Valcom Network Trunk Ports, models VIP-821, VIP-822 and VIP-824, are compatible with Cisco Unified Communications Manager as either a Third-party SIP Device (Basic or Advanced) or as a SIP Trunk. To preserve the Caller ID information for the inbound call (such as when used with the Valcom MultiPath) it is recommended to use the trunk configuration. This configuration guide provides information for configuring the Network Trunk Port as a trunk endpoint. The screen illustrations are based on a Cisco Unified Communications Manager server version 8.5, but the instructions are similar for other versions. The following steps outline the typical configuration process.

1. 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", then click "SIP Trunk Security Profile".
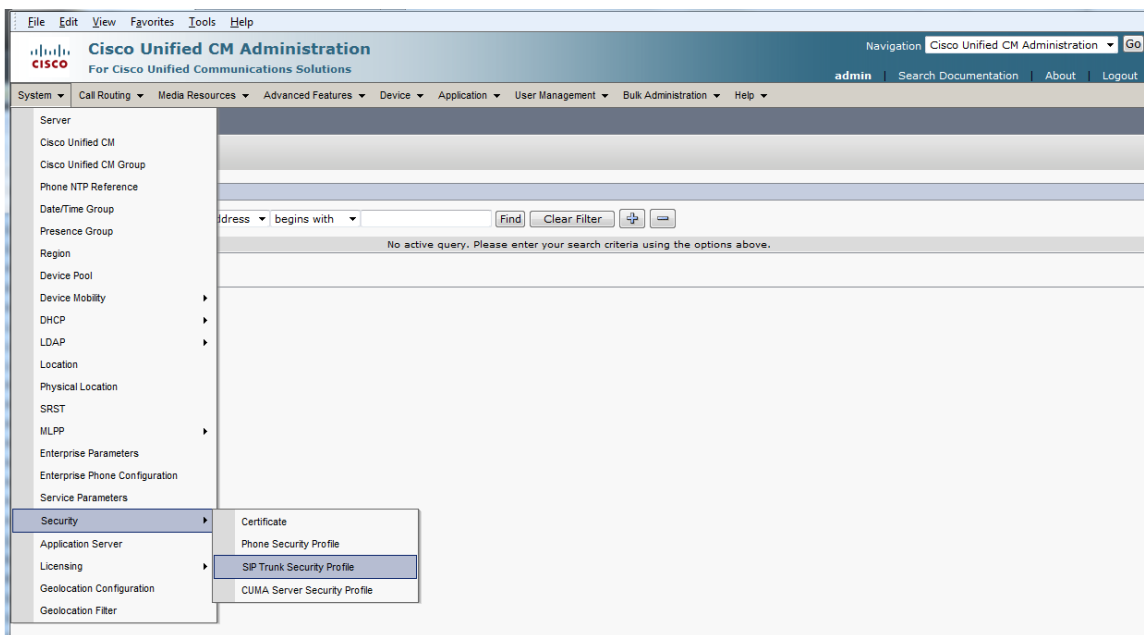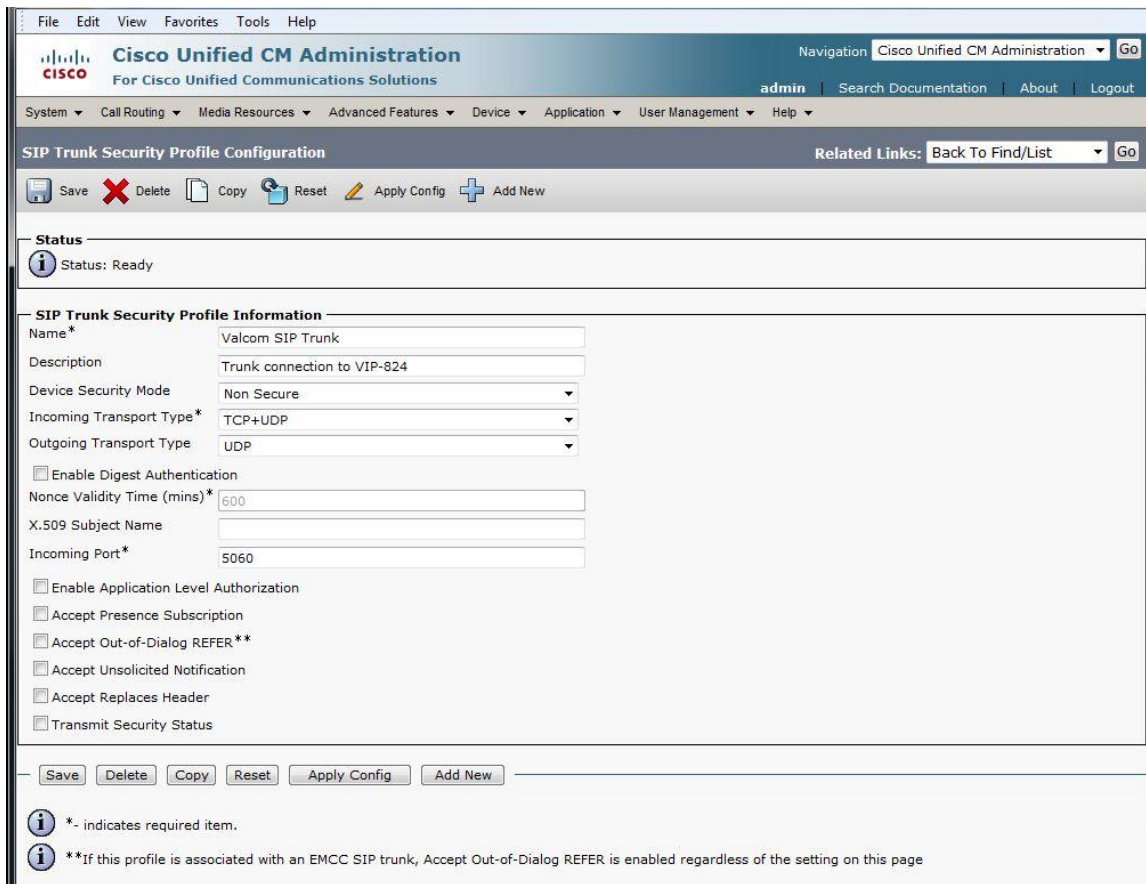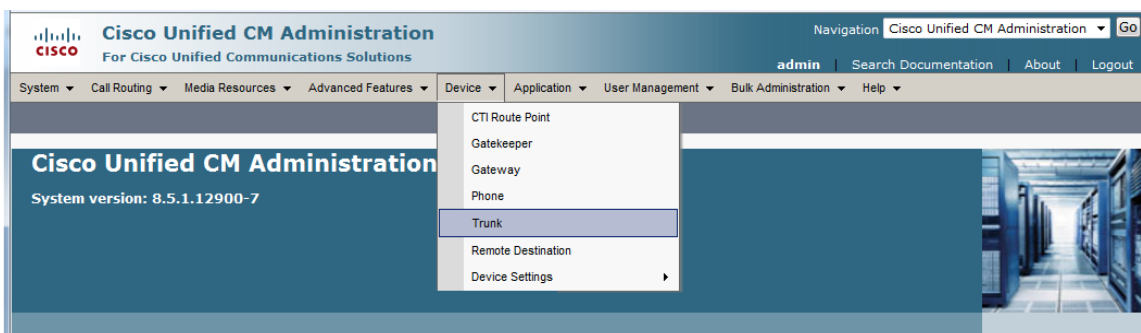
2. Click on "Add New"
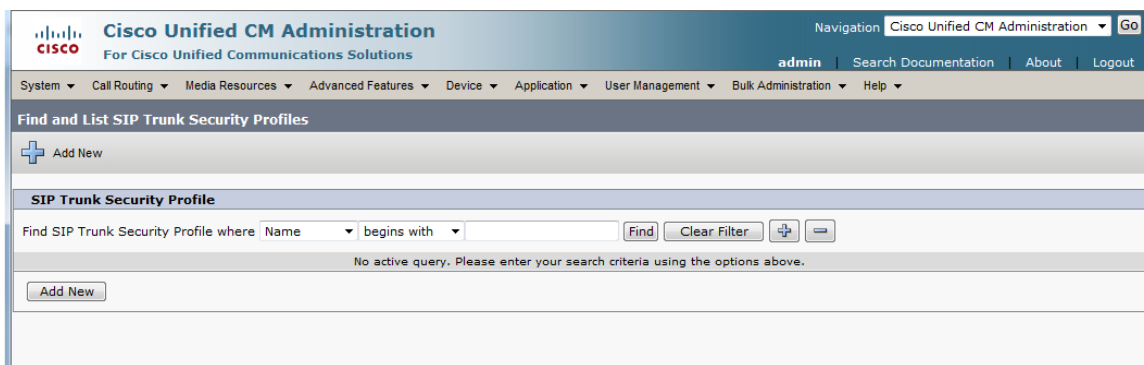
3. On the SIP Trunk Security Profile Configuration screen, enter the appropriate values for the trunk. For Valcom devices, the Outgoing Transport Type must be UDP. The Incoming Port defaults to 5060, but can be changed. If it is changed here, then it must also be changed to the same value in the Valcom device configuration. Required information:

    A) Enter "Name*" (ex. Valcom SIP Trunk)
    B) For "Device Security Mode", select "Non Secure" from the dropdown list
    C) For "Incoming Transport Type*", select "TCP+UDP" from the dropdown list
    D) For "Outgoing Transport Type*" select "UDP" from the dropdown list
    E) The "Incoming 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.

4. The Trunk Security Profile just created will be used when defining the Trunk. On the "Device" menu, click "Trunk".
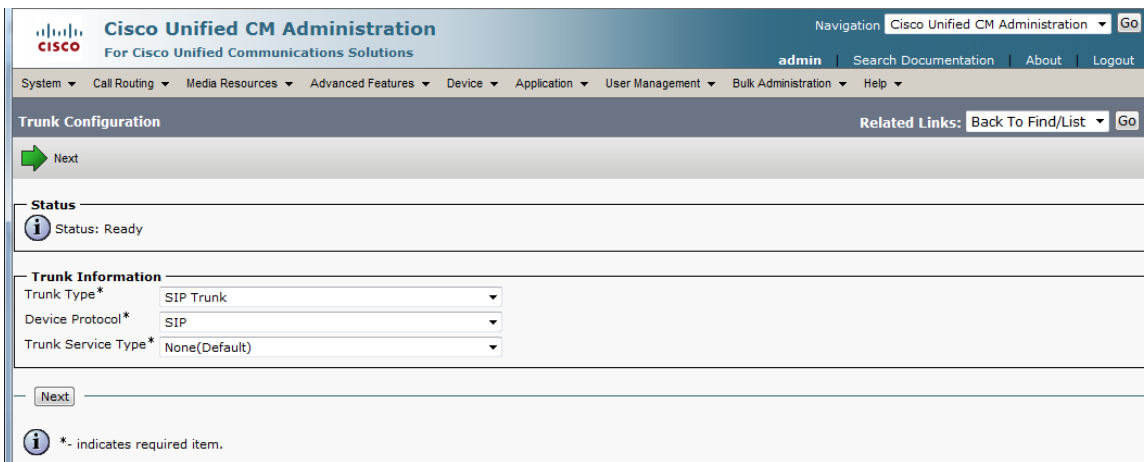
5. On the Find and List Trunks page, click on "Add New".
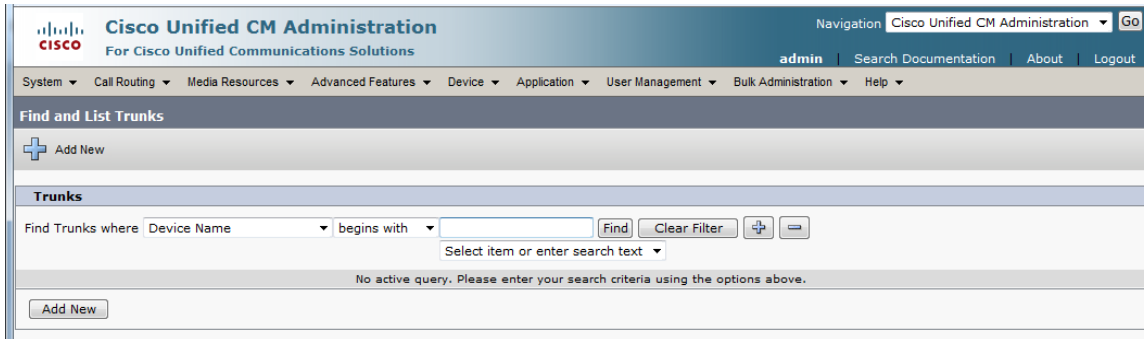
6. Enter the Trunk Information.

    A) Select "SIP Trunk" for Trunk Type
    B) Select "SIP" for Device Protocol
    C) Select "None" for Trunk Service Type (not all versions have this parameter)
    D) Select "Next" at the top or bottom of the screen

7. On the Trunk Configuration page, enter the specific device information. 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. Two sections need specific attention.

    A) In the Call Routing Information section, confirm that "Remote-Party-ID" is checked.

B) In the Destination Address field, enter the IP address and Port assigned to the Valcom device
C) Confirm the Codec selection is "711ulaw"
D) For SIP Trunk Security Profile, select the profile created in Step 3 (example: Valcom SIP Trunk)
E) Select "Standard SIP Profile" for the SIP Profile
F) DTMF Signaling Method should be "RFC 2833"
G) Click the "Save" button when all items have been entered

8. With the Trunk device created, a Route Pattern will be created to send calls to the trunk.
   Go to the "Call Routing" menu, then click on "Route/Hunt", then click on "Route Pattern"
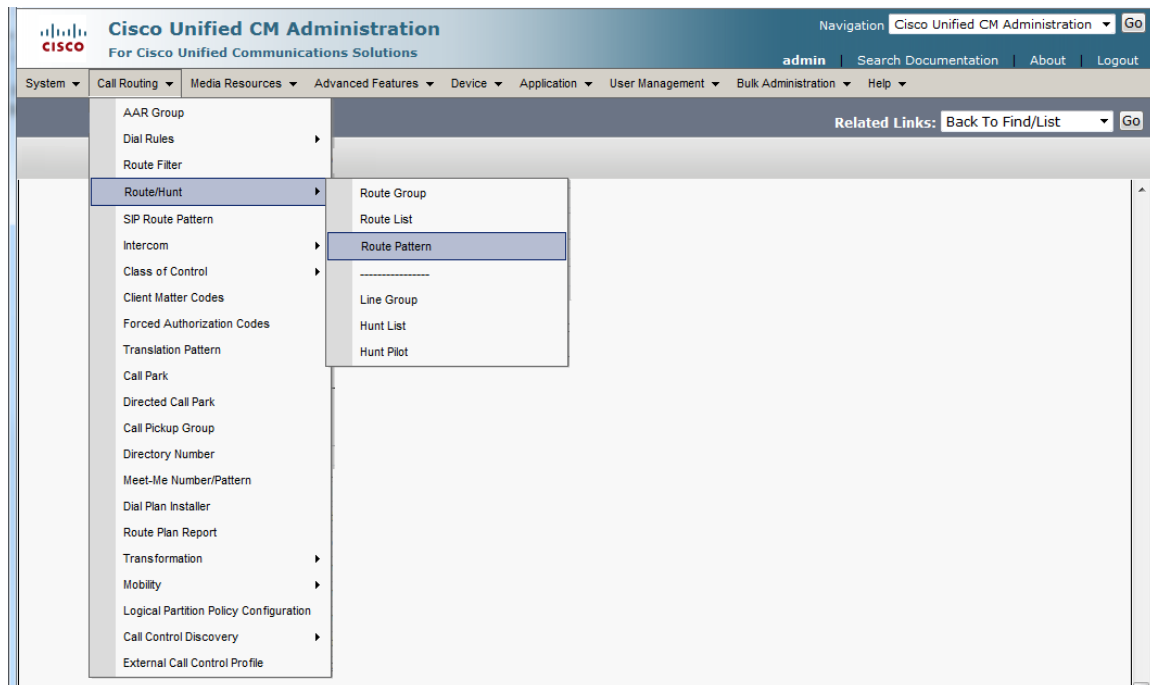
9. On the Find and List Route Patterns screen, click on "Add New".
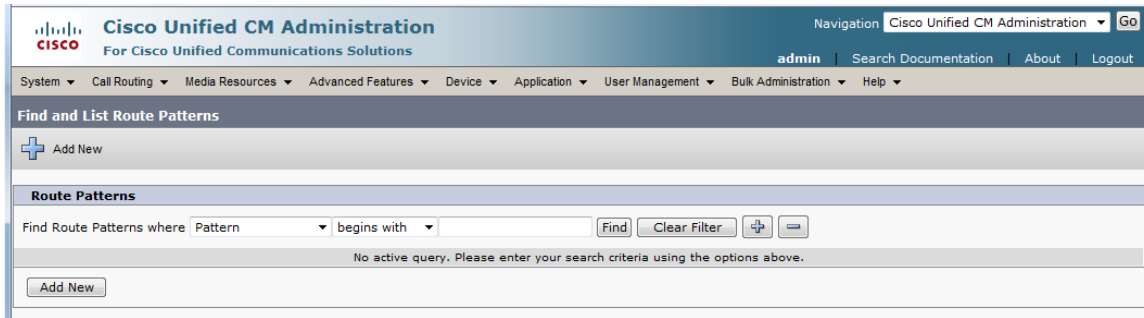
10. Configuration items on the Route Pattern Configuration web page marked with an asterisk (*) are required entries. Complete those items with values appropriate for your site, particularly for items such as Device Pool, Calling Search Space, Location, etc.
Complete the following steps:
    A) Enter a Route Pattern appropriate for the Directory Numbers that will be assigned to the Valcom device. For our example "706[5-8]" will be used to route four numbers (7065, 7066, 7067, 7068) to the Valcom trunk.
    B) For the Gateway/Route List, select the Valcom trunk device that was created in Step 7. Our example device is named "VIP-824-Trunk".
    C) Confirm the Route Option selection is "Route this pattern"
    D) Call Classification should be "OnNet"
    E) "Provide Outside Dial Tone" option should be unchecked
    F) Select "Save" at the top or bottom of the screen.
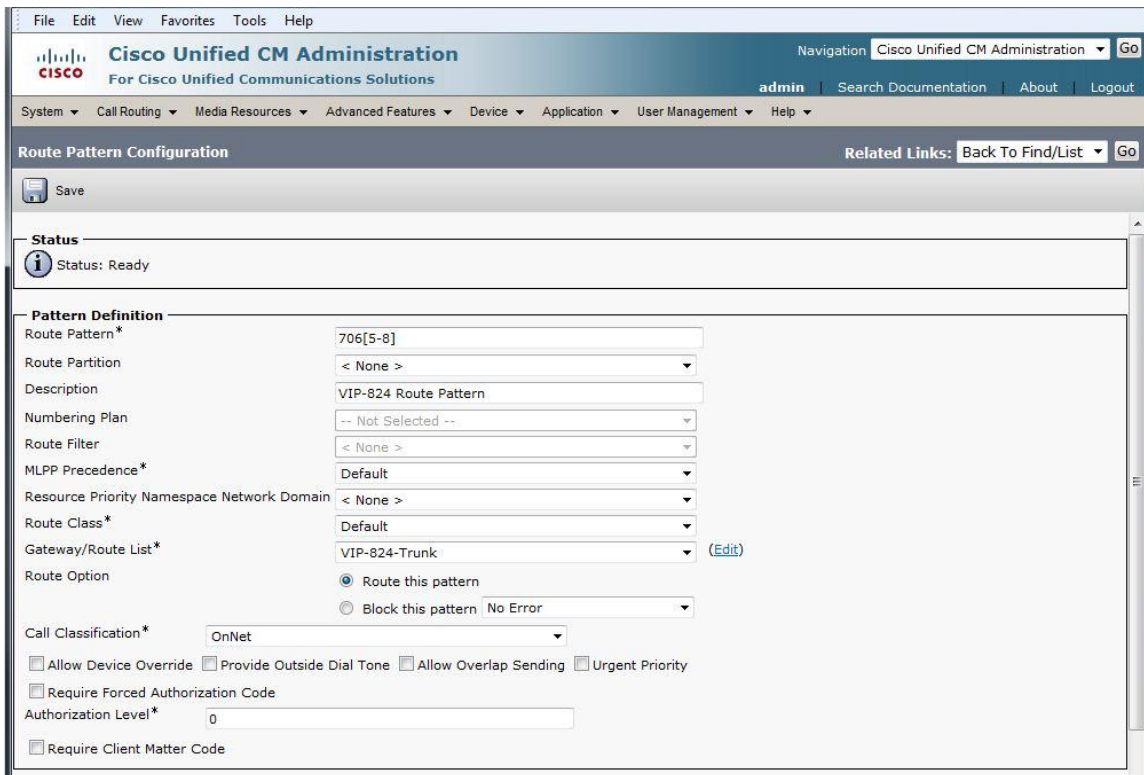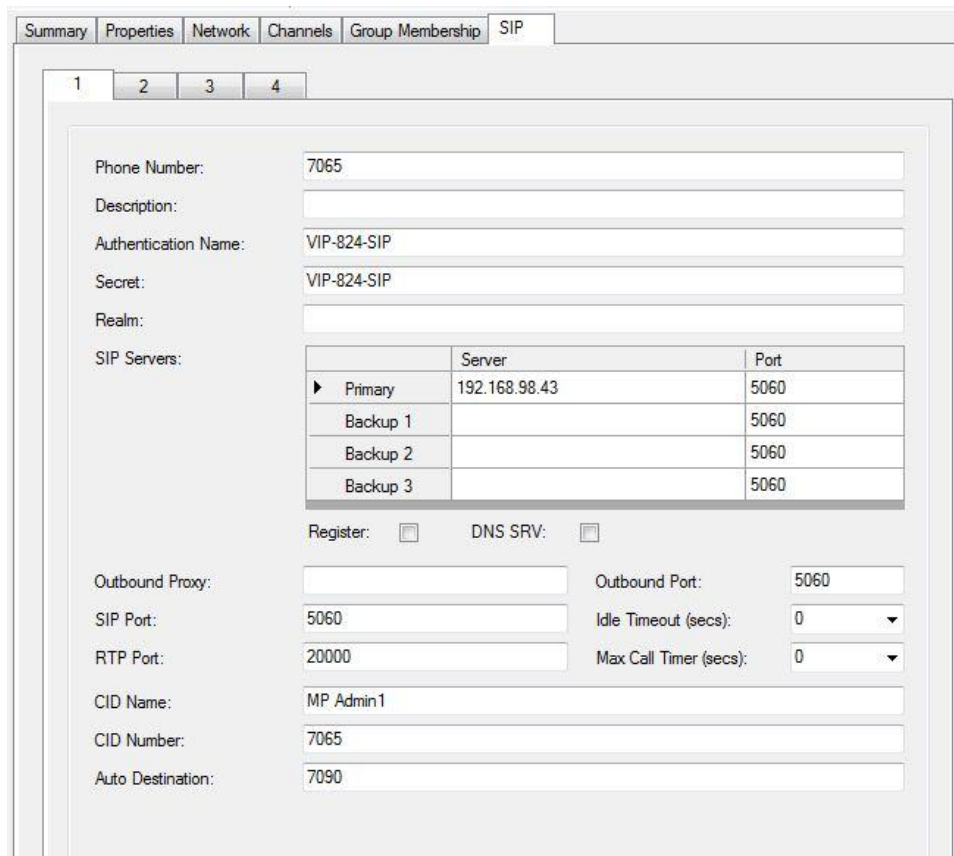

This completes the configuration on the Cisco Communications Manager.

11. Open the VIP-102B IP Solutions Setup Tool interface for the Valcom device.

    Note: The information presented here is limited to configuration of the "SIP" tab in the VIP-102B IP Solutions Setup Tool. 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

    For this example, the Phone Number is one of the Directory Numbers created in the previous step for the Route Pattern. The trunk connection is not using authentication, so the Authentication Name or Secret fields do not need to be completed. If the Digest Authentication option was chosen on the SIP Trunk Security Profile configuration, then complete these fields with the appropriate values. The SIP Server Port must match the Destination Port in the SIP Information for the trunk created in Step 7. The SIP Server fields define the Communications Manager server(s) to which this trunk will connect. The Auto Destination field defines an existing Directory Number on the Communications Manager that will be automatically called when this Trunk Port senses ringing voltage on its analog line input.

If configuring a multi-channel Valcom Trunk Port, the additional SIP tabs are completed in a similar manner, using different Phone Number entries that were created in the Route Pattern configuration.

When all configuration options have been set as desired, update the Valcom Trunk device configuration using the update commands from the Communications menu of the VIP-102B IP Solutions tool.

To verify operation, use a telephone on the Communications Manager to call one of the phone numbers assigned to the Valcom device and confirm the call is connected.