

BellCommander Configuration Guide – Barracuda Phone System

Overview: BellCommander works with Barracuda Phone Systems 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 Barracuda Phone 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 Barracuda Phone System (BPS) for paging as one or more SIP endpoints. BellCommander will communicate over the network and will register with Barracuda Phone System 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 BPS and to BellCommander. This extension will allow BellCommander to make outgoing calls through BPS to CyberData speakers and IP phones. To add the extension, follow these steps:

1. Open a browser and connect to the BPS administration user interface.
2. Click on **Extensions** and select **People**, then click **Create New Person** (new view opens).
3. Enter a first and last name, such as “BellCommander” and “Extension 1”.
4. Enter PIN of at least four digits, but preferably six or more digits (the PIN will not be used by BellCommander, however it is required to create the user in BPS).
5. Under **Extension Type** select “Next Free” to have the BPS auto assign an extension number or select “Single Extension” if you wish to specify the extension number.

Add a Person

First Name:

Last Name:

Voicemail/Login PIN:

Add This Person to a Group:

Extension/Phone

Extension Assignment:

Valid Extension Ranges: x90–x99, x200–x299, x300–x399, x2000–x2999, x3000–x3999, x4300–x4499, x4800–x4899,

Extension Type:

(The next free extension number will be used.)

6. Click **Create** and the user edit page will appear. Make the following changes:
Uncheck **Show this person in Contact Directory searches**.
Check **Disable Voicemail**.
Click **Save**.
7. Scroll down to **Phones** and click **Add a Phone**. Choose “Add a Generic SIP Device” under **Phone Type**, and click **Save**. There will now be an entry in the Phones list with a description like “BellCommander’s SIP Device XX”.
8. Click on the phone entry to open the phone edit page. Click **Registration Information** in the lower-right corner under **Lines and Utility Buttons**. Keep this window open.

SIP Registration Information

Domain (Internal):

Domain (External):

Port:

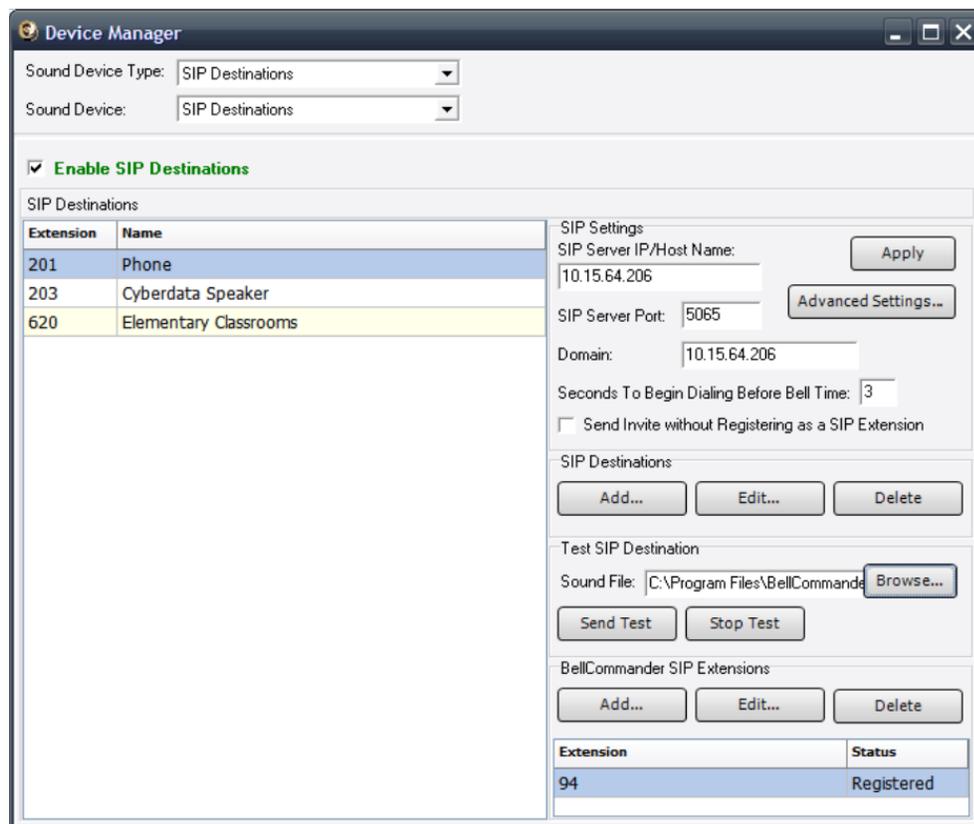
Username:

Authorization Username:

Password:

Done

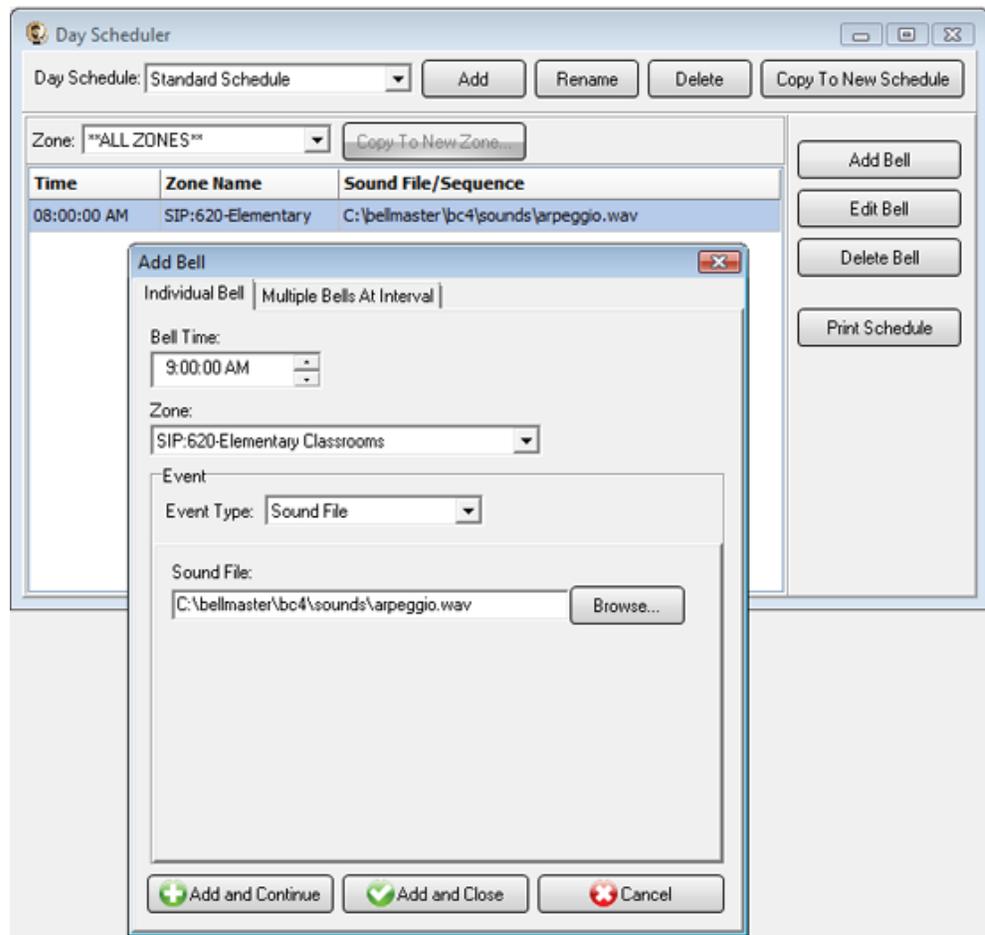
9. Add the new extension to BellCommander:
 - a. Open the BellCommander Device Manager and select SIP Destinations from the Sound Device Type drop-down.
 - b. Enter the SIP Server IP. This is usually the IP address in “Domain (Internal)” obtained in the previous step. Enter the corresponding SIP port of 5065. (Note that this is different than many systems which use port 5060.) Click the Apply button.
 - c. Click the Add... button under BellCommander SIP Extensions to add the extension that BellCommander will register. Enter the extension number, password (you can copy and paste from the SIP Registration Information window in BPS), and a local port number. Typically, the default local port number can be used. After adding the extension, the extension should appear in the list with a status of “Registered”
 - d. Click the Add... button under SIP Destinations and add the BPS extensions that BellCommander will call.
 - e. 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 Audio File button to play the WAV file. BellCommander will then call the extension through BPS 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”.

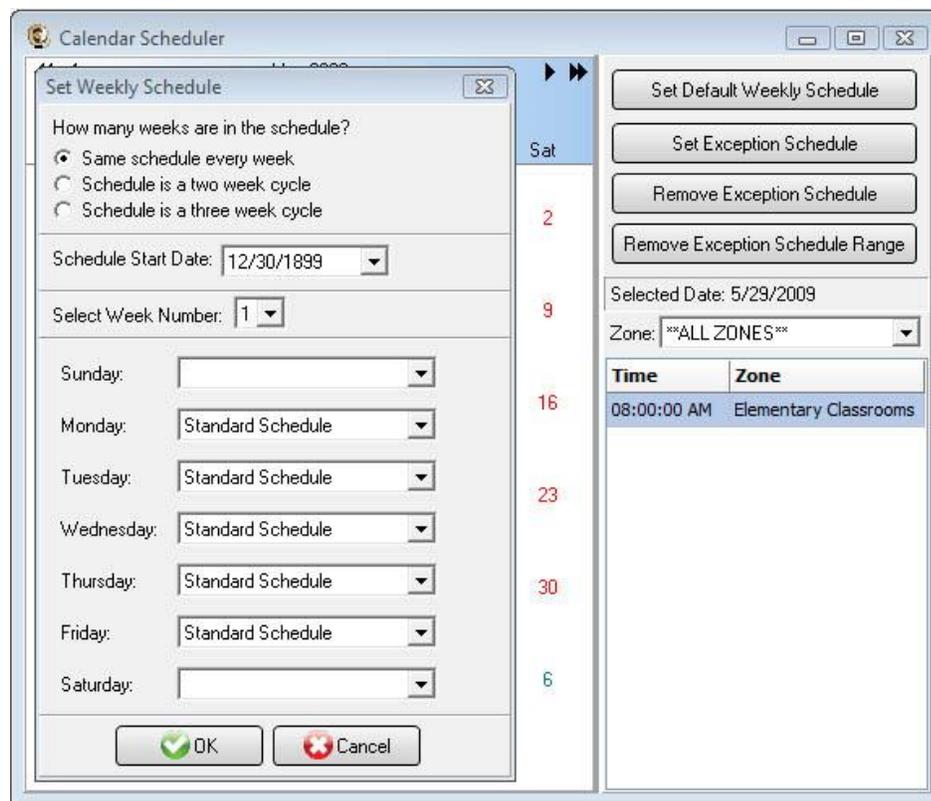
If schedule repeats bi-weekly, select “Schedule is a two week cycle”.

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 BPS and having BellCommander register the SIP extensions.

SIP Extensions for Emergency Notification

SIP Extensions for Emergency Notification allows BPS 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. Open a browser and connect to the BPS administration user interface.
2. Click on **Extensions** and select **People**, then click **Create New Person** (new view opens).
3. Enter a first and last name, such as “BellCommander” and “Extension 1”.
4. Enter PIN of at least four digits, but preferably six or more digits (the PIN will not be used by BellCommander, however it is required to create the user in BPS).
5. Under **Extension Type** select “Next Free” to have the BPS auto assign an extension number or select “Single Extension” if you wish to specify the extension number.

Add a Person

First Name:

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Add This Person to a Group:

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Extension Assignment:

Valid Extension Ranges: x90-x99, x200-x299, x300-x399, x2000-x2999, x3000-x3999, x4300-x4499, x4800-x4899,

Extension Type:

(The next free extension number will be used.)

6. Click **Create** and the user edit page will appear. Make the following changes:
Uncheck **Show this person in Contact Directory searches**.
Check **Disable Voicemail**.
Click **Save**.
7. Scroll down to **Phones** and click **Add a Phone**. Choose “Add a Generic SIP Device” under **Phone Type**, and click **Save**. There will now be an entry in the Phones list with a description like “BellCommander’s SIP Device XX”.
8. Click on the phone entry to open the phone edit page. Click **Registration Information** in the lower-right corner under **Lines and Utility Buttons**. Keep this window open.

SIP Registration Information

Domain (Internal):

Domain (External):

Port:

Username:

Authorization Username:

Password:

9. 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 BPS server IP and port number. For BPS the port is 5065, not 5060.
 - 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 that was added to BPS.
 Extension Password – Password for the extension that was added to BPS.
 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 a BPS 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.

Device Manager

Sound Device Type: SIP Extensions
Sound Device: SIP Extensions

Enable SIP Extensions

Local SIP Extensions:

Extension	Status
95	Registered

SIP Settings

SIP Server IP/Host Name: 10.15.64.206

SIP Server Port: 5065

Domain: .15.64.206

Use Compact SIP Headers (Jive)

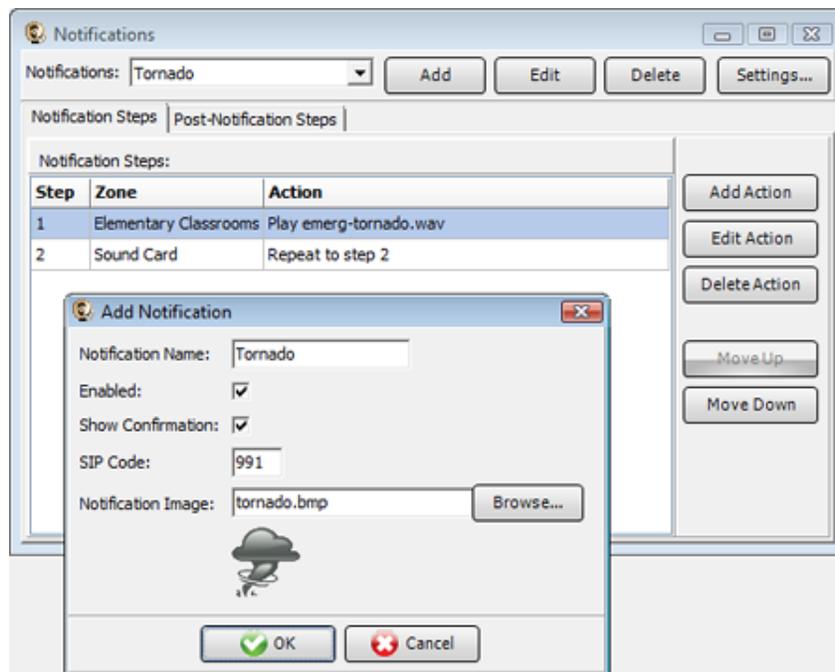
Local SIP Extensions

Allowed Extensions

Extension

10. 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.



11. 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#.