



wahsega

Carina Event Manager

User's Guide



Getting Started

This step by step guide will help you setup and install your Wahsega Carina Event Manager.

Important Notice

This manual and any examples contained herein are provided “as is” and are subject to change without notice. Wahsega reserves the right to make changes to its products without notice and advises its customers to obtain the latest version of relevant information before placing orders and to verify that the information being relied on is current.

No title to or ownership of the hardware, software and designs described in this document or any of its parts, including patents, copyrights and trade secrets, is transferred to customers. Wahsega makes no representations or warranties regarding the contents of this document. Information in this document is subject to change without notice and does not represent a commitment on the part of Wahsega Labs, LLC.

Copyright Notice

© 2021 Wahsega Labs, LLC. All rights reserved

Reproduction, adaptation, or translation of this manual is prohibited without prior written permission of Wahsega, except as allowed under the copyright laws.

Trademarks

Wahsega and the Wahsega logo are trademarks of Wahsega Labs, LLC. All other brand and product names are trademarks, service marks, registered trademarks, or registered service marks of their respective companies.

Table of Contents

- PREFACE..... 1**
 - Important Notice..... i*
 - Copyright Notice..... i*
 - Trademarks..... i*
- CHAPTER 1: OVERVIEW 3**
 - Event Manager Functionality..... 4*
 - Quality Standards..... 5*
- CHAPTER 2: USER EXPERIENCE 6**
 - Software Capabilities 7*
 - Getting Started..... 8*
- CHAPTER 3: CONFIGURATION AND WEB INTERFACE..... 11**
 - Bell Scheduler Settings 12*
 - Events Settings..... 15*
 - Zone Settings..... 18*
 - Alert Configuration 20*
 - Device Settings..... 26*
 - Firmware Settings..... 27*
 - Logging 28*
 - Network Configuration 30*
 - General System Configuration..... 32*
 - Firmware Management..... 34*
- APPENDIX A: RESTORING FACTORY SETTINGS 36**
 - Software-Based Factory Reset..... 36*

The Wahsega product line offers the highest quality two-way audio and durability in the industry today. Each and every Wahsega product is designed, developed and manufactured in the USA, ensuring a superior product at the best price available in the market.

Event Manager Functionality

The initial functions of the Wahsega Event Manager include:

Auto-Discovery of Wahsega Carina endpoints

- Discovers any Wahsega Carina endpoint on the same VLAN
- Simple configuration from one central point

Bell Scheduler

- Schedule events and bells

Web-based configuration

- All endpoint configuration options accessible via a central HTTP Web interface
- Remote firmware upgradeable

Alerts and Announcements

- Audio, text and flasher activation for alerts and announcements

Simple installation

- Power-over-Ethernet (PoE 802.3af) powered
- Standard 1u rack mounting

Temperature range -40°C to +60°C

Industry-leading standby power of < 2W

Quality Standards

- Wahsega products achieve the highest standards of performance in the market by utilizing our complete quality assurance program encompassing software testing, product design and a multistage automated factory test program.
- Wahsega's ultimate goal is to provide a solution that is both cost effective and unsurpassed in quality. By leveraging existing relationships with suppliers to guarantee premium components at the lowest possible prices, we are able to ensure Wahsega products are the finest quality in the market while still offered at highly competitive prices directly to installers.
- In order to achieve the greatest possible voice clarity, all voice and related algorithms have been individually tested to ensure the highest potential MOS score. The accumulated error syndrome, which can cause poor voice quality, is mitigated through this testing process.
- Wahsega's engineering team utilizes a wide array of dedicated test servers to pull and build the various software projects multiple times per day. Each automatic build is then run through an extensive set of automated test cases to ensure the highest performance of each and every firmware version released. This test case coverage is expanded on a continual basis.
- All Wahsega products are 100% factory tested at the board level through a bed of nails full functional test, not just an "is it close enough?" flying probe test. Every finished product is 100% tested again after the final assembly via an automated test station to ensure the highest production quality product for installers.
- To assure the highest quality standards, all Wahsega products are designed, developed and manufactured in the USA.

Chapter 2

User Experience

The Wahsega Carina Event Manager is a next-generation mass notification and IoT platform for many different types of buildings. Featuring an easy-to-use calendar scheduler, it incorporates live paging and announcements with audio, text and flashers in addition to sensors and relays for monitoring a variety of building systems. A member of Wahsega's Carina family of products, the Event Manager performs auto-discovery on Carina endpoints at startup and enables users to configure those endpoints individually or in bulk.

Used in conjunction with a SIP server such as Wahsega's PICS, standard IP phones can initiate live audio announcements from the Carina Event Manager to paging zones throughout the building. For bells and announcements including audio and text, pre-recorded audio files stored in the Event Manager can be deployed to endpoints via a preconfigured calendar event, a SIP call or the click of a webpage button. In addition, IoT sensors can be connected to the Carina Sensor Interface Appliance to send out announcements when conditions trigger a relay closure.

With auto-discovery, bulk configuration and quick webpage setup, the Carina Event Manager makes it easy to deploy a reliable building-wide announcement and monitoring system.

Software Capabilities

The Event Manager's configuration is accessible using an HTTP Web interface, viewable from any Web browser on the same LAN.

This allows access to various settings to schedule firmware upgrades, send out emergency alerts, view device health status reports, schedule calendar events and more, all through a single dashboard.

All Carina endpoints can and should be configured in the Event Manager, including bulk updates and firmware upgrades.

The Event Manager's configuration is stored in a JSON file, which is human readable and can be edited by site administrators.

Getting Started

1. Connect the Event Manager's main Ethernet port—labeled *LAN*—to a network using a Power-over-Ethernet (PoE) Ethernet connection. When connected, it will power on immediately, and the *LINK/ACTV* status LED will begin to blink.
2. Locate and note your Event Manager's MAC address. It is printed on a white sticker located on the rear of the device.
3. Discover your Event Manager's IP address. When it boots, the Event Manager uses DHCP by default to automatically obtain a suitable IP address on your local area network (LAN). It also runs Simple Service Discovery Protocol (SSDP) so you can discover it from Windows Explorer or any SSDP-enabled application.

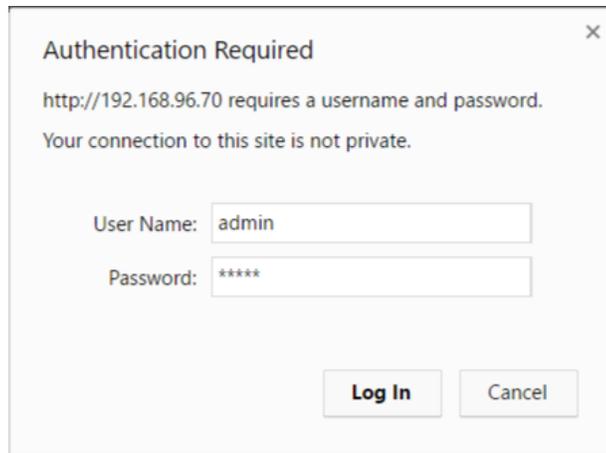
From a Windows PC on the same LAN, open "My Computer." In the left-hand pane, go to the "Network" view.

Right-click in the right-hand Network pane and select "Refresh." This will start a search for devices on the network. You may get a popup asking if you want to allow your PC to search the network, in which case you should click "yes" or "allow."

If you are not using SSDP or cannot discover the speaker on your network, you can:

- consult your DHCP server's logs to determine its IP address;
- use a network discovery app (such as Fing on iOS and Android);
or
- use Wireshark to observe the DHCP network traffic.

4. Once the search is complete, Event Manager will appear in the Network view as “Wahsega Event Manager (:XX:XX)” with last two octets of its MAC address included in its name. Double-click the icon to open Event Manager’s Web interface.
5. Once you determine the Event Manager’s IP address, navigate to that IP address in your Web browser (for example, <http://123.456.78.9>). Wahsega recommends using a Chrome or Firefox browser to configure Wahsega devices, including Event Manager.
6. When you access the configuration webpages, the Event Manager will ask for a username and password. The default username and password are *admin* and *admin*.



7. On the left side of the page is the Status bar. It shows the Event Manager’s system information, including current IP address, MAC address, system time and uptime.
8. To change the IP address settings, go to the Network page and modify settings in the WAN section. To set the network for DHCP, click the Dynamic IP radio button. For static IP addressing, click the Static IP radio button and fill in the relevant IP address fields with values from your network administrator.

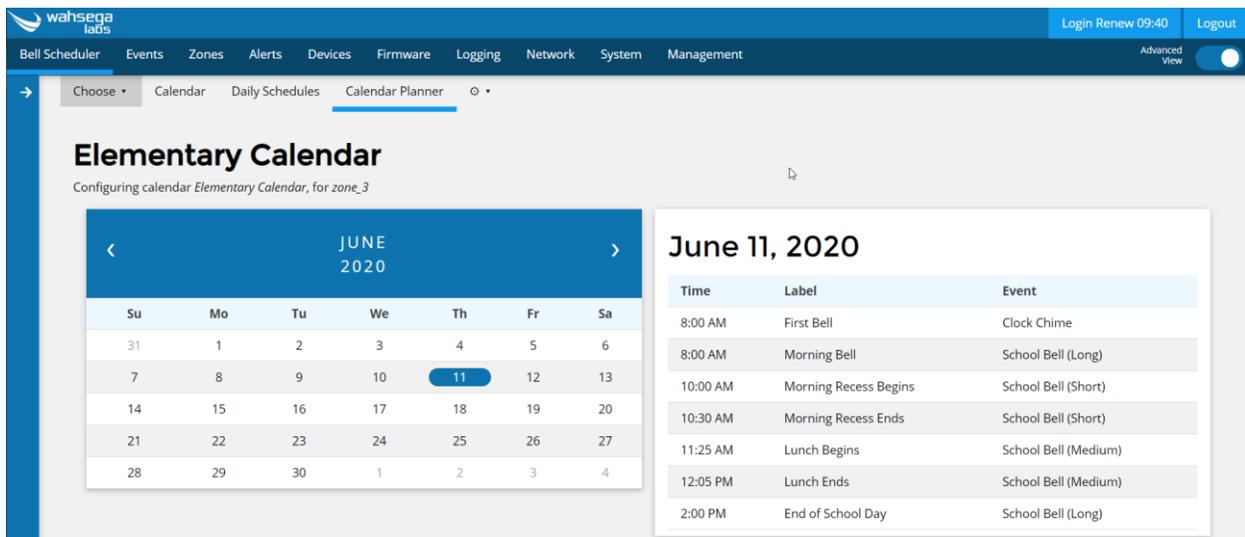
9. Set your system's date and time on the System page. If you are not connected to an NTP server, you can use the Event Manager itself as an NTP server for the devices that will connect to it. Deselect NTP Enabled and then set Manual Time.
10. Once online, your Event Manager will automatically discover any Wahsega Carina endpoint on the same VLAN.
11. Make sure you have already set up your PBX or SIP server if you plan to register your endpoints' SIP accounts for two-way calls. Be sure to register your VoIP phone(s) to that PBX, as well, so they can call and receive calls from your Wahsega Carina endpoints.
12. After configuring the network and system settings for your Event Manager, use the configuration settings described in the next sections to configure the Wahsega Carina endpoints registered to this Event Manager.
13. If you have questions or need assistance, give us a call 888.509.2379 or [email our support team](#). We'd love to help!

Chapter 3 Configuration and Web Interface

The Web interface is a set of webpages used to configure the various settings available on the Event Manager. It allows the Event Manager to be configured from any computer or device with a Web browser on the same network. Wahsega recommends using a Chrome or Firefox browser for best results.

Bell Scheduler Settings

The **Bell Scheduler** page configures scheduled calendar events. While this is the first page a user sees, it cannot be properly configured until Zones and Events are configured. You may add up to four Calendars and sixteen Daily Schedules.



The screenshot shows the 'Elementary Calendar' configuration page for 'zone_3'. It features a calendar grid for June 2020 with the 11th highlighted. To the right, a detailed view for June 11, 2020, lists the following events:

| Time | Label | Event |
|----------|-----------------------|----------------------|
| 8:00 AM | First Bell | Clock Chime |
| 8:00 AM | Morning Bell | School Bell (Long) |
| 10:00 AM | Morning Recess Begins | School Bell (Short) |
| 10:30 AM | Morning Recess Ends | School Bell (Short) |
| 11:25 AM | Lunch Begins | School Bell (Medium) |
| 12:05 PM | Lunch Ends | School Bell (Medium) |
| 2:00 PM | End of School Day | School Bell (Long) |

Calendar

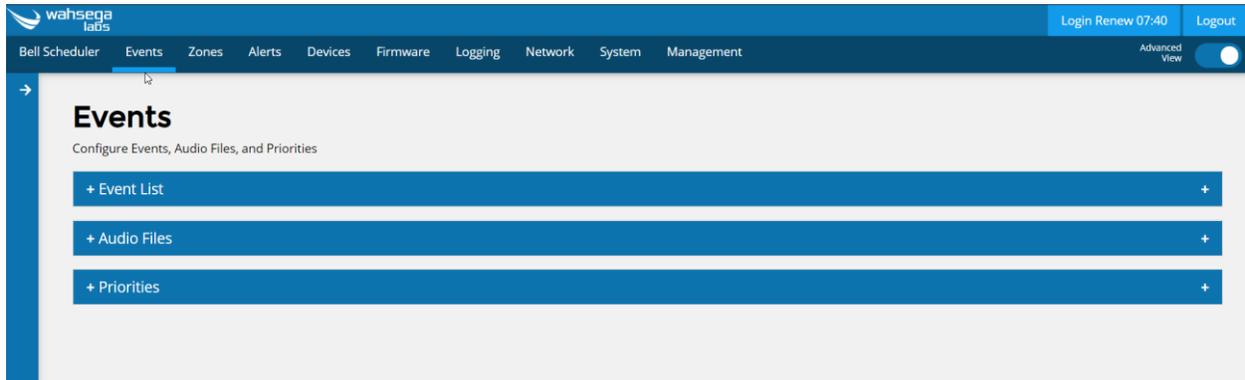
- **Create Calendar** – Create and label the **Calendar(s)** you'll need. Each calendar can broadcast to a single zone, or it can do an all-call to all endpoints registered on this Event Manager.
 - To create a new calendar, go to the first drop-down menu labeled "Choose" and select "Create Calendar".
 - Label your calendar with a descriptive name and choose which preconfigured zone this calendar will broadcast to.
 - To change the label or zone for a calendar, select the gear icon after "Daily Schedules" and choose "Configure Calendar".

- **Daily Schedules** – Set up individual bells or create Daily Schedules.
 - To set up a bell or event on an individual day, double-click on that calendar date, which will show any bells already scheduled on that date. Below those bells (or “No scheduled bells,” click “Create New”.
 - **Label** – This is the name of your bell.
 - **Start Time** – This is the time you’d like the bell or event to play out. Date should be pre-filled with the date you’ve chosen.
 - **Event** – Choose a preconfigured Event to play on this date at this time, with this label.
 - **Save Changes.**
- **Create Daily Schedules** – Add bells to one day or to multiple days, as needed.
 - Select “Daily Schedules”.
 - Click “Create New” under Bell Schedules.
 - Change the label from “New Bell Schedule” to a name that reflects your needs (e.g., “Regular Day,” “Half Day,” “Teacher Workday,” etc.).
 - To add a bell, click “Create New” under “No scheduled bells.”
 - For every bell, you’ll need a Label (e.g., “Tardy Bell”), Start Time, and a pre-configured Event. Any bell tones you want to play here will need to already be configured as an EVENT under the Events tab.

- **Calendar Planner** – Once you have your Daily Schedules set up, you can add them in bulk using Calendar Planner.
 - On the top left, “Choose” the Calendar you’d like to add bells to.
 - Select “Calendar Planner” at the top of the page.
 - This is a good time to check and make sure you’re configuring the correct zone for this calendar. It will be called out just below the name of the calendar (e.g., “Configuring calendar High School Calendar, for Zone 1 - South Wing”).
 - Click the preconfigured Bell Schedule you’d like to add to this calendar.
 - On the right side of the page, you’ll see the name of your bell schedule, days of the week, Start Date, and End Date.
 - Click on the days of the week you’d like to play these bells and then select the date range for which you’d like this schedule to play.
 - You can add an individual date or a date range.
 - To **exclude** a particular date for this calendar within your chosen date range, go back to “Calendar” (top left, next to “Choose” menu).
 - Select the individual date you’d like to exclude.
 - Double-click that date.
 - On the date page, click the schedule you’d like to exclude.
 - On the right side of the page, select “Exclude this date”.

Events Settings

The **Events** page configures settings for events, audio files, and priority levels.



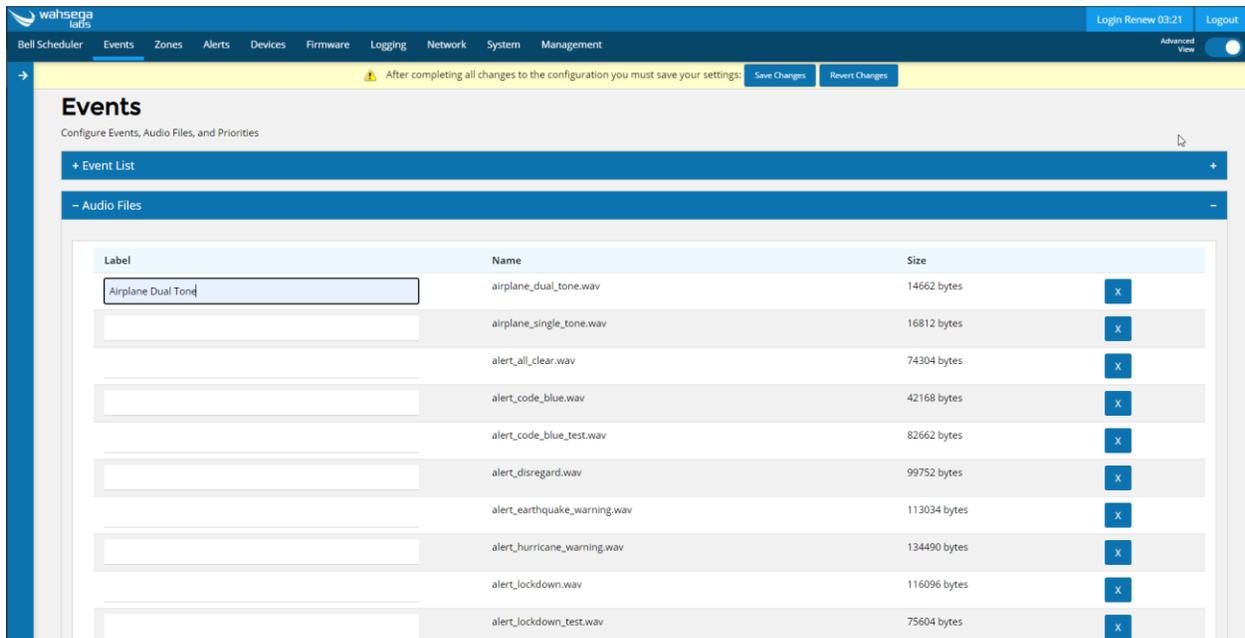
Event List

Events are used for both Alerts (Events triggered by dialing an extension) and for the Bell Scheduler (Events triggered by preconfigured timer).

- **Create New** – Create a new Event for any Alert or Bell you’d like to add.
 - **Label** – Name of this event.
 - **Priority** – Which events this particular event will and will not be able to play over. An event at “Normal:Medium”, for instance, will always play over events at “Normal:Low” and all “Background” events. It will not play, however, on an endpoint that is playing “Normal:High”, “Urgent”, or “Emergency” events when it is deployed.
 - Important note regarding Priorities: You may wish to leave “Emergency:High” for an “all-clear” type of event.
 - **Audio** – Choose the Audio file (set up below, in “Audio”) for this particular event.

- **Trigger: New Event** – Once your Event is set up, you can test it by selecting the blue Trigger button. Choose the Zone (set up in “Zones” tab) to broadcast this Event to for testing.
- **Text** – Used when this Event is broadcast to an IP Display.
 - In the box, type text to be displayed on any IP Display included in this broadcast group.
 - **Color** – Choose text color from dropdown menu.
 - **Scroll Speed** – Amount of time, in seconds, to display this message. If the message is larger than the screen, it will automatically scroll. Selecting "0" for both Duration and Repetitions will allow the message to display until this Event is cancelled by a user or until an Event of equal or higher priority is sent to the device.
 - Default value: 30 seconds
 - **Repetitions** – Number of times this message will scroll across the display. This setting will override the Duration, if also set. If both Duration and Repetitions are set to "0", the message will be displayed until the Event is cancelled by a user or until an Event of equal or higher priority is sent to the device.
- **Flashers** – Configure flashers deployed on Wahsega IP Display(s) during this Event.
 - **Pattern** – Choose Off, Solid, Slow or Quick flash rate.
 - **Color** – Select flasher color for this Event.
 - **Brightness** – Choose from Low, Medium or High flash brightness.
 - **Duration** – Amount of time, in seconds, to flash LEDs. Selecting "0" will allow the LEDs to continue flashing until this Event is cancelled by a user or until an Event of equal or higher priority is sent to the device.
 - Default value: 30 seconds.

Audio Files



The screenshot shows the 'Events' configuration page in the Wahsega iads interface. The page title is 'Events' with a subtitle 'Configure Events, Audio Files, and Priorities'. Below the title, there are two tabs: '+ Event List' and '- Audio Files'. The 'Audio Files' tab is active, displaying a table with the following columns: Label, Name, Size, and a delete button (X). The table contains the following data:

| Label | Name | Size | Delete |
|--------------------|------------------------------|--------------|--------|
| Airplane Dual Tone | airplane_dual_tone.wav | 14662 bytes | X |
| | airplane_single_tone.wav | 16812 bytes | X |
| | alert_all_clear.wav | 74304 bytes | X |
| | alert_code_blue.wav | 42168 bytes | X |
| | alert_code_blue_test.wav | 82662 bytes | X |
| | alert_disregard.wav | 99752 bytes | X |
| | alert_earthquake_warning.wav | 113034 bytes | X |
| | alert_hurricane_warning.wav | 134490 bytes | X |
| | alert_lockdown.wav | 116096 bytes | X |
| | alert_lockdown_test.wav | 75604 bytes | X |

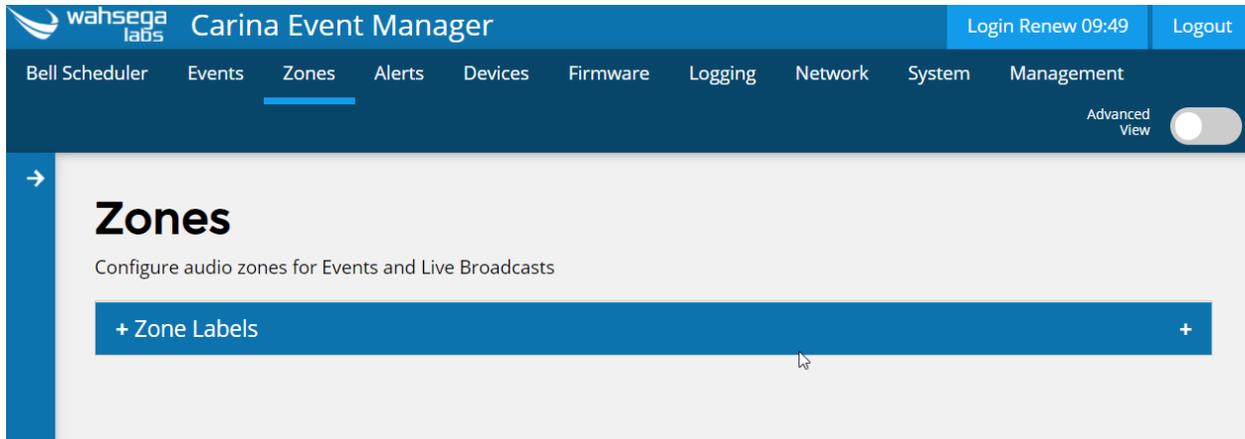
- **File Upload** – An uploaded audio file must be of type WAV, be single channel (mono), and have a sampling rate of 16KHz or less.
 - Supported codecs include: PCM, ALAW, ULAW, G729, G722.
- **Label** – Name of file for user reference.
- **Name** – Audio filename in database.
- **Size** – File size in bytes.
- **Delete** – Click  to remove an audio file from the Event Manager.

Priorities

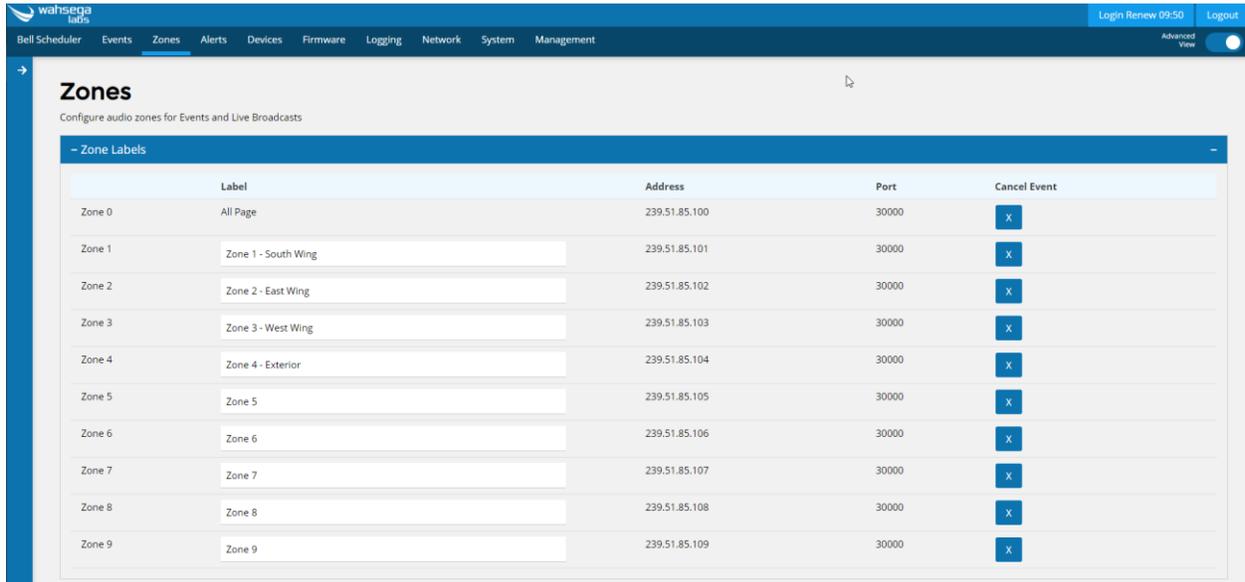
- You may relabel priority levels here if desired.

Zone Settings

The **Zones** page is where users will configure audio zones for Live Broadcasts and preconfigured Events.



Zone Labels

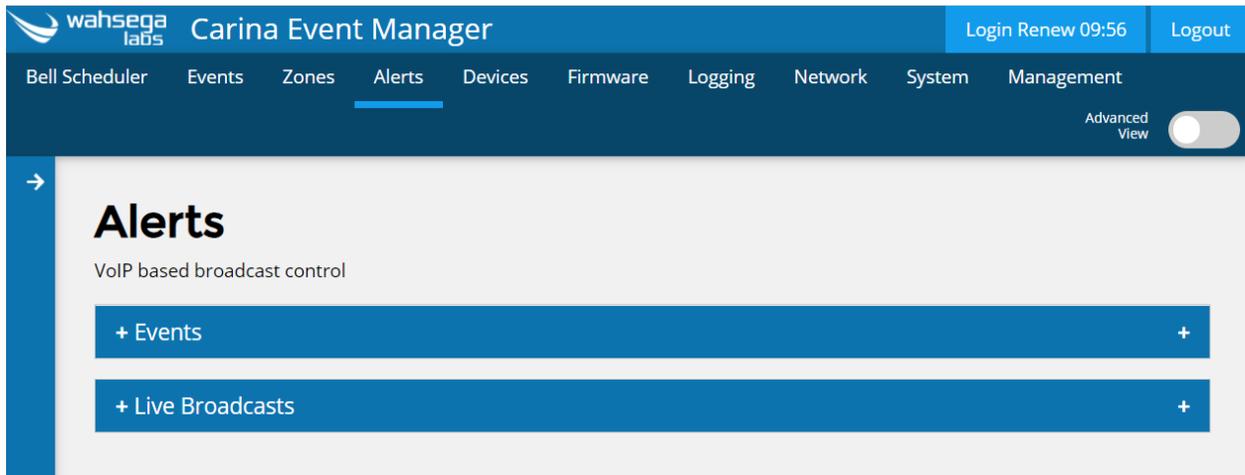


| | Label | Address | Port | Cancel Event |
|--------|---------------------|---------------|-------|--------------|
| Zone 0 | All Page | 239.51.85.100 | 30000 | X |
| Zone 1 | Zone 1 - South Wing | 239.51.85.101 | 30000 | X |
| Zone 2 | Zone 2 - East Wing | 239.51.85.102 | 30000 | X |
| Zone 3 | Zone 3 - West Wing | 239.51.85.103 | 30000 | X |
| Zone 4 | Zone 4 - Exterior | 239.51.85.104 | 30000 | X |
| Zone 5 | Zone 5 | 239.51.85.105 | 30000 | X |
| Zone 6 | Zone 6 | 239.51.85.106 | 30000 | X |
| Zone 7 | Zone 7 | 239.51.85.107 | 30000 | X |
| Zone 8 | Zone 8 | 239.51.85.108 | 30000 | X |
| Zone 9 | Zone 9 | 239.51.85.109 | 30000 | X |

- **Label** – Label your audio Zones with custom names here.
- **Address** – The RTP Multicast IP address on which this zone will broadcast.
- **Port** – The RTP Multicast IP port for this broadcast group.
- **Cancel Event** – Click  to cancel Events currently broadcasting in this Zone.

Alert Configuration

On the **Alerts** page, users configure extensions which will be dialed by a SIP phone to trigger preconfigured Events or to send Live Broadcasts. A maximum combination of ten Alerts and Live Broadcasts is allowed for this Event Manager.



Each Alert and Live Broadcast extension will need to be configured in and registered to your PBX.

Events

Click “Create New” under Extension List to configure a new SIP-initiated Event.

- **Alert Configuration**

- **Zone** – Select the preconfigured Zone (under “Zones” tab) to which this Alert broadcast will be sent.
- **Event** – Select the preconfigured Event (under “Events” tab) to broadcast during this Alert.
- **SIP Account** – This extension dialed to activate this Alert will need to be registered to a SIP server, such as Wahsega PICS.

- **General**
 - **Register with SIP server** – Check to register this extension with your SIP server.
 - **Display name** – Name to be displayed as the caller ID.
 - **Username/Number** – Username, phone number or extension of the SIP account.
 - **Domain** – Domain of the account (e.g., IP address of your SIP server).
 - **Password** – The password used to register this account with the SIP server, if needed.
 - **Authentication username** – By default, authentication is done with the Username/Number above. Fill in the Authentication Username if a different username is needed.
- **Timers**
 - **Call Attempt Timeout** – An unanswered outbound call attempt will be automatically cancelled when this timer expires. Default is 180 seconds.
 - **Incoming Call Timeout** – An unanswered inbound call attempt will be automatically cancelled when this timer expires.
 - **Call Active Timeout** – An active call will be automatically terminated when this timer expires.
- **Topology**
 - **SIP transport mode** – Select Automatic, UDP, TCP, or TLS to match your SIP server's SIP transport mode.
 - **Secure RTP** – Disabled by default.
 - **Local Port** – Enter local port if needed.

- **Use STUN** – When enabled, the SIP client will use the public IP address of this device when communicating with the SIP server instead of its private IP address. *Note: STUN must also be configured on the Network page if this is checked. .*
- **Advanced**
 - **Proxy** – When set, all SIP traffic will be sent through the proxy server, no matter the Domain setting.
 - **Proxy port** – If set to 0, the default proxy port of 5060 will be assumed. Default value is 0.
 - **Registration lifetime** – Interval, in seconds, the SIP client will re-register with the SIP server. Default value is 3600.
 - **Keep-alive** – When enabled, the SIP client will periodically send a keep-alive message to the server. This is useful when connecting to a server across a NAT connection, or in keeping a TCP connection to the SIP server active.
 - **Silence suppression** – When enabled, RTP packets are not sent when silence is detected.

Delete Alert – Click to delete this alert from the Event Manager.

Live Broadcasts

Priority – All Live Broadcasts will have the same priority level. Set priority level here.

Extension List – Click “Create New” under Extension List to configure a new extension to be used for a Live Broadcast.

- **Live Broadcast Configuration**

- **Zone** – Select the preconfigured Zone (under “Zones” tab) to which this Alert broadcast will be sent.
- **Event** – Select the preconfigured Event (under “Events” tab) to broadcast during this Alert.
- **SIP Account** – This extension dialed to activate this Alert will need to be registered to a SIP server, such as Wahsega PICS.
 - **General**
 - **Register with SIP server** – Check to register this extension with your SIP server.
 - **Display name** – Name to be displayed as the caller ID.
 - **Username/Number** – Username, phone number or extension of the SIP account.
 - **Domain** – Domain of the account (e.g., IP address of your SIP server).
 - **Password** – The password used to register this account with the SIP server, if needed.
 - **Authentication username** – By default, authentication is done with the Username/Number above. Fill in the Authentication Username if a different username is needed.
 - **Timers**

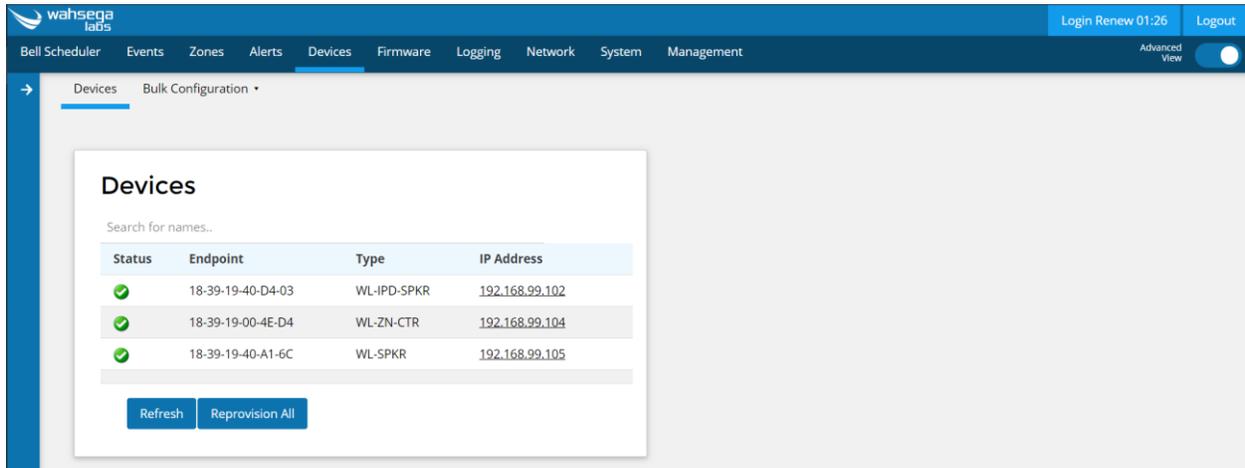
- **Call Attempt Timeout** – An unanswered outbound call attempt will be automatically cancelled when this timer expires. Default is 180 seconds.
- **Incoming Call Timeout** – An unanswered inbound call attempt will be automatically cancelled when this timer expires.
- **Call Active Timeout** – An active call will be automatically terminated when this timer expires.
- **Topology**
 - **SIP transport mode** – Select Automatic, UDP, TCP, or TLS to match your SIP server’s SIP transport mode.
 - **Secure RTP** – Disabled by default.
 - **Local Port** – Enter local port if needed.
 - **Use STUN** – When enabled, the SIP client will use the public IP address of this device when communicating with the SIP server instead of its private IP address. *Note: STUN must also be configured on the Network page if this is checked. .*
- **Advanced**
 - **Proxy** – When set, all SIP traffic will be sent through the proxy server, no matter the Domain setting.
 - **Proxy port** – If set to 0, the default proxy port of 5060 will be assumed. Default value is 0.
 - **Registration lifetime** – Interval, in seconds, the SIP client will re-register with the SIP server. Default value is 3600.
 - **Keep-alive** – When enabled, the SIP client will periodically send a keep-alive message to the server. This is useful when connecting to a server across a NAT connection, or in keeping a TCP connection to the SIP server active.

- **Silence suppression** – When enabled, RTP packets are not sent when silence is detected.

- **Delete Extension** – Click to delete this paging extension from the Event Manager.

Device Settings

The **Devices** page is where users will configure Wahsega Carina endpoints, including IP Displays, Speakers and Zone Controllers.



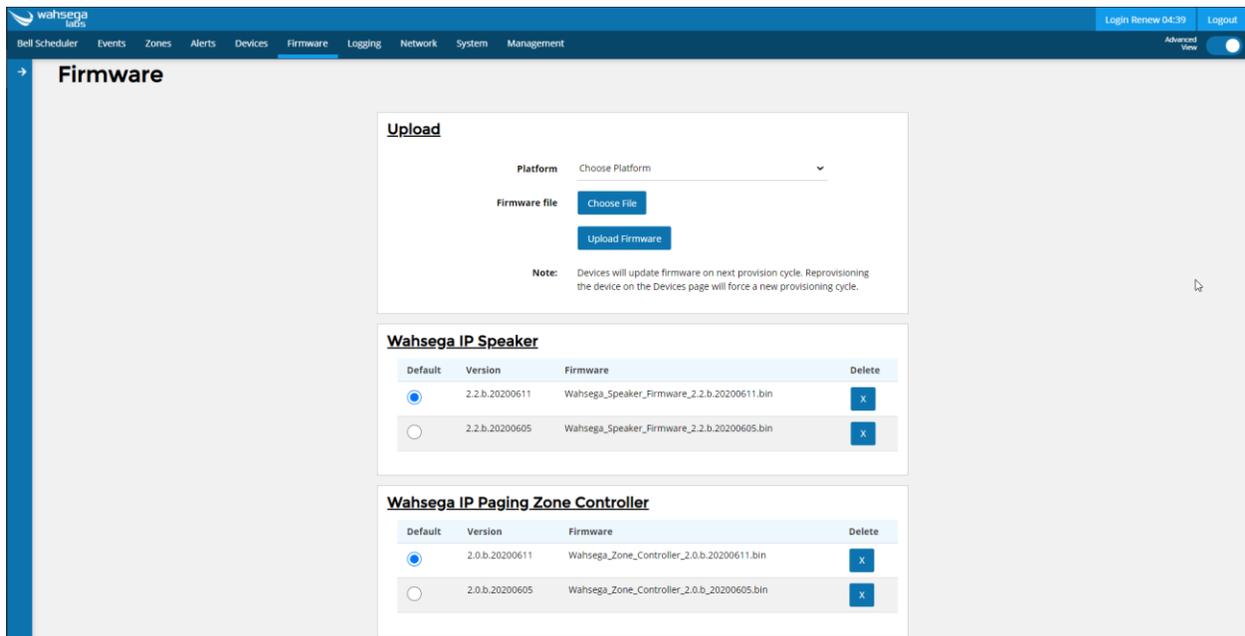
The screenshot shows the Wahsega Carina web interface. The top navigation bar includes 'wahsega labs', 'Login Renew 01:26', and 'Logout'. The main navigation menu includes 'Bell Scheduler', 'Events', 'Zones', 'Alerts', 'Devices', 'Firmware', 'Logging', 'Network', 'System', and 'Management'. The 'Devices' page is active, showing a search bar and a table of devices. The table has four columns: Status, Endpoint, Type, and IP Address. Three devices are listed, all with a green checkmark status. Below the table are buttons for 'Refresh' and 'Reprovision All'.

| Status | Endpoint | Type | IP Address |
|--------|-------------------|-------------|----------------|
| ✓ | 18-39-19-40-D4-03 | WL-IPD-SPKR | 192.168.99.102 |
| ✓ | 18-39-19-00-4E-D4 | WL-ZN-CTR | 192.168.99.104 |
| ✓ | 18-39-19-40-A1-6C | WL-SPKR | 192.168.99.105 |

See endpoint user guides for additional instruction.

Firmware Settings

The **Firmware** page allows users to load firmware for Carina endpoints.



Upload

Platform: Choose Platform

Firmware file: Choose File

Upload Firmware

Note: Devices will update firmware on next provision cycle. Re-provisioning the device on the Devices page will force a new provisioning cycle.

Wahsega IP Speaker

| Default | Version | Firmware | Delete |
|----------------------------------|----------------|---|--------|
| <input checked="" type="radio"/> | 2.2.b.20200611 | Wahsega_Speaker_Firmware_2.2.b.20200611.bin | X |
| <input type="radio"/> | 2.2.b.20200605 | Wahsega_Speaker_Firmware_2.2.b.20200605.bin | X |

Wahsega IP Paging Zone Controller

| Default | Version | Firmware | Delete |
|----------------------------------|----------------|--|--------|
| <input checked="" type="radio"/> | 2.0.b.20200611 | Wahsega_Zone_Controller_2.0.b.20200611.bin | X |
| <input type="radio"/> | 2.0.b.20200605 | Wahsega_Zone_Controller_2.0.b.20200605.bin | X |

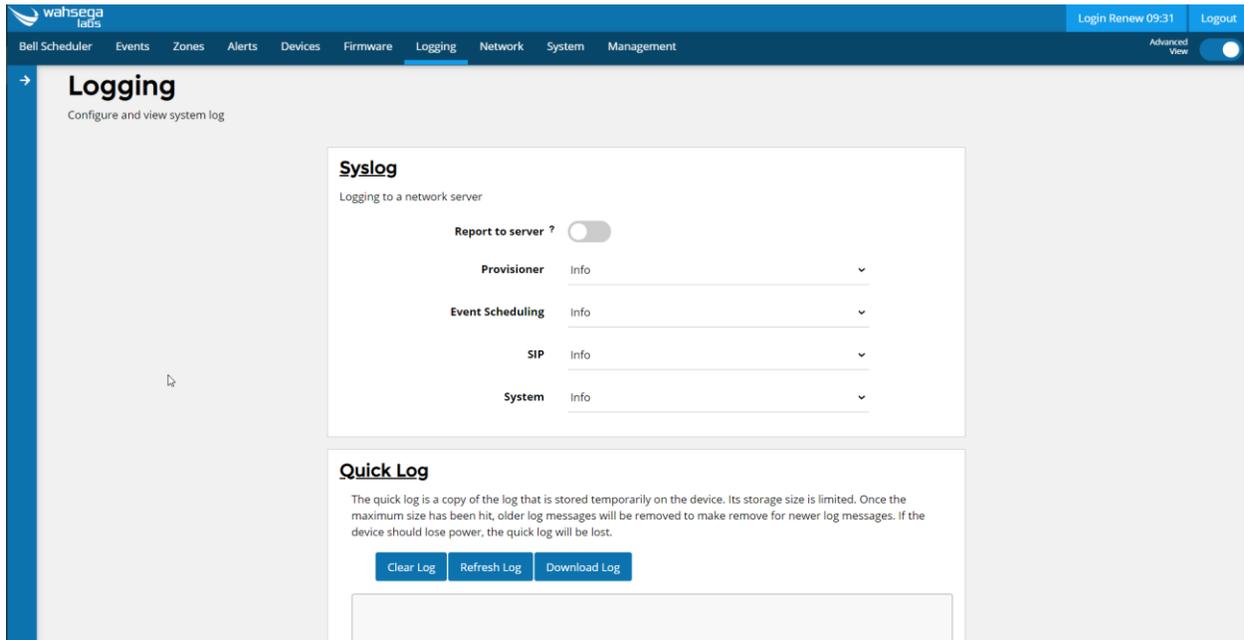
Upload

- **Platform** – Choose the type or platform of Wahsega Carina product for which you'd like to upload firmware.
- **Choose File** – Now select the file for this platform that you'd like to upload.
- **Upload Firmware** – Click this once you've chosen the appropriate file for the platform.
- **Note:** *Devices will update firmware on next provision cycle. Re-provisioning the endpoint on the Devices page will force a new provisioning cycle.*

Users may delete an uploaded firmware by clicking the  next to the firmware they wish to delete.

Logging

The **Logging** page displays device activity for the Event Manager and the Wahsega Carina devices it has discovered and configured.



Syslog

- **Report to server** – Syslog is a network protocol to enable system logging from a device to a network server. This may be used to aid in diagnosing the behavior of a device. Default value: Disabled.
- **Server address** – The IP address or URL of the syslog server.
- **Server port** – The port (if needed) for the syslog server.
- **Provisioner** – Log level for Provisioner: Off, Warning, Info, Debug.
- **Event Scheduling** – Log level for Event Scheduling: Off, Warning, Info, Debug.
- **SIP** – Log level for SIP: Off, Warning, Info, Debug.
- **System** – Set log level for System: Off, Warning, Info, Debug.

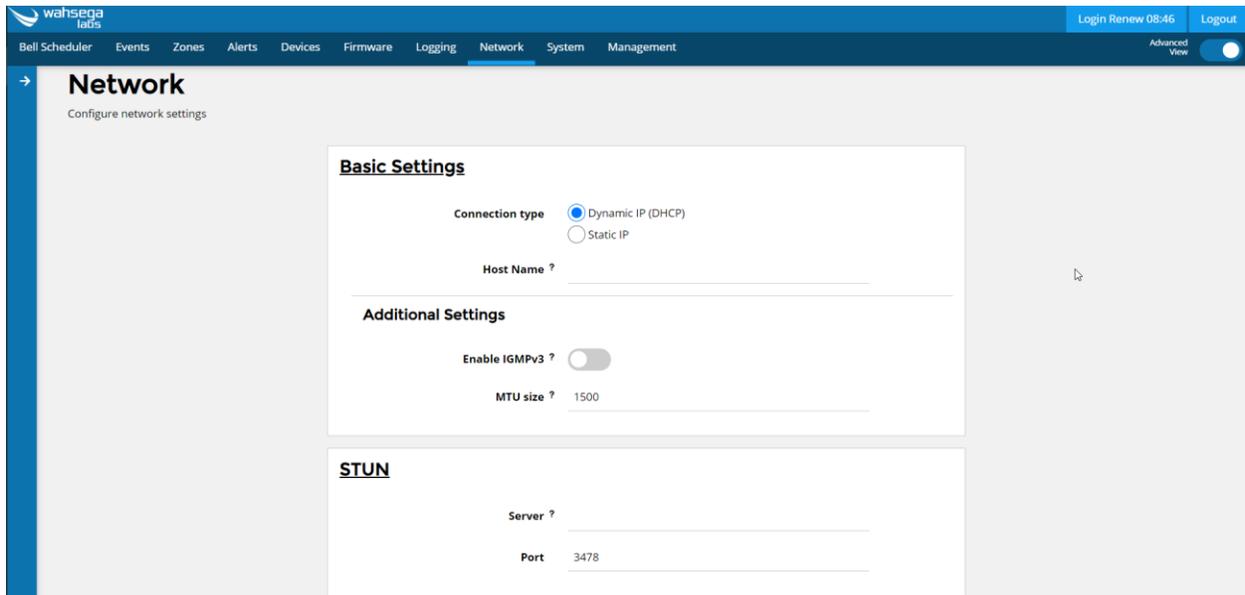
Quick Log

The quick log is a copy of the log that is stored temporarily on the device. Its storage size is limited. Once the maximum size has been hit, older log messages will be removed to make room for newer log messages. If the device should lose power, the quick log will be lost.

- **Clear Log** - Clear all info in this log.
- **Refresh Log** - Refresh to show any new log info.
- **Download Log** - Download a text document with log info.

Network Configuration

The **Network** page configures settings for TCP/IP networking.



The screenshot shows the 'Network' configuration page in the Wahsega Event Manager. The page has a blue header with the Wahsega Labs logo and navigation tabs: Bell Scheduler, Events, Zones, Alerts, Devices, Firmware, Logging, Network (selected), System, and Management. The top right corner shows 'Login Renew 08:46' and 'Logout'. The main content area is titled 'Network' with the subtitle 'Configure network settings'. It is divided into three sections: 'Basic Settings', 'Additional Settings', and 'STUN'. In 'Basic Settings', 'Connection type' has radio buttons for 'Dynamic IP (DHCP)' (selected) and 'Static IP'. Below it is a 'Host Name' field. 'Additional Settings' includes a toggle for 'Enable IGMPv3' (disabled) and an 'MTU size' field set to 1500. The 'STUN' section has a 'Server' field and a 'Port' field set to 3478.

Basic Settings

- **Connection Type**
 - **Dynamic IP** – Choose this to use DHCP to assign an address automatically. Note that when using DHCP, the IP address for your IP Display may change. However, a new IP address will not affect configuration settings made through your Event Manager.
 - **Static IP** – Choose this to enter IP address settings manually.
 - *Warning: If you enter a configuration that is not accessible from your network, you may be unable to communicate with the Event Manager! Double-check that the settings you enter are correct before rebooting the Event Manager to apply them.*

Additional Settings (advanced)

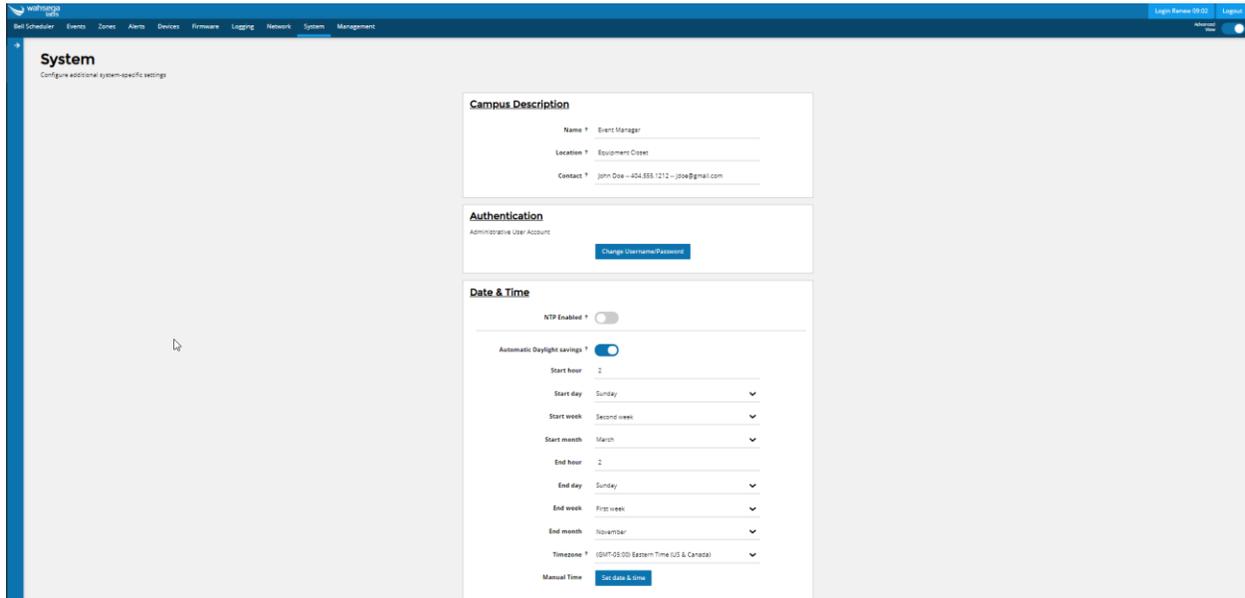
- **Enable IGMPv3** – Check to enable IGMP version 3 on your Event Manager. If unchecked, IGMP version 2 (IGMPv2) will be used. Default setting is *disabled*. If you know that your routers have IGMPv3 enabled, you can safely enable this setting. *If unsure, leave disabled* to ensure support with routers that only use IGMPv2.
- **MTU size** – Maximum transmission unit allowed on the Ethernet connection. The standard for Ethernet networks is 1500, and you *should not change this value* unless directed by your network administrator.

STUN

- **Server/Port** – Enter your STUN server here if applicable. STUN servers may be required to operate with a public SIP server from behind a NAT or router.

General System Configuration

The **System** page configures settings for the Event Manager operating system and other administrative functions.



Campus Description

- **Name** – An administratively-assigned name for this device.
- **Location** – The physical location of this device (e.g., GPS coordinates or description: “telephone closet, 3rd floor”).
- **Contact** – The textual identification of the contact/IT person for this device, together with information on how to contact this person.

Authentication

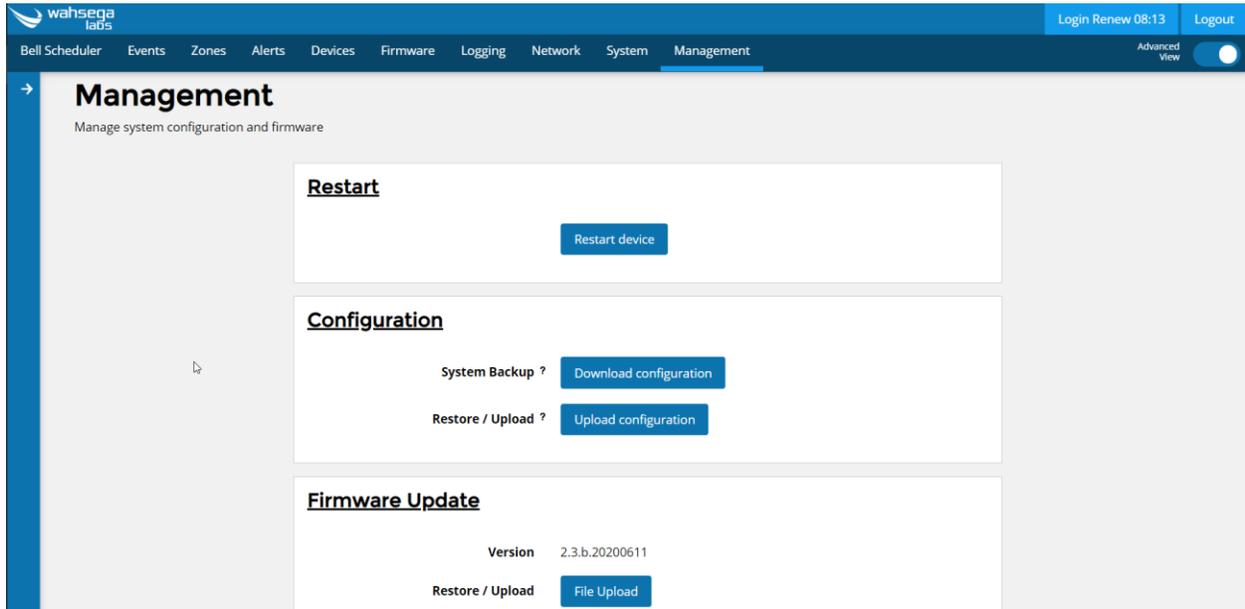
Change Username/Password – Set the username and password used on the configuration webpages and Telnet shell. Default is *admin*.

Date & Time

- **NTP Enabled** – When enabled, the system will query the NTP (network time protocol) server for the current time. The timezone and daylight savings time configuration is handled separate from the NTP time. Default value: Enabled
- **Automatic Daylight saving time** – Select this only if daylight saving time is currently in effect in your location. (For more information about DST rules and dates, see <http://www.nist.gov/pml/div688/dst.cfm>.)
- **Time zone** – Select the region that most closely matches your time zone. (Note that daylight saving time is *not* automatically applied based on region.)

Firmware Management

The **Management** page has functions for managing the Event Manager's system configuration and firmware.



Restart

- **Restart device** – Click to reboot your device if needed.

System Configuration

- **Backup/Download** – Use this to retrieve a copy of the Event Manager's current configuration and save to disk.
- **Restore/Upload** – Use this to upload a valid configuration file (ZIP format) which was retrieved and saved from an Event Manager. *Note that a reboot will be required before the settings take effect.*

Endpoint Configurations

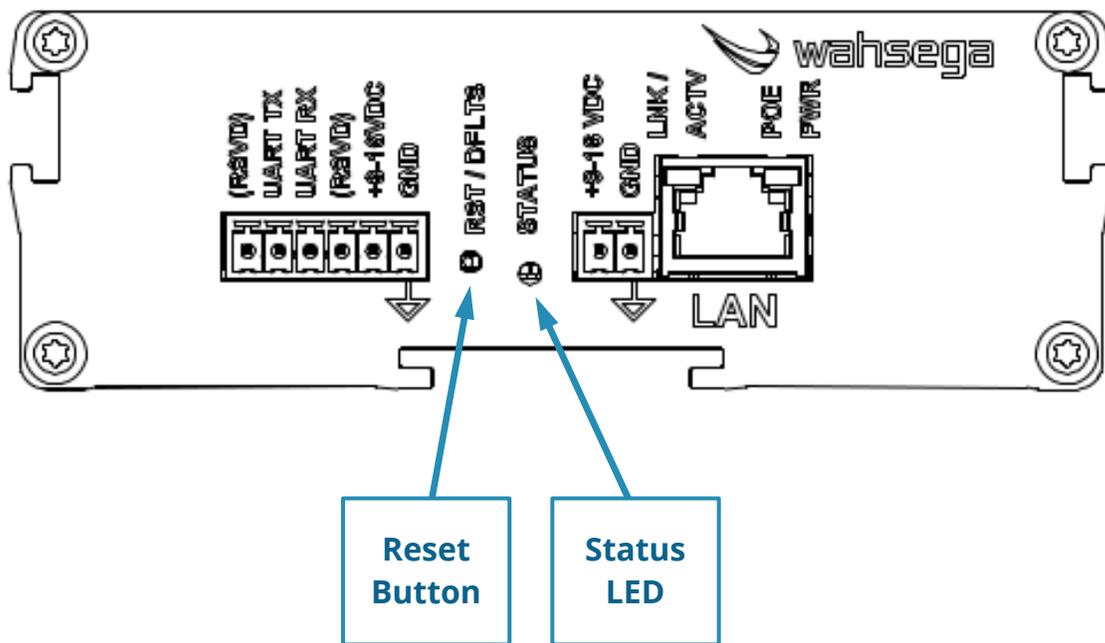
- **Backup/Download** – Download the current endpoint configurations in the form of a zip file. This zip file may be uploaded at a later time to restore the endpoint configurations.
- **Restore/Upload** – Use this to upload a valid endpoint configuration file (ZIP format) which was retrieved and saved from an Event Manager. *Note that a reboot will be required before the settings take effect.*

Firmware

- **File Upload** – Click first to select a valid Event Manager firmware file in .bin format.
- Your device will reboot upon update completion. *DO NOT UNPLUG THE EVENT MANAGER OR INTERRUPT THE FIRMWARE UPGRADE PROCESS BEFORE IT COMPLETES, OR IT MAY BE RENDERED UNUSABLE.*
- Note that firmware updates for device endpoints (Speaker, Zone Controller, IP Display, etc.) should be loaded on the Firmware page and not here.

Appendix A Restoring Factory Settings

Software-Based Factory Reset



If you need to erase the configuration settings in your Event Manager for any reason, you can do so in one of two ways. **Option A** returns all settings to factory default, and **Option B** returns only select settings to factory default.

Option A - Steps for activating a full factory reset:

1. Start with the Event Manager powered off.
2. Using either method on pages 5-6, apply power to your zone controller. As soon as power is applied, hold the reset button until the status light begins to blink.
3. Once the light starts blinking, continue to hold the button for **at least 5 seconds.** NOTE 1
4. After 5 seconds, the status light will flash rapidly to indicate that the file system has been reformatted and all data has been erased from your device. NOTE 2
5. Unplug and restart your Event Manager for the new settings to take effect. You have successfully reset your configuration!

Note 1: If you release the button early, the Event Manager will proceed with normal startup.

Note 2: If the status light instead begins to blink more slowly, the reset was not successful. Unplug and restart your device, and then attempt a reset once again.

Option B - Steps for activating a partial factory reset:

1. While the unit is running and the status LED is steadily lit, press and hold the reset button.
2. Continue to hold down the button as the status light first turns off and then begins to advance through reset options. Every 5 seconds, the status light will blink to indicate a different reset option as described below.

1 blink = Reset type 1

- Erases network configuration, reverting back to defaults *for network configuration only*. All other configuration settings remain unchanged.

2 blinks = Reset type 2

- Erases all configuration settings, reverting back to factory defaults. All other system files remain unchanged.

3. Release the button when you reach the type of reset you need. [NOTE 3](#)
4. The status light will flash rapidly to indicate that the selected settings have successfully been erased. [NOTE 4](#)
5. Restart your Event Manager for the new settings to take effect. You have successfully reset your configuration!

Note 3: If you release the button before the LED begins to blink, nothing will be reset, and you will not need to reboot.

Note 4: If the status light begins to blink more slowly after you release the button, the reset was not successful. Unplug and restart your device, and then attempt a reset once again.

Carina Event Manager

WL-EM-CAR

User's Guide

Version 2.3.1.20200826