



InformaCast[®] EX Administration Guide

Intended for an Advanced Notification Environment

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Overview

InformaCast EX, Singlewire's virtual appliance bundled package, contains many popular applications, including InformaCast, CallAware, the Legacy Paging Interface, and InformaCast's plugins. By packaging these applications together, Singlewire removes your burden of maintaining multiple licenses and compatibility between versions.

Intended Audience

This guide is intended to walk you through the administration of InformaCast EX, which runs in virtualized environments. It is written with two audiences in mind, the administrators and users of InformaCast EX.

There are also two versions of this guide: one for environments using Basic InformaCast functionality and another for Advanced InformaCast functionality. Please make sure you have the right version by looking at the environment type printed at the bottom of every page.

When you install InformaCast in a Communications Manager environment, you should:

- Be familiar with Communications Manager administration
- Have multicast and networking knowledge

Prerequisites

InformaCast EX has the following system prerequisites:

- A valid license key, which should have been provided to you by your Singlewire salesperson (contact sales@singlewire.com if you didn't receive one)
- Use of one of the following supported browsers: Firefox 15, Chrome 18, or Internet Explorer 9
- A VMware ESXi server 4.0 and later (80 GB hard drive, 4 GB RAM, 1 CPU)
- Compliance with the prerequisites and hardware/system requirements for each of the included applications

As a virtual machine (VM), InformaCast EX becomes one machine among the others that are running on a VMware host. Please use the following guidelines for allocating host resources for InformaCast EX:

- **Do not oversubscribe the CPU or memory.** It is possible to run more virtual machines than the VMware host physically supports. If this is done with InformaCast EX, audio quality and phone activation performance will be adversely affected.
- **Plan the placement of your InformaCast EX VM carefully.** Cisco has released recommendations on how to run third-party VMs, such as InformaCast EX, co-resident with other Cisco virtual machines, such as those that run Cisco Unified Communications Manager. If you choose to run InformaCast EX as co-resident with Communications Manager, please note that you may be required to either move or suspend the InformaCast EX VM during troubleshooting with Cisco TAC. If you are running InformaCast EX to support emergency communication, this may not be acceptable to you, and you should not run InformaCast EX as co-resident with Cisco UC applications.

- **Choose the proper environment.** InformaCast EX can run off of either local disk or Storage Area Network (SAN), whichever is convenient for your installation. InformaCast EX in a default logging and load configuration performs a lower number of disk I/Os.
- **Do not use NAT'd connections.** InformaCast EX must run on a VMware vNIC configured for bridging, not NAT. InformaCast EX will not work with NAT'd connections.

A Note on Usage

Specific fonts are used to represent specific kinds of information in this guide. The fonts and their meaning are listed here:

- **Bold fonts** indicate the name of a button, text field, or other element with which you interact and any text that you must enter.
- *Italic fonts* indicate the name of an area or section on one of an application's pages.
- Angled brackets enclose text that varies with your specific environment, i.e. `http://<Your IP Address>` means that you would enter your specific IP address instead of the brackets and what they enclose.
- Blue, underlined text indicates a hyperlink.
- Underlined text indicates a tooltip in the user interface. Hover your mouse over the tooltip to see an explanation of the underlined text.

There are several kinds of notification boxes used in this guide:

- **Tip.** These offer advice or “best practices.”
- **Note.** These contain additional information, usually relevant in special cases.
- **Caution.** These contain information about a procedure that may reduce the performance of your system.
- **Warning.** These contain information about a procedure that can impair or disable your system.

Where to Start

InformaCast EX has multiple user interfaces:

- Start page
- Applications' web interfaces
- Toolbox
- Virtual machine administrative web interface (Webmin)
- Command line interface (CLI)



Note

The initial login credentials for all interfaces are **admin** (login) and **changeMe** (password).

This guide deals only with administration of your server environment, and will focus on the Webmin and CLI interfaces. When installing and configuring InformaCast EX, there are many steps to ensuring that your applications work correctly. Please follow the steps for implementation in each Installation and User Guide.

Start Page

The InformaCast Start page is accessible through a web browser addressed with the IP address of your Virtual Appliance server, and it contains links to your applications' user interfaces, the Toolbox, and Webmin.

Web Interface

InformaCast EX applications each have their own web interfaces. Please consult each individual applications' guide for further information on how their web interfaces work.

Toolbox

The Toolbox is designed to be an inclusive destination for application-level accessories. Here, you can access the License Manager to see all of your Singlewire applications' licenses, review the functionality they encompass, and update those licenses with newer versions (see "Manage Your License Key" on page 27). Or, you can use the Migration Managers to migrate from a Windows platform to the Virtual Appliance ("Migrate from Windows to the Virtual Appliance" on page 33).

Virtual Machine Administrative Web Interface (Webmin)

The virtual machine administrative web interface is used for administering the underlying operating system of the virtual machine, e.g. configuring the network interface, stopping and starting applications and shutting down the virtual machine.

Command Line Interface

The command line interface is a text-based interface used for support issues and some configuration procedures (e.g. those that require manual editing of files or the running of scripts). The command line interface uses the bash command line shell, and can be accessed via a virtual machine console window or over the network through the use of an SSH (Secure Shell) client.

**Note**

Rudimentary knowledge of bash is required to use the command line interface. If files are to be edited on the virtual machine itself, knowledge of the nano text editor is also required. If you are not familiar with the nano editor, you can optionally transfer files that need to be modified to another machine, edit them there, and then transfer the modified file back to the InformaCast EX virtual machine. The transfer process can be achieved via an SCP (Secure Copy) client, such as PSCP on Windows. PuTTY, available as a free download (<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>) contains all the necessary tools for transferring files.

Technical Support

Before contacting technical support, check Singlewire's [Knowledge Base](#) (available to you with a current maintenance contract). If you still have questions, [initiate a request for support](#). Please include:

- Account contact information
- Maintenance contract number
- Detailed description of problem
- Product name and version
- Communications Manager version

- Application logs

InformaCast EX Applications

Depending on your version of InformaCast EX, you will have access to different applications. The following sections detail what applications are included in each version of InformaCast EX.

Aberdeen

The Aberdeen version of InformaCast EX includes:

- InformaCast
- Legacy Paging Interface
- CallAware
- The following free plugins:
 - Facebook plugin
 - Inbound Email plugin
 - Outbound Email plugin
 - Quick URL plugin
 - Script plugin
 - Twitter plugin
 - WordPress plugin
- The following paid plugins (once purchased):
 - Conference Call plugin
 - DMM plugin
 - Inbound CAP plugin
 - M2M plugin
 - Mobility plugin
 - Paging Gateway plugin
 - SchoolMessenger plugin

Barcelona

The Barcelona version of InformaCast EX includes:

- Everything listed for Aberdeen
- Jabber IM plugin
- Inbound RSS plugin (free)

Carthage

The Carthage version of InformaCast EX includes everything listed for Aberdeen and Barcelona.

Delphi

The Delphi version of InformaCast EX includes:

- Everything listed for Aberdeen and Barcelona
- Lync plugin
- Islamic Prayer Times plugin
- Migration Managers for InformaCast, CallAware, and the LPI

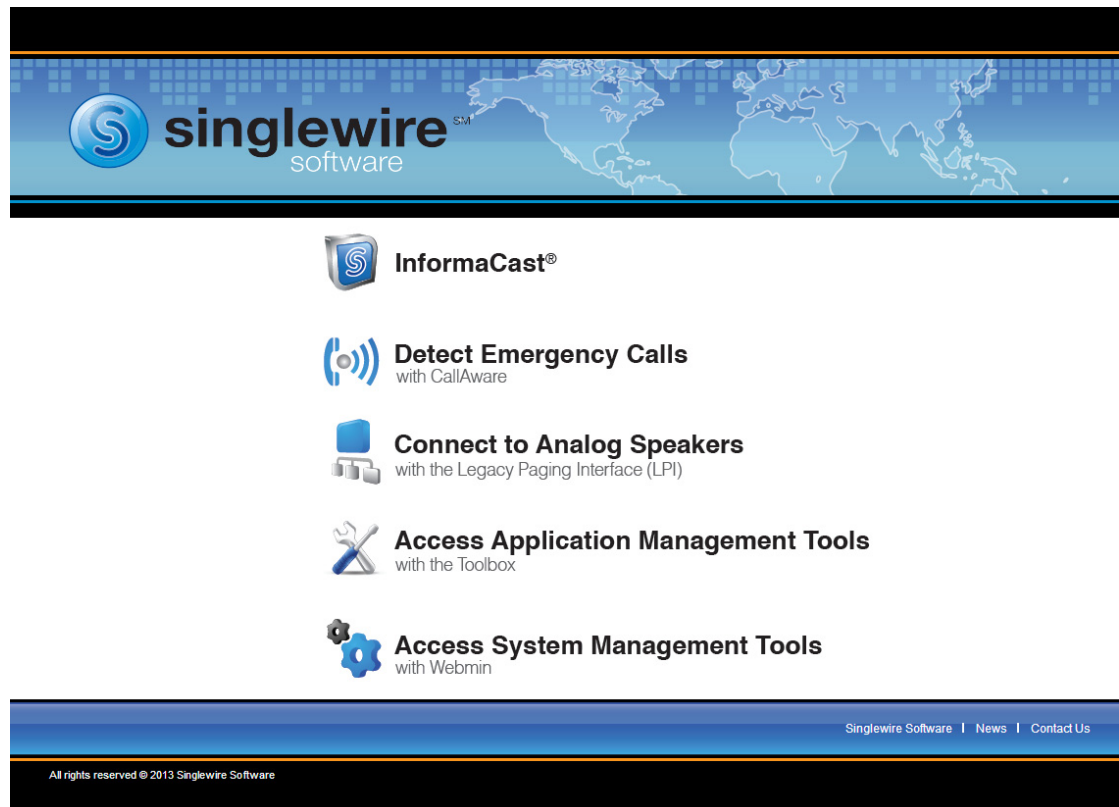
Log into InformaCast Virtual Appliance's Interfaces

When using InformaCast Virtual Appliance, you will need to log into its different interfaces: InformaCast, CallAware, the Legacy Paging Interface (LPI), the Toolbox, and Webmin. All of these interfaces are accessible through the Singlewire Start page, which is the IP address of your InformaCast Virtual Appliance server.

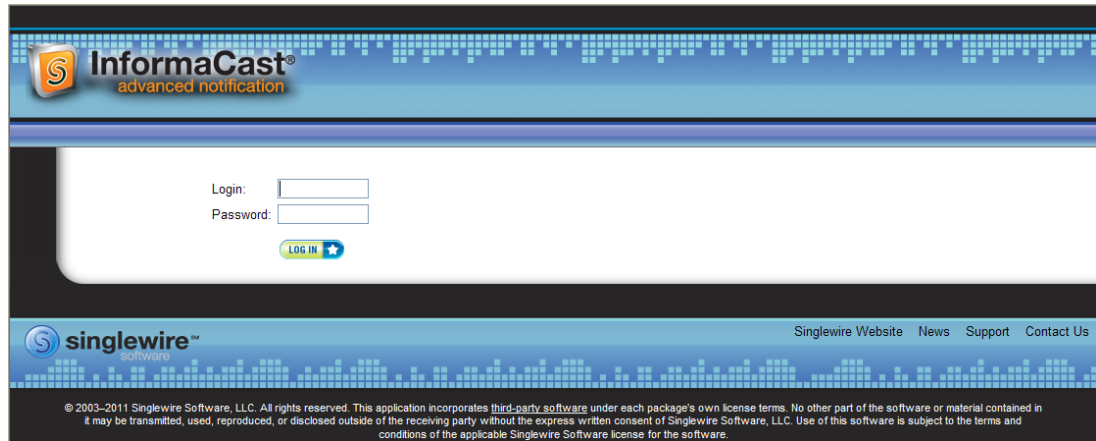
Log into InformaCast

InformaCast's web interface is where you will set up your InformaCast environment, e.g. messages, recipient groups, DialCasts, user roles, etc.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.

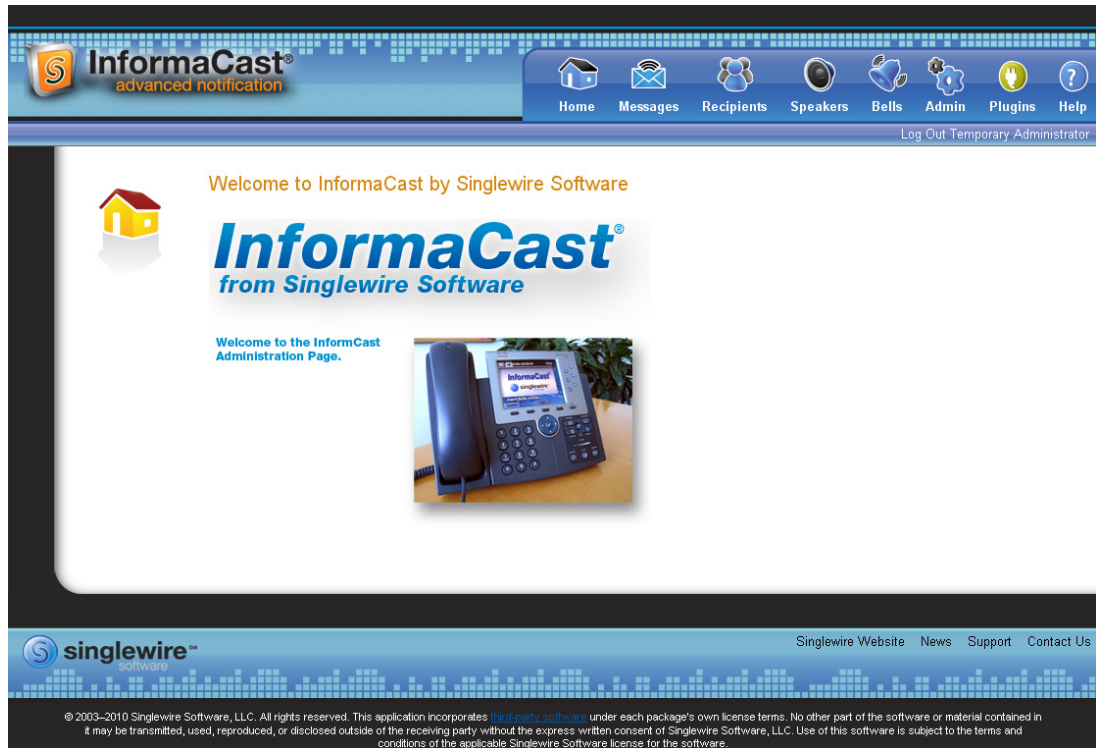


Step 2 Click the **InformaCast** link. A separate tab/windows opens to InformaCast's Login page.

The image shows the InformaCast login page. At the top, there is a blue header with the InformaCast logo and the text "advanced notification". Below the header, there is a white login box with two input fields: "Login:" and "Password:". Below these fields is a blue "LOG IN" button with a star icon. At the bottom of the page, there is a blue footer with the Singlewire logo and the text "Singlewire Website News Support Contact Us". A copyright notice is also present at the bottom.

Step 3 Enter your username and password in the **Login** and **Password** fields, respectively. By default, these are **admin** and **changeMe**.

Step 4 Click the **Log In** button. InformaCast's homepage appears.



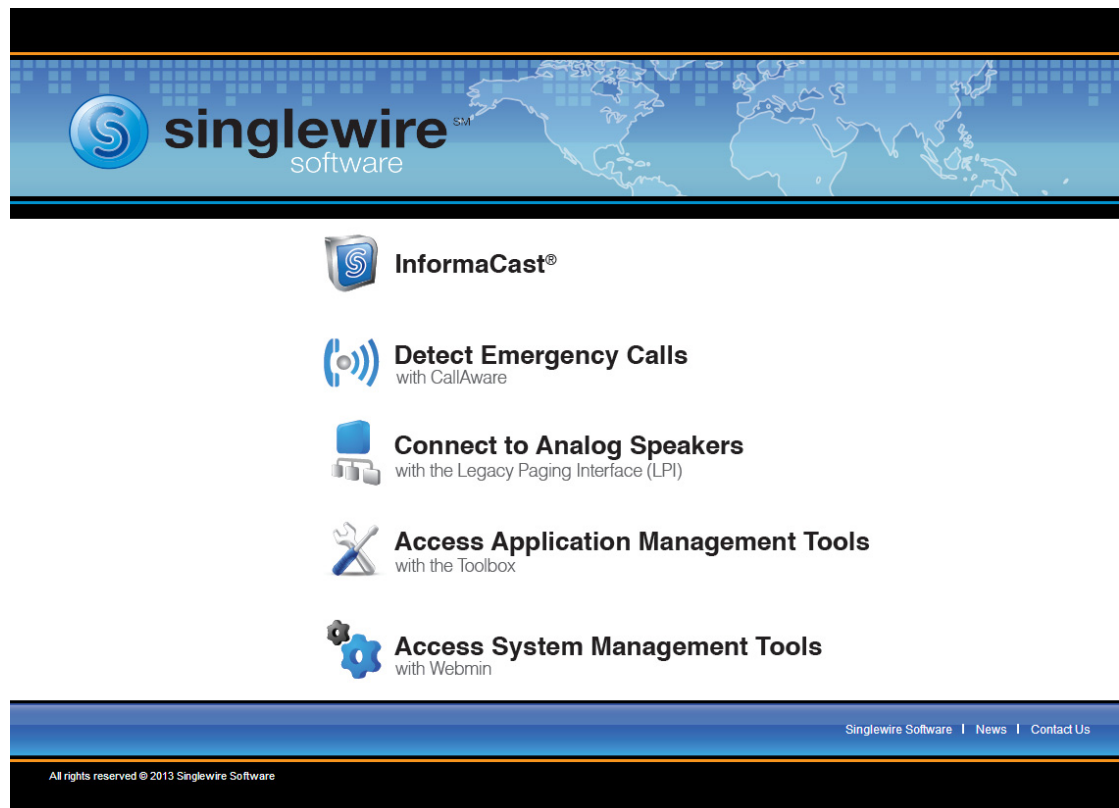
From InformaCast's homepage, you can access any of its web features through the icons at the top of the page.

Log into CallAware

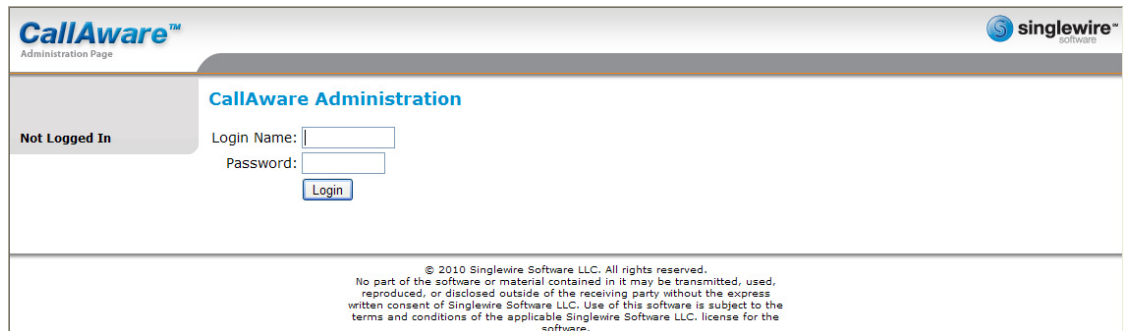
CallAware is a Singlewire application that is primarily used to detect when a 911 call has been dialed, which then triggers an InformaCast broadcast. It can also be used to detect calls to numbers other than 911 and monitor the calls that have been detected. For example, you could use it to trigger an InformaCast broadcast whenever someone calls the Front Desk, and a supervisor could elect to monitor those calls for quality assurance.

CallAware's web interface is where you will set up your CallAware environment, e.g. call redirects, InformaCast messages, etc.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



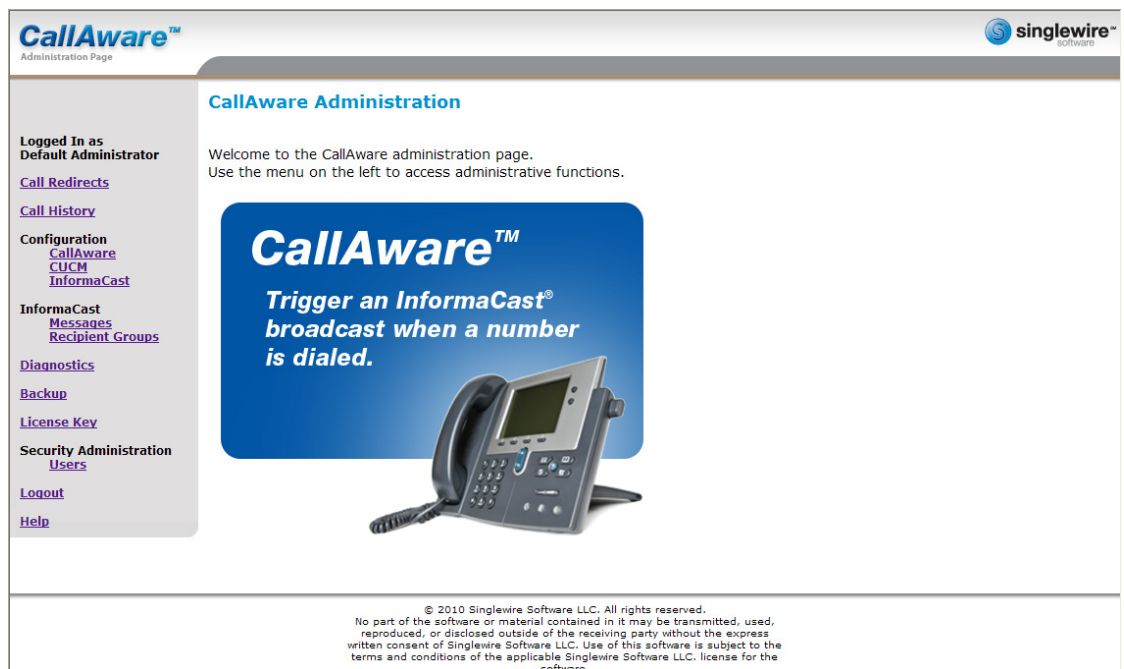
- Step 2** Click the **Detect Emergency Calls with CallAware** link. A separate tab/windows opens to CallAware's Administration page.



The screenshot shows the CallAware Administration page. At the top, there is a header with the CallAware logo and the Singlewire logo. Below the header, the page title is "CallAware Administration". On the left, there is a sidebar with the text "Not Logged In". In the center, there is a login form with fields for "Login Name:" and "Password:", and a "Login" button. At the bottom, there is a copyright notice: "© 2010 Singlewire Software LLC. All rights reserved. No part of the software or material contained in it may be transmitted, used, reproduced, or disclosed outside of the receiving party without the express written consent of Singlewire Software LLC. Use of this software is subject to the terms and conditions of the applicable Singlewire Software LLC. license for the software."

- Step 3** Enter your username and password in the **Login Name** and **Password** fields, respectively. By default, these are **admin** and **changeMe**.

- Step 4** Click the **Login** button. CallAware's Administration page refreshes.



The screenshot shows the CallAware Administration page after login. The header is the same as in the previous screenshot. The sidebar now shows "Logged In as Default Administrator" and a list of links: "Call Redirects", "Call History", "Configuration" (with sub-links "CallAware", "CUCM", and "InformaCast"), "InformaCast" (with sub-links "Messages" and "Recipient Groups"), "Diagnostics", "Backup", "License Key", "Security Administration" (with sub-link "Users"), "Logout", and "Help". The main content area has a welcome message: "Welcome to the CallAware administration page. Use the menu on the left to access administrative functions." Below this is a large blue banner with the text "CallAware™ Trigger an InformaCast® broadcast when a number is dialed." and an image of a telephone. At the bottom, there is the same copyright notice as in the previous screenshot.

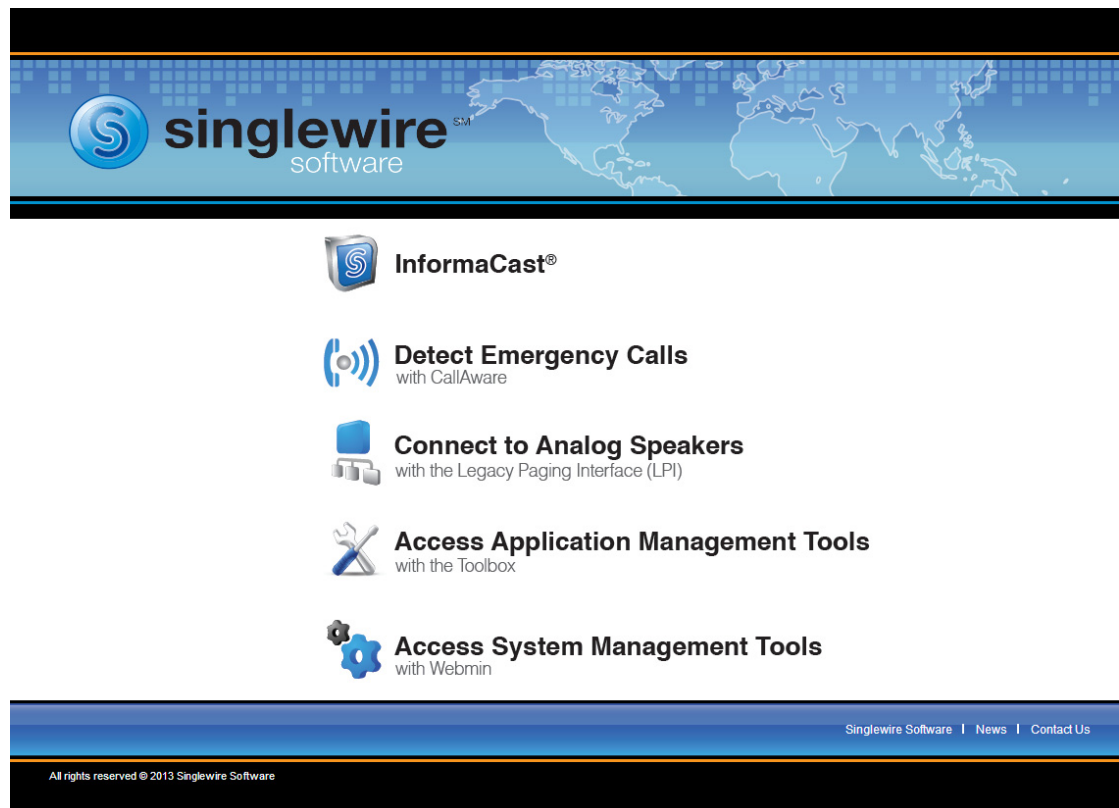
From CallAware's Administration page, you can access any of its web features through the links on the left of the page.

Log into the Legacy Paging Interface (LPI)

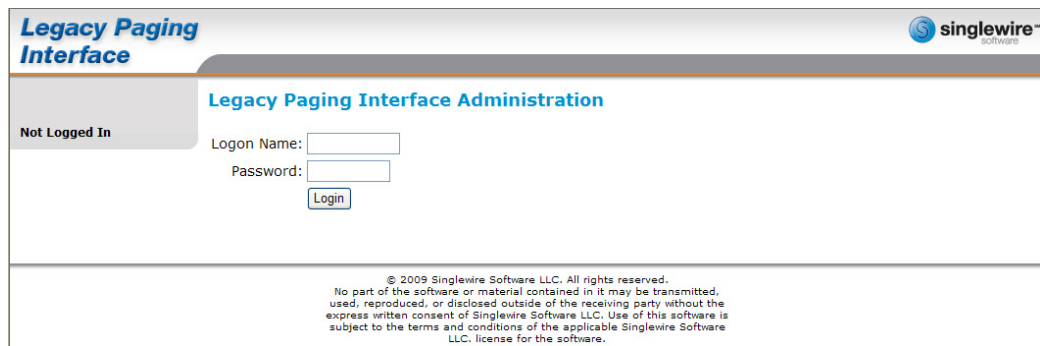
Singlewire's Legacy Paging Interface (LPI) allows you to incorporate your existing paging system with our InformaCast application by working as a liaison between your existing paging system and our solution. When you configure your speakers with the LPI, they can be integrated with InformaCast, and you can add them to recipient groups, create paging zones modeled after your existing zones, and send audio broadcasts out to any combination of speakers/zones.

The Legacy Paging Interface's web interface is where you will set up your LPI environment, e.g. paging devices, zones, etc.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



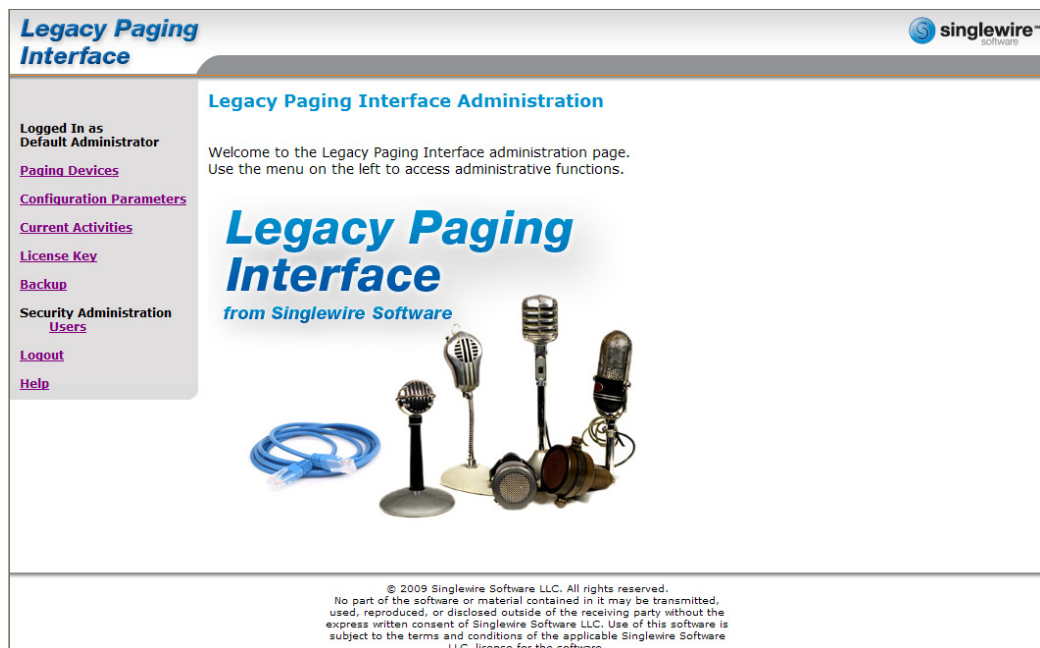
- Step 2** Click the **Connect to Analog Speakers with the Legacy Paging Interface (LPI)** link. A separate tab/windows opens to the Legacy Paging Interface Administration page.



The screenshot shows the 'Legacy Paging Interface' header with the Singlewire logo. Below the header, the page is titled 'Legacy Paging Interface Administration'. On the left, a grey box indicates 'Not Logged In'. The main area contains a login form with fields for 'Logon Name:' and 'Password:', followed by a 'Login' button. At the bottom, there is a copyright notice for 2009 Singlewire Software LLC.

- Step 3** Enter your username and password in the **Logon Name** and **Password** fields, respectively. By default, these are **admin** and **changeMe**.

- Step 4** Click the **Login** button. The Legacy Paging Interface Administration page refreshes.



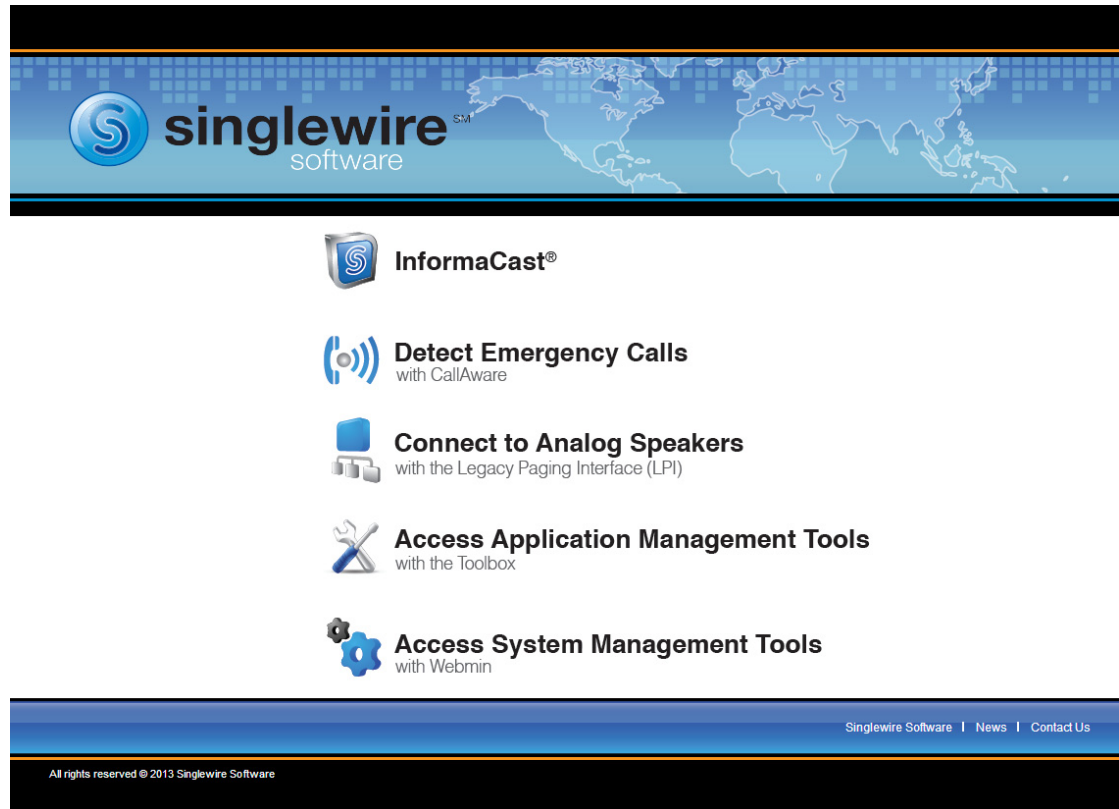
The screenshot shows the 'Legacy Paging Interface' header with the Singlewire logo. Below the header, the page is titled 'Legacy Paging Interface Administration'. On the left, a grey box indicates 'Logged In as Default Administrator'. Below this, there is a list of links: 'Paging Devices', 'Configuration Parameters', 'Current Activities', 'License Key', 'Backup', 'Security Administration', 'Users', 'Logout', and 'Help'. The main area contains a welcome message: 'Welcome to the Legacy Paging Interface administration page. Use the menu on the left to access administrative functions.' Below the message, there is a large graphic with the text 'Legacy Paging Interface from Singlewire Software' and an image of various microphones and a blue cable. At the bottom, there is a copyright notice for 2009 Singlewire Software LLC.

From the LPI's homepage, you can access any of its web features through the links on the left of the page.

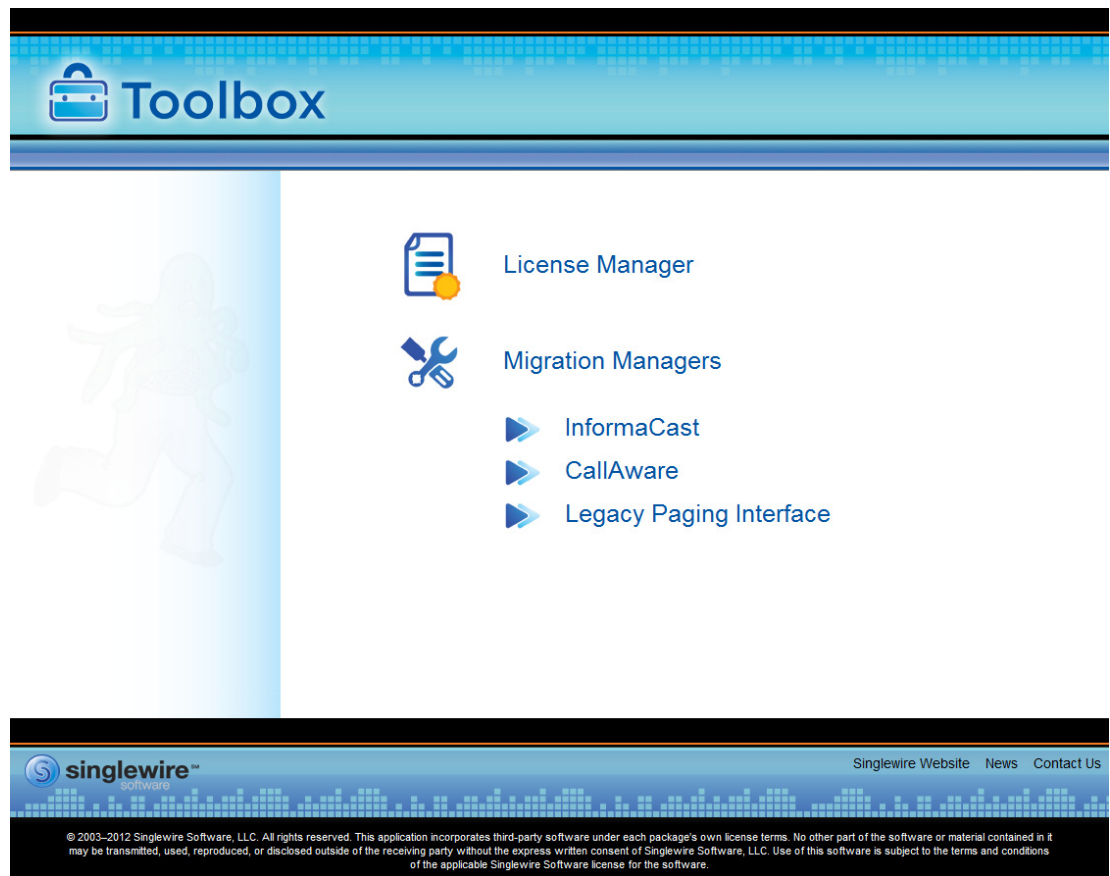
Log into the Toolbox

The Singlewire Toolbox is designed to be an inclusive destination for application-level accessories, e.g. licensing, migrating platforms, etc.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access Application Management Tools with the Toolbox** link. A separate tab/window opens to the Toolbox homepage.



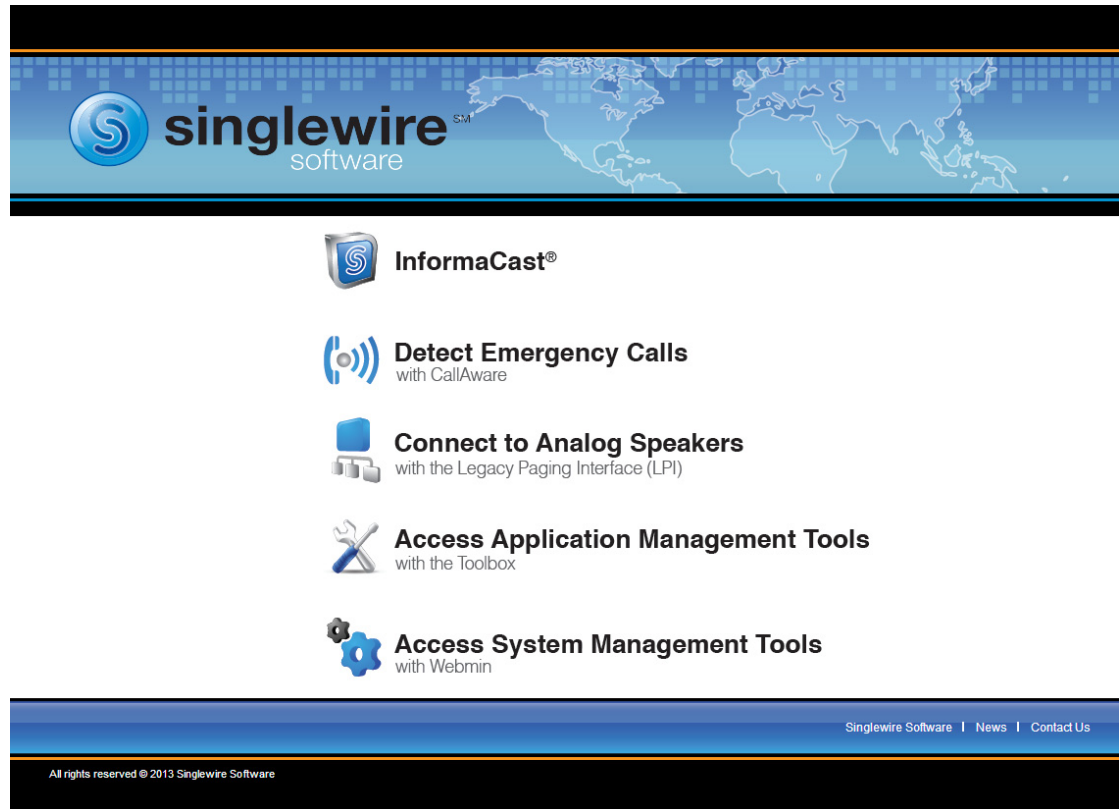
Note You may have to accept a warning from your web browser about the security of this page's content.

From the Toolbox homepage, you can access Singlewire's application-level tools.

Log into Webmin

Webmin's interface is used primarily for installing new software packages, starting/stopping/restarting Singlewire's applications, and rebooting the InformaCast EX virtual machine.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



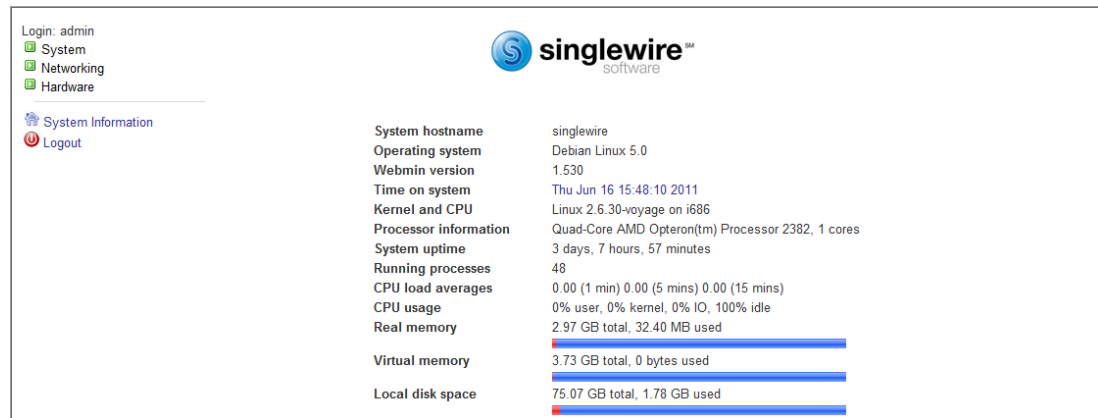
- Step 2** Click the **Access System Management Tools with Webmin** link. A separate tab/window opens to the Login to Webmin page.



Note

You may have to accept a warning from your web browser about the security of this page's content.

Step 3 Enter your login credentials and click the **Login** button. By default, your username is **admin** and your password is **changeMe**. The Webmin homepage appears.



From the Webmin homepage, you can install a new software package (see “Install a Software Package” on page 17), start/stop/restart Singlewire’s applications, and reboot the InformaCast virtual machine (see the sections on stopping/starting/rebooting starting with “Stop an Application on InformaCast EX” on page 66 for more information).

Install a Software Package

InformaCast EX is a software package that must be deployed as an OVA on your virtual server. Singlewire supports InformaCast EX on the VMware ESXi 4.0 and later platform. This platform is managed through the vSphere client. This section describes how to import InformaCast EX using the vSphere client. Your client can be downloaded from your VMware server.

**Note**

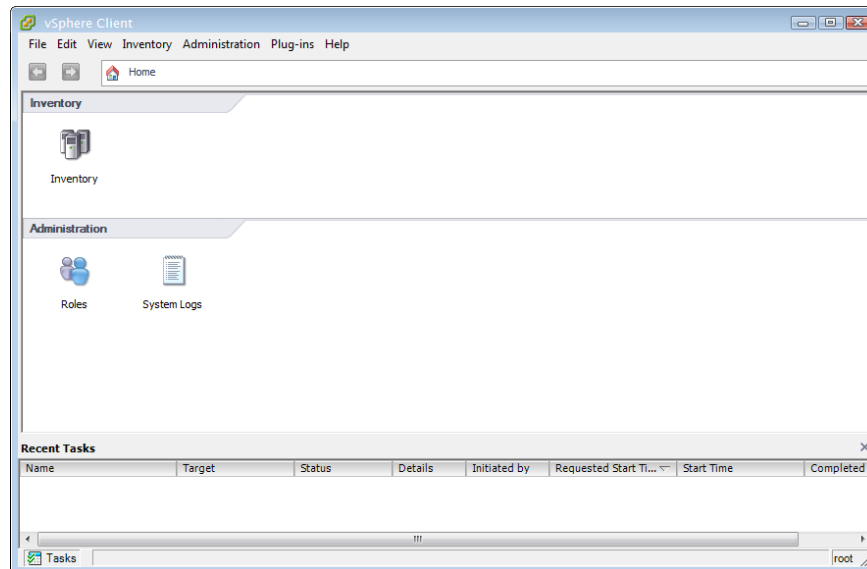
This guide deals only with administration of your server environment. When initially installing and configuring InformaCast EX, there are many steps to ensuring that your applications work correctly. Please follow the steps for implementation in each Installation and User guide.

Step 1 Download the OVA file from the [Singlewire website](#) or [Cisco's website](#).

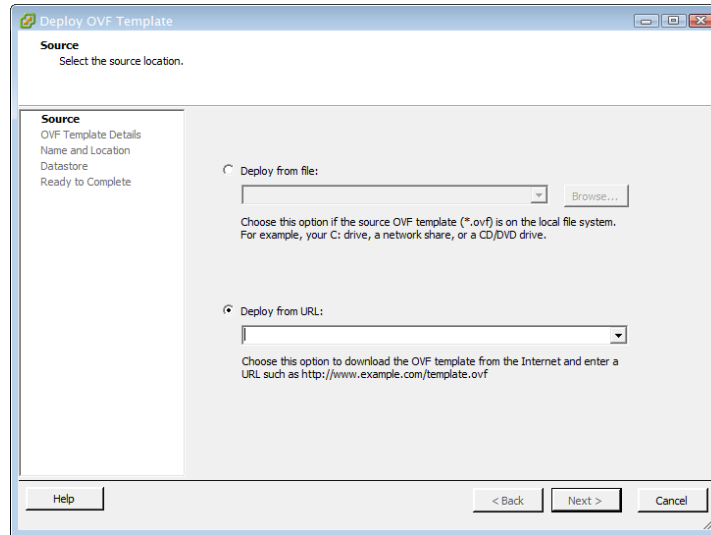
**Note**

If you are using InformaCast on the Communications Manager Business Edition 6000, you will be supplied with a DVD in a package with an OVA on it (physical media).

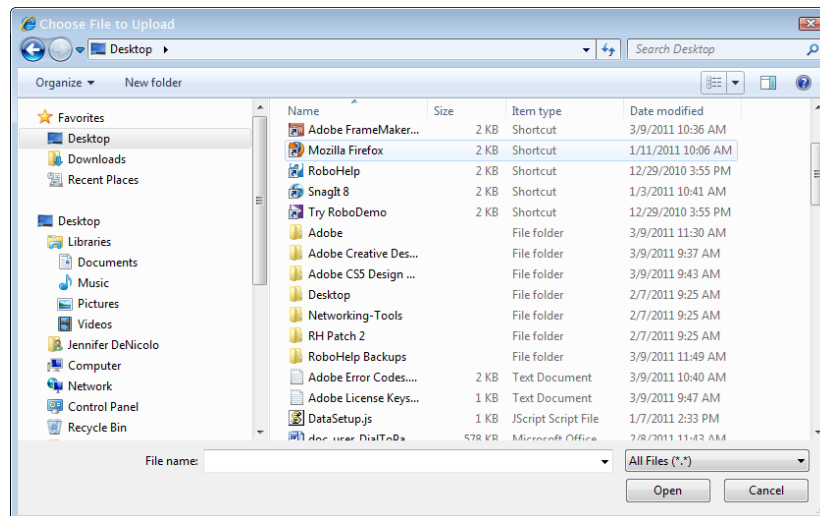
Step 2 Open and log into the vSphere client. The vSphere Client window appears.



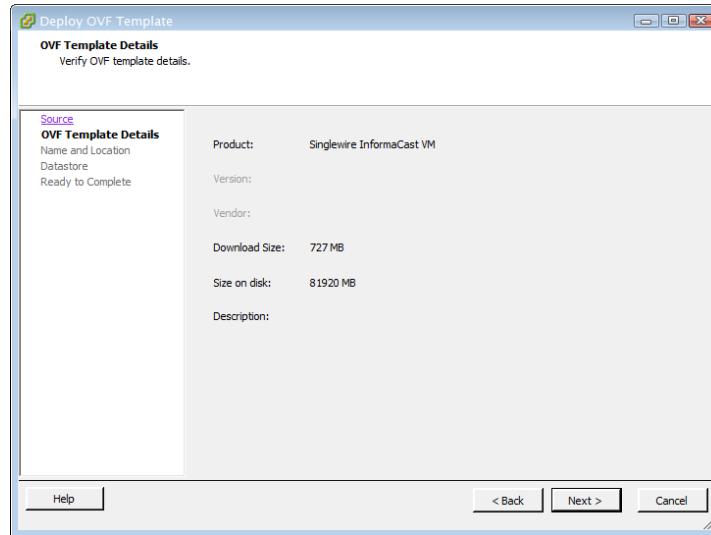
Step 3 Go to **File | Deploy OVF Template**. The Deploy OVF Template dialog box appears.



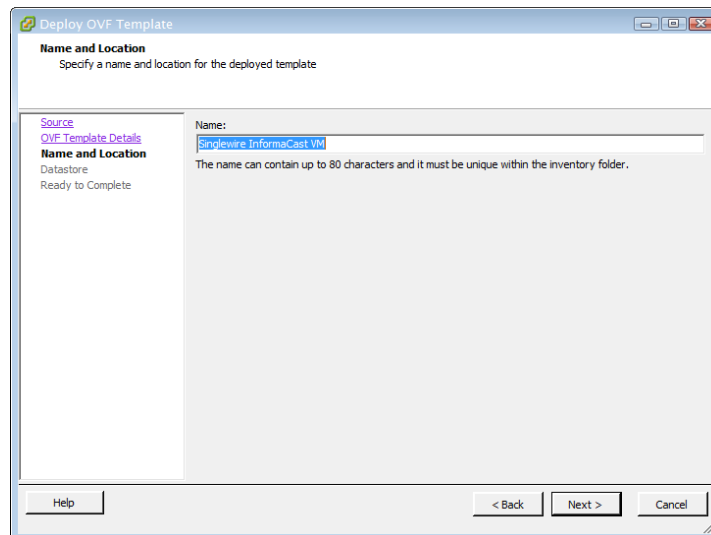
Step 4 Click the **Deploy from File** radio button and click its **Browse** button. The Choose File to Upload dialog box appears.



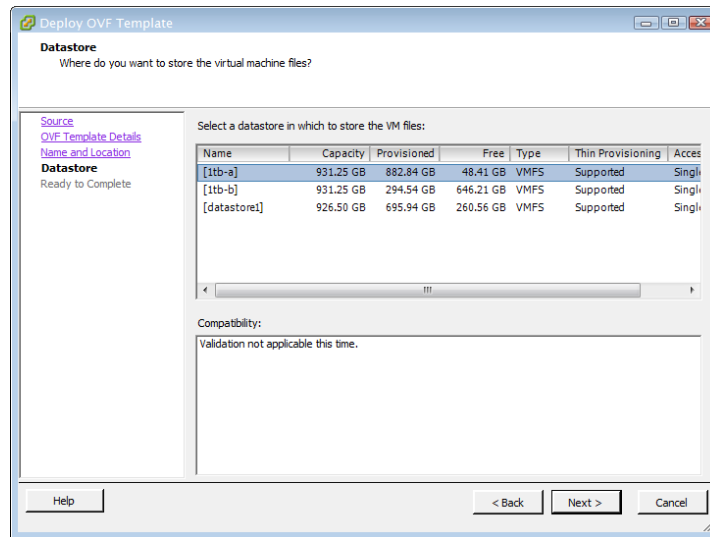
- Step 5** Navigate to where you saved the Singlewire-InformaCast-VM.ova file (or to the OVA file on the supplied DVD), select it, and click the **Open** button.
- Step 6** Click the **Next** button. The Deploy OVF Template dialog box refreshes.



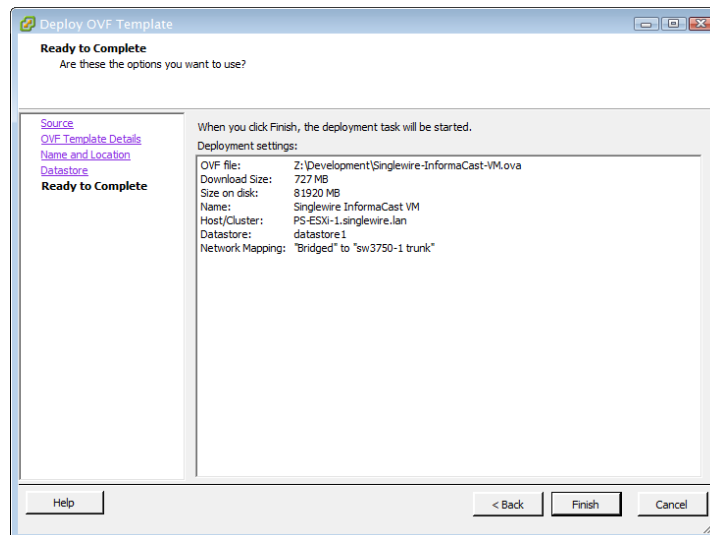
- Step 7** Click the **Next** button. The Deploy OVF Template dialog box refreshes.



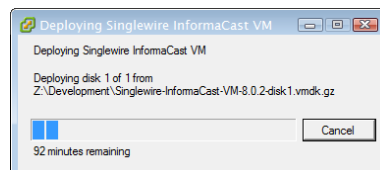
Step 8 Click the **Next** button. The Deploy OVF Template dialog box refreshes.



Step 9 Select the datastore on which the new virtual machine will reside and click the **Next** button. The Deploy OVF template dialog box refreshes.

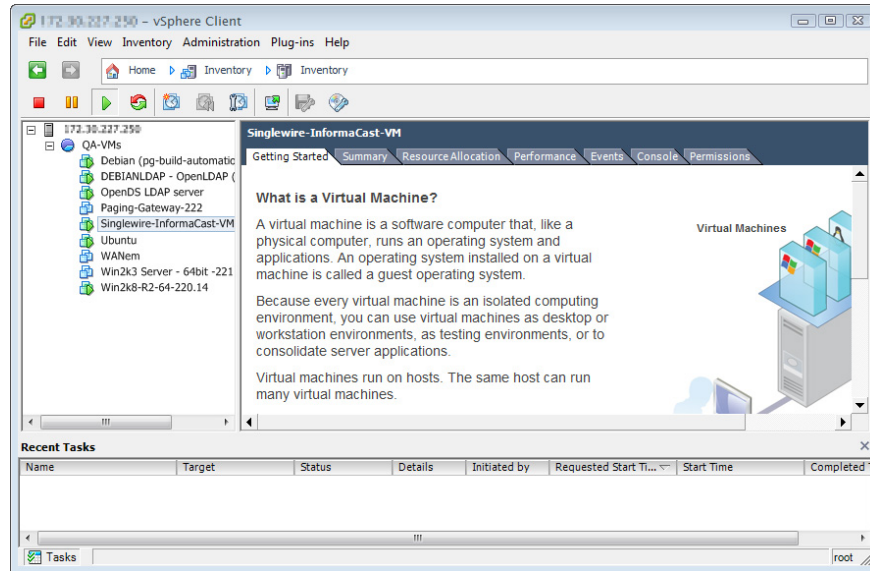


Step 10 Click the **Finish** button. InformaCast Virtual Appliance will begin importing.



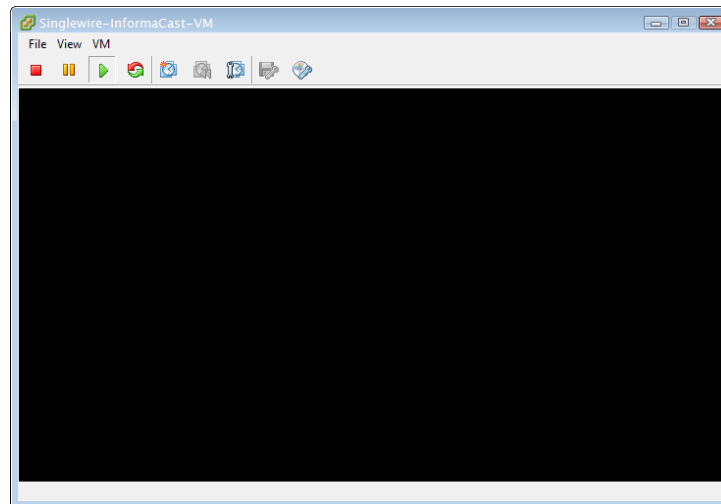
When it's finished, click the **Close** button.


Step 11 Click the **Inventory** icon () on the vSphere Client window. The vSphere Client window refreshes.

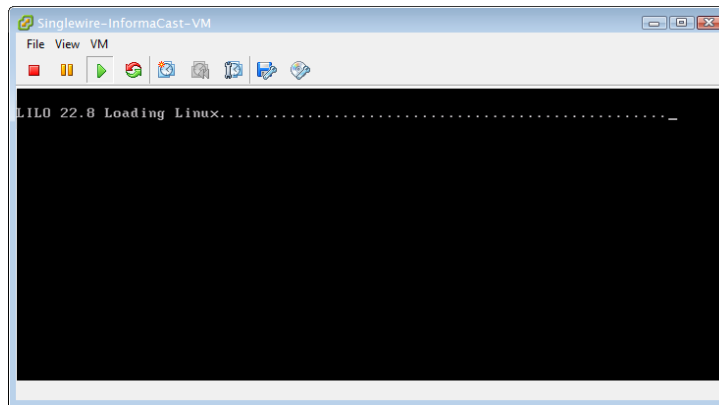


Step 12 Select your virtual machine (by default, this is Singlewire InformaCast VM).

Step 13 Go to **Inventory** | **Virtual Machine** | **Open Console**. The Singlewire InformaCast VM console window appears.

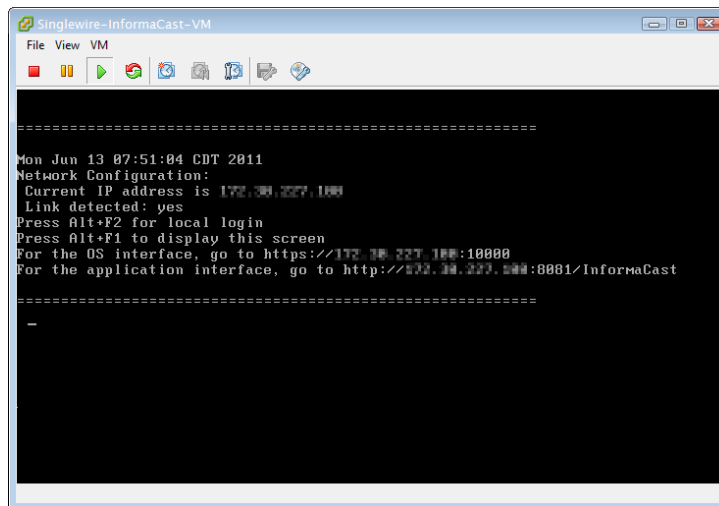


- Step 14** Click the green arrow button () to turn on the virtual machine. The Singlewire InformaCast VM console window begins booting the virtual machine.



Note Depending on the hardware resources available to InformaCast Virtual Appliance, it will likely boot in less than a minute.

When InformaCast Virtual Appliance is done booting, it will acquire an IP address using DHCP (if there is a DHCP server available). The acquired DHCP address can be seen in the console.



Note Singlewire recommends that you configure a static IP address for InformaCast. For specifics on IP addresses and packet routing, please see your network administrator.

SwiftStart will then start automatically, and you will see the End User License Agreement (EULA) page.



End User License Agreement

☒ I AGREE

IMPORTANT: PLEASE READ THIS END USER LICENSE AGREEMENT CAREFULLY. IT IS VERY IMPORTANT THAT YOU CHECK THAT YOU ARE PURCHASING CISCO SOFTWARE OR EQUIPMENT FROM AN APPROVED SOURCE AND THAT YOU, OR THE ENTITY YOU REPRESENT (COLLECTIVELY, THE "CUSTOMER") HAVE BEEN REGISTERED AS THE END USER FOR THE PURPOSES OF THIS CISCO END USER LICENSE AGREEMENT. IF YOU ARE NOT REGISTERED AS THE END USER YOU HAVE NO LICENSE TO USE THE SOFTWARE AND THE LIMITED WARRANTY IN THIS END USER LICENSE AGREEMENT DOES NOT APPLY. ASSUMING YOU HAVE PURCHASED FROM AN APPROVED SOURCE, DOWNLOADING, INSTALLING OR USING CISCO OR CISCO-SUPPLIED SOFTWARE CONSTITUTES ACCEPTANCE OF THIS AGREEMENT.

.....

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Product warranty terms and other information applicable to Cisco products are available at the following URL: <http://www.cisco.com/go/warranty>

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Note

SwiftStart will only automatically start on the initial boot of InformaCast Virtual Appliance.

Step 15 Click the **I Agree** button to accept the EULA.

If you have DHCP enabled on your network, you will see the following picture:



You will be able to choose between the **Use DHCP Parameters** or **Enter Manually** radio buttons.

Clicking the **Submit** button with the **Use DHCP Parameters** radio button selected will allow SwiftStart to make static the IP address it has detected, pull the relevant network configuration information from this IP address, and configure your network to work with InformaCast. Skip to Step 16 on page 26.

Clicking the **Submit** button with the **Enter Manually** radio button selected will allow you to enter an IP address manually. Continue with the following steps.

If you do not have DHCP enabled on your network, you will see the following picture:



The image shows the SwiftStart Network Configuration window. At the top, the 'SwiftStart' logo is displayed in blue. Below it, a sidebar on the left contains a gear icon and the text 'Network Configuration'. The main area is titled 'Network Configuration' and asks the user to 'Please provide the following network parameters:'. It includes five input fields: 'IP Address:', 'Netmask:', 'Gateway:', 'First DNS Server:', and 'Second DNS Server:'. Below these fields is a blue 'SUBMIT' button with a right-pointing arrow. In the bottom right corner of the window is a blue 'QUIT' button with a close icon. At the very bottom of the window, there is a small copyright notice: 'All Rights Reserved © 2011 Singlewire Software', and the 'singlewire software' logo.

SwiftStart

Network Configuration

Please provide the following network parameters:

IP Address:

Netmask:

Gateway:

First DNS Server:

Second DNS Server:

SUBMIT ➔

QUIT ✕

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Enter a routable IP address on your network that's not currently in use, a valid netmask for that IP address, its default gateway, the IP address(es) of a DNS server(s) on your network, and click the **Submit** button.

Clicking the **Submit** button will allow SwiftStart to make static the IP address you've entered, use the network configuration information you've entered about this IP address, and configure your network to work with InformaCast.

When your network configuration is successful, the Network Configuration page will refresh with a statement confirming the success.



Step 16 Click the **Finish** button. The SwiftStart window appears with a note about starting InformaCast.



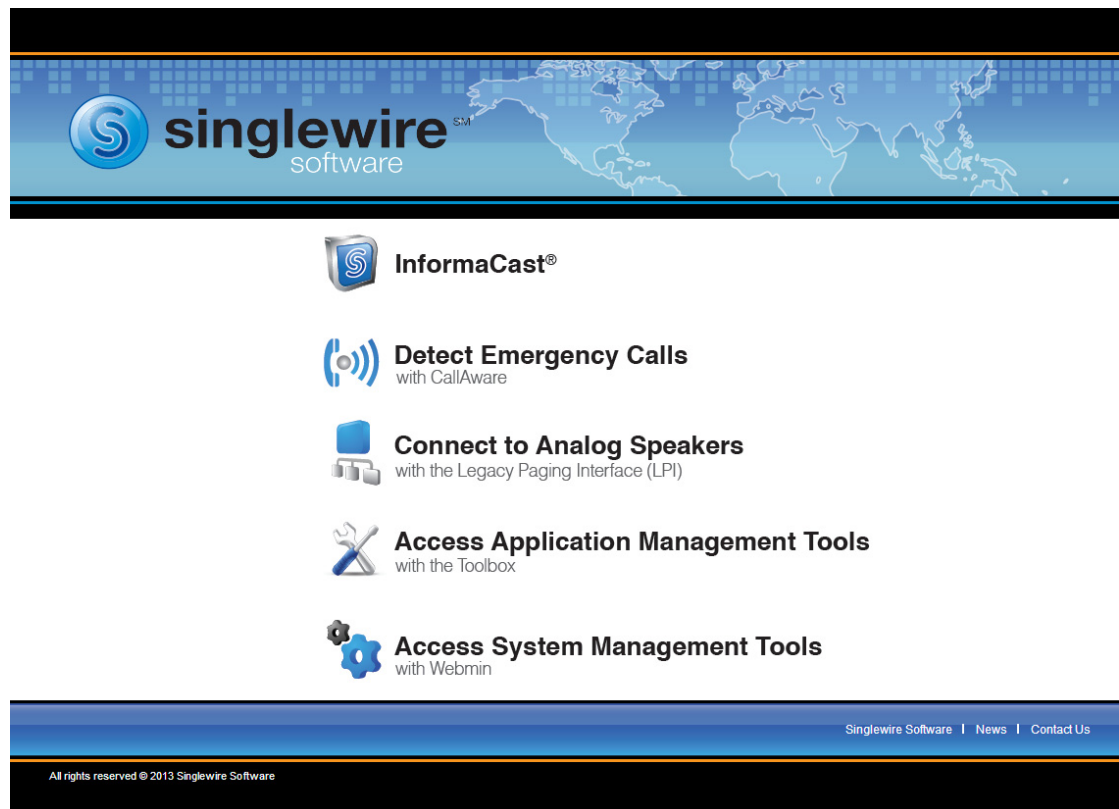
Step 17 Click the **OK** button and close your open console window.

Manage Your License Key

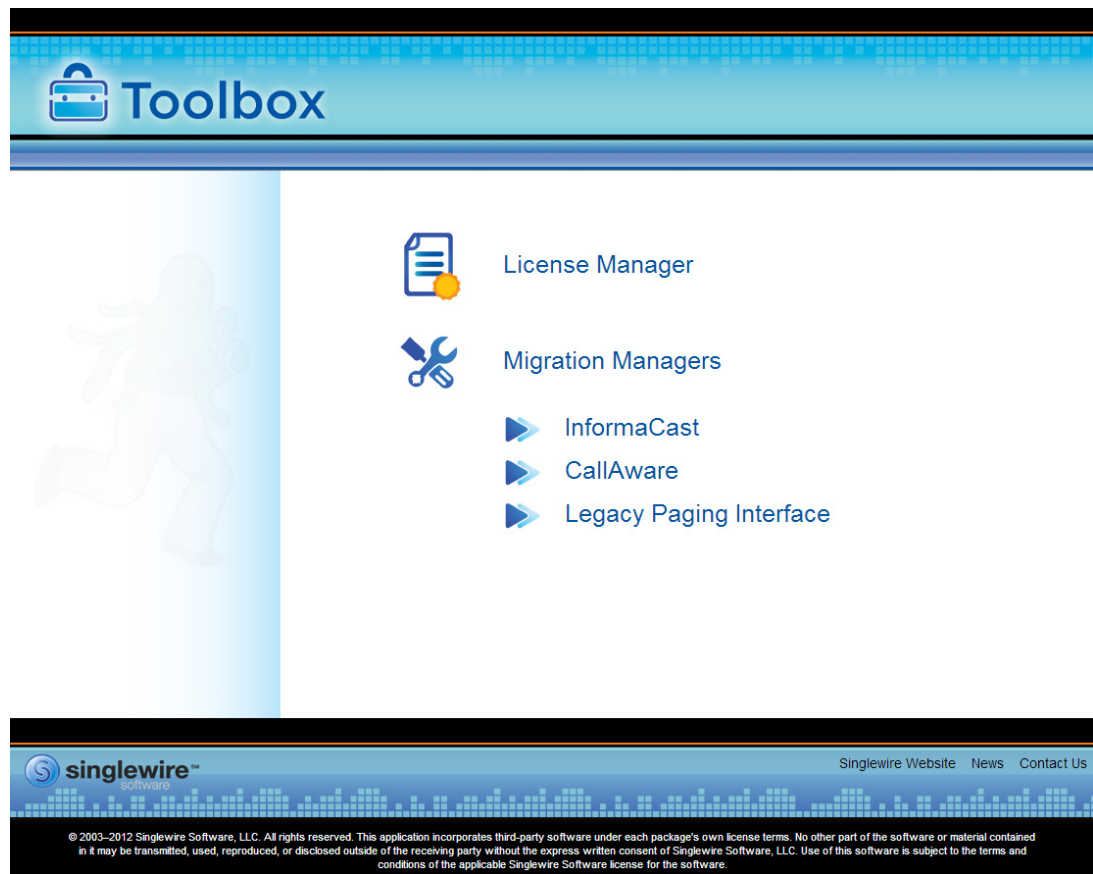
The Toolbox holds your InformaCast EX license key, which contains your designated functionality for InformaCast (e.g. Basic vs. Advanced, the number of phones to which you can broadcast, trial vs. demonstration vs. subscription vs. purchased, etc.), CallAware, and the LPI.

If you upgrade from Basic InformaCast to Advanced InformaCast (with the exception of your free trial of Advanced InformaCast), you will install a new license key to activate the various features of your InformaCast system (if you remain in Basic InformaCast, there is no need for license key maintenance, and you can skip the rest of this section). The license key will be in the form of an XML file that was sent to you by email from a Singlewire sales representative. Make sure to save this XML file to a safe location that can be accessed by the machine running your web browser.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



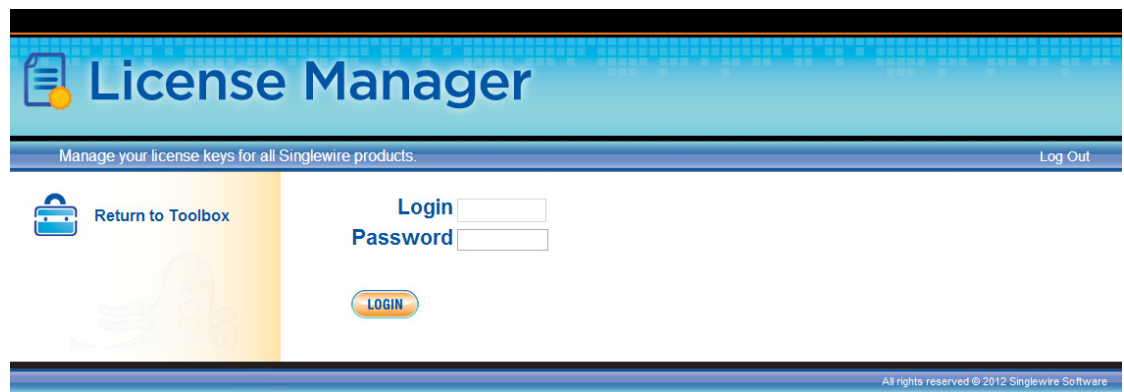
- Step 2** Click the **Access Application Management Tools with the Toolbox** link. A separate tab/window opens to the Toolbox page.



Note

You may have to accept a warning from your web browser about the security of this page's content.

- Step 3** Click the **License Manager** link. The License Manager Login page appears.



- Step 4** Enter your username and password in the **Login** and **Password** fields, respectively. By default, your username is **admin** and your password is **changeMe**. Click the **Login** button. The License Status page appears.

License Manager

Manage your license keys for all Singlewire products. [Log Out](#)

[Return to Toolbox](#)

License Status

Note: If you need assistance with your license or need a new license to enable a plugin, please contact Sales at: sales@singlewire.com

Warning: Uploading a license that indicates Advanced Notification *may* cause an automatic and immediate restart of InformaCast. Please refer to your documentation for more information.

The currently installed License Keys contain the following features:

InformaCast

Issuer: [test@singlewire.com](#)
Created: Wed Feb 13 15:31:40 CST 2013
Licensee: *** LAB USE ONLY ***
 Singlewire Test License Generated by [test@singlewire.com](#)
 *** LAB USE ONLY ***

IP Restriction: Not restricted
Expiration: No expiration
Features: Audio, MessageConfirmation
Parameters: MaxBellSchedules=500, MaxIPSpeakers=1000, MaxPhones=5000, MaxVersion=9.0, Scheme=Subscription

IC Plugin: Inbound RSS

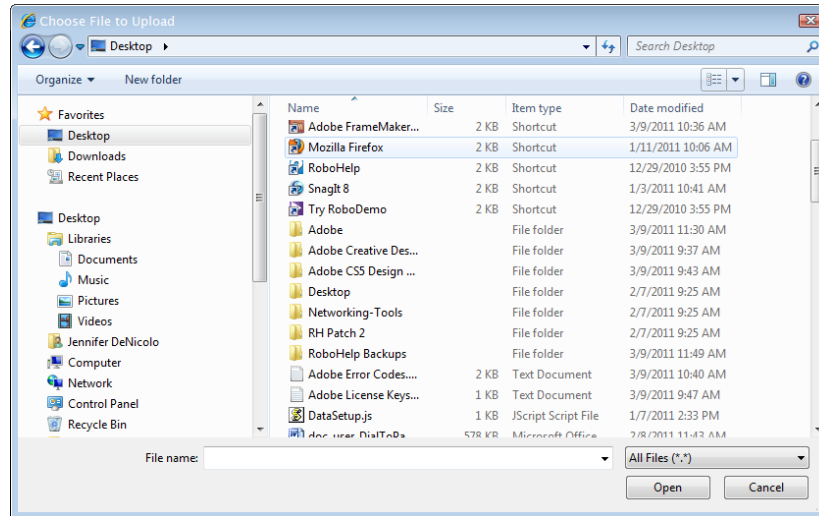
Issuer: [test@singlewire.com](#)
Created: Wed Feb 13 15:31:40 CST 2013
Licensee: *** LAB USE ONLY ***
 Singlewire Test License Generated by [test@singlewire.com](#)
 *** LAB USE ONLY ***

IP Restriction: Not restricted
Expiration: No expiration
Features:
Parameters:

Replace Your License(s):

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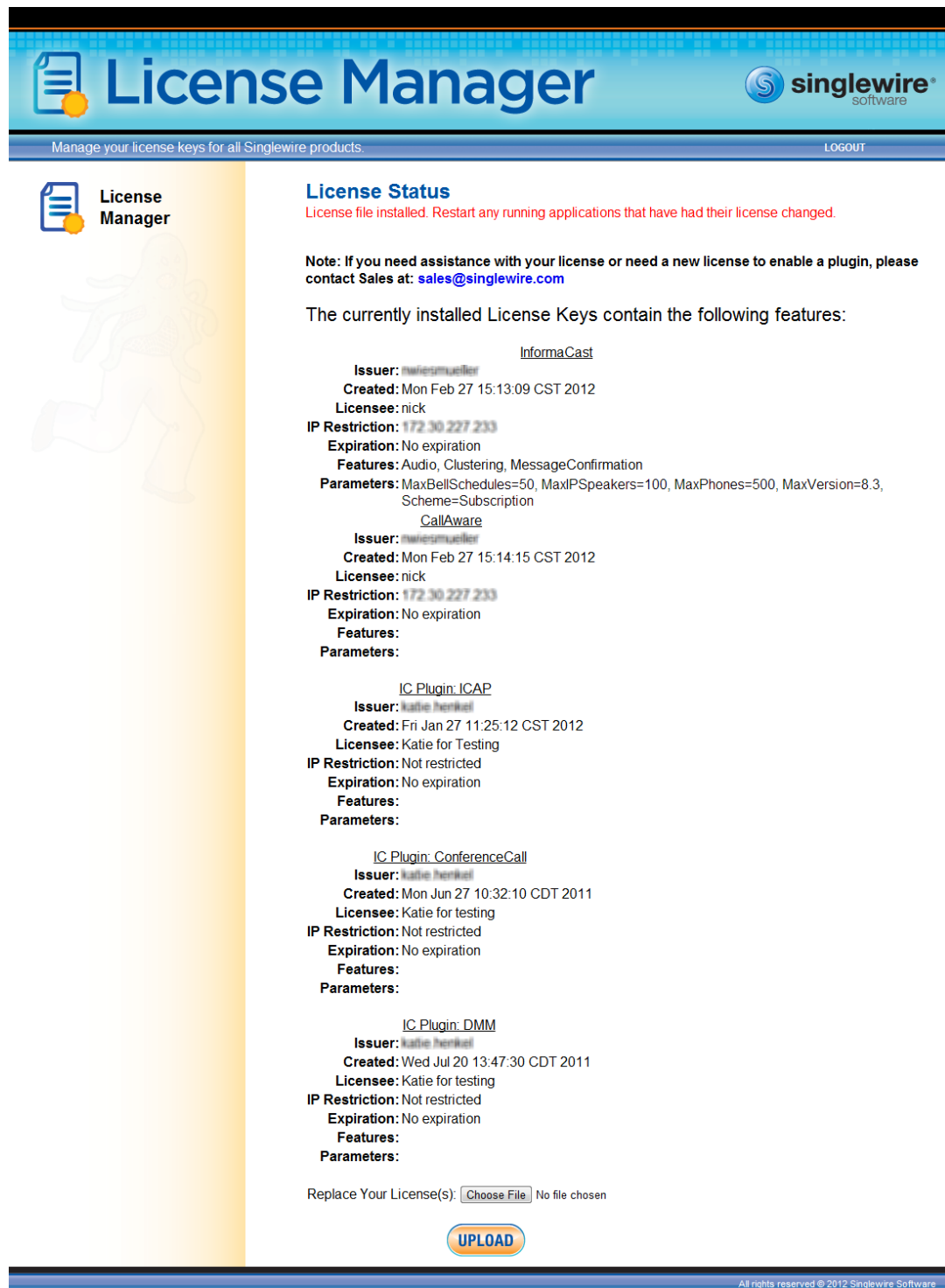
Step 5 Click the **Browse** button. The Choose File to Upload dialog box appears.



Step 6 Navigate to the license key file that was emailed to you. You can also enter the path to the license key file.

Step 7 Select your license key file and click the **Open** button.

- Step 8** Click the **Upload** button on the Upload a New License page. The License Status page appears and you'll see confirmation that the license has been accepted.



The screenshot shows the Singlewire License Manager web application. The header includes the "License Manager" title and the Singlewire Software logo. Below the header, there's a sidebar with a "License Manager" link and a main content area titled "License Status". The status page displays a confirmation message: "License file installed. Restart any running applications that have had their license changed." It also includes a note about contacting sales for assistance. The main content area lists the details of three installed licenses: InformaCast, CallAware, and IC Plugin (ICAP, ConferenceCall, DMM). Each license entry shows the issuer, creation date, licensee, IP restriction, expiration, features, and parameters. At the bottom, there's a section for replacing the license with a "Choose File" button and an "UPLOAD" button.

License Manager

Manage your license keys for all Singlewire products. [LOGOUT](#)

License Status

License file installed. Restart any running applications that have had their license changed.

Note: If you need assistance with your license or need a new license to enable a plugin, please contact Sales at: sales@singlewire.com

The currently installed License Keys contain the following features:

InformaCast

Issuer: [nawiermueller](#)
 Created: Mon Feb 27 15:13:09 CST 2012
 Licensee: nick
 IP Restriction: 172.30.227.233
 Expiration: No expiration
 Features: Audio, Clustering, MessageConfirmation
 Parameters: MaxBellSchedules=50, MaxIPSpeakers=100, MaxPhones=500, MaxVersion=8.3, Scheme=Subscription

CallAware

Issuer: [nawiermueller](#)
 Created: Mon Feb 27 15:14:15 CST 2012
 Licensee: nick
 IP Restriction: 172.30.227.233
 Expiration: No expiration
 Features:
 Parameters:

IC Plugin: ICAP

Issuer: [katie henkel](#)
 Created: Fri Jan 27 11:25:12 CST 2012
 Licensee: Katie for Testing
 IP Restriction: Not restricted
 Expiration: No expiration
 Features:
 Parameters:

IC Plugin: ConferenceCall

Issuer: [katie henkel](#)
 Created: Mon Jun 27 10:32:10 CDT 2011
 Licensee: Katie for testing
 IP Restriction: Not restricted
 Expiration: No expiration
 Features:
 Parameters:

IC Plugin: DMM

Issuer: [katie henkel](#)
 Created: Wed Jul 20 13:47:30 CDT 2011
 Licensee: Katie for testing
 IP Restriction: Not restricted
 Expiration: No expiration
 Features:
 Parameters:

Replace Your License(s): No file chosen

UPLOAD

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The License Manager holds all of your Singlewire licenses, unless you are participating in your Advanced InformaCast trial, in which case your license will be on InformaCast's Manage License Key page (**Admin | Manage License Key**). Depending on the software applications you are using, you will see different licenses housed on this page.

**Tip**

If the key is not accepted, check that you selected the proper file containing the XML key that was emailed to you, ensure that your IP address is correct, determine that your key has not expired, and ensure that the MaxVersion parameter in your license key matches or is greater than your version of InformaCast. If you're still having trouble, contact your [Singlewire sales representative](#) for assistance.

Migrate from Windows to the Virtual Appliance

**Note**

This section only applies to users who are migrating from a Windows installation to the Virtual Appliance.

The Toolbox also holds the migration managers for InformaCast, CallAware, and the Legacy Paging Interface (LPI), easily allowing you to migrate from a Windows installation to the Virtual Appliance.

Consider your Migration

When considering your migration, you should take into account the following points:

- If you are using ReliCast and DORA, you must migrate to DialCast and the M2M plugin respectively before migrating from Windows to the Virtual Appliance.
- PushToTalk and Corporate Directory cannot migrate from Windows to the Virtual Appliance. If you are using these applications, you should not shut down the Windows server running them, but you should change its IP address to be different than the IP address used by your Virtual Appliance server.
- Communications Manager Express is not supported by the InformaCast Migration Manager. Please [contact Singlewire Sales](#) for more options.
- Several port changes have been made for InformaCast, CallAware, and the LPI. If you modified these ports because of a port conflict on your Windows server, you will have to modify any item that referenced the old port settings after your migration. The Migration Validation Tool (available at <http://www.singlewire.com/t-migration-validation-tool.html>) will alert you to any port discrepancies.
- Logs are discarded as part of the migration process. If you want to keep them, back them up prior to migrating to the Virtual Appliance.
- There are some restrictions to the size of the database(s) you can migrate. For InformaCast, the database must be no larger than 2GB. For CallAware, all data (e.g. audio, database, etc.) must be no larger than 600MB.
- For InformaCast: on the Windows platform, applications' QoS settings were set in the code and did not match Cisco's recommended QoS DSCP values. On the Virtual Appliance, the QoS settings have been moved to the OS level and now match Cisco's recommended settings.

These settings are: media RTP traffic set to DSCP EF, call signaling traffic set to DSCP CS3 (call signaling traffic includes SIP and CTI traffic), HTTP traffic to IP phones set to DSCP 0, and any other traffic set to DSCP 0.

If you need to change from these default values, you will need to do so at the network level. Rewriting DSCP values is covered in the Cisco Quality of Service (QoS) Solution Reference Network Design (SRND) guide, found at <http://www.cisco.com/go/srnd> and should be handled by your network administrator.

- For InformaCast: SIP certificates do not transfer during the migration process. If you were using SIP certificates to facilitate TLS protocol and you did not change InformaCast's IP address during migration, you will need to perform the steps in "Install SIP Device Certificates on InformaCast" in the "InformaCast Installation and User Guide."

If you were using SIP certificates to facilitate TLS protocol and you did change InformaCast's IP address during migration, you will need to perform all of the steps in "Manage SIP Certificates to Facilitate TLS Protocol" in the "InformaCast Installation and User Guide." While performing these steps, you will edit your existing SIP trunk and SIP trunk security profile, not create new ones.

- For InformaCast: the web.xml file does not transfer during the migration process; it will be reset to its default values. If you changed anything in your old web.xml file, you will need to change it again. Please be aware that some settings have moved from the web.xml file to InformaCast's user interface (these changes are detailed in the release notes for InformaCast v8.4).
- For InformaCast: your Virtual Appliance backups will be set to InformaCast's default settings, which differ from those you set in your Windows installation. You will want to update these settings to best fit your environment (see "Configure InformaCast Backups" in the "InformaCast Installation and User Guide").

Perform Pre-migration Tasks

Before using the migration manager(s) in the Toolbox to migrate from a Windows installation to the Virtual Appliance you should:

Step 1 [Contact Singlewire](#) to obtain a new license for the Virtual Appliance.

Step 2 Download your new software:

- InformaCast EX OVA
- InformaCast v8.1 for Windows
- CallAware v2.1 for Windows
- LPI v1.2 for Windows

You only have to download the software that applies to your environment and you only need to download new Windows versions of InformaCast/CallAware/the LPI if you're not already at these releases.

Step 3 Install the InformaCast Virtual Appliance, but do not power it on yet.

Step 4 Run the Migration Validation Tool on the Windows server and mitigate any warnings (the Migration Validation Tool is available at <http://www.singlewire.com/t-migration-validation-tool.html>).

Step 5 Upgrade the Windows versions of your software to the specified versions, if necessary:

- InformaCast v8.1
- CallAware v2.1
- LPI v1.2

Step 6 Back up your current Windows installation(s):

- InformaCast (see "Manage InformaCast Backups" in the "InformaCast v8.1 Installation and User Guide")
- CallAware (see "Back up CallAware's Configuration" in the "CallAware v2.1 Installation and User Guide")
- LPI (see "Back up the LPI's Configuration" in the "Legacy Paging Interface v1.2 Installation and User Guide")

Step 7 Shut down your Windows server.

**Note**

If you have PushToTalk and Corporate Directory, you should shut down your Windows server, perform the steps in this document, change your Windows server's IP address to be different than the IP address used by your Virtual Appliance server, and restart your Windows server to resume using PushToTalk and Corporate Directory. Ensure that when you restart your Windows server, you have turned off all applicable migrated Singlewire applications' services (e.g. singlewireInformaCast, singlewireCallAware, singlewireLPI).

Step 8 Start the Virtual Appliance and follow SwiftStart's prompts, ensuring that you assign the same IP address as you had in your Windows installation (see "Install a Software Package" on page 17).

Step 9 Log into InformaCast (see "Log into InformaCast" on page 7). If this is the first time you've started InformaCast, you will have to wait while InformaCast initializes. Initialization is complete when InformaCast's Login page appears.

Step 10 Install your new InformaCast license (see "Manage Your License Key" on page 27).

Step 11 Stop the Virtual Appliance InformaCast, CallAware, and /or LPI service(s) (see "Stop an Application on InformaCast EX" on page 66).

Step 12 Continue with the migration manager sections that apply to your environment:

- "Migrate InformaCast from Windows to the Virtual Appliance" on page 35
- "Migrate CallAware from Windows to the Virtual Appliance" on page 45
- "Migrate the Legacy Paging Interface from Windows to the Virtual Appliance" on page 53

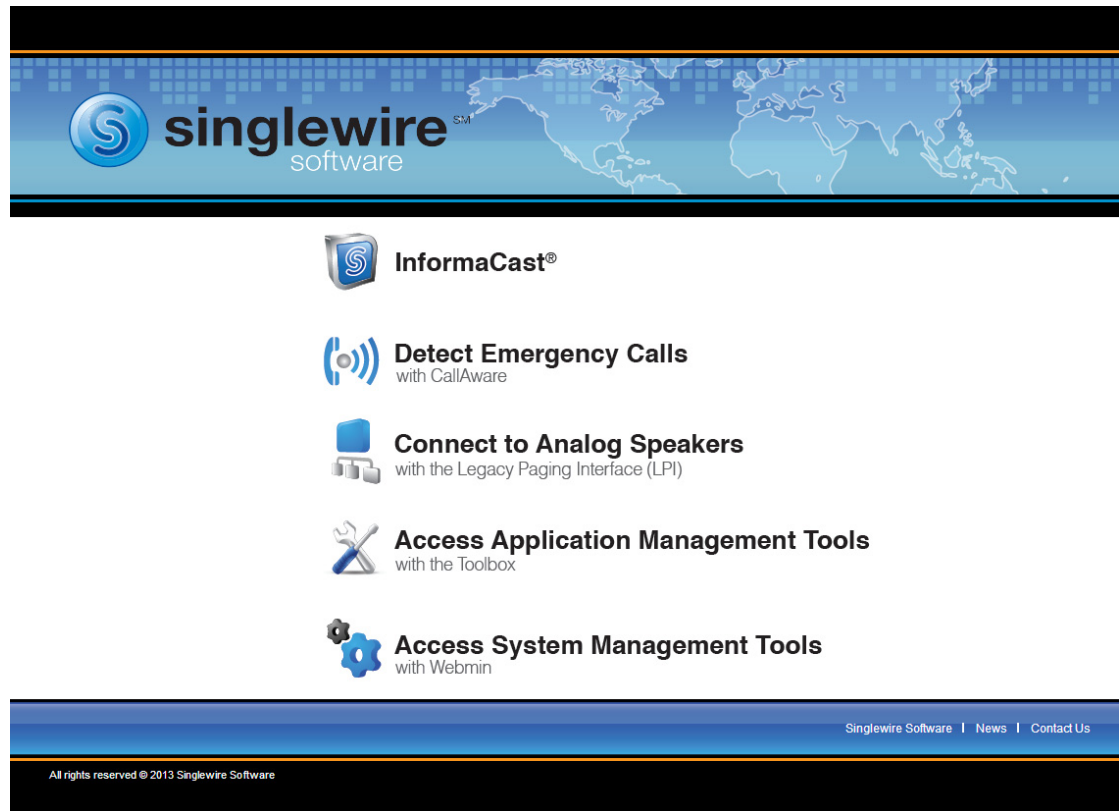
Migrate InformaCast from Windows to the Virtual Appliance

The InformaCast Migration Manager allows you to migrate from a Windows installation of InformaCast to one on the Virtual Appliance; however, it only works for Windows versions of InformaCast that are 8.1 or later. If you have an earlier version of InformaCast, you must first upgrade to v8.1 and then use the InformaCast Migration Manager.

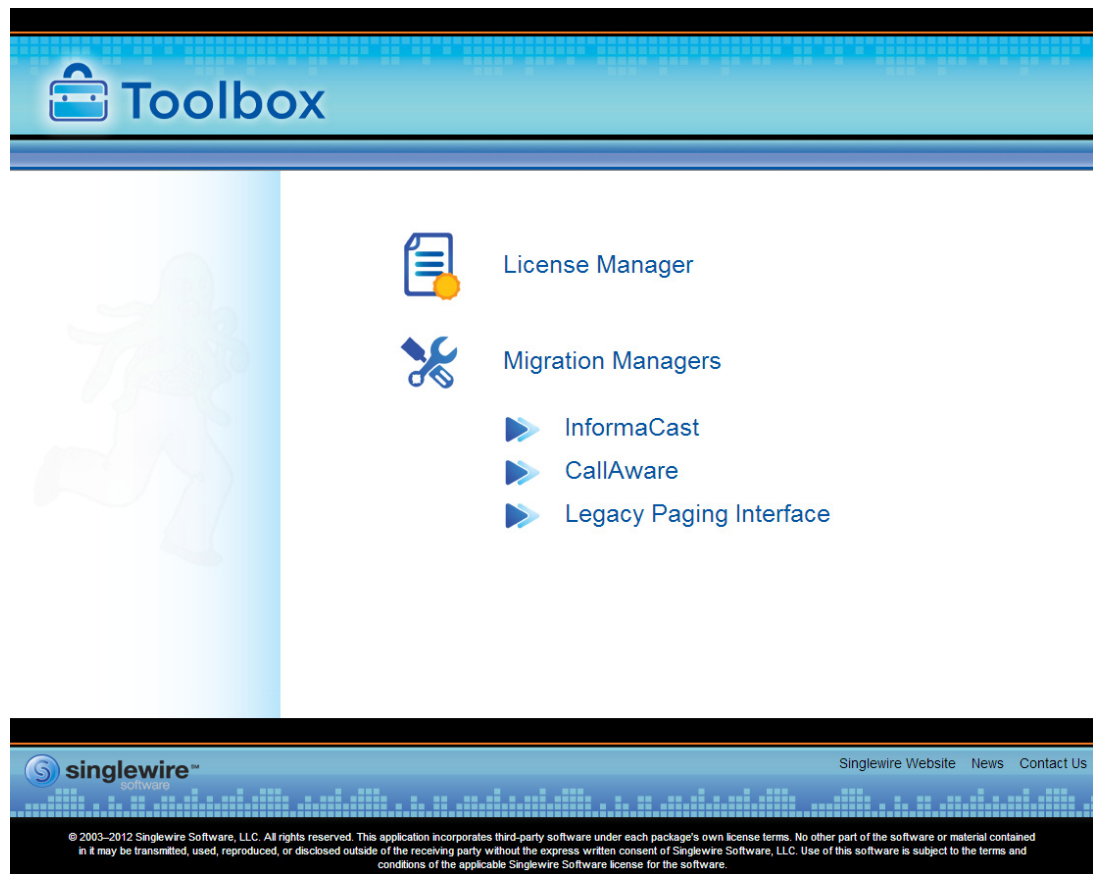
**Note**

SIP certificates do not transfer during the migration process. If you were using SIP certificates to facilitate TLS protocol, you will need to perform all of the steps in "Manage SIP Certificates to Facilitate TLS Protocol" in the "InformaCast Installation and User Guide." While performing these steps, you will edit your existing SIP trunk and SIP trunk security profile, not create new ones.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access Application Management Tools with the Toolbox** link. A separate tab/window opens to the Toolbox page.



Note

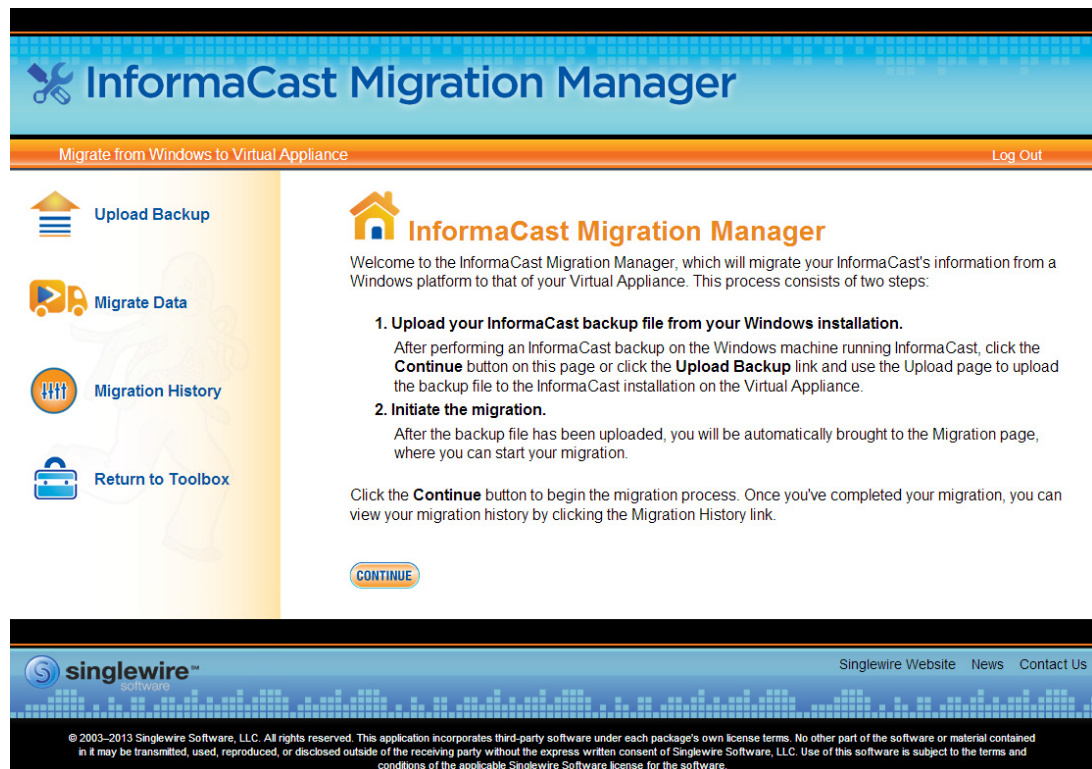
You may have to accept a warning from your web browser about the security of this page's content.

Step 3 Click the **InformaCast** link. The Login page for the InformaCast Migration Manager appears.



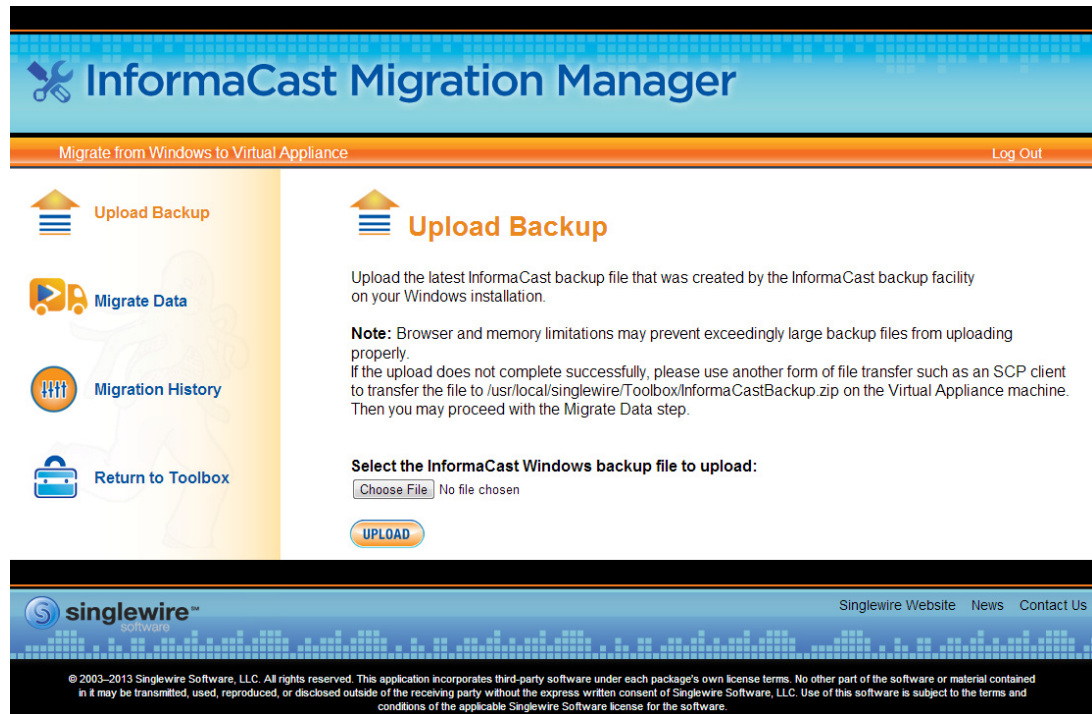
The screenshot shows the login page of the InformaCast Migration Manager. The header features the InformaCast logo and the title "InformaCast Migration Manager". Below the header, there is a navigation bar with "Migrate from Windows to Virtual Appliance" and a "Log Out" link. The main content area includes a "Return to Toolbox" link with a toolbox icon, a "Login" label, a "Password" label, and a "LOGIN" button. The footer contains the Singlewire logo, navigation links for "Singlewire Website", "News", and "Contact Us", and a copyright notice for 2003-2013 Singlewire Software, LLC.

Step 4 Enter your username and password in the **Login** and **Password** fields, respectively. By default, your username is **admin** and your password is **changeMe**. Click the **Login** button. The InformaCast Migration Manager homepage appears.

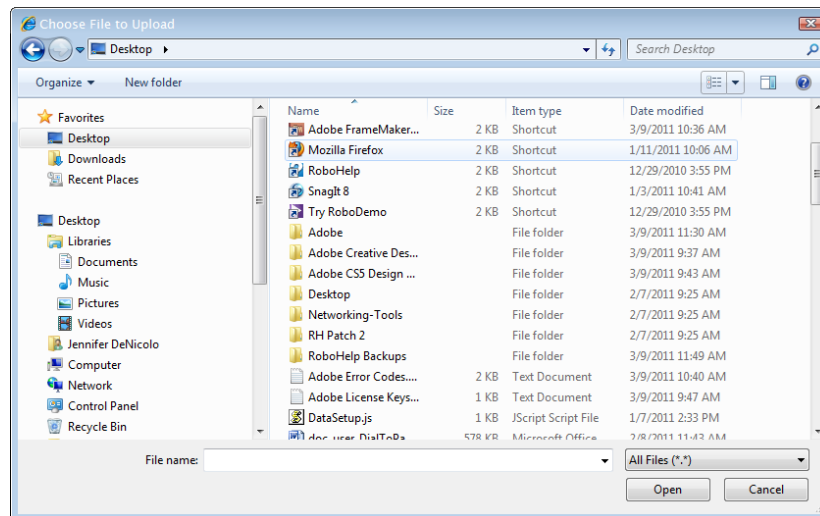


The screenshot shows the homepage of the InformaCast Migration Manager. The header features the InformaCast logo and the title "InformaCast Migration Manager". Below the header, there is a navigation bar with "Migrate from Windows to Virtual Appliance" and a "Log Out" link. The main content area includes a sidebar with links for "Upload Backup", "Migrate Data", "Migration History", and "Return to Toolbox". The main content area also features a "Welcome" message, a list of steps for migration, and a "CONTINUE" button. The footer contains the Singlewire logo, navigation links for "Singlewire Website", "News", and "Contact Us", and a copyright notice for 2003-2013 Singlewire Software, LLC.

Step 5 Click the **Continue** button or the **Upload Backup** link. The Upload Backup page appears.



Step 6 Click the **Choose File** button. The Choose File to Upload dialog box appears.



Step 7 Navigate to where you saved your InformaCast backup ZIP file, select it, and click the **Open** button.

Step 8 Click the **Upload** button. The InformaCast Migration Manager will begin uploading your InformaCast backup ZIP file.

Upload in progress. Please wait...

33%

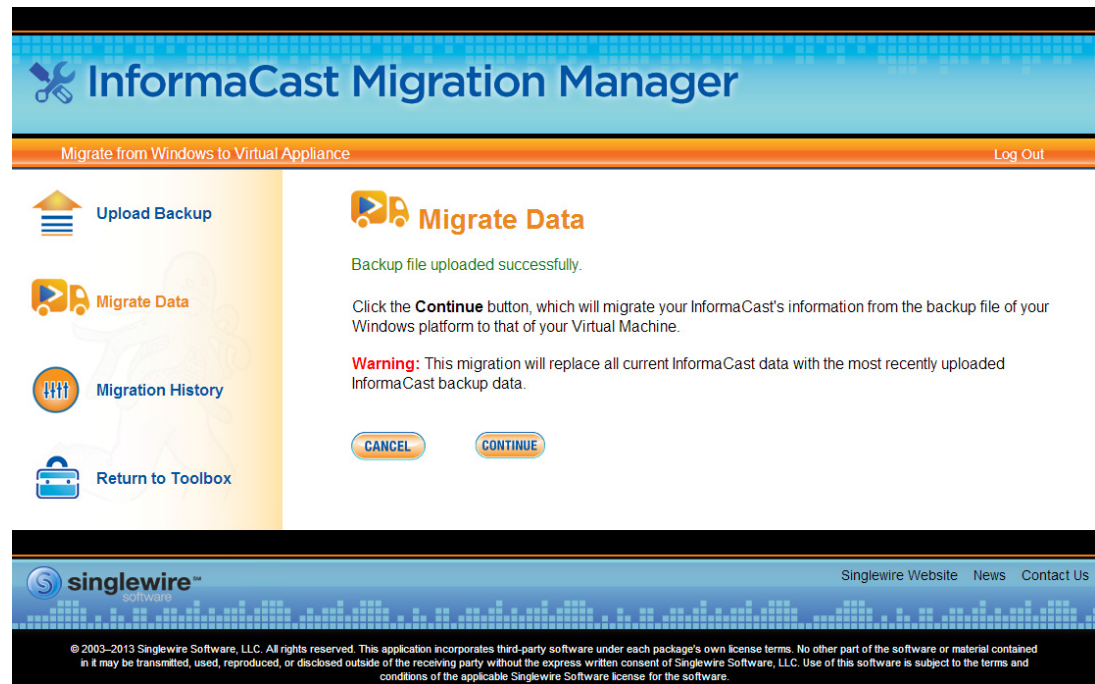
(Note: Very large files may not show progress.)



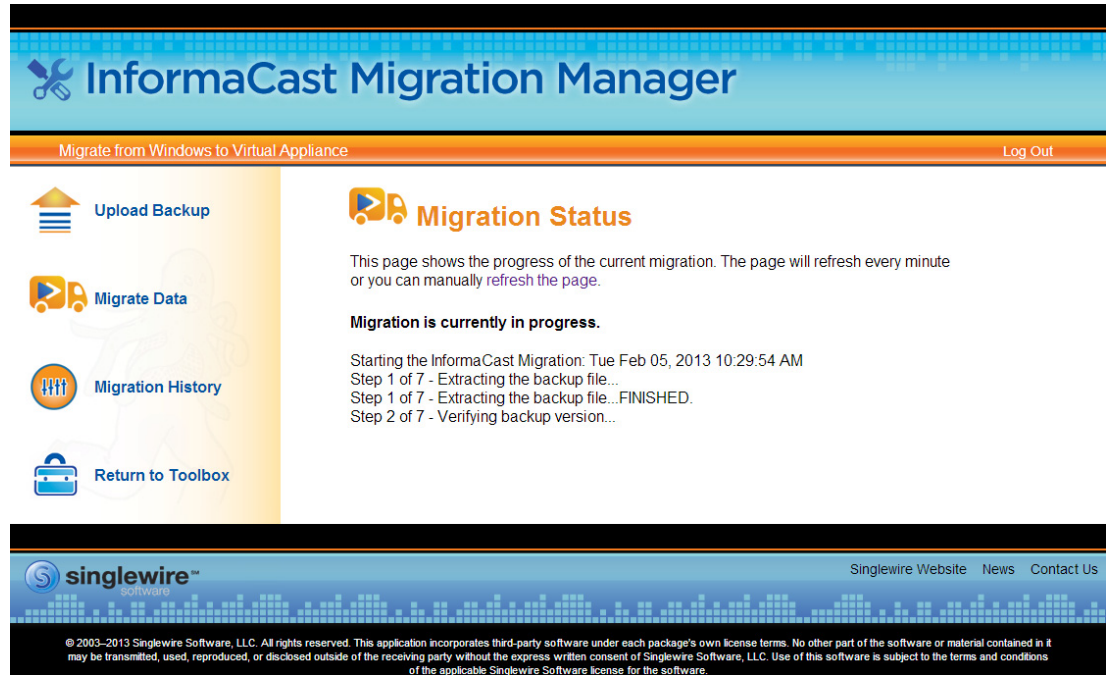
Note

Browser and memory limitations may prevent exceedingly large backup files from uploading properly. If the upload does not complete successfully, please use an SCP or SFTP client to connect to the Virtual Appliance as administrator and transfer the file to /usr/local/singlewire/Toolbox on the Virtual Appliance machine. Then you may proceed by clicking the **Migrate Data** link.

Once the ZIP file is uploaded, the Migrate Data page appears.



Step 9 Click the **Continue** button. The migration process will go through a series of steps.



 **Warning**

By clicking the Continue button, you will replace all current InformaCast data with the most recently uploaded InformaCast backup data.

Once the migration process is complete, the Migrate Data page will refresh with a confirmation statement.

The screenshot displays the InformaCast Migration Manager web interface. The header features the title "InformaCast Migration Manager" and a navigation bar with "Migrate from Windows to Virtual Appliance" and a "Log Out" link. A left sidebar contains four menu items: "Upload Backup", "Migrate Data" (highlighted), "Migration History", and "Return to Toolbox". The main content area is titled "Migration Status" and contains the following text:

This page shows the progress of the current migration. The page will refresh every minute or you can manually [refresh the page](#).

Migration is currently idle.

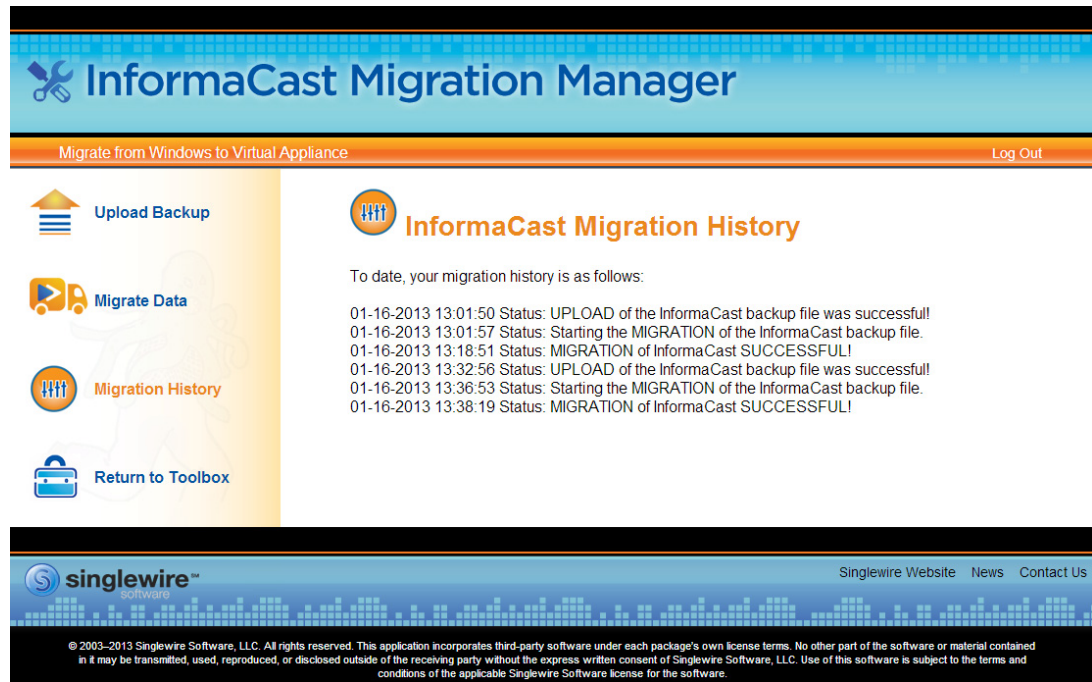
Starting the InformaCast Migration: Tue Feb 05, 2013 10:29:54 AM
Step 1 of 7 - Extracting the backup file...FINISHED.
Step 2 of 7 - Verifying backup version...FINISHED.
Step 3 of 7 - Modifying backup files to new server ip address...FINISHED.
Step 4 of 7 - Modifying backup database to new directory structure...FINISHED.
Step 5 of 7 - Migrating plugin data...FINISHED.
Step 6 of 7 - Verify InformaCast is not running...FINISHED.
Step 7 of 7 - Moving backup files and changes into InformaCast...FINISHED.
! InformaCast Migration finished successfully ! Tue Feb 05, 2013 10:30:53 AM

Congratulations! The migration process finished successfully.

Please log into InformaCast and verify that your data is up to date. You should also send a few test messages to further verify the migration process.

The footer of the interface includes the Singlewire logo, navigation links for "Singlewire Website", "News", and "Contact Us", and a copyright notice: "© 2003-2013 Singlewire Software, LLC. All rights reserved. This application incorporates third-party software under each package's own license terms. No other part of the software or material contained in it may be transmitted, used, reproduced, or disclosed outside of the receiving party without the express written consent of Singlewire Software, LLC. Use of this software is subject to the terms and conditions of the applicable Singlewire Software license for the software."

You can view your migration history by clicking the **Migration History** link. The InformaCast Migration History page appears.



The screenshot displays the InformaCast Migration Manager web application. The header features the title "InformaCast Migration Manager" and a navigation bar with "Migrate from Windows to Virtual Appliance" and a "Log Out" link. The left sidebar contains four menu items: "Upload Backup", "Migrate Data", "Migration History" (which is highlighted), and "Return to Toolbox". The main content area is titled "InformaCast Migration History" and shows a list of migration events. The footer includes the Singlewire logo, navigation links for "Singlewire Website", "News", and "Contact Us", and a copyright notice for 2003-2013 Singlewire Software, LLC.

InformaCast Migration Manager

Migrate from Windows to Virtual Appliance Log Out

- Upload Backup
- Migrate Data
- Migration History**
- Return to Toolbox

InformaCast Migration History

To date, your migration history is as follows:

- 01-16-2013 13:01:50 Status: UPLOAD of the InformaCast backup file was successful!
- 01-16-2013 13:01:57 Status: Starting the MIGRATION of the InformaCast backup file.
- 01-16-2013 13:18:51 Status: MIGRATION of InformaCast SUCCESSFUL!
- 01-16-2013 13:32:56 Status: UPLOAD of the InformaCast backup file was successful!
- 01-16-2013 13:36:53 Status: Starting the MIGRATION of the InformaCast backup file.
- 01-16-2013 13:38:19 Status: MIGRATION of InformaCast SUCCESSFUL!

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If a migration has been previously run, when you log into the InformaCast Migration Manager, the homepage will list the statistics of the last migration.


Tip

Skip Steps 10 through 11 if you still have to migrate CallAware and/or the LPI.

Step 10 Update your version of JTAPI (see “Update JTAPI” on page 83).

Step 11 Start the Virtual Appliance InformaCast service (see “Start an Application on InformaCast EX” on page 69).


Tip

Your Virtual Appliance backups will be set to InformaCast’s default settings, which differ from those you set in your Windows installation. You will want to update these settings to best fit your environment (see “Configure InformaCast Backups” in the “InformaCast Installation and User Guide”).

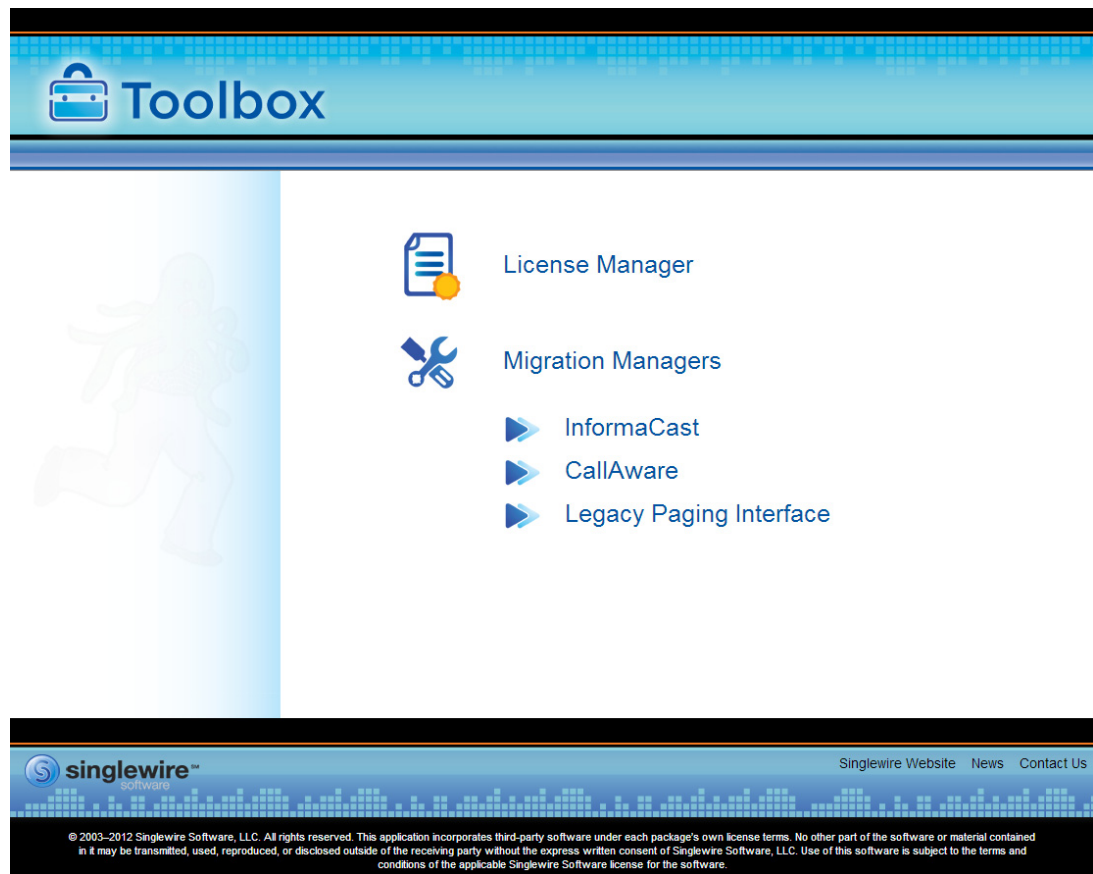
Migrate CallAware from Windows to the Virtual Appliance

The CallAware Migration Manager only works for Windows versions of CallAware that are 2.1 or later. If you have an earlier version of CallAware, you must first upgrade to v2.1 and then use the CallAware Migration Manager.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access Application Management Tools with the Toolbox** link. A separate tab/window opens to the Toolbox page.



Note

You may have to accept a warning from your web browser about the security of this page's content.

Step 3 Click the **CallAware** link. The Login page for the CallAware Migration Manager appears.



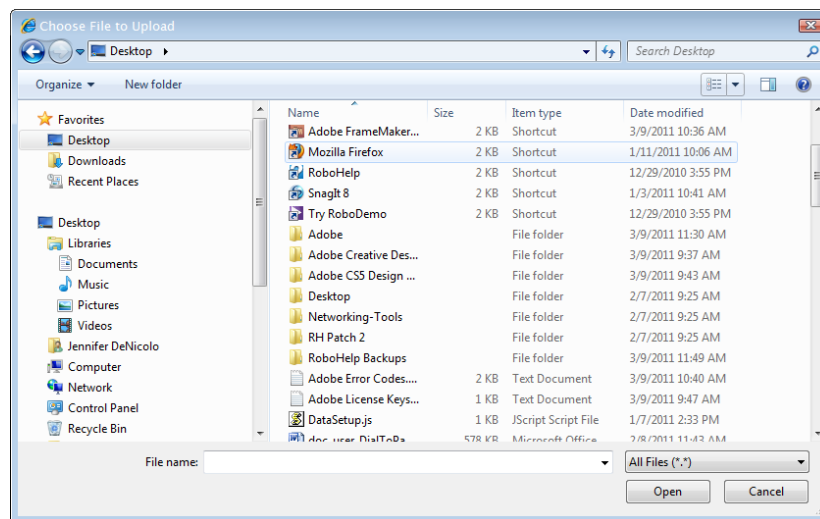
Step 4 Enter your username and password in the **Login Name** and **Password** fields, respectively. By default, your username is **admin** and your password is **changeMe**. Click the **Login** button. The CallAware Migration Manager homepage appears.



Step 5 Click the **Continue** button or the **Upload Backup** link. The Upload Backup page appears.




Step 6 Click the **Choose File** button. The Choose File to Upload dialog box appears.



Step 7 Navigate to where you saved your CallAware backup ZIP file, select it, and click the **Open** button.

Step 8 Click the **Upload** button. The CallAware Migration Manager will begin uploading your CallAware backup ZIP file.

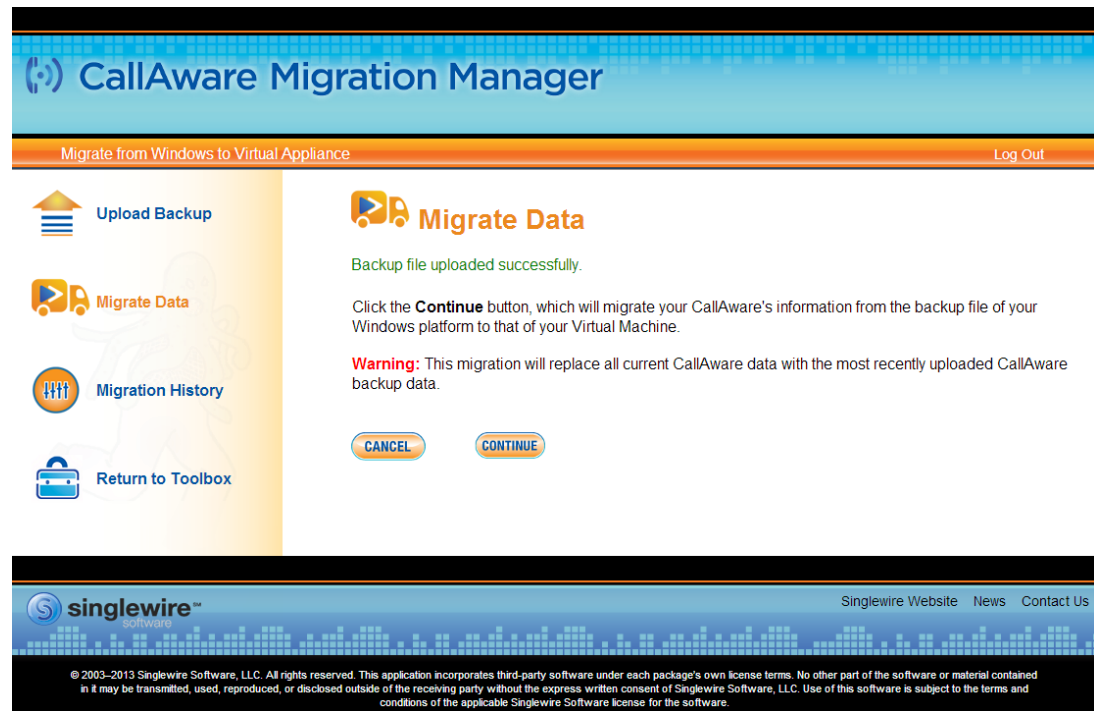
Upload in progress. Please wait...

 33%
(Note: Very large files may not show progress.)

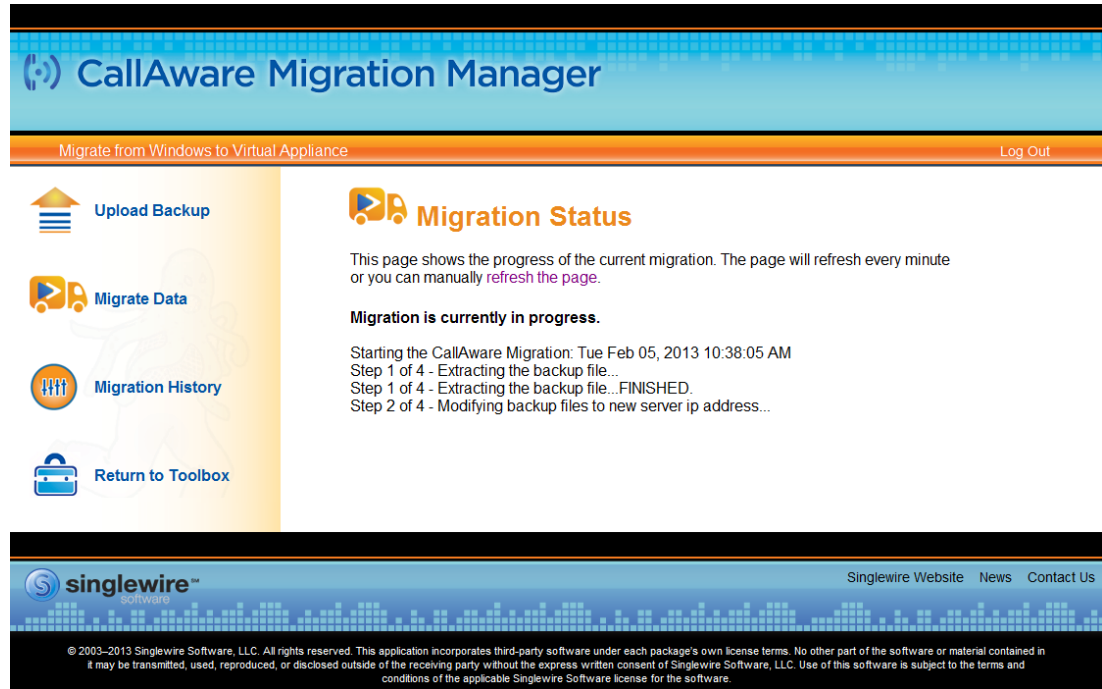
**Note**

Browser and memory limitations may prevent exceedingly large backup files from uploading properly. If the upload does not complete successfully, please use an SCP or SFTP client to connect to the Virtual Appliance as administrator and transfer the file to /usr/local/singlewire/Toolbox on the Virtual Appliance machine. Then you may proceed by clicking the **Migrate Data** link.

Once the ZIP file is uploaded, the Migrate Data page appears.



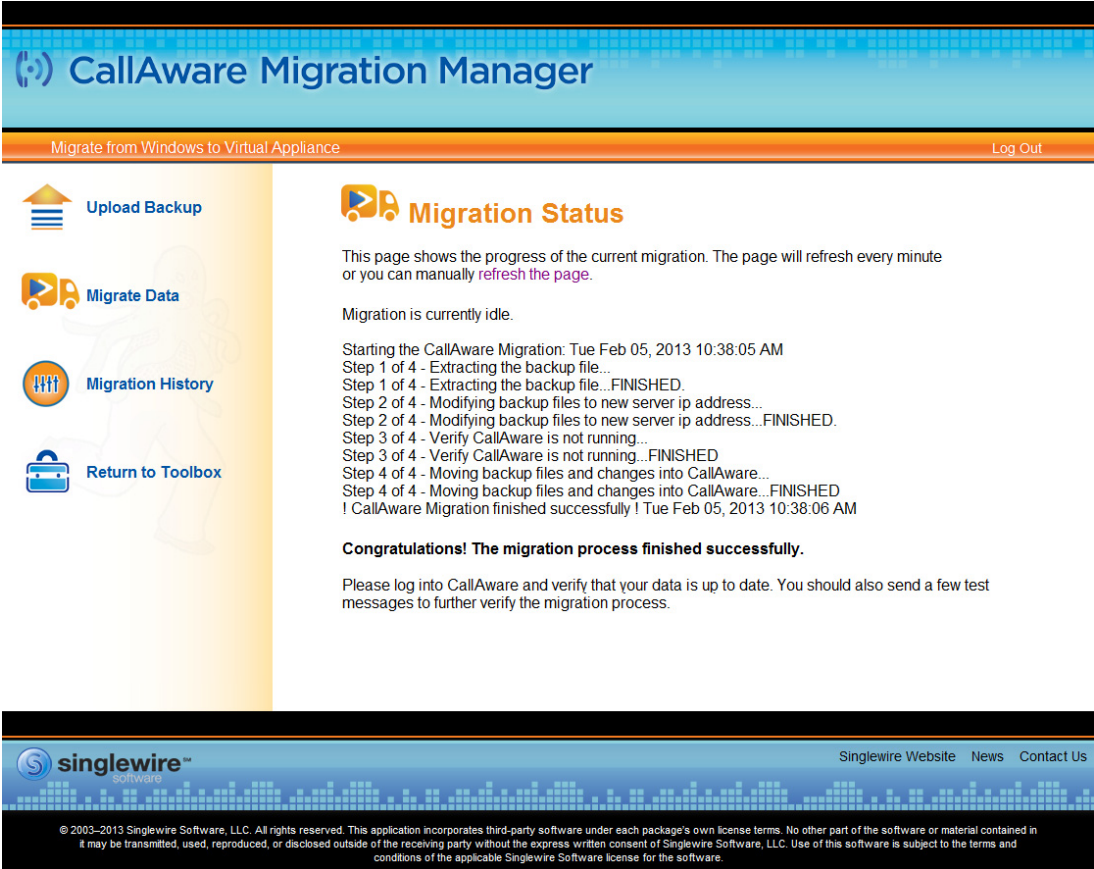
Step 9 Click the **Continue** button. The migration process will go through a series of steps.



Warning

By clicking the Continue button, you will replace all current CallAware data with the most recently uploaded CallAware backup data.

Once the migration process is complete, the Migrate Data page will refresh with a confirmation statement.



The screenshot displays the 'CallAware Migration Manager' web application. The header includes the title 'CallAware Migration Manager' and a navigation bar with 'Migrate from Windows to Virtual Appliance' and a 'Log Out' link. The left sidebar contains four menu items: 'Upload Backup', 'Migrate Data' (highlighted), 'Migration History', and 'Return to Toolbox'. The main content area is titled 'Migration Status' and contains the following text:

This page shows the progress of the current migration. The page will refresh every minute or you can manually [refresh the page](#).

Migration is currently idle.

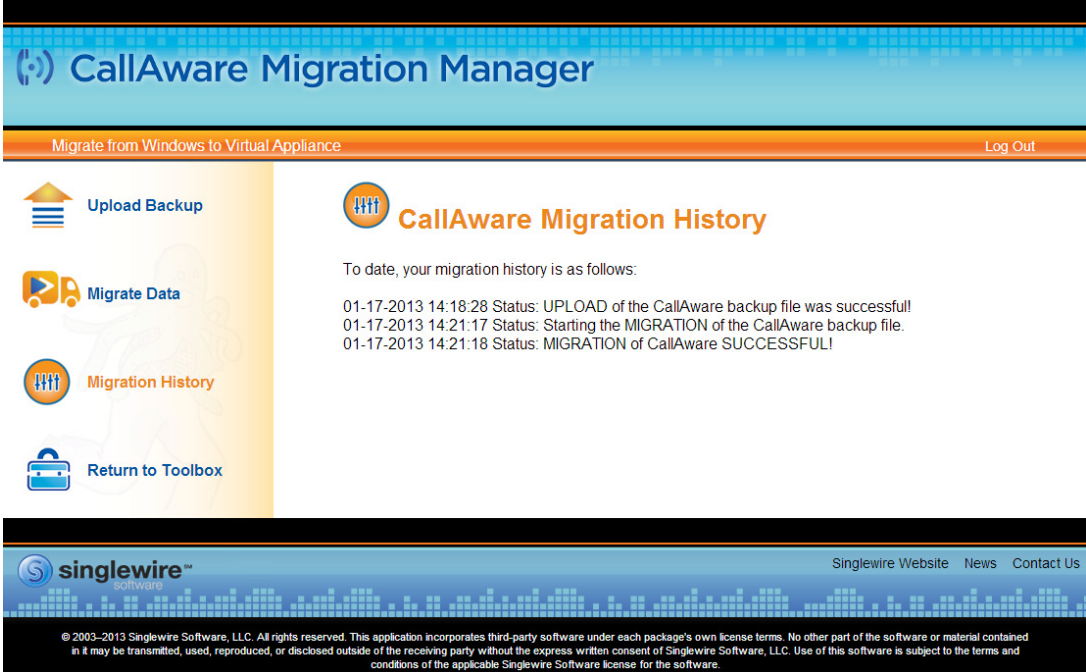
Starting the CallAware Migration: Tue Feb 05, 2013 10:38:05 AM
 Step 1 of 4 - Extracting the backup file...
 Step 1 of 4 - Extracting the backup file...FINISHED.
 Step 2 of 4 - Modifying backup files to new server ip address...
 Step 2 of 4 - Modifying backup files to new server ip address...FINISHED.
 Step 3 of 4 - Verify CallAware is not running...
 Step 3 of 4 - Verify CallAware is not running...FINISHED
 Step 4 of 4 - Moving backup files and changes into CallAware...
 Step 4 of 4 - Moving backup files and changes into CallAware...FINISHED
 ! CallAware Migration finished successfully ! Tue Feb 05, 2013 10:38:06 AM

Congratulations! The migration process finished successfully.

Please log into CallAware and verify that your data is up to date. You should also send a few test messages to further verify the migration process.

The footer of the page includes the 'singlewire™ software' logo, links to 'Singlewire Website', 'News', and 'Contact Us', and a copyright notice: '© 2003-2013 Singlewire Software, LLC. All rights reserved. This application incorporates third-party software under each package's own license terms. No other part of the software or material contained in it may be transmitted, used, reproduced, or disclosed outside of the receiving party without the express written consent of Singlewire Software, LLC. Use of this software is subject to the terms and conditions of the applicable Singlewire Software license for the software.'

You can view your migration history by clicking the **Migration History** link. The CallAware Migration History page appears.



The screenshot displays the CallAware Migration Manager web application. The header features the title "CallAware Migration Manager" and a navigation bar with "Migrate from Windows to Virtual Appliance" and a "Log Out" link. A left sidebar contains four menu items: "Upload Backup", "Migrate Data", "Migration History" (which is highlighted), and "Return to Toolbox". The main content area is titled "CallAware Migration History" and shows a list of migration events. The footer includes the Singlewire logo, navigation links for "Singlewire Website", "News", and "Contact Us", and a copyright notice for 2003-2013 Singlewire Software, LLC.

CallAware Migration Manager

Migrate from Windows to Virtual Appliance Log Out

- Upload Backup
- Migrate Data
- Migration History**
- Return to Toolbox

CallAware Migration History

To date, your migration history is as follows:

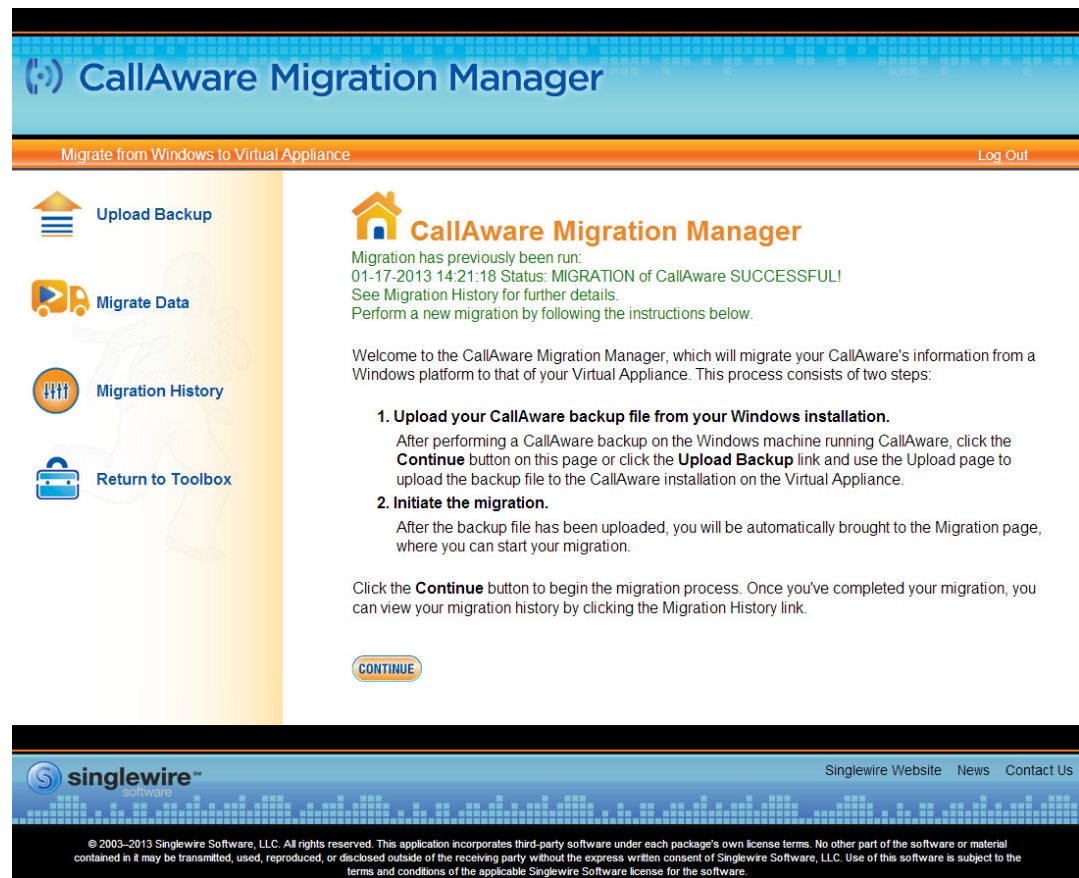
- 01-17-2013 14:18:28 Status: UPLOAD of the CallAware backup file was successful!
- 01-17-2013 14:21:17 Status: Starting the MIGRATION of the CallAware backup file.
- 01-17-2013 14:21:18 Status: MIGRATION of CallAware SUCCESSFUL!

singlewire™ software

Singlewire Website News Contact Us

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If a migration has been previously run, when you log into the CallAware Migration Manager, the homepage will list the statistics of the last migration.

**Tip**

Skip Steps 10 and 11 if you still have to migrate the LPI.

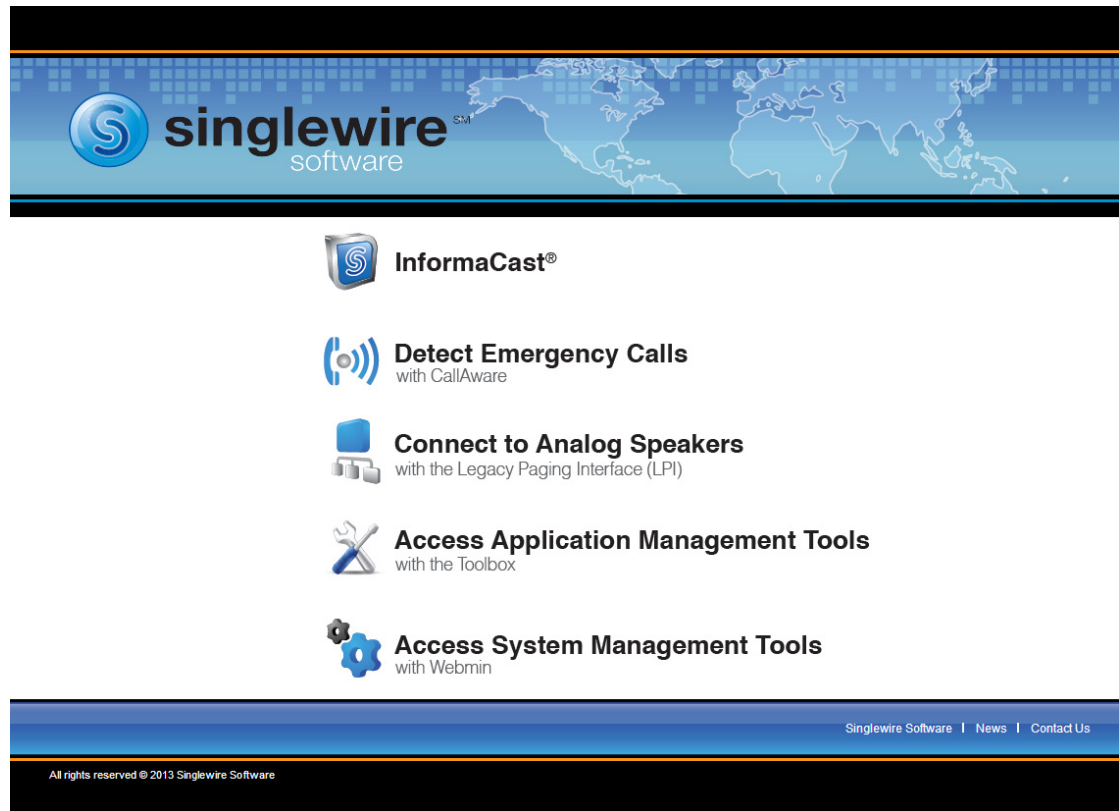
Step 10 Update your version of JTAPI (see “Update JTAPI” on page 83).

Step 11 Start the applicable Virtual Appliance service(s), e.g. InformaCast and CallAware, (see “Start an Application on InformaCast EX” on page 69).

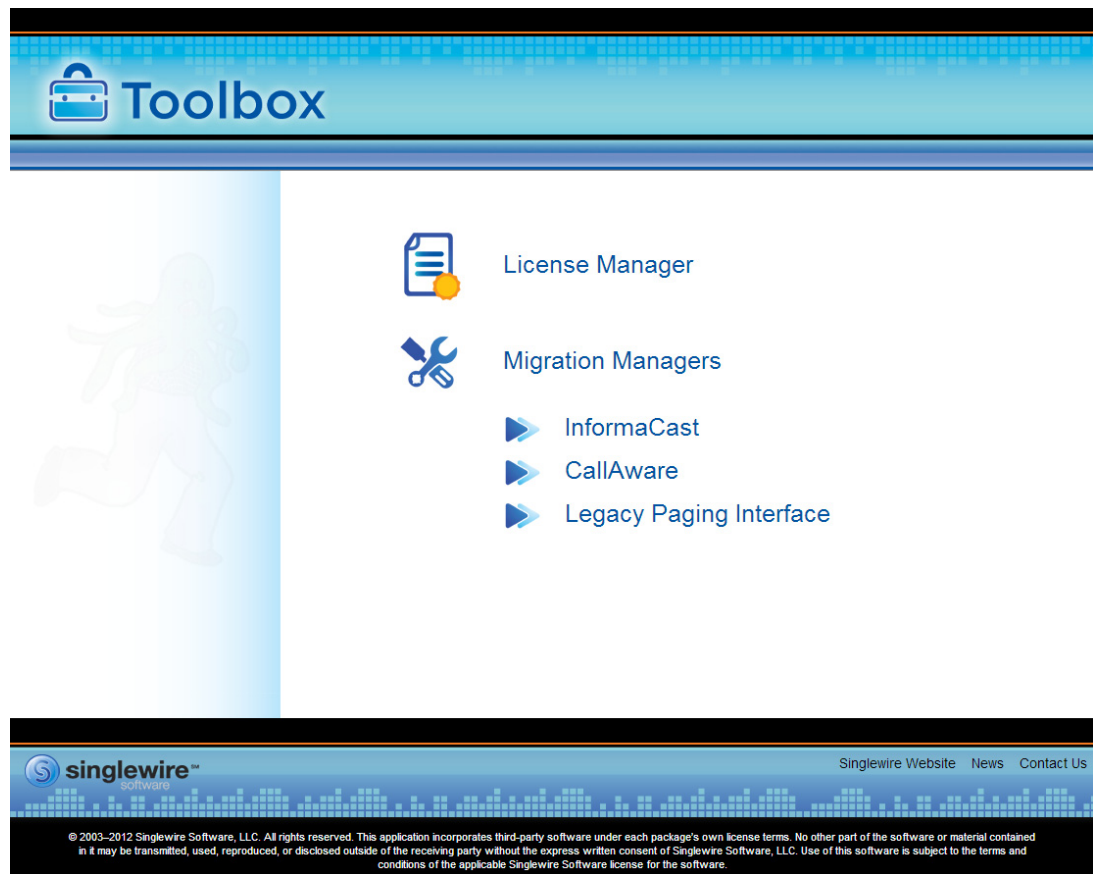
Migrate the Legacy Paging Interface from Windows to the Virtual Appliance

The Legacy Paging Interface (LPI) Migration Manager only works for Windows versions of the LPI that are 1.2 or later. If you have an earlier version of the LPI, you must first upgrade to v1.2 and then use the Legacy Paging Interface Migration Manager.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access Application Management Tools with the Toolbox** link. A separate tab/window opens to the Toolbox page.



Note

You may have to accept a warning from your web browser about the security of this page's content.

- Step 3** Click the **Legacy Paging Interface** link. The Login page for the Legacy Paging Interface Migration Manager appears.

The screenshot shows the 'Legacy Paging Interface Migration Manager' login interface. At the top, there's a blue header with the title and a 'Migrate from Windows to Virtual Appliance' link. Below the header, on the left, is a 'Return to Toolbox' link with a toolbox icon. In the center, there are input fields for 'Login Name' and 'Password', followed by a 'LOGIN' button. On the right, there is a 'Log Out' link. The footer includes the Singlewire logo, navigation links (Singlewire Website, News, Contact Us), and a copyright notice for 2003-2013 Singlewire Software, LLC.

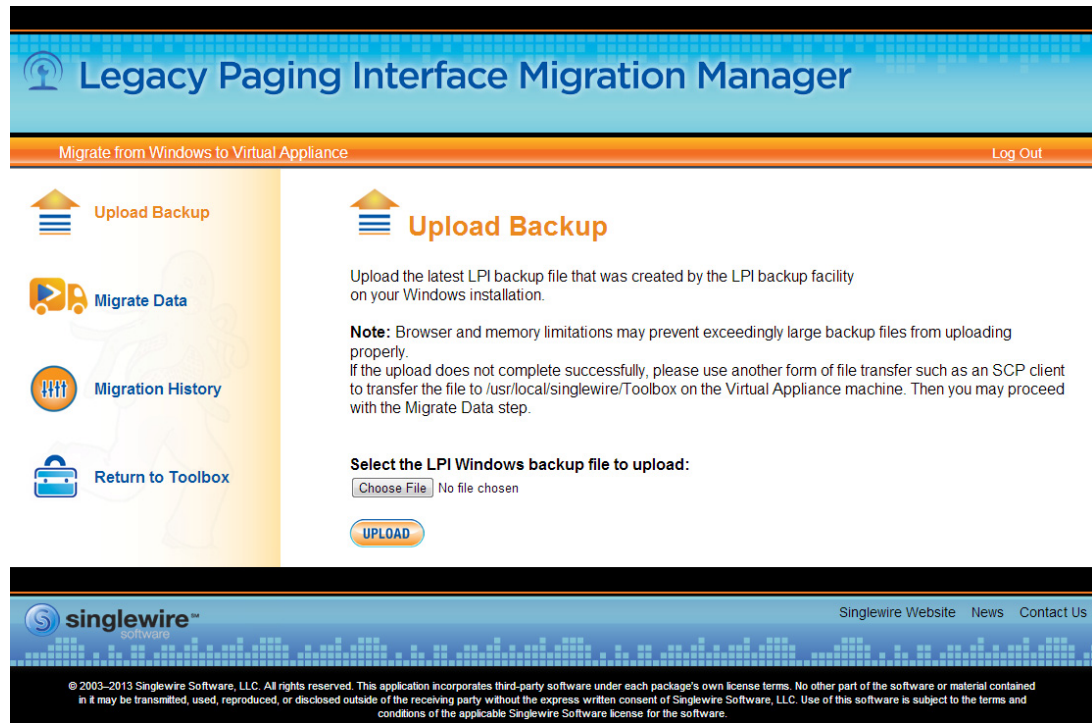
- Step 4** Enter your username and password in the **Login Name** and **Password** fields, respectively. By default, your username is **admin** and your password is **changeMe**. Click the **Login** button. The Legacy Paging Interface Migration Manager homepage appears.

The screenshot shows the 'Legacy Paging Interface Migration Manager' homepage. The header is identical to the login page. On the left, there's a sidebar with four links: 'Upload Backup' (with a folder icon), 'Migrate Data' (with a play icon), 'Migration History' (with a list icon), and 'Return to Toolbox' (with a toolbox icon). The main content area is titled 'LPI Migration Manager' and contains a welcome message: 'Welcome to the Legacy Paging Interface (LPI) Migration Manager, which will migrate your LPI's information from a Windows platform to that of your Virtual Appliance. This process consists of two steps:'. The steps are:

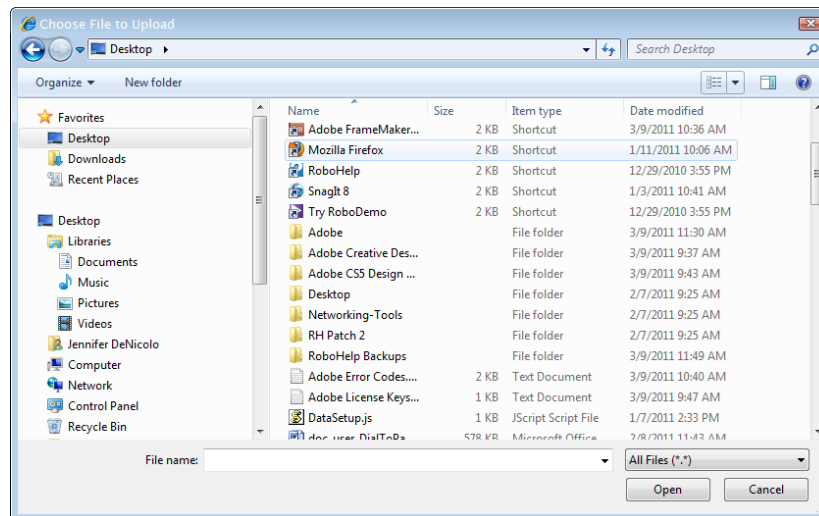
- 1. Upload your LPI backup file from your Windows installation.** After performing an LPI backup on the Windows machine running LPI, click the **Continue** button on this page or click the **Upload Backup** link and use the Upload page to upload the backup file to the LPI installation on the Virtual Appliance.
- 2. Initiate the migration.** After the backup file has been uploaded, you will be automatically brought to the Migration page, where you can start your migration.

Below the steps, there's a message: 'Click the **Continue** button to begin the migration process. Once you've completed your migration, you can view your migration history by clicking the Migration History link.' At the bottom of the main content area is a 'CONTINUE' button. The footer is identical to the login page.

Step 5 Click the **Continue** button or the **Upload Backup** link. The Upload Backup page appears.




Step 6 Click the **Choose File** button. The Choose File to Upload dialog box appears.



Step 7 Navigate to where you saved your LPI backup ZIP file, select it, and click the **Open** button.

- Step 8** Click the **Upload** button. The Legacy Paging Interface Migration Manager will begin uploading your LPI backup ZIP file.

Upload in progress. Please wait...

 33%

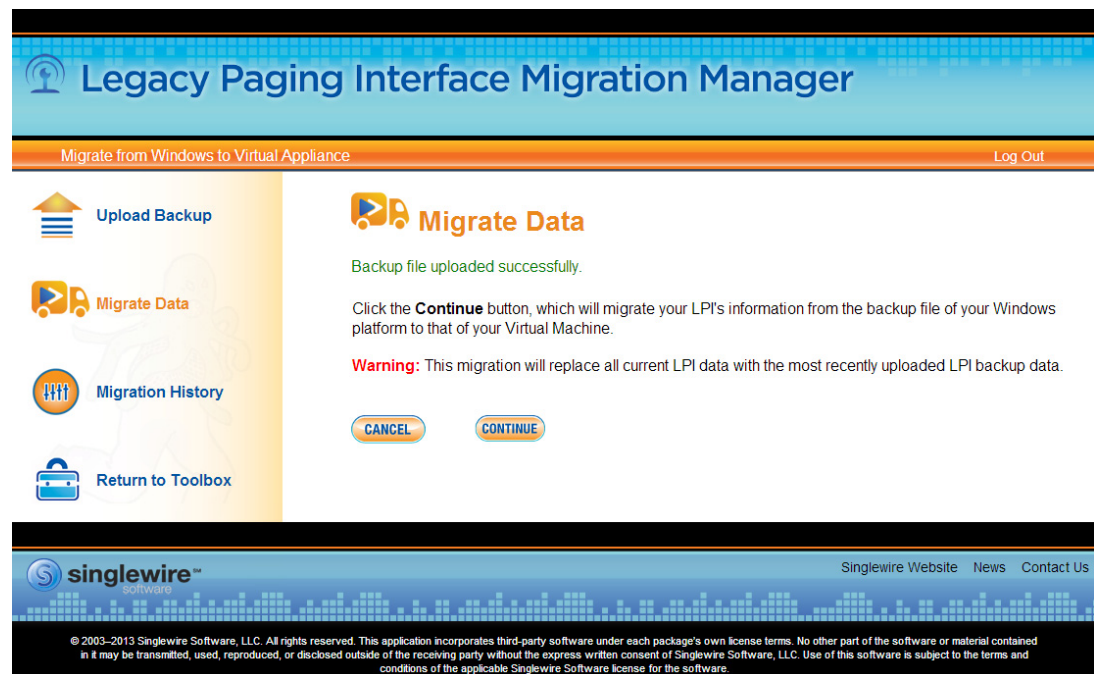
(Note: Very large files may not show progress.)



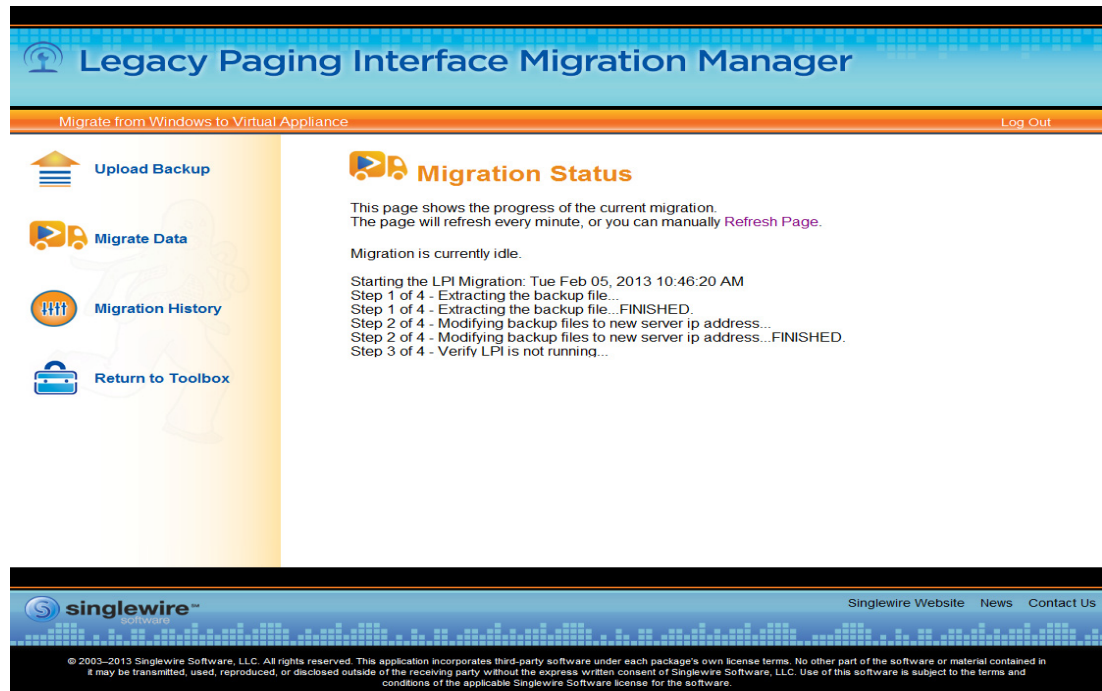
Note

Browser and memory limitations may prevent exceedingly large backup files from uploading properly. If the upload does not complete successfully, please use an SCP or SFTP client to connect to the Virtual Appliance as administrator and transfer the file to /usr/local/singlewire/Toolbox on the Virtual Appliance machine. Then you may proceed by clicking the **Migrate Data** link.

Once the ZIP file is uploaded, the Migrate Data page appears.



Step 9 Click the **Continue** button. The migration process will go through a series of steps.

**Warning**

By clicking the Continue button, you will replace all current LPI data with the most recently uploaded LPI backup data.

Once the migration process is complete, the Migrate Data page will refresh with a confirmation statement.

The screenshot displays the 'Legacy Paging Interface Migration Manager' web interface. The header includes the title and navigation links for 'Migrate from Windows to Virtual Appliance' and 'Log Out'. A left sidebar contains icons and links for 'Upload Backup', 'Migrate Data' (the active page), 'Migration History', and 'Return to Toolbox'. The main content area, titled 'Migration Status', provides a progress report. It states that the migration is currently in progress and lists the following steps: 'Starting the LPI Migration: Tue Feb 05, 2013 10:46:20 AM', 'Step 1 of 4 - Extracting the backup file... FINISHED.', 'Step 2 of 4 - Modifying backup files to new server ip address... FINISHED.', 'Step 3 of 4 - Verify LPI is not running... FINISHED.', 'Step 4 of 4 - Moving backup files and changes into LPI... FINISHED.', and '! LPI Migration finished successfully ! Tue Feb 05, 2013 10:46:21 AM'. A congratulatory message follows, stating 'Congratulations! The migration process finished successfully.' and advising the user to log into LPI and verify their data. The footer features the Singlewire logo, website links, and a copyright notice for 2003-2013 Singlewire Software, LLC.

Legacy Paging Interface Migration Manager

Migrate from Windows to Virtual Appliance Log Out

Upload Backup

Migrate Data

Migration History

Return to Toolbox

Migration Status

This page shows the progress of the current migration. The page will refresh every minute or you can manually [refresh the page](#).

Migration is currently in progress.

Starting the LPI Migration: Tue Feb 05, 2013 10:46:20 AM
Step 1 of 4 - Extracting the backup file... FINISHED.
Step 2 of 4 - Modifying backup files to new server ip address... FINISHED.
Step 3 of 4 - Verify LPI is not running... FINISHED.
Step 4 of 4 - Moving backup files and changes into LPI... FINISHED
! LPI Migration finished successfully ! Tue Feb 05, 2013 10:46:21 AM

Congratulations! The migration process finished successfully.

Please log into LPI and verify that your data is up to date. You should also send a few test messages to further verify the migration process.

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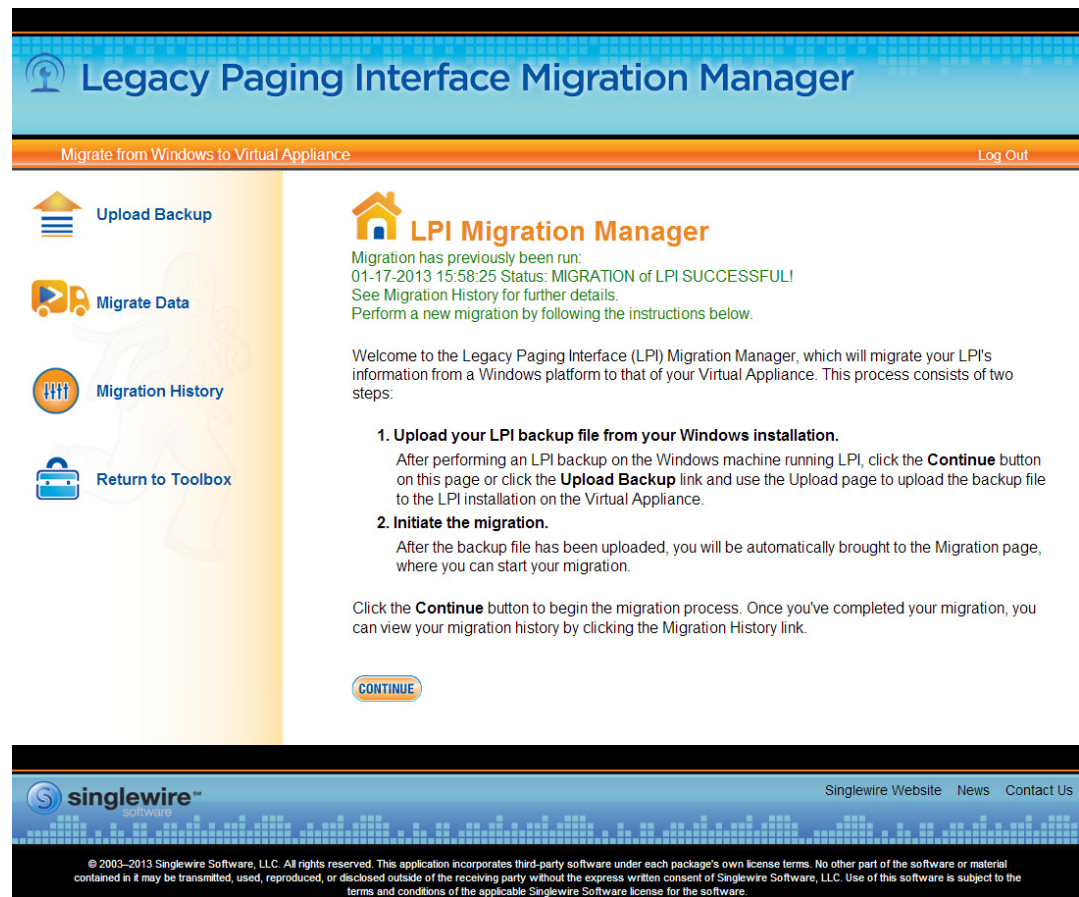
You can view your migration history by clicking the **Migration History** link. The LPI Migration History page appears.

The screenshot displays the 'Legacy Paging Interface Migration Manager' web interface. The header bar is blue with the title 'Legacy Paging Interface Migration Manager' and a 'Log Out' link. Below the header, there's a navigation sidebar on the left with four options: 'Upload Backup', 'Migrate Data', 'Migration History' (which is highlighted in orange), and 'Return to Toolbox'. The main content area is titled 'LPI Migration History' and shows a list of migration events. The events are as follows:

Date/Time	Status	Description
01-17-2013 15:56:54	UPLOAD	of the LPI backup file was successful!
01-17-2013 15:58:25	Starting the MIGRATION	of the LPI backup file.
01-17-2013 15:58:25	MIGRATION	of LPI SUCCESSFUL!

The footer of the application includes the Singlewire logo, a copyright notice for 2003-2013, and links to the Singlewire Website, News, and Contact Us page.

If a migration has been previously run, when you log into the Legacy Paging Interface Migration Manager, the homepage will list the statistics of the last migration.



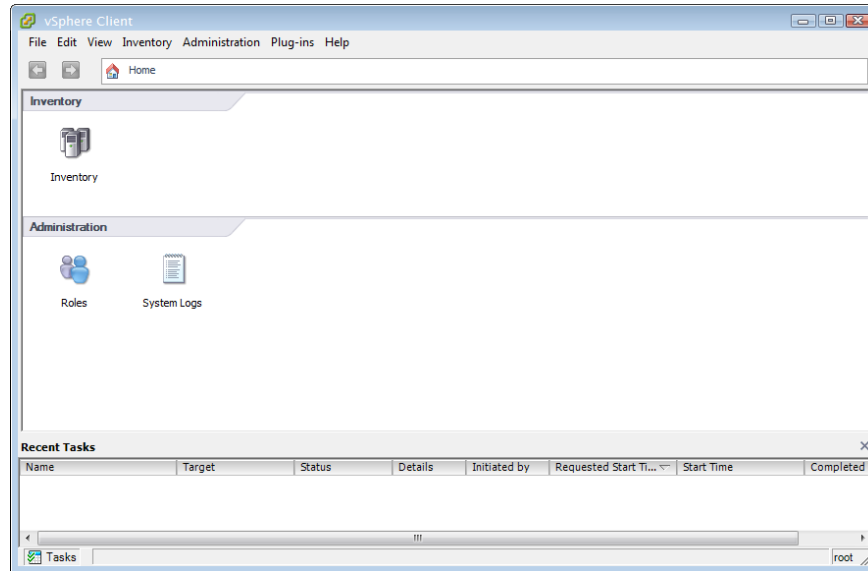
Step 10 Update your version of JTAPI (see “Update JTAPI” on page 83).

Step 11 Start the applicable Virtual Appliance service(s), e.g. InformaCast, CallAware, and the LPI, (see “Start an Application on InformaCast EX” on page 69).

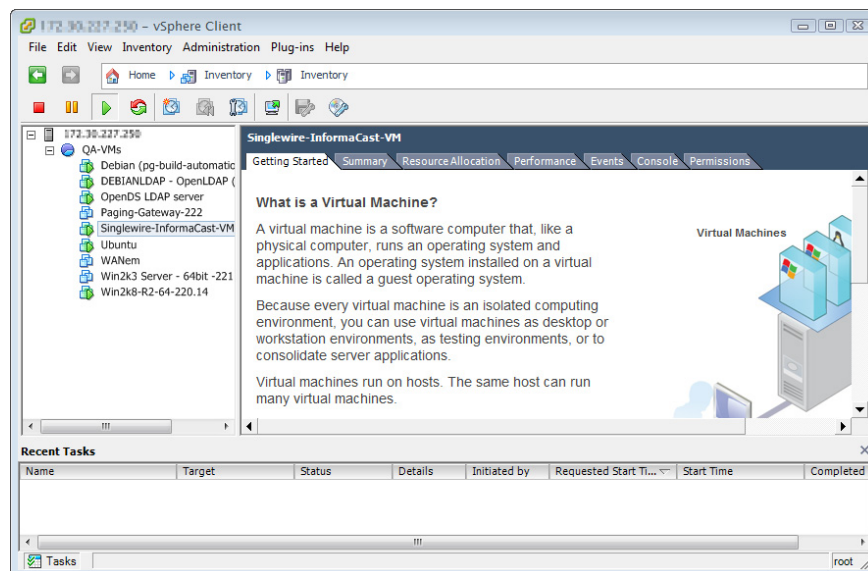
Change the InformaCast EX Server's Password

For tighter security, you may want to change the InformaCast EX server's default password.

Step 1 Open and log into the vSphere client. The vSphere Client window appears.

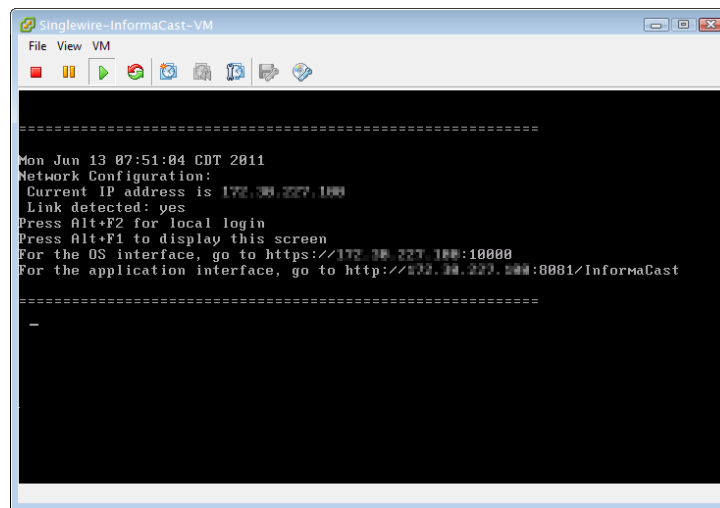


Step 2 Click the **Inventory** icon (🗄️) on the vSphere Client window. The vSphere Client window refreshes.

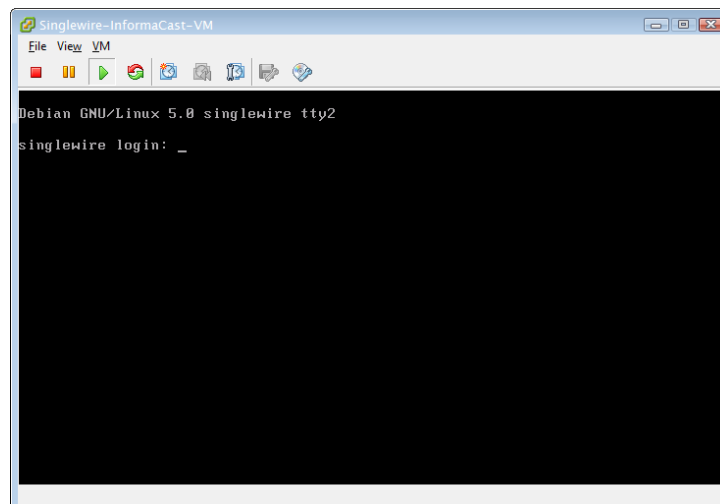


Step 3 Select your virtual machine (by default, this is Singlewire InformaCast VM).

Step 4 Go to **Inventory** | **Virtual Machine** | **Open Console**. The Singlewire InformaCast VM console window appears.

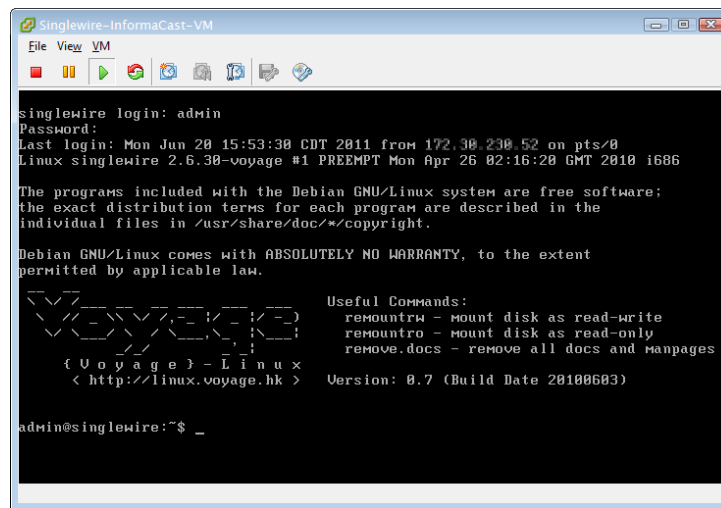


Step 5 Press **Alt + F2** in the Singlewire InformaCast VM console window. The Singlewire InformaCast VM console window refreshes.



Step 6 Enter **admin** at the **singlewire login** prompt and press **Enter**.

- Step 7** Enter **changeMe** at the **Password** prompt and press **Enter**. The Singlewire InformaCast VM console window refreshes.



```

Singlewire login: admin
Password:
Last login: Mon Jun 20 15:53:30 CDT 2011 from 172.30.230.52 on pts/0
Linux singlewire 2.6.30-voyage #1 PREEMPT Mon Apr 26 02:16:20 GMT 2010 i686

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.

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     / _ _ _ _ \
    / _ _ _ _ \
   / _ _ _ _ \
  / _ _ _ _ \
 / _ _ _ _ \
/_ _ _ _ _ \
{ U o y a g e } - L i n u x
< http://linux.voyage.hk >

Useful Commands:
remountrw - mount disk as read-write
remountro - mount disk as read-only
remove.docs - remove all docs and Manpages
Version: 0.7 (Build Date 20100603)

admin@singlewire:~$ _

```

- Step 8** Enter **sudo changePassword** at the command prompt and press **Enter**.
- Step 9** Enter your new password at the **Enter new UNIX password** prompt and press **Enter**.
- Step 10** Confirm your new password by entering it again at the **Retype new UNIX password** prompt and press **Enter**. Your password is changed and you will see, “passwd: password updated successfully”.



Note Your new password needs to be used for both the administrative web and command interfaces.

Stop an Application on InformaCast EX

Follow these steps to stop individual applications on InformaCast EX.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access System Management Tools with Webmin** link. A separate tab/window opens to the Login to Webmin page.

Login to Webmin

You must enter a username and password to login to the Webmin server on 172.30.228.26.

Username

Password

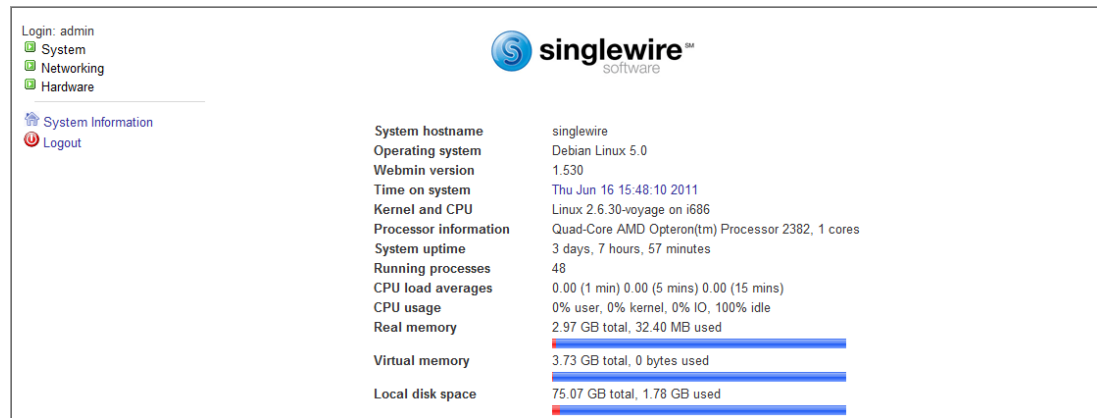
☐ Remember login permanently?



Note

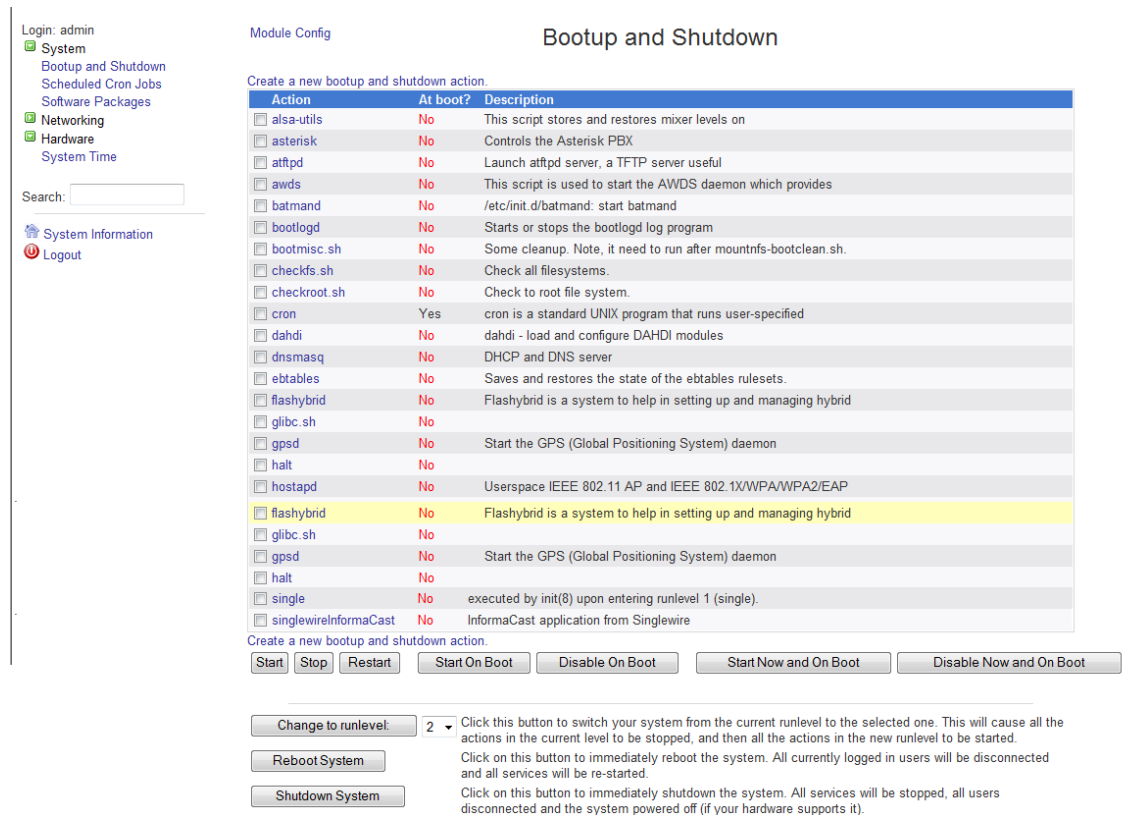
You may have to accept a warning from your web browser about the security of this page's content.

Step 3 Enter your login credentials and click the **Login** button. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server's homepage appears.



The screenshot shows the InformaCast EX server homepage. On the left is a sidebar with navigation links: Login: admin, System (selected), Networking, Hardware, System Information, and Logout. The main content area displays system information for a server named 'singlewire'. The information includes: Operating system (Debian Linux 5.0), Webmin version (1.530), Time on system (Thu Jun 16 15:48:10 2011), Kernel and CPU (Linux 2.6.30-voyage on i686), Processor information (Quad-Core AMD Opteron(tm) Processor 2382, 1 cores), System uptime (3 days, 7 hours, 57 minutes), Running processes (48), CPU load averages (0.00 (1 min) 0.00 (5 mins) 0.00 (15 mins)), CPU usage (0% user, 0% kernel, 0% IO, 100% idle), Real memory (2.97 GB total, 32.40 MB used), Virtual memory (3.73 GB total, 0 bytes used), and Local disk space (75.07 GB total, 1.78 GB used). The Singlewire logo is in the top right corner.

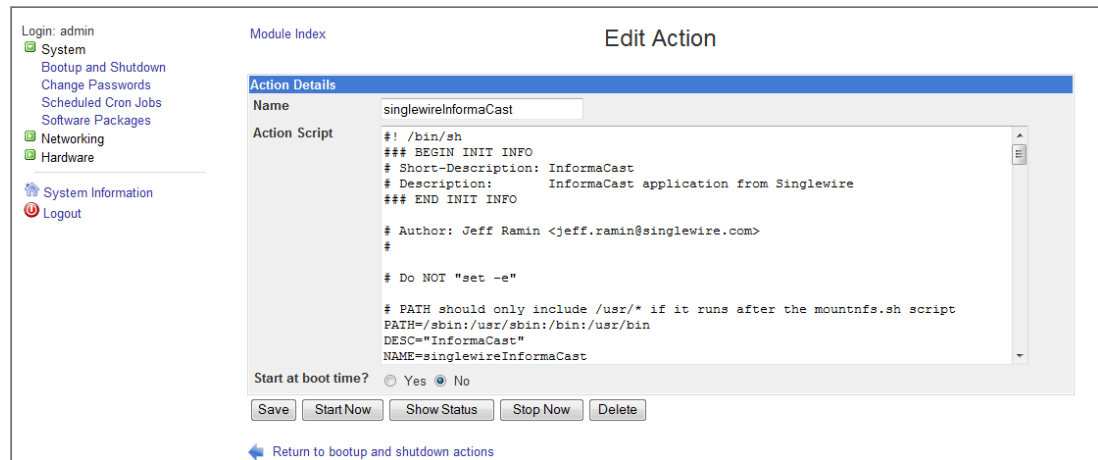
Step 4 Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.



The screenshot shows the 'Bootup and Shutdown' page in the InformaCast EX administration interface. The sidebar on the left has 'System' selected, with sub-links for Bootup and Shutdown, Scheduled Cron Jobs, Software Packages, Networking, Hardware, and System Time. The main content area is titled 'Module Config' and 'Bootup and Shutdown'. It contains a table of services with columns for 'Action', 'At boot?', and 'Description'. The 'At boot?' column has a red 'No' for most services and a green 'Yes' for 'cron'. The 'Description' column provides details for each service. Below the table are buttons for 'Start', 'Stop', 'Restart', 'Start On Boot', 'Disable On Boot', 'Start Now and On Boot', and 'Disable Now and On Boot'. At the bottom, there are buttons for 'Change to runlevel:', 'Reboot System', and 'Shutdown System', along with a dropdown menu for selecting a runlevel (currently set to 2).

Action	At boot?	Description
<input type="checkbox"/> alsa-utils	No	This script stores and restores mixer levels on
<input type="checkbox"/> asterisk	No	Controls the Asterisk PBX
<input type="checkbox"/> atftpd	No	Launch atftpd server, a TFTP server useful
<input type="checkbox"/> awds	No	This script is used to start the AWDS daemon which provides
<input type="checkbox"/> batmand	No	/etc/init.d/batmand: start batmand
<input type="checkbox"/> bootlogd	No	Starts or stops the bootlogd log program
<input type="checkbox"/> bootmisc.sh	No	Some cleanup. Note, it need to run after mountnfs-bootclean.sh.
<input type="checkbox"/> checkfs.sh	No	Check all filesystems.
<input type="checkbox"/> checkroot.sh	No	Check to root file system.
<input type="checkbox"/> cron	Yes	cron is a standard UNIX program that runs user-specified
<input type="checkbox"/> dahdi	No	dahdi - load and configure DAHDI modules
<input type="checkbox"/> dnsmasq	No	DHCP and DNS server
<input type="checkbox"/> ebtables	No	Saves and restores the state of the ebtables rulesets.
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> hostapd	No	Userspace IEEE 802.11 AP and IEEE 802.1X/WPA/WPA2/EAP
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> singlewireInformaCast	No	InformaCast application from Singlewire

- Step 5** Scroll down the list of actions until you come to your application's name (e.g. **singlewireInformaCast**). Click its link. The Edit Action page appears.



Login: admin

Module Index

Edit Action

Action Details

Name: singlewireInformaCast

Action Script:

```
#!/bin/sh
### BEGIN INIT INFO
# Short-Description: InformaCast
# Description: InformaCast application from Singlewire
### END INIT INFO

# Author: Jeff Ramin <jeff.ramin@singlewire.com>
#

# Do NOT "set -e"

# PATH should only include /usr/* if it runs after the mountnfs.sh script
PATH=/sbin:/usr/sbin:/bin:/usr/bin
DESC="InformaCast"
NAME=singlewireInformaCast
```

Start at boot time? ☒ Yes ☐ No

Save Start Now Show Status Stop Now Delete

[Return to bootup and shutdown actions](#)

- Step 6** Click the **Stop Now** button. It will take a minute or so for the application to stop.



Login: admin

Module Index

Stop Action

Executing /etc/init.d/singlewireInformaCast stop ..

Start an Application on InformaCast EX

Follow these steps to start individual applications on InformaCast EX.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access System Management Tools with Webmin** link. A separate tab/window opens to the Login to Webmin page.

Login to Webmin

You must enter a username and password to login to the Webmin server on 172.30.228.26.

Username

Password

☐ Remember login permanently?



Note

You may have to accept a warning from your web browser about the security of this page's content.

Step 3 Enter your login credentials and click the **Login** button. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server's homepage appears.

The screenshot shows the InformaCast EX server homepage. On the left is a sidebar with navigation links: Login: admin, System (selected), Networking, Hardware, System Information, and Logout. The main content area displays the Singlewire logo and a list of system information:

- System hostname: singlewire
- Operating system: Debian Linux 5.0
- Webmin version: 1.530
- Time on system: Thu Jun 16 15:48:10 2011
- Kernel and CPU: Linux 2.6.30-voyage on i686
- Processor information: Quad-Core AMD Opteron(tm) Processor 2382, 1 cores
- System uptime: 3 days, 7 hours, 57 minutes
- Running processes: 48
- CPU load averages: 0.00 (1 min) 0.00 (5 mins) 0.00 (15 mins)
- CPU usage: 0% user, 0% kernel, 0% IO, 100% idle
- Real memory: 2.97 GB total, 32.40 MB used
- Virtual memory: 3.73 GB total, 0 bytes used
- Local disk space: 75.07 GB total, 1.78 GB used

Step 4 Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.

The screenshot shows the 'Bootup and Shutdown' configuration page. The sidebar on the left has the following navigation links: Login: admin, System (selected), Bootup and Shutdown (selected), Scheduled Cron Jobs, Software Packages, Networking, Hardware, System Time, System Information, and Logout. The main content area is titled 'Module Config' and 'Bootup and Shutdown'. It includes a table of modules and their boot status, a search bar, and several action buttons.

Action	At boot?	Description
<input type="checkbox"/> alsa-utils	No	This script stores and restores mixer levels on
<input type="checkbox"/> asterisk	No	Controls the Asterisk PBX
<input type="checkbox"/> atftpd	No	Launch atftpd server, a TFTP server useful
<input type="checkbox"/> awds	No	This script is used to start the AWDS daemon which provides
<input type="checkbox"/> batmand	No	/etc/init.d/batmand: start batmand
<input type="checkbox"/> bootlogd	No	Starts or stops the bootlogd log program
<input type="checkbox"/> bootmisc.sh	No	Some cleanup. Note, it need to run after mountnfs-bootclean.sh.
<input type="checkbox"/> checkfs.sh	No	Check all filesystems.
<input type="checkbox"/> checkroot.sh	No	Check to root file system.
<input type="checkbox"/> cron	Yes	cron is a standard UNIX program that runs user-specified
<input type="checkbox"/> dahdi	No	dahdi - load and configure DAHDI modules
<input type="checkbox"/> dnsmasq	No	DHCP and DNS server
<input type="checkbox"/> ebtables	No	Saves and restores the state of the ebtables rulesets.
<input type="checkbox"/> flashybrid	No	Flashybrid is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> hostapd	No	Userspace IEEE 802.11 AP and IEEE 802.1X/WPA/WPA2/EAP
<input type="checkbox"/> flashybrid	No	Flashybrid is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> singlewireInformaCast	No	InformaCast application from Singlewire

Below the table, there are buttons for 'Start', 'Stop', 'Restart', 'Start On Boot', 'Disable On Boot', 'Start Now and On Boot', and 'Disable Now and On Boot'. At the bottom, there is a 'Change to runlevel:' dropdown set to '2', and buttons for 'Reboot System' and 'Shutdown System'. A detailed explanation of the runlevel change button is provided on the right.

- Step 5** Scroll down the list of actions until you come to your application's name (e.g. **singlewireInformaCast**). Click its link. The Edit Action page appears.

Login: admin

Module Index

Edit Action

Action Details

Name: singlewireInformaCast

Action Script

```
#!/bin/sh
### BEGIN INIT INFO
# Short-Description: InformaCast
# Description: InformaCast application from Singlewire
### END INIT INFO

# Author: Jeff Ramin <jeff.ramin@singlewire.com>
#

# Do NOT "set -e"

# PATH should only include /usr/* if it runs after the mountnfs.sh script
PATH=/sbin:/usr/sbin:/bin:/usr/bin
DESC="InformaCast"
NAME=singlewireInformaCast
```

Start at boot time? ☒ Yes ☐ No

Save Start Now Show Status Stop Now Delete

[Return to bootup and shutdown actions](#)

- Step 6** Click the **Start Now** button. It will take a minute or so for the application to start.

Login: admin

Module Index

Start Action

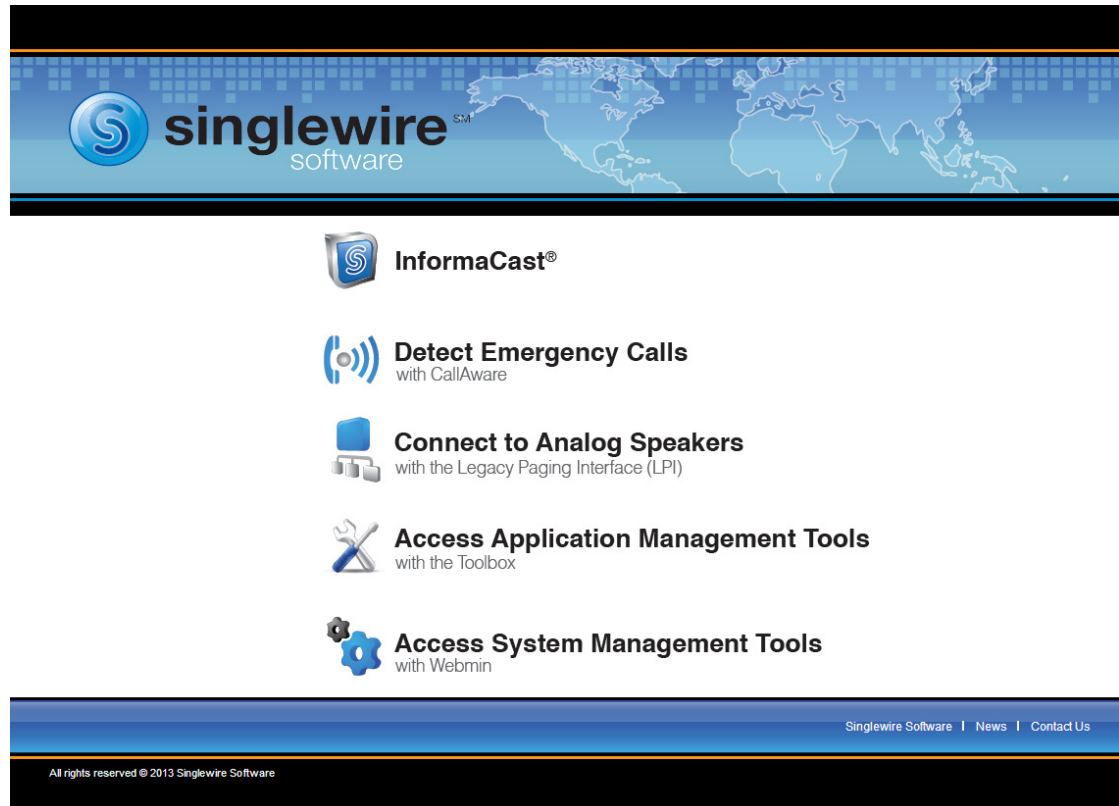
Executing /etc/init.d/singlewireInformaCast start ..

[Return to action](#)

Restart an Application on InformaCast EX

Follow these steps to restart individual applications on InformaCast EX.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.

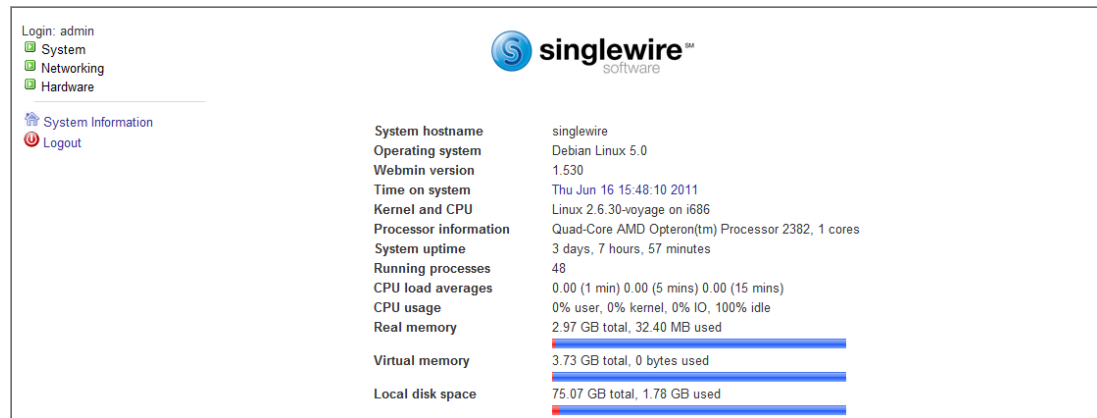


- Step 2** Click the **Access System Management Tools with Webmin** link. A separate tab/window opens to the Login to Webmin page.

The screenshot shows the 'Login to Webmin' page. It has a blue header with the title 'Login to Webmin'. Below the header, there is a message: 'You must enter a username and password to login to the Webmin server on 172.30.228.26.' There are two input fields for 'Username' and 'Password'. Below the password field is a checkbox labeled 'Remember login permanently?'. At the bottom are two buttons: 'Login' and 'Clear'.**Note**

You may have to accept a warning from your web browser about the security of this page's content.

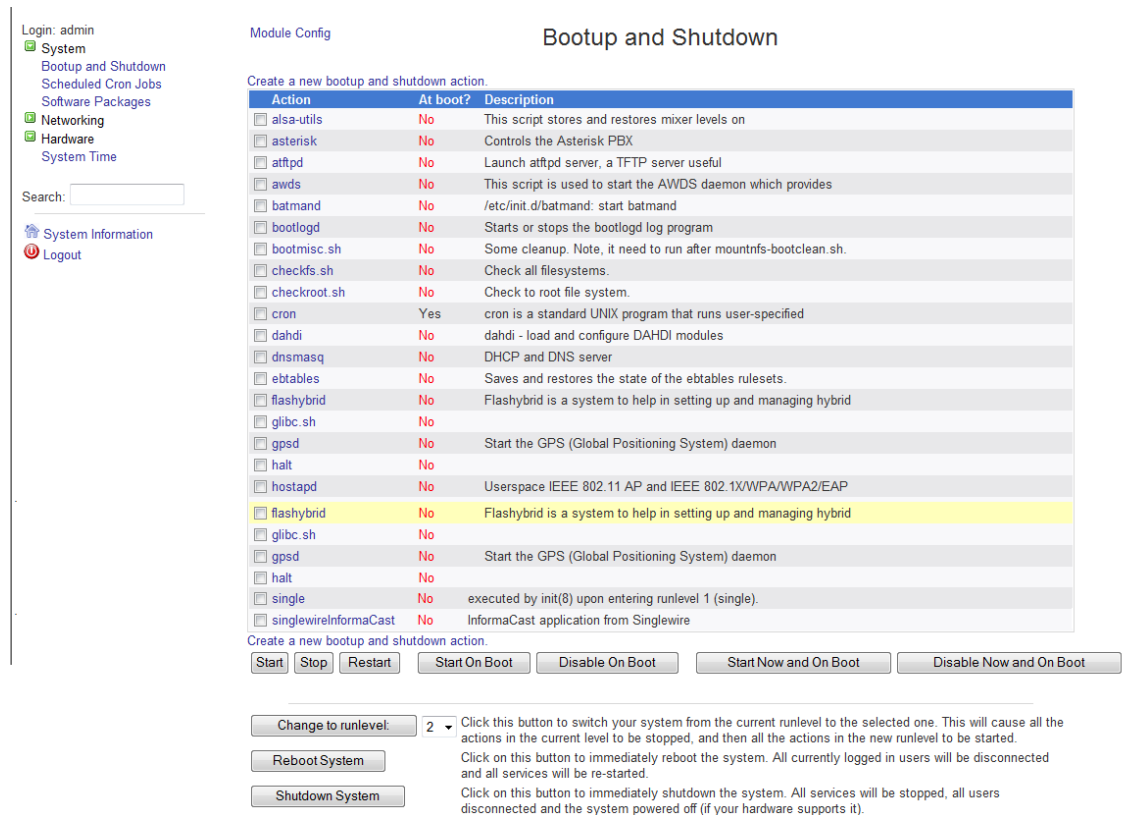
Step 3 Enter your login credentials and click the **Login** button. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server's homepage appears.



The screenshot shows the InformaCast EX server homepage. On the left is a sidebar with navigation links: Login: admin, System (selected), Networking, Hardware, System Information, and Logout. The main content area displays the SingleWire logo and a list of system information:

- System hostname: singlewire
- Operating system: Debian Linux 5.0
- Webmin version: 1.530
- Time on system: Thu Jun 16 15:48:10 2011
- Kernel and CPU: Linux 2.6.30-voyage on i686
- Processor information: Quad-Core AMD Opteron(tm) Processor 2382, 1 cores
- System uptime: 3 days, 7 hours, 57 minutes
- Running processes: 48
- CPU load averages: 0.00 (1 min) 0.00 (5 mins) 0.00 (15 mins)
- CPU usage: 0% user, 0% kernel, 0% IO, 100% idle
- Real memory: 2.97 GB total, 32.40 MB used
- Virtual memory: 3.73 GB total, 0 bytes used
- Local disk space: 75.07 GB total, 1.78 GB used

Step 4 Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.

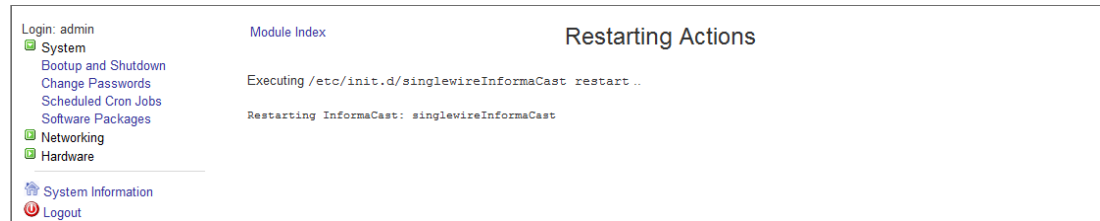


The screenshot shows the 'Bootup and Shutdown' page in the InformaCast EX interface. The sidebar on the left has 'System' selected, with sub-links for Bootup and Shutdown, Scheduled Cron Jobs, Software Packages, Networking, Hardware, and System Time. The main content area is titled 'Module Config' and 'Bootup and Shutdown'. It features a table of system services and their boot status:

Action	At boot?	Description
<input type="checkbox"/> alsa-utils	No	This script stores and restores mixer levels on
<input type="checkbox"/> asterisk	No	Controls the Asterisk PBX
<input type="checkbox"/> atftpd	No	Launch atftpd server, a TFTP server useful
<input type="checkbox"/> awds	No	This script is used to start the AWDS daemon which provides
<input type="checkbox"/> batmand	No	/etc/init.d/batmand: start batmand
<input type="checkbox"/> bootlogd	No	Starts or stops the bootlogd log program
<input type="checkbox"/> bootmisc.sh	No	Some cleanup. Note, it need to run after mountnfs-bootclean.sh.
<input type="checkbox"/> checkfs.sh	No	Check all filesystems.
<input type="checkbox"/> checkroot.sh	No	Check to root file system.
<input type="checkbox"/> cron	Yes	cron is a standard UNIX program that runs user-specified
<input type="checkbox"/> dahdi	No	dahdi - load and configure DAHDI modules
<input type="checkbox"/> dnsmasq	No	DHCP and DNS server
<input type="checkbox"/> ebtables	No	Saves and restores the state of the ebtables rulesets.
<input type="checkbox"/> flashybrid	No	Flashybrid is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> hostapd	No	Userspace IEEE 802.11 AP and IEEE 802.1X/WPA/WPA2/EAP
<input type="checkbox"/> flashybrid	No	Flashybrid is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> singlewireInformaCast	No	InformaCast application from SingleWire

Below the table, there are buttons for 'Start', 'Stop', 'Restart', 'Start On Boot', 'Disable On Boot', 'Start Now and On Boot', and 'Disable Now and On Boot'. At the bottom, there is a 'Change to runlevel:' dropdown set to '2', and buttons for 'Reboot System' and 'Shutdown System'. A detailed explanation of the 'Change to runlevel:' button is provided on the right.

- Step 5** Scroll down the list of actions until you come to your application's name (e.g. **singlewireInformaCast**). Select it by placing a checkmark in its Action column and click the **Restart** button. The Restarting Actions page appears.

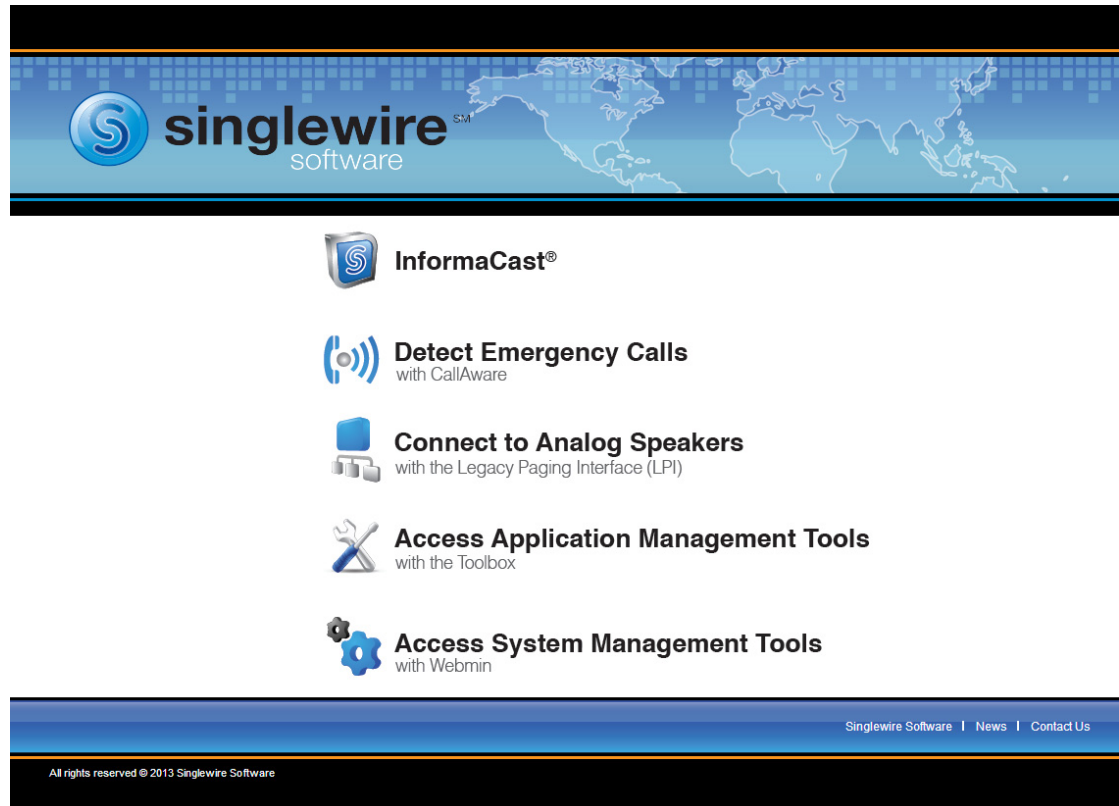


It will take a minute for your application to restart.

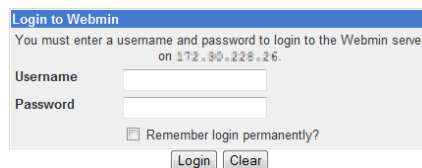
Reboot the InformaCast EX Server

Follow these steps to reboot the InformaCast EX server.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access System Management Tools with Webmin** link. A separate tab/window opens to the Login to Webmin page.

**Note**

You may have to accept a warning from your web browser about the security of this page's content.

Step 3 Enter your login credentials and click the **Login** button. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server's homepage appears.

The screenshot shows the InformaCast EX server homepage. On the left is a sidebar with navigation links: Login: admin, System (selected), Networking, Hardware, System Information, and Logout. The main content area displays the Singlewire logo and a list of system information:

System hostname	singlewire
Operating system	Debian Linux 5.0
Webmin version	1.530
Time on system	Thu Jun 16 15:48:10 2011
Kernel and CPU	Linux 2.6.30-voyage on i686
Processor information	Quad-Core AMD Opteron(tm) Processor 2382, 1 cores
System uptime	3 days, 7 hours, 57 minutes
Running processes	48
CPU load averages	0.00 (1 min) 0.00 (5 mins) 0.00 (15 mins)
CPU usage	0% user, 0% kernel, 0% IO, 100% idle
Real memory	2.97 GB total, 32.40 MB used
Virtual memory	3.73 GB total, 0 bytes used
Local disk space	75.07 GB total, 1.78 GB used

Step 4 Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.

The screenshot shows the 'Bootup and Shutdown' configuration page. The sidebar on the left has 'System' selected, with sub-links for 'Bootup and Shutdown' (selected), 'Scheduled Cron Jobs', 'Software Packages', 'Networking', 'Hardware', and 'System Time'. The main content area is titled 'Module Config' and 'Bootup and Shutdown'. It includes a search bar and a table of modules to be configured.

Action	At boot?	Description
<input type="checkbox"/> alsa-utils	No	This script stores and restores mixer levels on
<input type="checkbox"/> asterisk	No	Controls the Asterisk PBX
<input type="checkbox"/> atftpd	No	Launch atftpd server, a TFTP server useful
<input type="checkbox"/> awds	No	This script is used to start the AWDS daemon which provides
<input type="checkbox"/> batmand	No	/etc/init.d/batmand: start batmand
<input type="checkbox"/> bootlogd	No	Starts or stops the bootlogd log program
<input type="checkbox"/> bootmisc.sh	No	Some cleanup. Note, it need to run after mountnfs-bootclean.sh.
<input type="checkbox"/> checkfs.sh	No	Check all filesystems.
<input type="checkbox"/> checkroot.sh	No	Check to root file system.
<input type="checkbox"/> cron	Yes	cron is a standard UNIX program that runs user-specified
<input type="checkbox"/> dahdi	No	dahdi - load and configure DAHDI modules
<input type="checkbox"/> dnsmasq	No	DHCP and DNS server
<input type="checkbox"/> ebttables	No	Saves and restores the state of the ebttables rulesets.
<input type="checkbox"/> flashybrid	No	Flashybrid is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> hostapd	No	Userspace IEEE 802.11 AP and IEEE 802.1X/WPA/WPA2/EAP
<input type="checkbox"/> flashybrid	No	Flashybrid is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> singlewireInformaCast	No	InformaCast application from Singlewire

Below the table are buttons: Start, Stop, Restart, Start On Boot, Disable On Boot, Start Now and On Boot, and Disable Now and On Boot. At the bottom, there is a 'Change to runlevel:' dropdown set to '2', and buttons for 'Reboot System' and 'Shutdown System'. A detailed explanation of the runlevel change is provided:

Click this button to switch your system from the current runlevel to the selected one. This will cause all the actions in the current level to be stopped, and then all the actions in the new runlevel to be started.

Click on this button to immediately reboot the system. All currently logged in users will be disconnected and all services will be re-started.

Click on this button to immediately shutdown the system. All services will be stopped, all users disconnected and the system powered off (if your hardware supports it).

Step 5 Scroll to the bottom of the page and click the **Reboot System** button. The Reboot page appears.



Step 6 Click the **Reboot System** button. The server will shutdown, then restart.

Change InformaCast EX's IP Address

When changing the IP address of the InformaCast EX server, use the following steps.



Note

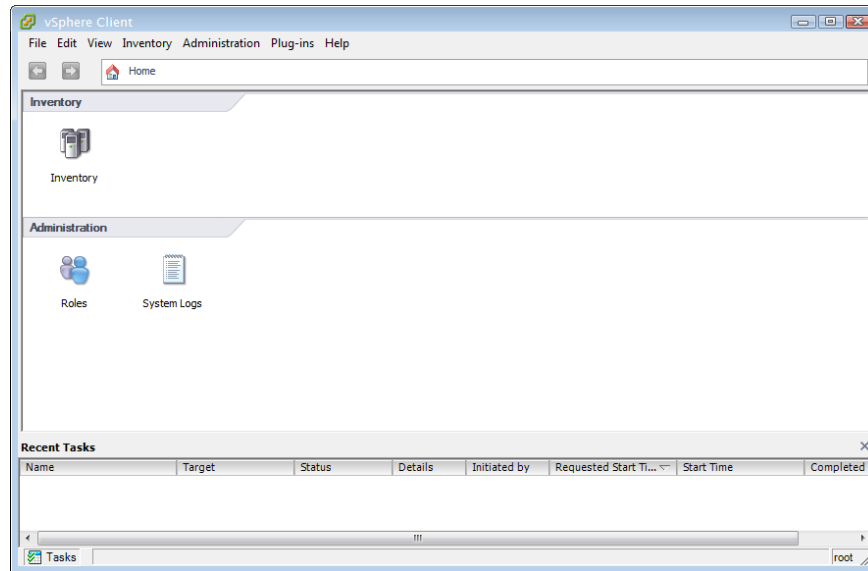
Performing these steps will set all of your Singlewire applications to start when the server boots.




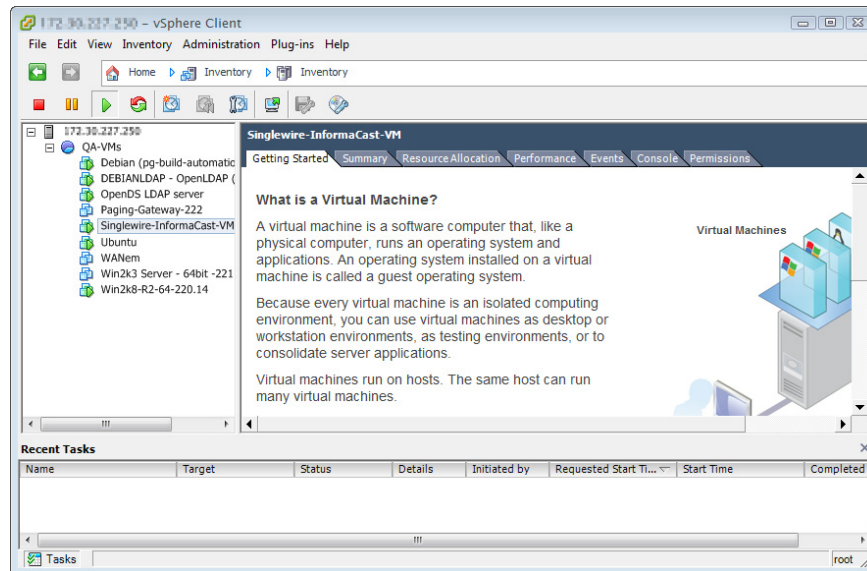
Warning

If you plan to switch between Basic and Advanced InformaCast and you change your IP address, you will need to redeploy the InformaCast OVA (see "Install a Software Package" on page 17).

- Step 1** Contact your salesperson at sales@singlewire.com to obtain a new license key for the new IP address.
- Step 2** Stop your Singlewire applications (see "Stop an Application on InformaCast EX" on page 66).
- Step 3** Open and log into the vSphere client. The vSphere Client window appears.

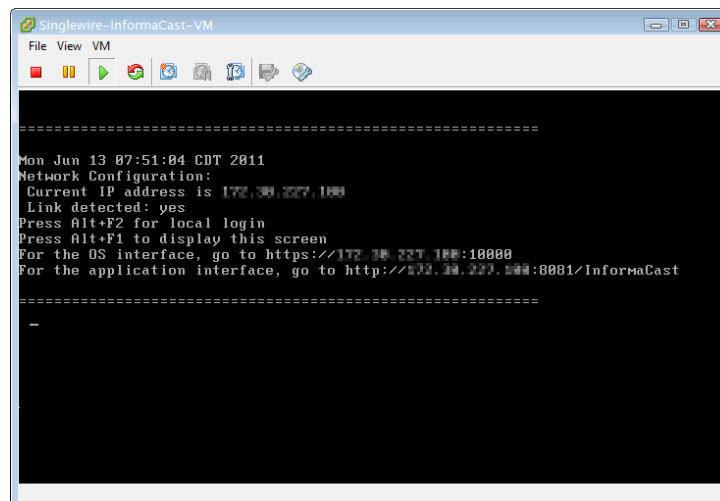


Step 4 Click the **Inventory** icon () on the vSphere Client window. The vSphere Client window refreshes.

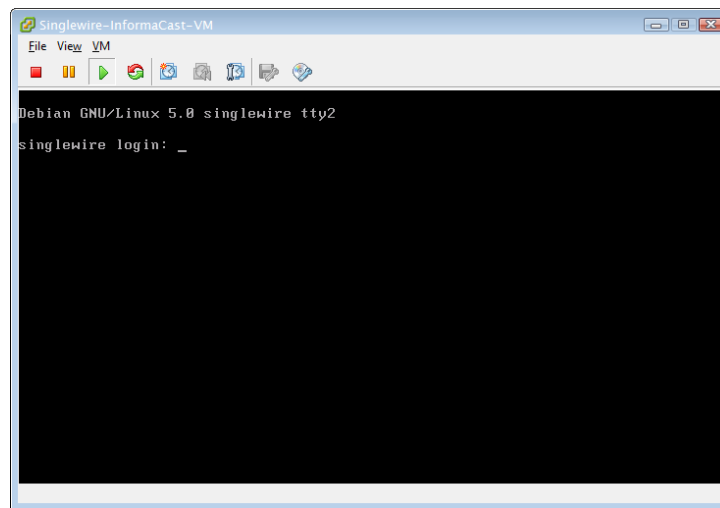


Step 5 Select your virtual machine (by default, this is Singlewire InformaCast VM).

Step 6 Go to **Inventory** | **Virtual Machine** | **Open Console**. The Singlewire InformaCast VM console window appears.

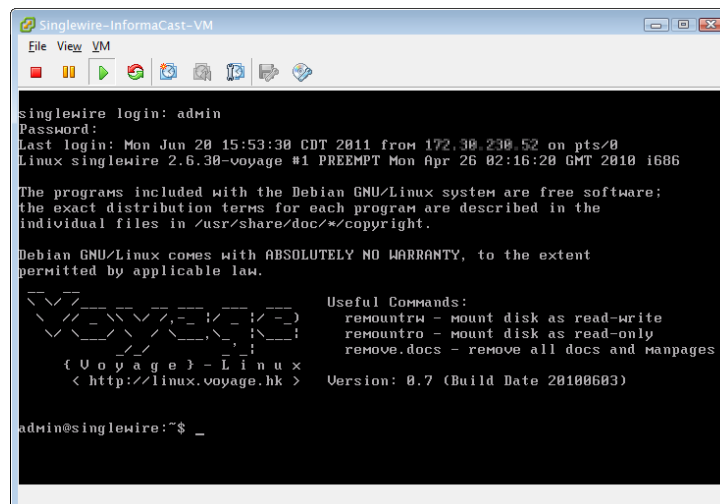


- Step 7** Press **Alt + F2** in the Singlewire InformaCast VM console window. The Singlewire InformaCast VM console window refreshes.

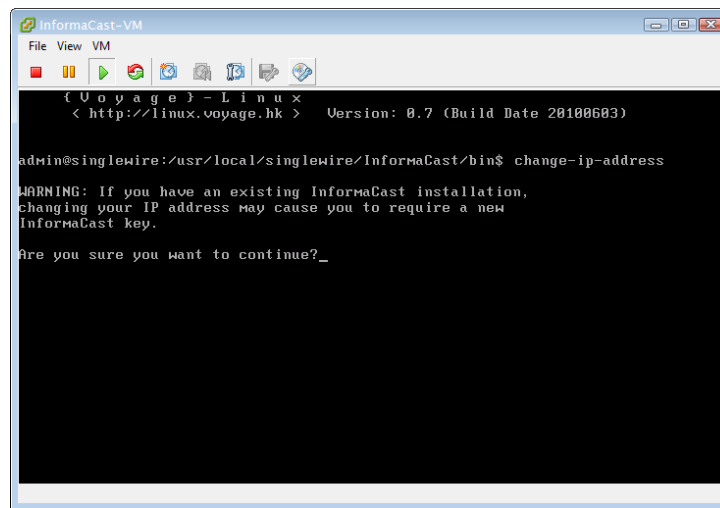


- Step 8** Enter **admin** at the **singlewire login** prompt and press **Enter**.

- Step 9** Enter **changeMe** at the **Password** prompt and press **Enter**. The Singlewire InformaCast VM console window refreshes.



Step 10 Enter **change-ip-address** and press **Enter**. The Singlewire InformaCast VM console window refreshes.



```
InformaCast-VM
File View VM
{ U o y a g e } - L i n u x
< http://linux.voyage.hk > Version: 0.7 (Build Date 20100603)

admin@singlewire:/usr/local/singlewire/InformaCast/bin$ change-ip-address

WARNING: If you have an existing InformaCast installation,
changing your IP address may cause you to require a new
InformaCast key.

Are you sure you want to continue?_
```

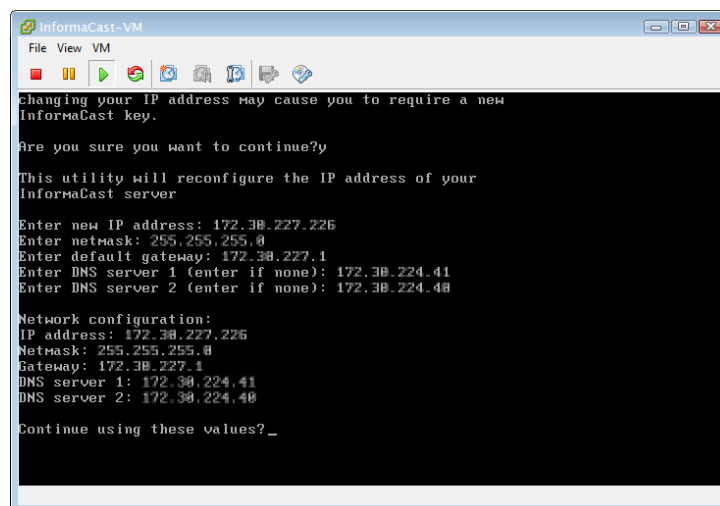
Step 11 Enter **Y** and press **Enter**.

Step 12 Enter a routable IP address on your network that's not currently in use and press **Enter**.

Step 13 Enter a valid netmask for that IP address and press **Enter**.

Step 14 Enter the default gateway for your specified IP address and press **Enter**.

Step 15 Enter the IP address(es) of a DNS server(s) on your network and press **Enter**.



```
InformaCast-VM
File View VM
Changing your IP address may cause you to require a new
InformaCast key.

Are you sure you want to continue?y

This utility will reconfigure the IP address of your
InformaCast server

Enter new IP address: 172.30.227.226
Enter netmask: 255.255.255.0
Enter default gateway: 172.30.227.1
Enter DNS server 1 (enter if none): 172.30.224.41
Enter DNS server 2 (enter if none): 172.30.224.40

Network configuration:
IP address: 172.30.227.226
Netmask: 255.255.255.0
Gateway: 172.30.227.1
DNS server 1: 172.30.224.41
DNS server 2: 172.30.224.40

Continue using these values?_
```

Step 16 Enter **Y** and press **Enter**.

Step 17 Enter **Exit** and press **Enter**.

Step 18 Log into License Manager and apply your new license (see “Manage Your License Key” on page 27).

Step 19 For InformaCast, log into Communications Manager, go to **System | Enterprise Parameters**, and change the **URL Authentication** field to reflect your new IP address. Also, go to **Device | Device Settings | Phone Services**, and change the IP address for any InformaCast service URLs you have created.



Note If you are using Communications Manager 8.x, you will need to enter this IP address in the **Secured Authentication URL** field as well.



Note You need to use the **Update Subscriptions** button whenever you change service information, so that any subscribed phones are properly updated.



Note InformaCast SIP certificates are regenerated whenever InformaCast is installed or its IP address is changed, so if you are using TLS protocol with SIP, you will need to install the InformaCast SIP certificate on all Communications Managers in your InformaCast environment (see “Install the InformaCast SIP Certificate on a SIP Device” in the “InformaCast Installation and User Guide.”)

Step 20 Reset all of your phones.

Update JTAPI

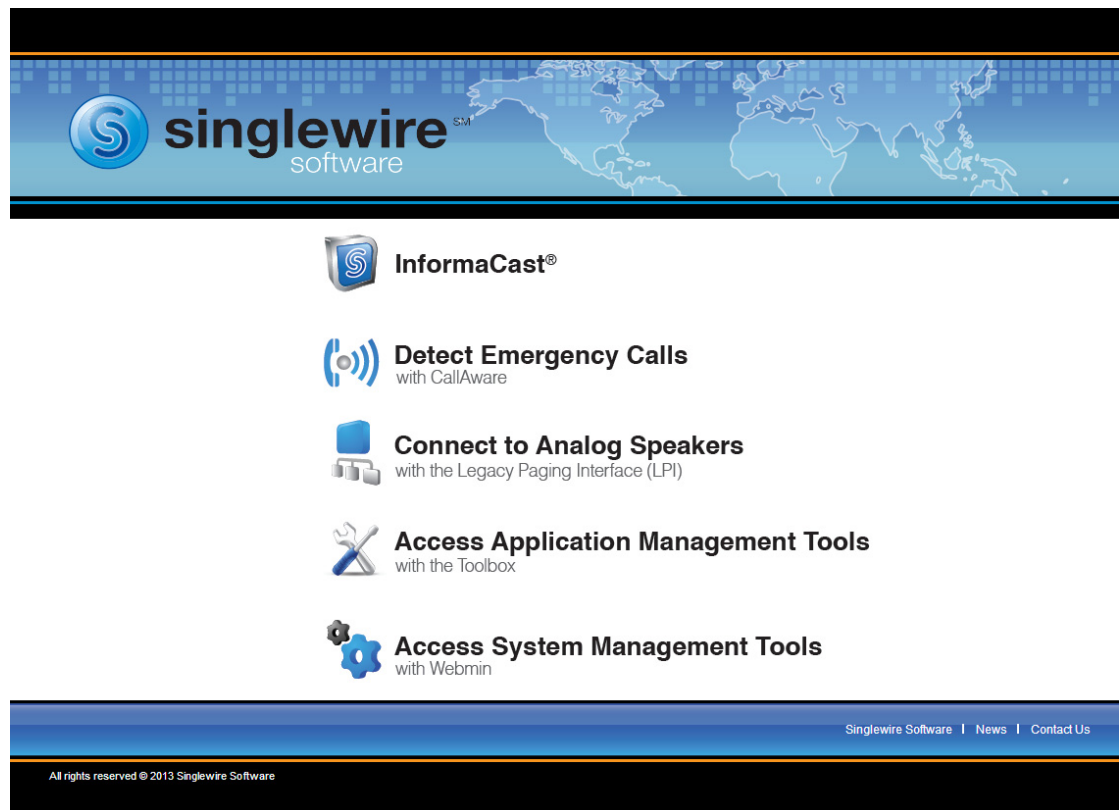
When you initially install InformaCast EX or whenever you change versions of Communications Manager, you need to update the JTAPI library used by InformaCast EX to the same version used by your Communications Manager server.



Note

Updating JTAPI through the Virtual Appliance will update the JTAPI version for all of the Singlewire applications that use JTAPI.

- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



- Step 2** Click the **Access System Management Tools with Webmin** link. A separate tab/window opens to the Login to Webmin page.

Login to Webmin

You must enter a username and password to login to the Webmin server on 172.30.228.26.

Username

Password

☐ Remember login permanently?

Login

Clear

**Note**

You may have to accept a warning from your web browser about the security of this page's content.

- Step 3** Enter your login credentials and click the **Login** button. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server's homepage appears.

singlewire™
software

System hostname: singlewire
 Operating system: Debian Linux 5.0
 Webmin version: 1.530
 Time on system: Thu Jun 16 15:48:10 2011
 Kernel and CPU: Linux 2.6.30-voyage on i686
 Processor information: Quad-Core AMD Opteron(tm) Processor 2382, 1 cores
 System uptime: 3 days, 7 hours, 57 minutes
 Running processes: 48
 CPU load averages: 0.00 (1 min) 0.00 (5 mins) 0.00 (15 mins)
 CPU usage: 0% user, 0% kernel, 0% IO, 100% idle
 Real memory: 2.97 GB total, 32.40 MB used
 Virtual memory: 3.73 GB total, 0 bytes used
 Local disk space: 75.07 GB total, 1.78 GB used

- Step 4** Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.

Module Config

Bootup and Shutdown

Create a new bootup and shutdown action.

Action	At boot?	Description
<input type="checkbox"/> alsa-utils	No	This script stores and restores mixer levels on
<input type="checkbox"/> asterisk	No	Controls the Asterisk PBX
<input type="checkbox"/> atftpd	No	Launch atftpd server, a TFTP server useful
<input type="checkbox"/> awds	No	This script is used to start the AWDS daemon which provides
<input type="checkbox"/> batmand	No	/etc/init.d/batmand: start batmand
<input type="checkbox"/> bootlogd	No	Starts or stops the bootlogd log program
<input type="checkbox"/> bootmisc.sh	No	Some cleanup. Note, it need to run after mountnfs-bootclean.sh.
<input type="checkbox"/> checkfs.sh	No	Check all filesystems.
<input type="checkbox"/> checkroot.sh	No	Check to root file system.
<input type="checkbox"/> cron	Yes	cron is a standard UNIX program that runs user-specified
<input type="checkbox"/> dahdi	No	dahdi - load and configure DAHDI modules
<input type="checkbox"/> dnsmasq	No	DHCP and DNS server
<input type="checkbox"/> ebttables	No	Saves and restores the state of the ebttables rulesets.
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> hostapd	No	Userspace IEEE 802.11 AP and IEEE 802.1X/WPA/WPA2/EAP
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> singlewireInformaCast	No	InformaCast application from Singlewire

Create a new bootup and shutdown action.

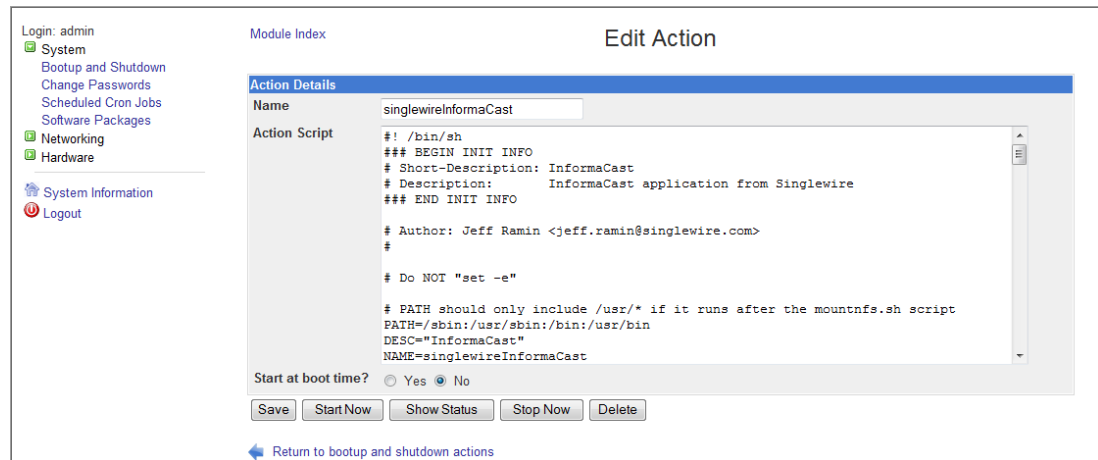
Start Stop Restart Start On Boot Disable On Boot Start Now and On Boot Disable Now and On Boot

Change to runlevel: 2 Click this button to switch your system from the current runlevel to the selected one. This will cause all the actions in the current level to be stopped, and then all the actions in the new runlevel to be started.

Reboot System Click on this button to immediately reboot the system. All currently logged in users will be disconnected and all services will be re-started.

Shutdown System Click on this button to immediately shutdown the system. All services will be stopped, all users disconnected and the system powered off (if your hardware supports it).

Step 5 Scroll down the list of actions until you come to **singlewireInformaCast**. Click its link. The Edit Action page appears.



Login: admin

Module Index

System

- Bootup and Shutdown
- Change Passwords
- Scheduled Cron Jobs
- Software Packages
- Networking
- Hardware
- System Information
- Logout

Edit Action

Action Details

Name: singlewireInformaCast

Action Script:

```
#!/bin/sh
### BEGIN INIT INFO
# Short-Description: InformaCast
# Description: InformaCast application from Singlewire
### END INIT INFO

# Author: Jeff Ramin <jeff.ramin@singlewire.com>
#

# Do NOT "set -e"

# PATH should only include /usr/* if it runs after the mountnfs.sh script
PATH=/sbin:/usr/sbin:/bin:/usr/bin
DESC="InformaCast"
NAME=singlewireInformaCast
```

Start at boot time? ☒ Yes ☐ No

Save Start Now Show Status Stop Now Delete

Return to bootup and shutdown actions

Step 6 Click the **Stop Now** button. It will take a minute or so for InformaCast to stop.



Login: admin

Module Index

System

- Bootup and Shutdown
- Change Passwords
- Scheduled Cron Jobs
- Software Packages
- Networking
- Hardware
- System Information
- Logout

Stop Action

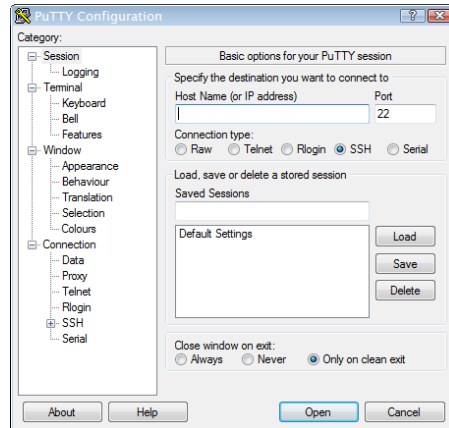
Executing /etc/init.d/singlewireInformaCast stop ..



Note Leave this window open. You will come back to it.

Step 7 Use an SSH client (Singlewire recommends PuTTY: <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>) to access InformaCast's command line interface.

Step 8 Open PuTTY. The PuTTY Configuration window appears.

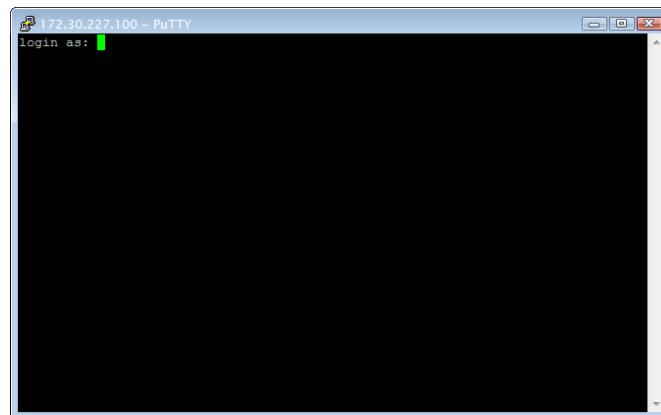


Step 9 Enter InformaCast's IP address in the **Host Name (or IP address)** field.

Step 10 Leave the **Port** field at its default of 22.

Step 11 Click the **SSH** radio button.

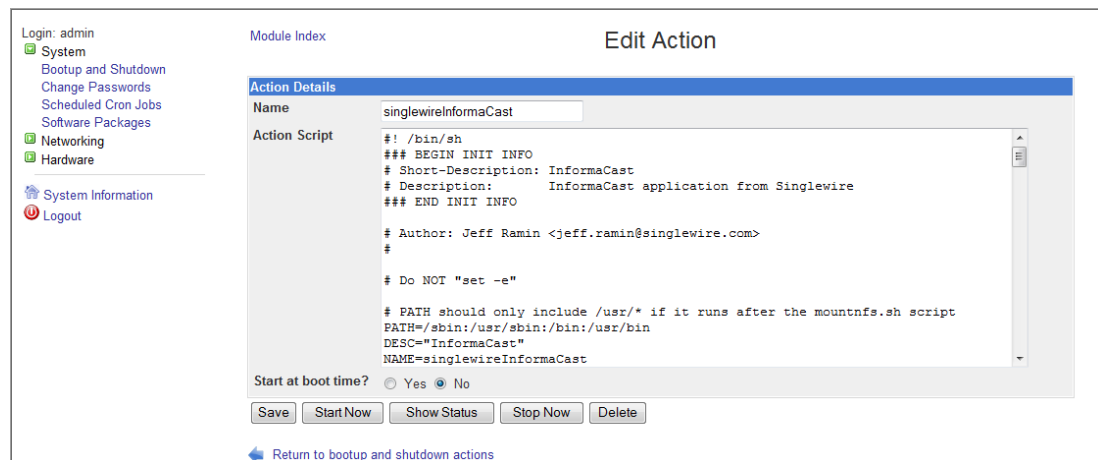
Step 12 Click the **Open** button. The command-line interface for InformaCast appears.



Step 13 Enter **admin** at the prompt and press **Enter**.

[illegible]

Step 17 Go back to your Stop Action page and click the **Return to action** link. The Edit Action page appears.



Login: admin

System

Bootup and Shutdown

Change Passwords

Scheduled Cron Jobs

Software Packages

Networking

Hardware

System Information

Logout

Module Index

Start Action

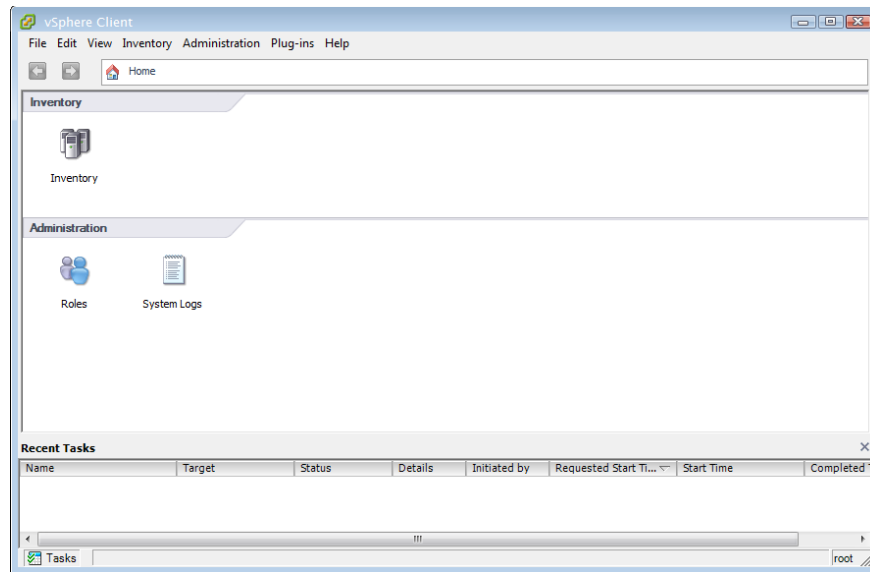
Executing /etc/init.d/singlewireInformaCast start ..

Return to action

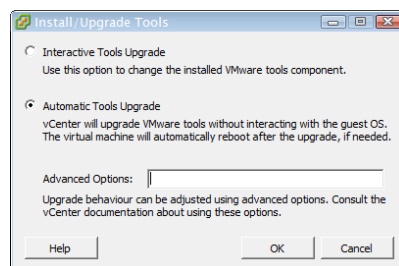
Upgrade your VMware Tools

If vSphere has an error flag that says that your version of VMware doesn't match your version of VMware tools, or if your CPU usage seems elevated, you should upgrade your VMware tools to match the level of your VMware version.

Step 1 Open and log into the vSphere client. The vSphere Client window appears.



Step 2 Select your virtual machine, and go to **Inventory | Virtual Machine | Guest | Install/Upgrade VMware Tools**. The Install/Upgrade Tools window appears.



Step 3 Select the **Automatic Tools** radio button and click the **OK** button. Your VMware tools are upgraded.

Upgrading InformaCast EX

Prior to upgrading InformaCast EX, create a snapshot of the Virtual Appliance in case you need to perform disaster recovery.

Note the Differences

If you are upgrading from an earlier version of InformaCast EX, please review the “Release Notes” chapters of your application(s) for a list of new features.

Obtain InformaCast EX Software Package(s)

You can download the latest version of InformaCast EX from the Singlewire website. [Contact your Singlewire sales representative](#) if you do not have the URL and password, or if you need help.

Depending on the version of InformaCast EX from which you are starting, you will follow different steps:

- **Windows to InformaCast EX.** This upgrade involves a migration of your data. Please see “Migrate from Windows to the Virtual Appliance” on page 33 for more information.
- **Pre-Aberdeen Virtual Appliance to Current.** Your download should include three package files (singlewireBaseImageUpgrade-1.0.deb, singlewireVAUpgrade-1.1.deb, and singlewireVAUpgrade-1.3.deb), and these will need to be uploaded in the exact order as they are listed, as detailed in the next section.
- **Aberdeen Virtual Appliance or later to Current Version.** Your download should include one package file (singlewireVAUpgrade-1.3.deb); the upload process is detailed in the next section.

Install Upgraded Software Package(s)

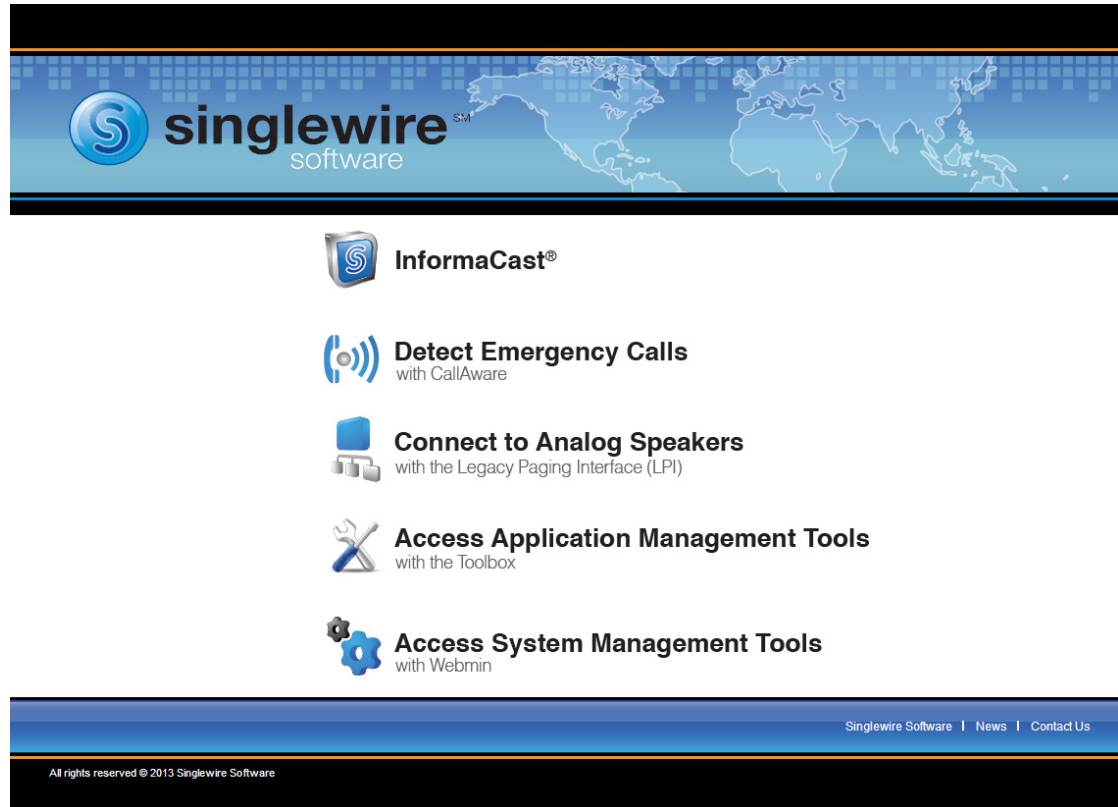
Once you’ve obtained your package files, you can install a new software package and update your version of InformaCast EX.



Note

If you are upgrading from a pre-Aberdeen version of InformaCast EX, you will upload three package files in the exact order mentioned in this documentation (singlewireBaseImageUpgrade-1.0.deb first, singlewireVAUpgrade-1.1.deb second, and singlewireVAUpgrade-1.3.deb third). Please follow these steps carefully to ensure a successful InformaCast EX upgrade. Upgrading from an Aberdeen or later version to the current InformaCast EX version only calls for one file (singlewireVAUpgrade-1.3.deb) to be uploaded.

- Step 1** Create a snapshot of your current InformaCast EX installation.
- Step 2** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



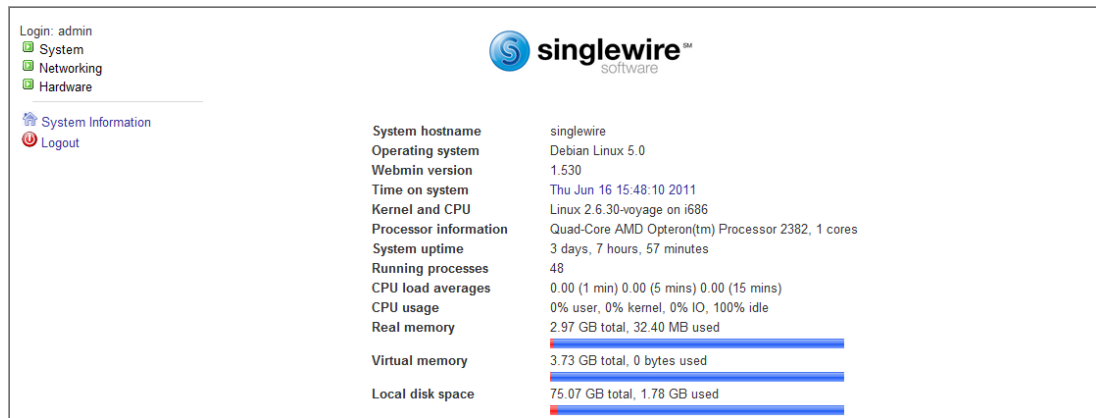
Note For versions of InformaCast EX prior to Delphi, you will need to go to <https://<InformaCast Virtual Appliance IP Address>:10000>, where <InformaCast Virtual Appliance IP Address> is InformaCast EX's statically configured IP address. Skip to Step 4 on page 91.

- Step 3** Click the **Access System Management Tools with Webmin** link. A separate tab/window opens to the Login to Webmin page.



Note You may have to accept a warning from your web browser about the security of this page's content.

Step 4 Enter your login credentials and click the **Login** button. By default, your username is **admin** and your password is **changeMe**. The Webmin page appears.



Webmin interface showing system information and login options.

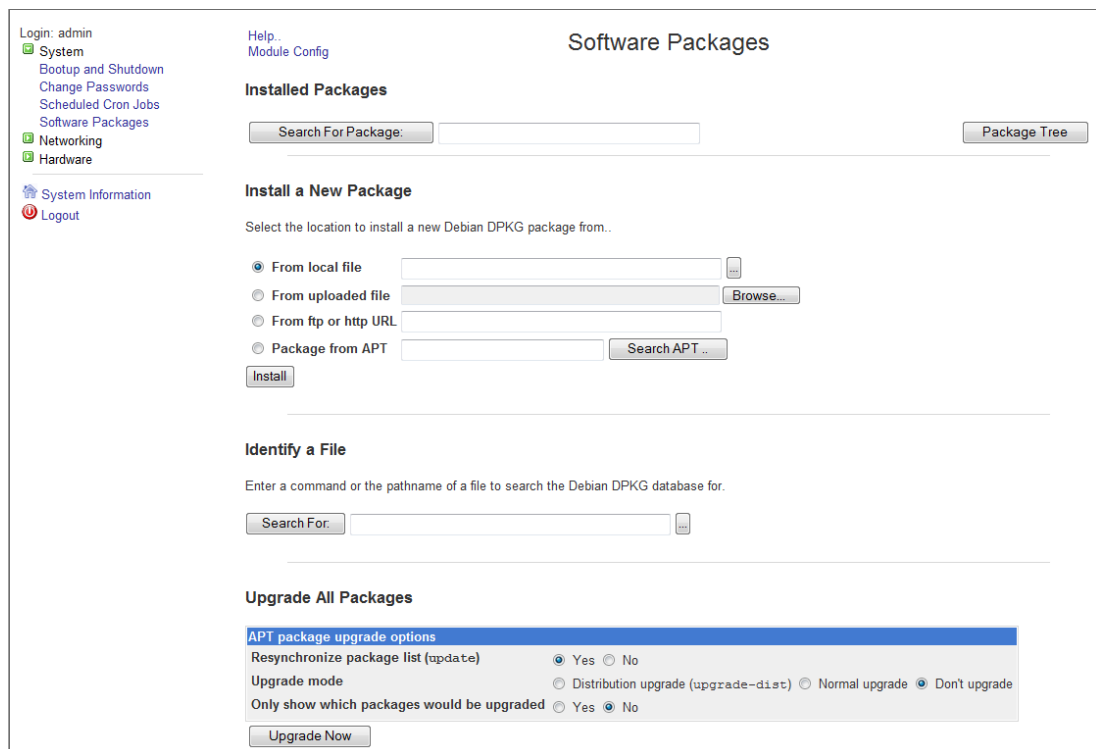
System Information:

- System hostname: singlewire
- Operating system: Debian Linux 5.0
- Webmin version: 1.530
- Time on system: Thu Jun 16 15:48:10 2011
- Kernel and CPU: Linux 2.6.30-voyage on i686
- Processor information: Quad-Core AMD Opteron(tm) Processor 2382, 1 cores
- System uptime: 3 days, 7 hours, 57 minutes
- Running processes: 48
- CPU load averages: 0.00 (1 min) 0.00 (5 mins) 0.00 (15 mins)
- CPU usage: 0% user, 0% kernel, 0% IO, 100% idle
- Real memory: 2.97 GB total, 32.40 MB used
- Virtual memory: 3.73 GB total, 0 bytes used
- Local disk space: 75.07 GB total, 1.78 GB used

Left Sidebar:

- Login: admin
- System
- Networking
- Hardware
- System Information
- Logout

Step 5 Go to **System | Software Packages**. The Software Packages page appears.



Webmin interface showing the Software Packages section.

Software Packages

Installed Packages

Search For Package:

Install a New Package

Select the location to install a new Debian DPKG package from..

☒ From local file

☐ From uploaded file

☐ From ftp or http URL

☐ Package from APT

Identify a File

Enter a command or the pathname of a file to search the Debian DPKG database for.

Search For:

Upgrade All Packages

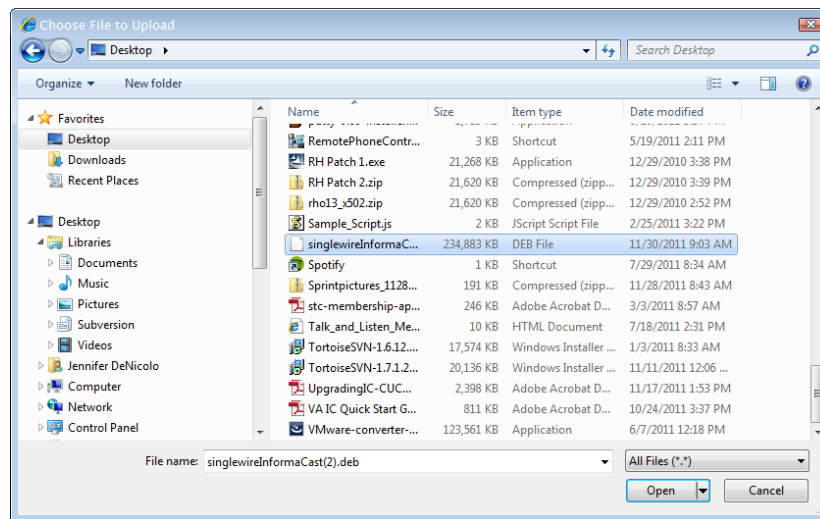
APT package upgrade options

Resynchronize package list (update) ☒ Yes ☐ No

Upgrade mode ☐ Distribution upgrade (upgrade-dist) ☐ Normal upgrade ☒ Don't upgrade

Only show which packages would be upgraded ☐ Yes ☒ No

- Step 6** Select the **From uploaded file** radio button in the *Install a New Package* area and click its **Browse** button. The Choose File to Upload dialog box appears.

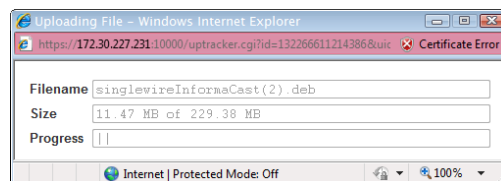


- Step 7** Navigate to where you saved the InformaCast EX software package(s) you downloaded earlier. Depending on the version of InformaCast EX from which you are upgrading, you will select:

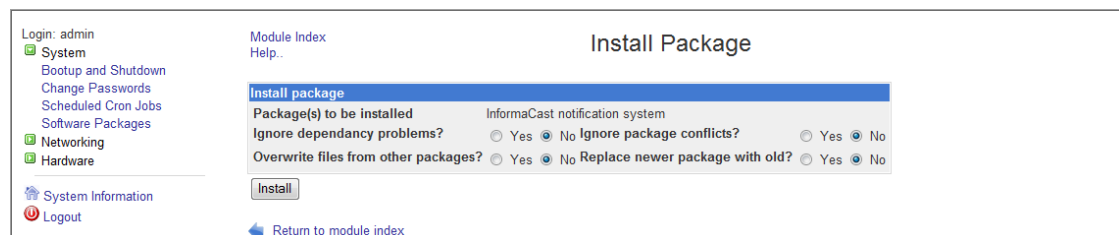
- Pre-Aberdeen versions of InformaCast EX: singlewireBaseImageUpgrade-1.0.deb
- Aberdeen and later versions of InformaCast EX: singlewireVAUpgrade-1.3.deb

- Step 8** Click the **Open** button.

- Step 9** Click the **Install** button in the *Install a New Package* area. A pop-up window will appear showing you the transferring of the file.



After transferring the file, the Install Package page appears.



- Step 10** Leave the default selections as they are and click the **Install** button. Your software package is installed.

**Note**

The Install Package page should display a list of files that were correctly installed. If you see something different, please make a note of what you see and [contact Singlewire Support](#).

**Note**

If you are upgrading from a pre-Aberdeen version of InformaCast EX, you will need to go to **System | Software Packages** and follow Steps 6 through 10 two more times, first selecting the singlewireVAUpgrade-1.1.deb file followed by the singlewireVAUpgrade-1.3.deb file. Then proceed with Step 11.

Step 11 Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.

Login: admin
 System
 Bootup and Shutdown
 Scheduled Cron Jobs
 Software Packages
 Networking
 Hardware
 System Time

Search:

System Information
 Logout

Module Config

Bootup and Shutdown

Create a new bootup and shutdown action.

Action	At boot?	Description
<input type="checkbox"/> alsa-utils	No	This script stores and restores mixer levels on
<input type="checkbox"/> asterisk	No	Controls the Asterisk PBX
<input type="checkbox"/> atftpd	No	Launch atftpd server, a TFTP server useful
<input type="checkbox"/> awds	No	This script is used to start the AWDS daemon which provides
<input type="checkbox"/> batmand	No	/etc/init.d/batmand: start batmand
<input type="checkbox"/> bootlogd	No	Starts or stops the bootlogd log program
<input type="checkbox"/> bootmisc.sh	No	Some cleanup. Note, it need to run after mountnfs-bootclean.sh.
<input type="checkbox"/> checkfs.sh	No	Check all filesystems.
<input type="checkbox"/> checkroot.sh	No	Check to root file system.
<input type="checkbox"/> cron	Yes	cron is a standard UNIX program that runs user-specified
<input type="checkbox"/> dahdi	No	dahdi - load and configure DAHDI modules
<input type="checkbox"/> dnsmasq	No	DHCP and DNS server
<input type="checkbox"/> ebtables	No	Saves and restores the state of the ebtables rulesets.
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> hostapd	No	Userspace IEEE 802.11 AP and IEEE 802.1X/WPA/WPA2/EAP
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> singlewireInformaCast	No	InformaCast application from Singlewire

Create a new bootup and shutdown action.

Start Stop Restart Start On Boot Disable On Boot Start Now and On Boot Disable Now and On Boot

Change to runlevel: 2 Click this button to switch your system from the current runlevel to the selected one. This will cause all the actions in the current level to be stopped, and then all the actions in the new runlevel to be started.

Reboot System Click on this button to immediately reboot the system. All currently logged in users will be disconnected and all services will be re-started.

Shutdown System Click on this button to immediately shutdown the system. All services will be stopped, all users disconnected and the system powered off (if your hardware supports it).

Step 12 Scroll down to the bottom of the page and click the **Reboot System** button. It will take a minute or so for InformaCast EX to reboot.

**Note**

Leave this window open. You will come back to it in the next section.

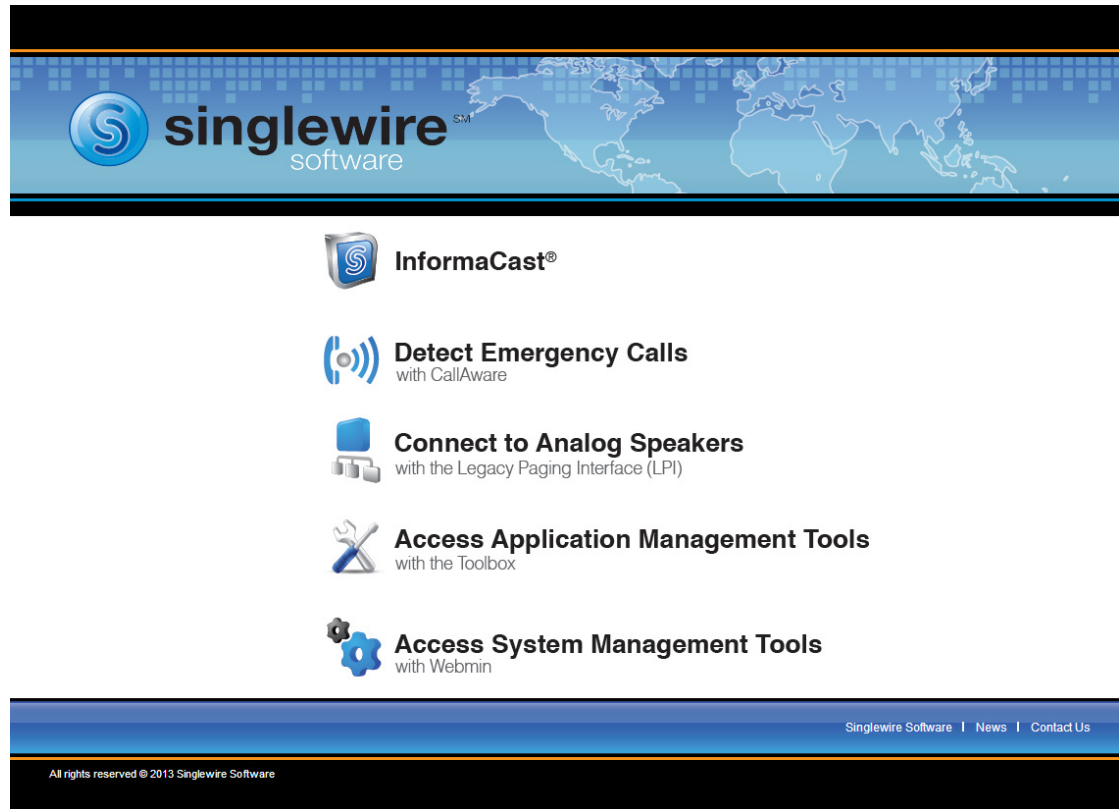
Step 13 Create a new snapshot of your Virtual Appliance.

Step 14 Clear your web browser's cache.

Manage your New License

Before you can perform these steps, you must have an InformaCast EX license. If your salesperson has not already provided one to you, [contact Singlewire](#) and request that a license be emailed to you.

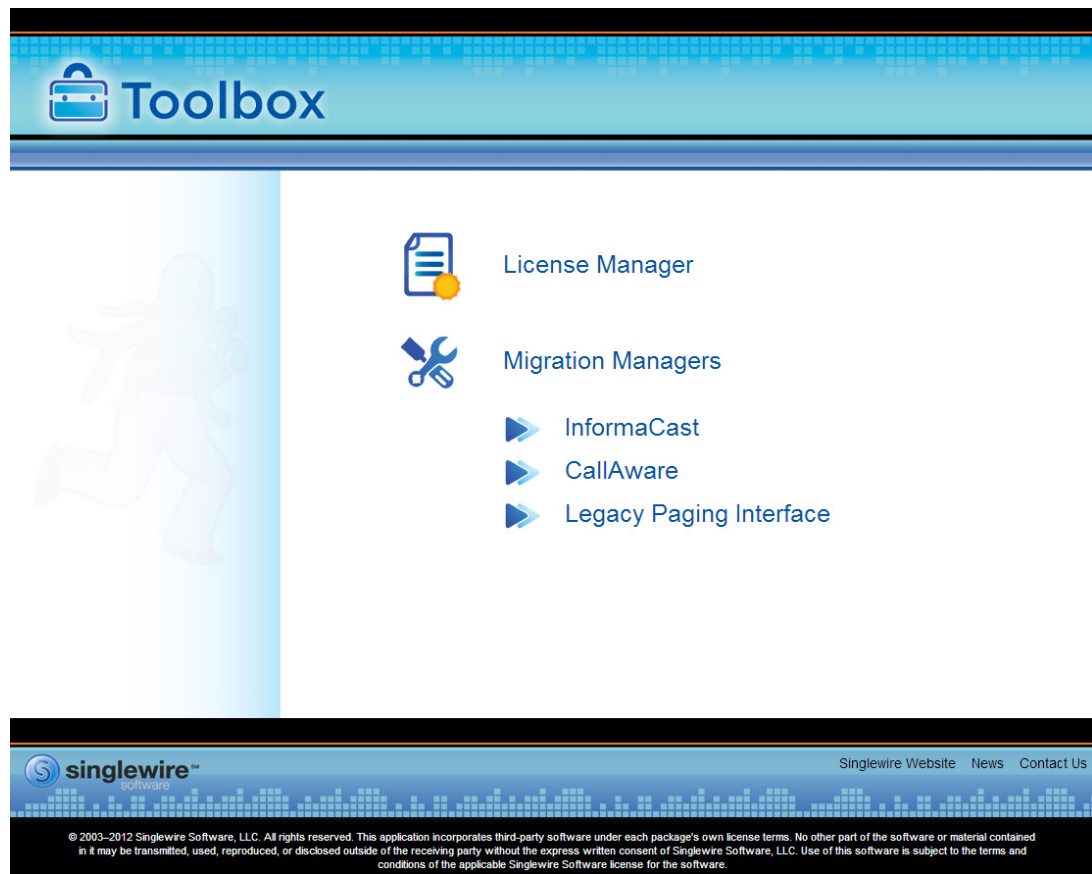
- Step 1** Open a web browser, enter the IP address of your InformaCast Virtual Appliance server, and press the **Enter** key. The Singlewire Start page appears.



Note

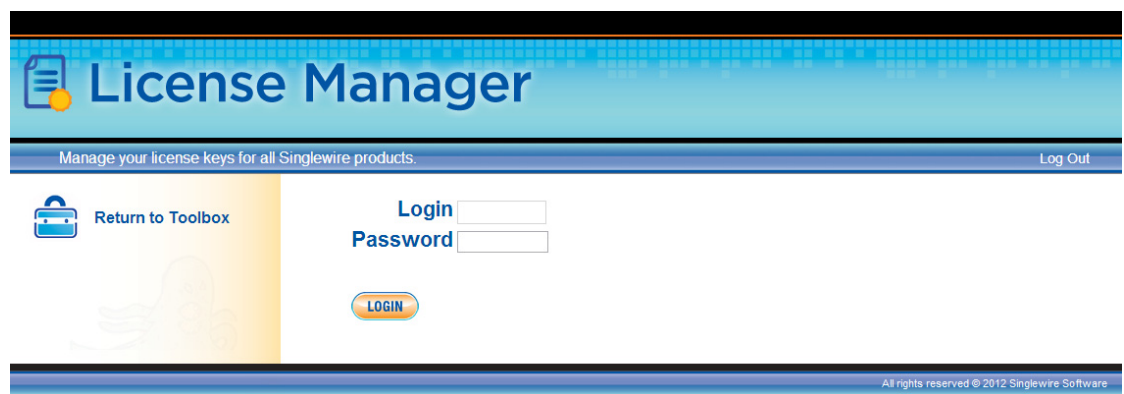
For versions of InformaCast EX prior to Delphi, you will need to go to <https://<Virtual Appliance IP Address>:8463/LicenseManager>, where <Virtual Appliance IP Address> is InformaCast EX's statically configured IP address. Skip to Step 4 on page 96.

- Step 2** Click the **Access Application Management Tools with the Toolbox** link. A separate tab/window opens to the Toolbox page.



Note You may have to accept a warning from your web browser about the security of this page's content.

- Step 3** Click the **License Manager** link. The License Manager window appears.



- Step 4** Enter your username and password in the **Login** and **Password** fields, respectively. By default, your username is **admin** and your password is **changeMe**. Click the **Login** button. The License Status page appears.

License Manager
Manage your license keys for all Singlewire products. [Log Out](#)

[Return to Toolbox](#)

License Status

Note: If you need assistance with your license or need a new license to enable a plugin, please contact Sales at: sales@singlewire.com

Warning: Uploading a license that indicates Advanced Notification *may* cause an automatic and immediate restart of InformaCast. Please refer to your documentation for more information.

The currently installed License Keys contain the following features:

InformaCast

Issuer: [test@singlewire.com](#)
Created: Wed Feb 13 15:31:40 CST 2013
Licensee: *** LAB USE ONLY ***
 Singlewire Test License Generated by [test@singlewire.com](#) (test.singlewire@singlewire.com)
 *** LAB USE ONLY ***

IP Restriction: Not restricted
Expiration: No expiration
Features: Audio, MessageConfirmation
Parameters: MaxBellSchedules=500, MaxIPSpeakers=1000, MaxPhones=5000, MaxVersion=9.0, Scheme=Subscription

IC Plugin: Inbound RSS

Issuer: [test@singlewire.com](#)
Created: Wed Feb 13 15:31:40 CST 2013
Licensee: *** LAB USE ONLY ***
 Singlewire Test License Generated by [test@singlewire.com](#) (test.singlewire@singlewire.com)
 *** LAB USE ONLY ***

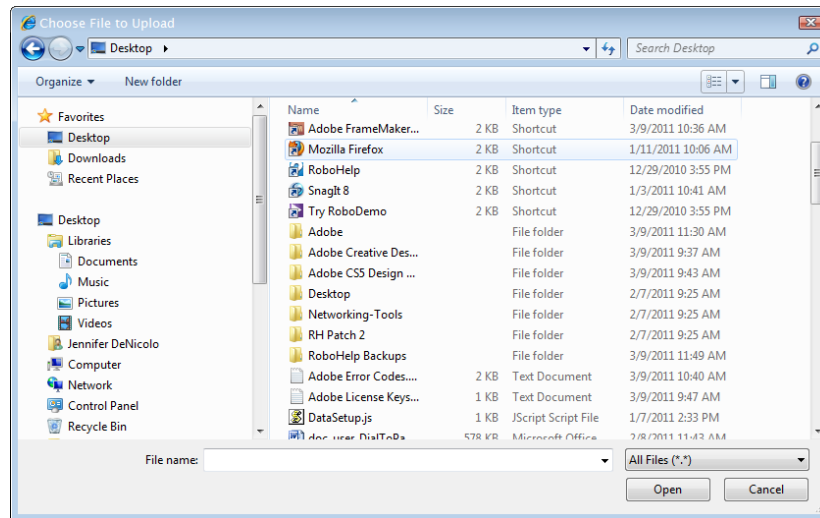
IP Restriction: Not restricted
Expiration: No expiration
Features:
Parameters:

Replace Your License(s):

All rights reserved © 2012 Singlewire Software

The License Manager holds all of your Singlewire licenses. Depending on the software applications you are using, you will see different licenses housed on this page.

Step 5 Click the **Browse** button. The Choose File to Upload window appears.



Step 6 Navigate to where you saved your new license file, select it, and click the **Open** button.

- Step 7** Click the **Upload** button on the License Status page. Your page refreshes with a confirmation that the license has been uploaded.



License Manager

Manage your license keys for all Singlewire products. [Log Out](#)

[Return to Toolbox](#)

License Status

License file installed. Restart any running applications that do not automatically reload their license.

Note: If you need assistance with your license or need a new license to enable a plugin, please contact Sales at: sales@singlewire.com

Warning: Uploading a license that indicates Advanced Notification may cause an automatic and immediate restart of InformaCast. Please refer to your documentation for more information.

The currently installed License Keys contain the following features:

[InformaCast](#)

Issuer: Singlewire
Created: Wed Feb 13 15:31:40 CST 2013
Licensee: *** LAB USE ONLY ***
 Singlewire Test License Generated by [REDACTED]
 *** LAB USE ONLY ***

IP Restriction: Not restricted
Expiration: No expiration
Features: Audio, MessageConfirmation
Parameters: MaxBellSchedules=500, MaxIPSpeakers=1000, MaxPhones=5000, MaxVersion=9.0, Scheme=Subscription

[IC Plugin: Inbound RSS](#)

Issuer: Singlewire
Created: Wed Feb 13 15:31:40 CST 2013
Licensee: *** LAB USE ONLY ***
 Singlewire Test License Generated by [REDACTED]
 *** LAB USE ONLY ***

IP Restriction: Not restricted
Expiration: No expiration
Features:
Parameters:

Replace Your License(s):

All rights reserved © 2012 Singlewire Software



Note

If your new license key contains less functionality than your previous key, you will be presented with a warning to that effect, a comparison of your two licenses, and the request to click the **Apply** button to confirm the change.

Step 8 Return to your Webmin window and click the **Bootup and Shutdown** link. The Bootup and Shutdown page appears.

Login: admin

- System
 - Bootup and Shutdown
 - Scheduled Cron Jobs
 - Software Packages
- Networking
- Hardware
 - System Time

Search:

System Information

Logout

Module Config

Bootup and Shutdown

Create a new bootup and shutdown action.

Action	At boot?	Description
<input type="checkbox"/> alsa-utils	No	This script stores and restores mixer levels on
<input type="checkbox"/> asterisk	No	Controls the Asterisk PBX
<input type="checkbox"/> atftpd	No	Launch atftpd server, a TFTP server useful
<input type="checkbox"/> awds	No	This script is used to start the AWDS daemon which provides
<input type="checkbox"/> batmand	No	/etc/init.d/batmand: start batmand
<input type="checkbox"/> bootlogd	No	Starts or stops the bootlogd log program
<input type="checkbox"/> bootmisc.sh	No	Some cleanup. Note, it need to run after mountnfs-bootclean.sh.
<input type="checkbox"/> checkfs.sh	No	Check all filesystems.
<input type="checkbox"/> checkroot.sh	No	Check to root file system.
<input type="checkbox"/> cron	Yes	cron is a standard UNIX program that runs user-specified
<input type="checkbox"/> dahdi	No	dahdi - load and configure DAHDI modules
<input type="checkbox"/> dnsmasq	No	DHCP and DNS server
<input type="checkbox"/> ebtables	No	Saves and restores the state of the ebtables rulesets.
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> hostapd	No	Userspace IEEE 802.11 AP and IEEE 802.1X/WPA/WPA2/EAP
<input type="checkbox"/> flashybird	No	Flashybird is a system to help in setting up and managing hybrid
<input type="checkbox"/> glibc.sh	No	
<input type="checkbox"/> gpsd	No	Start the GPS (Global Positioning System) daemon
<input type="checkbox"/> halt	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> singlewireInformaCast	No	InformaCast application from Singlewire

Create a new bootup and shutdown action.

Change to runlevel:

Reboot System

Shutdown System

Click this button to switch your system from the current runlevel to the selected one. This will cause all the actions in the current level to be stopped, and then all the actions in the new runlevel to be started.

Click on this button to immediately reboot the system. All currently logged in users will be disconnected and all services will be re-started.

Click on this button to immediately shutdown the system. All services will be stopped, all users disconnected and the system powered off (if your hardware supports it).

Step 9 Select all of your Singlewire applications that were affected by your new license and click the **Restart** button. The Restarting Actions page appears.

Login: admin

- System
 - Bootup and Shutdown
 - Change Passwords
 - Scheduled Cron Jobs
 - Software Packages
- Networking
- Hardware

System Information

Logout

Module Index

Restarting Actions

Executing /etc/init.d/singlewireInformaCast restart ..

Restarting InformaCast: singlewireInformaCast.

Executing /etc/init.d/singlewireLPI restart ..

Restarting LPI: singlewireLPI

It may take a moment for the application(s) to restart.

Acknowledgments

InformaCast EX from Singlewire Software runs on a Linux kernel and the Voyage Linux distribution.

The Linux kernel and Voyage Linux are distributed under the following license:

- This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation.
- This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.
- To see a copy of the GNU public license, see this URL:
<http://www.gnu.org/licenses/gpl-2.0.html>.
- You may also write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
- Modifications Singlewire Software has made to the Voyage Linux distribution can be found here:
<http://www.singlewire.com/pgl>.

For all software license information, see the “InformaCast Installation and User Guide.”