HeadsUp Organization-Wide Silent Alert System Manual

HeadsUp version 2.0

Table of Contents

System Overview

The HeadsUp Organization-Wide Silent Alert System, or HOWSAS, provides a server and client application for quick-dissemination of important event notices. The server features a simple, centrally administered interface, cross-platform accessible via any browser supporting HTML 4 and Javascript. Four configurable buttons feature customizable messages and colors. Additionally, an ad-hoc message entry feature allows for a customized message to be generated on the fly.

HOWSAS Server Installation Requirements

To install HOWSAS, a downloadable appliance image is available for the Raspberry Pi 3, though HOWSAS Server may also be installed on any host supporting the required software.

- Raspberry Pi 3
- 32GB MicroSD card
- MicroSD card reader for PC
- A spare computer with the capability to read and write the appliance image to the MicroSD card
- A spare HDMI cable, HDMI monitor, USB keyboard, and USB mouse

See the Advanced Installation Specifications for more information about manual installation.

HOWSAS Client Installation Requirements

- Java SE 1.8
- Network connection able to communicate with HOWSAS Server
- 5MB of hard disk space
- 256MB of RAM
- Microsoft® Windows XP or newer

HOWSAS Server Appliance Image Installation Guide

With the MicroSD card reader installed and attached to a computer, use an image writer tool to copy the appliance image to the card. The following image writers can be used.
- For Microsoft® Windows, Win32 Disk Imager
- For Apple Mac, the disk utility that comes with Mac OS
- For Linux, Etcher, and is the recommended by the Raspberry Pi Foundation

After writing the image, simply place the MicroSD card into the Raspberry Pi 3 (RPi). Connect the RPi to power and a computer monitor and USB keyboard for initial configuration. The RPi will have to be configured with a static IP address available on your network.

1. Log in to the RPi using the default credentials, username "**pi**" and password "**raspberry**" when prompted and press Enter after each.
2. At the command line, type "sudo raspi-config" and press Enter.
3. In the RPi configuration tool, use the arrow keys to highlight "Change User Password" in red and press the Enter key.
4. Follow the on-screen information prompts and use the Enter key to submit your entries or press "Ok".

HOWSAS Client Installation Guide

Unzip the HOWSASClient.zip application zip file in a folder on your computer and run the Install_HeadsUp.BAT batch file by right-clicking on it and selecting, "Run as administrator".

HOWSAS Server Advanced Installation Guide

Manually installing HOWSAS Server requires knowledge of the Rasbian operating system as well as installation and administration of PHP, Apache 2, and MariaDB.

Prior to installation of the server or client, please ensure that the prospective host system meets the minimum system requirements for the HOWSAS server or client.

The following hardware specifications are recommended for hardware.
- At least a two core processor
- 10GB of hard disk space
- 4GB of RAM

The following software is required.
- PHP version 7.0
- MariaDB version 15.1
- Apache version 2.4

Note: Other software versions may be compatible, but the above versions were tested with this release.

Apache 2 Configuration

If the version of Apache on the HOWSAS host is Apache 2.4, and it is the only site configured on the Apache 2 instance, the default configuration may typically be used. Some basic knowledge of Apache 2 configuration directives may be required if installing HOWSAS Server alongside other Apache 2 virtual hosts.

MariaDB

Once MariaDB is installed, prep the databases by running the "db-prep.sql" SQL script included in the ~/SQL directory using the following command.

"mysql --user=headsup --password=headsup db-prep.sql"

To harden the security to the HOWSAS Server and database, it is recommended to change the password of the "headsup" user account.

Administration Guide

HOWSAS is centrally administered through the web portal available at the HOWSAS Server host IP address. Simply browse to the IP address and use the default credentials, username "headsup" and password "headsup".

Send Alarms

Once in the administrative interface, the main "Send Alarm" page is displayed. It contains an administrative menu at the top of the page with four buttons.

- The "Send Alarm" button returns you to the main alarm status page with the controls for the alarms.
- The "Stop All Alarms" button stops any currently active alarm.
- The "Customize Application" button takes you to a customization page where the alarms' options may be changed.
- The "Notifications" button takes you to a log of all the alarms that have been triggered and what computer they were triggered by.

Under the menu, the status for all alarms is displayed.

At the bottom is the control for enabling or disabling the alarms as well as the custom notice form.

Customize Application

The "Customize Application" page contains several options that allows for the customization of HOWSAS.
- "Change the Title/Message of an Alarm" allows you change the displayed message on each of the alarms.
- "Add User" allows for the addition of administrative users.
- The "Edit Users" table lists all currently configured administrative users and allows for the alteration of the password or deletion of the user.

Notifications

The "Notifications" page contains the log of all alarms triggered and information about each alarm. At the bottom of the page, the "Delete All Notifications" button allows the notification history to be deleted.

User Guide

HOWSAS is designed to minimize overhead and for ease of use. HOWSAS functions are all available via the system tray icon.

To access the HOWSAS Client functions, locate the system tray icon and right-click on it.

In the menu that is displayed, selecting one of the four options at the top of the list will trigger that alarm.

To configure the connection settings, select the "Settings" option. The Settings window can be closed using the Close button in the top right corner of the window.

On the settings window, enter the name of your HOWSAS Server in the "Server IP Address" field.

The username or password can be entered to enable triggering of alarms. Not entering a username and password only disables the ability to trigger alarms, but triggered alarms will still display.

The Local IP Address is pulled from the machine at program start.

The Local Hostname is pulled from the machine at program start.

The "Test" button tests authentication to the HOWSAS Server.

The "Save" button saves the settings.

HOWSAS Server Errors

Error Message:	While Performing:	Corrective Action:
"Unable to connect to database."	Loading the HOWSAS Server web portal.	The HOWSAS Server cannot connect to the "headsup" database. Ensure the configured user account and password is able to access the "headsup" database.
"Unable to set message."	When trying to change an alert message.	Alert messages cannot contain special characters other than "!#%*&()-:',.?".
"Unable to trigger alarm."	When trying to enable or disable an alarm.	The HOWSAS Server has encountered an unrecoverable error and will need to be restarted. This may be due to a misconfigured installation.

HOWSAS Client Errors

Error Message:	While Performing:	Corrective Action:
"Unable to connect to server."	Starting the HOWSAS Client.	Ensure that the HOWSAS Client settings have the correct IP address for the Server.
"Unable to trigger alarm."	Attempting to trigger an alarm from the Client menu.	The HOWSAS Server has become unavailable, or there was a network communication error. Ensure the Server is running and that the network is accessible on both the Client and Server.
"Could not write configuration file."	Attempting to change settings and clicking the "Save" button.	The configuration file is not able to be written to. Ensure the HOWSAS Client installation folder is modifiable by the user.
"Java version is incompatible."	Starting the HOWSAS Client.	The version of Java installed is not compatible with HOWSAS Client. Install version 1.8 or greater of the Java executable.
"Invalid credentials"	Clicking the "Test" button on the "Settings" window.	The credentials submitted in the "Settings" window are not valid and failed while attempting to connect to the HOWSAS Server. Check the credentials for correctness and try again.