



## InformaCast Virtual Appliance Basic Paging<sup>®</sup>

Version 11.0.5

Quick Start Guide for a Cisco<sup>®</sup> Unified Communications Manager Environment

January 11, 2016

**Cisco Systems, Inc.**

[www.cisco.com](http://www.cisco.com)

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© January 11, 2016 Cisco Systems, Inc. All rights reserved.

© 2015 Singlewire. All rights reserved.

InformaCast is a trademark of Singlewire Software.

All other referenced trademarks are trademarks of their respective owners and our reference to them does not imply or indicate any approval, endorsement, sponsorship or affiliation with such owners unless such approval, endorsement, sponsorship or affiliation is expressly indicated.

Last Updated: January 11, 2016



- Overview ..... 1-1
  - Environments ..... 1-1
  - Prerequisites ..... 1-1
  - Troubleshooting ..... 1-2
- Install InformaCast Virtual Appliance ..... 2-1
  - Ensure Multicast is Enabled ..... 2-1
  - Install InformaCast Virtual Appliance ..... 2-1
  - Access InformaCast Virtual Appliance ..... 2-3
  - Set the System Time ..... 2-3
  - Integrate Unified Communications Manager ..... 2-4
- Configure InformaCast ..... 3-1
  - Log into InformaCast for the First Time ..... 3-1
  - Configure InformaCast’s Telephony ..... 3-1
- Use InformaCast ..... 4-1
  - Add a Recipient Group ..... 4-1
  - Allow/Disable SIP Access to InformaCast ..... 4-2
  - Add a Broadcast Dialing Configuration ..... 4-2
  - Send a Broadcast ..... 4-2
- Upgrade InformaCast from Basic to Advanced ..... 5-1
  - Note the Differences ..... 5-1
  - Upgrade InformaCast ..... 5-3
  - Enter Your New License Key ..... 5-4
  - Troubleshooting ..... 5-5



## Overview

For virtualized environments, InformaCast Virtual Appliance Basic Paging (InformaCast or Basic InformaCast) is Singlewire Software's IP telephony broadcast system that allows you to send a live audio stream to Cisco IP phones. InformaCast is designed to get messages quickly to large groups of people; when these messages are sent through InformaCast, they are called *broadcasts*.

This guide is designed to get you started quickly by explaining how to complete some of the most common tasks you'll need to get the most out of InformaCast. It is not a substitute for the larger, more in-depth "InformaCast Virtual Appliance Installation and User Guide," which is available through **Help | Install Guide** in InformaCast.

## Environments

There are three versions of this guide: one for installations using Basic Paging, one for installations using Advanced Notification in conjunction with Cisco's Unified Communications Manager, and one for installations using Advanced Notification in conjunction with a Hybrid Runtime Environment (HRE). Please make sure you have the right version by looking at the cover page, or by looking at the environment type printed at the bottom of every page.

The versions are both separate and overlapping. Where versions overlap, *InformaCast* will be used. Where versions differ, *Advanced InformaCast* or *Basic InformaCast* will be used.

For more information, see "Licensing Information" in the "InformaCast Virtual Appliance Installation and User Guide."

## Prerequisites

InformaCast has the following system prerequisites:

- Compliance with the hardware requirements and port configurations as defined in the "InformaCast Virtual Appliance Installation and User Guide"
- A static IP address configured on the InformaCast Virtual Appliance
- Use of supported phones if you intend to use them as broadcast recipients (click the **Cisco IP Phones** link on <http://www.singlewire.com/compatibility-matrix.html>)
- Use of one of the following supported browsers: Firefox 43, Chrome 47, and Internet Explorer 11
- Multicast routing for all network segments between InformaCast and its phones

- A Cisco Unified Communications Manager server (including Business Edition 6000); the following versions are supported: 8.5.1, 8.6.1, 9.0.1, 9.1.2, 10.0.1, 10.5.2, and 11.0.1



---

**Note** If you are running Unified Communications Manager in mixed mode, ensure that calls to and from InformaCast are not using encrypted media.

---

- Web access enabled on any Cisco IP phones working with InformaCast
- SNMP enabled on all nodes in a Unified Communications Manager cluster
- The AXL service running on at least one server in the Unified Communications Manager cluster
- The CTIManager service running on at least one node that's also running the CallManager service. The CTIManager service can run on up to eight nodes in a cluster, and you should use more than one node with this service for redundancy.

You must also know how to access to the command-line interface (bash prompt) of InformaCast, perform basic UNIX commands, and use nano for editing files.



**Tip**

---

Singlewire recommends a screen resolution of at least 1024x768.

---

## Troubleshooting

Your first line of support is the **Help** icon. Clicking it takes you to the online help system. Accessing its dropdown menu allows you to access:

- The online help system
- Its FAQ section
- Its Troubleshooting section
- InformaCast's Support page

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>.



## Install InformaCast Virtual Appliance

Many of the concepts involved in installing InformaCast Virtual Appliance require familiarity with VMware ESXi and Unified Communications Manager.

### Ensure Multicast is Enabled

Multicast is communication between a single sender and multiple receivers on a network, and you must have it enabled across your network in order for your recipients to receive the audio portion of InformaCast broadcasts. InformaCast has no special requirements for how multicast is enabled, and you should use your network vendor's best practices and design considerations.

The design and configuration of multicast in your environment is outside the scope of this document, but you may find the following resources helpful:

- [Multicast whitepaper](#)
- [Multicast Testing Tool](#)



#### Caution

---

Just because music on hold works on your phones does not mean that it is using multicast. Music on hold can be used with either unicast or multicast.

---

## Install InformaCast Virtual Appliance

Singlewire supports InformaCast Virtual Appliance on the VMware ESXi platform, which is managed through the vSphere client.

- 
- Step 1** Download the OVA file from [Cisco's website](#).
  - Step 2** Open and log into the vSphere client.
  - Step 3** Go to **File | Deploy OVF Template**.
  - Step 4** Click the **Deploy from File** radio button, click its **Browse** button, 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 5** Click the **Next** button three times.
  - Step 6** Select the network on which the new virtual machine will reside and click the **Next** button. It is good practice to place the Virtual Appliance on the same VLAN as your Unified Communications Manager.
  - Step 7** Click the **Finish** button. InformaCast Virtual Appliance will begin importing. When it's finished, click the **Close** button.

- Step 8** Go back to your vSphere Client window and click the **Hosts and Clusters** icon.
- Step 9** Select your host server, click the **Configuration** tab, and click the **Virtual Machine Startup/Shutdown** link in the *Software* area.
- Step 10** Click the **Properties** link in the upper right corner and select the **Allow virtual machines to start and stop automatically with the system** checkbox in the *System Settings* area of the Virtual Machine Startup and Shutdown dialog box.
- Step 11** Scroll to the **Manual Startup** section of the **Startup Order** field, select your virtual machine (by default, this is Singlewire InformaCast VM), and move it from the **Manual Startup** section to the **Automatic Startup** section using the **Move Up** button.
- Step 12** Click the **OK** button. The InformaCast Virtual Appliance will now start and stop automatically with the server on which it's housed. Now you will turn on InformaCast's virtual machine and set its network configuration.
- Step 13** Go to **View | Inventory | VMs and Templates** and select your virtual machine.
- Step 14** Go to **Inventory | Virtual Machine | Open Console**.
- Step 15** Click the green arrow button to turn on the virtual machine. The Singlewire InformaCast VM console window begins booting the virtual machine. When InformaCast Virtual Appliance is done booting, you will be prompted to change the OS Administrator's password.
- Step 16** Enter a new password in the **New OS admin password** field, press the **Tab** key, and enter the password again in the **Re-enter password** field. Your OS credentials are used to enter Webmin and Control Center and when using SSH to access the Virtual Appliance. Your password cannot contain a colon (:).
- Step 17** Press the **Enter** key three times to advance to the next screen in the console window where you will be prompted to change the Application Administrator's password.
- Step 18** Enter a new password in the **New InformaCast/PushToTalk admin password** field, press the **Tab** key, and enter the password again in the **Re-enter password** field. Your application credentials are used to enter InformaCast and PushToTalk. Your password cannot contain a colon (:).



---

**Note** PushToTalk is only available to InformaCast installations using Unified Communications Manager.

---

- Step 19** Press the **Enter** key three times. The Virtual Appliance will finish its boot process. SwiftStart will then start automatically (it only starts automatically on the initial boot).
- Step 20** Click the **I Agree** button to accept the End User License Agreement.



---

**Note** If you do not accept the End User License Agreement, InformaCast will not be started and you will not be able to progress to further installation and configuration steps in this guide.

---

- Step 21** Select the **Enter Manually** radio button and enter a routable IP address on your network that's not currently in use, a valid netmask for that IP address, its default gateway, and the IP address(es) of a DNS server(s) on your network.

- Step 22** Click the **Submit** button. SwiftStart will make the IP address you've configured/entered static and configure your network to work with InformaCast.
- Step 23** Click the **Finish** button and close your open console window.
- 

## Access InformaCast Virtual Appliance

Open a web browser, enter the IP address of the InformaCast Virtual Appliance (which you set in Step 21 on page 2-2, and press the **Enter** key. The Singlewire Start page appears and you can easily access all of your Virtual Appliance user interfaces. You may find it helpful to both keep this tab/window open during the time that you're working with the Virtual Appliance and bookmark it for future use.

## Set the System Time

The InformaCast Virtual Appliance's system time is automatically set for you using the pool.ntp.org server, but if your Virtual Appliance does not have Internet access or if you want to use your own NTP server, you can do so.

- 
- Step 1** Click the **Access Application Management Tools with Control Center** link on the Singlewire Start page.
- Step 2** Click the **Access System Management Tools with Webmin** link.
- Step 3** Enter your OS credentials and click the **Login** button.
- Step 4** Go to **Hardware | System Time**.
- Step 5** Click the **Time server sync** tab and enter the hostname or IP address of the NTP server you want to use in the **Timeserver hostnames or addresses** field.



---

**Tip** You can also change the time at which the Virtual Appliance checks with the NTP server by modifying the fields and radio buttons in the *Minutes*, *Hours*, *Days*, *Months*, and *Weekdays* areas.

---

- Step 6** Click the **Sync and Apply** button to save your changes.
- Step 7** Click the **Change timezone** tab, select your time zone from the **Change timezone to** dropdown menu, and click the **Save** button.
-



## Integrate Unified Communications Manager

Before you can begin using InformaCast in a telephony environment, you must configure your version of Unified Communications Manager.

**Tip**

When naming your Unified Communications Manager components, it is recommended to use a standardized name or abbreviation so that the components will display together. For example, this documentation will use the abbreviation of ICVA for InformaCast Virtual Appliance.

- Step 1** Open a web browser and log into the administration interface of the Unified Communications Manager server (the address will be similar to `https://<Unified Communications Manager IP Address>/ccmadmin`).
- Step 2** Select **Cisco Unified Serviceability** from the **Navigation** dropdown menu and click the **Go** button.
- Step 3** Go to **Tools | Service Activation** and enable the following services on your Unified Communications Manager cluster node(s): **Cisco CallManager**, **Cisco CTIManager**, **Cisco AXL Web Service**, and **Cisco CallManager SNMP Service**.
- Step 4** Determine which version of SNMP you're using and following the appropriate steps:
  - **SNMP v2.** Go to **SNMP | V1/V2c | Community String** and create an SNMP community string named **ICVA** with the access privilege of **ReadOnly**. Select the **Apply to All Nodes** checkbox, if possible.
  - **SNMP v3.** Go to **SNMP | V3 | User** and create a user named **ICVA**. Select the **Authentication Required** checkbox, enter an authentication password for your user in the **Password** and **Reenter Password** fields, and select the **SHA** radio button. Then, select the **Privacy Required** checkbox, enter a privacy password for your user in the **Password** and **Reenter Password** fields, and select the **AES128** radio button. Select **ReadOnly** from the **Access Privileges** dropdown menu and select the **Apply To All Nodes** checkbox, if possible.
- Step 5** Select **Cisco Unified CM Administration** from the **Navigation** dropdown menu and click the **Go** button.
- Step 6** Go to **System | Region** and create a region. Name it **ICVA**, select all of your regions in the *Regions* area, and select **64kbps (G.722, G.711)** from the **Maximum Audio Bit Rate** dropdown menu. Also, select the **None** radio button in the *Max Video Call Bit Rate (Includes Audio)* area.
- Step 7** Go to **System | Device Pool** and create a device pool. Name it **ICVA**, add the ICVA region you just created to it, select **Disable** from the **SRST Reference** dropdown menu, and select **On** from the **Join Across Lines** dropdown menu.
- Step 8** Go to **Device | Trunk** and click the **Add New** button.
- Step 9** Select **SIP Trunk** from the **Trunk Type** dropdown menu, ensure that **SIP** appears as the **Device Protocol** dropdown menu selection, and click the **Next** button.
- Step 10** Enter a name for your SIP trunk, select the device pool you created in Step 7, and scroll down to the *SIP Information* area and enter the IP address of your InformaCast server in the **Destination Address** field.
- Step 11** Ensure that the value in the **Destination Port** field is **5060**, select **Non Secure SIP Trunk Profile** from the **SIP Trunk Security Profile** dropdown menu, and select **Standard** from the **SIP Profile** dropdown menu.

- Step 12** Click the **Save** button.
- Step 13** Go to **Call Routing | Route Hunt | Route Pattern** to create a route pattern that uses the SIP trunk you just created.
- Step 14** Click the **Add New** button, enter a route pattern in the **Route Pattern** field, select a route partition that is reachable from the phones to which you will be sending DialCasts, enter a description of your route pattern, select the SIP trunk you just created from the **Gateway/Route List** dropdown menu, select the **Route This Pattern** radio button, select **OnNet** from the **Call Classification** dropdown menu, and deselect the **Provide Outside Dial Tone** checkbox.
- Step 15** Click the **Save** button.
- Step 16** Go to **User Management | User Settings | Access Control Group** and create an access control group, name it **ICVA User Group**, and add the **Standard AXL API Access** role to it. Alternately, you may already have an access control group named **Standard AXL API Access** with the **Standard AXL API Access** role added to it, which you can also use.
- Step 17** Create an application user for InformaCast broadcasts, name it **ICVA InformaCast**, and add this user to the following user groups:
- ICVA User Group (or Standard AXL API Access)
  - Standard CTI Allow Control of All Devices
  - Standard CTI Allow Control of Phones supporting Connected Xfer and conf
  - Standard CTI Allow Control of Phones supporting Rollover Mode
  - Standard CTI Enabled
- Step 18** Click the **Save** button.
- Step 19** Enable web access for your Cisco IP phones by:
- Changing their enterprise phone configurations
    - Go to **System | Enterprise Phone Configuration**.
    - Scroll down to the **Web Access** dropdown menu and select **Enabled**.
    - Click the **Save** button.
  - Changing their profiles
    - Go to **Device | Device Settings | Common Phone Profile**.
    - Click the **Find** button to display all the phone profiles of which Unified Communications Manager knows or use the filter fields at the top of the page to narrow your list of profile results before clicking the **Find** button.
    - Click the **Name** link of the profile in which you want to enable web access. Make sure you select the profile that applies to the phones where web access needs to be enabled. Scroll down to the *Product Specific Configuration Layout* area and select **Enabled** from the **Web Access** dropdown menu.
    - Click the **Save** button.
- Step 20** Go to **System | Enterprise Parameters** and scroll down the page to the *Phone URL Parameters* area.
- Step 21** Make a note of the URL in the **URL Authentication** field. You may need this in Step 8 on page 3-2.

**Step 22** Enter `http://<InformaCast Virtual Appliance IP Address>:8081/InformaCast/phone/auth` in the **URL Authentication** field, where `<InformaCast Virtual Appliance IP Address>` is replaced with your Virtual Appliance's actual IP address.



---

**Note** The URL is case sensitive, so make sure that the I and C in the word InformaCast are capitalized.

---

**Step 23** Scroll to the *Secured Phone URL Parameters* area and enter `http://<InformaCast Virtual Appliance IP Address>:8081/InformaCast/phone/auth` in the **Secured Authentication URL** field as well.

**Step 24** Click the **Save** button.

**Step 25** Reboot your phones. Enabling web access for your phones and setting your authentication URL both require you to reboot your phones. There are many methods that can be used to reboot your phones. Use your best judgment for how and when this can be done in your environment. Some possible options for rebooting your phones include:

- Bulk Administration Tool (BAT), which allows you to schedule your reboots for off hours and not deal with manually executing the reboot
- Enterprise parameters, which allows you to reboot all devices in a cluster
- Device pools, which allow you to reboot phones on a site-by-site basis
- Device defaults, which allows you to reboot phones by their model type
- Individual phones, which allows you to do phone-by-phone reboots

**Step 26** Test that your phones have picked up their new settings by going to **Device | Phone** and using the dropdown menus and fields to filter for a phone that should have picked up your new settings. Click the **Find** button.

**Step 27** Click the **IP address** link in the IPv4 Address column. The Device Information page should open in a new window/tab. If the webpage does not display, you most likely do not have web access enabled for this phone (see Step 19 on page 2-5 for more information).

**Step 28** Click the **Network Configuration** link and scroll down the page until you come to Authentication URL. It should list the IP address you entered in the **URL Authentication** field in Step 22 on page 2-6.



---

**Note** If you are using non-English locale phones, you will need to associate all of the phones to which InformaCast could broadcast to your application user. Go to **User Management | Application User** and find and access your application user. Click the **Find more Phones** button in the *Device Information* area of the Application User Configuration page, select all phones to which InformaCast could broadcast, and click the **Add Selected** button. Click the **Save** button back on the Application User Configuration page. You will then need to update JTAPI (see “Update JTAPI” in the “InformaCast Virtual Appliance Installation and User Guide” for steps on updating JTAPI).

---



## Configure InformaCast

You must log into InformaCast, change your default account's credentials, configure InformaCast to communicate with your phones, and update your version of JTAPI.

### Log into InformaCast for the First Time

Once the Virtual Appliance is started and you've accessed the Singlewire Start page, you can log into InformaCast.

- 
- Step 1** Click the **InformaCast** link on the Singlewire Start page. A separate tab/window opens to InformaCast's Startup page. Depending on your system, there may be a delay of several minutes while InformaCast initializes. Once InformaCast initializes, you will be presented with InformaCast's Login page.
  - Step 2** Enter your application credentials in the **Login** and **Password** fields. Both fields are case sensitive.
  - Step 3** Click the **Log In** button. The InformaCast homepage appears.



**Tip** Initially configuring InformaCast can take some time. The default settings for the web interface will log you out after five minutes. Go to **Admin | Network Parameters | Session Timeouts** and change the **General Session Timeout (seconds)** field from 300 (i.e. 5 minutes) to something higher (e.g. 900 or 1800, which is 15 minutes or 30 minutes).

---

### Configure InformaCast's Telephony

Once you've installed InformaCast, you must configure its communication with Unified Communications Manager.

- 
- Step 1** Go to **Admin | Telephony | Unified Communications Manager Cluster** and click the **Edit** button next to Default Configuration.
  - Step 2** Enter the application user's username in the **Communications Manager Application User** field. You created this user in Step 17 on page 2-5.
  - Step 3** Enter the application user's password in the **Communications Manager Application Password** and **Confirm Application Password** fields.

- Step 4** Make sure the **Use Application User for AXL** checkbox is selected, meaning that your application user credentials are used when building InformaCast's phone cache.
- Step 5** Enter your AXL IP address(es) in the **AXL IP Address(es)** field. Separate addresses with commas. If you leave this field blank, InformaCast will attempt to find a server running the AXL service among those servers running the CallManager service.

**Tip**

You can find which cluster members are running the AXL service by logging into your Unified Communications Manager, selecting **Cisco Unified Serviceability** from the **Navigation** dropdown menu, and going to **Tools | Service Activation**. Scroll down the Service Activation page to see whether the **Cisco AXL Web Service** checkbox is selected.

- Step 6** Enter the IP address of the Unified Communications Manager server(s) in the **Communications Manager IP Address(es)** field, which will be used when establishing a CTI (JTAPI) connection with Unified Communications Manager. You can enter any and all Unified Communications Managers running the CTI Manager service. Use the numeric IP addresses rather than DNS names.

**Caution**

InformaCast Basic Paging requires that your version of Unified Communications Manager be 8.6 or newer. After completing the fields on the Edit Telephony Configuration page and clicking the **Update** button, InformaCast will determine your version of Unified Communications Manager based on what you entered in the **Communications Manager IP Address(es)** field. If you have Unified Communications Manager 8.6 or newer, you can continue using InformaCast Basic Paging. If you have a version of Unified Communications Manager prior to 8.6, you will be redirected to a new page where you can decide between the following options: click the **Try** icon and start your 60-day free trial of InformaCast Advanced Notification or click the **Buy** icon to obtain a demonstration, subscription, or perpetual license for InformaCast Advanced Notification.

- Step 7** Select the **SNMP v2** or **SNMP v3** radio button, depending on the version of SNMP you're using. Enter the correct information depending on your version of SNMP:
- **SNMP v2.** Enter the name of your community string in the **SNMP v2 Community Name** and **Confirm SNMP v2 Community Name** fields. You created this in Step 4 on page 2-4. The community name is entered twice to double-check for typing errors since its value is masked.
  - **SNMP v3.** Enter your SNMP v3 user's name in the **SNMP v3 Username** field, your authentication password in the **SNMP v3 Authentication Password** and **Confirm SNMP v3 Authentication Password** fields, and your privacy password in the **SNMP v3 Privacy Password** and **Confirm SNMP v3 Privacy Password** fields. You created this user in Step 4 on page 2-4.
- Step 8** Enter the original value of Unified Communications Manager's **URL Authentication** field in the **Next Authentication URL** field. You made note of this in Step 21 on page 2-5.
- Step 9** Click the **Update** button on InformaCast's Edit Telephony Configuration page.
- Step 10** Refresh your recipient group list by clicking the **refresh the Recipient Group** list link.
- Step 11** Click the **Update** button.
- Step 12** Click the **Update** button again.



## Use InformaCast

In order to effectively use InformaCast, it is useful to understand the following terms:

- A *broadcast* is an audio message that is sent to phones.
- A *message* contains the audio that will be broadcast.
- A *recipient* is an endpoint such as a digital phone. More than one recipient can be organized into *recipient groups*.

## Add a Recipient Group

If you'd like to be able to send messages to smaller groups of recipients (rather than all the endpoints in your system), you must set up appropriate recipient groups within InformaCast. There are three ways to create a recipient group:

- Select the recipients you want included as members
- Select multiple, existing recipient groups and combine them into one larger group
- Construct matching rules that specify the members of a recipient group

For now, you will select individual recipients. The “InformaCast Virtual Appliance Installation and User Guide” describes the other possibilities.

- 
- Step 1** Go to **Recipients | Edit Recipient Groups**. This page shows the number of phones, plugin recipients and currently registered IP speakers for each group. Only licensed options will appear on this page. For example, if your system is not licensed for IP speakers, the **Speakers** column will not appear.
- Step 2** Click the **Add** button, name your recipient group, select the **Individually** checkbox, click its **Edit** button, and move your recipients from the *Available Recipients* area to the *Selected Recipients* area in the Select Individual Recipients pop-up window that appears.
- Step 3** Click the **Update** button when you are done creating your recipient group. Your recipient group is added to InformaCast.
-

## Allow/Disable SIP Access to InformaCast

SIP access permits you to either allow or deny incoming SIP calls. By default, SIP calls are denied and clicking the **Add** button allows you to add exceptions to this denial. Selecting the **Allow** radio button allows all SIP calls and clicking the **Add** button allows you to add exceptions to this allowance.

- 
- Step 1** Go to **Admin | SIP | SIP Access** in InformaCast.
  - Step 2** Leave the **Deny** radio button selected and click the **Add** button to add exceptions to the SIP calls that are denied.
  - Step 3** Enter the IP address or fully qualified domain name of the host you want to include in the **Host** field.



**Tip** When defining exceptions, make sure to specify the host that directly sends the INVITE request to InformaCast. This may be a SIP proxy server if proxies stand between InformaCast and the calling host.

---

- Step 4** Click the **Add** button and click the **Update** button to save your changes.
- 

## Add a Broadcast Dialing Configuration

Broadcast dialing configurations determine which message and recipient group will be used based on the number that is dialed.

- 
- Step 1** Go to **Admin | DialCast | Dialing Configurations**, click the **Add** button, and enter a dialing pattern (e.g. 8811) in the **Dialing Pattern** field for the SIP trunk you created in “Go to Device | Trunk and click the Add New button.” on page 2-4.
  - Step 2** Select the recipient group you created in “Add a Recipient Group” on page 4-1 from the **Recipient Groups** field.
  - Step 3** Click the **Add** button to save your current dialing pattern configuration.
- 

## Send a Broadcast

Messages predefine the characteristics of broadcasts. A message can be composed of text, audio, or both; however, with Basic InformaCast functionality, you only have access to Live Audio broadcasts. In these messages, the audio is not recorded at all; it is streamed to recipient groups in real time when the message is broadcast. These broadcasts will skip any phones that are in use when the broadcast occurs, wait until all recipients capable of playing audio are ready to play the broadcast, play the broadcast at the volume at which the phone is set when the broadcast occurs, and if there are simultaneous broadcasts attempted, will play the first broadcast first (the second broadcast will be bumped).

To send a Live Audio broadcast, dial a directory number on your Cisco IP phone that corresponds to a broadcast dialing configuration, which is tied to a SIP trunk in Unified Communications Manager. The call will be processed, and as soon as all the recipients specified in your broadcast dialing configuration have been activated (minus the phones already in use), you will be broadcasting live.

You can also view active broadcasts by clicking the **View** button (only visible on the Send or Edit Messages page when there is an active broadcast). From the Current Active Broadcasts page, you can cancel any ongoing broadcasts.





## Upgrade InformaCast from Basic to Advanced

InformaCast's functionality is based on its license, and depending on the license you have, you will be able to access all of InformaCast's functionality or only parts of it. Basic InformaCast functionality includes the ability to send live audio broadcasts to up to 50 phones by dialing a number on your Cisco IP phone. Advanced InformaCast functionality includes the ability to send a number of different types of broadcasts (e.g. Live Audio, Pre-recorded Audio, Pre-recorded Audio And Text, etc.) using your Cisco IP phone's interface and/or InformaCast's web interface, interact with InformaCast's plugins (e.g. conduct conference calls, trigger contact closures, post to Facebook and Twitter, send broadcasts to email addresses, etc.), customize scripts that can be attached to broadcasts, and receive confirmation when broadcasts are sent, among other features.

You can upgrade to Advanced InformaCast by clicking the **Try** or **Buy** icons or by [contacting Singlewire](#) to obtain a license for a switch in functionality.



**Tip**

---

If you want to learn more about InformaCast Advanced Notification, click the **Learn** icon to visit a Singlewire Software website that provides more information on the expanded functionality available to you with your upgrade.

---

### Note the Differences

There are certain caveats to keep in mind when upgrading from Basic to Advanced InformaCast or downgrading from Advanced to Basic:

- If you upgrade from Basic to Advanced InformaCast through either the trial, demonstration, subscription or perpetual licenses and you decide to return to Basic functionality, all additional information entered during your Advanced phase will not be saved (e.g. when you revert to Basic from Advanced, any information you entered after you upgraded initially—dialing configurations, users, recipient groups, etc.—will not be available once you downgrade to Basic InformaCast). If you choose to upgrade back to Advanced InformaCast, that information will reappear; however, any new information you entered after you reverted to Basic functionality will be unavailable.
- You will need a valid license key (if you are using Advanced InformaCast as a trial, your license key is already included), which should have been provided to you by your Singlewire salesperson ([contact\\_sales@singlewire.com](mailto:contact_sales@singlewire.com) if you didn't receive one)
- If you are moving from Basic InformaCast to Advanced InformaCast (and you have previously had Advanced InformaCast), InformaCast will be restarted with the installation of this new license. Please plan your upgrades accordingly.

- Because of the differences between Basic and Advanced InformaCast, there are two user guides. When upgrading to Advanced InformaCast from Basic, you should receive a new guide that contains Advanced InformaCast features. [Contact Singlewire Software](#) if you have not received a new guide. If you are using the online help (**Help | Install Guide**) when you upgrade, you will need to close that window and reopen it to view the upgraded help.
- InformaCast’s web interface changes dramatically with your move from Basic to InformaCast, adding entirely new menus and richer functionality. Depending on your access level, you’ll have access to:
  - **Home.** InformaCast’s homepage, complete with RSS news feed.
  - **Messages.** The message administration page, allowing you to create, edit, and send messages as broadcasts.
  - **Recipients.** The recipient group administration page, allowing you to create and manage recipient groups.
  - **Speakers.** The IP speaker administration page, allowing you to detect, add, edit, test, and listen at IP speakers.
  - **Bells.** The bell schedule overview page, allowing you to view and access the ring lists, bell schedules, and exceptions you’ve created.
  - **Admin.** The configuration overview page, allowing you to view scheduled updates and backups; manage the license key, voice menus, and users; and set up the system, network, and broadcast parameters, along with DialCasts.
  - **Plugins.** The plugin administration page, allowing you to add, disable, and enable plugins and access their configurations.
  - **Help.** InformaCast’s help pages, allowing you access to various aspects of the online help system and providing the ability to enter a support request.
- If you change your password in Basic InformaCast, upgrade to Advanced InformaCast, then downgrade to Basic InformaCast, your password will revert to your original Basic InformaCast password.
- 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 InformaCast Virtual Appliance” on page 2-1).
- If you fail to configure Unified Communications Manager in Basic InformaCast, upgrading to Advanced InformaCast and then configuring Unified Communications Manager before downgrading to Basic InformaCast will require you to perform all the steps in “Integrate Unified Communications Manager” on page 2-4 again.

If you have questions about your upgrade, “Troubleshooting” on page 5-5 may provide answers. Otherwise, you can [contact Singlewire Support](#) through the online support request form. Please include:

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

- InformaCast logs, which are located in `https://<InformaCast IP Address>:8444/InformaCast/logs/`

## Upgrade InformaCast

All InformaCast users start with Basic InformaCast and can upgrade to Advanced InformaCast using the **Try** or **Buy** icons or by [contacting Singlewire](#) to obtain a license for a switch in functionality.

### Try Advanced Notification

By clicking the **Try** icon, you start your 60-day free trial of Advanced InformaCast.

---

**Step 1** Click the **Try** icon any time while using Basic InformaCast.

If your server is connected to the Internet, you will see a form. Fill out the required information and click the **Submit** button.

If your server is not connected to the Internet, you will see Singlewire Sales contact information, which you should use to register for support during your trial. Click the **Start Advanced Notification Trial** button.

The Singlewire InformaCast Software License Agreement page appears.

**Step 2** Click the **I Accept** button. Your window refreshes with InformaCast's homepage that now shows you are in your trial of InformaCast Advanced Notification.

---

### Buy Advanced Notification

By clicking the **Buy** icon, you start the process of obtaining InformaCast Advanced Notification through either a demonstration, subscription, or perpetual license.

---

**Step 1** Click the **Buy** icon any time while using Basic InformaCast.

If your server is connected to the Internet, you will be redirected to a Singlewire Software website. Follow the prompts to obtain a new license.

If your server is not connected to the Internet, you will see a QR code that you can scan with your smartphone to access the Singlewire website. Once there, follow the prompts to obtain your new license.

**Step 2** Continue with "Enter Your New License Key" on page 5-4.

---

## Enter Your New License Key

**Note**

If you are in your free trial of Advanced InformaCast, you can skip this section.

When 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.

**Note**

Bell schedules, the number of IP phones and speakers, Unified Communications Manager clustering, and message confirmation are all controlled by your license key. If you are expecting certain functionality and cannot access it, [contact Singlewire](#).

**Warning**

**If you are moving from Basic InformaCast to Advanced InformaCast (and you have previously had Advanced InformaCast), InformaCast will be restarted with the installation of this new license. Please plan your upgrades accordingly.**

- Step 1** Click the **Access Application Management Tools with Control Center** link on the Singlewire Start page followed by the **Manage Licenses** link.
- Step 2** Enter your OS credentials in the **Login Name** and **Password** fields. Click the **Login** button.
- Step 3** Click the **Browse** button and navigate to the license key file that was emailed to you. You can also enter the path to the license key file.
- Step 4** Select your license key file and click the **Open** button.
- Step 5** Click the **Upload** button on the Upload a New License page.

The License Manager holds all of your Singlewire licenses, unless you are participating in your Advanced InformaCast trial. 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 Singlewire](#) for assistance.

## Troubleshooting

The following common issues may arise when you are upgrading from Basic to Advanced InformaCast.

**Problem** I upgraded InformaCast (from Basic to Advanced trial/demonstration/subscription/perpetual) and I'm seeing some of the following problems:

- I can't log in
- My recipients/user accounts/dialing configurations, etc. are missing
- I'm sending out broadcasts that have worked in the past, but they're not going through now

**Solution** If you upgrade from Basic to Advanced InformaCast through either the trial, demonstration, subscription, or perpetual licenses and you decide to return to Basic functionality, all additional information entered during your Advanced phase will not be saved. If you choose to upgrade back to Advanced InformaCast, that information will reappear; however, any new information you entered after you reverted to Basic functionality will be unavailable.

For the three examples cited in this problem, you have a few options:

- **I can't log in.** Did you change your administrator password while you were in Advanced InformaCast? If so, your password has reverted to what it was when you were initially in Basic InformaCast. Use that password for logging in. If you have forgotten that password, [contact Singlewire Support](#) to reset your password.
- **My recipients/user accounts/dialing configurations, etc. are missing.** If you added these recipients/user accounts/dialing configurations while you were in Advanced InformaCast, downgrading to Basic InformaCast reverts you to the information you last entered before your upgrade. You will need to enter this information again or upgrade again to Advanced InformaCast. Please note that any new information you entered in your second go-round with Basic InformaCast will not be available if you decide to upgrade again to Advanced InformaCast.
- **I'm sending out broadcasts that have worked in the past, but they're not going through now.** Did you change your IP address in Advanced InformaCast before reverting to Basic InformaCast? If so, your broadcasts will no longer work. You will need to redeploy the InformaCast OVA (see "Install InformaCast Virtual Appliance" on page 2-1) to fix this issue.

**Problem** I just upgraded InformaCast and I have errors on the Edit Telephony Configuration page.

**Solution** If you encounter errors on the Edit Telephony Configuration page, verify that the fields have the proper information entered into them. Check the following fields' information:

- **Communications Manager AXL User.** Access Unified Communications Manager's administrative interface and log in with the same username/password combination. If you are unable to log in, InformaCast will be unable to log in.
- **Communications Manager IP Address(es).** Use the same test as for the **Communications Manager Admin User** field.
- **Communications Manager Application User.** Access Unified Communications Manager's administrative interface and ensure that your application user's credentials in InformaCast match those in Unified Communications Manager.
- **SNMP Community Name.** Verify that the value you entered here matches the value in Unified Communications Manager. Use the [Multicast Testing Tool](#) to verify SNMP functionality.

**Problem** I just upgraded/downgraded InformaCast and I'm seeing the error, "Default configuration Not Connected," in the Communications Manager Versions column on the Admin Overview page.

**Solution** Rebuild your phone cache. This problem occurs whenever your license changes and whenever you add/update/delete a cluster. If either the license or clusters change, the phone cache must be rebuilt to reflect those changes. The phone cache is automatically rebuilt every hour, but if you want it completed sooner than that, you can click the **Update** button on the Edit Recipient Groups page to discover current IP phone info from Unified Communications Manager. Once this is done, the Unified Communications Manager information appears correctly on the Admin Overview page.

**Problem** I just upgraded InformaCast and there are phones missing from my recipient groups.

**Solution** Phones are found from Unified Communications Manager using SNMP and AXL. If you have phones missing from a recipient group, ensure the following:

- The Unified Communications Manager Admin account has the correct username/password information
- SNMP is enabled on all Unified Communications Manager cluster nodes
- SNMP community strings have READ permissions on all Unified Communications Manager cluster nodes
- SNMP community strings are the same on all Unified Communications Manager cluster nodes
- Nothing is blocking UDP port 161 from the InformaCast server to all Unified Communications Manager cluster nodes

You can use the [Multicast Testing Tool](#) to troubleshoot SNMP further.

**Problem** I've upgraded InformaCast, but when I log in and try to access any functionality, I'm directed to a page where I get the message, "Missing or Invalid Application License Key."

**Solution** If your license 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 Singlewire](#) for assistance.



# INDEX

## A

- Access
  - InformaCast Virtual Appliance 2-3
  - Singlewire Start Page 2-3
  - Webmin 2-3

- Active Broadcasts 4-3

## Add

- Access Control Group 2-5
- Broadcast Dialing Configuration 4-2
- Recipient Group 4-1
- SIP Access Exception 4-2

- Advanced Functionality Definition 5-1

- Application Credentials 2-2

- Authentication URL 2-5

## B

- Basic Functionality Definition 5-1

- Basic InformaCast Upgrade 5-1

## Broadcast

- Cancel 4-3
- Description of 4-1
- Send 4-2

- Broadcast Dialing Configuration, Add 4-2

- Buy Advanced Notification 5-3

## C

- Cancel Active Broadcasts 4-3

## Configure

- Access Control Group 2-5
- Application User 2-5
- Device Pool 2-4
- G.711 2-4
- InformaCast 3-1
- InformaCast Telephony 3-1
- SNMP Community String 2-4

## Control Center

- OS Credentials 2-2

## D

- Default Unified Communications Manager Cluster 3-1

## E

### Enable

- Unified Communications Manager Services 2-4
- Web Access for Phones 2-5

- Encrypted Media 1-2

- Ensure Multicast is Enabled 2-1

- Environments, Description of InformaCast 1-1

- ESXi 2-1

## F

- Free Trial 5-3

## H

- Help 1-2

## I

### InformaCast

- Application Credentials 2-2

- Documentation 1-2

- Help 1-2

- Support 1-2

### InformaCast Virtual Appliance

- Access 2-3

- Definition of 1-1

- Install OVA 2-1

- Set the System Time 2-3

- Upgrade from Basic to Advanced 5-1

- Upgrade License 5-4

- Install InformaCast Virtual Appliance 2-1

- Integrate Unified Communications Manager 2-4

## L

### License Key

- Dependent Features 5-4

- Enter New 5-4

- Live Audio Broadcast 4-2

- Log into InformaCast 3-1

## M

### Manage

- New License Key 5-4

- SIP Access to InformaCast 4-2

- Messages, Description of 4-1

- Mixed Mode 1-2

- Multicast 2-1

## O

- OS Credentials 2-2

## P

- Perpetual InformaCast 5-3

### Phones

- Reboot 2-6

- Test 2-6

- Prerequisites, Description of 1-1

- PushToTalk Application Credentials 2-2

## R

- Reboot Phones 2-6

- Recipient, Description of 4-1

- Recipient Group, Add 4-1

**S**

- Send Live Audio Broadcast [4-2](#)
- Set Authentication URL [2-5](#)
- Set System Time [2-3](#)
- Singlewire Start Page, Access [2-3](#)
- SIP
  - Add Access Exception [4-2](#)
  - Allow/Disable Access to InformaCast [4-2](#)
- Subscription InformaCast [5-3](#)
- Support [1-2](#)

**T**

- Test Phones [2-6](#)
- Troubleshooting [1-2, 5-5](#)
- Try Advanced Notification [5-3](#)

**U**

- Unified Communications Manager
  - Access Control Group [2-5](#)
  - Application User [2-5](#)
  - Authentication URL [2-5](#)
  - Configure InformaCast [3-1](#)
  - Device Pool [2-4](#)
  - Enable Services [2-4](#)
  - G.711 [2-4](#)
  - Integrate [2-4](#)
  - Mixed Mode, Encrypted Media [1-2](#)
  - Reboot Phones [2-6](#)
  - Region [2-4](#)
  - SNMP Community String [2-4](#)
  - Test Phones [2-6](#)
  - Web Access for Phones [2-5](#)
- Upgrade InformaCast [5-1](#)
  - Basic to Advanced [5-1](#)
  - Buy Advanced Notification [5-3](#)
  - Enter New License Key [5-4](#)
  - Errors on Telephony Configuration [5-5](#)
  - Invalid License Key [5-6](#)
  - Missing Phones [5-6](#)
  - Missing Unified Communications Manager Information [5-6](#)
  - Note the Differences [5-1](#)
  - Troubleshooting [5-5](#)
  - Try Advanced Notification [5-3](#)

**V**

- View Active Broadcasts [4-3](#)
- Virtual Machine [2-1](#)
- VMware [2-1](#)

**W**

- Web Access, Phones [2-5](#)
- Webmin
  - OS Credentials [2-2](#)
- Webmin, Access [2-3](#)