BellCommander Configuration Guide – Avaya IP Office

Overview: BellCommander works with Avaya IP Office to provide a complete scheduled audio, paging, and emergency notification solution. Audio can be sent via a multicast or SIP configuration. This guide covers making calls/pages via SIP through the Avaya IP Office System to page to phones and other endpoints. Our CyberData, Valcom, and Advanced Network Devices guides can be referenced for sending audio via multicast (http://www.acrovista.com/bellcommander/sip-version.html)

SIP Setup Guide

BellCommander can interface to Avaya IP Office Phone Systems for paging as one or more SIP endpoints. BellCommander will communicate over the network and will register with IP Office as a generic SIP endpoint, like a SIP phone. At scheduled times, BellCommander would make calls to paging extensions, which would broadcast audio to phones, IP speakers, and other endpoints assigned to the paging group.

For the SIP configuration of BellCommander, an extension will need to be added to Avaya IP Office, like a generic SIP phone. This extension will allow BellCommander to make outgoing calls and pages through Avaya IP Office to phones and IP speakers.

Before adding the SIP extension, Avaya IP Office will need to be running a newer version that supports SIP/third party endpoints. In addition, the Avaya IP Office system will need at least one available "3rd Party IP Endpoint" License. The following screen shot shows a sample system with one 3rd Party IP Endpoint - http://www.voip-info.org/liberty/view/file/3412?size=large

After the 3rd Party Endpoint License is available, add a new user and extension in IP Office. In the Telephony->Supervisor Settings tab, enter a Login Code, which will be used as the SIP extension password for BellCommander. Below is an example of a new user/extension with the Telephony->Supervisor Settings tab shown: Add the new extension to BellCommander:
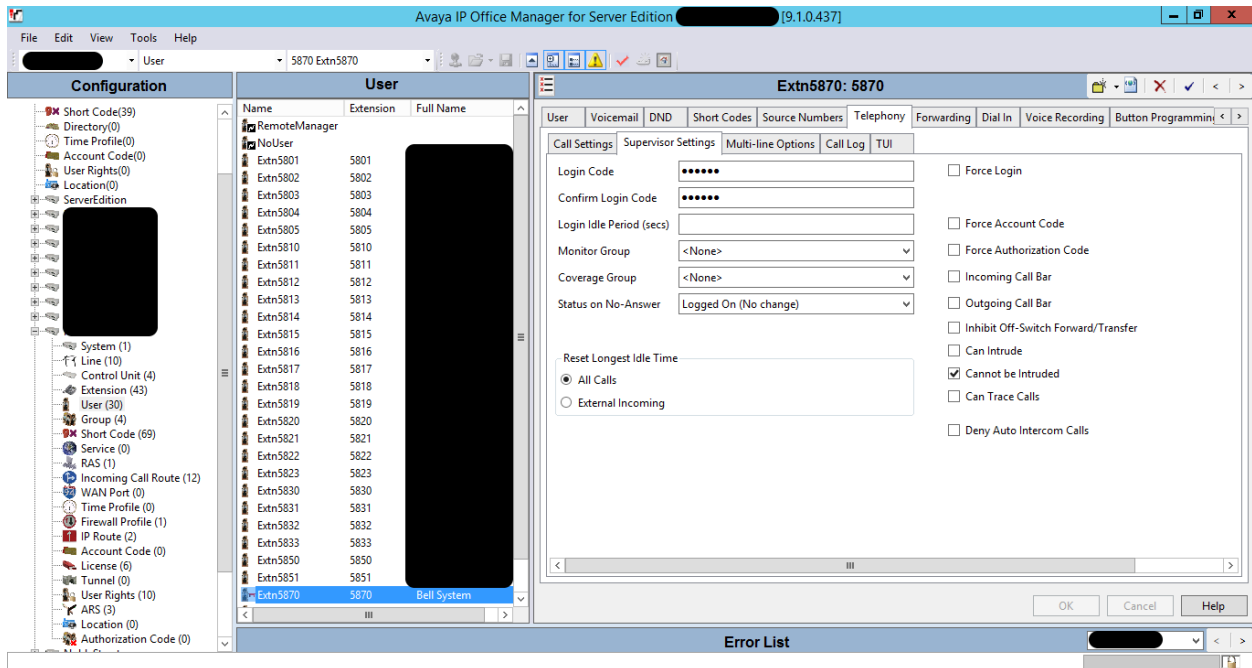
If this is the first time that a SIP/third party endpoint is being configured, the SIP registrar may need to be enabled. To enable the SIP registrar, select the site system settings and check the box for "SIP Registrar Enable" and check the box for UDP and note the port number:
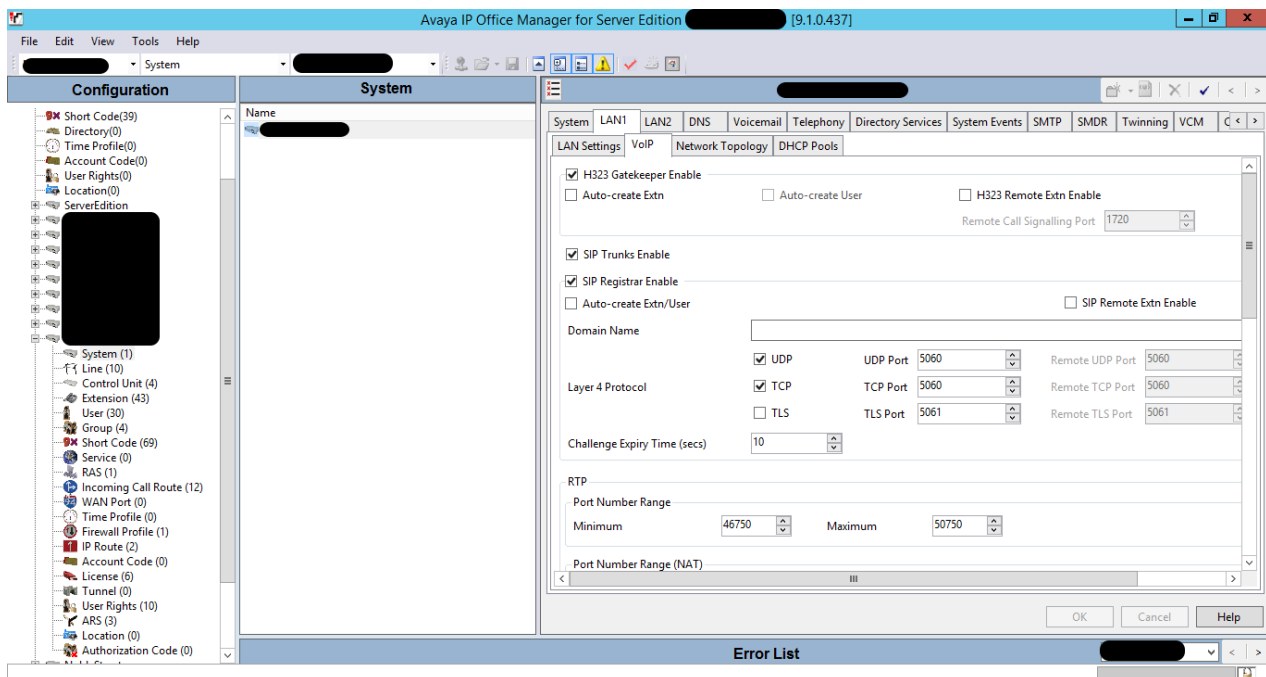
After adding the extension to IP Office, follow the steps below to register the SIP extension:

1. Open the BellCommander Device Manager and select SIP Destinations from the Sound Device Type drop-down.   If you have a BellCommander trial without the SIP Destination option, go to http://www.acrovista.com/sip-version.html and click the button to download the SIP trial and fill out the form to download the SIP trial.
2. Enter the SIP Server IP. This will be the IP of the Avaya IP office (System|LAN|LAN Settings|IP Address). The SIP server port would typically be the default port 5060.   To verify the port, follow the step to enable the SIP Registrar on the previous page and not the UDP port.
3. Click the Add… button under BellCommander SIP Extensions to add the extension that BellCommander will register. Enter the following settings:
Extension Number: Enter the extension number (5870 in the example)
Authorization Name: Enter the user ID of the extension (Extn5870 in the example)
Password: Enter the Login Code from IP Office
After adding the extension, the status should show "Registered".
4. Click the Add… button under SIP Destinations and add the extensions that BellCommander will call.   If BellCommander will need to call an extension and enter DTMF digits to select a zone, enter the extension with a dash followed by the DTMF code (ex. 800-11 to call extension 800 and enter DTMF digits 11).

5. Test each SIP destination, by selecting a SIP destination from the SIP Destinations list. Then, click the Browse… button to locate a WAV file and click the Play Audo File button to play the WAV file.   BellCommander will then call the extension and play the WAV file.

Scheduling for SIP Extensions:

BellCommander automatically creates a zone for each SIP destination that allows different schedules to be sent to different extensions.   To create a schedule, follow the steps below:

1. Create a day schedule. A day schedule represents a single day's 24 hour schedule that can be applied to dates on the BellCommander calendar. To create a Day Schedule:
   a. Click the Day Scheduler button.
   b. Click the top Add button to add a new day schedule. Enter a name to identify the schedule, ex. Standard Schedule
   c. Click the Add Bell button to add a new bell to the schedule. In the Add Bell window,
      i. Select the time for the bell.
      ii. Select the zone that the bell should play to. SIP zones will have a name of "SIP:" followed by the extension number and name.
      iii. For a single sound file select, select "Sound File" for the event type and select a WAV audio file.
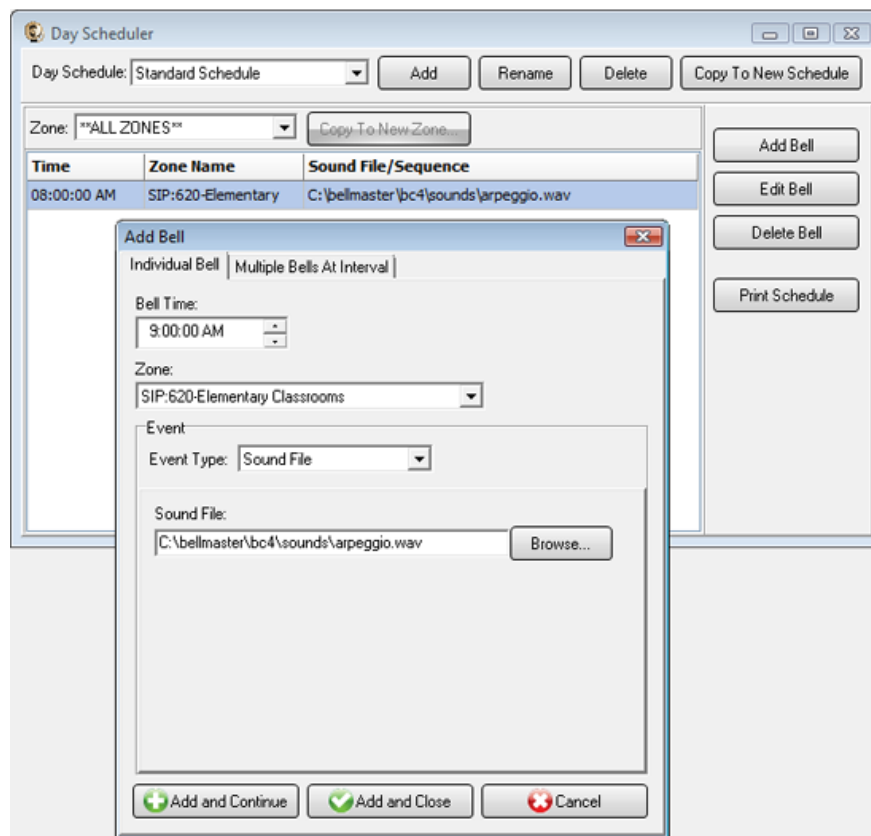
2. Assign the day schedule(s) to the Calendar Scheduler. To assign schedules to the Calendar Scheduler:

   a. Click the Calendar button to view the Calendar Scheduler window.

   b. Click the Set Default Weekly schedule button to set the default schedule and set the following values:

      Weeks in the schedule:
   If schedule is the same every week, select "Same schedule every week".
      If schedule repeats bi-weekly, select "Schedule is a two week cycle".
      If schedule repeats tri-weekly, select "Schedule is a three week cycle".
      Schedule Start Date – If schedule starts in the future select a future date; otherwise, the default value (12/30/1899) will start the schedule immediately.
      Select Week Number – If using a bi-weekly or tri-weekly schedule, this allows the first, second, or third week to be selected for the days of the week listed. Select 1 to program the first week, 2 to program the second week, 3 to program the third week.
      Days of the week – Use the drop-down for each day of the week to select a schedule. If no audio should be scheduled for the day of the week, leave the day name blank.
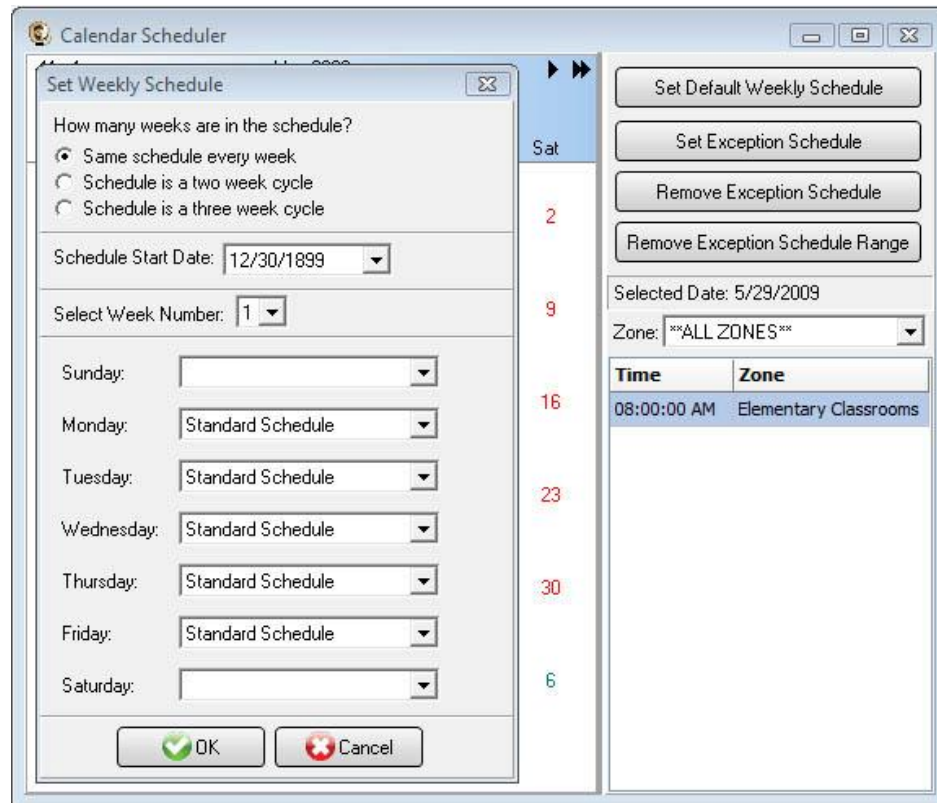
   c. To set different schedules by date, add additional schedules in the Day Scheduler and select dates on the calendar and click the Set Exception Schedule button to set different schedules by date.

Special Considerations for SIP Scheduling:

If two or more audio events will be scheduled at the same time, then additional SIP extensions will need to be registered by BellCommander. This will require adding the additional extensions in IP Office and having BellCommander register the SIP extensions.

SIP Extensions for Emergency Notification

SIP Extensions for Emergency Notification allows phones to dial BellCommander for emergency notifications.   Emergency notifications loop audio alerts for several weather, school lockdowns, and other emergencies.   Emergency notifications can be triggered by clicking emergency buttons in the BellCommander interface or by dialing emergency codes.

To setup emergency notifications:

1. Follow the same steps on page 2 to add another extension to IP Office.
2. Add SIP extension to BellCommander:
    a. Open the BellCommander Device Manager by clicking the Devices button.
    b. In the Sound Device Type drop-down select "SIP Extension"
    c. Check "Enable SIP Extensions"
    d. Enter the Avaya IP Office server IP and port number.
    e. Click the Apply button.
    f. Add a SIP extension for BellCommander to register:
        i. Click the Add… button under Local SIP Extensions.
            SIP Extension - Extension number that was added to IP Office.
            Authorization Name - Enter the user ID of the extension
            Extension Password – Enter the Login Code from IP Office
            Local Port Number – Can typically use the default value
            Map To Zone – Leave this blank for emergency notification.
            SIP Server Options – Select "Connect to default SIP server"
        ii. After adding the extension, the extension should appear in the Local SIP Extension list with a status of "Registered"
    g. Add the extensions that are allowed to call BellCommander for emergency notification.
        i. Click the Add… button under Allowed Extensions.
        ii. Enter an extension that will be allowed to call BellCommander.
        iii. Repeat for additional extensions. BellCommander is licensed by the number for allowed extensions, so the number of allowed extensions may be restricted by the license.

3. Define emergency notifications in BellCommander:
   h. Click the Notifications button to view the Notifications window.
   i. Click the top Add or Edit button to add or edit a notification. For the example, we'll edit the tornado notification.
   j. In the edit window, note the SIP code. This is the code that the phone user should dial to trigger the emergency notification. The Show Confirmation option is for clicking notifications in the BellCommander interface. If Show Confirmation is checked, a message will popup to request confirmation of an emergency alert.
   k. Assign actions to the emergency notification. Use the Add Action and Edit Action to add and edit actions in the alert scripts. Typically, a sound file would be played and looped. In the action, the zone should be set to a zone that broadcasts to all areas that should receive the notification.
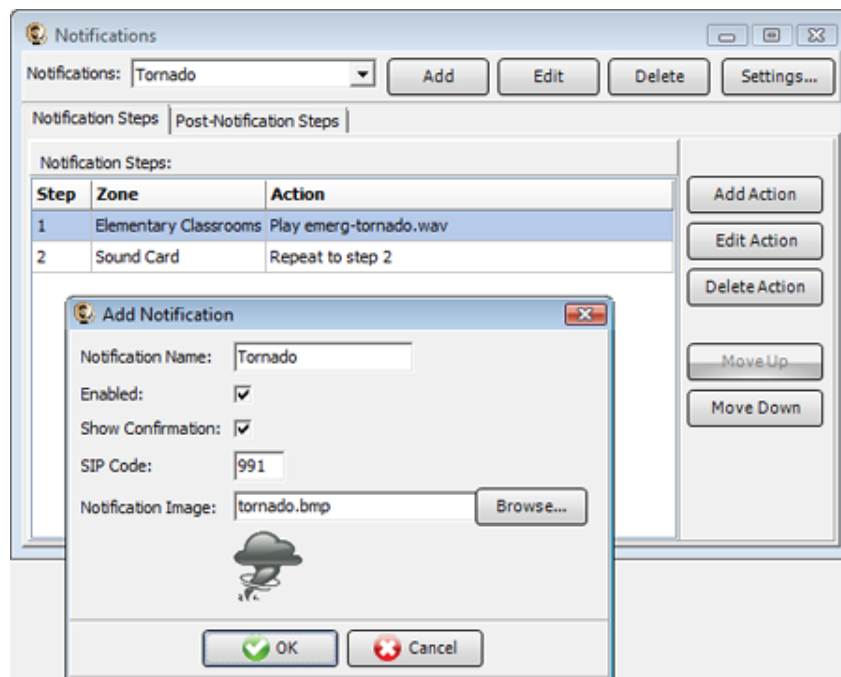
4. To trigger an emergency notification by phone, first call the BellCommander extension, in the example above this would be 95. Wait for BellCommander to answer, then dial the emergency code followed by the # key. In the example above 991#. To stop the alert, dial 999# while connected to BellCommander. The alert can also be stopped by dialing the BellCommander extension again and entering 999#.

BellCommander SIP to Multicast Paging:

BellCommander can also receive SIP calls and broadcast audio to IP speakers using multicast. To configure BellCommander to receive a SIP call, follow the same first two steps for "SIP Extensions for Emergency Notification" above, except set the page zone to a zone with multicast group(s) assigned to it. After adding the extension, try calling from an extension in the allowed extensions list to the extension registered for paging and BellCommander should answer and forward the call audio to the multicast group.

BellCommander can also be part of a page group in IP Office to page to both phones and IP speakers using multicast at the same time. For this, follow the steps below:

1. Add a hunt group to the IP Office system and assign the phones plus the BellCommander Paging Extension to the group.
2. Add a short code to page to the hunt group.
3. In IP Office, view the settings for the SIP extension registered for BellCommander for paging and open the Voip tab and set the "3rd Party Auto Answer" option to "Answer After".
4. Apply the settings in IP Office.
5. Paging should then work by calling the short code from an extension in the Allowed Extensions list in BellCommander. Avaya should page all phones in the group and page to the BellCommander SIP extension, which will relay the call audio via multicast to the IP speakers.