InformaCast EX Basic Paging®
Administration Guide for a Cisco® Unified Communications Manager Environment
November 28, 2012
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Overview

InformaCast EX, Singlewire’s virtual appliance application, contains InformaCast Basic Paging.

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:

- 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:

- Virtual machine administrative web interface (Webmin)
- Command line interface (CLI)
- Application’s web interface

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**Note** The initial login credentials for InformaCast is **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 application works correctly. Please follow the steps for implementation in the InformaCast Virtual Appliance Installation and User guide.

**Virtual Machine Administrative Web Interface**

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. You can access it at https://<InformaCast EX IP Address>:10000.

**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 vi text editor is also required. If you are not familiar with the vi 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](http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html)) contains all the necessary tools for transferring files.

**Web Interface**

The InformaCast application has its own web interface. Please consult its guide for further information on how its web interface works.

**Technical Support**

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly What’s New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at: [http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html](http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html).
Manage InformaCast EX

The following sections detail how to manage InformaCast EX from the server side.

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 application works correctly. Please follow the steps for implementation in the InformaCast Virtual Appliance 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.

![vSphere Client Screenshot](image1)

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

![Deploy OVF Template Screenshot](image2)
Step 4  Click the **Deploy from File** radio button and click its **Browse** button. The Open dialog box appears.

![Open dialog box](image)

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.

![Deploy OVF Template](image)
**Step 7**  Click the **Next** button. The Deploy OVF Template dialog box refreshes.

![Deploy OVF Template](image1)

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

![Deploy OVF Template](image2)
**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.

![Deploy OVF Template](image)

**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 (icons) on the vSphere Client window. The vSphere Client window refreshes.

![vSphere Client Inventory](image)
**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.

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**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.

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**End User License Agreement**

I AGREE

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**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:

![SwiftStart Network Configuration](image)

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 11.

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:

![SwiftStart Network Configuration](image)

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

Your InformaCast license key 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.). 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 and go to https://<InformaCast EX IP Address>:8463/LicenseManager, where <InformaCast EX IP Address> is InformaCast EX’s statically configured IP address. The License Manager page appears.

**Step 2** 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 Upload a New License page appears.
**Step 3**  Click the **Browse** button. The Choose File to Upload dialog box appears.

![Choose File to Upload dialog box](image)

**Step 4**  Navigate to the license key file that was emailed to you. You can also enter the path to the license key file.

**Step 5**  Select your license key file and click the **Open** button.
**Step 6** 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 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.

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.

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 and go to https://<InformaCast EX IP Address>:10000, where <InformaCast EX IP Address> is InformaCast EX's statically configured IP address. The Login to Webmin page appears.

**Step 2**
Enter your login credentials. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server's homepage appears.
**Step 3** Go to **System | Bootup and Shutdown.** The Bootup and Shutdown page appears.

Create a new bootup and shutdown action.

Select the application name (e.g. `singlewireInformaCast`) and click its link. The Edit Action page appears.

**Step 4** 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.
**Step 5** Click the **Stop Now** button. It will take a minute or so for the application to stop.

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**Start an Application on InformaCast EX**

Follow these steps to start individual applications on InformaCast EX.

**Step 1** Open a web browser and go to https://<InformaCast EX IP Address>:10000, where <InformaCast EX IP Address> is InformaCast EX’s statically configured IP address. The Login to Webmin page appears.

**Step 2** Enter your login credentials. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server's homepage appears.
**Step 3** Go to **System** | **Bootup and Shutdown**. The Bootup and Shutdown page appears.

1. Go to **System** | **Bootup and Shutdown**. Click on **System** | **Bootup and Shutdown**.
2. Click on the link of your application (e.g., `singlewireInformaCast`).

**Step 4** 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.

1. Scroll down the list of actions until you come to your application’s name (e.g., `singlewireInformaCast`).
2. Click its link. The Edit Action page appears.
Step 5  Click the **Start Now** button. It will take a minute or so for the application to start.

![Start Action](image)

**Restart an Application on InformaCast EX**

Follow these steps to restart individual applications on InformaCast EX.

**Step 1**  Open a web browser and go to https://<InformaCast EX IP Address>:10000, where <InformaCast EX IP Address> is InformaCast EX’s statically configured IP address. The Login to Webmin page appears.

![Login to Webmin](image)

**Step 2**  Enter your login credentials. By default, your username is **admin** and your password is **changeMe**. The InformaCast EX server’s homepage appears.

![InformaCast EX Server Homepage](image)
**Step 3** Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.

![Bootup and Shutdown page](image)

**Step 4** 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.

![Restarting Actions page](image)

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 and go to https://<InformaCast EX IP Address>:10000, where `<InformaCast EX IP Address>` is InformaCast EX’s statically configured IP address. The Login to Webmin page appears.

**Step 2**  
Enter your login credentials. By default, your username is `admin` and your password is `changeMe`. The InformaCast EX server's homepage appears.
Step 3  Go to System | Bootup and Shutdown. The Bootup and Shutdown page appears.

Step 4  Scroll to the bottom of the page and click the Reboot System button. The Reboot page appears.

Step 5  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 1).

Step 1
Stop your Singlewire applications (see “Stop an Application on InformaCast EX” on page 18).

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

Step 3
Click the Inventory icon (_inventory_icon_image) on the vSphere Client window. The vSphere Client window refreshes.

Step 4
Select your virtual machine (by default, this is Singlewire InformaCast VM).
**Step 5** Go to **Inventory** | **Virtual Machine** | **Open Console**. The Singlewire InformaCast VM console window appears.

**Step 6** Press **Alt + F2** in the Singlewire InformaCast VM console window. The Singlewire InformaCast VM console window refreshes.

**Step 7** Enter **admin** at the **singlewire login** prompt and press **Enter**.
Step 8 Enter `changeMe` at the **Password** prompt and press **Enter**. The Singlewire InformaCast VM console window refreshes.

Step 9 Enter `change-ip-address` and press **Enter**. The Singlewire InformaCast VM console window refreshes.

Step 10 Enter **Y** and press **Enter**.

Step 11 Enter a routable IP address on your network that’s not currently in use and press **Enter**.

Step 12 Enter a valid netmask for that IP address and press **Enter**.

Step 13 Enter the default gateway for your specified IP address and press **Enter**.
Step 14 Enter the IP address(es) of a DNS server(s) on your network and press Enter.

Step 15 Enter Y and press Enter.

Step 16 Enter Exit and press Enter.

Step 17 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.

Step 18 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.
Step 1  Open a web browser and go to https://<InformaCast EX IP Address>:10000, where <InformaCast EX IP Address> is InformaCast’s statically configured IP address. The Login to Webmin page appears.

Step 2  Enter your login credentials. By default, your username is admin and your password is changeMe. The InformaCast EX server’s homepage appears.
**Step 3** Go to **System | Bootup and Shutdown**. The Bootup and Shutdown page appears.

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

**Step 4** Scroll down the list of actions until you come to **singlewireInformaCast**. Click its link. The Edit Action page appears.
Step 5  Click the **Stop Now** button. It will take a minute or so for InformaCast to stop.

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

Step 6  Use an SSH client (Singlewire recommends PuTTY: [http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html](http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html)) to access InformaCast's command line interface.

Step 7  Open PuTTY. The PuTTY Configuration window appears.

Step 8  Enter InformaCast's IP address in the **Host Name (or IP address)** field.

Step 9  Leave the **Port** field at its default of 22.

Step 10 Click the **SSH** radio button.
Step 11  Click the Open button. The command-line interface for InformaCast appears.

![Command-line interface for InformaCast](image1.png)

Step 12  Enter admin at the prompt and press Enter.

Step 13  Enter changeMe at the prompt and press Enter. The command-line interface refreshes, showing you that you're logged in.

![Command-line interface with user logged in](image2.png)

Step 14  Enter updateJTAPI at the prompt and press Enter.

Step 15  Enter exit at the prompt and press Enter.
Step 16  Go back to your Stop Action page and click the Return to action link. The Edit Action page appears.

Step 17  Click the Start Now button. It will take a minute or so for InformaCast to start.

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.

![vSphere Client Screenshot](image1)

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

![Install/Upgrade Tools Screenshot](image2)

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

![Automatic Tools Screenshot](image3)
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:

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- 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.”