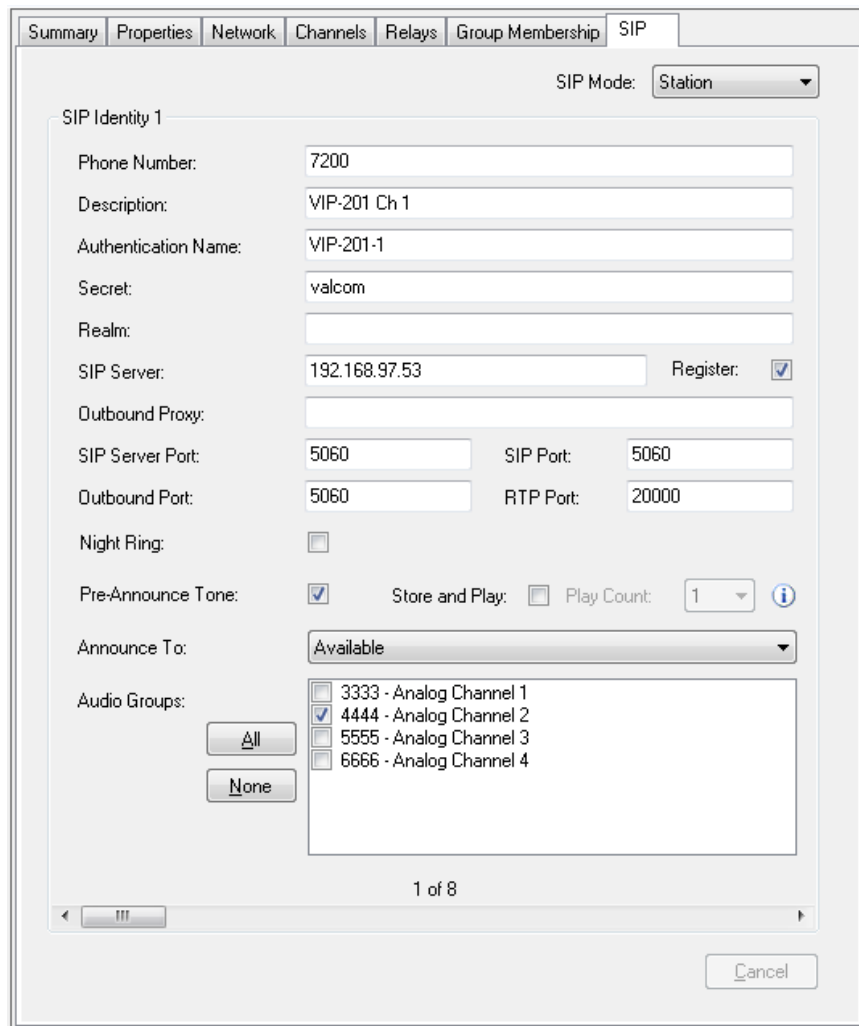


14. Open the VIP-102B IP Solutions Setup Tool interface for the Valcom SIP enabled device.

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)
- 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.



SIP Mode: Station

SIP Identity 1

Phone Number: 7200

Description: VIP-201 Ch 1

Authentication Name: VIP-201-1

Secret: valcom

Realm:

SIP Server: 192.168.97.53 Register:

Outbound Proxy:

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

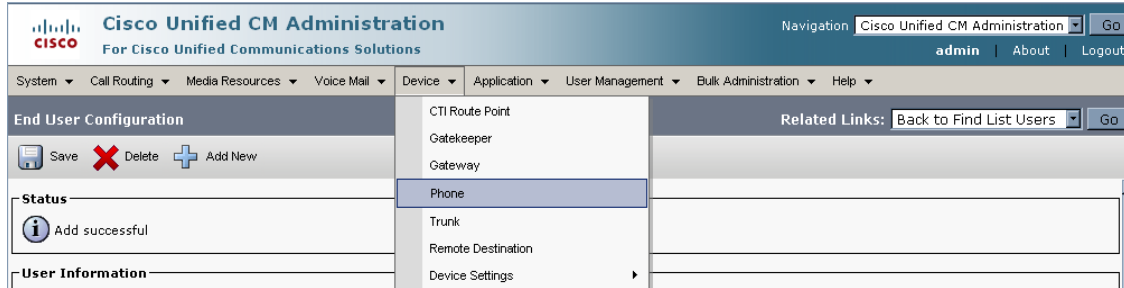
Audio Groups:

- 3333 - Analog Channel 1
- 4444 - Analog Channel 2
- 5555 - Analog Channel 3
- 6666 - Analog Channel 4

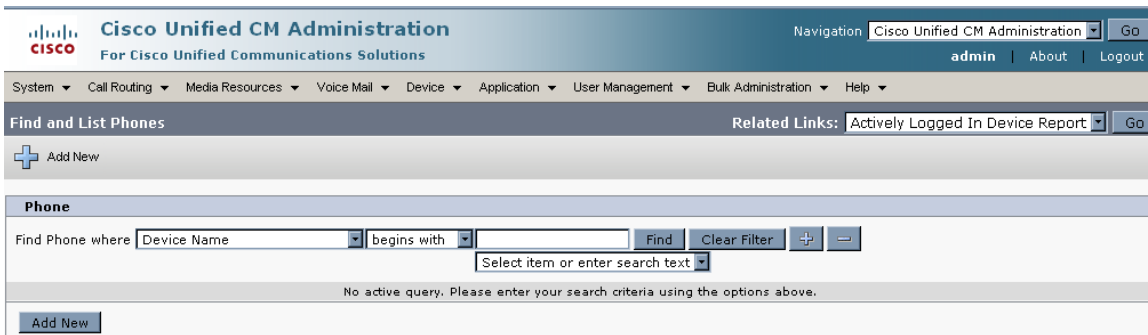
1 of 8

Cancel

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.

